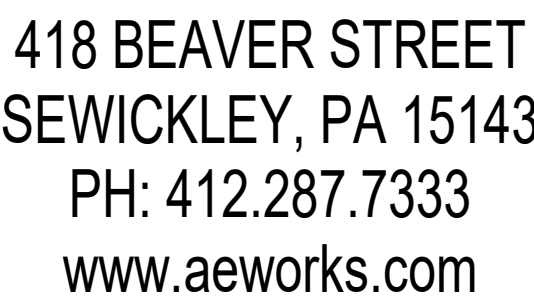




CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

1.	GC SHALL PROVIDE TEMPORARY METAL STUD PARTITION WITH GWS. EACH SIDE, WITH HOLLOW METAL ACCESS DOOR AND FRAME AS CONSTRUCTION BARRIER. PART, GWS, 1/4" HWM DOOR, AND FRAME AT PUBLIC SIDE OF BARRIER.
2.	PHASE WORK TO COMPLETE ABATEMENT AND GENERAL DEMOLITION IN PUBLIC CORRIDOR AT BEGINNING OF CONSTRUCTION SCHEDULE. OPEN CORRIDOR FOR EGRESS ACCESS TO STAIRS 5602 IN COORDINATION WITH CCAC. MAINTAIN UNOBSTRUCTED PATH TO STAIRS DURING REPAIRING CONSTRUCTION.
3.	PHASE WORK TO MAINTAIN ACCESS TO ONE TOILET ROOM DURING ENTIRE DURATION OF CONSTRUCTION.
4.	MODIFY EXISTING TOILET ROOM DOORS TO ADD THUMB-TURN DEADBOLT LOCK WITH OCCUPANCY INDICATOR FOR TEMPORARY CONVERSION TO A SINGLE-USER TOILET ROOM. MODIFY DOOR AT MEN'S TOILET ROOM BEFORE CLOSING CORRIDOR.

P1	LOCATION FOR TEMPORARY CONSTRUCTION BARRIER DURING ABATEMENT AND DEMOLITION.
P2	LOCATION FOR TEMPORARY CONSTRUCTION BARRIER TO ALLOW STUDENT ACCESS TO STAIR S602.
P3	MAINTAIN STUDENT ACCESS TO STAIR S602 DURING GENERAL CONSTRUCTION AND FINISH UPGRADES IN CORRIDOR.
P4	PROVIDE THUMB-TURN DEADBOLT WITH OCCUPANCY INDICATOR AT EXISTING DOOR.

CLIENT

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION

BID DOCUMENTS

[illegible]

PROFESSIONAL



PROJECT NAME

BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

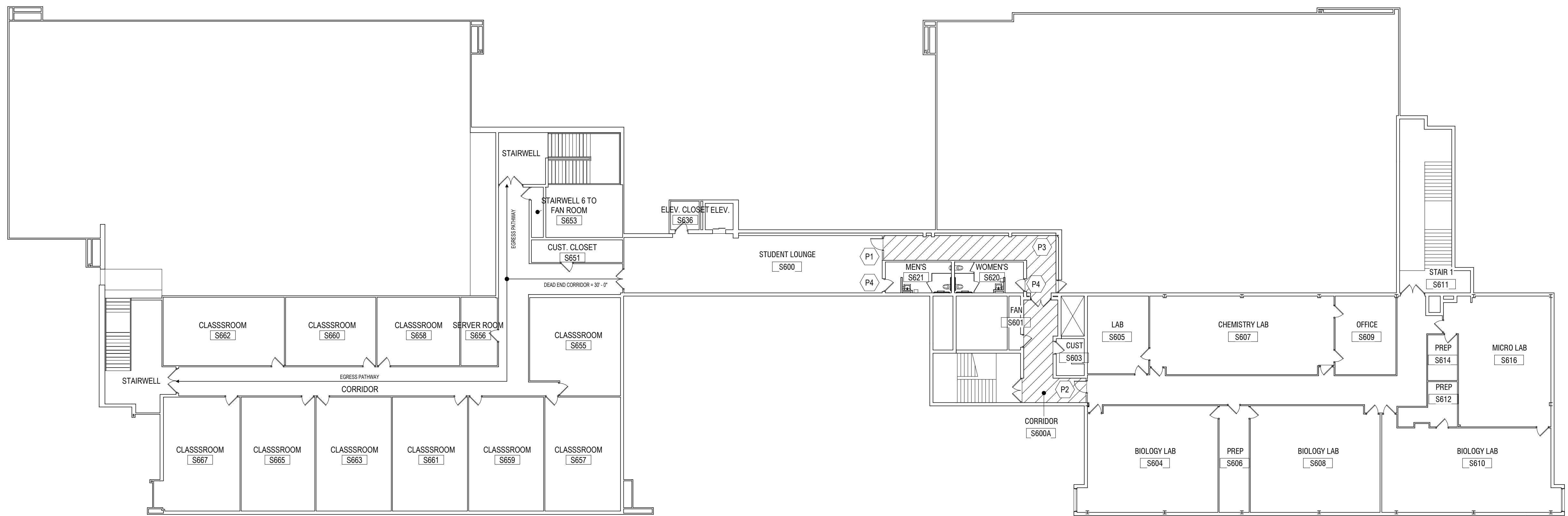
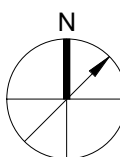
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
PHASING PLAN

DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO:

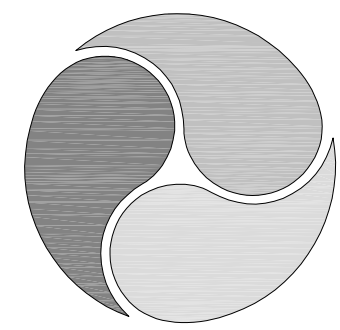
G102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



EXISTING SIXTH FLOOR PLAN

1 $\frac{1}{16}'' = 1'-0''$



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:

PROJECT NAME:
**BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS**

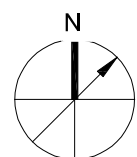
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
**SIXTH FLOOR
ABATEMENT PLAN**

DRAWN BY: DF
CHECKED BY: DF
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO:

AB101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



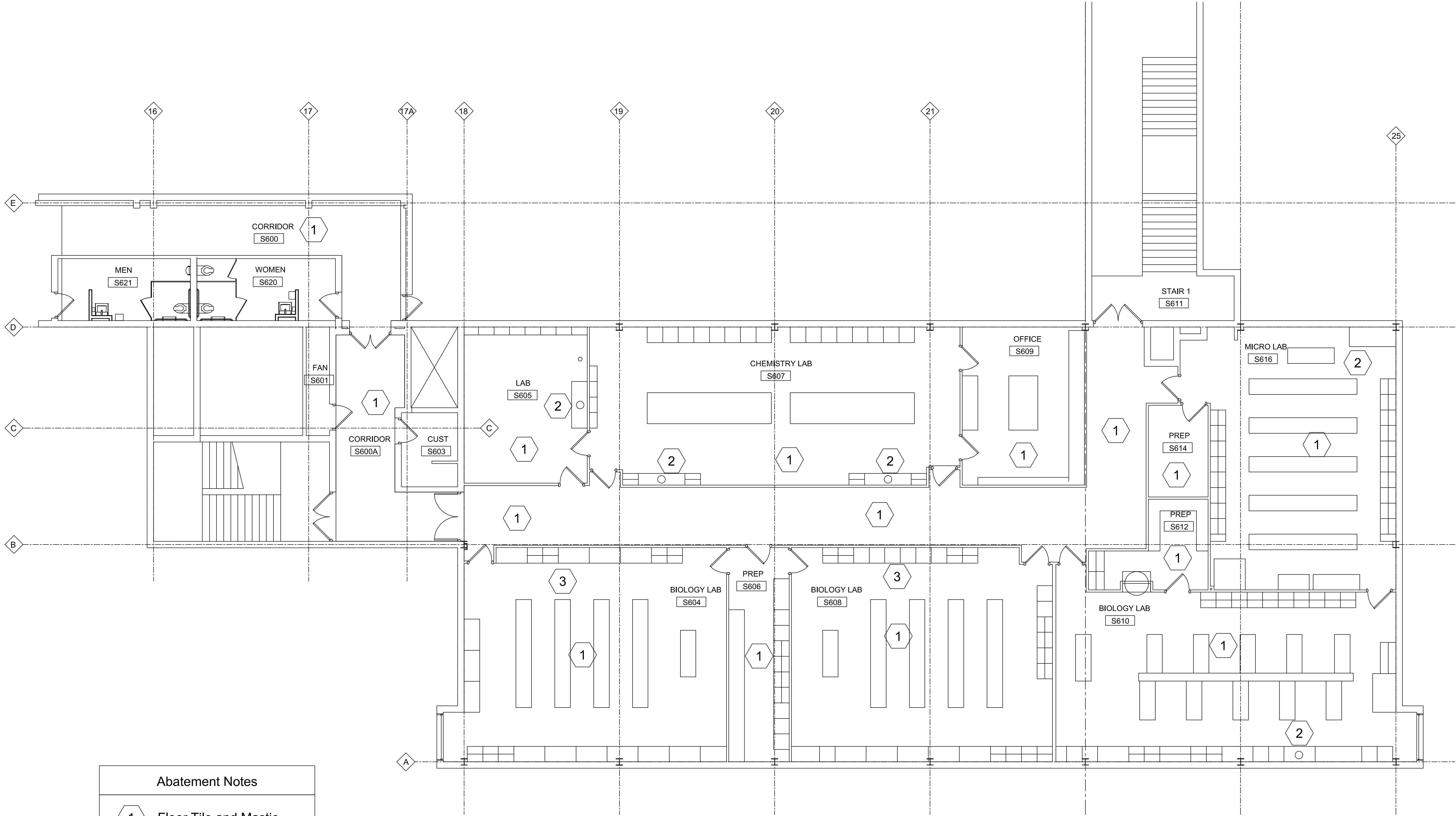
E

D

C

B

A



Abatement Notes	
1	Floor Tile and Mastic
2	Cementitious Fume Hood
3	Sink Undercoating

1 SIXTH FLOOR ABATEMENT PLAN
NTS

ABBREVIATIONS

@	At
A.B.	Anchor Bolt
AESS	Architecturally Exposed Structural Steel
AP	Aggregate Pier
ARCH	Architect or Architectural
BLDG	Building
BLKG	Blocking
B.O.F.	Bottom of Footing
B.O.S.	Bottom of Steel
BOTT.	Bottom
BRG.	Bearing
CANT.	Cantilever
C.F.M.F.	Cold Formed Metal Framing
C.J.	Control Joint
CJP	Complete Joint Penetration
CLR.	Clear
CLSM	Controlled Low Strength Material
CMU	Concrete Masonry Unit
COL.	Column
CONC.	Concrete
CONN.	Connection
CONST.	Construction
CONT.	Continuous
CONTR.	Contractor
COORD.	Coordinate
C.W.	Curtain Wall
DET.	Detail
DIA. or ø	Diameter
DIAS.	Diagonal or Diagram
DWG.	Drawing
DWL.	Dowel
E.F.	Each Face
E.J.	Expansion Joint
EL.	Elevation
ELEV.	Elevator
EMBED.	Embedment
E.O.S.	Edge of Slab
E.O.P.	Edge of (pent) Plate
E.W.	Each Way
EX.	Existing
EXT.	Exterior
F.F.S.	Frost-Free Slab
F.S.	Far Side
FTG.	Footing
F.V.	Field Verify
GA.	Gauge or Gage
GALV.	Galvanized
H.P.	High Point
HORIZ.	Horizontal
IF.	Inside Face
INT.	Interior
JT.	Joint
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LOC.	Location
L.P.	Low Point
LT. WT.	Lightweight
MASY.	Masonry
MAX.	Maximum
MECH.	Mechanical
MIN.	Minimum
N.F.	Near Face
N.I.C.	Not In Contract
N.T.S.	Not To Scale
O.C.	On Center
O.F.	Outside Face
OPNG.	Opening
OPP.	Opposite
P.C.	Precast
PJP	Partial Joint Penetration
R.	Radius
REF.	Reference
REINF.	Reinforcing or Reinforcement
REQD.	Required
SECT.	Section
SIM.	Similar
S.O.G.	Slab On Ground
S.S.	Stainless Steel
STIFF.	Stiffener or Stiffened
T&B	Top And Bottom
T.B.D.	To Be Determined
T.O.C.	Top of Concrete
T.O.F.	Top of Footing
T.O.S.	Top of Steel
T.O.W.	Top of Wall
TYP.	Typical
U.O.N.	Unless Otherwise Noted
VERT.	Vertical
W/	With
WWR	Welded Wire Reinforcement
W.P.	Work Point

CODES AND STANDARDS

- New construction has been designed to, and shall be constructed in accordance with the following building codes and standards:
A. Pennsylvania Uniform Construction Code
B. 2018 International Building Code (IBC 2018)
C. 2018 International Existing Building Code (IEBC 2018)
D. ASCE 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- Unless explicitly modified in the Contract Drawings and Specifications, the Contractor shall comply with provisions of:
A. AISC 341-16, Seismic Provisions for Structural Steel Buildings
B. AISC 360-16, Specification for Structural Steel Buildings
C. AWS D1.1-15, Structural Welding Code - Steel
D. SDI RD-17, Standard for Steel Roof Deck
E. SJI 100-15, Standard Specification for K-Series, LH-Series, and DLH Series Open Web Steel Joists and for Joist Girders

DESIGN LOADS

Roof live load	
Roof live load	20 psf
Rain Load (IBC 1611.1) ponded water	not critical
Ponding Instability (IBC 1611.2)	not critical

Roof snow load data

Ground snow load (ASCE 7, Figure 7.2-1)	$p_g = 25 \text{ psf}$
Flat-roof snow load (ASCE 7, 7.3)	$p_f = 17.5 \text{ psf}$
Minimum snow load (ASCE 7, 7.3.4)	$p_s = 20 \text{ psf}$
Snow exposure factor (ASCE 7, Table 7.3-1)	$C_e = 1.0$
Snow importance factor (ASCE 7, Table 1.5-2)	$I_s = 1.0$
Thermal factor (ASCE 7, Table 7.3-2)	$C_t = 1.0$

Wind design data

Ultimate design wind speed (ASCE 7, Figure 26.5-1)	$V_u = 110 \text{ mph}$
Nominal design wind speed (IBC 1609.3.1)	$V_{90} = 85 \text{ mph}$
Risk category (IBC, Table 1604.5)	II
Exposure category (ASCE 7, 26.7.3)	B
Internal pressure coefficient (ASCE 7, Table 26.13-1)	$GCP_i = \pm 0.18$
Alterations are in accordance with ASCE 7, Appendix 11B.4. Proposed structural alterations comply with IBC requirements for new structures. Additionally, proposed alterations do not increase the seismic force in any existing structural element by more than 10 percent, nor do they decrease the design strength of any existing structural element to resist seismic forces by more than 10 percent. Therefore, further analysis and design of the existing structure for seismic force-resistance are not required.	

DESIGN STRESSES

Structural steel W, WT and S shapes (ASTM A992 or ASTM A572/50)	$F_y = 50,000 \text{ psi}$
Structural steel other shapes (ASTM A36)	$F_y = 36,000 \text{ psi}$

STRUCTURAL TESTING AND SPECIAL INSPECTIONS

Special structural testing and inspections are not required per the Building Code, Section 1704.2 Exceptions.

GENERAL

- All new construction shall comply with the Contract Documents and the Building Code.
- Typical details and general notes apply to all parts of the work except where specifically detailed or unless otherwise noted.
- The structural drawings illustrate structural members. Refer to architectural, mechanical, and electrical drawings for non-structural items which require special provisions during the construction of the structural members.
- Drawings are not to be scaled.
- The Contractor shall verify and be responsible for all dimensions and conditions which impact the work. Field verify sizes, elevations, hole locations, etc., prior to fabrication.
- The Contractor shall carefully review the drawings to identify the scope of work required, visit the site to relate the scope of work to existing conditions and determine the extent to which those conditions and physical surroundings will impact the work.
- The Contractor shall resolve any conflicts on the drawings or in the specifications with the Architect/Engineer before proceeding with the work.
- Any deviation, modification, or substitution from the approved set of structural drawings shall be submitted to the Owner, Architect, and Engineer for review/approval prior to its use or inclusion on the shop drawings.
- The Contractor shall provide means, method, techniques, sequence, and procedure of construction as required.
- The Contractor shall protect all work, materials, and equipment from damage and shall provide proper storage facilities for materials and equipment during construction.
- Site visits performed by the Architect/Engineer do not constitute inspections of means and methods of construction performed by the Contractor.
- Structural observations performed by the Architect/Engineer during construction are not the continuous and special inspection services and do not waive the responsibility for the inspections required of the Building Department Inspector or the testing agency. Observations also do not guarantee the Contractor's performance and shall not be considered as supervision of construction.
- The Contractor shall review shop drawings for completeness and compliance with contract documents. The Contractor shall stamp shop drawings prior to submission to the Architect and Engineer.
- Review of the shop drawings by the Architect's Engineers shall not be construed as an authorization to deviate from the Contract Documents.
- Shop drawings will not be processed if they are incomplete, lack coordination with relevant portion of contract documents, lack calculations if required, or if deviations, modifications, and substitutions are indicated without prior written approval from the Architect/Engineer.
- Existing framing conditions indicated based upon existing structural drawings provided by owner. Field conditions have not been verified.
- Existing conditions as shown on these plans are for reference only. The Contractor is required to field verify all existing conditions prior to construction.

DEMOLITION

- Notify all local agencies having jurisdiction.
- Demolition procedures, shoring requirements, sequence techniques, etc., either given in or implied by these drawings, are suggestions only. Contractor shall retain, at his own expense, a professional engineer licensed in the jurisdiction where the project is located to determine all construction phase requirements. Contractor shall submit drawings, signed and sealed by his Engineer, to the Owner and Engineer for concept review and record purposes. Contractor shall be solely responsible for the protection, stability, etc., of existing and new structures during execution of the work.
- Before undertaking any demolition work, ascertain the existing conditions of the properties and buildings adjoining or in close proximity to the premises by survey.
- Contractor shall perform all work in such a manner as to protect existing and adjacent structures and be responsible to properly repair any damage that occurs as a result of his work. Contractor shall repair all damage to streets, sidewalks, utility lines, or any other public or private properties resulting from the execution of the work at no cost to the Owner or Engineer.
- Cease operations and notify Owner and Engineer immediately if safety or integrity of structure appears to be endangered. Properly brace and support structure before resuming operations.
- Notify Owner and Engineer immediately if any portion of existing structure which is not to be demolished is damaged. Contractor shall pay for all repair costs, including design and inspection expenses.
- Do not cut or alter any structural members without written authorization of the Engineer unless indicated on the structural drawings.
- Do not allow resulting debris to accumulate. Dispose of this material in a legal manner.

TEMPORARY SHORING AND BRACING

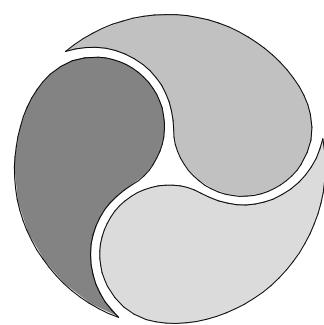
- Structure is designed to be self-supporting and stable after the building is fully completed.
- Each contractor shall be responsible for erection procedures and sequence, shall maintain stability of the building and its component parts, and shall be responsible for adequacy of temporary or incomplete construction and connections during erection. Such responsibilities include, but are not limited to: addition of shoring as required to support forms, decks, columns, walls, and other elements as required during construction, sheeting, temporary connections, bracing, guys, or tie-downs necessary to maintain stability of parts, subassemblies, or all of the structure.
- Contractor shall assume full design responsibility for temporary shoring and bracing, which shall be designed, signed, and sealed by a professional engineer licensed in the jurisdiction where project is located.
- Temporary shoring shall be maintained throughout construction and shall be removed only after completion of all required supporting elements.
- Remove any remaining temporary shoring after construction is complete.

ROOF, FLOOR, OR WALL OPENINGS

- The Contractor shall verify and coordinate the number, size, and location of all sleeves and openings required for mechanical or electrical items.
- Sleeves and openings shall be located in a manner that will maintain the structural integrity of the roof, floor, or wall system.
- No structural elements are to be cut unless specifically approved by the Engineer.

STEEL CONSTRUCTION

- Steel detailing, fabrication, and erection shall conform to the AISC Specification for Structural Steel Buildings and Code of Standard Practice, and the AWS Structural Welding Code.
- Stresses occurring during fabrication, shipment, and erection shall be temporary and not excessive. Stresses at all times shall be less than design and allowable stresses. The full design and load-carrying capacity of the steel work shall not be impaired due to fabrication, shipment, or erection procedures. Throughout the complete process, the stability of all individual members and assemblies shall be maintained.
- The Contractor shall be responsible for the control of all erection procedures and sequences with relation to temperature differentials and weld shrinkage.
- All additional steel required for erection purposes shall be provided at no additional cost and shall be removed unless approved by the Owner in writing.
- Welding electrodes shall be E70XX except where other electrodes are required for compatibility with material being welded.
- All slip connections shall be provided with a means of preventing the nuts from unthreading.
- Shop drawings are required and shall note type of electrodes, size of all welds, and type and size of all bolts. Shop drawings shall be prepared under the supervision of a professional engineer licensed in the jurisdiction where the project is located.
- Primer, unless otherwise noted.
 - Clean surfaces to remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards: SSPC-SP 2, "Hand Tool Cleaning"
 - Omit paint at slip critical connections and areas to be welded.
 - Interior steel. Provide chemically active, modified alkyl primer at 2.5 mils dry thickness.
- See all contract drawings for miscellaneous steel requirements.
- All shop and field welding shall be performed by a recently certified welder.
- All welding and high strength bolting must be inspected by a qualified testing laboratory. Laboratory shall be approved by the Architect and/or Engineer.
- Miscellaneous hanging loads such as stair stringers, pipes, mechanical units, etc., supported by steel members shall be applied in such a manner that no torsional forces are induced in the steel members, i.e., loads shall pass through the centerline of wide flange sections and through the shear center of channels.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



BARBER & HOFFMAN, INC.

PROJECT NAME:

BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

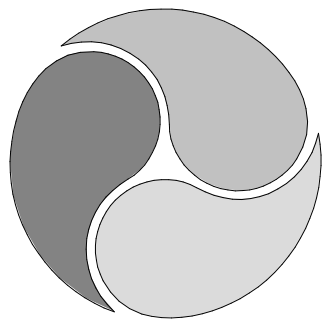
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:

GENERAL NOTES

DRAWN BY: LDW
CHECKED BY: MRM
PROJ. NO: CCAC-006
DATE: 04/14/2026
DRAWING NO:

S001



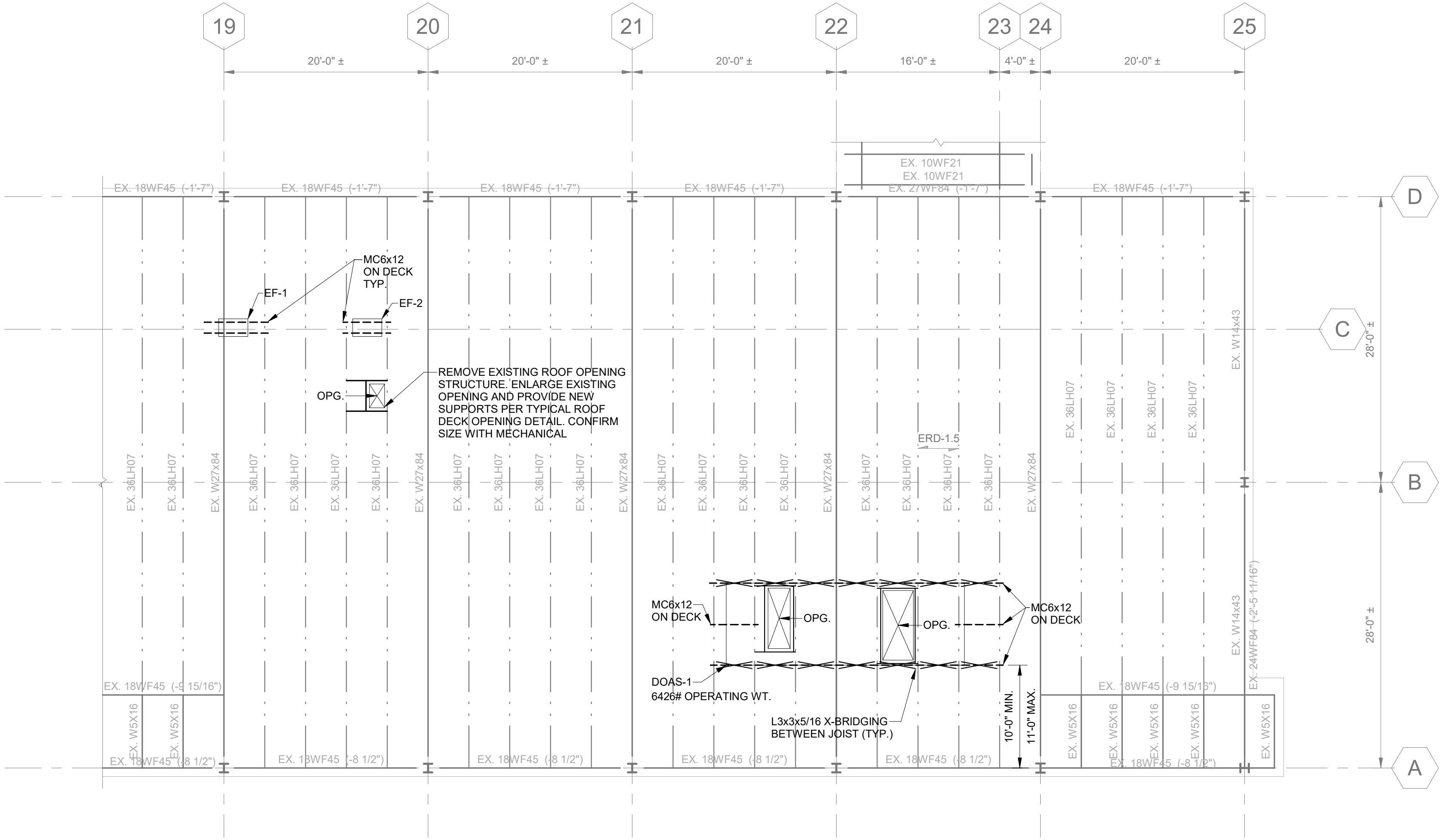
AE WORKS.

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

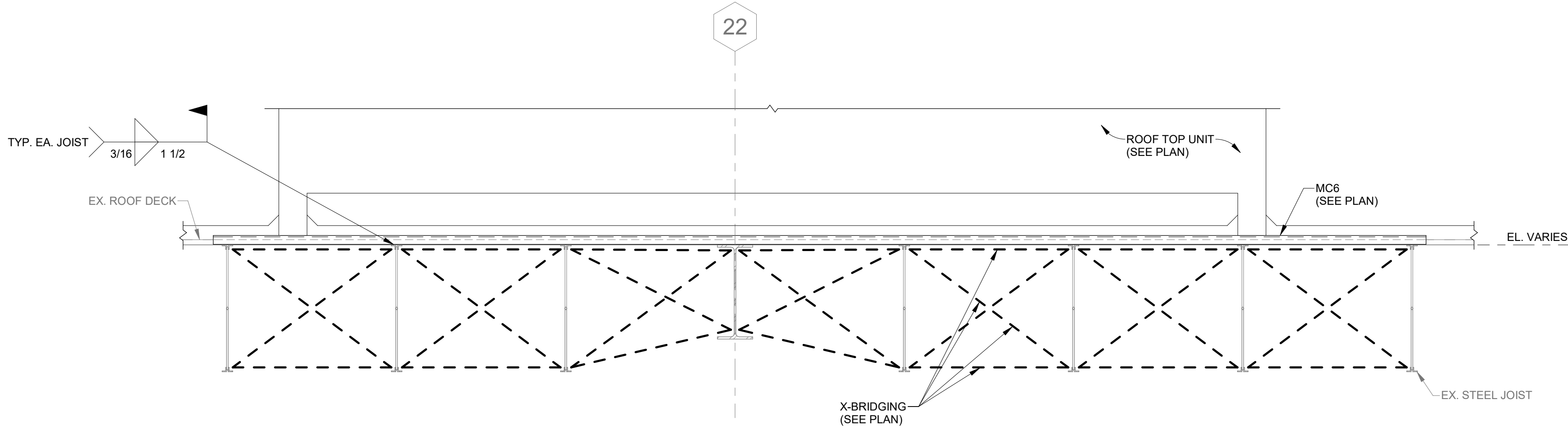
LEGEND

ERD-1.5 : DENOTES EXISTING 1 1/2"-22 GAGE GALVANIZED ROOF DECK.
OPG. : DENOTES OPENING THROUGH SLAB ON DECK OR ROOF DECK. PROVIDE SUPPLEMENTAL FRAMING AT OPENINGS PER ROOF DECK OPENING DETAIL.

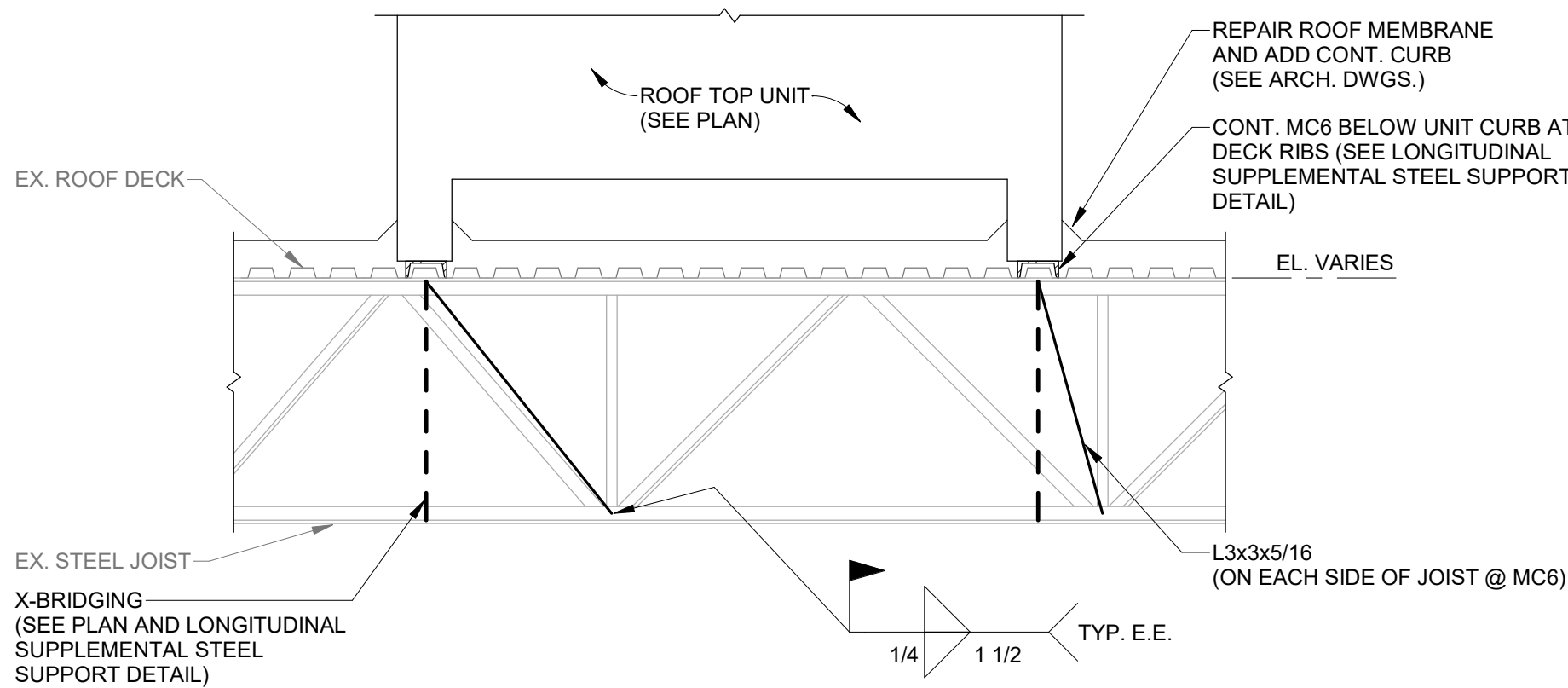


NOTES:
1. HIGH ROOF ELEVATION AT 1204'-4". REFERENCE ELEVATION (0'-0") TOP OF STEEL AT (-0'-0") U.O.N.
2. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION FOR DOAS-1.

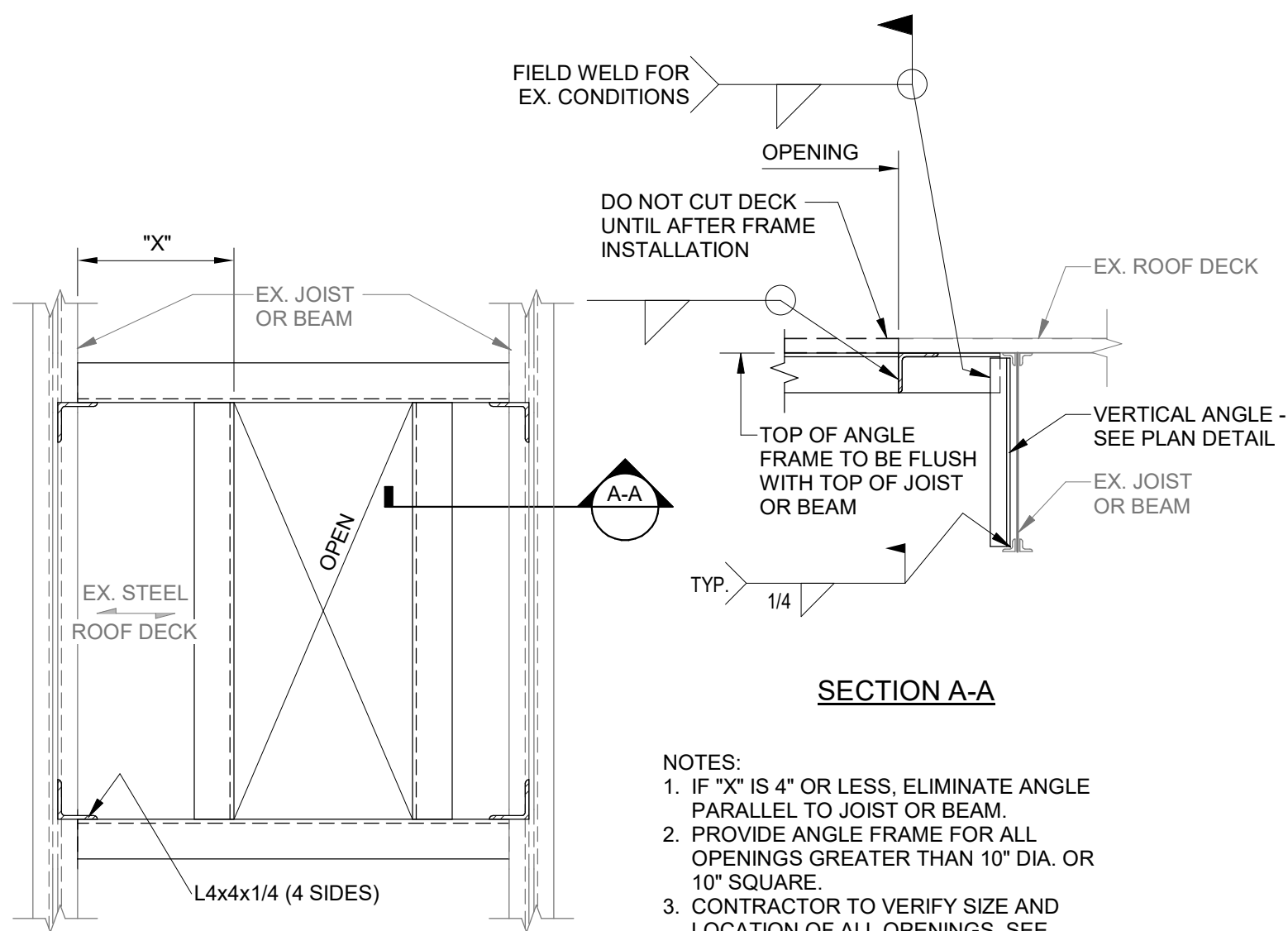
PARTIAL HIGH ROOF FRAMING PLAN
1/8" = 1'-0"



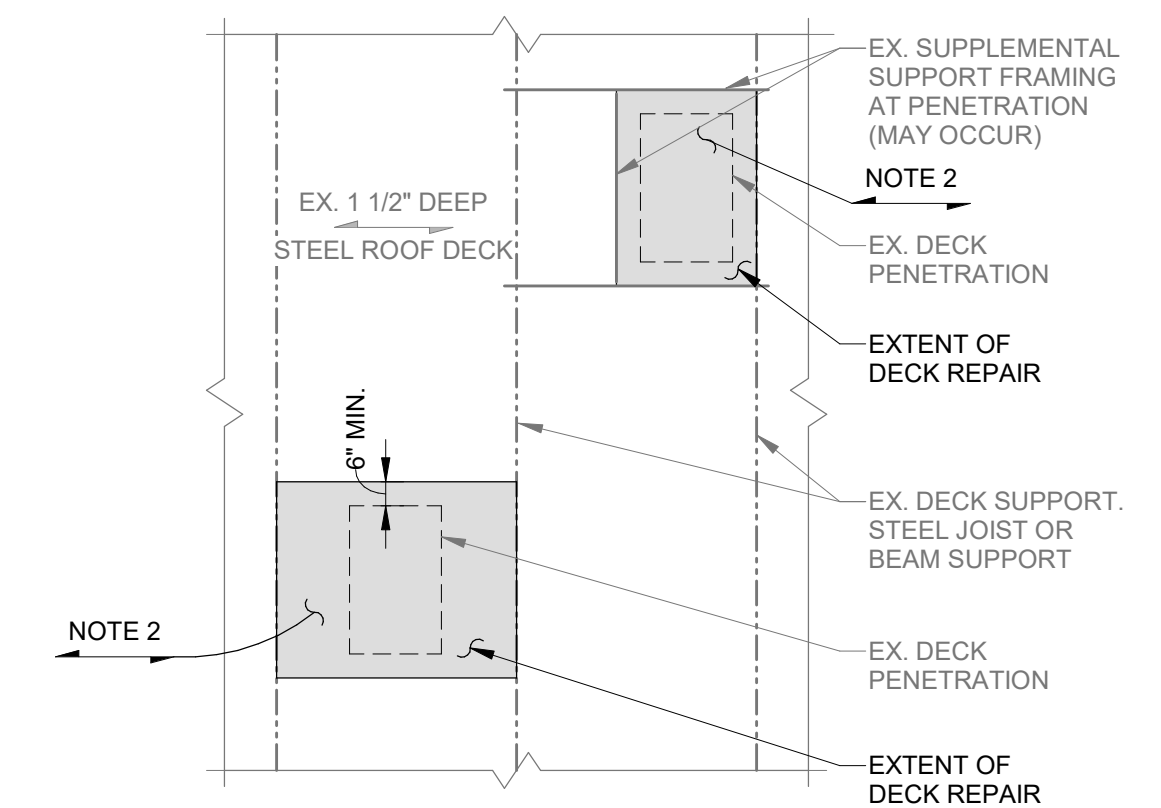
LONGITUDINAL SUPPLEMENTAL STEEL SUPPORT DETAIL



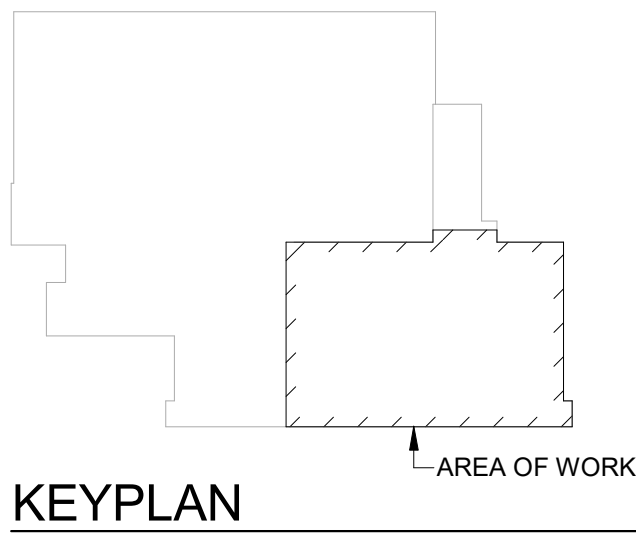
TRANSVERSE SUPPLEMENTAL STEEL SUPPORT DETAIL



ROOF DECK OPENING DETAIL



TYPICAL EXISTING STEEL DECK REPAIR DETAIL



KEYPLAN

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



BARBER & HOFFMAN, INC.

PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

595 Beatty Rd,
Monroeville, PA 15146

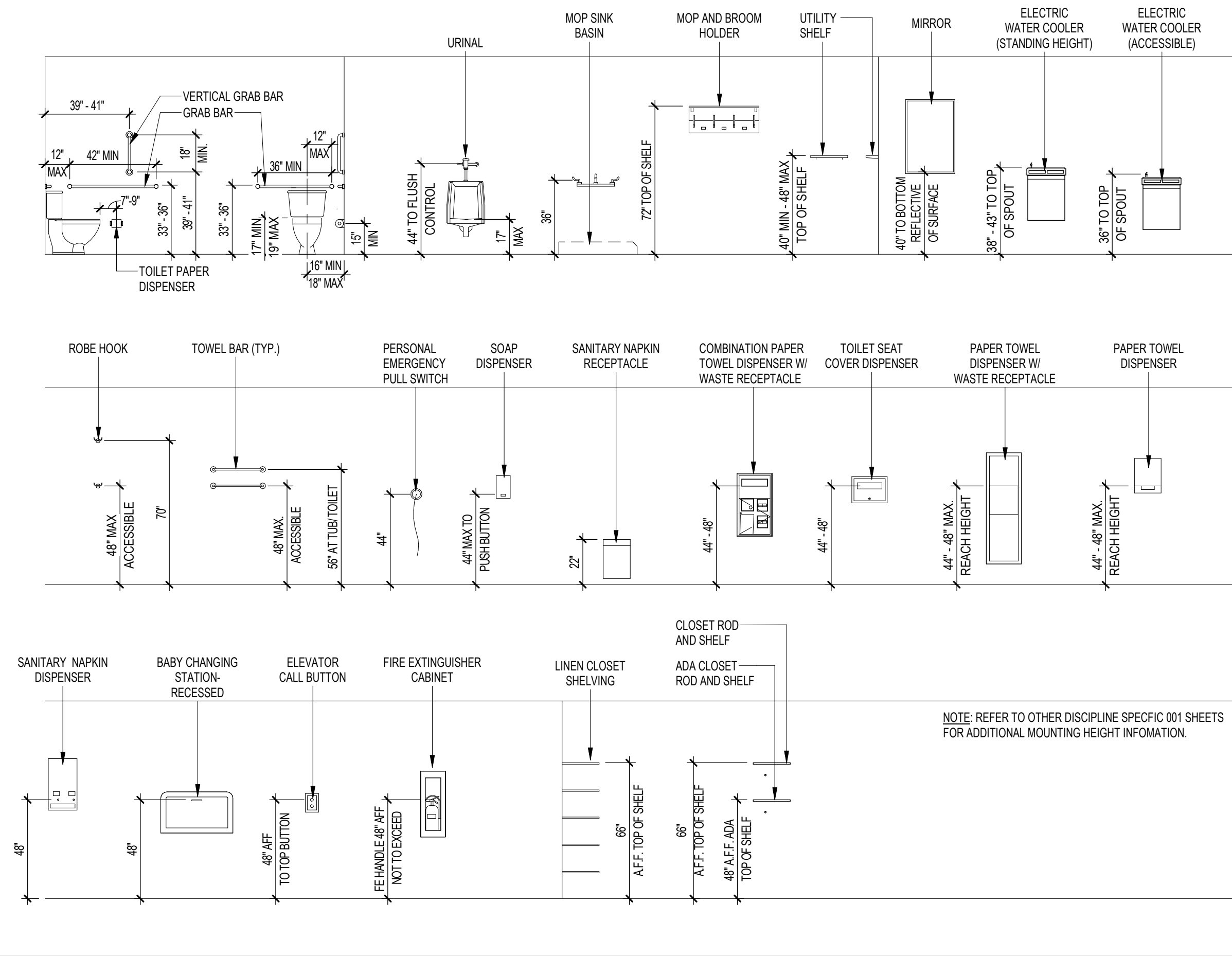
DRAWING TITLE:
PARTIAL HIGH ROOF
FRAMING PLAN

DRAWN BY: LDW
CHECKED BY: MRM
PROJ. NO: CCAC-006
DATE: 04-14-2026
DRAWING NO:

S121

COPYRIGHT 2026 BY AE WORKS LTD ALL RIGHTS RESERVED.

TYPICAL MOUNTING HEIGHTS



MATERIALS LEGEND

	ALUMINUM		BATT INSULATION
	CONCRETE		PRECAST
	STONE		GRAVEL
	RIGID INSULATION		SAND
	BRICK IN SECTION		WOOD - SOLID
	CONCRETE MASONRY UNIT		PLYWOOD
	EARTH		BRICK
	GYPSUM / PLASTER		CULTURED STONE
	STEEL		EXTERIOR COMPOSITE PANEL
	PEA GRAVEL		WOOD BLOCKING
			WOOD SHIM

SYMBOLS LEGEND

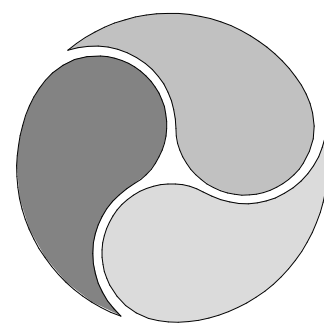
SEE DISCIPLINE SHEETS FOR DISCIPLINE SPECIFIC SYMBOLS	
	SHEET NUMBER
	SHEET NUMBER SEQUENCE
	SHEET TYPE
	DISCIPLINE
	TRUE NORTH
	PROJECT NORTH
	NORTH ARROW
	GRID LINE - EXISTING
	GRID LINE - NEW
	ROOM NAME
	ROOM TAG
	DOOR NUMBER
	WINDOW TYPE
	WALL TYPE
	SPECIALTY EQUIPMENT / FURNITURE TAG
	KEYNOTE - NEW CONSTRUCTION
	KEYNOTE - DEMOLITION
	DETAIL
	SHEET
	EXTERIOR ELEVATION
	INTERIOR ELEVATION
	BUILDING SECTION
	WALL SECTION
	DETAIL
	SPOT ELEVATION MARKERS
	Ceiling Tag
	REVISION NUMBER
	REVISION CLOUD
	WALL FINISH
	DATUM POINT
	CENTER LINE

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ADDN	ADDITION
A/C	AIR CONDITIONER
<	ANGLE
APPROX.	APPROXIMATELY
BOTT	BOTTOM
BLKHD	BULKHEAD
CPT	CARPET
CLG	CEILING
CL	CENTER LINE
CER	CERAMIC
CLR	CLEAR
COL(S)	COLUMN(S)
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
COND	CONDITION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CG	CORNER GUARD
CCT	CURBCE CURTAIN TRACK
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM(S)	DIMENSION(S)
DR	DOOR
DN	DOWN
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
DF	DRINKING FOUNTAIN
EACH	EACH
EW	ELECTRIC WATER COOLER
EC	ELECTRIC CONTRACTOR
EQ	EQUAL
EQUIP	EQUIPMENT
EXH	EXHAUST
EXIST	EXISTING
ETR	EXISTING TO REMAIN
EXT	EXTERIOR
FOS	FACE OF STUD
FIN	FINISH
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HORN
FHC	FIRE HOSE CABINET
FPH	FIRE PHONE
FP	FIRE PULL
FR	FIRE RATED
FS	FIRE STROBE
FLOOR	FLOOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FURN	FURNISH
GC	GENERAL CONTRACTOR
GWB	GYPSUM WALL BOARD
HTS	HEATING
HT	HEIGHT
HIR	HIGH IMPACT RESISTANT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HC	HVAC CONTRACTOR
ID	INSIDE DIAMETER
INSUL	INSULATION
LT	LIGHT
MFR	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING
MECH	MECHANICAL
MTL	METAL
MR	MOISTURE RESISTANT
NC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
OH	OPPOSITE HAND
OD	OUTSIDE DIAMETER
PERIM	PERIMETER
P-LAM	PLASTIC LAMINATE
P	PLATE
PLB	PLUMBING CONTRACTOR
PC	POINT
PT	POINT
RLG	RAILING
RWC	RAINWATER CONDUCTOR
REINF	REINFORCE
REQD	REQUIRED
RESIL	RESILIENT
R	RISER
RO	ROOF DRAIN
RO	ROUGH OPENING
SCW	SOLID CORE WOOD
SPEC	SPECIFICATION
SST	STAINLESS STEEL
STL	STEEL
STRUCT	STRUCTURAL
TLT	TOILET
T/BEAM	TOP OF BEAM
T/MAS	TOP OF MASONRY
T	TREAD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
VERT	VERTICAL
W	WITH
WD	WOOD
WP	WORK POINT

GENERAL PROJECT NOTES

1. ALL CONSTRUCTION WORK TO CONFORM WITH THE APPLICABLE CODES AND ORDINANCES OF THE LOCAL JURISDICTION, THE COMMONWEALTH OF PENNSYLVANIA, AND THE CURRENT ADOPTED VERSION OF THE INTERNATIONAL BUILDING CODE FAMILY. THE CONTRACTOR TO POST NOTICES AND COMPLY WITH THE GOVERNING LAWS OF THE JURISDICTION.
2. THE SITE WORK TO BE PROPERLY SUPERVISED BY THE CONTRACTORS JOB SITE SUPERINTENDANT. SUFFICIENT PERSONNEL WILL BE EMPLOYED TO COMPLETE THE WORK WITHIN THE CONTRACTED TIME. PERSONNEL TO BE SKILLED IN THE TASK ASSIGNED.
3. MAINTAIN ADEQUATE PROTECTION TO SAFEGUARD THE PUBLIC AND ALL PERSONS ENGAGED IN THE PERFORMANCE OF THE WORK.
4. THE DRAWINGS REFLECT CONDITIONS AS CAN BE INFERRED FROM VISIBLE CONDITIONS, OR FROM DRAWINGS AND INFORMATION FURNISHED BY THE OWNER, BUT CANNOT BE GUARANTEED. VERIFY ALL GRADES, LINE LEVELS AND DIMENSIONS INDICATED ON THE DRAWINGS AND REPORT ALL INCONSISTENCIES TO THE ARCHITECT PRIOR TO THE EXECUTION OF THE WORK. RECHECK ALL DIMENSIONS PRIOR TO ORDERING MANUFACTURED AND/OR FABRICATED ITEMS.
5. PLAN DIMENSIONS, UNLESS NOTED OTHERWISE, ARE TO THE FACE OF THE WALL FINISH OR CENTERLINE OF COLUMN.
6. ALL INDICATIONS OF MASONRY ARE SHOWN IN ACTUAL DIMENSIONS (NOT NOMINAL), UNLESS NOTED OTHERWISE.
7. ASSUME FULL RESPONSIBILITY FOR PROTECTION AND SAFEKEEPING OF PRODUCTS PURCHASED FOR THIS PRODUCT AND STORED ON THE PROJECT SITE. COORDINATE WITH THE OWNER ON PREFERRED LOCATIONS FOR STORED MATERIALS ON THE PROJECT SITE, IF ALLOWED AS PART OF THE REQUIREMENTS OF THIS PROJECT.
8. MAINTAIN AREAS UNDER THE CONTRACTOR'S CONTROL TO BE FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH. CONTAINERS FOR DEPOSIT OF DEBRIS AND RUBBISH WILL BE PROVIDED BY THE CONTRACTOR. COORDINATE LOCATION OF CONTAINERS WITH THE OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. REMOVE AND DISPOSE OF DEMOLITION MATERIAL OFF SITE IN ACCORDANCE WITH APPLICABLE CODES AND/OR SPECIFICATIONS.
9. EXTRANEOUS MATERIALS TO BE PERIODICALLY REMOVED, AND AT THE CONCLUSION OF THE PROJECT. ALL UNUSED TOP SOIL WILL BE STOCKPILED ON THE SITE FOR THE OWNER'S USE.
10. PROVIDE AND INSTALL ALL FIRESTOPPING MATERIALS AT ALL THROUGH-WALL AND THROUGH-CEILING PENETRATIONS AS REQUIRED FOR THE CONSTRUCTION WORK AND TO MAINTAIN FIRE RATINGS OF FLOORS AND WALLS. MATERIALS AND INSTALLATION DETAILS TO CONFORM TO UNDERWRITER LABORATORIES LISTING FOR RATED ASSEMBLIES.
11. ALL WOOD FRAMING AND SHEATHING TO BE FIRE RETARDANT. TREATED AS REQUIRED BY THE BUILDING CODE CLASSIFICATION OF "NONCOMBUSTIBLE".
12. DO NOT SCALE DRAWINGS. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DEVIATIONS OR DISCREPANCIES FOUND AND RECEIVE DIRECTION BEFORE PROCEEDING.
13. DURING CONSTRUCTION THE CONTRACTOR WILL WORK ADJACENT TO STUDENT OCCUPIED FLOORS. CONSTRUCTION RELATED ACTIVITIES ARE NOT TO ADVERSELY IMPACT THESE AREAS. CONSTRUCTION RELATED ACTIVITIES THAT MIGHT AFFECT THESE AREAS MUST BE COORDINATED WITH AND APPROVED BY CCAC PRIOR TO OCCURRENCE.
14. PROVIDE TEMPORARY DUST ENCLOSURES DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES. CONTRACTOR TO COORDINATE LOCATIONS WITH THE OWNER. IF EXISTING WALLS ARE USED, PENETRATIONS MUST BE SEALED TO CREATE A DUST PROOF ENCLOSURE.
15. MODIFICATIONS TO THE EXISTING MEP SYSTEMS WILL IMPACT ADJACENT SPACES OUTSIDE THE GENERAL SCOPE OF WORK. ANY DISTURBANCE OF EXISTING CONDITIONS AND FINISHES MUST BE REPAIRED TO MATCH THE CONDITIONS PRIOR TO CONSTRUCTION IMPACTS.
16. THE FACILITY IS OPERATIONAL. CONTRACTOR TO MAKE PROVISIONS FOR OWNER AND PUBLIC USE OF THE BUILDING AROUND THE CONSTRUCTION AREA. DELIVERIES, STAGING, STORAGE OF MATERIALS AND OTHER CONSTRUCTION RELATED ACTIVITIES TO BE COORDINATED WITH THE OWNER SO AS TO NOT ADVERSELY AFFECT THE BUILDING OPERATIONS.
17. ASBESTOS AND LEAD ARE NOT ANTICIPATED TO EXIST IN THE WORK AREA. HOWEVER, IF ASBESTOS-CONTAINING MATERIAL IS DISCOVERED OR SUSPECTED, STOP WORKING IN THE AREA IMMEDIATELY AND CONTACT THE CONTRACTING OFFICER.
18. ALL REVISIONS TO THE DRAWINGS MUST PROCEED THROUGH THE ARCHITECT. OWNER / CONTRACTOR REVISIONS MAY BE CONSIDERED INVALID.
19. ALL EXPOSED GYPSUM WALL BOARD EDGES TO HAVE METAL EDGE TRIM.
20. COMPARE AND COORDINATE ALL DRAWINGS FOR PROPER FIT AND ATTACHMENT OF ALL PARTS. DETAILS NOT SHOWN OR DESCRIBED IN THESE NOTES TO BE CONSTRUCTED TO SAME SIZE AND CHARACTER AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN, SPECIFIED, OR COMMONLY CONSTRUCTED IN THE INDUSTRY.
21. NO STRUCTURAL MEMBER TO BE OMITTED, NOTCHED, CUT, BLOCKED OUT, OR RELOCATED WITHOUT PRIOR APPROVAL BY THE ARCHITECT OR ENGINEER.
22. PROTECTIVE MEASURES TO BE TAKEN BY THE CONTRACTOR TO PROTECT ADJACENT PROPERTY AT ALL TIMES DURING CONSTRUCTION.
23. ALL TEMPORARY BRACING AND SHORING TO BE DESIGNED TO SUSTAIN ALL CONSTRUCTION LOADS, SOIL PRESSURE, LATERAL AND OTHER LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED.
24. COORDINATE LOCATIONS OF LIGHT FIXTURES, SPRINKLER HEADS, REGISTERS, ETC. WITH THE REFLECTED CEILING PLAN LAYOUT.
25. ALL SPRINKLER HEADS, DIFFUSERS AND REGISTERS TO BE CENTERED WITH SUSPENDED ACOUSTICAL PANELS, UNLESS NOTED OTHERWISE ON DRAWINGS.
26. ALL VOIDS IN MASONRY, CONCRETE AND OTHER ASSEMBLIES CREATED AROUND PENETRATIONS TO BE FILLED / PATCHED WITH CONSTRUCTION TO MATCH SURROUNDING CONDITIONS.
27. PAINT ALL EXPOSED STEEL, DECKING, PIPING, CONDUIT, SPRINKLER PIPING AND DUCTS WHICH ARE EXPOSED IN AREAS WITH NO CEILINGS AND SCHEDULED TO RECEIVE PAINT FINISH AS INDICATED ON THE FINISH SCHEDULE.



AE WORKS®

418 BEAVER STREET

SEWICKLEY, PA 15143

PH: 412.287.7333

www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

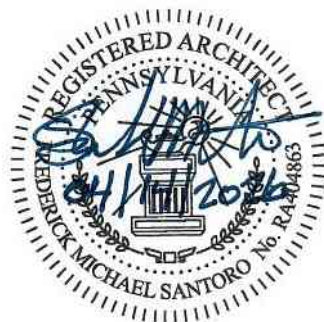
595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

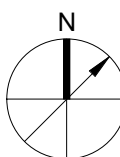
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:

ABBREVIATIONS, NOTES
AND SYMBOLS

DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-008
DATE: 04/14/2028
DRAWING NO:

A001



E

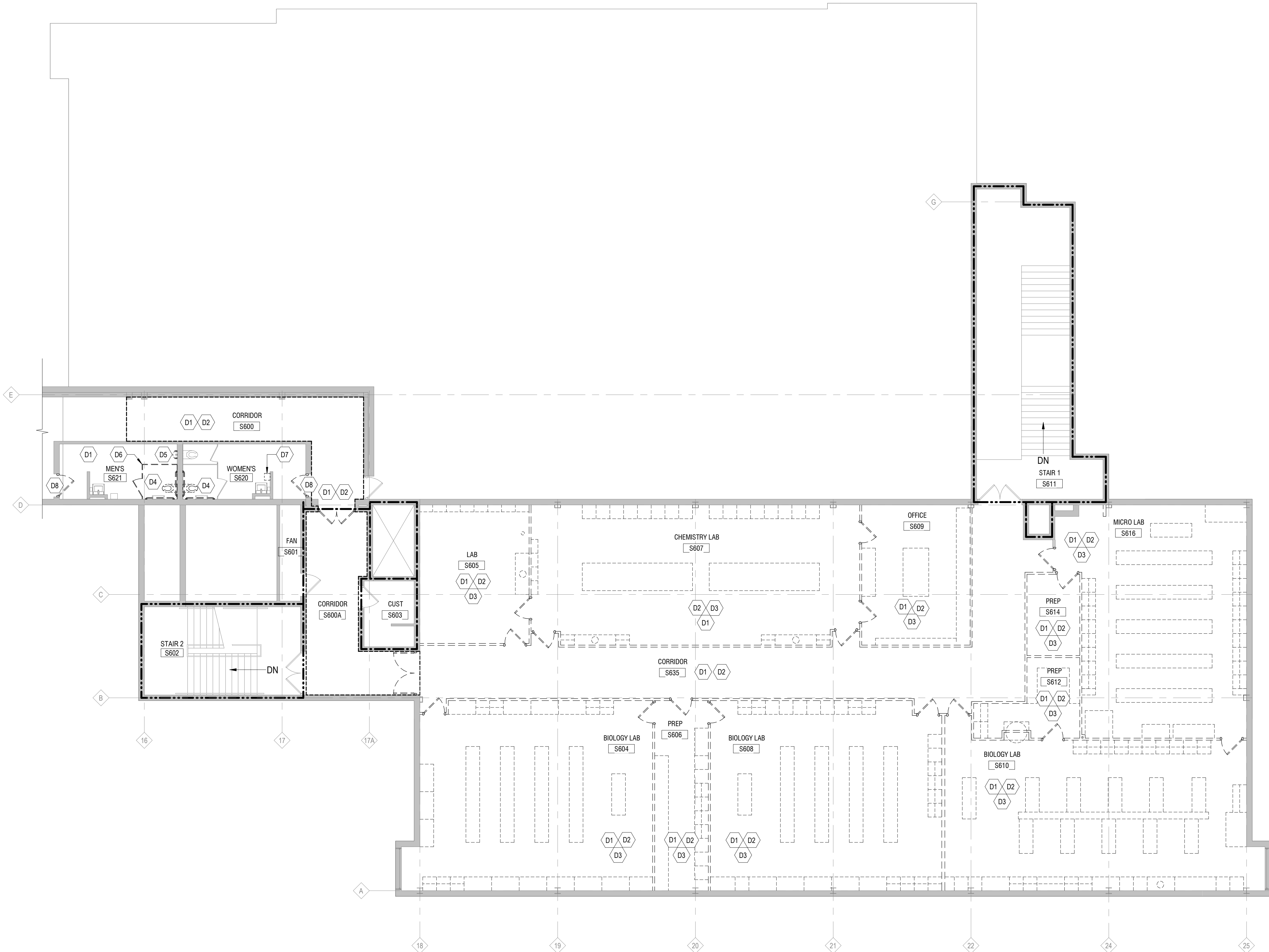
D

C

B

Autodesk Docs\\CCAC-008 Boyce Bio Lab\\CCAC-008_ARCH_24.rvt
4/14/2026 12:11:18 PM

A



1 SIXTH FLOOR - S WING - DEMOLITION PLAN
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

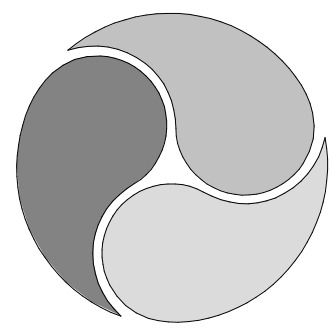
1. VERIFY ALL EXISTING CONDITIONS AND COORDINATE ALL DEMOLITION ACTIVITIES WITH ANY NEW CONSTRUCTION AS INDICATED WITHIN THE CONSTRUCTION DOCUMENTS. DO NOT SCALE DRAWINGS.
2. PERFORM ALL NECESSARY DEMOLITION ACTIVITIES AS REQUIRED FOR INSTALLATION OF NEW CONSTRUCTION AS INDICATED WITHIN THE CONSTRUCTION DOCUMENTS. COORDINATE WITH THOSE DOCUMENTS FOR EXACT DIMENSIONS AND LOCATIONS OF FINISHED WORK.
3. ALL DEMOLITION NOT SPECIFICALLY INDICATED, BUT NECESSARY TO COMPLETE THE PROJECT AS INDICATED ON THE CONSTRUCTION DOCUMENTS, TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. INSPECT AND ACCESS EACH SPACE AND FULFILL THE INTENT OF THE WORK REQUIRED BY THE CONTRACT DOCUMENTS. DEVIATIONS REQUIRED BY EXISTING FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
5. ANY CUTTING AND REMOVAL INDICATED ON THE CONSTRUCTION DOCUMENTS ARE GENERAL INDICATIONS ONLY AND MAY NOT NECESSARILY SHOW THE FULL EXTENT OF CUTTING AND REMOVAL NECESSARY.
6. THROUGHOUT THE COURSE OF DEMOLITION ACTIVITIES, PROPERLY PROTECT AND EXISTING CONSTRUCTION INDICATED TO REMAIN. EXERCISE CARE WHEN REMOVING ADJACENT CONSTRUCTION AND PROPERLY REPAIR TO ORIGINAL CONDITION ANY AREAS SCHEDULED TO REMAIN THAT SUSTAIN DAMAGE AS A RESULT OF DEMOLITION ACTIVITIES.
7. CONSTRUCT DUST PROOF PROTECTIVE BARRIERS AS NECESSARY AT AREAS OF INTERIOR DEMOLITION TO PROTECT EXISTING CONSTRUCTION AND EQUIPMENT SCHEDULED TO REMAIN.
8. PERFORM ALL WORK REQUIRED TO PROTECT BUILDING OCCUPANTS AND EXISTING BUILDING UTILITIES. THE BUILDING WILL REMAIN IN OPERATION THROUGHOUT THE COURSE OF DEMOLITION AND CONSTRUCTION ACTIVITIES.
9. PROVIDE ALL NECESSARY TEMPORARY BRACING AND SHORING AS REQUIRED TO MAINTAIN THE INTEGRITY AND STRUCTURAL STABILITY OF THE BUILDING AND ITS INDIVIDUAL ELEMENTS.
10. EXCEPT AS NOTED OTHERWISE, REMOVE ALL DEMOLISHED MATERIALS FROM THE SITE AND DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAW REGULATIONS. DO NOT BURN, BURY OR SELL MATERIALS ON THE PROJECT SITE. AT THE COMPLETION OF EACH WORK DAY, CLEAN THE ENTIRE WORK AREA AND LEAVE IN A NEAT CONDITION FREE OF DEBRIS AND RUBBISH.
11. STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, TELECOMMUNICATION, AND CIVIL DOCUMENTS PROVIDE ADDITIONAL DEMOLITION REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DOCUMENTS THAT MAY PROVIDE ADDITIONAL DEMOLITION REQUIREMENTS BEYOND THOSE SPECIFICALLY INDICATED ON THE ARCHITECTURAL DEMOLITION PLANS.
12. THROUGHOUT THE COURSE OF DEMOLITION ACTIVITIES, PATCH, REPAIR AND PREPARE EXISTING EXPOSED SURFACES AND/OR ADJACENT MATERIAL AS REQUIRED TO RECEIVE NEW FINISHES.
13. CAREFULLY REMOVE AND DELIVER TO THE OWNER ANY EXISTING FIRE EXTINGUISHERS OR OTHER IDENTIFIED ITEMS FOUND WITHIN THE LIMIT OF DEMOLITION ACTIVITIES.
14. THE OWNER RESERVES THE RIGHT TO REMOVE ITEMS SCHEDULED FOR DEMOLITION PRIOR TO THE START OF DEMOLITION ACTIVITIES AND MAY CLAIM ANY ITEMS REMOVED BY THE CONTRACTOR THROUGHOUT THE COURSE OF DEMOLITION.

DEMOLITION KEYNOTES

- | | |
|----|--|
| D1 | REMOVE EXISTING ACT CEILING SYSTEM, INCLUDING ALL TILES, GRID, SUPPORTS, LIGHTING, DIFFUSERS AND DEVICES IN ITS ENTIRETY. |
| D2 | REMOVE EXISTING FLOORING, BASE AND ADHESIVE. PREP FLOOR FOR NEW FINISHES PER SPECIFICATIONS. |
| D3 | REMOVE EXISTING LAB CASEWORK, IN ITS ENTIRETY. LAB CASEWORK INCLUDES ALL WALL, BASE, AND UTILITY CABINETS, STUDENT AND INSTRUCTOR DESKS, EPOXY COUNTERTOPS, SINKS, FUME HOODS, AND ACCESSORIES. |
| D4 | REMOVE EXISTING WALL MOUNTED TOILET. OPEN WALL AS REQUIRED TO MOUNT NEW TOILET AND CARRIER. |
| D5 | REMOVE EXISTING URINAL. |
| D6 | REMOVE THE EXISTING TOILET PARTITIONS, SUPPORTS AND HARDWARE IN ITS ENTIRETY. |
| D7 | REMOVE AND SALVAGE EXISTING PAPER TOWEL DISPENSER FOR REINSTALLATION. |
| D8 | DOOR SHALL REMAIN DURING CONSTRUCTION. MODIFY DOOR HARDWARE TO PROVIDE A THUMB-TURN DEADBOLT (INTERIOR SIDE) WITH OCCUPANCY INDICATOR AND KEY ACCESS (EXTERIOR SIDE). BOO: DORMAKABA DEADBOLT Q20200 WITH BEST CORE. AFTER BOTH TOILET ROOMS ARE RENOVATED, REMOVE DOOR AND HARDWARE, FRAME TO REMAIN. |

DEMOLITION PLAN LEGEND

- | | | | |
|--|-----------------------------|--|-------------------------------|
| | DEMOLISH PARTITION | | DEMOLISH GYPSUM BOARD CEILING |
| | PARTITION TO REMAIN | | DEMOLISH 2X2 ACT CEILING |
| | EXISTING OPENING TO REMAIN | | |
| | DEMOLISH DOOR AND FRAME | | |
| | 1 HOUR RATED FIRE PARTITION | | |
| | 2 HOUR RATED FIRE PARTITION | | |



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY**

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
**BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS**

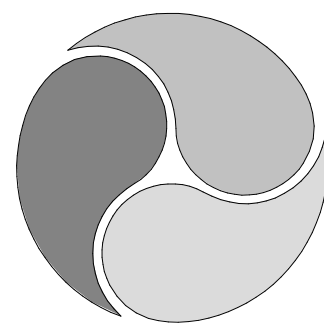
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
**SIXTH FLOOR
DEMOLITION PLAN**

DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-008
DATE: 04/14/2026
DRAWING NO:

AD101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



AE WORKS

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

GENERAL COORDINATION NOTES

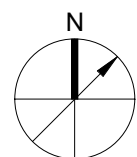
1. THIS REFLECTED CEILING PLAN IS DIAGRAMMATIC AND IS FOR REFERENCE ONLY.
2. GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVICE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL PRIME CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
3. ALL PRIME CONTRACTORS SHALL COORDINATE TO PROVIDE A SINGLE PHASING PLAN SUBMITTAL FOR REVIEW AND APPROVAL FROM OWNER. OF ALL WORK AREAS PRIOR TO START OF WORK. PHASING PLAN SUBMITTAL SHALL INCLUDE AREAS OF WORK PER PHASE, TYPE OF WORK PER PHASE, DURATION OF EACH PHASE, LOCATION OF DUST CONTAINMENT ENCLOSURES, AND PHOTOS OF EXISTING CONDITIONS PRIOR TO START OF WORK. GENERAL CONTRACTOR SHALL ASSEMBLE AND GENERATE COMBINED SUBMITTAL.
4. GENERAL CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
5. ALL PRIME CONTRACTORS SHALL REMOVE CEILING AREAS AS REQUIRED TO PERFORM 6TH FLOOR UNDERSLAB WORK FOR LAB RENOVATIONS.
6. ALL PRIME CONTRACTOR SHALL REINSTALL ALL REMOVED CEILING GRID, TILE, AND DEVICES AT THE COMPLETION OF EACH PHASE BEFORE BEGINNING THE NEXT PHASE.
7. ALL PRIME CONTRACTORS SHALL COORDINATE WORK TO OCCUR OVER SUMMER, HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

REFLECTED CEILING PLAN LEGEND

	RECESSED LIGHT		GYPSUM BOARD CEILING
	4X2 RECESSED LINEAR LIGHT		2X2 ACT CEILING
	2X4 LIGHT FIXTURE (ON (EM) LIFE SAFETY BRANCH		EXIT SIGN
	2X4 LIGHT FIXTURE (ON (EM) CRITICAL BRANCH		SMOKE DETECTOR
	2X2 SUPPLY DIFFUSER		1 HOUR RATED FIRE PARTITION
	2X2 RETURN GRILLE		2 HOUR RATED FIRE PARTITION
	2X2 EXHAUST GRILLE		SANITARY PIPE
	CAMERA		EMERGENCY SHOWER HEAD
	2 X 2 CEILING TILE WITH LOUDSPEAKER		CEILING MICROPHONE
	CEILING MICROPHONE		



1 FIFTH FLOOR - S WING - REFLECTED CEILING PLAN
1/8" = 1'-0"



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

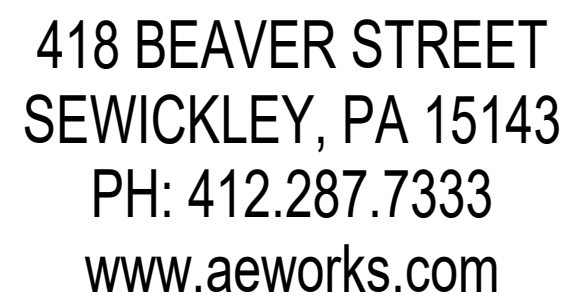
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
FIFTH FLOOR
REFLECTED CEILING
PLAN

DRAWN BY: AW
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04-14-2026
DRAWING NO:

AD102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

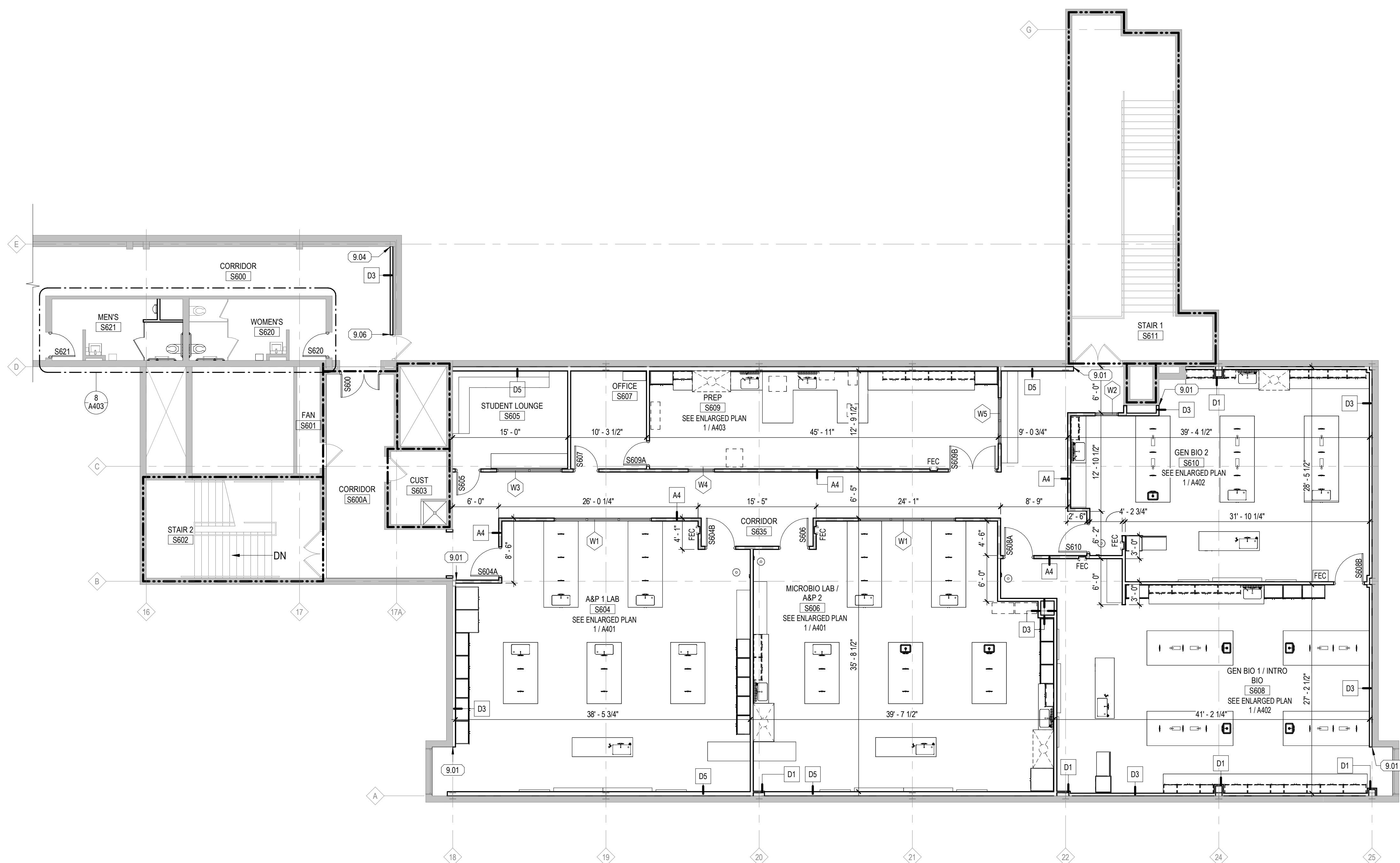


CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

1.	PARTITION TYPES: UNLESS OTHERWISE NOTED, NEW PARTITIONS SHALL BE TYPE A3
2.	CONTRACTOR TO COORDINATE ALL BLOCKING FOR CASEWORK, ACCESSORIES, ETC.
3.	PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL OR CEILING MOUNTED EQUIPMENT AND CASEWORK, HANDRAILS, LIGHTING, OR OTHER MISCELLANEOUS ITEMS AS SHOWN ON DRAWINGS.
4.	REFER TO REFLECTED CEILING PLANS FOR THE CEILING TYPE AND HEIGHT. COORDINATE ALL CASEWORK BOARD LAYOUTS WITH THE CEILING TYPE AND HEIGHT.
5.	REFER TO FINISH SCHEDULE, INTERIOR ELEVATIONS, AND ARCHITECTURAL CASEWORK DETAILS FOR WALL FINISHES AND WALL MOUNTED ACCESSORIES TO COORDINATE BLOCKING REQUIREMENTS.
6.	AT CERAMIC TILE INSTALL, CONVENTIONALLY BACKER BOARD, SHIM BACKER BOARD AS REQUIRED TO RESULT IN A FLUSH TRANSITION TO NON-SYSTEM BOARD.
7.	TO TOILET ROOMS, PROVIDE MOISTURE RESISTANT BACKER BOARD ON ALL WALLS.
8.	PARTITION THICKNESS DIMENSIONS AS SHOWN ARE MINIMUM MINIMUM DIMENSIONS. ACTUAL DIMENSIONS MAY DIFFER SLIGHTLY FROM THOSE SHOWN.
9.	REFER TO ADD SERIES FOR ENLARGED PLANS. REFER TO A404 FOR EQUIPMENT SCHEDULE.

	NEW PARTITION		1 HOUR RATED FIRE PARTITION
	EXISTING PARTITION		2 HOUR RATED FIRE PARTITION
	EXISTING OPENING		FIRE EXTINGUISHER CABINET
	NEW DOOR AND FRAME		

6.01	REMOVE COUNTER TOP WITH * BACKSLASH.
6.01	REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, STRUCTURAL RAILS AND CURBS. IN ITS ENTIRETY. INFL. EXISTING ROOF OPENING. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.02	REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, AND CURBS. IN ITS ENTIRETY. INFL. EXISTING ROOF OPENING. REFER TO STRUCTURAL ANDEMECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.03	REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, AND CURBS. IN ITS ENTIRETY. ENLARGE EXISTING DUCT PENETRATION FOR NEW EXHAUST FAN DUCT AND INSTALL NEW CURB. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.04	REMOVE EXISTING VENTS IN ITS ENTIRETY. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
6.05	PROVIDE NEW OPENING IN EXISTING ROOF CURB FOR AHU DUCT PENETRATIONS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.06	REMOVE NEW CONTINUOUS STEEL CHANNELS AT ROOF DUCT BELOW AHU CURB. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.07	REMOVE CONTINUOUS STEEL CHANNELS AT ROOF DUCT BELOW EXHAUST FAN CURBS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
6.08	PROVIDE NEW MEMBRANE WALKWAY PADS, ADHERED TO ROOF MEMBRANE.
6.09	PROVIDE NEW ROOF CROCKET AT ALL NEW EQUIPMENT TO PROVIDE POSITIVE SLOPE TO DRAIN.
6.10	PROVIDE NEW MEMBRANE BOOT AND COLLAR AT ALL VENTS. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
6.01	HOLLOW METAL FRAME AND FIRE RATED GLAZING. SEE ELEVATIONS FOR SIZE AND HEIGHT
6.01	ALUM. GNB BULKHEAD WITH FACE OF WALL.
6.02	ALUM. GNB BULKHEAD WITH FACE OF WALL. ALUM. GNB GND WITH EDGE OF BULKHEAD.
6.03	ALUM. GNB BULKHEAD WITH FACE OF WALL. ALUM. GNB GND WITH EDGE OF BULKHEAD.
6.04	ALUM. FINISHED FACE OF GNB WITH FACE OF EXISTING STEEL COLUMN. CAULK JOINT BETWEEN GNB AND COLUMN.
6.05	REMOVE AND REINSTALL EXISTING GND GRID AND TILE AS REQUIRED TO CONSTRUCT NEW BULKHEAD.
6.06	FACE OF GNB PARTITION WITH EXISTING FRAME OF DOOR.
6.01	LARGE OPENING EQUIPMENT SPACE
6.02	DUCT FLOOD HOOD
6.03	LABORATORY FLOOD HOOD
6.04	6" SCHEDULE 40 MONITOR
6.05	4" H WALL MOUNTED WHITE BOARD
6.06	PROFESSOR POSITION AND DESK
6.07	PEDESTAL AT PERMETER EPOXY SINKS
6.08	EMERGENCY SHOWER HEAD COORDINATE WITH PLUMBING DRAWINGS
6.09	DRAIN BOARD AT EPOXY SINK



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

[illegible]

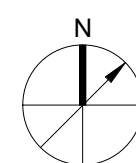
PROFESSIONAL:



PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
SIXTH FLOOR PLAN

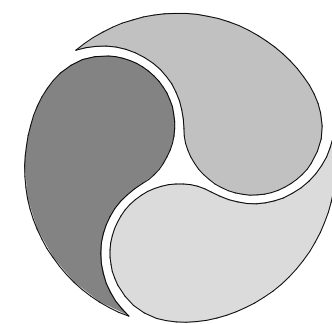
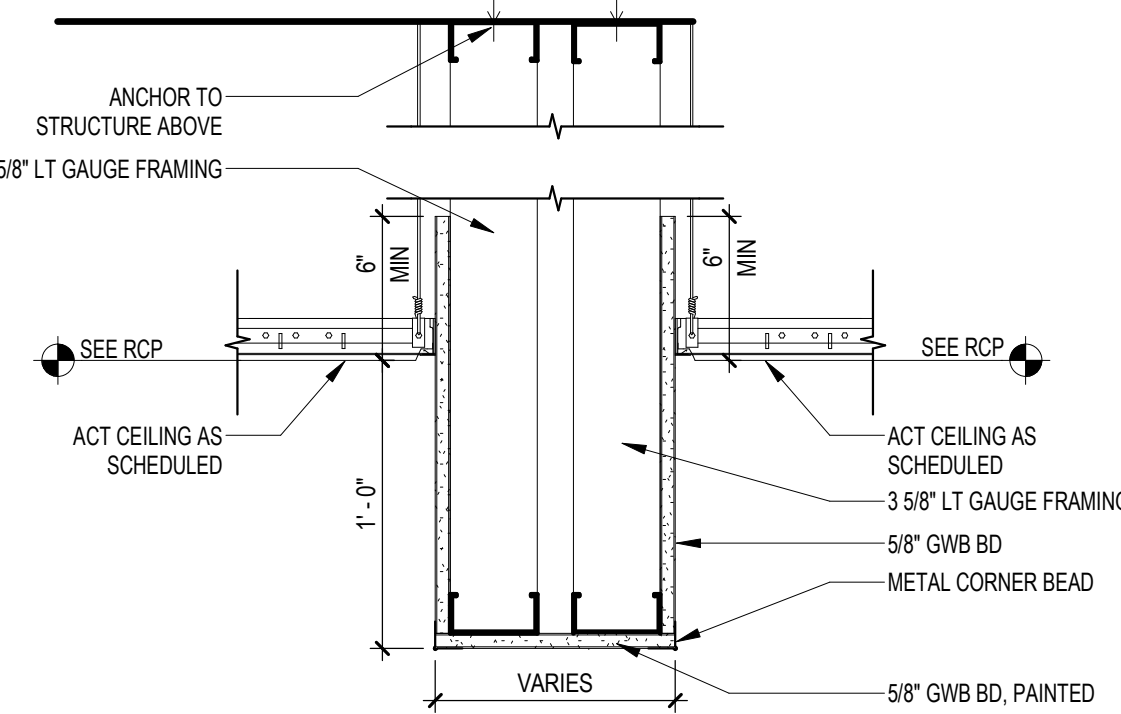


DRAWN BY: AW
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO:

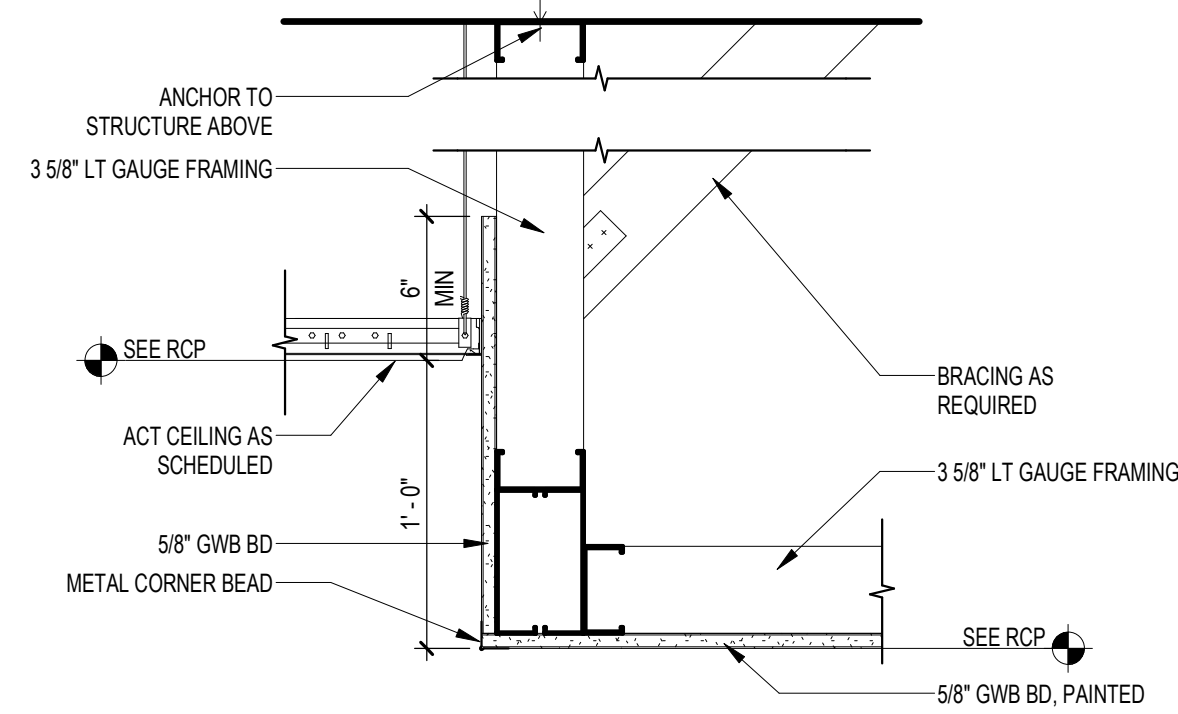
A101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

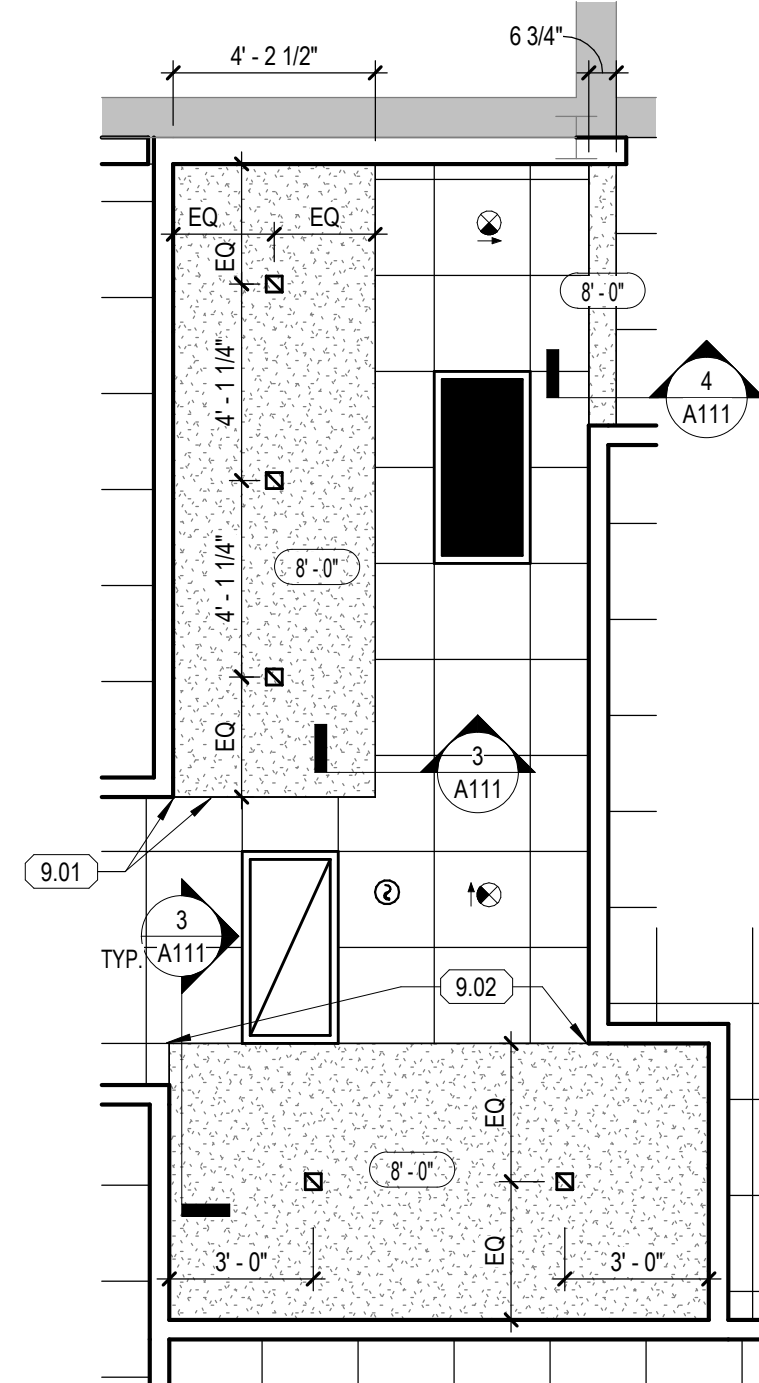
1 **SIXTH FLOOR - S WING - FLOOR PLAN**
1/8" = 1'-0"

**AE WORKS**418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.comCLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY****DETAIL - GWB BULKHEAD**

1 1/2" = 1'-0"

**DETAIL - ACT TO GWB BULKHEAD**

1 1/2" = 1'-0"

**CORRIDOR S635 ENLARGED REFLECTED CEILING PLAN**

1/4" = 1'-0"

RCP - GENERAL NOTES

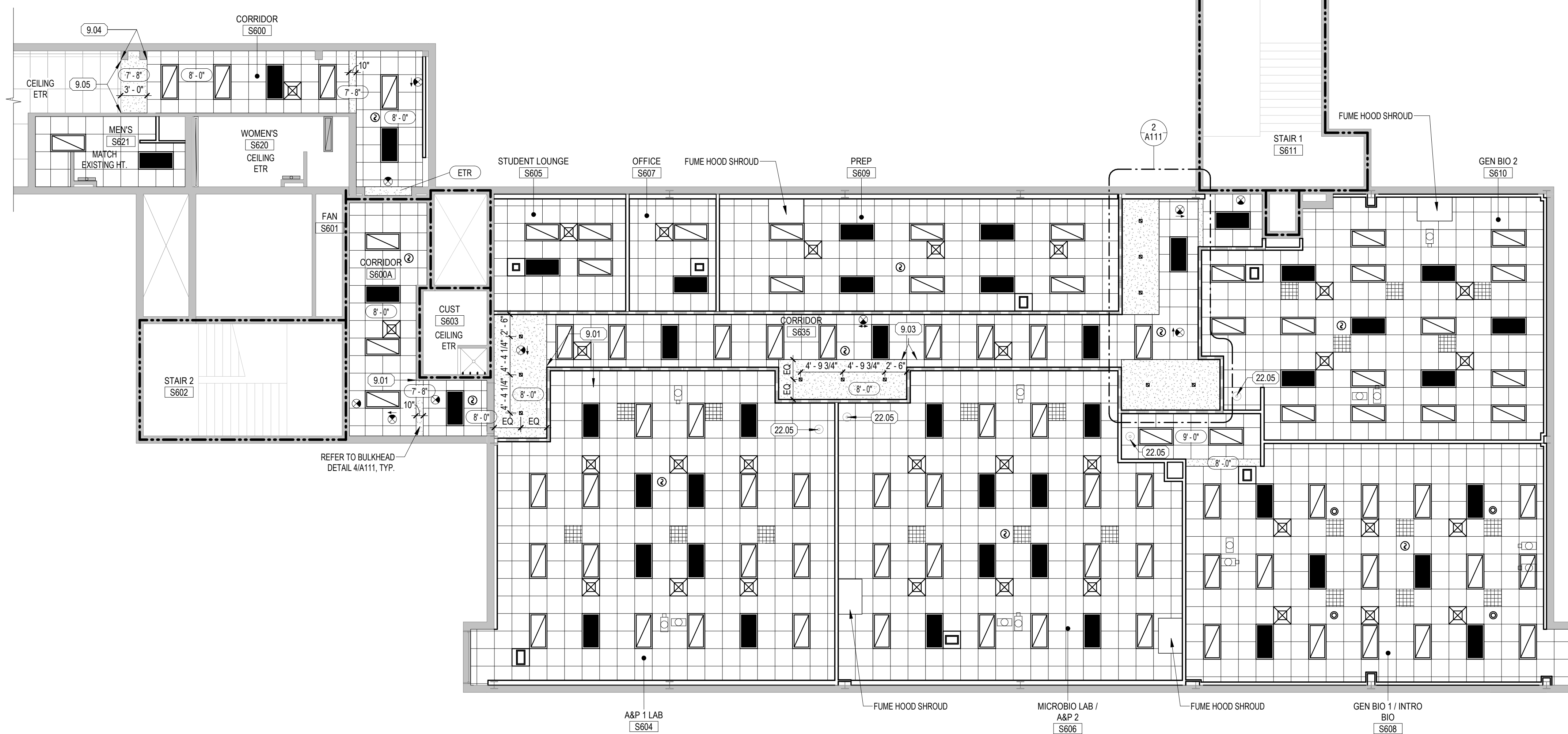
1. CEILING IS LOCATED AT 9'-0" AFF. U.N.O.
2. ARCHITECT'S DRAWINGS TO BE USED FOR DIMENSIONAL HEIGHTS, LOCATIONS, AND FINISHES FOR CEILING. REFER TO AND COORDINATE WITH MEP DRAWINGS.
3. REFER TO ENGINEERING DRAWINGS FOR LIGHT FIXTURE SPECIFICATIONS AND ALL REQUIRED EMERGENCY LIGHTING.
4. REFER TO ENGINEERING DRAWINGS FOR ALL REQUIRED FIRE ALARM AND OTHER CEILING AND WALL-MOUNTED DEVICES.
5. DOWNLIGHTS AND DEVICES TO BE LOCATED AT THE CENTERLINE OF ACOUSTICAL TILE. U.N.O.

REFLECTED CEILING PLAN LEGEND

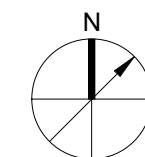
	RECESSED LIGHT		GYPSUM BOARD CEILING
	4X2 RECESSED LINEAR LIGHT		2X2 ACT CEILING
	2X4 LIGHT FIXTURE (ON EM) LIFE SAFETY BRANCH		EXIT SIGN
	2X4 LIGHT FIXTURE (ON EM) CRITICAL BRANCH		SMOKE DETECTOR
	2X2 SUPPLY DIFFUSER		1 HOUR RATED FIRE PARTITION
	2X2 RETURN GRILLE		2 HOUR RATED FIRE PARTITION
	2X2 EXHAUST GRILLE		SANITARY PIPE
	CAMERA		2 x 2 CEILING TILE WITH LOUDSPEAKER
	CEILING MICROPHONE		EMERGENCY SHOWER HEAD

CONSTRUCTION KEYNOTES

- 6.01 EPOXY COUNTER TOP, WITH 4" BACKSPLASH.
- 7.01 REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, STRUCTURAL RAILS AND CURBS, IN ITS ENTIRETY. INFILL EXISTING ROOF OPENING. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.02 REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, AND CURBS, IN ITS ENTIRETY. INFILL EXISTING ROOF OPENING. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.03 REMOVE EXISTING EXHAUST FAN, INCLUDING DUCT PENETRATION, AND CURBS, IN ITS ENTIRETY. ENLARGE EXISTING DECK PENETRATION FOR NEW EXHAUST FAN DUCT AND INSTALL NEW CURB. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.04 REMOVE EXISTING VENTS IN ITS ENTIRETY. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
- 7.05 PROVIDE NEW OPENING IN EXISTING ROOF DECK FOR AHU DUCT PENETRATIONS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.06 PROVIDE NEW CONTINUOUS STEEL CHANNELS AT ROOF DECK BELOW AHU CURB. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.07 PROVIDE NEW CONTINUOUS STEEL CHANNELS AT ROOF DECK BELOW EXHAUST FAN CURBS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
- 7.08 PROVIDE NEW MEMBRANE WALKWAY PADS, ADHERED TO ROOF MEMBRANE.
- 7.09 PROVIDE NEW ROOF CRICKET AT ALL NEW EQUIPMENT TO PROVIDE POSITIVE SLOPE TO DRAIN.
- 7.10 PROVIDE NEW MEMBRANE BOOT AND COLLAR AT NEW VENTS. REFER TO PLUMBING DRAWINGS FOR LOCATIONS.
- 8.01 HOLLOW METAL FRAME AND FIRE RATED GLAZING, SEE ELEVATIONS FOR SIZE AND HEIGHT.
- 9.01 ALIGN GWB BULKHEAD WITH FACE OF WALL.
- 9.02 ALIGN GWB BULKHEAD WITH FACE OF WALL. ALIGN ACT GRID WITH EDGE OF BULKHEAD.
- 9.03 ALIGN GWB BULKHEAD WITH ADJACENT BULKHEAD / ACT GRID.
- 9.04 ALIGN FINISHED FACE OF GWB WITH FACE OF EXISTING STEEL COLUMN. CAULK JOINT BETWEEN GWB AND COLUMN.
- 9.05 REMOVE AND REINSTALL EXISTING ACT GRID AND TILE AS REQUIRED TO CONSTRUCT NEW BULKHEAD.
- 9.06 ALIGN FACE OF GWB PARTITION WITH EXISTING FRAME OF DOOR.
- 11.01 LARGE EQUIPMENT SPACE.
- 11.02 DUCTED FUME HOOD.
- 11.03 LAMINAR FLOW HOOD.
- 12.01 86" SMARTBOARD MONITOR.
- 12.02 4' H WALL MOUNTED WHITE BOARD.
- 12.06 PROFESSOR PODIUM AND DESK.
- 22.01 PEGBOARD AT PERIMETER EPOXY SINKS.
- 22.05 EMERGENCY SHOWER HEAD. COORDINATE WITH PLUMBING DRAWINGS.
- 22.06 DRAIN BOARD AT EPOXY SINK.

**SIXTH FLOOR - S WING - REFLECTED CEILING PLAN**

1/8" = 1'-0"

595 Beatty Rd
Monroeville, PA 15146SUBMISSION:
BID DOCUMENTS

NO DATE REVISION

PROFESSIONAL:

PROJECT NAME:
**BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS**595 Beatty Rd,
Monroeville, PA 15146DRAWING TITLE:
**SIXTH FLOOR
REFLECTED CEILING
PLAN**DRAWN BY: AW
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04-14-2026
DRAWING NO:**A111**

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

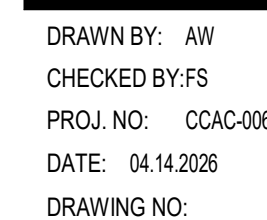
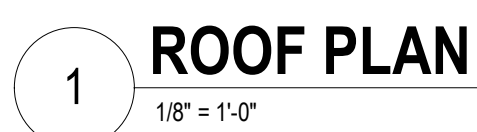


0.01	EXPLORE COUNTER TOP WITH BACKSLASH.
0.01	REMOVE EXISTING EXHAUST FAN INCLUDING DUCT PENETRATION, STRUCTURAL RAILS AND CURBS. REFER TO STRUCTURAL, MECHANICAL, DRAWINGS FOR STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
0.02	REMOVE EXISTING EXHAUST FAN INCLUDING DUCT PENETRATION, CURBS, INITS ENTRY. INLET EXISTING ROOF OPENING. REFER TO STRUCTURAL ANDMECHANICAL, DRAWINGS FOR ADDITIONAL DETAILS.
0.03	REMOVE EXISTING EXHAUST FAN INCLUDING DUCT PENETRATION, CURBS, INITS ENTRY. ENLARGE EXISTING DECK PENETRATION FOR NEW EXHAUST FAN DUCT AND INSTALL NEW CURBS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
0.04	REMOVE EXISTING DECK IN ITS ENTIRETY. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
0.05	PROVIDE NEW OPENING IN EXISTING ROOF DECK FOR AHU DUCT PENETRATIONS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
0.06	PROVIDE NEW CONTINUOUS SEAL, CHANNELS AT ROOF DECK BELOW AHU CURBS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
0.07	PROVIDE NEW CONTINUOUS SEAL, CHANNELS AT ROOF DECK BELOW EXHAUST FAN CURBS. REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS.
0.08	PROVIDE NEW MEMBRANE WALKWAY PADS, ADHERED TO ROOF MEMBRANE.
0.09	PROVIDE NEW ROOF CRICKET AT ALL NEW OPENINGS TO PROVIDE POSITIVE SLOPE TO DRAIN.
0.10	PROVIDE NEW MEMBRANE BOLD AND COLLAR AT ALL NEW VENTS. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL DETAILS.
0.01	HOLLOW METAL FRAME AND FIRE RATED GLAZING. SEE SELECTIONS FOR SIZE AND HEIGHT.
0.01	ALUM GNB BULKHEAD WITH FACE OF WALL.
0.02	ALUM GNB BULKHEAD WITH FACE OF WALL, ALUM GNB BOLD WITH EDGE OF BULKHEAD.
0.03	ALUM GNB BULKHEAD WITH FACE OF WALL, ALUM GNB BOLD WITH EDGE OF BULKHEAD.
0.04	ALUM FINISHED FACE OF GNB WITH FACE OF EXISTING SEAL CORD, CAULK, JOINT BETWEEN GNB AND BULKHEAD.
0.05	REMOVE AND REINSTALL EXISTING CGR GRID AND TILE AS REQUIRED TO CONSTRUCT NEW FLOORING.
0.06	ALUM/FACE OF GNB PARTITION WITH EXISTING FRAME OF DOOR.
0.01	LARGE EQUIPMENT SPACE
0.02	DUCT DUCT FLOOD HOOD
0.03	LAMINAR FLOW HOOD
0.04	8" SMARTBOARD MONITOR
0.02	4" H WALL MOUNTED WHITE BOARD.
0.06	PROFESSOR podium and DESK.
0.02	PEDESTAL AT PERIMETER EPOXY SINKS
0.05	EMERGENCY SHOWER HEAD, COORDINATE WITH PLUMBING DRAWINGS
0.06	PEDESTAL AT EPOXY SINK.

1. ALL PRIME CONTRACTORS SHALL COORDINATE, THROUGH CCAL, ALL DEMOLITION AND NEW WORK DETAILED IN THIS DOCUMENT SET AND SEQUENCE OF WORK WITH CONCURRENT ROOF REPAIR AND REPLACEMENT PROJECTS.
2. ALL PRIME CONTRACTORS SHALL PARTICIPATE IN A COORDINATION MEETING, SCHEDULED BY CCAL, TO ALLOW SEQUENCE OF WORK WITH BOTH PROJECT'S CONSTRUCTION SCHEDULES.
3. ALL PRIME CONTRACTORS SHALL COMPLETE THE FOLLOWING WORK BEFORE THE ROOF REPAIR AND REPLACEMENT PROJECTS BEGIN: REMOVE ALL EXISTING ROOF MEMBRANE, DETAIL FOR DEMOLITION IN THE DOCUMENTS, REMOVE ALL EQUIPMENT RAILS, SUPPLEMENTAL ROOFING EQUIPMENT CUBES, AND ALL OTHER ROOFING EQUIPMENT CUBES AS INSTALLED IN STRUCTURAL DRAWINGS, AND PROVIDE TEMPORARY ROOF MEMBRANE PATCH IN FULFILLED OPENINGS.
4. ROOFING REPLACEMENT CONTRACTOR SHALL COMPLETE THE FOLLOWING WORK: REMOVE ALL EXISTING LAST ROOF PAVERS, AND ROOF MEMBRANE, REPAIR PATCHES AND, INSTALL NEW ROOF MEMBRANE OVER NEW INSULATION. ROOFING REPLACEMENT CONTRACTOR'S WORK NOT INCLUDED IN THIS PROJECT'S SCOPE OF WORK.
5. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPMENT CUBES, STRUCTURAL SUPPORT, DUCT AND VENT PENETRATIONS IN NEW ROOF SYSTEM, INCLUDING ALL FLASHING AT CUBES, RAILS, AND PIPE PENETRATIONS.
6. GENERAL CONTRACTOR SHALL INSTALL NEW CROCKETS IN ROOF SURFACE AT ALL NEW EQUIPMENT DRAIN WATER TOWNS EXISTING ROOF DRAINS. GC SHALL INSTALL NEW WALKWAY PADS, PROVIDED BY ROOFING REPLACEMENT CONTRACTOR, AS DETAILED IN THE DOCUMENTS.
7. THE PRIME CONTRACTORS SHALL COMPLETE ALL MODIFICATIONS TO THE ROOF SYSTEM IN COORDINATION WITH ROOF REPLACEMENT PROJECT ROOFING MANUFACTURER. ALL WORK SHALL BE IN ACCORDANCE WITH MANUFACTURERS' STANDARD DETAILS AND MEET ALL REQUIREMENTS OF THE MAINTENANCE PROGRAM AND THE ROOFING SYSTEM.


$$3'' = 1'-0''$$

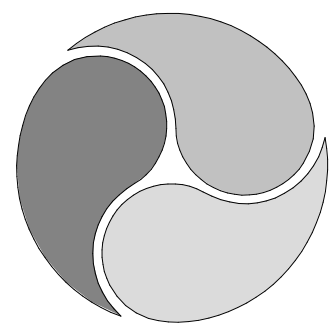
A



DATE: 04.14.2026
DRAWING NO:

A121

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED



AE WORKS

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

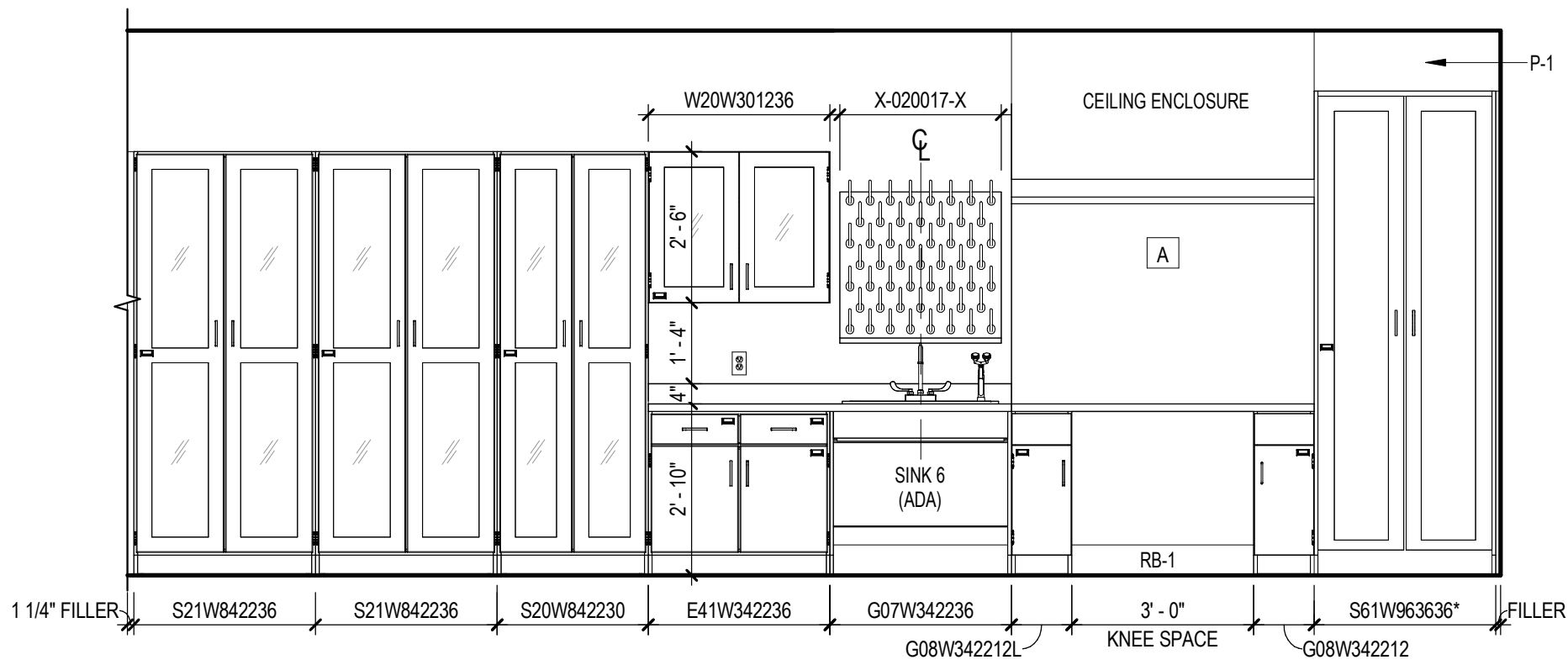
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
A&P 1 LAB AND
MICROBIO LAB / A&P 2
ENLARGED PLAN AND
CASEWORK
ELEVATIONS

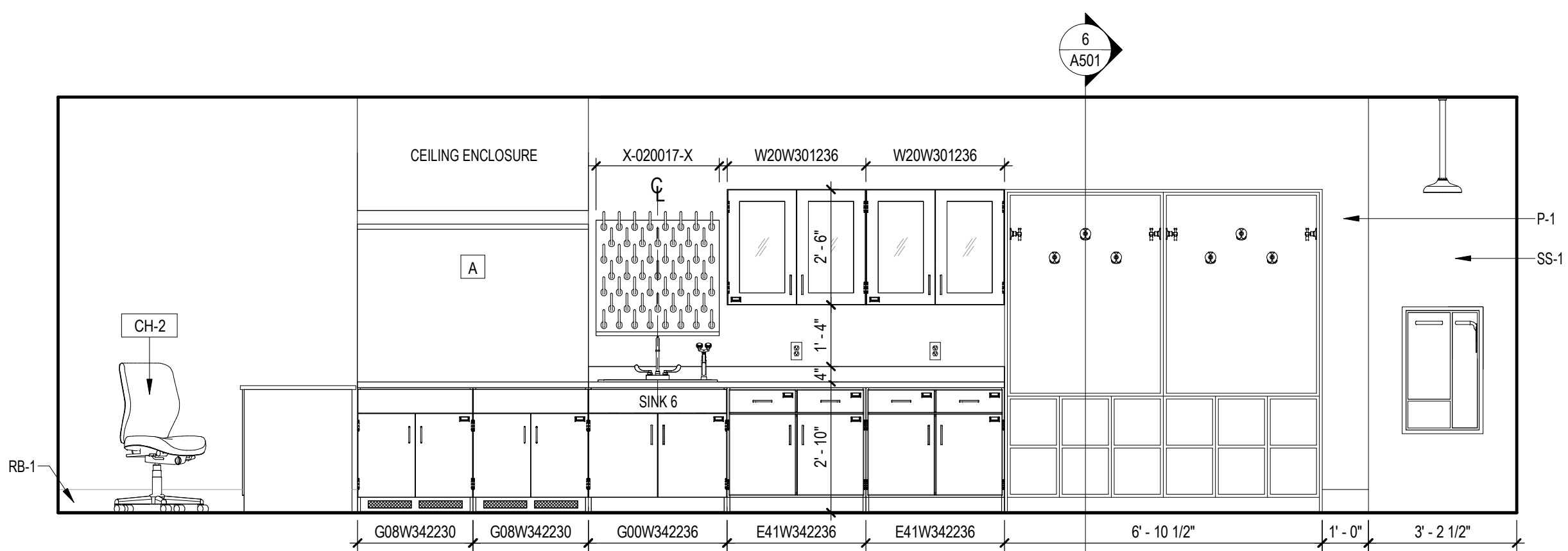
DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04/14/2026
DRAWING NO:

A401

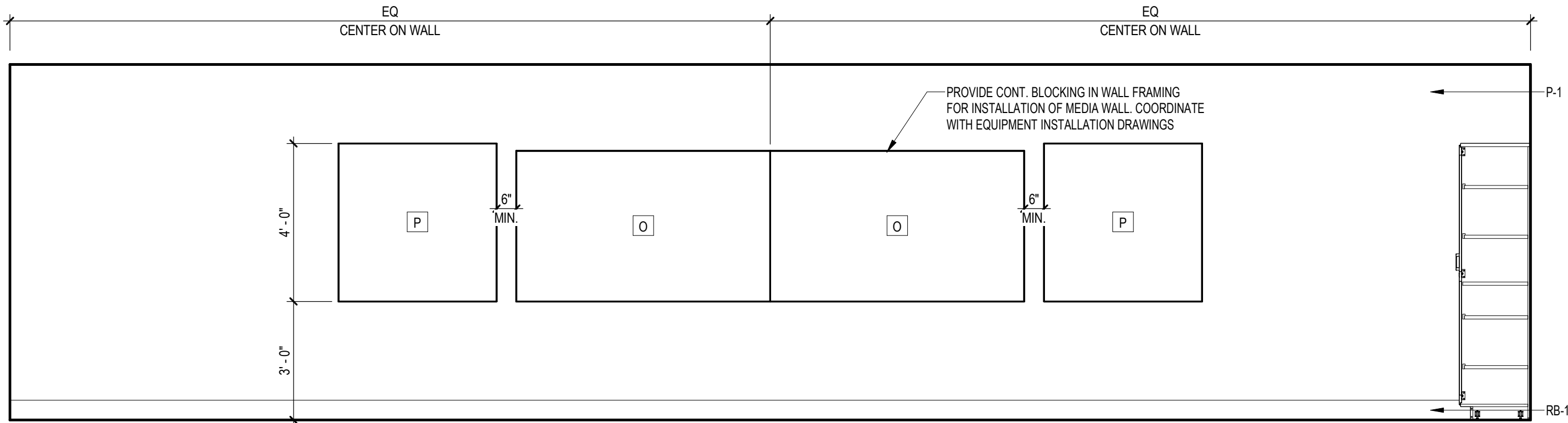
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



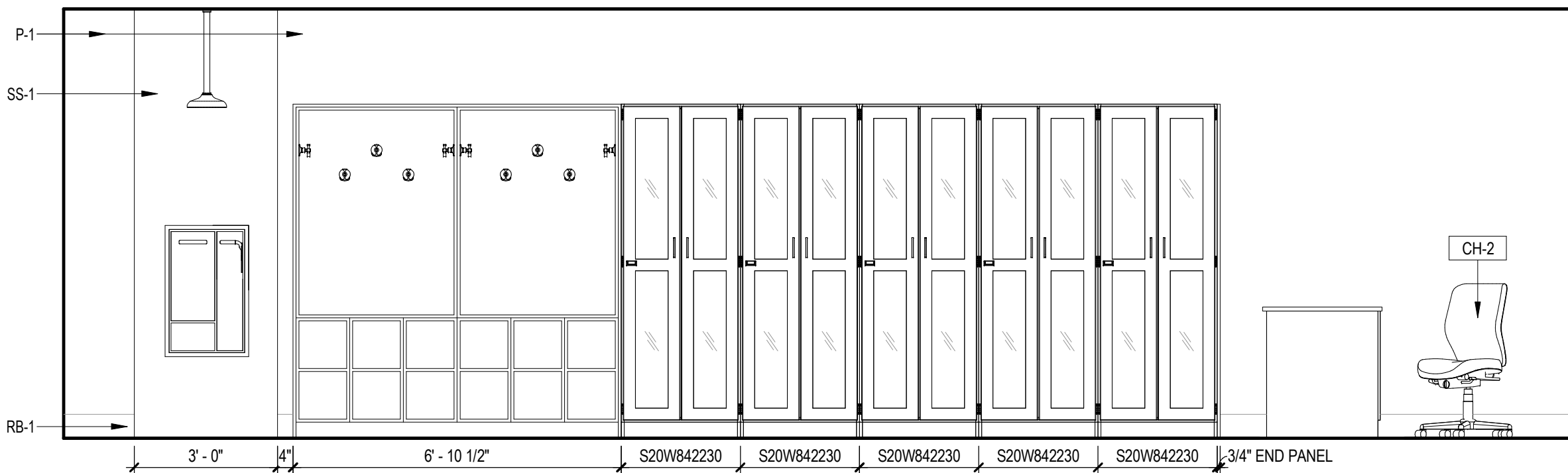
6 MICROBIO LAB CASEWORK ELEVATION EAST
3/8" = 1'-0"



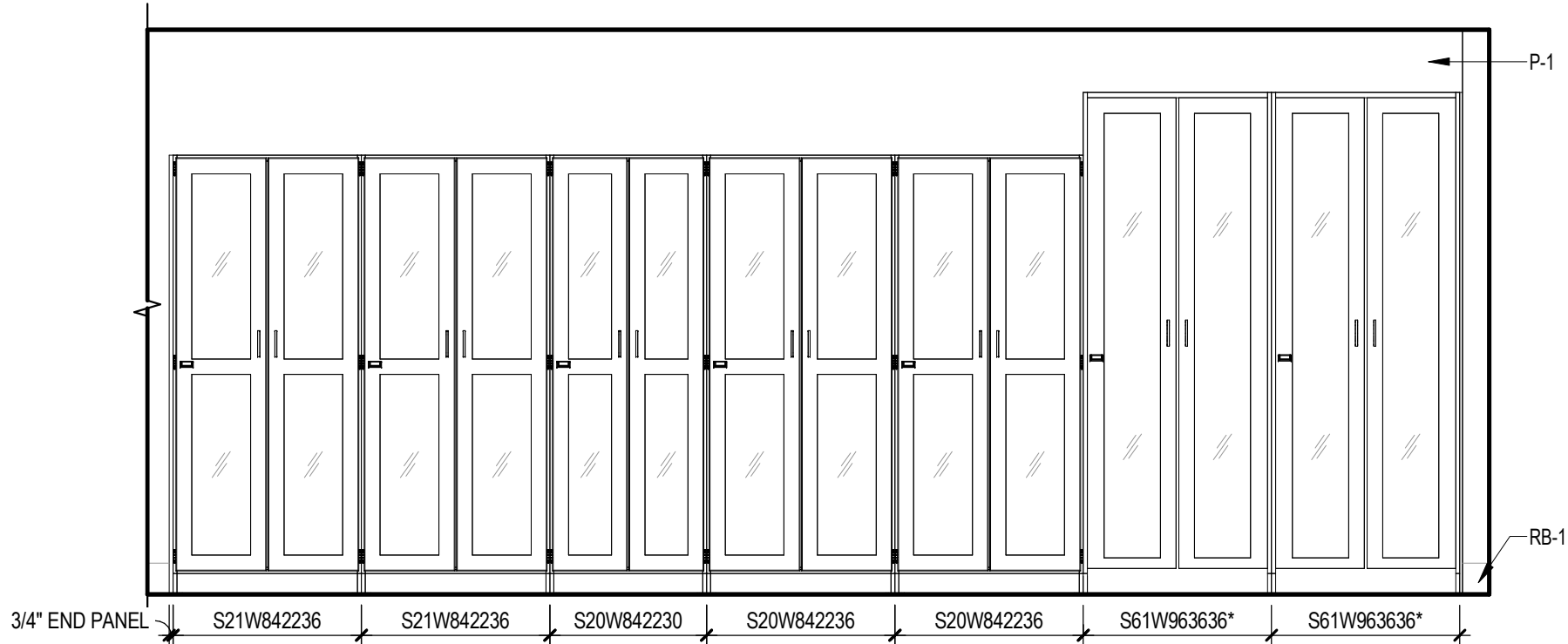
5 MICROBIO LAB CAEWORK ELEVATION WEST
3/8" = 1'-0"



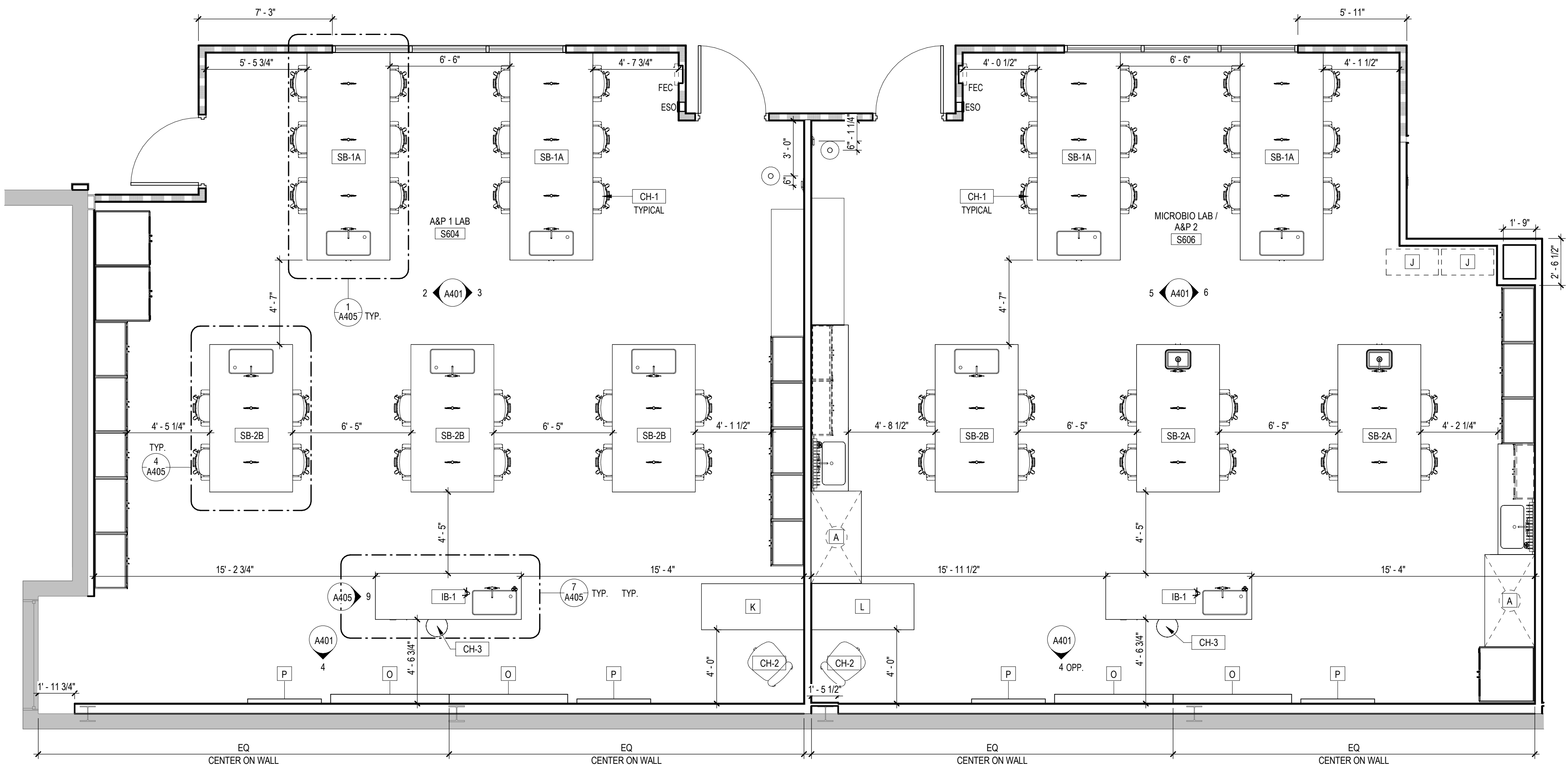
4 A&P 1 AND A&P 2 MEDIA WALL ELEVATION
3/8" = 1'-0"



3 A&P 1 LAB CASEWORK ELEVATION EAST
3/8" = 1'-0"

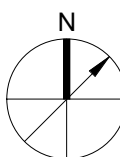


2 A&P 1 LAB CASEWORK ELEVATION WEST
3/8" = 1'-0"



SIXTH FLOOR - S WING - ENLARGED FLOOR PLAN - A&P 1 LAB AND
MICROBIO LAB / A&P 2

1 1/4" = 1'-0"



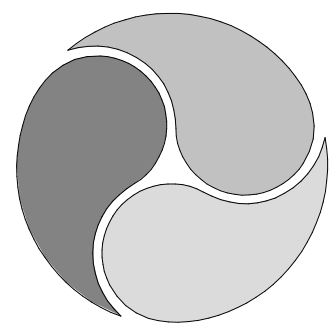
E

D

C

B

A



AE WORKS

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
**BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS**

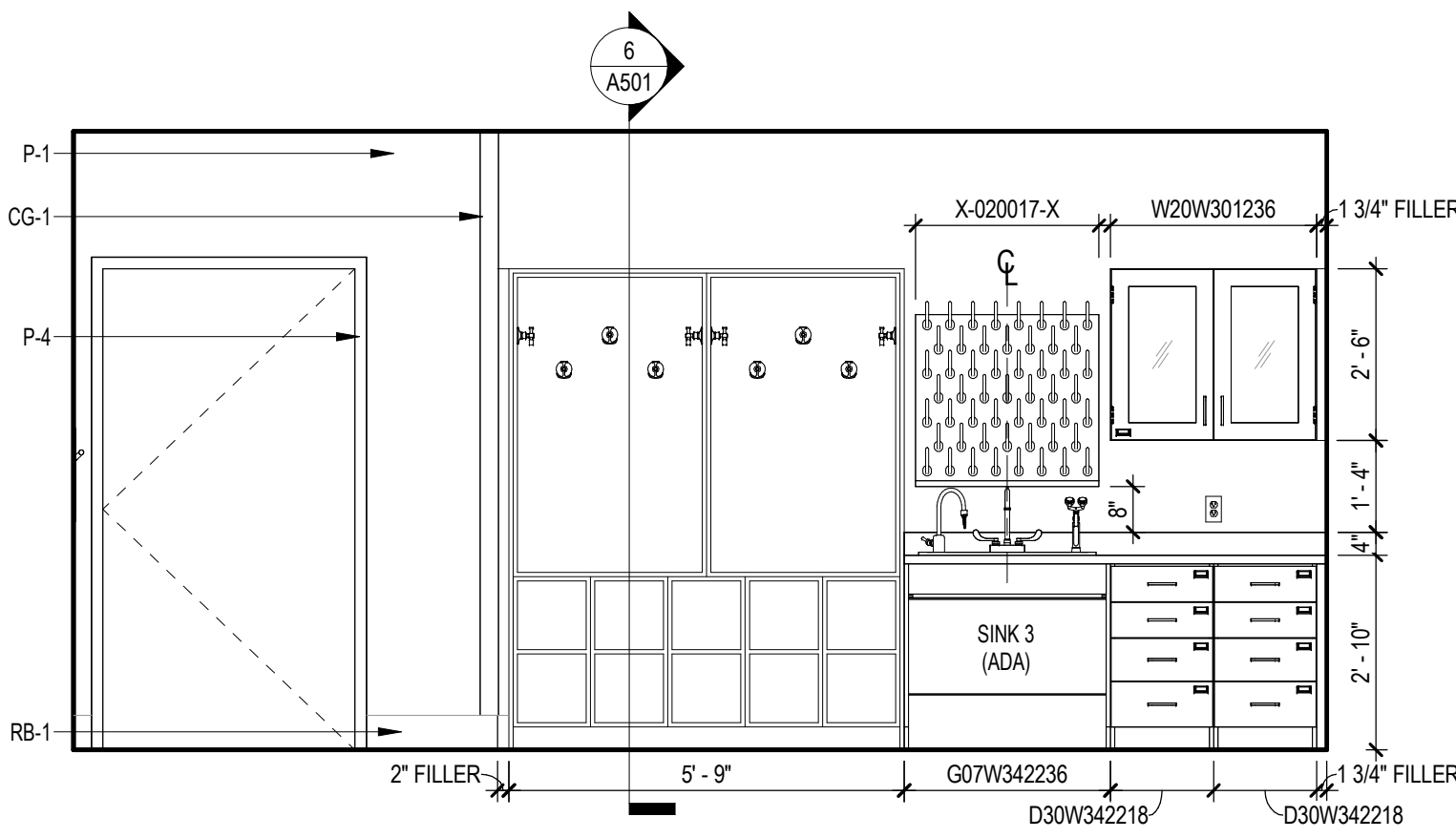
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
**GENBIO 1 AND GENBIO 2
ENLARGED PLAN AND
CASEWORK
ELEVATIONS**

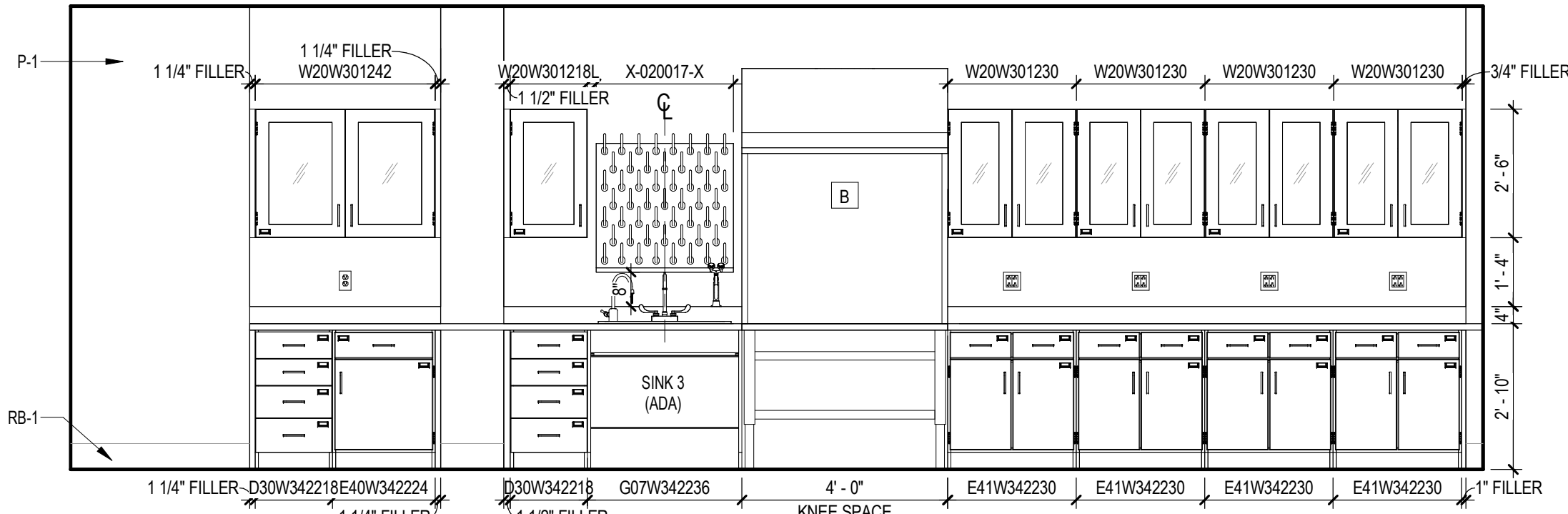
DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04/14/2026
DRAWING NO:

A402

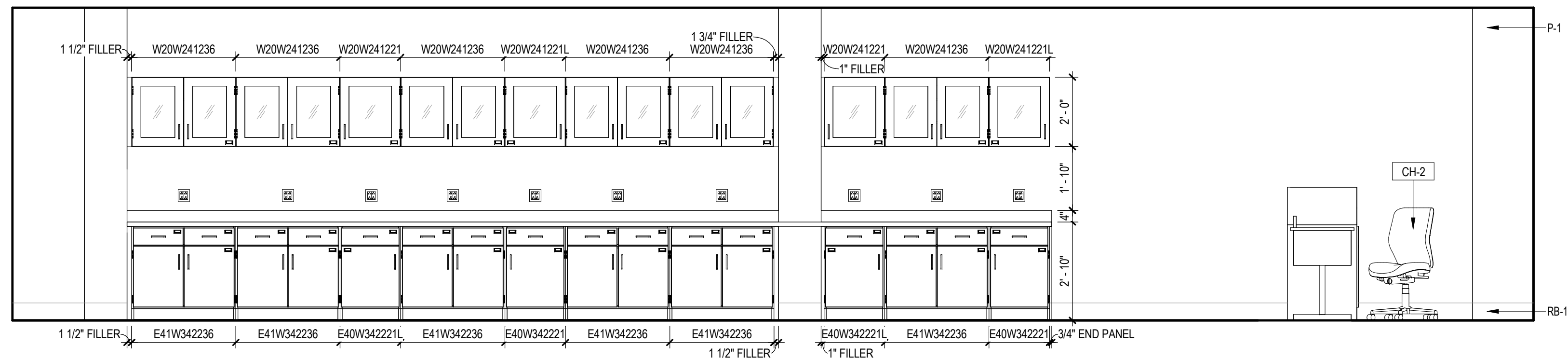
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



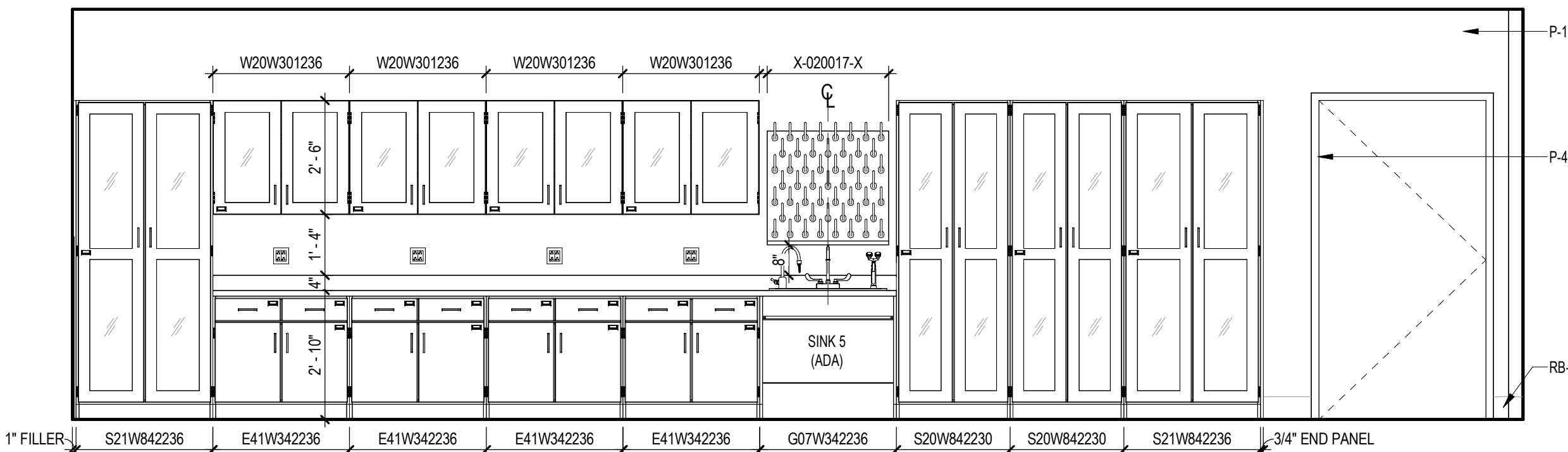
7 GEN BIO 2 CASEWORK ELEVATION WEST
3/8" = 1'-0"



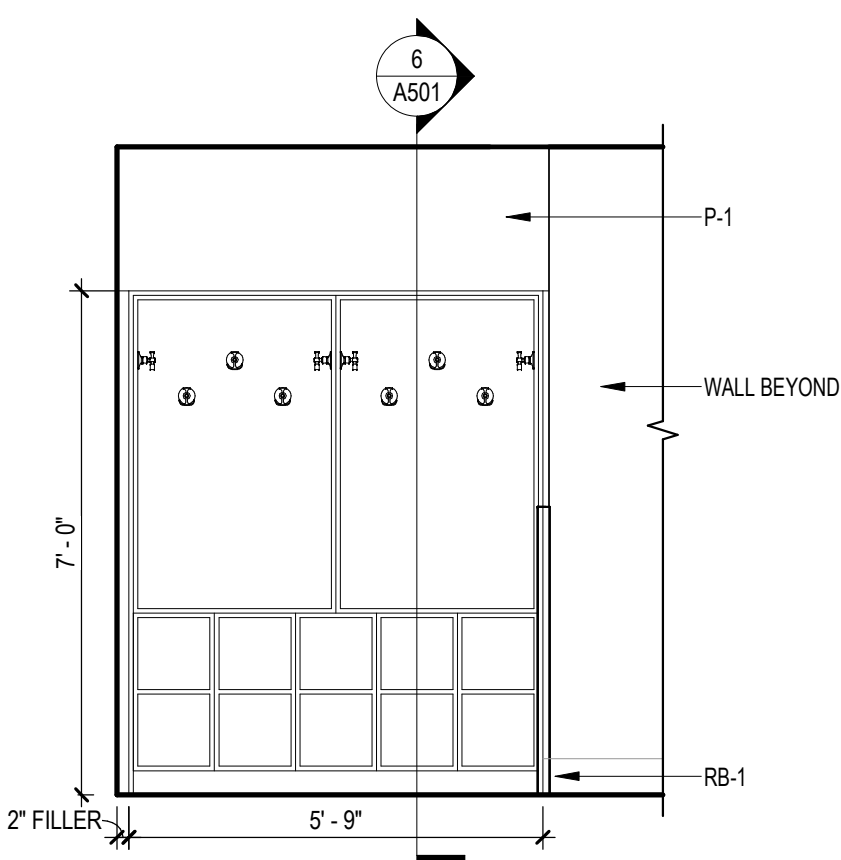
6 GEN BIO 2 CASEWORK ELEVATION NORTH
3/8" = 1'-0"



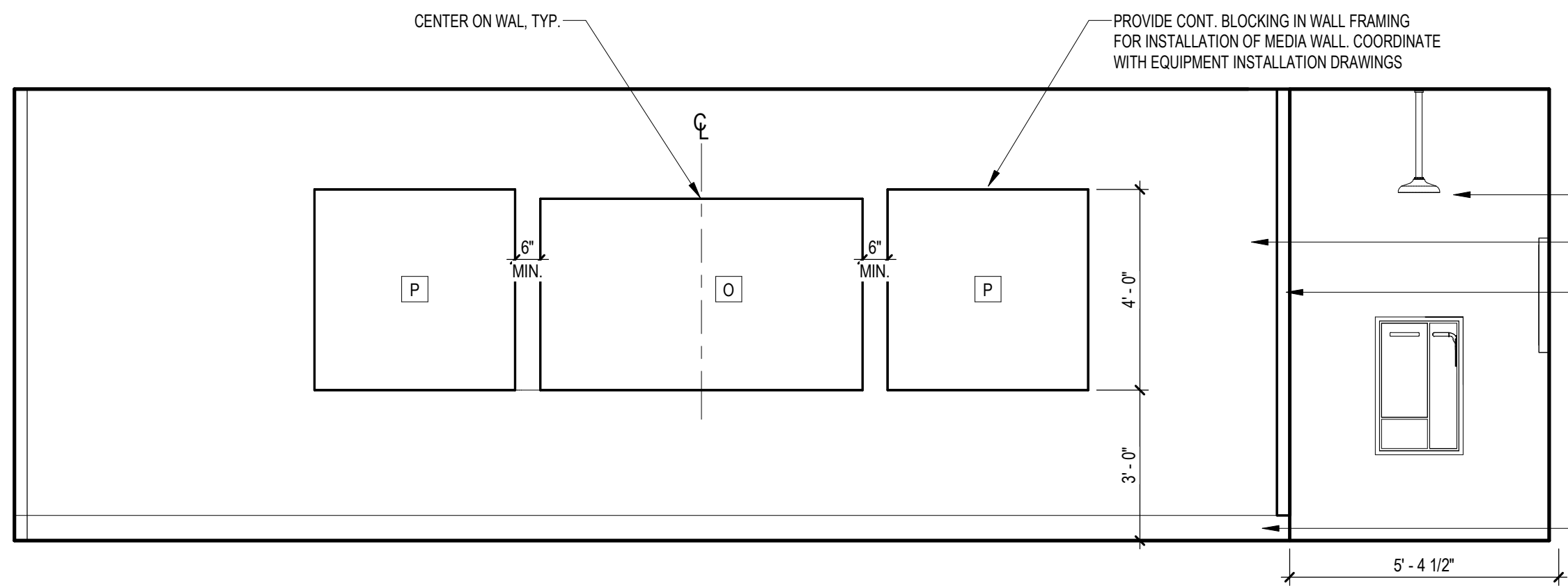
5 GEN BIO 1 CASEWORK ELEVATION SOUTH
3/8" = 1'-0"



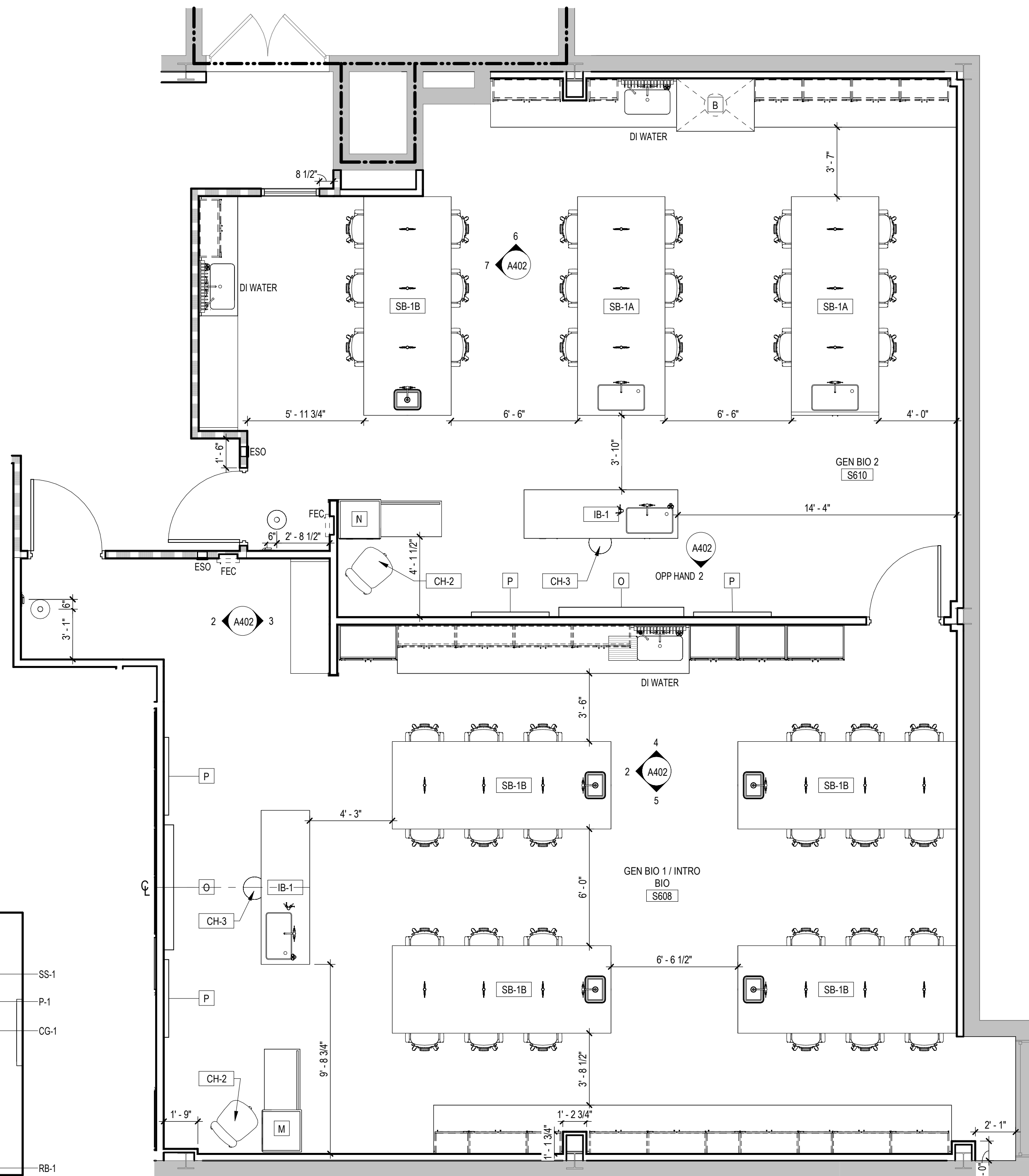
4 GEN BIO 1 CASEWORK ELEVATION NORTH
3/8" = 1'-0"



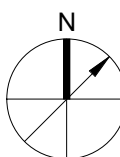
3 GEN BIO 1 CASEWORK ELEVATION EAST
3/8" = 1'-0"



2 GEN BIO 1 AND GEN BIO 2 MEDIA WALL ELEVATION
3/8" = 1'-0"



SIXTH FLOOR - S WING - ENLARGED FLOOR PLAN - GENBIO 1 AND GENBIO 2
1/4" = 1'-0"



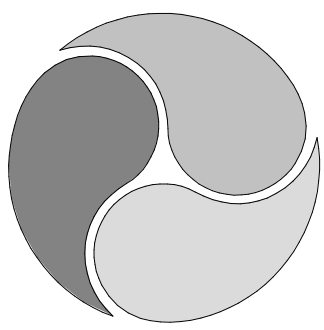
ACCESSORY SCHEDULE

MARK	TYPE	MANUFACTURER	PRODUCT NUMBER	MOUNTING TYPE	OF	CF	OI	CI
A-1	18" GRAB BAR	BOBRICK	8-6806x18" SST SATIN	SURFACE		X		X
A-2	36" GRAB BAR	BOBRICK	8-6806x36" SST SATIN	SURFACE		X		X
A-3	42" GRAB BAR	BOBRICK	8-6806x42" SST SATIN	SURFACE		X		X

OF = OWNER FURNISHED
CF = CONTRACTOR FURNISHED
OI = OWNER INSTALLED
CI = CONTRACTOR INSTALLED

REFER TO SHEET A001 FOR MOUNTING DIMENSIONS
FOR ALL FIXTURES AND ACCESSORIES.

REINSTALL TOILET PAPER AND SANITARY NAPKIN DISPENSERS
AT TOILET STALLS



AE WORKS

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

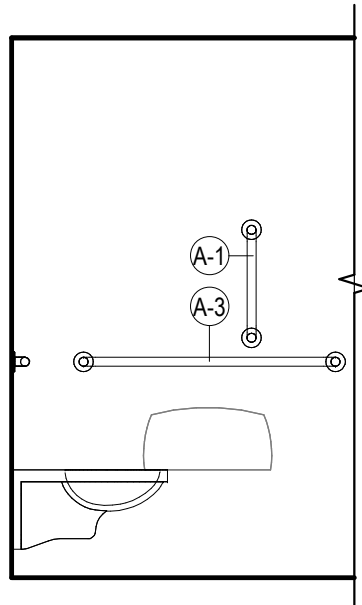
595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
PREP ROOM ENLARGED
PLAN AND CASEWORK
ELEVATIONS

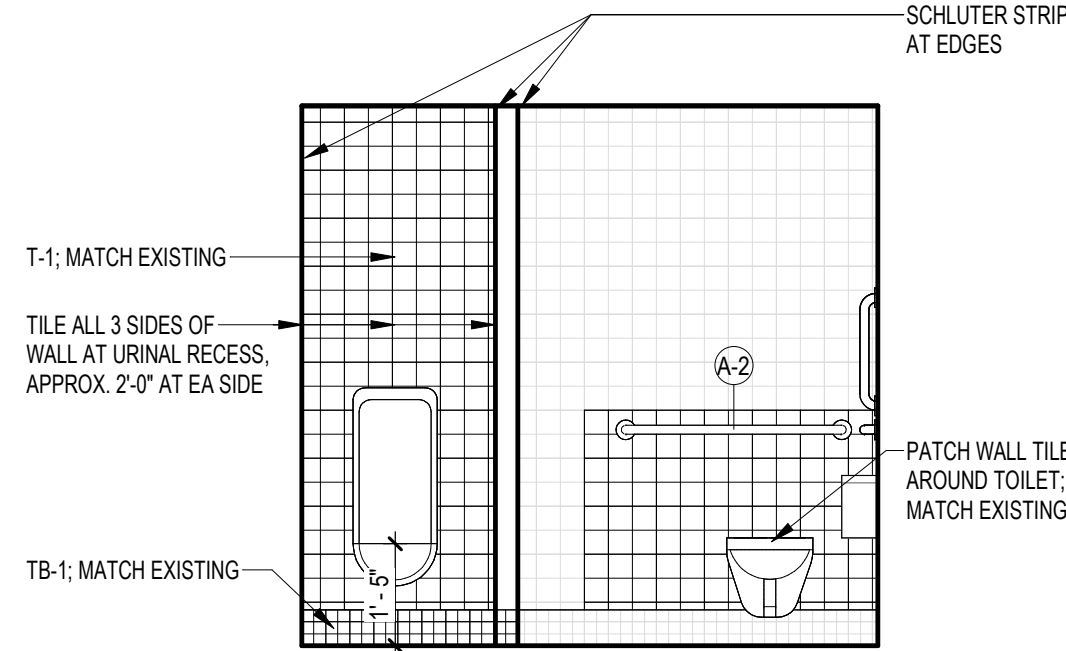
DRAWN BY: AD
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04/14/2026
DRAWING NO:

A403

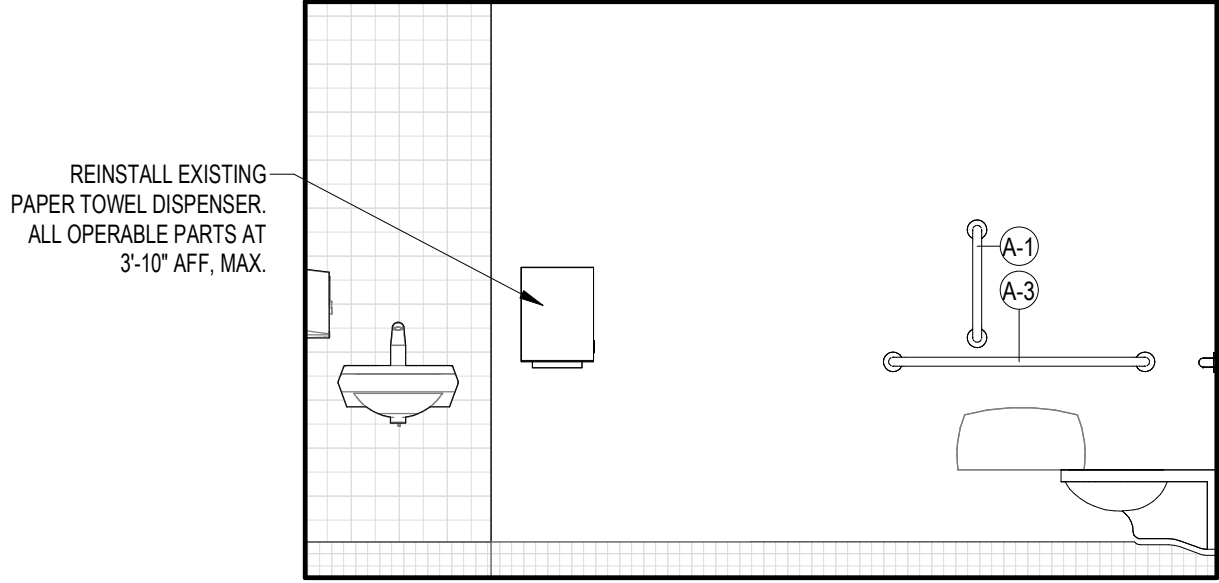
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



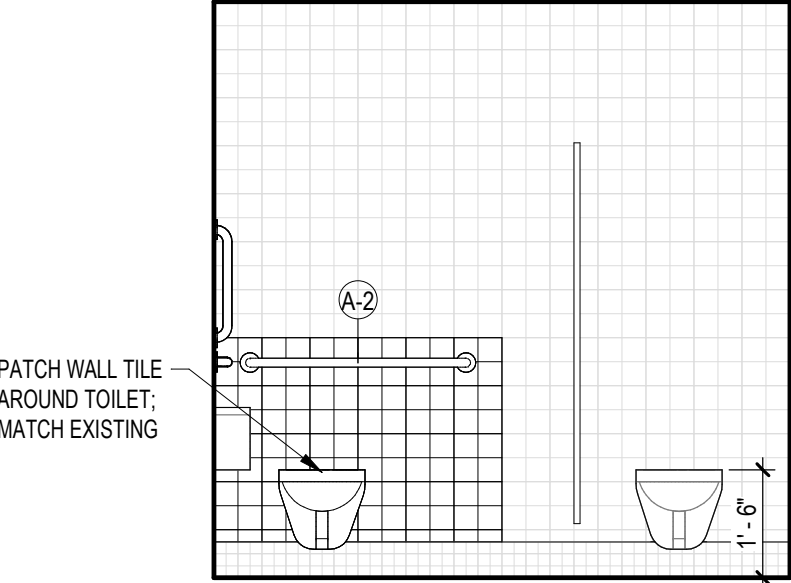
12 MENS TOILET ROOM ELEV SOUTH
3/8" = 1'-0"



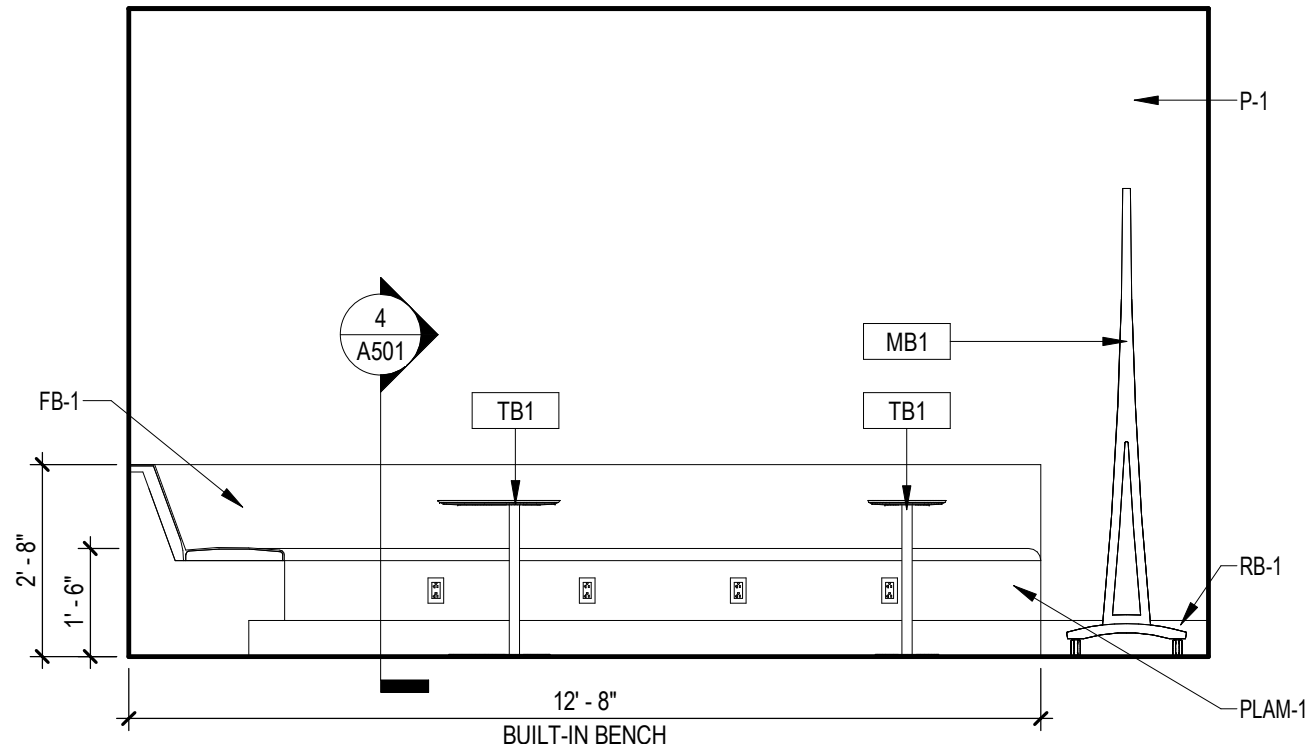
9 MENS TOILET ROOM ELEV EAST
3/8" = 1'-0"



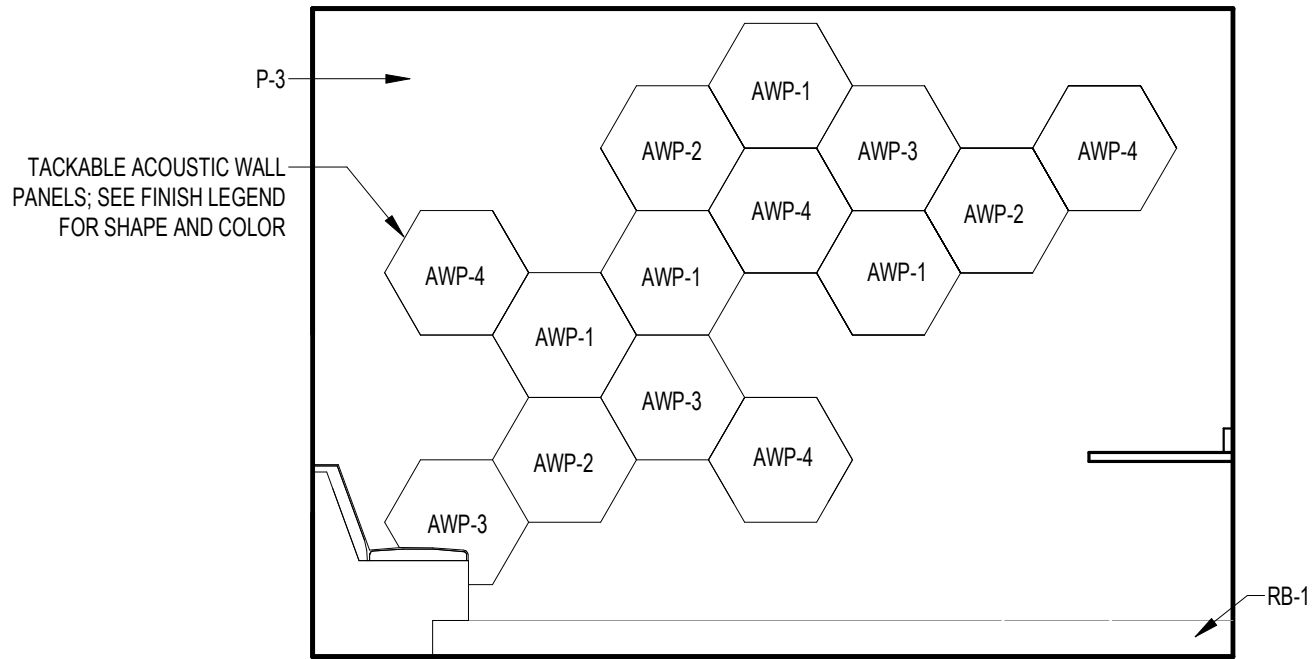
10 WOMENS TOILET ROOM ELEV SOUTH
3/8" = 1'-0"



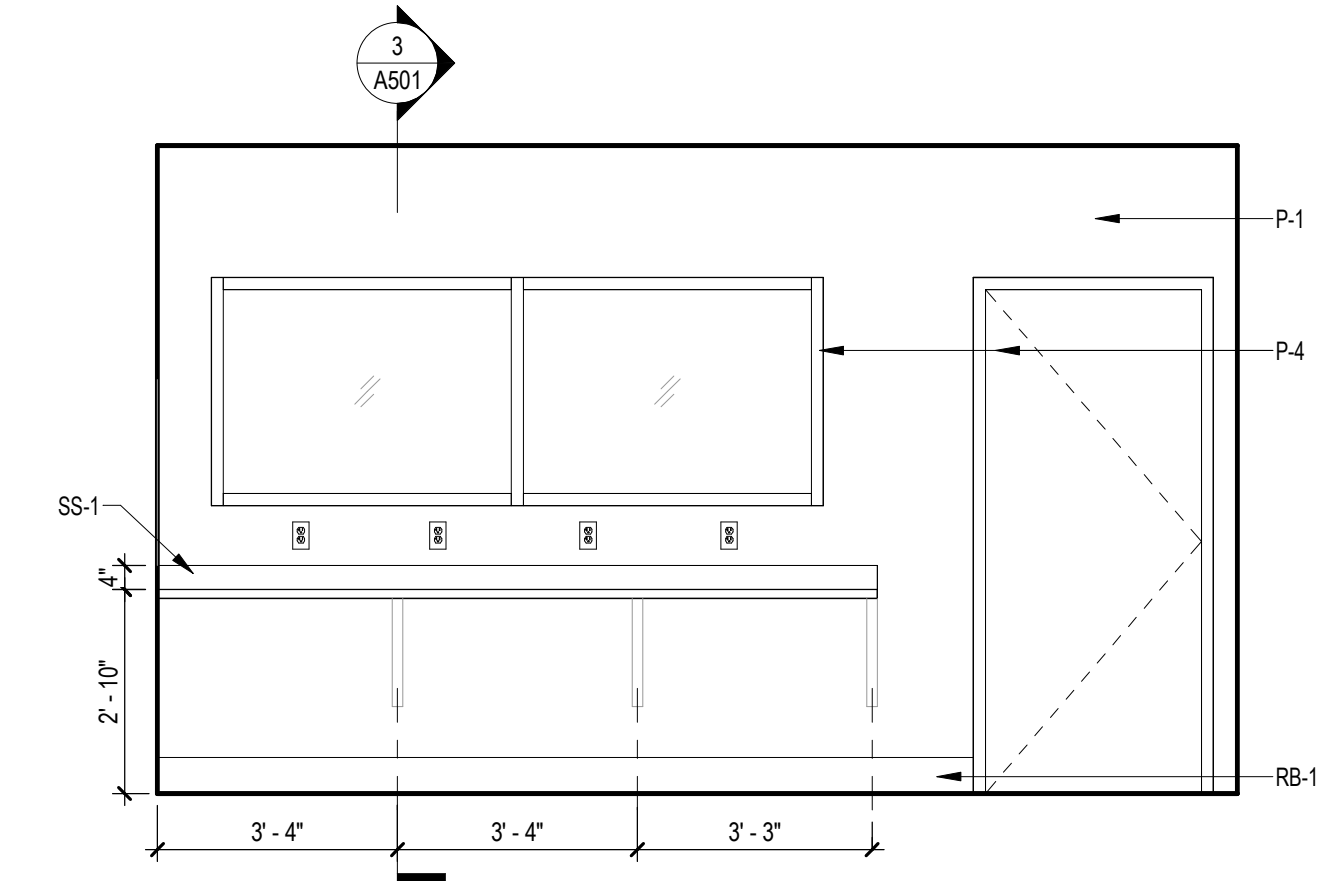
11 WOMENS TOILET ROOM ELEV WEST
3/8" = 1'-0"



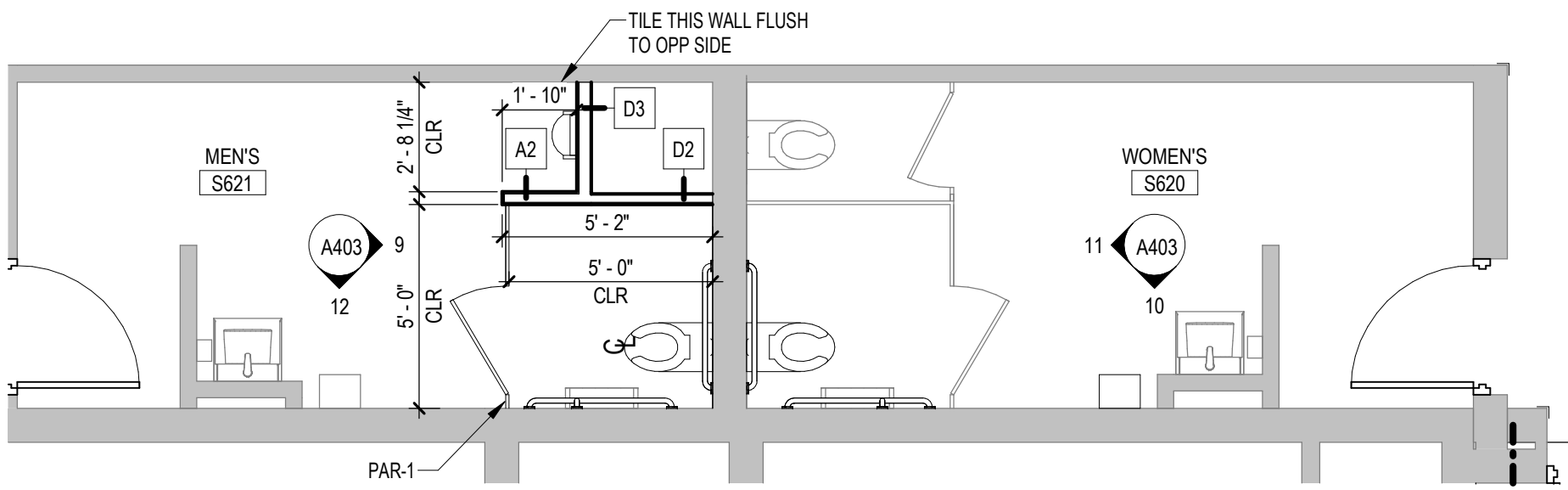
5 STUDENT LOUNGE BUILT IN BENCH ELEVATION
3/8" = 1'-0"



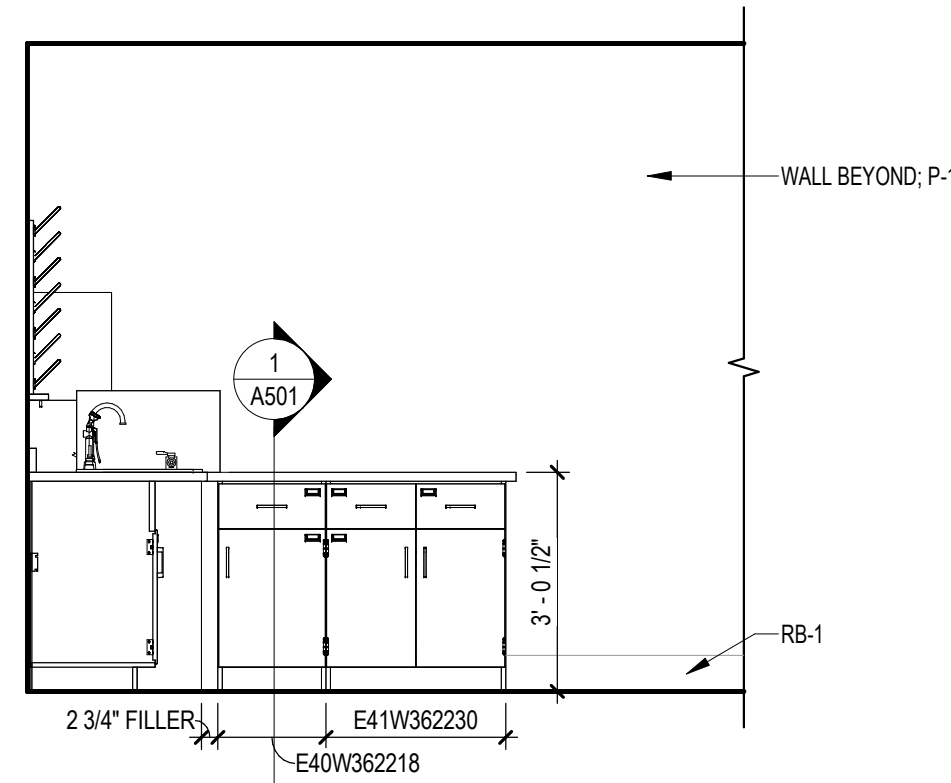
6 STUDENT LOUNGE ACCENT WALL ELEVATION
3/8" = 1'-0"



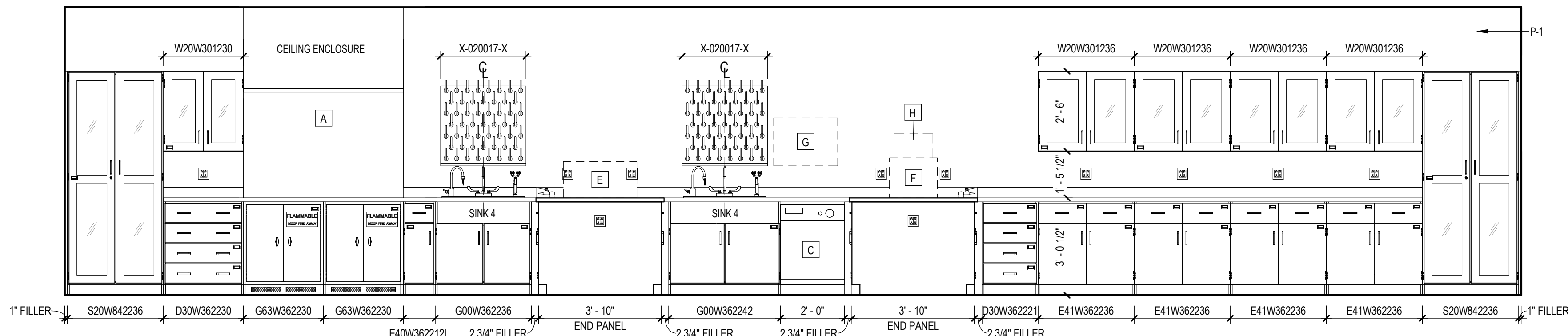
7 STUDENT LOUNGE COUNTERTOP ELEVATION
3/8" = 1'-0"



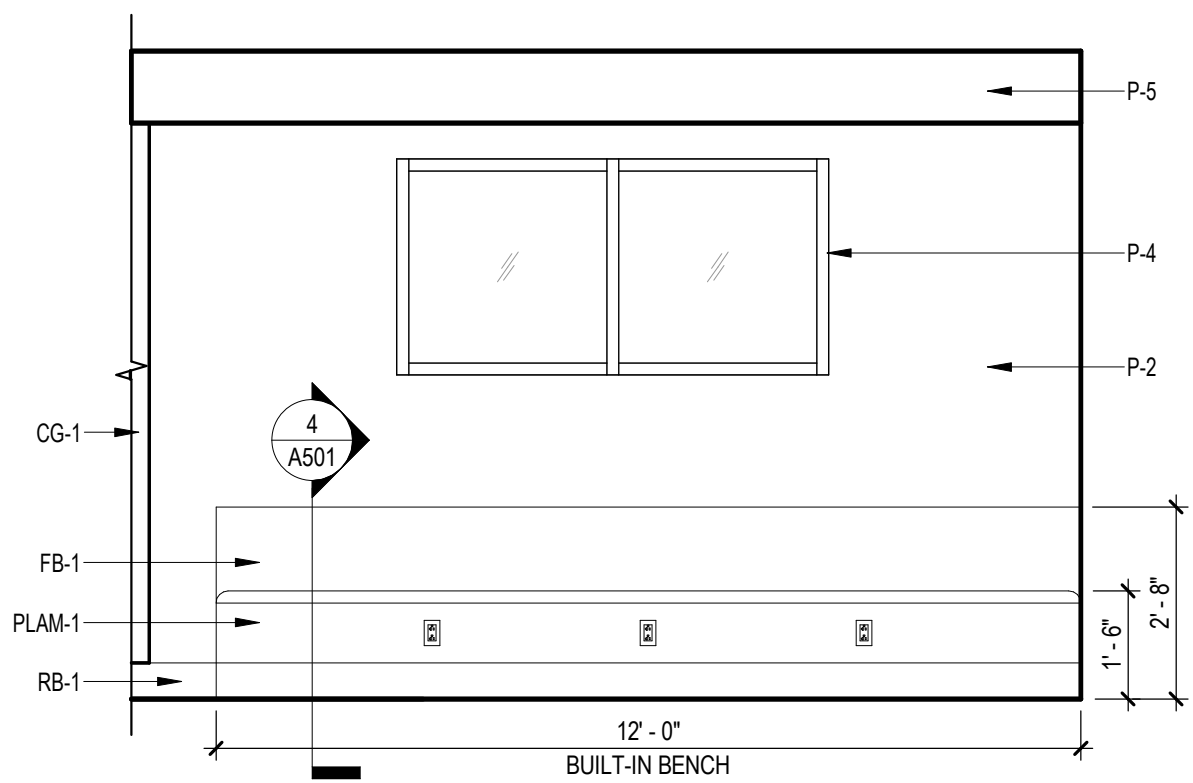
8 SIXTH FLOOR - S WING - ENLARGED FLOOR PLAN - TOILET ROOM
1/4" = 1'-0"



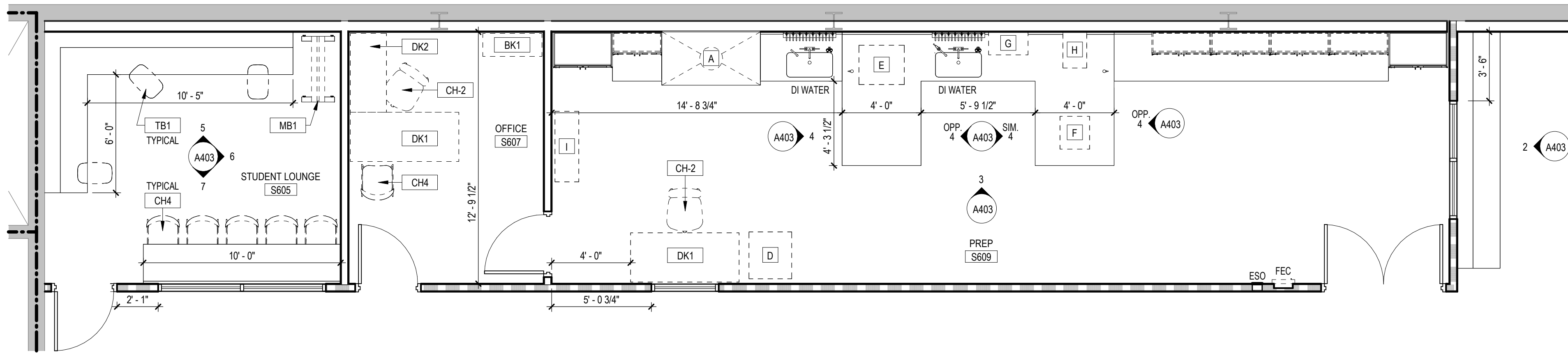
4 PREP PENINSULA CASEWORK TYP. ELEVATION
3/8" = 1'-0"



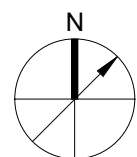
3 PREP CASEWORK ELEVATION NORTH
3/8" = 1'-0"

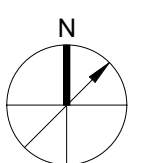


2 BUILT-IN BENCH ELEVATION
3/8" = 1'-0"



1 SIXTH FLOOR - S WING - ENLARGED FLOOR PLAN - PREP ROOM
1/4" = 1'-0"







6 LAB CUBBY CABINET

5 TYPICAL WALL AND BASE CABINET

4 BUILT IN BENCH DETAIL

3 COUNTERTOP SUPPORT BRACKET

2 STUDENT LAB BENCH DETAIL

1 TYPICAL PENNINSULA CABINETS



Figure 1: Typical cross-section of the bridge deck. The diagram shows a cross-section of a bridge deck with a total width of 46 feet. It is divided into five main sections labeled W1, W2, W3, W4, and W5. W1 contains three FG-1 units, each 4'-0" wide, with 2" gaps between them and 2" from the left edge. W2 contains one FG-1 unit, 3'-0" wide, with 2" gaps on both sides. W3 contains two FG-1 units, each 4'-0" wide, with 2" gaps between them and 2" from the left edge. W4 contains one FG-1 unit, 3'-1" wide, with 2" gaps on both sides. W5 contains two FG-1 units, each 2'-9" wide, with 2" gaps between them and 2" from the left edge. The total width is 46'-0". The height of the deck is 2'-0".

SIXTH FLOOR													
SRCH	UNEQUAL PAIR	2'-6"	7'-0"	D	HM	EX	HM	EX	EX	2	45 MIN	No	3'-0" X 2'-0" PANELS, MAG HOLD OPEN
S604A		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	1	20 MIN	Yes	
S604B		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	1	20 MIN	Yes	
S605		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	3	20 MIN	No	
S606		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	1	20 MIN	Yes	
S607		3'-0"	7'-0"	F	HM	F1	HM	H1	J1	4	20 MIN	No	
S608A		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	1	20 MIN	Yes	
S608B		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	4		No	
S609A		3'-0"	7'-0"	N	HM	F1	HM	H1	J1	4		No	
S609B		3'-0"	7'-0"	D	HM	F2	HM	H2	J1	5	20 MIN	Yes	
S610	PR	3'-0"	7'-0"	N	HM	F1	HM	H1	J1	1	20 MIN	Yes	
S620		3'-0"	7'-0"	F	HM	EX	HM	EX	EX	6			REPLACE AT THE COMPLETION OF CONSTRUCTION
S621		3'-0"	7'-0"	F	HM	EX	HM	EX	EX	6			REPLACE AT THE COMPLETION OF CONSTRUCTION

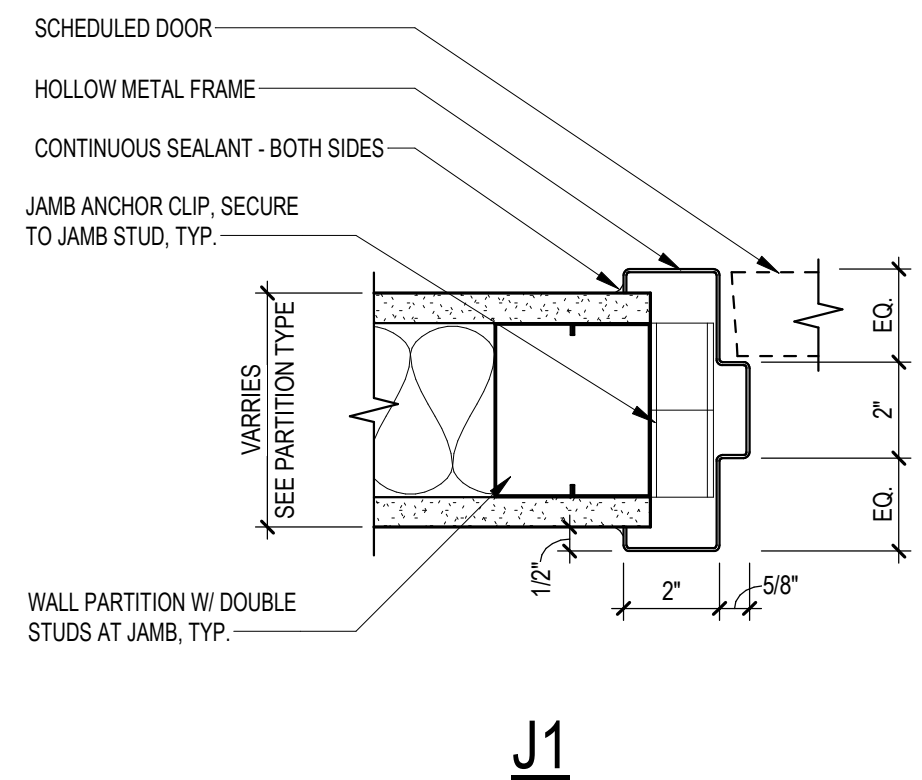
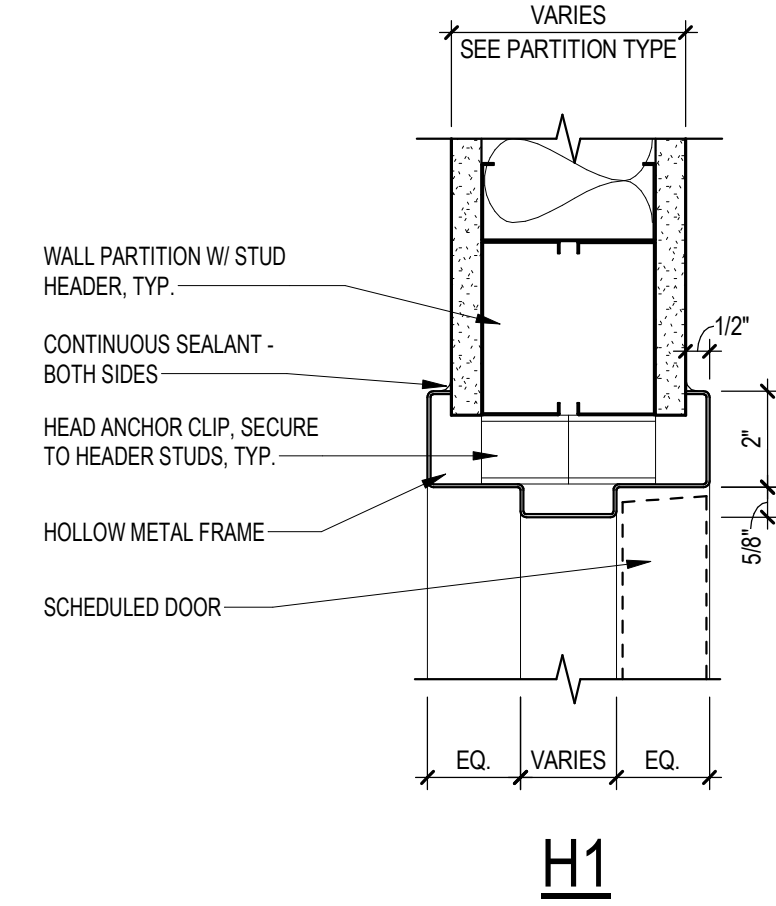
Technical drawings of door frames F1 and F2. F1 is a 'RABBIT FRAME' and F2 is a 'RABBIT FRAME - DOUBLE DOOR'. Both drawings show dimensions: 'Z' for height and 'Z' for width, with 'SEE SCHEDULE' text indicating where to find specific values.

Figure 1 consists of two schematic diagrams of door configurations. The left diagram is labeled 'FG-1 (RATED DOORS)' and 'G-1 (UNRATED DOORS)'. It shows a door with a single vertical handle and a diagonal dashed line. The right diagram is labeled 'FG-1' and shows a door with two vertical handles and a diagonal dashed line. Both diagrams are labeled with 'F' and 'N' at the bottom. The left diagram also has a dimension line indicating '7' 4" MAX'.

Diagram illustrating the components of a partition symbol:

- PARTITION INDICATED ON PLANS
- PARTITION GROUP DESIGNATOR
- PARTITION TYPE DESIGNATOR

2. REFER TO FLOOR PLANS FOR PARTITION TYPE LOCATIONS.
3. ALL BATH ROOMS PROVIDE, MOISTURE RESISTANT GYP BD. ON ALL WALLS AND CEILINGS
3. ALL ROOMS OTHER THAN BATH ROOMS WHICH CONTAIN SINKS OR OTHER PLUMBING FIXTURES PROVIDE MOISTURE RESISTANT GYP BD. ON THE WET WALL AND RETURN 4" OF THE SIDE WALLS
4. AT SHOWERS AND OTHER VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE THE FINISHES, PROVIDE ONE LAYER OF CEMENTITIOUS BACKER BOARD IN PLACE OF THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION, ON RATED WALLS, AT SHOWERS AND OTHER VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE THE FINISHES, PROVIDE ONE LAYER OF GYPSUM BOARD IN ADDITION TO THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION. MAINTAIN RATED WALL CONSTRUCTION AT THESE LOCATIONS.
5. ALL GYPSUM BOARD SHALL BE 5/8 THICK, UNO, AT FIRE RATED ASSEMBLIES. PROVIDE TYPE 'X' GYP. BD. MINIMUM, OR AS REQUIRED BY FIRE RATED ASSEMBLY.
6. FOR FIRE RATED ASSEMBLIES, OBTAIN AND FULLY CONFORM TO DESIGN REQUIREMENTS OF UNDERWRITERS LABORATORIES, (INQ) FOR EACH PARTITION ASSEMBLY, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY A DETAIL, OR NOTE, AS ALLOWED BY THE DESIGN.
7. FIRE-RESISTANCE RATED & STC-RATED PARTITIONS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE TESTED ASSEMBLY, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE.
8. STC-RATED PARTITION CONSTRUCTION SHALL HAVE ALL PENETRATIONS AND INTERSECTIONS SEALED AIR TIGHT WITH ACOUSTICAL SEALANT.
9. SEPARATE METALLIC OUTLETS OR SWITCH BOXES LOCATED ON OPPOSITE SIDES OF WALLS OR PARTITIONS AT A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES (UNO, IN, NC).
10. REFER TO SPECIFICATIONS FOR VERTICAL PARTITION SPACING CRITERIA AND METAL STUD GAUGES, UNO.
11. REFER TO FINISH SCHEDULE AND REFLECTED CEILING PLANS FOR THE CEILING TYPE AND HEIGHT. COORDINATE HEIGHTS OF GYP. BD. WITH CEILING HEIGHTS AND WITH PARTITION DETAILS INDICATED.
12. REFER TO FINISH SCHEDULE, FINISHES PLANS, INTERIOR ELEVATIONS, INTERIOR DETAILS AND ARCHITECTURAL CASEWORK DETAILS FOR WALL, FURNITURE AND WALL, MOUNTED ACCESSORIES TO COORDINATE LOCATIONS.
13. PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL, OR CEILING MOUNTED EQUIPMENT, ARCHITECTURAL, CASEWORK, LIGHTING, OR OTHER MISCELLANEOUS ITEMS & EQUIPMENT MOUNT TO ASSURE A PROPER INSTALLATION, ALL BLOCKING TO BE NON COMBUSTIBLE IF THE CONSTRUCTION TYPE IS NONE COMBUSTIBLE.
14. ALL DOOR OPENINGS ARE TO BE 4 INCHES FROM ADJACENT WALL UNO.
15. REFER TO LIFE SAFETY PLANS AND THE PROJECT CODE ANALYSIS SUMMARY FOR FURTHER WALL, FLOOR/CEILING ASSEMBLY RATING REQUIREMENTS.
16. MAINTAIN CONTINUOUS SMOKE/FIRE RATED PARTITION AT INTERSECTIONS OF RATED WALLS AND NON-RATED WALLS. MAINTAIN GYPSUM BOARD AT JUMBS AND EDGE OF NON-RATED WALLS AND OPENINGS IN RATED WALLS AS REQUIRED TO MAINTAIN WALL RATING.
17. ALL PARTITIONS ARE DIMENSIONED TO THE FINISH FACE OF GYP. BD.
18. ALL PARTITION THICKNESSES SHOWN ARE ACTUAL DIMENSIONS. FINISHED FACES OF PARTITIONS TO RUN FLUSH CONTINUOUS AND SMOOTH, UNO.
19. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS SHALL BE PROVIDED PER THE PROJECT SPECIFICATIONS. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
20. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS AT RATED CONDITIONS SHALL BE INSTALLED PER GYPSUM ASSOCIATION GUIDELINES (A-234-08), UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL, OR NOTE. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
21. REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATIONS & REINFORCEMENT REQUIREMENTS OF MASONRY PARTITIONS.
22. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
23. ALL IN WALL ELECTRICAL ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR.
24. ALL IN LOW VOLTAGE & TELEDATA ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH LOW VOLTAGE CONTRACTOR.

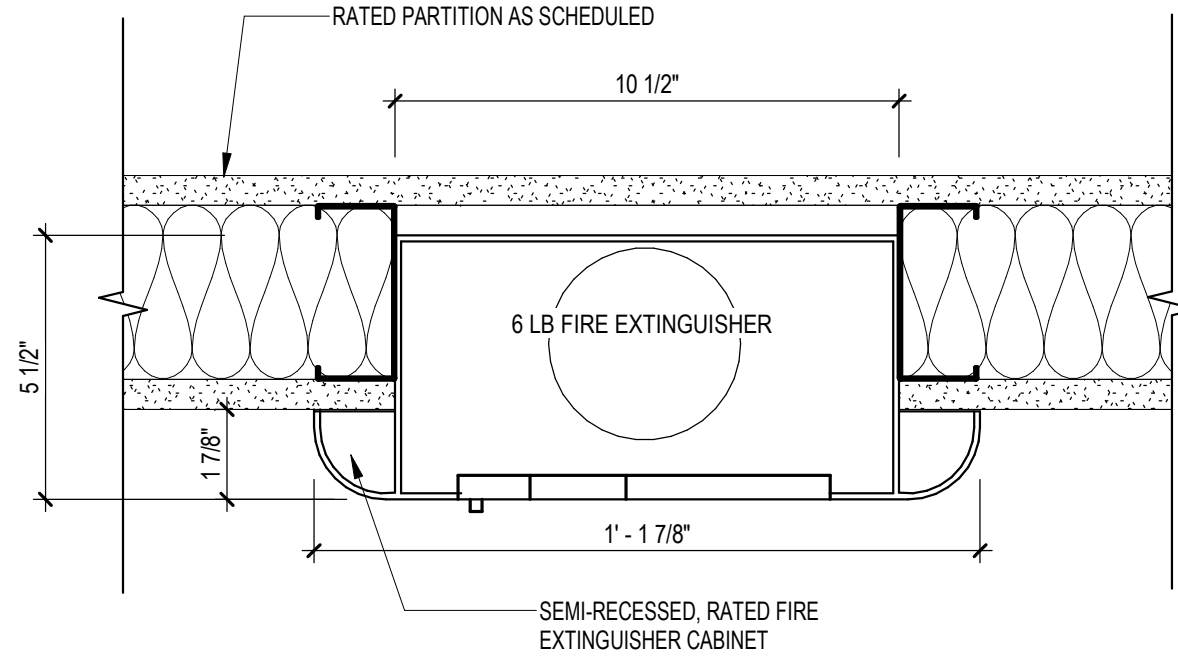


The diagrams illustrate the construction of a 15'-0" partition wall from floor to underside of roof deck. The top diagram shows the HEAD view with labels: WIDTH, REF SCHED, UNDERSIDE OF STRUCTURE, SEALANT BOTH SIDES, FIRE SEALANT REQUIRED AT RATED WALLS, L-BEAD IN FINISHED AREAS, STEEL TRACK, FASTEN 2"x4" OC MAX, and SCHED CEILING, REF RCP. The middle diagram shows the PLAN view with labels: 1 LAYER OF 5/8" TYPE 'C' GYP BD EACH SIDE - REF FINISH SCHED FOR FINISH, MTL STUD FR - REF SCHED FOR SIZE, SPACING & WIDTH AS SPEC, SOUND BATT INSUL. @ NON-RATED PARTITIONS, BATT INSULATION PER U/I DESIGN NUMBER @ RATED PARTITIONS, and SEALANT BOTH SIDES, FIRE SEALANT REQUIRED AT RATED WALLS. The bottom diagram shows the BASE view with labels: SEALANT BOTH SIDES, FIRE SEALANT REQUIRED AT RATED WALLS, STEEL TRACK, FASTEN 2"x4" OC MAX, and WALL BASE & FLOOR FIN - AS SCHEDULED.

NOTE:
 APPROX. 15'-0" PARTITION HEIGHT FROM FLOOR TO UNDERSIDE OF ROOF DECK

The diagrams illustrate the construction details of a wall assembly in three views:

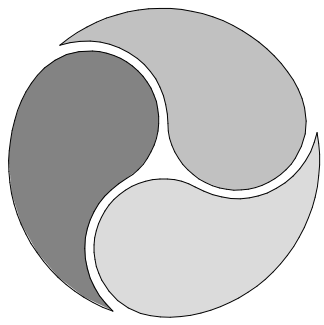
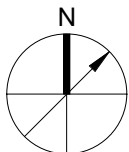
- HEAD:** Shows the top section of the wall. Labels include:
 - WIDTH
 - REF SCHED
 - UNDERSIDE OF STRUCTURE
 - STEEL TRACK, FASTEN 2'-0" OC MAX
 - to
 - SCHED CEILING, REF RCP
- PLAN:** Shows the side view of the wall. Labels include:
 - 1 LAYER 5/8" GYP BD ONE SIDE, USE CEMENTITIOUS BD AT WET AREAS REF - FIN SCHED FOR FIN
 - MTL STUD FR - REF SCHED FOR SIZE, SPACING & WIDTH AS SPEC
- BASE:** Shows the bottom section of the wall. Labels include:
 - STEEL TRACK, FASTEN 2'-0" OC MAX
 - SEALANT
 - WALL BASE & FLOOR FIN - AS PER SCHED



PARTITION TYPES

TYPE	OVERALL WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
A2	3 3/4"	2 1/2"		0 hr		No	
A3	4 7/8"	3 5/8"		0 hr		Yes	
A4	4 7/8"	3 5/8"		1 hr		Yes	Type X Gypsum Board

TYPE	OVERALL WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
D1	2 1/4"	1 5/8"		0 hr		No	
D2	3 1/8"	2 1/2"		0 hr		No	
D3	4 1/4"	3 5/8"		0 hr		Yes	
D5	6 5/8"	6"		0 hr		Yes	

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

[illegible]

PROFESSIONAL



PROJECT NAME:
BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
DOOR / PARTITION
SCHEDULE AND DETAILS

DRAWN BY: TW
CHECKED BY: FS
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO:

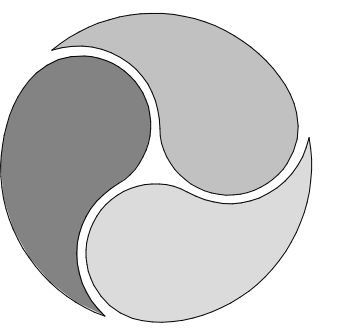
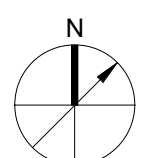
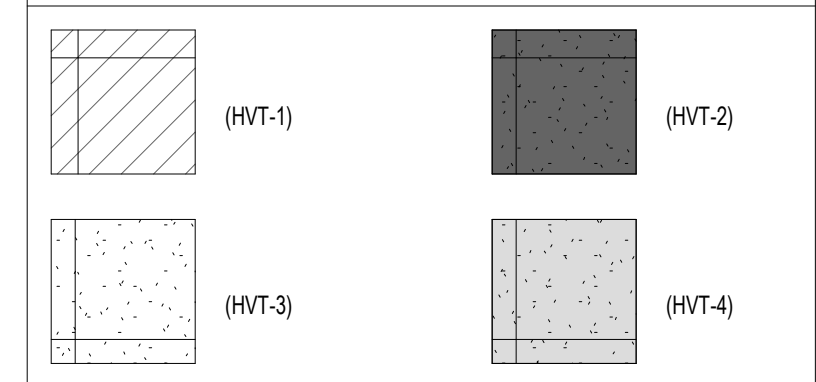
A601



FINISH LEGEND

TAG	FINISH TYPE	MANUFACTURER	SERIES	PRODUCT NUMBER	COLOR	FINISH	SIZE	INSTALLATION / PATTERN	REMARKS
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG CEILINGS	SCHOOL ZONE FINE FISURED	1713	WHITE	-	24" x 24"	15/16" SQUARE LAY-IN	SIXTH FLOOR UIN
ACOUSTIC WALL PANEL									
AMP-1	ACOUSTIC WALL PANEL	ACOUEFLT	SHAPES	HEXAGON	WHITE	-	24" x 24"	ADHESIVE	STUDENT LOUNGE
AMP-1	ACOUSTIC WALL PANEL	ACOUEFLT	SHAPES	HEXAGON	PLATINUM	-	24" x 24"	ADHESIVE	STUDENT LOUNGE
AMP-3	ACOUSTIC WALL PANEL	ACOUEFLT	SHAPES	HEXAGON	SLATE	-	24" x 24"	ADHESIVE	STUDENT LOUNGE
AMP-4	ACOUSTIC WALL PANEL	ACOUEFLT	SHAPES	HEXAGON	PINK BLACK	-	24" x 24"	ADHESIVE	STUDENT LOUNGE
CORNER GUARD									
CG-1	CORNER GUARD	CS ACROVYN	CORNER GUARDS	FS-20R	MISSION WHITE	-	1 1/4" THICK	FLUSH MOUNT	FLOOR TO CEILING
CG-2	CORNER GUARD	CS ACROVYN	CORNER GUARDS	TFC	MISSION WHITE	-	1 1/4" THICK	SURFACE MOUNT	FLOOR TO CEILING
CG-3	CORNER GUARD	CS ACROVYN	CORNER GUARDS- END CAP	PSC-15	MISSION WHITE	-	1 1/4" THICK	FLUSH MOUNT	FLOOR TO CEILING
FABRIC									
FB-1	FABRIC	DESIGNTEX	TOUR	3072-806	FORTHRIGHT	ADVANCED PROTECTIVE TOPCOAT	54" W	-	BUILT-IN BENCH
HOMOGENEOUS VINYL TILE									
HVT-1	HOMOGENEOUS VINYL TILE	PATCFRAC	NUMIX	05650	RUBY FLECK	MATTE	36" x 36"	GLUE DOWN GRID	CORRIDOR FIELD TILE
HVT-2	HOMOGENEOUS VINYL TILE	PATCFRAC	NUMIX	05651	RUBY SOLID	MATTE	36" x 36"	GLUE DOWN GRID	CORRIDOR ACCENT TILE
HVT-3	HOMOGENEOUS VINYL TILE	PATCFRAC	NUMIX	05650	PEBBLE FLECK	MATTE	36" x 36"	GLUE DOWN GRID	LAB FIELD TILE
HVT-4	HOMOGENEOUS VINYL TILE	PATCFRAC	NUMIX	05655	PEBBLE SOLID	MATTE	36" x 36"	GLUE DOWN GRID	LAB ACCENT TILE
KEMRESIN EPOXY COUNTERTOP									
EPX-1	KEMRESIN EPOXY COUNTERTOP	KEWAUNEE	-	-	BLACK	-	-	-	LAB COUNTERTOP
PAINT									
P-1	PAINT	SHERWIN WILLIAMS	-	SW 7036	ORIGAMI WHITE	REF. SPEC	-	-	MAIN PAINT UIN
P-2	PAINT	SHERWIN WILLIAMS	-	SW 9563	RED ROCK	REF. SPEC	-	-	ACCENT PAINT
P-3	PAINT	SHERWIN WILLIAMS	-	SW 7588	SHOW STOPPER	REF. SPEC	-	-	ACCENT PAINT
P-4	PAINT	SHERWIN WILLIAMS	-	SW 7059	IRON ORE	REF. SPEC	-	-	DOOR FRAMES/ WINDOW FRAMES
P-5	PAINT	SHERWIN WILLIAMS	-	SW 7007	CEILING BRIGHT WHITE	REF. SPEC	-	-	BULKHEAD PAINT
PLASTIC LAMINATE									
PLAM-1	PLASTIC LAMINATE	WILSONART	PLASTIC LAMINATE	17002X-57	FISHER OAK	57 ALIGNED TEXTURE	-	-	BUILT-IN BENCH
RUBBER BASE									
RB-1	RUBBER BASE	TARKETT	DURACOVE THERMOPLASTIC RUBBER BASE		40 BLACK	-	6TH	-	MAIN BASE UIN
SOLID SURFACE									
SS-1	SOLID SURFACE	WILSONART	SOLID SURFACE	DS4SL(1)	DESIGNER WHITE	SATIN	1 1/4" THICK	WALL ADHERED	BEHIND EYEWASH
TILE BASE									
TB-1	TILE BASE	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	TOILET ROOMS
TILE WALL									
T-1	TILE WALL	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	MATCH EXISTING	TOILET ROOMS
TOILET PORTION									
PAR-1	TOILET PORTION	BRADLEY CORP	STAINLESS STEEL PARTITIONS	SERIES 400	STAINLESS STEEL	BRUSHED	-	OVERHEAD BRACED, FLOOR ANCHORED	MENS TOILET ROOM
TRANSITIONS									
TR-1	TRANSITIONS	TARKETT	WHEELED TRAFFIC TRANSITIONS	CTA-XX-H	40 BLACK	-	MATCH THICKNESS	-	PROVIDE AT RESILIENT - RESILIENT
TR-2	TRANSITIONS	TARKETT	SLIP LINE TRANSITIONS	SLT-XX-F	40 BLACK	-	MATCH THICKNESS	-	PROVIDE AT RESILIENT - TILE
TR-3	TRANSITIONS	TARKETT	REDUCERS	CRS-XX-A	40 BLACK	-	MATCH THICKNESS	-	PROVIDE AT RESILIENT - CONCRETE
TRIM									
TR-4	TRIM	CS ACROVYN	WAINSCOT TRIM	25A220XX	108 BLACK	-	3/40" SHEET THICKNESS	-	PROVIDE AT WP-1; REF. ELEVATIONS
WALL PROTECTION									
WP-1	WALL PROTECTION	CS ACROVYN	ACROVYN BY DESIGN	CUSTOM GRAPHIC BY CCAC	CUSTOM GRAPHIC BY CCAC	SUEDE TEXTURE	4" x 8"	ADHESIVE	CUSTOM GRAPHIC BY CCAC; CORRIDOR
WP-2	WALL PROTECTION	CS ACROVYN	ACROVYN BY DESIGN	CUSTOM GRAPHIC BY CCAC	CUSTOM GRAPHIC BY CCAC	SUEDE TEXTURE	4" x 8"	ADHESIVE	CUSTOM GRAPHIC BY CCAC; CORRIDOR
WP-3	WALL PROTECTION	CS ACROVYN	ACROVYN BY DESIGN	CUSTOM GRAPHIC BY CCAC	CUSTOM GRAPHIC BY CCAC	SUEDE TEXTURE	4" x 8"	ADHESIVE	CUSTOM GRAPHIC BY CCAC; CORRIDOR
WP-4	WALL PROTECTION	CS ACROVYN	ACROVYN BY DESIGN	CUSTOM GRAPHIC BY CCAC	CUSTOM GRAPHIC BY CCAC	SUEDE TEXTURE	4" x 8"	ADHESIVE	CUSTOM GRAPHIC BY CCAC; CORRIDOR
WOOD VENEER									
WV-1	WOOD VENEER	KEWAUNEE	-	-	SEASIDE OAK	-	-	-	LAB CASEWORK

FLOOR PATTERN DIAGRAM

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143

PH: 412.287.7333

www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

[illegible]

PROFESSIONAL:



PROJECT NAME:

BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS

595 Beatty Rd,
Monroeville, PA 15146

DRAWING TITLE:
FINISH PLAN

DRAWN BY: AD
CHECKED BY: BAS
PROJ. NO: CCAC-006
DATE: 04.14.2026
DRAWING NO:

AI101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

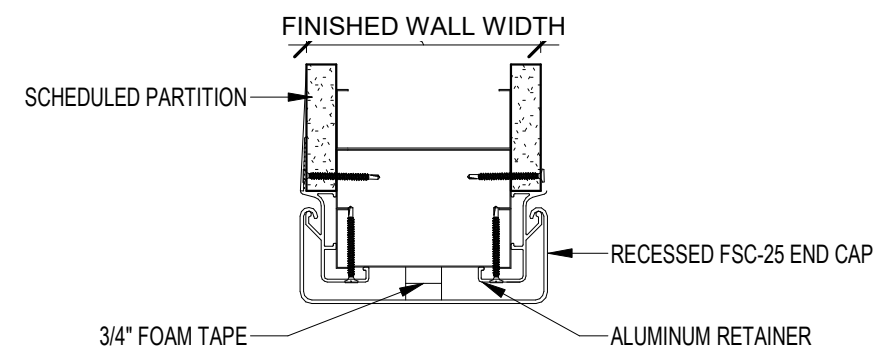
A Autodesk Docs://CCAC-008 Boyce Bio Lab/CCAC-008_ARCH_24.rvt
4/14/2026 1:23:03 PM

B

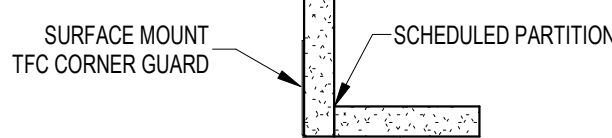
C

D

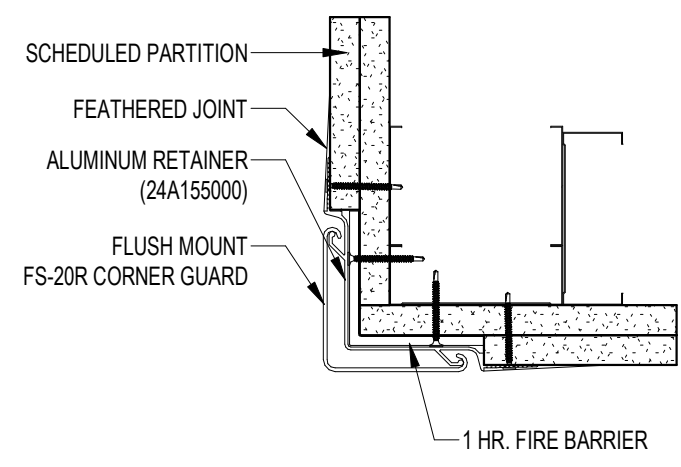
E



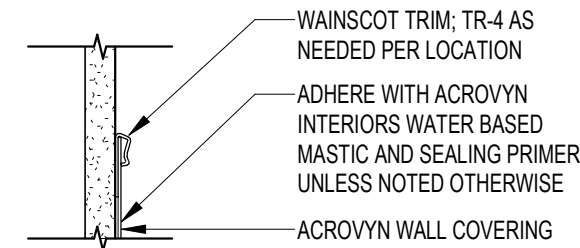
11 CG-3 DETAIL
3" = 1'-0"



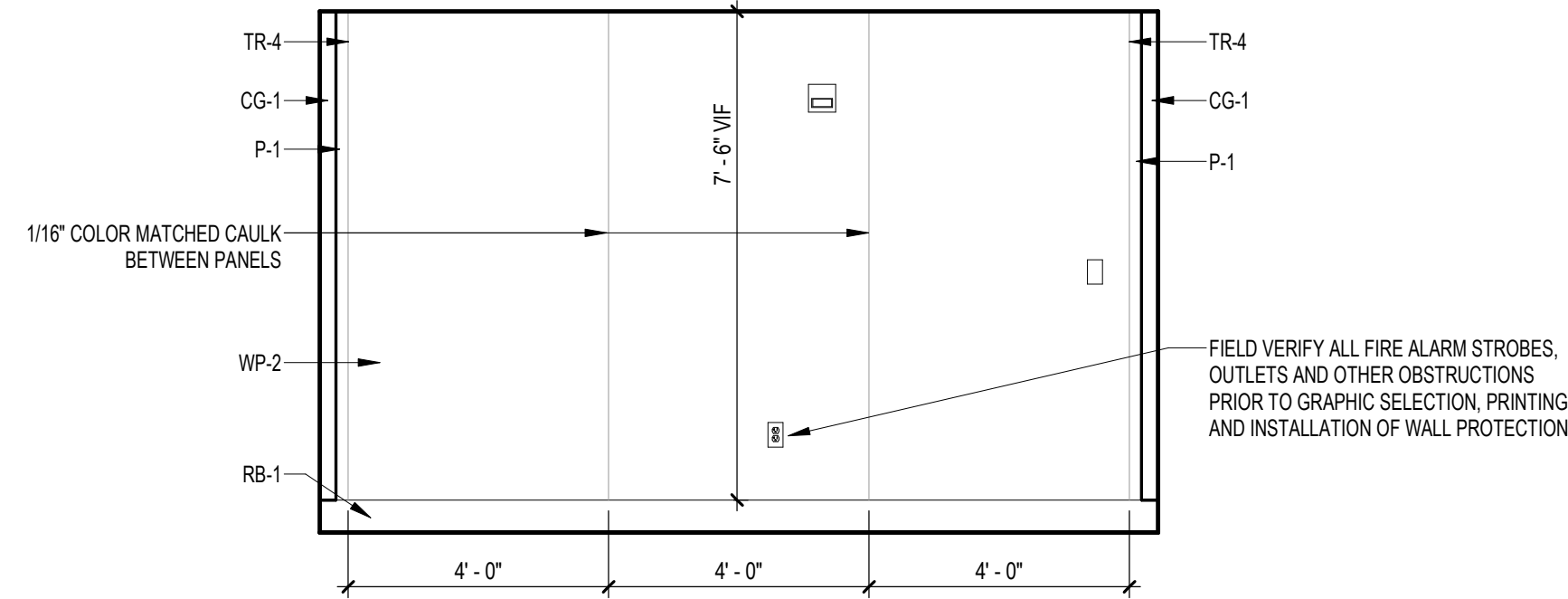
10 CG-2 DETAIL
3" = 1'-0"



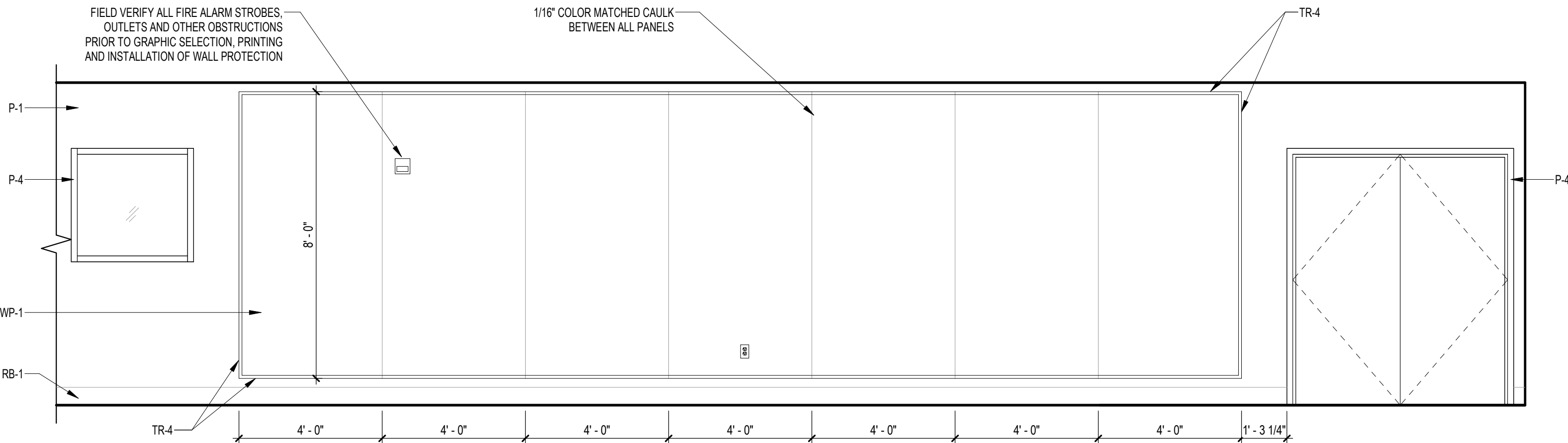
9 CG-1 DETAIL
3" = 1'-0"



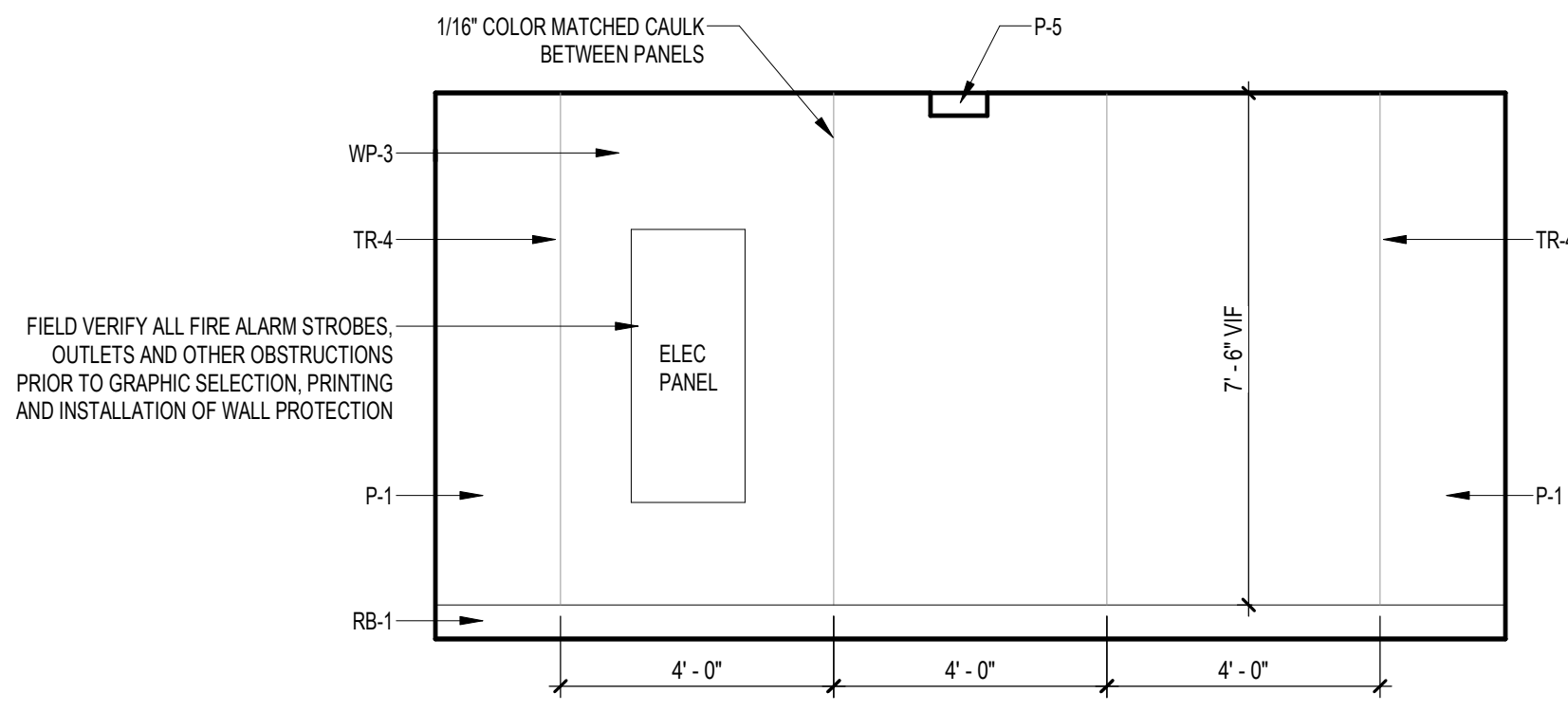
8 TR-4 DETAIL
3" = 1'-0"



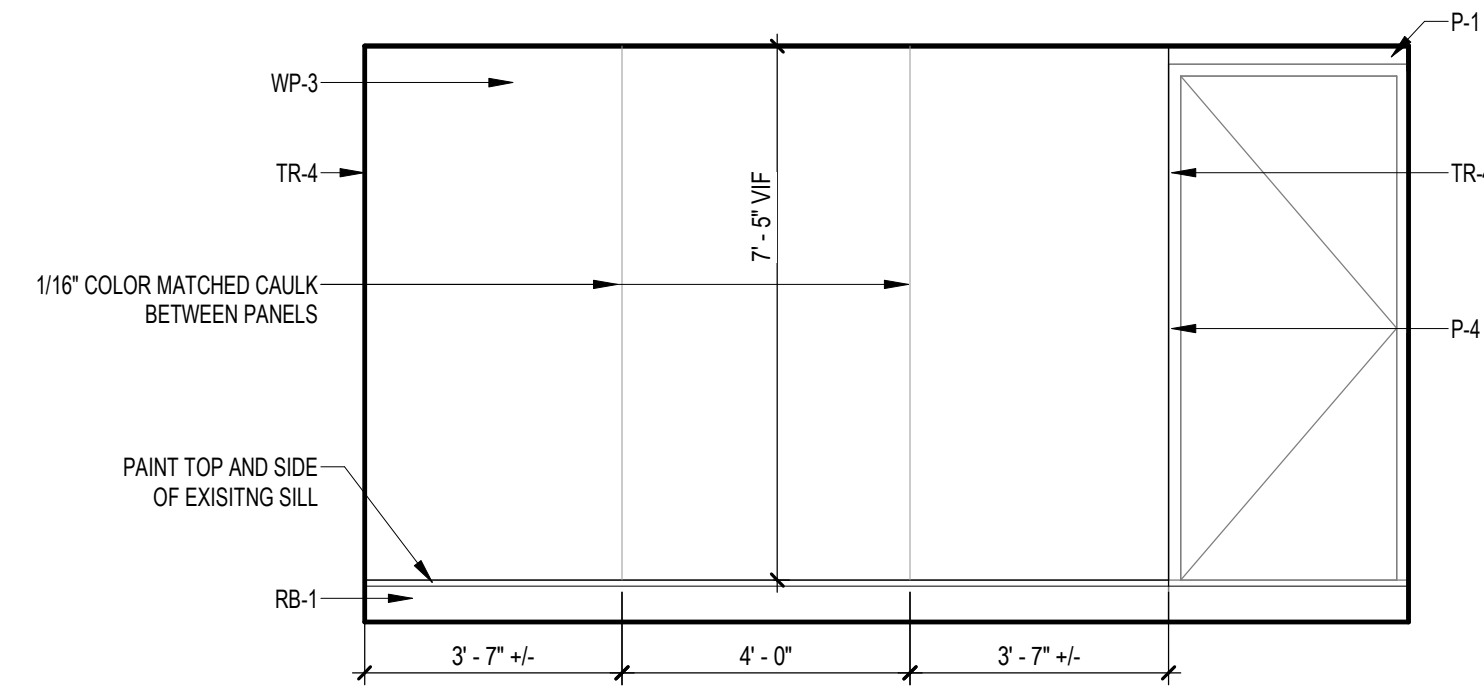
7 S635 CORRIDOR WP-4 ELEVATION
3/8" = 1'-0"



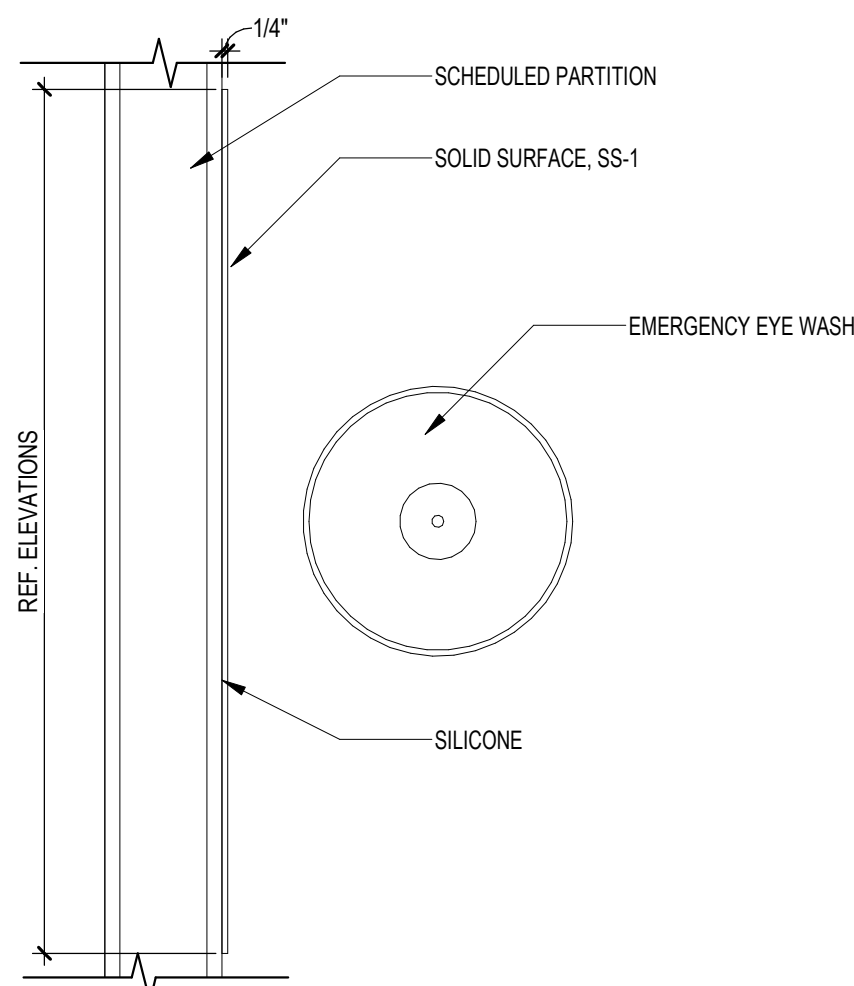
6 S635 CORRIDOR WP-3 ELEVATION
3/8" = 1'-0"



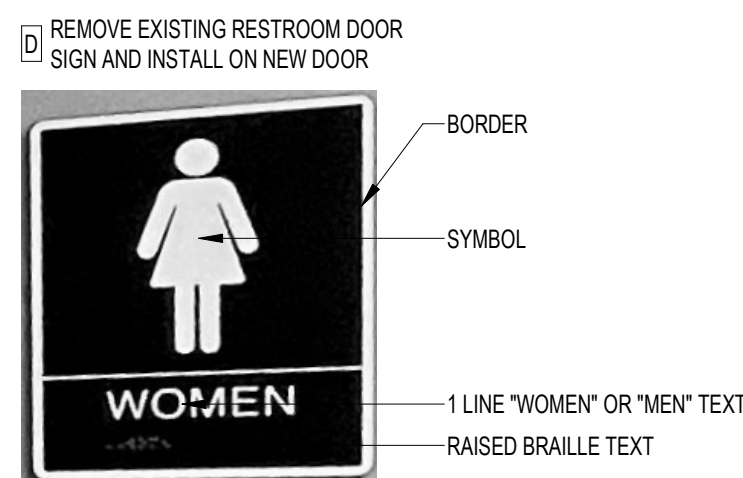
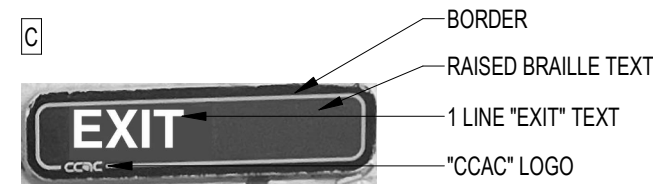
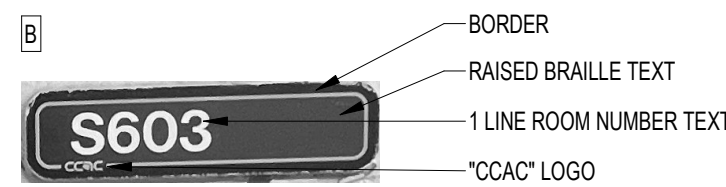
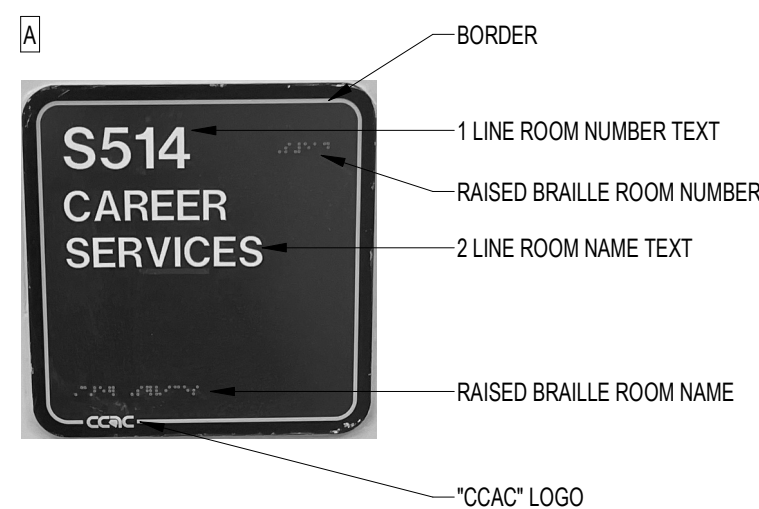
5 S635 CORRIDOR WP-2 ELEVATION
3/8" = 1'-0"



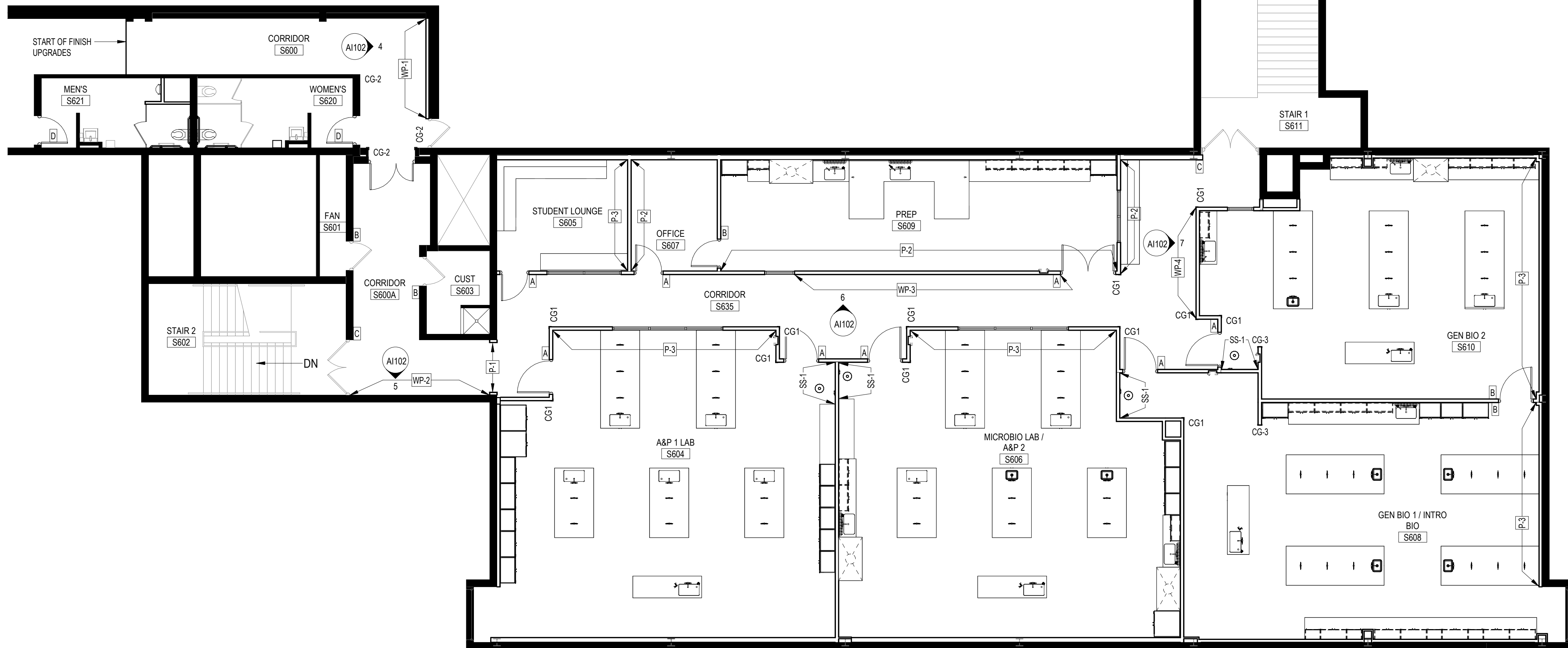
4 S600 CORRIDOR WP-1 ELEVATION
3/8" = 1'-0"



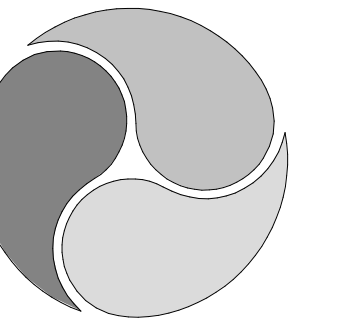
3 SS-1 WALL PANEL DETAIL
1 1/2" = 1'-0"



2 STANDARD SIGNAGE TYPES
1 1/2" = 1'-0"



1 SIXTH FLOOR - S WING - FINISH PLAN
1/8" = 1'-0"



AE WORKS

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
**BIOLOGY LAB
RENOVATIONS
BOYCE CAMPUS**

595 Beatty Rd,
Monroeville, PA 15146

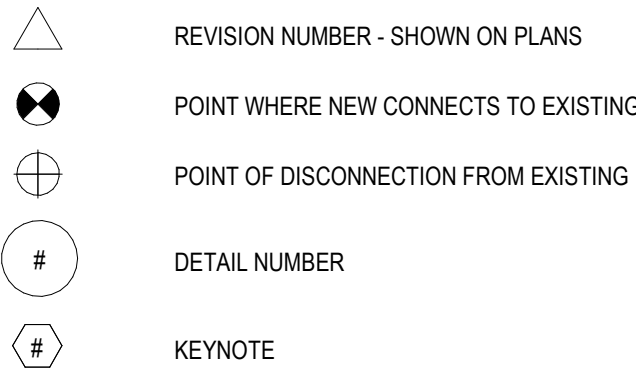
DRAWING TITLE:
FINISH PLAN

DRAWN BY: AD
CHECKED BY: BAS
PROJ. NO: CCAC-008
DATE: 04/14/2026
DRAWING NO:

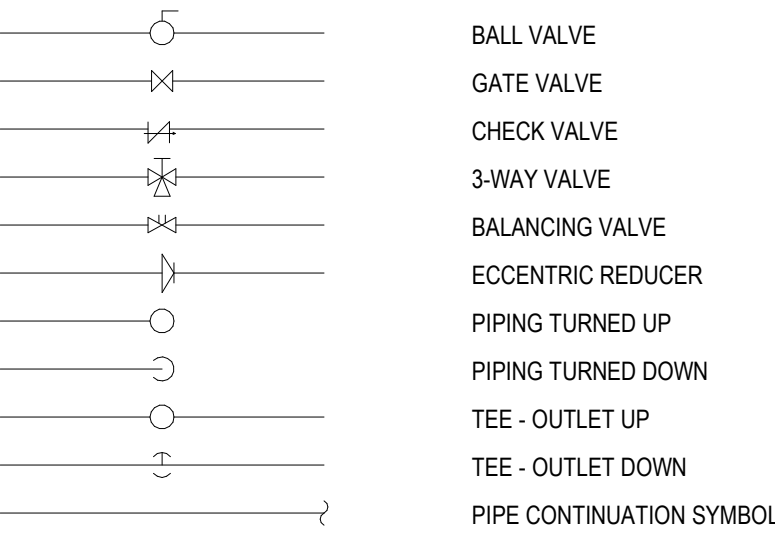
A1102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

GENERAL MECHANICAL SYMBOLS



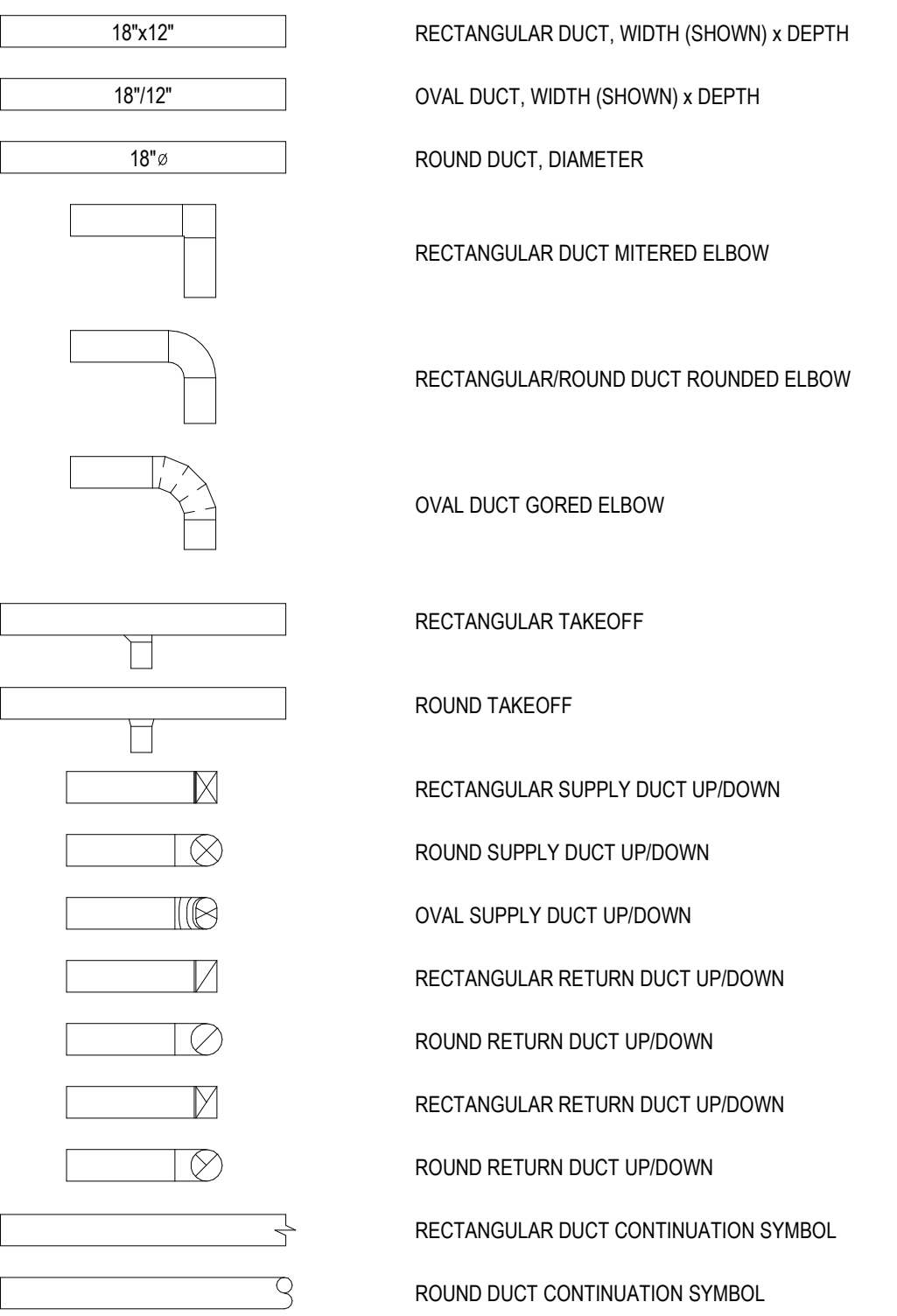
PIPELINE SYMBOLS



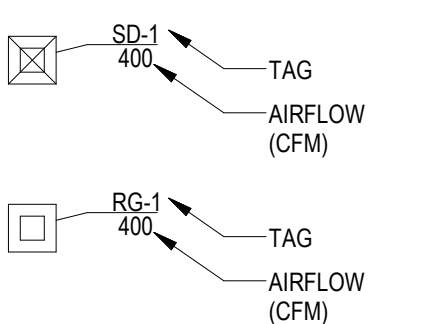
DUCTWORK ABBREVIATIONS

OA	OUTSIDE AIR
SA	SUPPLY AIR
RA	RETURN AIR
EA	EXHAUST AIR

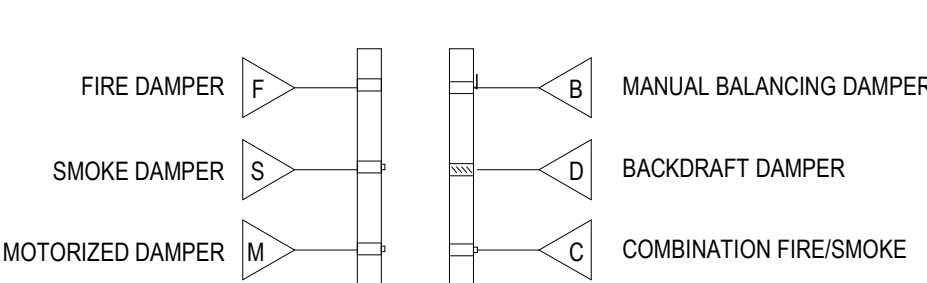
DUCTWORK SYMBOLS



AIR TERMINAL SYMBOLS



DAMPER SYMBOLS



EQUIPMENT TAG ABBREVIATIONS

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLING CONDENSING UNIT
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
CH	CHILLER
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CWP	CONDENSER WATER PUMP
CHWP	CHILLED WATER PUMP
CV	CONSTANT-AIR VOLUME BOX
DBP	DOMESTIC WATER BOOSTER PUMP
DC	DUCT MOUNTED COIL
DCP	DOMESTIC WATER CIRCULATING PUMP
EF	EXHAUST FAN
EDC	ELECTRIC DUCT COIL
ET	EXPANSION TANK
EW	ELECTRIC WATER HEATER
FJ	FAN COIL UNIT
FP	FIRE PUMP
G	GREASE INTERCEPTOR
GRV	GRAVITY ROOF VENTILATOR
HWP	HEATING WATER PUMP
HX	HEAT EXCHANGER
HRU	HEAT RECOVERY UNIT
I	INFRARED
MAU	MAKE-UP AIR UNIT
PRV	PRESSURE REDUCING VALVE
RTU	ROOFTOP UNIT
SEP	SEWAGE EJECTOR PUMP
SF	SUPPLY FAN
SP	SUMP PUMP
SS	SPLIT SYSTEM
UH	UNIT HEATER
VAV	VARIABLE-AIR VOLUME BOX
WH	WATER HEATER

ABBREVIATIONS

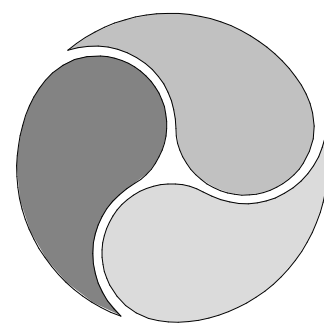
Ø	ROUND
ABV	ABOVE
AC	AIR CONDITIONING
AD	AREA DRAIN
ADD	ADDENDUM
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION
ALT	ALTERNATE
AP	ACCESS PANEL
ARCH	ARCHITECT/ARCHITECTURAL
BFF	BELOW FINISHED FLOOR
BLW	BELOW
BTU	BRITISH THERMAL UNITS
BTUH	BTU/H THERMAL UNITS PER HOUR
CAP	CAPACITY
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CO	CLEAN OUT
CW	COLD WATER
D	DEGREE
DB	DRY BULB
DA	DIAMETER
DN	DOWN
DW	DISTILLED WATER
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
EW	ELECTRICAL WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EIA	EXHAUST AIR
EXIST	EXISTING
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FD	FIRE DAMPER
FCV	FIRE DEPARTMENT VALVE
FL	FLOOR
FO	FUEL OIL
FOV	FUEL OIL VENT
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FS	FEET PER MINUTE
FS	FLOOR SINK
FT	FOOT/FEET
FTR	FIN TUBE RADIATION
GAL	GALLON
GC	GENERAL CONTRACTOR
GP	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIB
HP	HORSE POWER
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT
ID	INDIRECT
INCH	INCH
INV	INVERT
LB	POUND
LBHR	POUNDS PER HOUR
LAT	LEAVING AIR TEMPERATURE
LP	LOW PRESSURE
LP	LIQUIFIED PETROLEUM GAS
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
MA	MIXED AIR
MAX	MAXIMUM
MBH	ONE THOUSAND BTU PER HOUR
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTR	MOTOR
MJA	MAKE-UP AIR
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NUMBER
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
ORD	OVERFLOW ROOF DRAIN
PD	PRESSURE DROP
PV	POST INDICATOR VALVE
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PWR	POWER
R	DUCT RISER
RIA	RETURN AIR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
RH	RELATIVE HUMIDITY
RA	RELIEF AIR
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RW	RAIN WATER
SA	SUPPLY AIR
SAN	SANITARY
SF	SQUARE FOOT
SD	SMOKE DAMPER
SM	SURFACE MOUNT
SP	STANDPIPE
SP	STATIC PRESSURE
STM	STEAM
T	THERMOSTAT
TD	TEMPERATURE DROP
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TYP	TYPICAL
UG	UNDERGROUND
VAC	VACUUM
V	VENT
VAV	VARIABLE AIR VOLUME
VENT	VENTILATION
VTR	VENT THROUGH ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
X	DEMOLISH
XN	EXISTING TO BE RELOCATED
XR	EXISTING TO REMAIN

HVAC GENERAL PROJECT NOTES

- 1 NOT ALL SYMBOLS ARE NECESSARILY USED.
- 2 COORDINATE FINAL LOCATIONS OF DIFFUSERS AND GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- 3 DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR TO FIELD VERIFY DUCT AND PIPE ROUTING AND COORDINATE INTERFERENCE BETWEEN TRADES PRIOR TO INSTALLATION.
- 4 ROOF OPENINGS, FLASHING, AND COUNTER FLASHING BY GENERAL CONTRACTOR. LOCATION OF OPENINGS BY HEATING CONTRACTOR.
- 5 DUCTWORK TO BE INSTALLED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE UNLESS NOTED OTHERWISE.
- 6 PROVIDE ALL MATERIALS, EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- 7 CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. CONTRACTOR WILL BE RESPONSIBLE TO FIELD SURVEY ACTUAL SITE CONDITIONS AND ACCOMMODATE ACTUAL SITE CONDITIONS AS PART OF SCOPE OF WORK AT NO COST TO OWNER.
- 8 INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, CONTRACT DOCUMENTS, APPLICABLE BUILDING, STATE AND LOCAL CODES, SEISMIC REQUIREMENTS, ENERGY CODES AND INSURANCE UNDERWRITER REQUIREMENTS.
- 9 COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL AND ELECTRICAL WORK, ETC. SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- 10 LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH SECTION OF PIPE OR DUCT UPSTREAM AND DOWNSTREAM, AS RECOMMENDED BY THE MANUFACTURER FOR ACCURACY.
- 11 TESTING ADJUSTING AND BALANCING (TAB) AGENCY MUST BE A MEMBER OF THE ASSOCIATED AIR BALANCING COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TAB FIRM MUST HAVE A MINIMUM OF 5 YEARS EXPERIENCE ON SIMILAR PROJECTS. PERFORM TAB IN ACCORDANCE WITH THE REQUIREMENTS OF THE TAB PROCEDURAL STANDARD RECOMMENDED BY THE TAB TRADE ASSOCIATION THAT APPROVED THE TAB FIRMS QUALIFICATIONS.
- 12 WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCTS OF A SINGLE MANUFACTURER MUST BE USED.
- 13 COORDINATE ALL FINAL EQUIPMENT CONNECTIONS WITH THE MANUFACTURERS CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCTWORK AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCTWORK AND PIPING DIMENSIONS BEFORE FABRICATION.
- 14 ALL CONTROL WIRE AND CONDUIT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE, DIVISION 26 OF THE SPECIFICATIONS, ALL LOCAL CODES, AND OWNERS INSURANCE UNDERWRITER REQUIREMENTS.
- 15 THE LOCATIONS AND SIZES OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS AND SIZES NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND MUST HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- 16 PLAN DRAWINGS AND SECTIONS CUTS WHICH SPECIFICALLY IDENTIFY SERVICE ROUTE OFFSETS, ELEVATION CHANGES, OBSTRUCTIONS, ACCESS DOORS, BALANCING DEVICES, ETC. ARE SHOWN FOR CLARITY WHERE SPECIFIC KNOWN CONDITIONS EXIST. MECHANICAL CONTRACTOR MUST COORDINATE EQUIPMENT, DUCTWORK, AND PIPING ROUTINGS WITH ALL OTHER TRADES. REQUIREMENTS NOT SPECIFICALLY IDENTIFIED MUST NOT BE INTERPRETED AS EXCLUSION FROM CONTRACTORS SCOPE OF WORK. CONTRACTOR MUST BE RESPONSIBLE FOR ACTUAL SITE CONDITIONS AND MUST INCLUDE SUCH CONDITIONS IN SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
- 17 ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND SUPPORT OF MECHANICAL WORK AS SHOWN IN DETAILS FOR PIPING, DUCTWORK AND EQUIPMENT (UNLESS OTHERWISE NOTED) MUST BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18 ALL EQUIPMENT, PIPING, DUCTWORK, ETC. MUST BE SUPPORTED AS DETAILED, SPECIFIED AND AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 19 ALL OPENINGS IN FIRE RATED WALLS AND SMOKE PARTITIONS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., MUST BE FIRE STOPPED WITH APPROVED FIRESTOPPING MATERIALS.
- 20 REFER TO TYPICAL DETAILS FOR DUCTWORK, PIPING AND EQUIPMENT INSTALLATION.
- 21 UNLESS OTHERWISE SHOWN, LOCATE ALL ROOM THERMOSTATS WITH TOP AT 48-IN ABOVE FINISHED FLOOR IN ACCORDANCE WITH ADA REQUIREMENTS. NOTIFY THE ENGINEER OF ANY ROOMS WHERE THE ABOVE LOCATION CAN NOT BE MAINTAINED OR WHERE THERE IS A QUESTION ON LOCATION. COORDINATE FINAL LOCATIONS WITH OWNER.
- 22 LOCATE ALL MECHANICAL EQUIPMENT (VAV BOXES, CABINET HEATERS, UNIT HEATERS, ETC.) FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, FILTERS, CONTROLS AND VALVING. DO NOT LOCATE FAN POWERED VAV BOXES ABOVE LIGHTING FIXTURES.
- 23 PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS (SUPPLY, RETURN AND EXHAUST) CONNECTED TO FANS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS MUST BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE INDICATED.
- 24 PROVIDE AN AIR VENT AT THE HIGH POINT OF EACH DROP IN HYDRONIC WATER PIPING SYSTEMS. ALL PIPING MUST SLOPE TO LOW POINTS. PROVIDE HOSE END DRAIN VALVES AT THE BOTTOM OF ALL RISERS AND LOW POINTS.
- 25 INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- 26 ALL ISOLATION VALVES MUST BE IN LOCATION AND ELEVATION WHICH ALLOWS FOR EQUIPMENT AND BRANCH PIPING REMOVAL, WHILE MAINTAINING SERVICE UPSTREAM OF THE ISOLATION VALVE.
- 27 ALL BALANCING VALVES AND ISOLATION VALVES USED TO ADJUST FLOW RATES MUST BE PROVIDED WITH POSITIONS INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
- 28 ALL ISOLATION VALVES (EXCEPT CONTROL VALVES), STRAINERS, AND PIPING SPECIALTIES MUST BE FULL LINE SIZE BEFORE REDUCING SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS.
- 29 MECHANICAL JOINTS SUCH AS UNIONS, FLANGES, OR THREADED FITTINGS MUST BE INSTALLED AT EACH EQUIPMENT CONNECTION, IN BYPASSES, AT FLOOR PENETRATIONS, AT CONTROL DEVICES, AND IN LONG PIPE RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.

HVAC GENERAL PROJECT NOTES

- 30 MEASURE, CUT AND INSTALL PIPE LENGTH ACCURATELY TO MINIMIZE MISALIGNMENT. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
- 31 PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION (EXCEPT WATER COILS). FLEXIBLE CONNECTIONS MUST BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON THE DRAWINGS.
- 32 PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT VIBRATION TRANSMISSION TO BUILDING STRUCTURE.
- 33 MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING MUST NOT BE SUPPORTED FROM ROOF OR DECK ASSEMBLY. SUPPORTS MUST ATTACH TO STRUCTURAL MEMBERS. COORDINATE WITH STRUCTURAL DRAWINGS.
- 34 PROVIDE MANUFACTURER'S MATCHING ROOF CURBS FOR ALL ROOF MOUNTING EQUIPMENT. COORDINATE ACTUAL ROOF PITCH AND CONSTRUCTION DETAILS WITH GENERAL CONTRACTOR. PROVIDE SLOPED CURBS PER MANUFACTURERS RECOMMENDATIONS. GENERAL CONTRACTOR MUST INSTALL ROOF CURBS AND FLASHING PER ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
- 35 PROVIDE MANUAL VOLUME DAMPERS IN ALL RUN-OUTS TO DIFFUSERS, BRANCH TAKE-OFFS FROM MAIN SUPPLY DUCT, AND IN ALL OTHER AREAS REQUIRED TO PROVIDE PROPER SYSTEM AIRFLOW BALANCING.
- 36 ALL PIPING AND DUCTWORK MUST CLEAN DOORS, WINDOWS, EQUIPMENT CLEARANCES, MAINTENANCE REQUIREMENTS, CODE SETBACKS, ETC. TO ASSURE PROPER OPERATION, INSPECTION AND MAINTENANCE.
- 37 ALL VALVES MUST BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
- 38 PROVIDE ALL 90 DEGREE SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED OR SPECIFIED. PROVIDE ACCESS DOORS UPSTREAM OF ALL ELBOWS CONTAINING TURNING VANES.
- 39 ALL DUCTS MUST BE BONDED ACROSS FLEXIBLE CONNECTIONS WITH FLEXIBLE COPPER GROUNDING STRAPS. GROUNDING STRAPS MUST BE SOLDERED TO BOTH THE EQUIPMENT AND THE DUCT.
- 40 ALL EQUIPMENT SUBMITTALS AND SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO PURCHASE, FABRICATION AND INSTALLATION.
- 41 ALL HEATING DEVICES AND SURFACES WITH ELEVATED TEMPERATURES WHICH CAN BE ACCESSED OR COME IN CONTACT WITH OWNER PERSONNEL MUST BE PROTECTED, INSULATED, OR CONTROLLED TO REMAIN BELOW 120° F.
- 42 ALL VFDs, STARTERS, AND DISCONNECTS MUST BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 43 GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVICE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL PRIME CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
- 44 ALL PRIME CONTRACTORS SHALL COORDINATE TO PROVIDE A SINGLE PHASING PLAN SUBMITTAL FOR REVIEW AND APPROVAL FROM OWNER. OF ALL WORK AREAS PRIOR TO START OF WORK. PHASING PLAN SUBMITTAL SHALL INCLUDE AREAS OF WORK PER PHASE, TYPE OF WORK PER PHASE, DURATION OF EACH PHASE, LOCATION OF DUST CONTAINMENT ENCLOSURES, AND PHOTOS OF EXISTING CONDITIONS PRIOR TO START OF WORK. GENERAL CONTRACTOR SHALL ASSEMBLE AND GENERATE COMBINED SUBMITTAL.
- 45 GENERAL CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
- 46 ALL PRIME CONTRACTORS SHALL REMOVE CEILING AREAS AS REQUIRED TO PERFORM 6TH FLOOR UNDERLAB WORK FOR LAB RENOVATIONS.
- 47 ALL PRIME CONTRACTORS SHALL REINSTALL ALL REMOVED CEILING GRID, TILE, AND DEVICES AT THE COMPLETION OF EACH PHASE BEFORE BEGINNING THE NEXT PHASE.
- 48 ALL PRIME CONTRACTORS SHALL COORDINATE WORK TO OCCUR OVER SUMMER, HOLIDAY BREAKS, AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.
- 49 ALL PRIME CONTRACTORS SHALL COORDINATE, THROUGH CCAC, ALL DEMOLITION AND NEW WORK DETAILED IN THIS DOCUMENT SET AND SEQUENCE OF WORK WITH CONCURRENT ROOF REPLACEMENT PROJECT.
- 50 ALL PRIME CONTRACTORS SHALL PARTICIPATE IN A COORDINATION MEETING, SCHEDULED BY CCAC, TO ALIGN SEQUENCE OF WORK WITH BOTH PROJECTS CONSTRUCTION SCHEDULES.
- 51 ALL PRIME CONTRACTORS SHALL COMPLETE THE FOLLOWING WORK BEFORE THE ROOF REPLACEMENT PROJECT BEGINS: REMOVE ALL EXISTING ROOFTOP EQUIPMENT DESIGNATED FOR DEMOLITION IN THE DOCUMENTS, REMOVE ALL EQUIPMENT RAILS, SUPPLEMENTAL SUPPORT, AND EQUIPMENT CURBS. INFILL ALL EXISTING OPENINGS IN ROOF DECK AS DETAILED IN STRUCTURAL DRAWINGS, AND PROVIDE TEMPORARY ROOF MEMBRANE PATCH AT INFILLED OPENINGS.
- 52 ROOFING REPLACEMENT CONTRACTOR SHALL COMPLETE THE FOLLOWING WORK: REMOVE ALL EXISTING BALLAST, ROOF PAVERS, AND ROOF MEMBRANE, REPAIR PARAPET WALL, AND INSTALL NEW EPDM ROOF MEMBRANE OVER NEW INSULATION. ROOFING REPLACEMENT CONTRACTOR'S WORK IN NOT INCLUDED IN THIS PROJECT SCOPE OF WORK.
- 53 ALL PRIME CONTRACTORS SHALL INSTALL ALL NEW EQUIPMENT, CURBS, STRUCTURAL SUPPORT, DUCT AND VENT PENETRATIONS IN NEW ROOF SYSTEM, INCLUDING ALL FLASHING AT CURBS, RAILS, AND PIPE PENETRATIONS.
- 54 THE GENERAL CONTRACTOR SHALL INSTALL NEW CRICKETS IN ROOF SURFACE AT ALL NEW EQUIPMENT TO DIRECT WATER TOWARDS EXISTING ROOF DRAINS AND NEW WALKWAY PADS, PROVIDED BY ROOFING REPLACEMENT CONTRACTOR, AS DETAILED IN THE CONTRACT DOCUMENTS.
- 55 THE PRIME CONTRACTORS SHALL COMPLETE ALL MODIFICATIONS TO THE ROOF SYSTEM IN COORDINATION WITH ROOF REPLACEMENT PROJECT ROOFING MANUFACTURER. ALL WORK SHALL BE IN ACCORDANCE WITH MANUFACTURERS' STANDARD DETAILS AND MEET ALL REQUIREMENTS TO MAINTAIN PRODUCT WARRANTY AND PROVIDE A WATERTIGHT SYSTEM.
- 56 REFER TO 6102 PHASING PLAN FOR LOCATION OF CONSTRUCTION BARRIERS AND AREA OF WORK AVAILABLE FOR DURATION OF PROJECT AT 6TH FLOOR.
- 57 PHASE WORK TO MAINTAIN ACCESS TO ONE TOILET ROOM DURING ENTIRE DURATION OF CONSTRUCTION.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

MECHANICAL SYMBOLS,
ABBREVIATIONS, AND
GENERAL NOTES

DRAWN BY: ATL

CHECKED BY: TS

PROJ. NO:

DATE: 04/14/2028

DRAWING NO:

M001

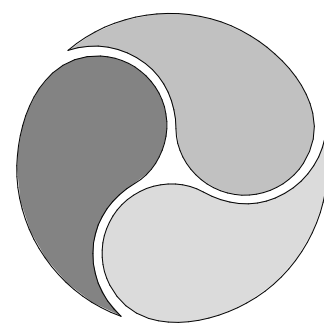
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

HVAC GENERAL DEMOLITION NOTES

- 1 REFER TO ARCHITECTURAL SHEETS FOR ADDITIONAL REQUIREMENTS.
- 2 ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH THE OWNER. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 3 MAINTAIN 6 IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.

KEYNOTES

- 1 DEMOLISH EXISTING BRICK VENTS AND ALL ASSOCIATED ACCESSORIES.
- 2 EXHAUST FANS, DUCTWORK, AND OTHER ASSOCIATED ACCESSORIES FOR MEN'S ROOM S621 AND WOMEN'S ROOM S620 WILL REMAIN AS IS.
- 3 DEMOLISH ALL EXISTING DUCTWORK, DIFFUSERS, DUAL DUCT TERMINAL BOXES, GRILLES, AND THEIR ACCESSORIES.
- 4 HOT AND COLD DECK DUCTS TO BE CAPPED.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

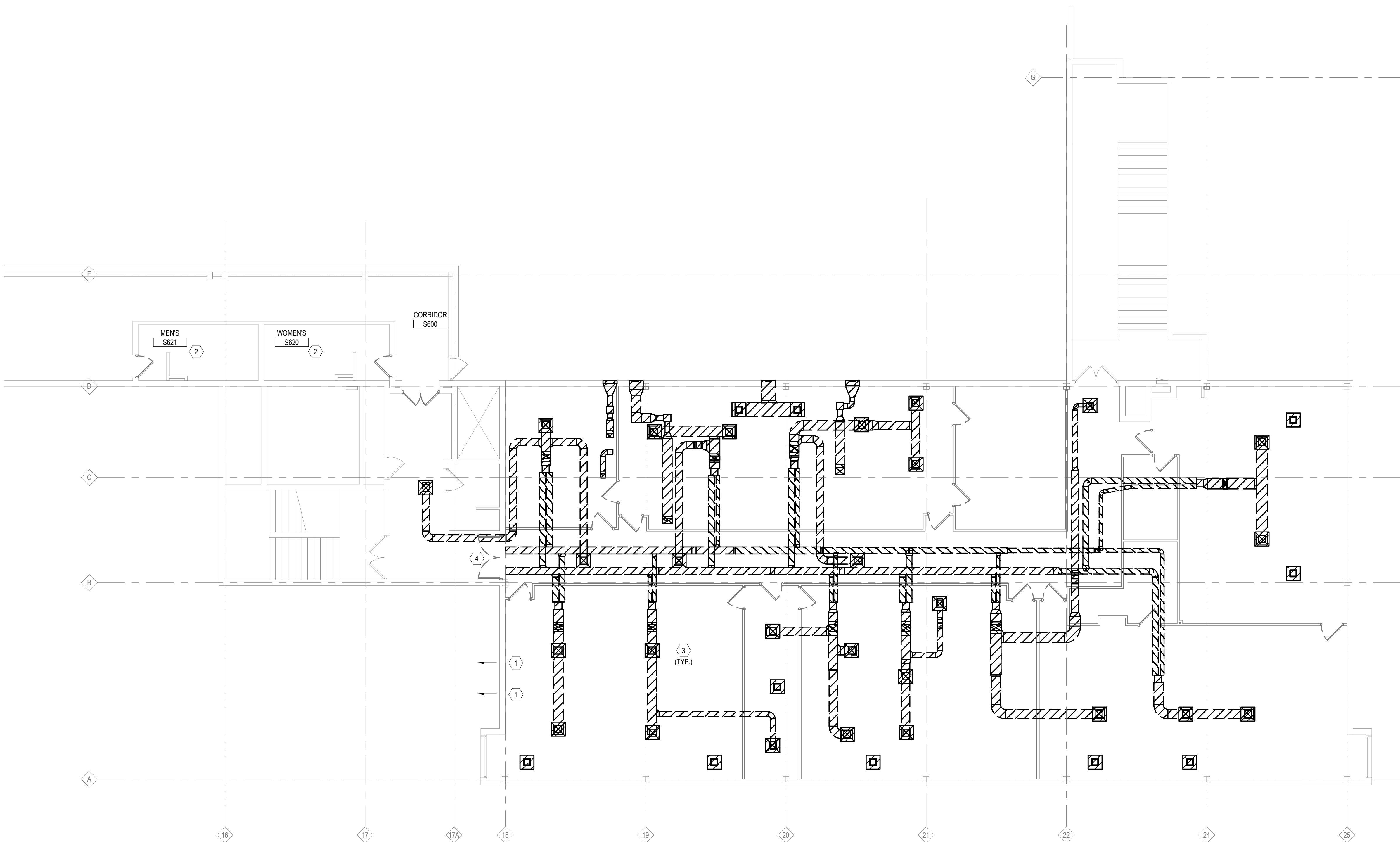
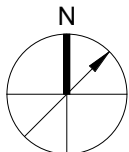
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
HVAC DEMOLITION PLAN

DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

MD101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



1 HVAC SIXTH FLOOR DEMO
1/8" = 1'-0"

5

4

3

2

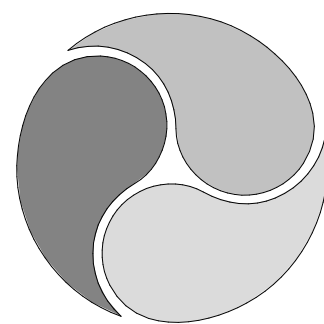
1

HVAC GENERAL DEMOLITION NOTES

- 1
- REFER TO ARCHITECTURAL SHEETS FOR ADDITIONAL REQUIREMENTS.
- 2
- ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH THE OWNER. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 3
- MAINTAIN 6-IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.

KEYNOTES

- 1
- DEMOLISH ALL EXISTING EXHAUST FUME HOOD, EXHAUST FANS, AND ALL ASSOCIATED ACCESSORIES.
- 2
- EXHAUST FANS, DUCTWORK, AND OTHER ASSOCIATED ACCESSORIES FOR MEN'S ROOM S621 AND WOMEN'S ROOM S620 WILL REMAIN AS IS.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
HVAC ROOF
DEMOLITION PLAN

DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

MD102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

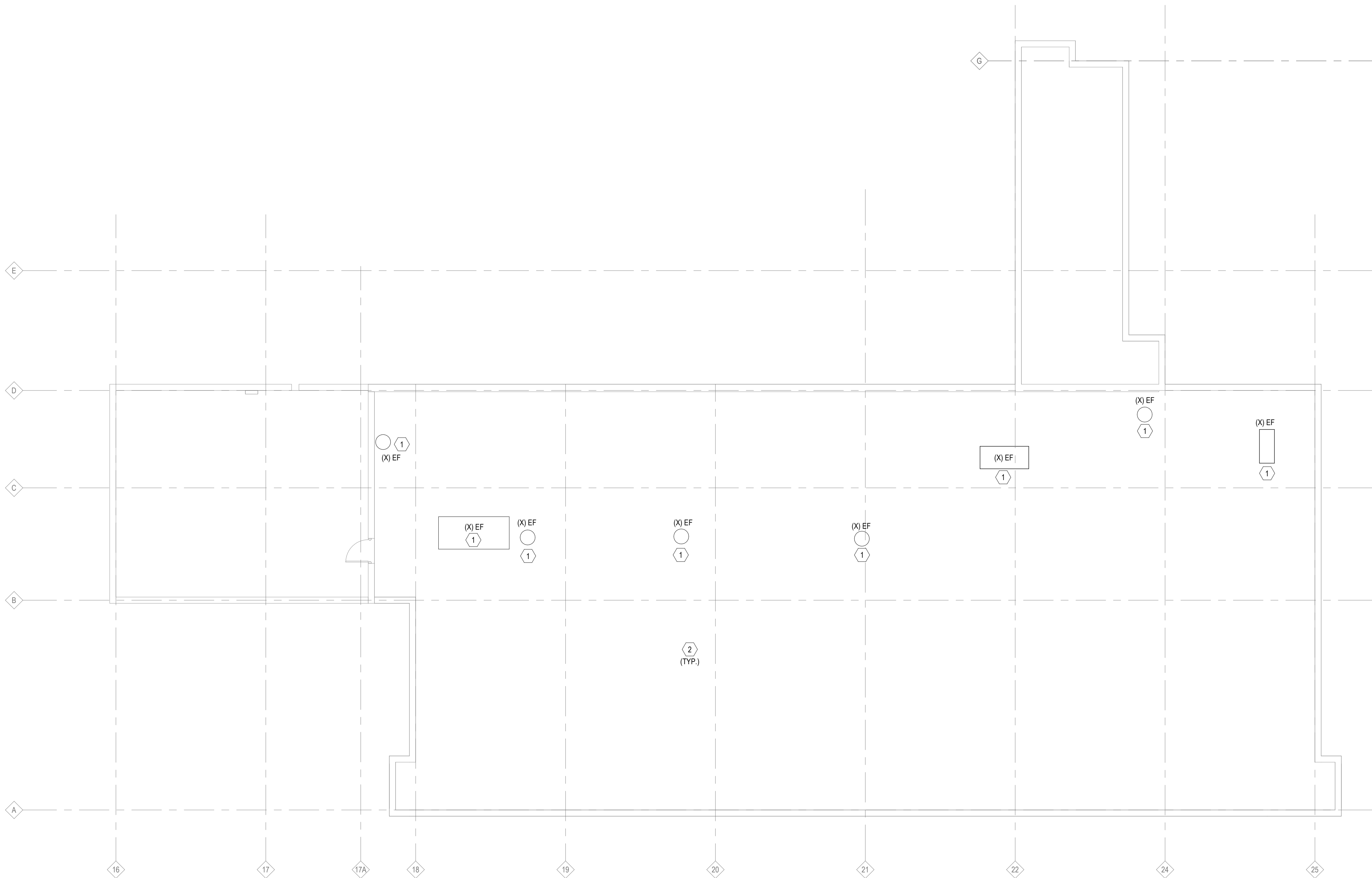
E

D

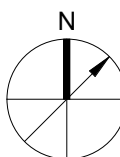
C

B

A



1 HVAC ROOF DEMO PLAN
1/8" = 1'-0"

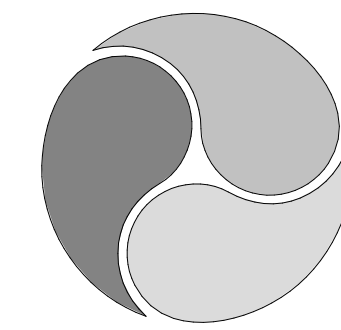


HVAC GENERAL NOTES

- 1 ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH THE OWNER. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 2 REFER TO ARCHITECTURAL FOR ADDITIONAL REQUIREMENTS.
- 3 MAINTAIN 6-IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.
- 4 CONTRACTOR TO PROVIDE REMOTE OPERATORS FOR ALL MANUAL VOLUME DAMPERS LOCATED ABOVE GYPSUM BOARD CEILINGS.
- 5 RUNOUT BRANCH DUCTWORK TO SUPPLY DIFFUSERS, RETURN AND EXHAUST GRILLES TO BE THE SAME SIZE AS THE NECK SIZE ON THE AIR DEVICE UNLESS NOTED OTHERWISE.
- 6 ALL BRANCH DUCTS TO DIFFUSERS, REGISTERS, AND GRILLES MUST BE INSTALLED WITH A VOLUME DAMPER PER DETAILS ON SHEET M502.

KEYNOTES

- 1 PROVIDE CONNECTION TO VENTED FLAMABLE CABINET. PROVIDE TRANSITIONS AS REQUIRED TO ACCOMMODATE ACTUAL CONNECTION SIZES OF INSTALLED EQUIPMENT.

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

HVAC FLOOR PLAN

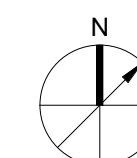
DRAWN BY: ATL

CHECKED BY: TS

PROJ. NO:

DATE: 04-14-2026

DRAWING NO:

**M101**

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

E

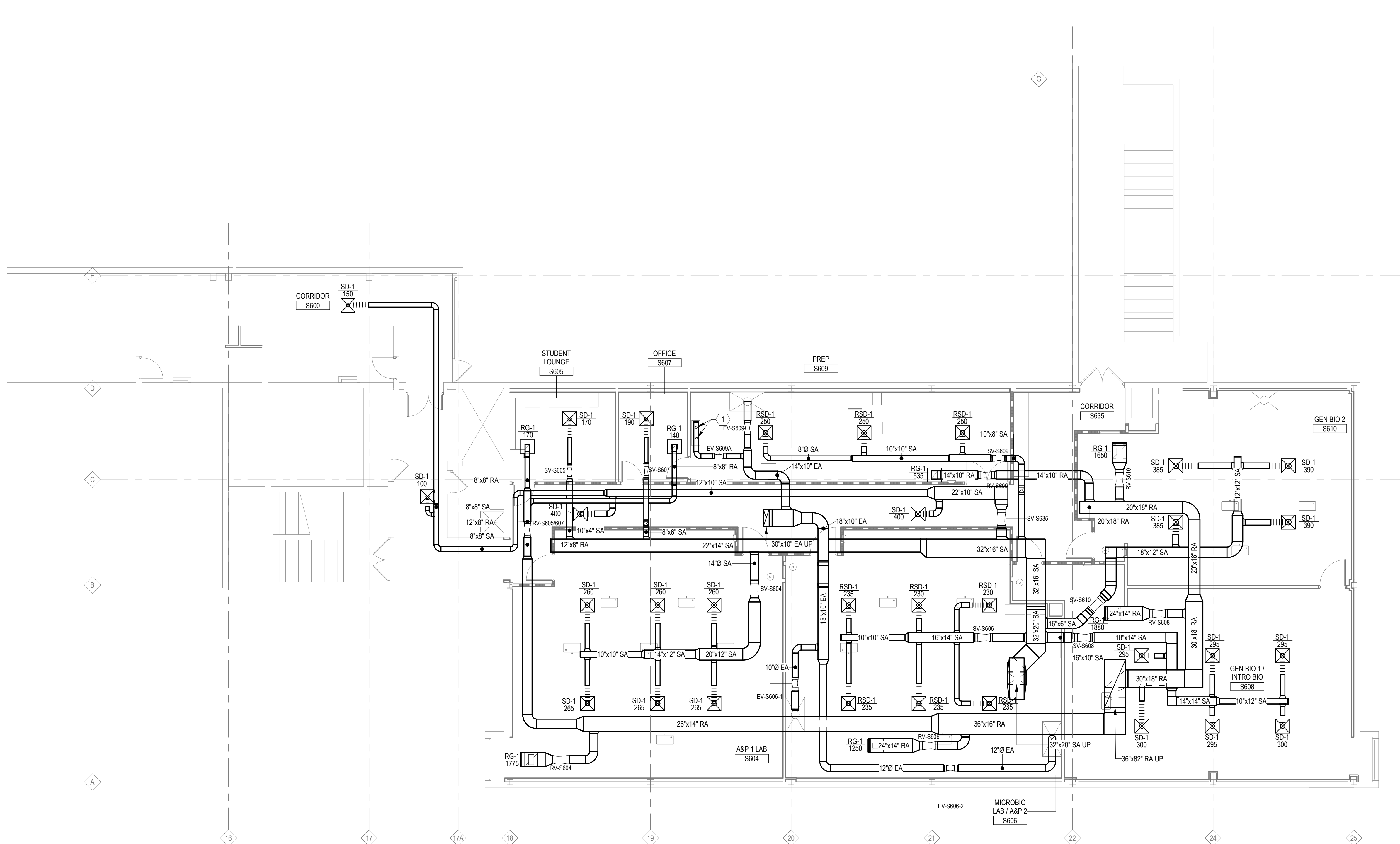
D

C

B

A

Autodesk Docs\\CCAC-008 Boyce Bio Lab\\CCAC-008 MEP_24.rvt
4/10/2026 9:38:37 AM

**1 HVAC FLOOR PLAN**

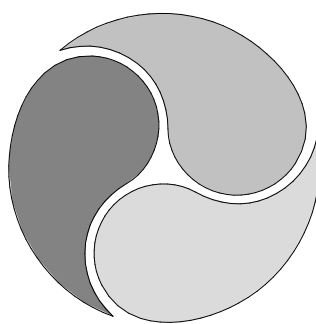
1/8" = 1'-0"

HVAC GENERAL NOTES

- 1 ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH THE OWNER. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 2 REFER TO ARCHITECTURAL FOR ADDITIONAL REQUIREMENTS.
- 3 MAINTAIN 6-IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.
- 4 CONTRACTOR TO PROVIDE REMOTE OPERATORS FOR ALL MANUAL VOLUME DAMPERS LOCATED ABOVE GYPSUM BOARD CEILINGS.
- 5 RUNOUT BRANCH DUCTWORK TO SUPPLY DIFFUSERS, RETURN AND EXHAUST GRILLES TO BE THE SAME SIZE AS THE NECK SIZE ON THE AIR DEVICE UNLESS NOTED OTHERWISE.
- 6 ALL BRANCH DUCTS TO DIFFUSERS, REGISTERS, AND GRILLES MUST BE INSTALLED WITH A VOLUME DAMPER PER DETAILS ON SHEET M502.

KEYNOTES

- 1 PROVIDE 3-FT TALL ROOF CURB TO ALLOW FOR DUCTWORK TRANSITIONS BETWEEN DOAS AND ROOF. FIT SUPPLY DUCTWORK BETWEEN ROOF JOISTS.
- 2 BYPASS DAMPER FOR DISCHARGE VELOCITY CONTROL. BYPASS DAMPER SHALL BE SIZED FOR FLOW CONTROL FOR A MAXIMUM BYPASS AIRFLOW RANGE FROM 0 TO 1500 CFM (MAXIMUM BYPASS FLOW) AT THE OPERATING STATIC PRESSURE AT THE INLET OF THE EXHAUST FANS. THE BYPASS DAMPER MUST BE SUITABLE FOR THESE OPERATING CONDITIONS.
- 3 PROVIDE 45 DEGREE INTAKE WITH BIRD SCREEN AT DUCT OPENING.
- 4 EXHAUST FAN ISOLATION DAMPER MUST BE ADEQUATE FOR COMPLETE SHUTOFF AT THE OPERATING STATIC PRESSURE OF THE EXHAUST FANS.
- 5 REFER TO EXHAUST FANS STACK DETAIL, 8M502.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

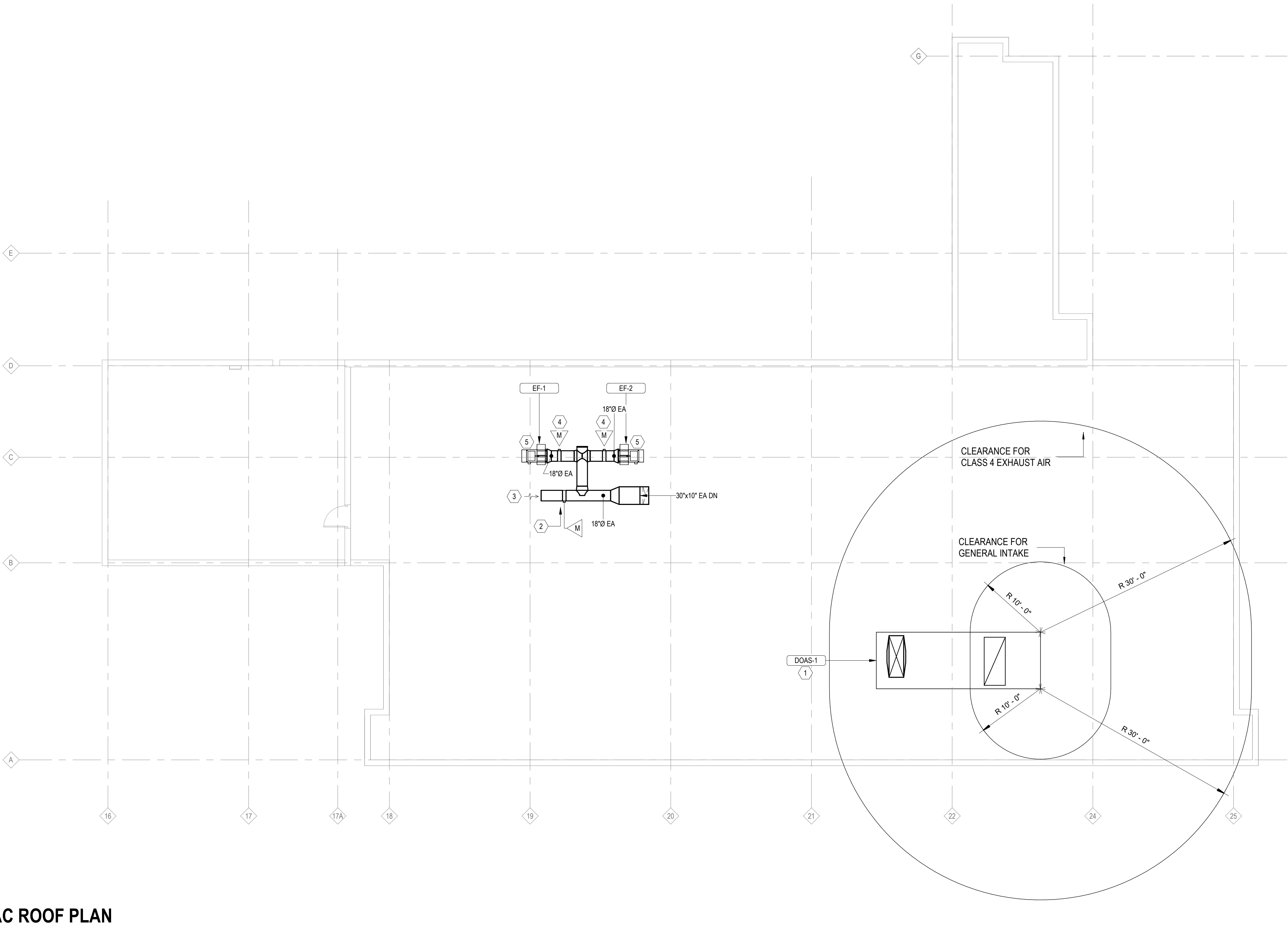
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
HVAC ROOF PLAN

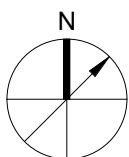
DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

M102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



1 HVAC ROOF PLAN
1/8" = 1'-0"

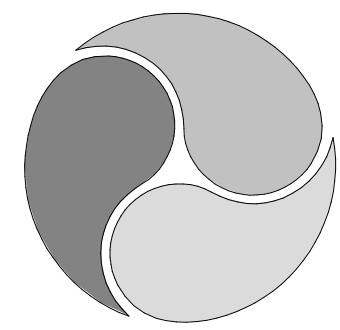


HYDRONIC GENERAL NOTES

- 1 ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH CCAC. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 2 REFER TO ARCHITECTURAL FOR ADDITIONAL REQUIREMENTS.
- 3 MAINTAIN 6-IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.
- 4 ALL BRANCH PIPING IS 3/4-IN UNLESS OTHERWISE NOTED.
- 5 PROVIDE EXPANSION LOOPS, JOINTS, Z-BENDS AND PIPING OFFSETS TO ACCOMMODATE THERMAL AND OTHER PIPING MOVEMENT.

KEYNOTES

- 1 REHEAT COILS WILL BE PROVIDED AS ONE UNIT WITH AIR VALVES.
- 2 CONNECT CHILLED WATER AND HOT WATER SUPPLY AND RETURN TO BUILDING MAIN DISTRIBUTION PIPING IN PENTHOUSE. PROVIDE ISOLATION VALVES AT CONNECTION. CONNECT PIPES AS CLOSE TO MAIN DISTRIBUTION PUMPS AS POSSIBLE. MATCH MATERIALS, INSULATION, AND SUPPORTS TO EXISTING SYSTEM. COORDINATE WITH BUILDING OPERATIONS FOR TIE-IN, AND ANY POSSIBLE SHUTDOWNS.

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

HYDRONIC FLOOR PLAN

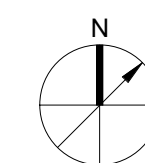
DRAWN BY: ATL

CHECKED BY: TS

PROJ. NO:

DATE: 04.14.2026

DRAWING NO:

**M111**

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

E

D

C

B

A

Autodesk Docs://CCAC-008_Boyce Bio Lab/CCAC-008_MEP_24.rvt
4/14/2026 9:58:15 AM

1

HYDRONIC FLOOR PLAN

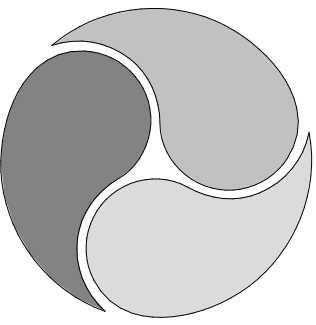
1/8" = 1'-0"

HYDRONIC GENERAL NOTES

- 1 ALL WORK MUST BE SCHEDULED AND COORDINATED JOINTLY WITH CCAC. A DETAILED JOB TIMELINE MUST BE ESTABLISHED AND SUBMITTED FOR REVIEW AND APPROVAL.
- 2 REFER TO ARCHITECTURAL FOR ADDITIONAL REQUIREMENTS.
- 3 MAINTAIN 6-IN MINIMUM CLEARANCE FROM RATED WALLS AND HVAC EQUIPMENT.
- 4 ALL BRANCH PIPING IS 3/4-IN UNLESS OTHERWISE NOTED.
- 5 PROVIDE EXPANSION LOOPS, JOINTS, Z-BENDS AND PIPING OFFSETS TO ACCOMMODATE THERMAL AND OTHER PIPING MOVEMENT.

KEYNOTES

- 1 HYDRONIC HEATING AND CHILLED WATER WILL BE CONNECTED TO BUILDINGS EXISTING HOT AND CHILLED WATER.
- 2 2" HWSHWR AND 1-1/2" CHWR/CHWS FOR DOAS-1 WILL BE ROUTED IN SIXTH FLOOR PLENUM CEILING THEN UP INTO DOAS MANUFACTURERS PROVIDED PIPE BOX.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

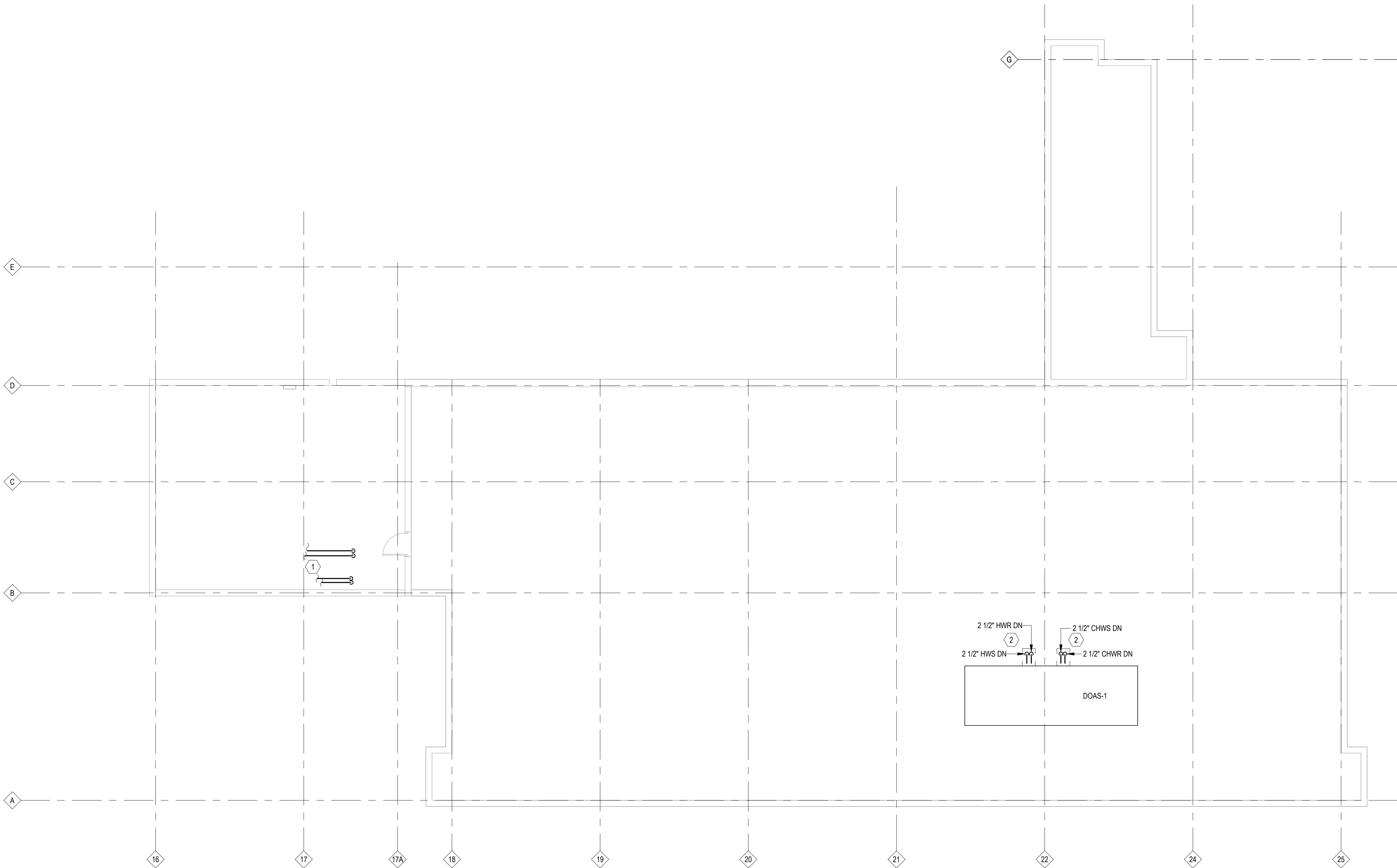
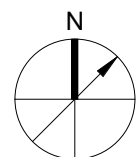
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
HYDRONIC ROOF PLAN

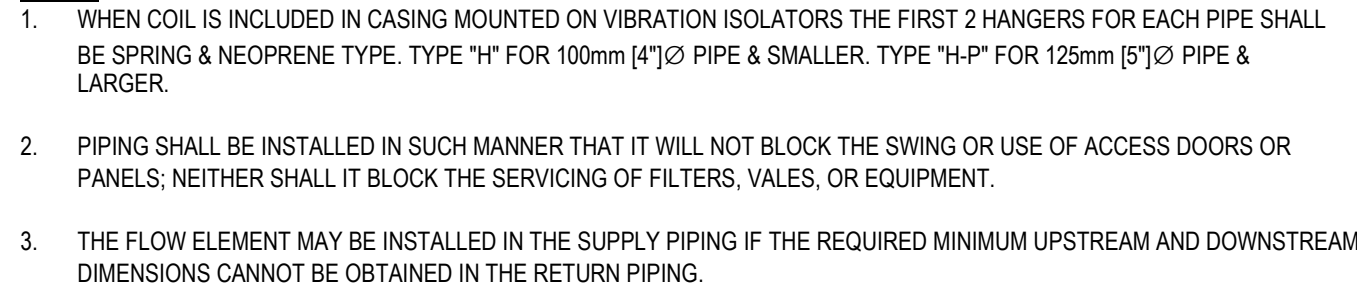
DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

M112

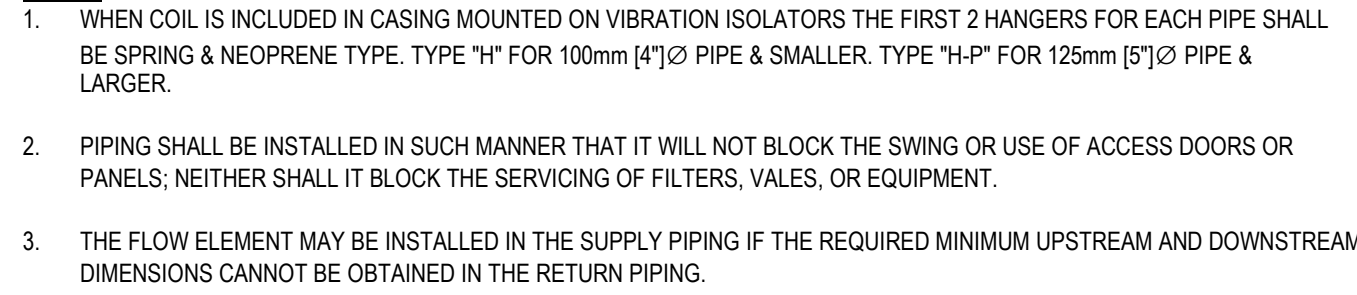
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



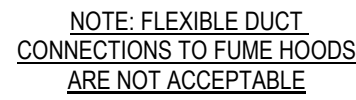
1 HYDRONIC ROOF PLAN
1/8" = 1'-0"



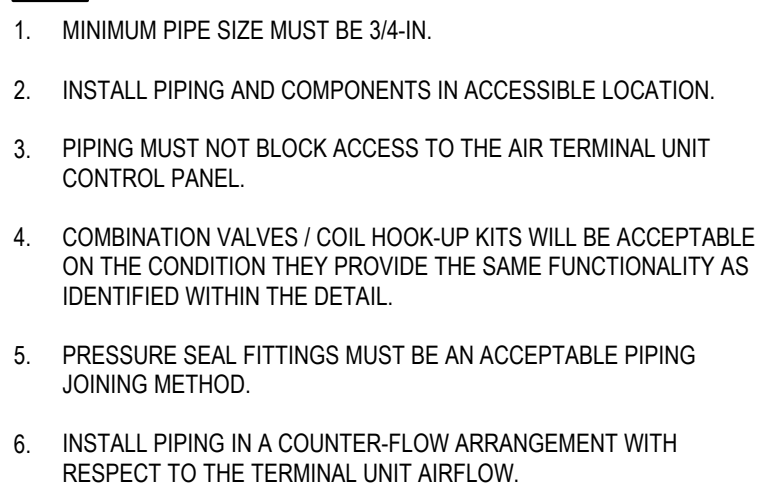
NOT TO SCALE



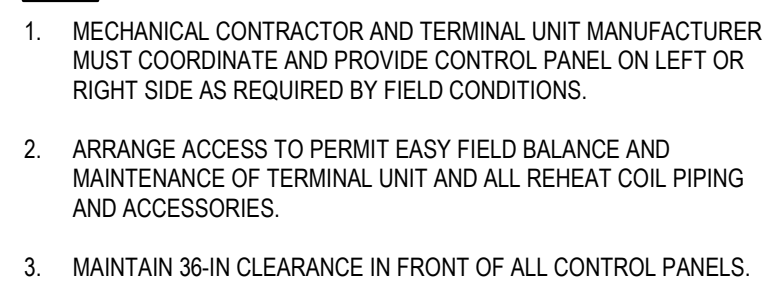
NOT TO SCALE



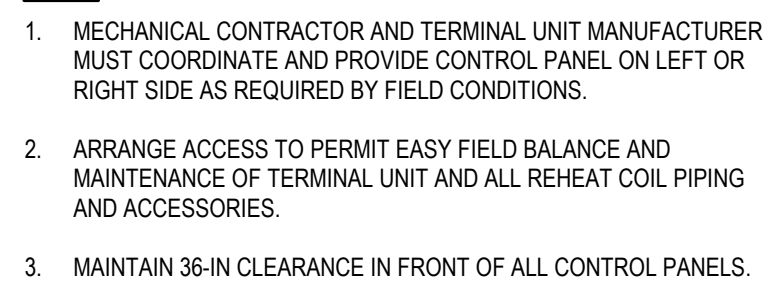
NOT TO SCALE



NOT TO SCALE



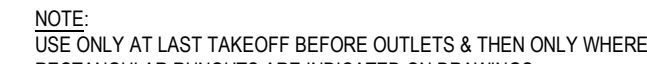
NOT TO SCALE



NOT TO SCALE

NOT TO SCALE

NOT TO SCALE



NOT TO SCALE

Autodesk Docs \CCAC-BioB Boyce Bld Lab\CCAC-008 MEP_24.rvt
4/10/2026 9:37:02 AM

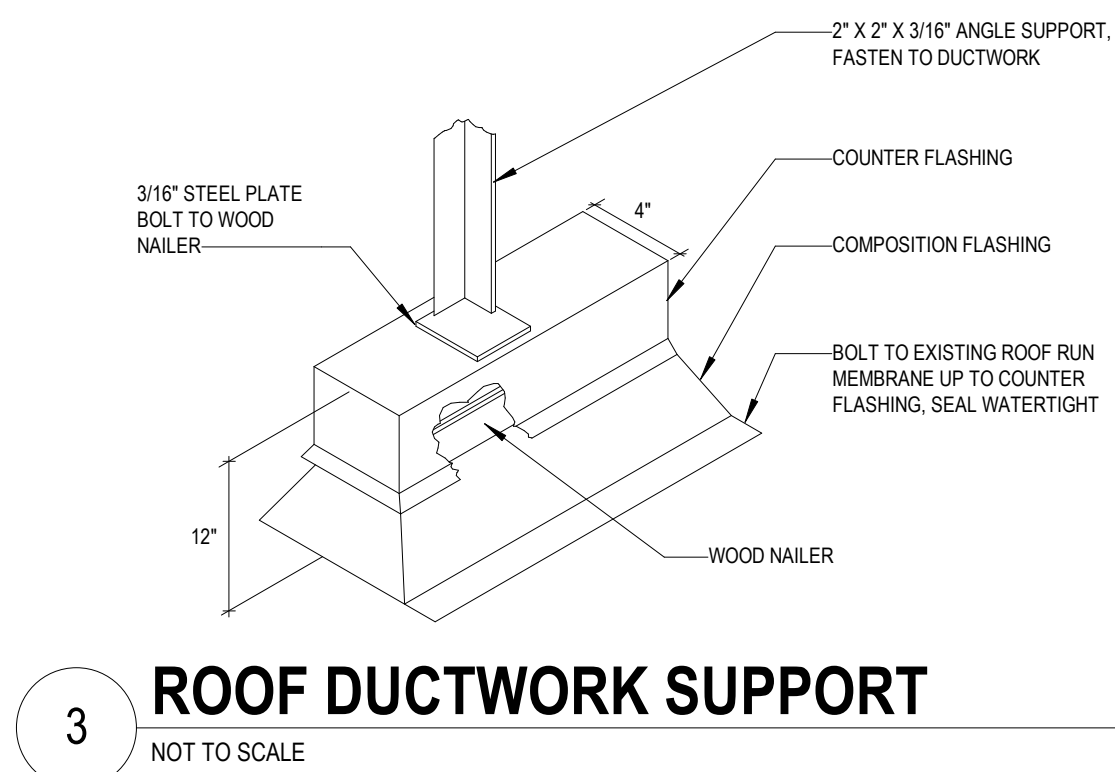
A

B

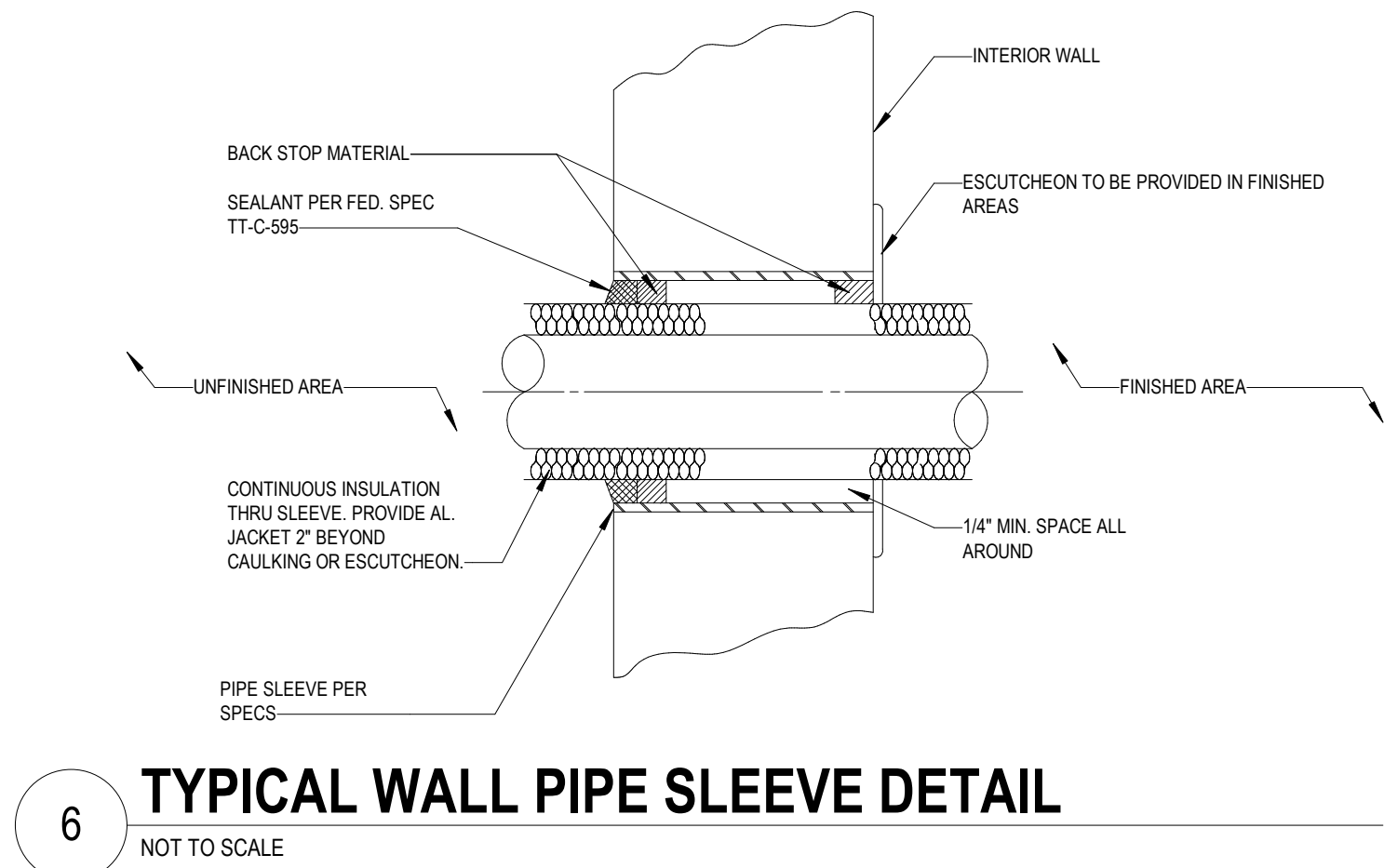
C

D

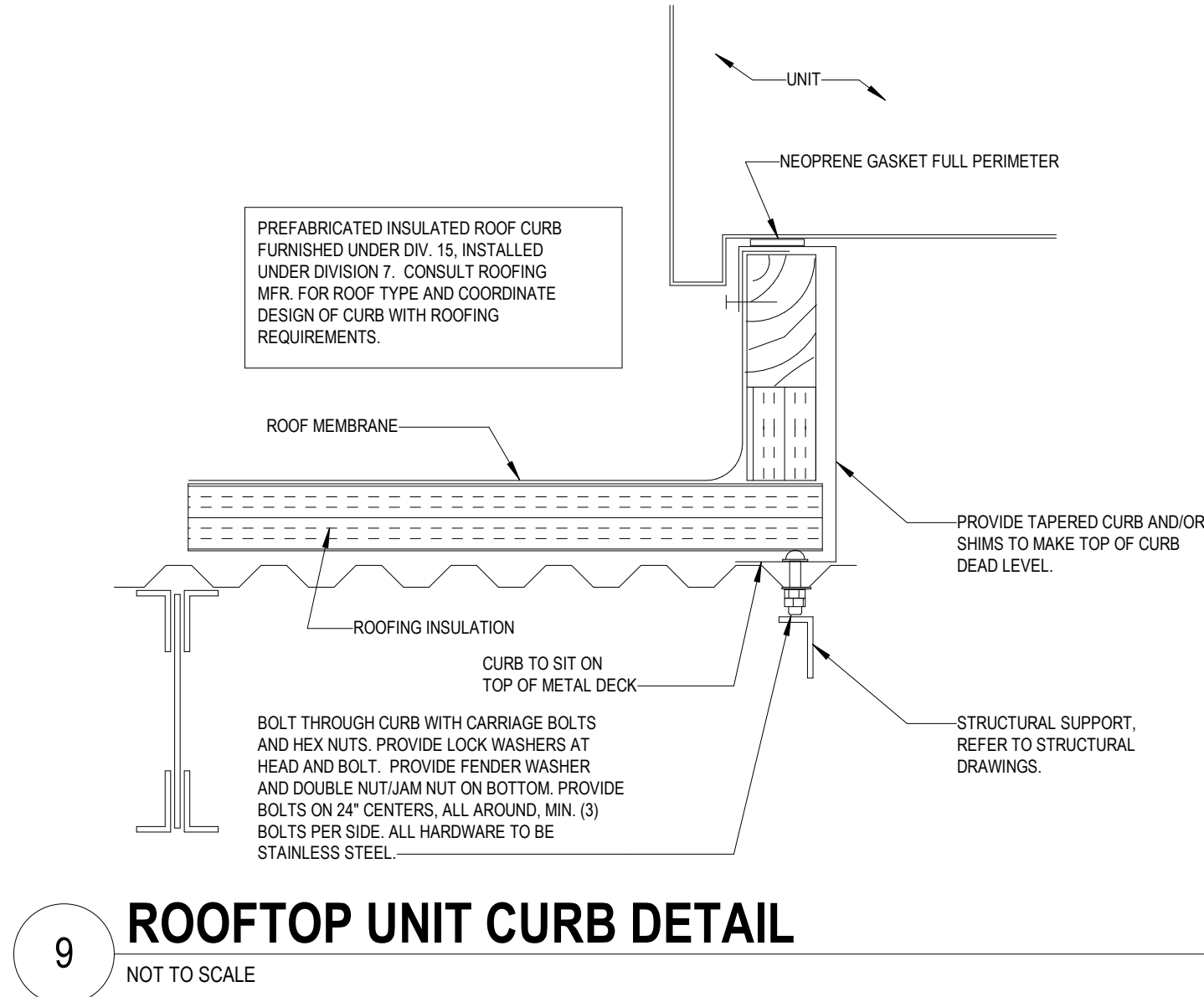
E



3 ROOF DUCTWORK SUPPORT
NOT TO SCALE



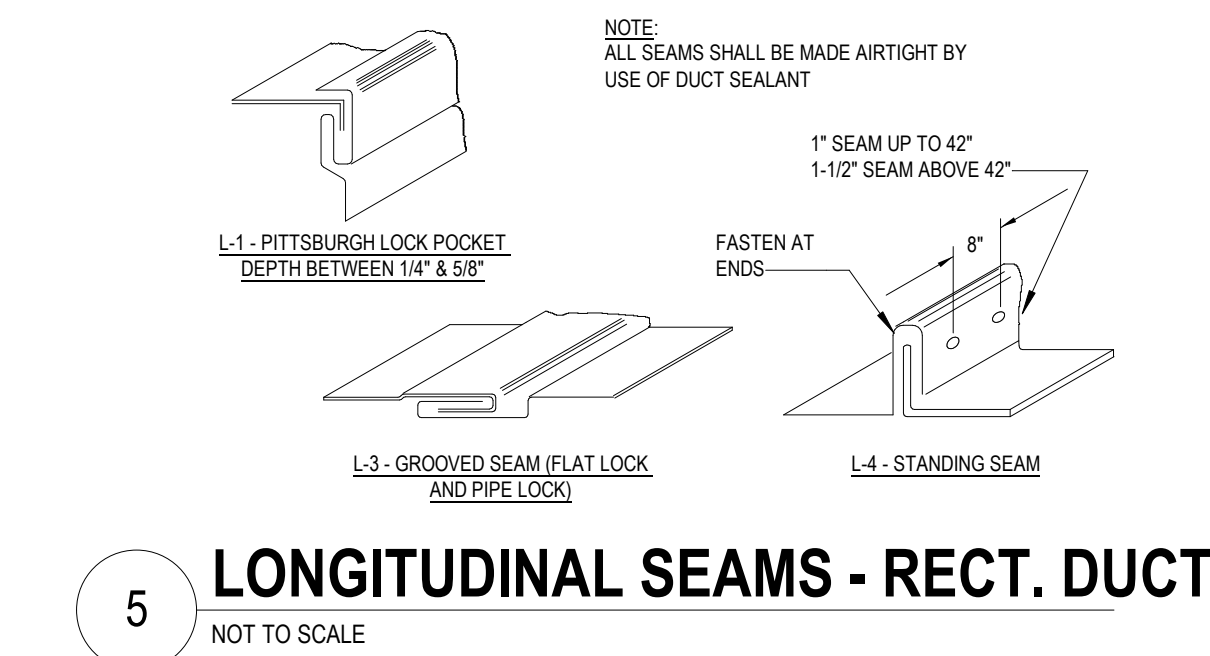
6 TYPICAL WALL PIPE SLEEVE DETAIL
NOT TO SCALE



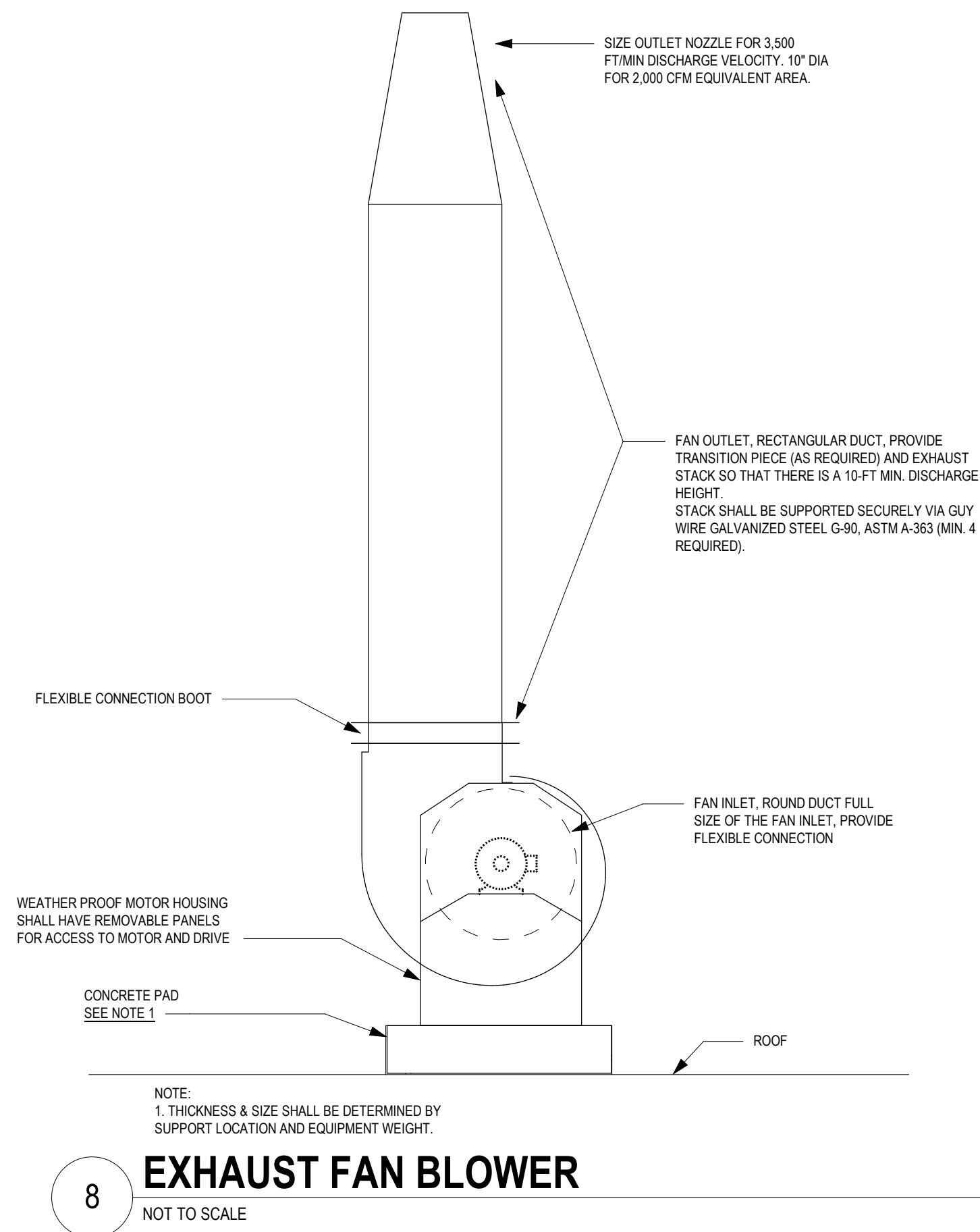
9 ROOFTOP UNIT CURB DETAIL
NOT TO SCALE

2 DUCT HANGER SCHEDULE
NOT TO SCALE

MINIMUM HANGER SIZES FOR ROUND DUCT				
DIAMETER	MAX. SPACING	WIRE DIAMETER	ROD	STRAP
1'-10"	10'	(1) 12 ga.	1/4"	1" x 22 ga.
11'-18"	10'	(2) 12 ga. or (1) 8 ga.	1/4"	1" x 22 ga.
19'-24"	10'	(2) 10 ga.	1/4"	1" x 22 ga.
25'-36"	10'	(2) 8 ga.	3/8"	1" x 20 ga.

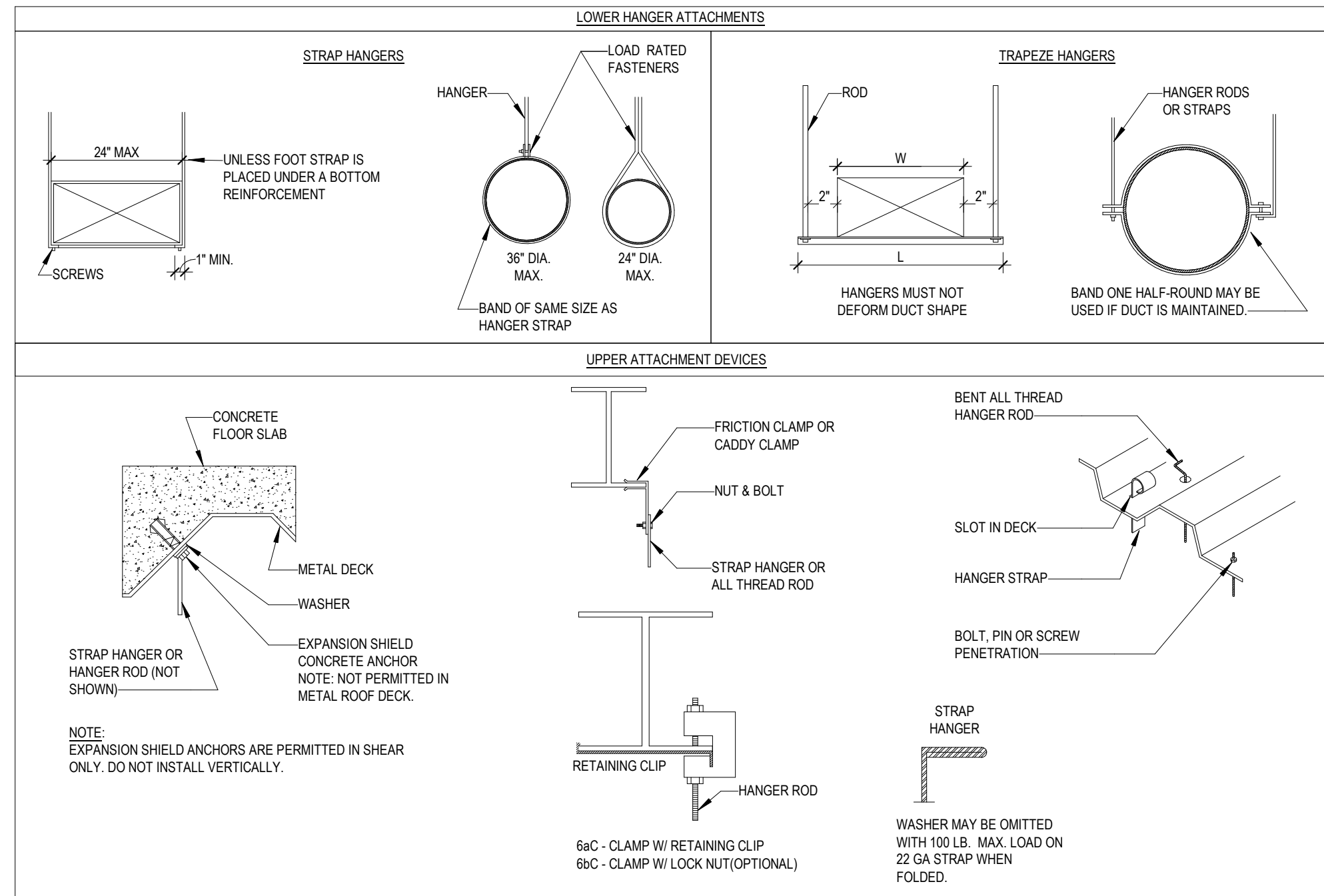


5 LONGITUDINAL SEAMS - RECT. DUCT
NOT TO SCALE

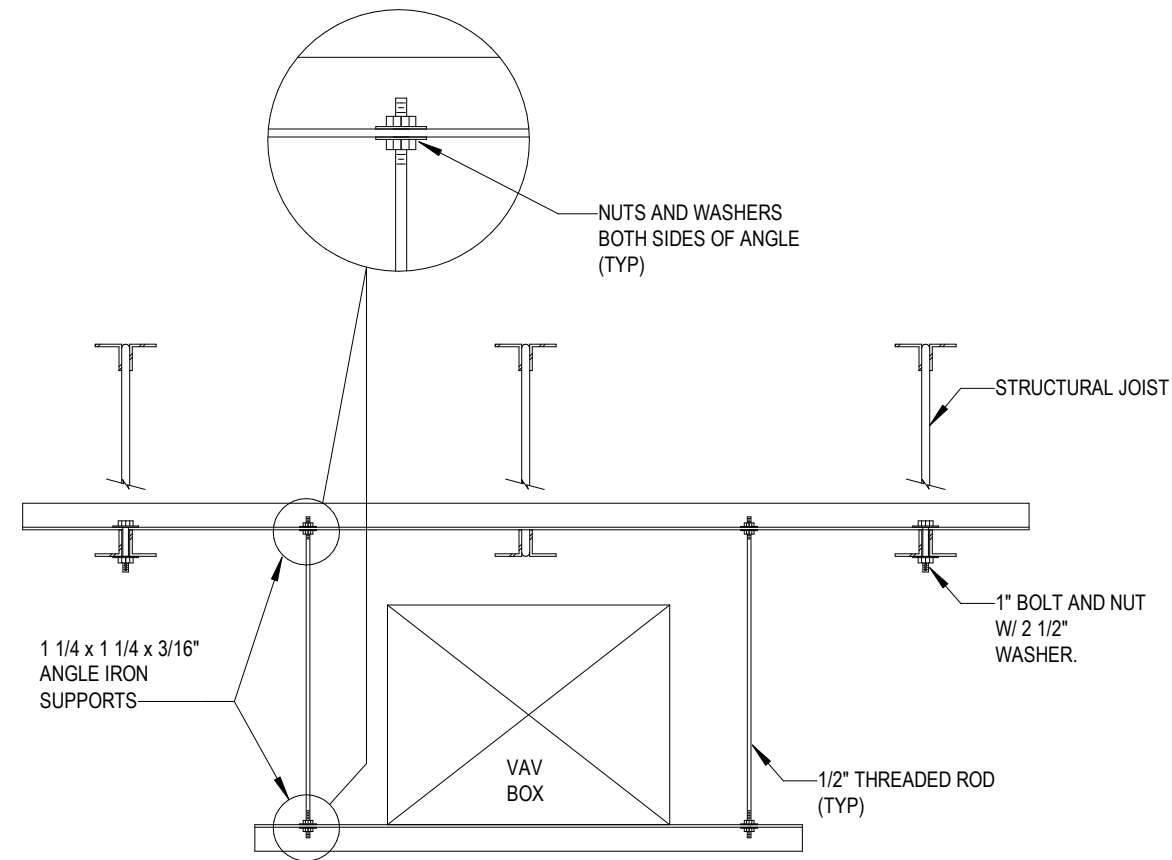


8 EXHAUST FAN BLOWER
NOT TO SCALE

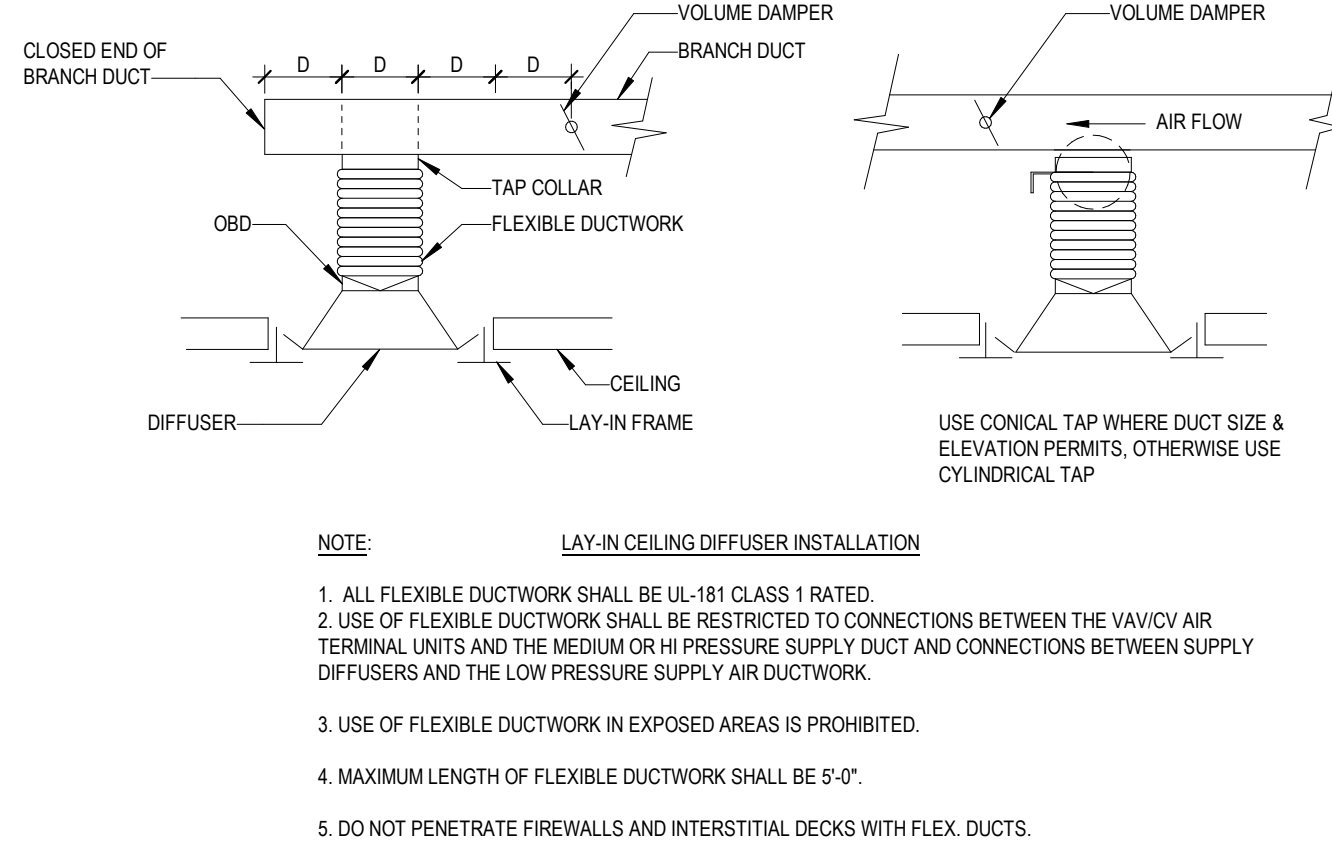
1 DUCT HANGERS
NOT TO SCALE



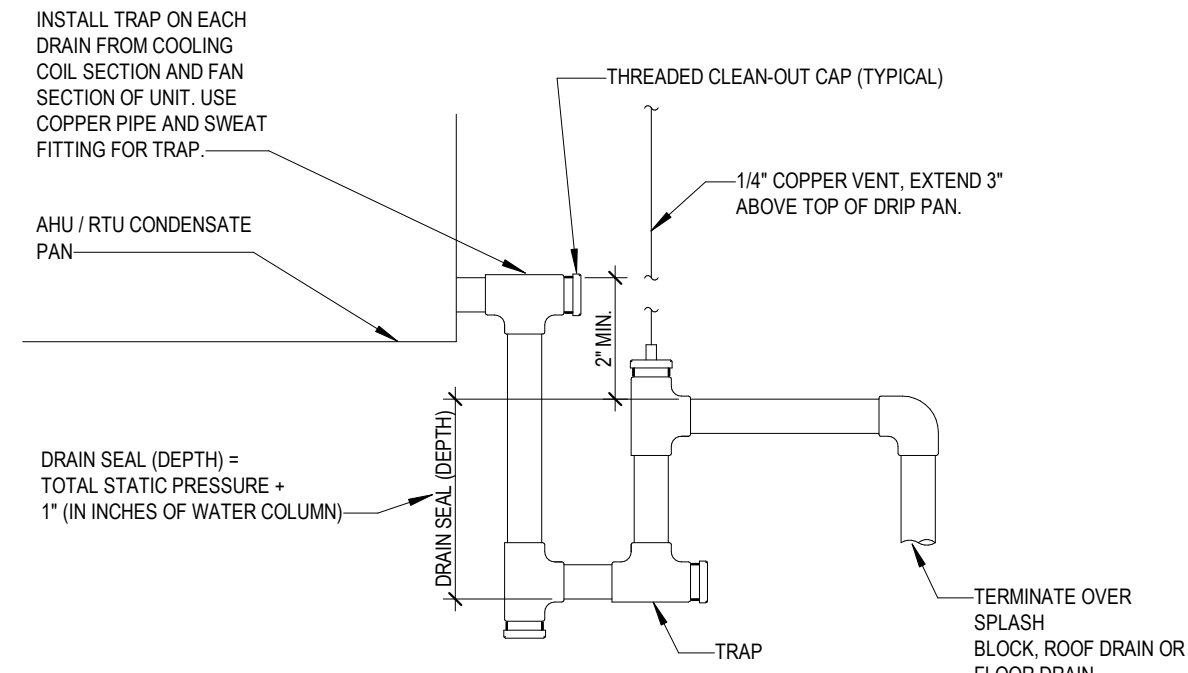
4 VAV TERMINAL SUPPORT DETAIL
NOT TO SCALE



7 CEILING DIFFUSER INSTALLATION
NOT TO SCALE



10 DRAIN CONNECTION FOR ROOFTOP UNITS
NOT TO SCALE



NO	DATE	REVISION

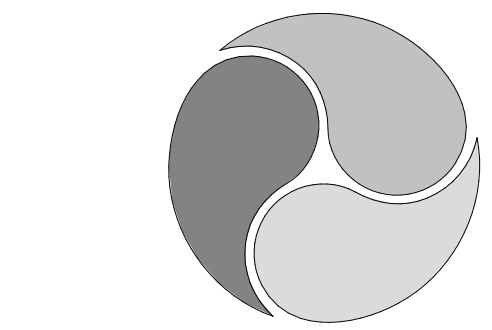
595 Beatty Rd
Monroeville, PA 15146

BID DOCUMENTS

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

AE WORKS®



DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

M502

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

RETURN AIR VALVE SCHEDULE										
SYMBOL	ROOM SERVED	TYPE	OCCUPIED		AIR PD (IN.W.C.)	DUCT CONNECTION SIZE (IN)	UNIT SIZE	MATERIAL	BASIS OF DESIGN (MANUFACTURER & MODEL NUMBER)	NOTES
			MAX AIRFLOW (CFM)	MIN AIRFLOW (CFM)						
RV-S604	A&P LAB	VENTURI	1775	600	0.24	12	112	ALUMINUM	ANTEC VFX	1-2
RV-S606	MICROBIO LAB	VENTURI	1250	240	0.08	12	112	ALUMINUM	ANTEC VFX	1-2
RV-S608	GEN BIO LAB	VENTURI	1880	395	0.19	12	112	ALUMINUM	ANTEC VFX	1-2
RV-S610	GEN BIO LAB 2	VENTURI	1650	405	0.06	12	112	ALUMINUM	ANTEC VFX	1-2
RV-S609	PREP	VENTURI	535	195	0.16	8	108	ALUMINUM	ANTEC VFX	1-2
RV-S605/607	OFFICE/STUDENT LOUNGE	VENTURI	310	55	0.07	6	106	ALUMINUM	ANTEC VFX	1-2

NOTES:
1. EXACT MODEL NUMBER WILL BE DEPENDENT ON INSTALLED CONDITIONS.
2. MANUFACTURER AND MODEL NUMBER ARE FOR BASIS OF DEIGN OR APPROVED EQUAL.

ROOM	SA				RA				EA				ROOM BALL OCC	ROOM BALL OCC	ROOM BALL UNOCC	ROOM BALL UNOCC	
	OCCUPIED		UNOCCUPIED		OCCUPIED		UNOCCUPIED		OCCUPIED		UNOCCUPIED		MAX	MIN	MAX	MIN	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN					
EXISTING CORRIDOR	150	85	85	0	0	0	0	0	0	0	0	0	150	85	85	85	
A&P 1 LAB	1575	1210	620	400	1775	1410	820	600	0	0	0	0	-200	-200	-200	-200	2 DOORS TO CORRIDOR
MICRO BIO LAB / A&P 2	1400	1170	500	390	1250	250	350	240	1250	250	250	250	-100	-100	-100	-100	RA AND EA MODULATE FOR -100
GEN BIO LAB 1	1780	890	890	295	1880	990	960	395	0	0	0	0	-100	-100	-100	-100	
GEN BIO LAB 2	1550	910	480	305	1650	1010	580	405	0	0	0	0	-100	-100	-100	-100	
CORRIDOR	800	800	800	800	0	0	0	0	0	0	0	0	800	800	800	800	
PREP	750	510	325	170	275	535	350	195	725	225	225	225	-250	-250	-250	-250	RA AND EA MODULATE FOR -250
OFFICE	190	50	65	50	140	0	15	0	0	0	0	0	50	50	50	50	50 CFM TRANSFER TO PREP
STUDENT LOUNGE	170	55	120	55	170	55	120	55	0	0	0	0	0	0	0	0	
	8345	5680	3855	2550	7120	4250	3195	1890	1975	475	475	475	250	185	185	185	OVERALL PRESSURIZATION AIR
	MAX UNOCC BASED ON SKIN LOADS												250	185	185	185	
	MIN OCC BASED ON ACH RATES																
					MAX IS LESS THAN MIN DUE TO EA MAX				MIN BASED ON 125 CFM THRU HOOD PLUS 100 CFM FOR CHEM STORAGE BELOW								



M701

1. AN ALARM MUST GENERATE TO THE BAS IF THE SPACE TEMPERATURE IS ABOVE OR BELOW THE SETPOINT BY 3°F FOR 10 MINUTES (ADJUSTABLE).
2. AN ALARM MUST GENERATE TO THE BAS IF THE SPACE DIFFERENTIAL PRESSURE IS HIGHER THAN THE SET POINT FOR 120 SECONDS (ADJUSTABLE) CONTINUOUSLY. UPON THE DIFFERENTIAL PRESSURE RETURNING TO AT OR BELOW THE SETPOINT FOR 30 SECONDS (ADJ.), THE ALARM MUST BE REMOVED.
3. AN ALARM MUST GENERATE TO THE BAS IF THE HUMIDITY IN THE SPACE READS ABOVE A HIGH HUMIDITY STANPOINT OF 60% (ADJUSTABLE, BUT LIMITED BETWEEN 55% AND 70%).
4. AN ALARM MUST GENERATE TO THE BAS IF THERE IS FEEDBACK DISAGREEMENT FROM THE SUPPLY OR RETURN AIR VALVE.

NTS

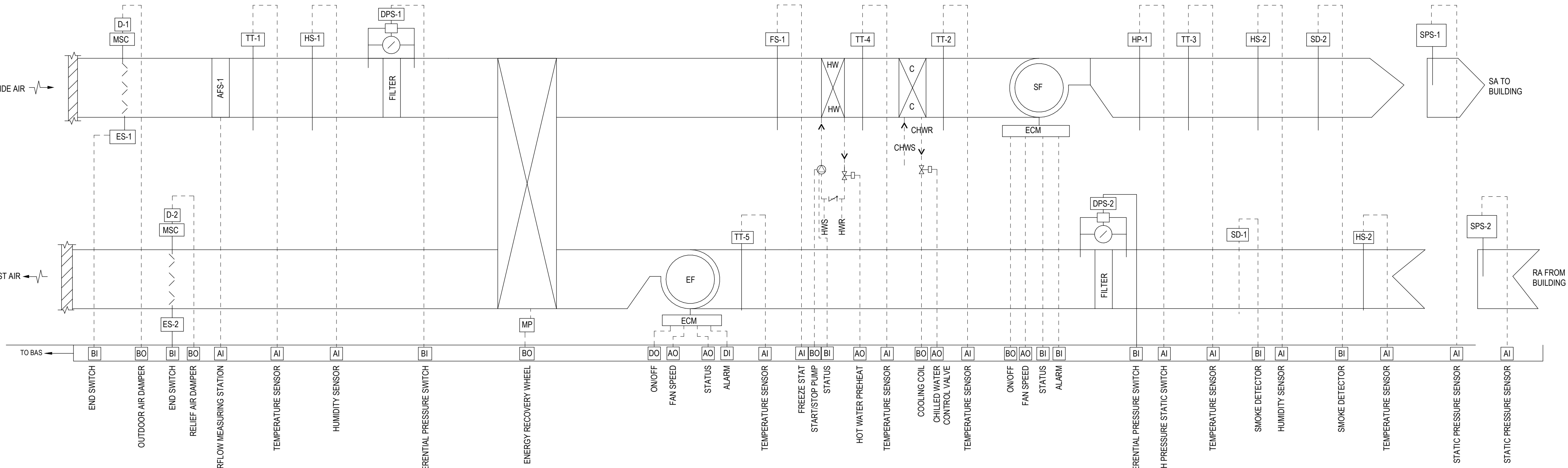


- HIGH PRIORITY - EQUIPMENT FAILURE, FREEZING, OVERHEATING, ETC.
- LOW PRIORITY - HIGH/LOW TEMPERATURES, PRESSURES, DIRTY FILTERS, DIAGNOSTICS, ETC.
- PROVIDE FUNCTION TO DELETE ALL ALARMS FROM THE PRINT QUEUE MANUALLY IF DESIRED. PROVIDE FUNCTION TO SORT ALARMS BY PRIORITY AND PRINT ALARMS BY PRIORITY. PROVIDE A GRAPHIC PAGE TO VIEW BOTH PRIORITY ALARMS. PROVIDE A LOCAL ERROR MESSAGE LINK IN THE LOWER CORNER OF THE GRAPHIC DISPLAY OF THE AHU TO DISPLAY JUST ERROR MESSAGES ASSOCIATED WITH THE PIECES OF EQUIPMENT DISPLAYED IN THE GRAPHIC PAGE.

NTS

100

NTS

[illegible]

NTS



- A. GENERAL LAB SEQUENCES
1. SUPPLY AIR VALVE (SAV), EXHAUST AIR VALVE (EAV) AND RETURN AIR VALVE (RAV) FOR THIS LAB MUST MODULATE TOGETHER TO MAINTAIN A NEGATIVE PRESSURIZATION. THE HOT WATER HEATING COILS WILL MAINTAIN SPACE TEMPERATURE AND HUMIDITY SETPOINTS.
 2. THE SAV, RAV AND EAV WILL MODULATE THE SUPPLY AND RETURN AIR FLOW BETWEEN THE SCHEDULED MAXIMUM AND MINIMUM AIR FLOW RATES SCHEDULED FOR OCCUPIED AND UNOCCUPIED CONDITIONS, PER THE AIR BALANCE TABLE TO MAINTAIN THE INDICATED AIR CHANGE RATES AND AIR BALANCE CONDITIONS. OCCUPANCY SHALL BE SENSED BY LIGHTING CONTROL, OCCUPANCY SENSOR.
 3. SEE THE GENERAL AIR VALVE CONTROL SEQUENCE, DIAGRAM, AND POINTS LIST FOR ADDITIONAL REQUIREMENTS.
- B. TEMPERATURE CONTROL (STANDARD OPERATION)
1. SETPOINTS
 - i. HEATING: 70 F, 30% RH (ADJUSTABLE)
 - ii. COOLING: 75 F, 50% RH (ADJUSTABLE)
 2. HEATING
 - i. AS THE POSITION OF SUPPLY AIR VALVE OPENS, THE HOT WATER 2-WAY CONTROL VALVE WILL MODULATE OPEN TO MAINTAIN SPACE TEMPERATURE. TO MEET AIR FLOW REQUIREMENTS AND THE SPACE TEMPERATURE DROPS BELOW THE HEATING SETPOINT.
 - ii. THE OPPOSITE WILL OCCUR ON A RISE IN SPACE TEMPERATURE.
 3. COOLING
 - i. WHEN THE SPACE TEMPERATURE IS ABOVE BETWEEN 70F AND 75F THE SAV SUPPLY AIR DAMPER SHALL BE MODULATED BETWEEN MINIMUM AND MAXIMUM SCHEDULED AIR FLOW RATES IN THE AIR BALANCE TABLE TO MAINTAIN THE SPACE SETPOINT. IF THE SPACE IS OVERCOOLED AT THE MINIMUM SUPPLY AIR FLOW RATE, THE HOT WATER 2-WAY VALVE SHALL MODULATE TO MAINTAIN SPACE SETPOINT.
- C. HUMIDITY CONTROL
1. IN ANY HEATING OR COOLING MODE, IF THE SPACE HUMIDITY, AS SENSED BY THE SPACE HUMIDITY SENSOR, RISES ABOVE 60% FOR 5 MINUTES (ADJ.), THE SAV DAMPER SHALL OPEN TO MAXIMUM POSITION AND THE SAV COILS WILL MODULATE TO MAINTAIN SPACE TEMPERATURE.
 2. ONCE THE SPACE RELATIVE HUMIDITY LEVELS DROP BELOW 50%, SPACE TEMPERATURE CONTROLS TAKES OVER FOR THE AHU SUPPLY AIR TEMPERATURE SETPOINT..
- D. FUME HOOD OPERATION
1. THE ASSOCIATED EXHAUST AIR VALVE WILL MODULATE AIRFLOW BASED ON THE SASH POSITION AND VELOCITY SENSOR.
 2. THE EXHAUST AIR VALVE MUST MODULATE AIRFLOW TO MAINTAIN A 100FPM AIR VELOCITY ACROSS THE SASH OPENING AS SENSED BY THE SASH VELOCITY SENSOR.
 3. THE AIR VELOCITY MAY BE REDUCED TO 60FPM WHEN NO OCCUPANTS ARE SENSED BY THE ZONE PRESENCE SENSOR FOR 10 MINUTES (ADJ.)
 4. THE EXHAUST AIR VALVE FOR THE VENTED CHEMICAL STORAGE CABINET SHALL OPERATE TO PROVIDE A CONSTANT 100 CFM OF EXHAUST.

- F. ALARMS
1. AN ALARM MUST GENERATE TO THE BAS WHEN THE SASH AIR VELOCITY IS BELOW 100 FPM OR 60 FPM/ADJUSTABLE BASED ON THE ZONE PRESSURE SENSOR INPUT) CONTINUOUSLY FOR 10 SECONDS (ADJUSTABLE).
 2. AN ALARM MUST GENERATE TO THE BAS IF THE SPACE TEMPERATURE IS ABOVE OR BELOW THE SETPOINT BY 3°F FOR 10 MINUTES (ADJUSTABLE).
 3. AN ALARM MUST GENERATE TO THE BAS IF THE EXHAUST FAN FAILS TO START UPON ACTIVATION OF THE FUME HOODS.
 4. AN ALARM MUST GENERATE TO THE BAS IF THE SPACE DIFFERENTIAL PRESSURE IS HIGHER THAN THE SET POINT FOR 120 SECONDS (ADJUSTABLE) CONTINUOUSLY. UPON THE DIFFERENTIAL PRESSURE RETURNING TO AT OR BELOW THE SETPOINT FOR 30 SECONDS (ADJ.), THE ALARM MUST BE REMOVED.
 5. AN ALARM MUST GENERATE TO THE BAS IF THE HUMIDITY IN THE SPACE READS ABOVE A HIGH HUMIDITY STANDPOINT OF 60% (ADJUSTABLE, BUT LIMITED BETWEEN 55% AND 70%).
 6. AN ALARM MUST GENERATE TO THE BAS IF THERE IS FEEDBACK DISAGREEMENT FROM THE SUPPLY, RETURN, OR EXHAUST VALVE.

MICROBIO LAB/A&P 2 SEQUENCE OF OPERATION

NTS

SYSTEM POINT LIST

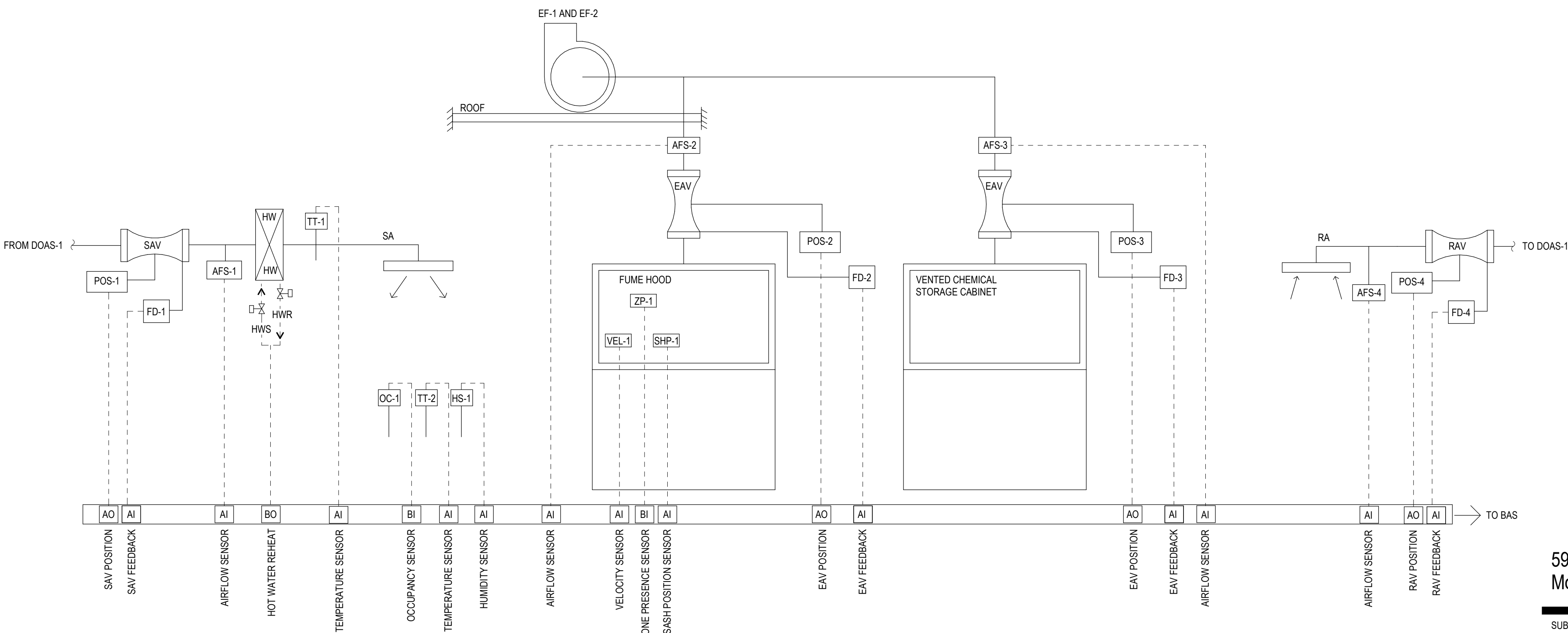
PREP	ANALOG												BINARY				SYSTEMS FEATURES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	INPUT						OUTPUT						INPUT	OUTPUT	ALARMS				PROGRAMS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	GRAPHIC TEMPERATURE	TEMPERATURE	RELATIVE HUMIDITY	RH	RAV	CPM	PPM	PERCENT	PERCENT	PERCENT	VELOCITY	DOCS	POSITION	SETPOINT ADJ.	MODULATING	SPEED	PIRELL TRANSDUCER	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF

SYSTEM POINT LIST

MICROBIO LAB/A&P 2 LAB		ANALOG												BINARY				SYSTEMS FEATURES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		INPUT						OUTPUT						INPUT		OUTPUT		ALARMS					PROGRAMS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
SYSTEM POINT DESCRIPTION		GRAPHIC TEMPERATURE PRESSURE	RH	KW	GPM	PPM	PERCENT	PERCENT	FLA	VELOCITY	SMOKE	DOCS	POSITION	SETPOINT ADJ.	MODULATING	SPEED	MELT TRANSDUCER	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	STATUS ON/OFF	

PREP SEQUENCE OF OPERATION

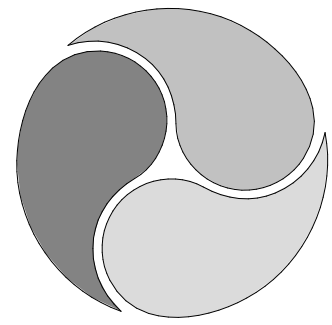
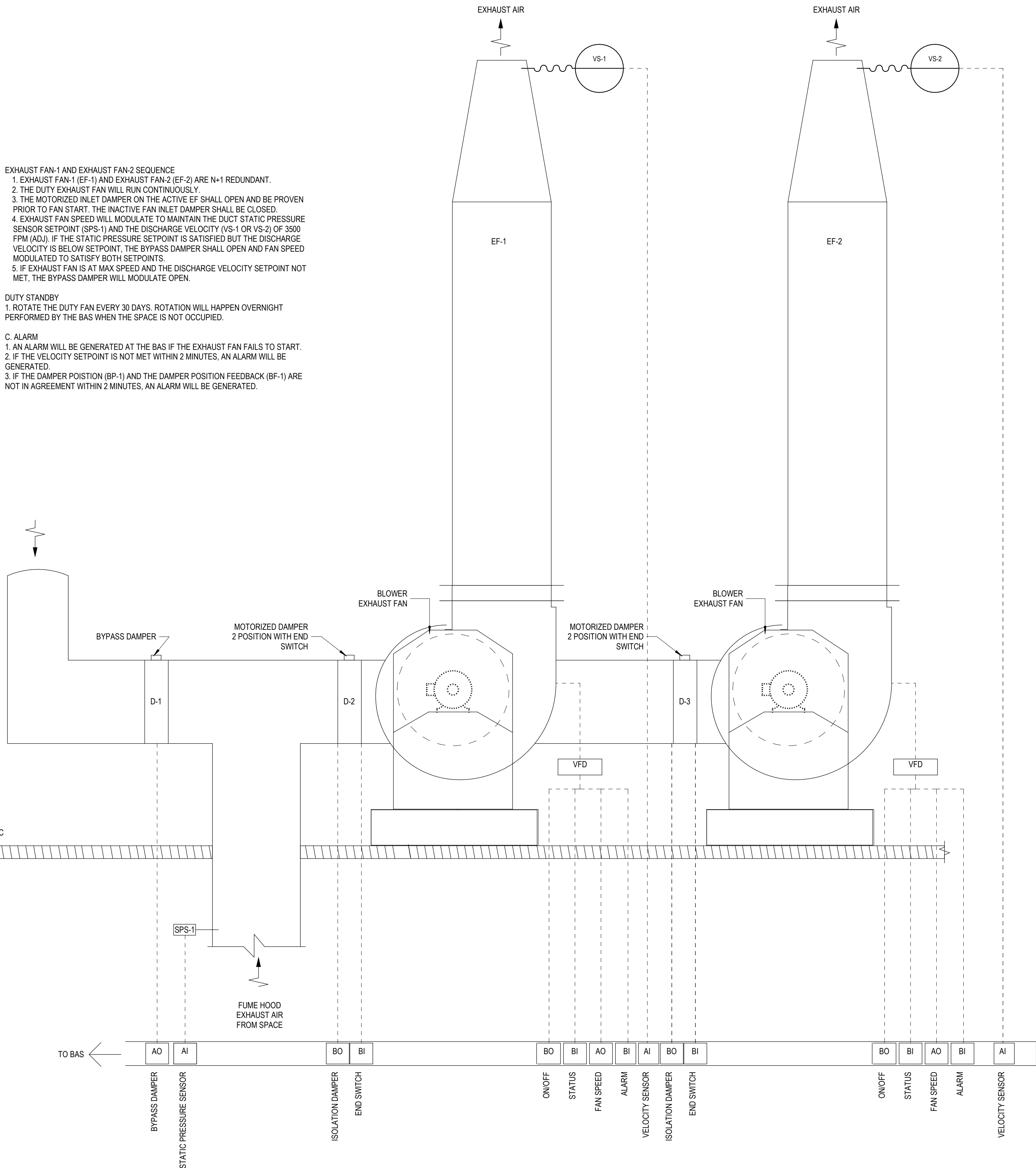
NTS



SYSTEM POINT LIST																											
EXHAUST FANS		ANALOG										BINARY				SYSTEMS FEATURES											NOTES
		INPUT					OUTPUT					INPUT		OUTPUT		ALARMS			PROGRAMS								
		TEMPERATURE	PRESSURE	FLOW	POWER	PHASE	POSITION	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	
SYSTEM POINT DESCRIPTION		GRAPHIC																									
VFD		X																									EF-1 EXHAUST FAN ON/OFF
VFD		X																									EF-1 EXHAUST FAN STATUS
VFD		X																									EF-1 EXHAUST FAN SPEED
VFD		X																									EF-1 EXHAUST FAN FEEDBACK
VFD		X																									EF-2 EXHAUST FAN ON/OFF
VFD		X																									EF-2 EXHAUST FAN STATUS
VFD		X																									EF-2 EXHAUST FAN SPEED
VFD		X																									EF-2 EXHAUST FAN FEEDBACK
SPS-1		X	X																								STATIC PRESSURE SENSOR
VS-1		X																									EF-1 EXHAUST VELOCITY SENSOR
VS-2		X																									EF-2 EXHAUST VELOCITY SENSOR
D-1		X																									BYPASS DAMPER
D-2		X																									EF-1 ISOLATION DAMPER
D-2		X																									EF-1 DAMPER END SWITCH
D-3		X																									EF-2 ISOLATION DAMPER
D-3		X																									EF-2 DAMPER END SWITCH

1 EXHAUST FANS CONTROL DIAGRAMS

NTS



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

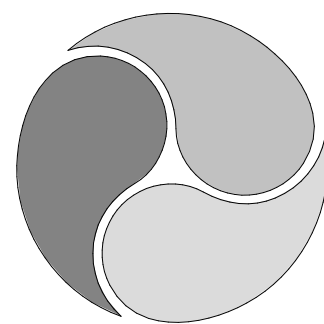
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
CONTROL DIAGRAMS

DRAWN BY: ATL
CHECKED BY: TS
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

M803

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY**

PLUMBING GENERAL PROJECT NOTES

- 1 NOT ALL SYMBOLS ARE NECESSARILY USED
- 2 DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR TO FIELD VERIFY PIPE ROUTING AND COORDINATE INTERFERENCE BETWEEN TRADES PRIOR TO INSTALLATION
- 3 ROOF OPENINGS, FLASHING, AND COUNTER FLASHING BY GENERAL CONTRACTOR. LOCATION OF OPENINGS BY PLUMBING CONTRACTOR.
- 4 PROVIDE ALL MATERIALS, EQUIPMENT AND PERFORMANCE ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- 5 CONTRACT DOCUMENT DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. CONTRACTOR WILL BE RESPONSIBLE TO FIELD SURVEY ACTUAL SITE CONDITIONS AND ACCOMMODATE ACTUAL SITE CONDITIONS AS PART OF SCOPE OF WORK AT NO COST TO OWNER.
- 6 INSTALL ALL PLUMBING EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, CONTRACT DOCUMENTS, APPLICABLE BUILDING, STATE AND LOCAL CODES, SEISMIC REQUIREMENTS, ENERGY CODES AND INSURANCE UNDERWRITER REQUIREMENTS.
- 7 COORDINATE CONSTRUCTION OF ALL PLUMBING WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL AND ELECTRICAL WORK, ETC. SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- 8 MAINTAIN A MINIMUM OF 6" CLEARANCE TO UNDERSIDE OF PIPES, CONDUITS, SUSPENDED EQUIPMENT, SUPPORTS, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
- 9 ALL TESTS MUST BE COMPLETED AND ACCEPTED BY THE INSPECTOR BEFORE ANY EQUIPMENT OR PIPING INSULATION IS APPLIED.
- 10 LOCATE ALL TEMPERATURE, PRESSURE AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE UPSTREAM AND DOWNSTREAM, AS RECOMMENDED BY THE MANUFACTURER.
- 11 WHERE TWO OR MORE TYPES OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCTS OF A SINGLE MANUFACTURER MUST BE USED.
- 12 COORDINATE ALL FINAL EQUIPMENT CONNECTIONS WITH THE MANUFACTURERS' CERTIFIED DRAWINGS, COORDINATE, AND PROVIDE PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE PIPING DIMENSIONS BEFORE FABRICATION.
- 13 ALL CONTROL WIRE AND CONDUIT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE, DIVISION 26 OF THE SPECIFICATIONS, ALL LOCAL CODES, AND OWNERS INSURANCE UNDERWRITER REQUIREMENTS.
- 14 THE LOCATIONS AND SIZES OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS AND SIZES NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND MUST HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- 15 PLAN DRAWINGS AND SECTIONS CUTS WHICH SPECIFICALLY IDENTIFY SERVICE ROUTE OFFSETS, ELEVATION CHANGES, OBSTRUCTIONS, ACCESS DOORS, BALANCING DEVICES, ETC. ARE SHOWN FOR CLARITY WHERE SPECIFIC KNOWN CONDITIONS EXIST. PLUMBING CONTRACTOR MUST COORDINATE EQUIPMENT AND PIPING ROUTINGS WITH ALL OTHER TRADES. REQUIREMENTS NOT SPECIFICALLY IDENTIFIED MUST NOT BE INTERPRETED AS EXCLUSION FROM CONTRACTORS SCOPE OF WORK. CONTRACTOR WILL BE RESPONSIBLE FOR ACTUAL SITE CONDITIONS AND MUST INCLUDE SUCH CONDITIONS IN SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
- 16 ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND SUPPORT OF PLUMBING WORK AS SHOWN IN DETAILS FOR PIPING, AND EQUIPMENT (UNLESS OTHERWISE NOTED) MUST BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 17 ALL EQUIPMENT, PIPING, ETC., MUST BE SUPPORTED AS DETAILED, SPECIFIED AND AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 18 ALL OPENINGS IN FIRE RATED WALLS AND SMOKE PARTITIONS DUE TO PIPING, CONDUIT, ETC., MUST BE FIRE STOPPED WITH APPROVED FIRESTOPPING MATERIALS.
- 19 REFER TO TYPICAL DETAILS FOR PIPING AND EQUIPMENT INSTALLATION.
- 20 LOCATE ALL EQUIPMENT SO THERE IS UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, CONTROLS AND VALVING.
- 21 INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REACH ACCESSIBLE.
- 22 ALL ISOLATION VALVES MUST BE IN LOCATION AND ELEVATION WHICH ALLOWS FOR EQUIPMENT AND BRANCH PIPING REMOVAL, WHILE MAINTAINING SERVICE UPSTREAM OF THE ISOLATION VALVE.
- 23 ALL BALANCING VALVES AND ISOLATION VALVES USED TO ADJUST FLOW RATES MUST BE PROVIDED WITH POSITIONS INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
- 24 MEASURE, CUT AND INSTALL PIPE LENGTH ACCURATELY TO MINIMIZE MISALIGNMENT. INSTALL ALL PIPING WITHOUT FORGING OR SPRINGING.
- 25 PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS MUST BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON THE DRAWINGS.
- 26 CONCRETE HOUSEKEEPING PADS MUST BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR. PLUMBING CONTRACTOR MUST PROVIDE EQUIPMENT WEIGHTS, SIZES AND LOCATION TO GENERAL CONTRACTOR. MINIMUM CONCRETE PAD THICKNESS MUST BE IN ACCORDANCE WITH STRUCTURAL DETAILS. PAD MUST EXTEND BEYOND THE EQUIPMENT FOOTPRINT A MINIMUM OF 6 INCHES ON EACH SIDE.
- 27 ALL PIPING, AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL MUST BE COORDINATED WITH GENERAL CONTRACTOR. ALL ATTACHEMENTS TO STEEL MEMBERS, BAR JOISTS, TRUSSES, OR LOST GIRDERS MUST BE APPROVED BY STRUCTURAL ENGINEER. WELDINGS TO STRUCTURAL MEMBERS WILL NOT BE PERMITTED.
- 28 EQUIPMENT AND PIPING MUAIR NOT BE SUPPORTED FROM ROOF OR DECK ASSEMBLY. SUPPORTS MUAIR ATTACH TO STRUCTURAL MEMBERS. COORDINATE WITH STRUCTURAL DRAWINGS.
- 29 PROVIDE MANUFACTURERS MATCHING ROOF CURBS FOR ALL ROOF MOUNTING EQUIPMENT. COORDINATE ACTUAL ROOF PITCH AND CONSTRUCTION DETAILS WITH GENERAL CONTRACTOR. PROVIDE SLOPED CURBS PER MANUFACTURERS RECOMMENDATIONS. GENERAL CONTRACTOR MUST INSTALL ROOF CURBS AND FLASHING PER ROOFING MANUFACTURERS INSTALLATION REQUIREMENTS.
- 30 UNLESS OTHERWISE NOTED, ALL PIPING AND DUCTWORK IF OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB, WITH SPACE FOR INSULATION.
- 31 PROVIDE CHAINWHEEL OPERATORS FOR ALL EXPOSED VALVES MOUNTED GREATER THAN 8'-0" ABOVE FINISHED FLOOR LEVEL. CHAIN MUST EXTEND UNOBSTRUCTED TO 7'-0" ABOVE FLOOR LEVEL.
- 32 ALL PIPING AND DUCTWORK MUST CLEAR DOORS, WINDOWS, EQUIPMENT CLEARANCES, MAINTENANCE REQUIREMENTS, CODE SETBACKS, ETC. TO ASSURE PROPER OPERATION, INSPECTION AND MAINTENANCE.
- 33 ALL VALVES MUST BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
- 34 ALL EQUIPMENT SUBMITTALS AND SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO PURCHASE, FABRICATION AND INSTALLATION.
- 35 ALL DEVICES AND SURFACES WITH ELEVATED TEMPERATURES WHICH CAN BE ACCESSED OR COME IN CONTACT WITH OWNER PERSONNEL, MUST BE PROTECTED, INSULATED, OR CONTROLLED TO REMAIN BELOW 120°F.
- 36 ALL PIPING SHALL BE INSTALLED IN SUCH A MANNER TO AVOID FREEZING. NO PIPING WILL BE INSTALLED ON THE EXTERIOR SIDE OF BUILDING ENVELOPE INSULATION.
- 37 ALL SLOPED PLUMBING SYSTEMS MUST HAVE RIGHT OF WAY OVER ALL OTHER BUILDING SYSTEMS. INSTALL SANITARY HIGH POINTS AS HIGH AS POSSIBLE TO ALLOW FOR PROPER PITCH.
- 38 ALL HOT WATER RECIRCULATION SYSTEMS MUST BE PROPERLY BALANCED PRIOR TO PROJECT TURNOVER TO OWNER.
- 39 INSTALL TRAP PRIMERS ON ALL FLOOR DRAINS AND TRAPS REQUIRED BY CODE.

PIPELINE ABBREVIATIONS

---	---	DOMESTIC COLD WATER
---	---	DOMESTIC HOT WATER
---	AW	ACID WASTE PIPING
---	AV	ACID VENT PIPING
---	G	NATURAL GAS PIPING
---	DI	DISTILLED WATER PIPING

PIPELINE SYMBOLS

	BALL VALVE
	GATE VALVE
	CHECK VALVE
	3-WAY VALVE
	BALANCING VALVE
	ECCENTRIC REDUCER
	PIPING TURNED UP
	PIPING TURNED DOWN
	TEE - OUTLET UP
	TEE - OUTLET DOWN
	PIPE CONTINUATION SYMBOL

ABBREVIATIONS

Ø	ROUND	MAX	MAXIMUM
ABV	ABOVE	MECH	MECHANICAL
AF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AP	ACCESS PANEL	MIN	MINIMUM
ARCH	ARCHITECT/ARCHITECTURAL	MISC	MISCELLANEOUS
BLW	BELOW FINISHED FLOOR	MTR	MOTOR
BLW	BELOW	NC	NORMALLY CLOSED
CAP	CAPACITY	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	PLBG	PLUMBING
D	DEGREE	PRV	PRESSURE REDUCING VALVE
DB	DRY BULB	PSI	POUNDS PER SQUARE INCH
DA	DIAMETER	PSF	POUNDS PER SQUARE INCH
DN	DOWN	RM	ROOM
DW	DISTILLED WATER	SAN	SANITARY
EA	EACH	SF	SQUARE FOOT
EQUIP	EQUIPMENT	TYP	TYPICAL
EW	ELECTRIC WATER COOLER	V	VENT
EX	EXISTING	VTR	VENT THROUGH ROOF
F	DEGREES FAHRENHEIT	W	WASTE
FDO	FLOOR CLEAN OUT	WCO	WALL CLEAN OUT
FD	FLOOR DRAIN	WH	WALL HYDRANT
FL	FLOOR		
FT	FOOT/FEET		
GAL	GALLON		
GC	GENERAL CONTRACTOR		
GPM	GALLONS PER MINUTE		
HB	HOSE BIB		
HP	HORSE POWER		
HTR	HEATER		
HW	HOT WATER		
ID	INDIRECT		
IN	INCH		
INV	INVERT		

GENERAL MECHANICAL SYMBOLS

	REVISION NUMBER - SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	POINT OF DISCONNECTION FROM EXISTING
	DETAIL NUMBER
	KEYNOTE

WORK AREA COORDINATIONS NOTES:

1. REFER TO G102 PHASING PLAN FOR LOCATION OF CONSTRUCTION BARRIERS AND AREA OF WORK AVAILABLE FOR DURATION OF PROJECT AT 6TH FLOOR.
2. PHASE WORK TO MAINTAIN ACCESS TO ONE TOILET ROOM DURING ENTIRE DURATION OF CONSTRUCTION.

ROOF COORDINATIONS NOTES:

1. ALL PRIME CONTRACTORS SHALL COORDINATE, THROUGH CCAC, ALL DEMOLITION AND NEW WORK DETAILED IN THIS DOCUMENT SET AND SEQUENCE OF WORK WITH CONCURRENT ROOF REPLACEMENT PROJECT.
2. ALL PRIME CONTRACTORS SHALL PARTICIPATE IN A COORDINATION MEETING, SCHEDULED BY CCAC, TO ALIGN SEQUENCE OF WORK WITH BOTH PROJECTS CONSTRUCTION SCHEDULES.
3. ALL PRIME CONTRACTORS SHALL COMPLETE THE FOLLOWING WORK BEFORE THE ROOF REPLACEMENT PROJECT BEGINS: REMOVE ALL EXISTING ROOFTOP EQUIPMENT DESIGNATED FOR DEMOLITION IN THE DOCUMENTS; REMOVE ALL EQUIPMENT RAILS, SUPPLEMENTAL SUPPORT, AND EQUIPMENT CURBS; INFILL ALL EXISTING OPENINGS IN ROOF DECK AS DETAILED IN STRUCTURAL DRAWINGS; AND PROVIDE TEMPORARY ROOF MEMBRANE PATCH AT INFILLED OPENINGS.
4. ROOFING REPLACEMENT CONTRACTOR SHALL COMPLETE THE FOLLOWING WORK: REMOVE ALL EXISTING BALLAST, ROOF PAVERS, AND ROOF MEMBRANE; REPAIR PARAPET WALL; AND INSTALL NEW EPDM ROOF MEMBRANE OVER NEW INSULATION. ROOFING REPLACEMENT CONTRACTORS WORK IN NOT INCLUDED IN THIS PROJECT SCOPE OF WORK.
5. ALL PRIME CONTRACTORS SHALL INSTALL ALL NEW EQUIPMENT, CURBS STRUCTURAL SUPPORT, DUCT AND VENT PENETRATIONS IN NEW ROOF SYSTEM, INCLUDING ALL FLASHING AT CURBS, RAILS, AND PIPE PENETRATIONS.
6. THE GENERAL CONTRACTOR SHALL INSTALL NEW CRICKETS IN ROOF SURFACE AT ALL NEW EQUIPMENT TO DIRECT WATER TOWARDS EXISTING ROOF DRAINS AND NEW WALKWAY PADS, PROVIDED BY ROOFING REPLACEMENT CONTRACTOR, AS DETAILED IN THE CONTRACT DOCUMENTS.
7. THE PRIME CONTRACTORS SHALL COMPLETE ALL MODIFICATIONS TO THE ROOF SYSTEM IN COORDINATION WITH ROOF REPLACEMENT PROJECT ROOFING MANUFACTURER. ALL WORK SHALL BE IN ACCORDANCE WITH MANUFACTURERS STANDARD DETAILS AND MEET ALL REQUIREMENTS TO MAINTAIN PRODUCT WARRANTY AND PROVIDE A WATERTIGHT SYSTEM.

5TH FLOOR ABOVE CEILING COORDINATIONS NOTES:

1. GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVICE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL PRIME CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
2. ALL PRIME CONTRACTORS SHALL COORDINATE TO PROVIDE A SINGLE PHASING PLAN SUBMITTAL, FOR REVIEW AND APPROVAL FROM OWNER, OF ALL WORK AREAS PRIOR TO START OF WORK. PHASING PLAN SUBMITTAL SHALL INCLUDE AREAS OF WORK PER PHASE, TYPE OF WORK PER PHASE, DURATION OF EACH PHASE, LOCATION OF DUST CONTAINMENT ENCLOSURES, AND PHOTOS OF EXISTING CONDITIONS PRIOR TO START OF WORK. GENERAL CONTRACTOR SHALL ASSEMBLE AND GENERATE COMBINED SUBMITTAL.
3. GENERAL CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
4. ALL PRIME CONTRACTORS SHALL REMOVE CEILING AREAS AS REQUIRED TO PERFORM 6TH FLOOR UNDERSLAB WORK FOR LAB RENOVATIONS.
5. ALL PRIME CONTRACTORS SHALL REINSTALLED ALL REMOVED CEILING GRID, TIE, AND DEVICES AT THE COMPLETION OF EACH PHASE BEFORE BEGINNING THE NEXT PHASE.
6. ALL PRIME CONTRACTORS SHALL COORDINATE WORK TO OCCUR OVER SUMMER, HOLIDAY BREAKS, AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

TYPE	DESCRIPTION	GAS	DI WATER	WASTE	VENT	HOT WATER	COLD WATER	HOT WTR REC	TEMPERED WATER	REMARKS
S-1	SINGLE BOWL EPOXY SINK (COORDINATE WITH ARCHITECTURAL LAB CASEWORK)	---	1/2 IN	1 1/2 IN	1 1/2 IN	1/2 IN	1/2 IN	---	---	EPOXY SINK BOWL INTEGRAL OF THE COUNTERTOP. PROVIDE DECK MOUNTED SINGLE HOLE HOT AND COLD WATER FAUCET CHROME PLATED, SOLID BRASS BODY CONSTRUCTION MODEL L414VB-BH AS MANUFACTURED BY WATER SAVER. ACID WASTE GRID STRAINER & ACID WASTE P-TRAP WITH CLEANOUT. PROVIDE DECK MOUNTED SINGLE HOLE DI WATER FAUCET CHROME PLATED, ALL COMPONENTS IN CONTACT WITH WATER ARE LINED WITH PURE TIN. FLEXIBLE SUPPLY KIT SHALL INCLUDE HEAVY CHROME PLATED BRASS STOPS WITH FULL TURN BRASS STEM (NO PLASTIC) 12 INCH CHROME PLATED RISERS, CAST BRASS NIPPLES, INLET AND OUTLET SHALL BE 3/8" IPS, MODEL H167LK MANUFACTURED BY MCGUIRE MANUFACTURING COMPANY INC. MIXING VALVE. LEONARD MODEL 270-LF, 1/2" INLETS AND OUTLETS, ECO-MIX LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP, COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH POLYMER THERMOPLASTIC SHUTTLE STAINLESS STEEL SPRINGS, AND BUNA-N "O" RINGS WITH INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. MUST COMPLY WITH ASSE 1070 REQUIREMENTS.
S-2	SINGLE BOWL EPOXY SINK (COORDINATE WITH ARCHITECTURAL LAB CASEWORK)	---	---	1 1/2 IN	1 1/2 IN	1/2 IN	1/2 IN	---	---	EPOXY SINK BOWL INTEGRAL OF THE COUNTERTOP. PROVIDE DECK MOUNTED SINGLE HOLE HOT AND COLD WATER FAUCET CHROME PLATED, SOLID BRASS BODY CONSTRUCTION MODEL L414VB-BH AS MANUFACTURED BY WATER SAVER. ACID WASTE GRID STRAINER & ACID WASTE P-TRAP WITH CLEANOUT. FLEXIBLE SUPPLY KIT SHALL INCLUDE HEAVY CHROME PLATED BRASS STOPS WITH FULL TURN BRASS STEM (NO PLASTIC) 12 INCH CHROME PLATED RISERS, CAST BRASS NIPPLES, INLET AND OUTLET SHALL BE 3/8" IPS, MODEL H167LK MANUFACTURED BY MCGUIRE MANUFACTURING COMPANY INC. MIXING VALVE. LEONARD MODEL 270-LF, 1/2" INLETS AND OUTLETS, ECO-MIX LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP, COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH POLYMER THERMOPLASTIC SHUTTLE, STAINLESS STEEL SPRINGS, AND BUNA-N "O" RINGS WITH INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. MUST COMPLY WITH ASSE 1070 REQUIREMENTS.
EEW-1	EMERGENCY EYEWASH COUNTER MTD	---	---	---	---	1/2 IN	1/2 IN	---	1/2 IN	WATERSENSE MODEL EW1022V8, COUNTER MOUNTED EYEFACE WASH AND BODY SPRAY. THE UNIT SHALL ALSO INCLUDE CHROME PLATED BRASS STAY OPEN SQUEEZE LEVER VALVE 8FT, 250 PSI GREEN HOSE WITH GUIDE BRACKET. PROVIDE WITH VACUUM BREAKER AND EMERGENCY THERMOSTATIC MIXING VALVE MODEL AP3600 FOR TEMPERING A SINGLE EYEFACE WASH OR EQUAL.
ESIEW-1	EMERGENCY SHOWER / EYE & FACE WASH	---	---	FD	---	1 IN	1 IN	---	1 IN	WATERSENSE MODEL SSBF2150 RECESSED BARRIER FREE EYEFACE WASH AND SHOWER SAFETY STATION WITH CEILING MOUNTED EXPOSED SHOWER HEAD AND DRAIN PAN. 16 GAUGE TYPE 304 STAINLESS STEEL RECESSED CABINET. PROVIDE WITH PROPER SIGNAGE REQUIRED BY THE CODE AND THERMOSTATIC MIXING VALVE MODEL TMS60 BY WATER SENSE EMERGENCY TEMPERING VALVE OR EQUAL.
WC-1	WALL HUNG WATER CLOSET (ADA HEIGHT)	---	---	3 IN	1 1/2 IN	---	1 IN	---	---	AMERICAN STANDARD; AFWALL MODEL 2257.103 WHITE, ELONGATED, FLUSH VALVE TOILET, TOP SPUD, MOUNTED AT ADA HEIGHT. SLOAN ROYAL II MODEL 111 TOP SPUD FLUSH VALVE, CHURCH SEAT MODEL 89000 BLACK, OPEN FRONT LESS COVER, 2 TURN WALL CARRIER. FLEXIBLE SUPPLY KIT SHALL INCLUDE HEAVY CHROME PLATED BRASS STOPS WITH FULL TURN BRASS STEM (NO PLASTIC) 12 INCH CHROME PLATED RISERS, CAST BRASS NIPPLES, INLET AND OUTLET SHALL BE 1" IPS, MANUFACTURED BY MCGUIRE MANUFACTURING COMPANY INC. INSTALL LEVER-HANDLE FLUSHOMETER VALVES FOR ACCESSIBLE WATER CLOSETS WITH HANDLE MOUNTED ON OPEN SIDE OF WATER CLOSET.
UR-1	WALL HUNG URINAL (ADA HEIGHT)	---	---	2 IN	1 1/2 IN	---	3/4 IN	---	---	AMERICAN STANDARD, WASHBROOK MODEL 6590.125, WHITE, VITREOUS CHINA, REFRAINER, MOUNTED AT ADA HEIGHT. PROVIDE ELECTRONIC FLUSH TOP SPUD MODEL 6063.013, WITH ZURN WALL CARRIER. FLEXIBLE SUPPLY KIT SHALL INCLUDE HEAVY CHROME PLATED BRASS STOPS WITH FULL TURN BRASS STEM (NO PLASTIC) 12 INCH CHROME PLATED RISERS, CAST BRASS NIPPLES, INLET AND OUTLET SHALL BE 3/4" IPS, MANUFACTURED BY MCGUIRE MANUFACTURING COMPANY INC.
GSV-1	EMERGENCY MASTER GAS SHUT-OFF	3/4 IN	---	---	---	---	---	---	---	PROVIDE A MASTER EMERGENCY SHUT OFF PANEL MANUFACTURED BY BURNABY OR EQUAL, PUSH BUTTON TO SHUT DOWN GAS SERVICE AND A KEYS RESET FOR REACTION OF THE SYSTEM. 7 1/2" x 7 1/2" STAINLESS STEEL COVER PLATE WITH 6" x 6" x 4" DEEP ROUGH IN BOX, SUPPLIED WITH 100-140V POWER. ASCO 214 SERIES GAS SHUT OFF VALVE DESIGNED FOR ON/OFF CONTROL OF FUEL GAS. THE DOUBLE DISC DESIGN WITH OVER TRAVEL PROVIDED REDUNDANT SEALING FOR LEAK-TIGHT SHUT-OFF ON MAIN GAS LINES.

FLOOR DRAIN / CLEANOUT SCHEDULE				
TAG	MANUFACTURER	SIZE	MODEL	REMARKS
WCO-1	JOSAM	4"	58642-COT4-VP	FINISHED WALL AREAS
WCO-2	JOSAM	3"	58642-COT3-VP	FINISHED WALL AREAS
FD-1	JOSAM	3"	30000-5A	FINISHED FLOOR AREAS (WITH A TRAP PRIMER CONNECTION)

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



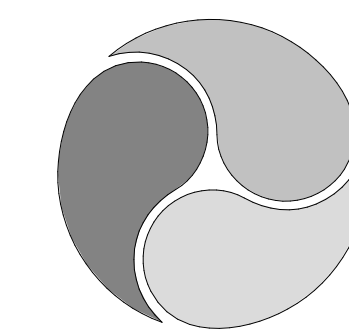
PROJECT NAME:
**CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS**

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
**PLUMBING SYMBOLS,
ABBREVIATIONS, AND
GENERAL NOTES**

DRAWN BY: SW
CHECKED BY: RB
PROJ. NO:
DATE: 04/14/2026
DRAWING NO:

P001

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

KEYNOTES

- 1 REMOVE EXISTING ACID WASTE AND VENT PIPING IN ITS ENTIRETY. CAP ALL WASTE AND VENT PIPING AT MAINS AND RISERS AS REQUIRED.
- 2 REMOVE EXISTING DOMESTIC COLD WATER PIPING IN ITS ENTIRETY. CAP AT MAINS AND RISERS AS REQUIRED.
- 3 REMOVE EXISTING GAS PIPING IN ITS ENTIRETY. CAP AT MAINS AND RISERS AS REQUIRED.
- 4 REMOVE EXISTING COMPRESSED AIR PIPING IN ITS ENTIRETY. CAP AT MAINS AND RISERS AS REQUIRED.
- 5 REMOVE EXISTING DOMESTIC HOT WATER PIPING IN ITS ENTIRETY. CAP AT MAINS AND RISERS AS REQUIRED.
- 6 REMOVE EXISTING EMERGENCY SHOWER IN ITS ENTIRETY. REMOVE ALL EXISTING HOT AND COLD WATER PIPING WITH ASSOCIATED MIXING VALVES. REMOVE ALL FLOOR DRAINS AND ASSOCIATED ACID WASTE AND VENT PIPING. CAP ALL PIPING AT MAINS AND RISERS AS REQUIRED.

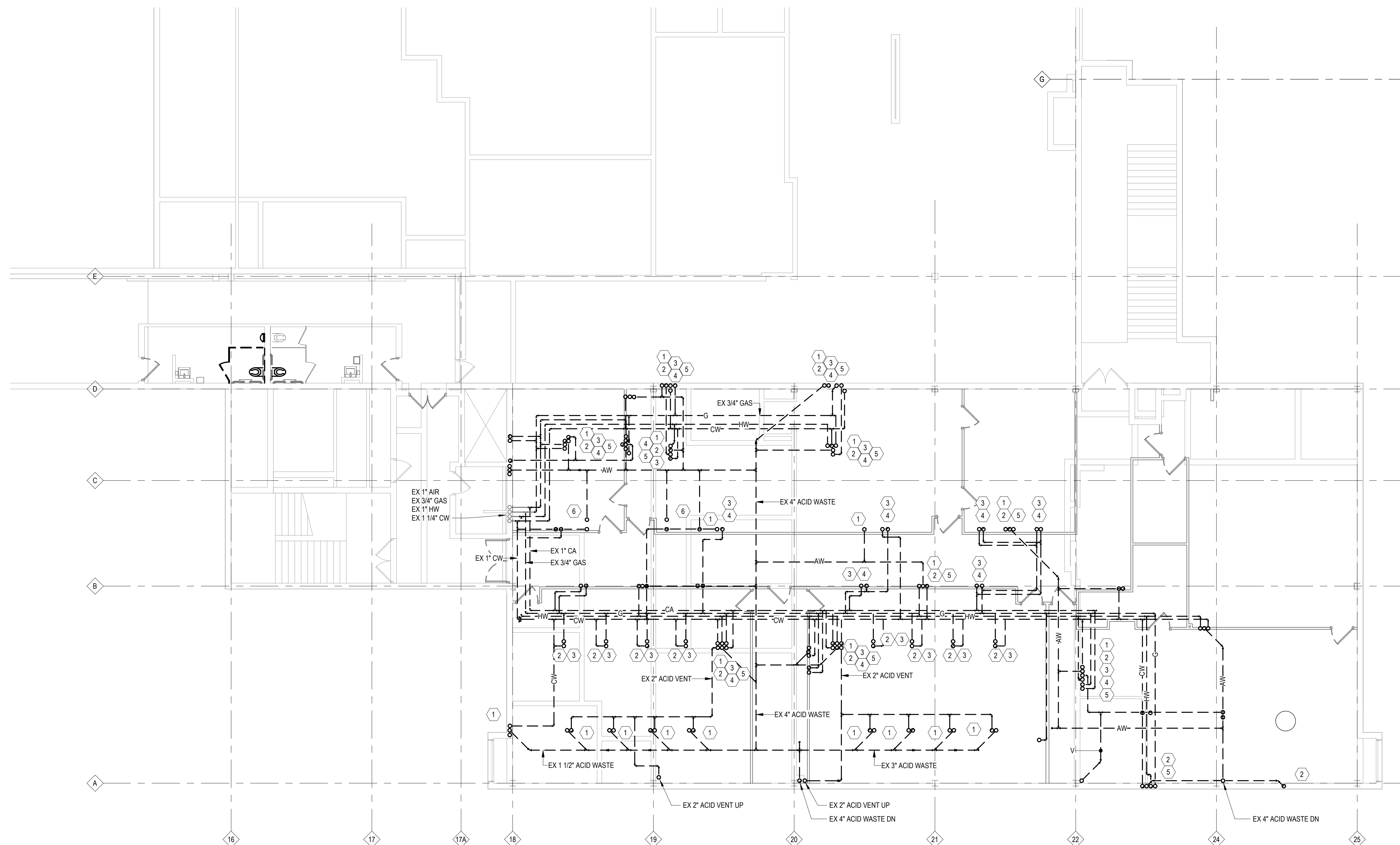
E

D

C

B

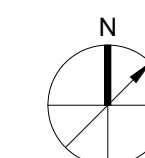
A



1

PLUMBING FIFTH FLOOR DEMOLITION PLAN

1/8" = 1'-0"



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
**CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS**

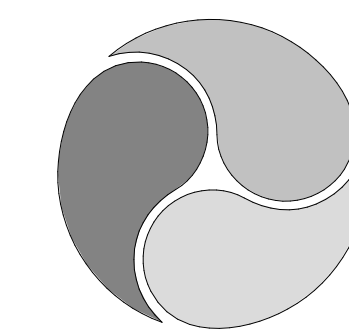
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
**PLUMBING FIFTH FLOOR
DEMOLITION PLAN**

DRAWN BY: SW
CHECKED BY: RB
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

PD101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

**AE WORKS®**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY**

KEYNOTES	
1	REMOVE EXISTING ACID WASTE AND VENT PIPING IN ITS ENTIRETY, CAP ALL WASTE AND VENT PIPING AT MAINS AND RISERS AS REQUIRED.
2	REMOVE EXISTING DOMESTIC COLD WATER PIPING IN ITS ENTIRETY, CAP AT MAINS AND RISERS AS REQUIRED.
3	REMOVE EXISTING GAS PIPING IN ITS ENTIRETY, CAP AT MAINS AND RISERS AS REQUIRED.
4	REMOVE EXISTING COMPRESSED AIR PIPING IN ITS ENTIRETY, CAP AT MAINS AND RISERS AS REQUIRED.
5	REMOVE EXISTING DOMESTIC HOT WATER PIPING IN ITS ENTIRETY, CAP AT MAINS AND RISERS AS REQUIRED.
6	REMOVE EXISTING EMERGENCY SHOWER IN ITS ENTIRETY, REMOVE ALL EXISTING HOT AND COLD WATER PIPING WITH ASSOCIATED MIXING VALVES, REMOVE ALL FLOOR DRAINS AND ASSOCIATED ACID WASTE AND VENT PIPING. CAP ALL PIPING AT MAINS AND RISERS AS REQUIRED.
7	REMOVE EXISTING WATER CLOSET AND CARRIER IN ITS ENTIRETY, TEMPORARILY CAP ALL WASTE, VENT AND COLD WATER PIPING FOR RECONNECTION, MAKE PIPING ADJUSTMENTS AS REQUIRED.
8	REMOVE EXISTING URINAL AND CARRIER IN ITS ENTIRETY, TEMPORARILY CAP ALL WASTE, VENT AND COLD WATER PIPING FOR RECONNECTION, MAKE PIPING ADJUSTMENTS AS REQUIRED FOR THE URINALS NEW LOCATION.
9	REMOVE EXISTING ICE MACHINE IN ITS ENTIRETY, REMOVE ALL EXISTING COLD WATER PIPING, REMOVE ALL DRAINS ASSOCIATED WITH THE ICE MAKING MACHINE, CAP ALL PIPING AT MAINS AND RISERS AS REQUIRED.

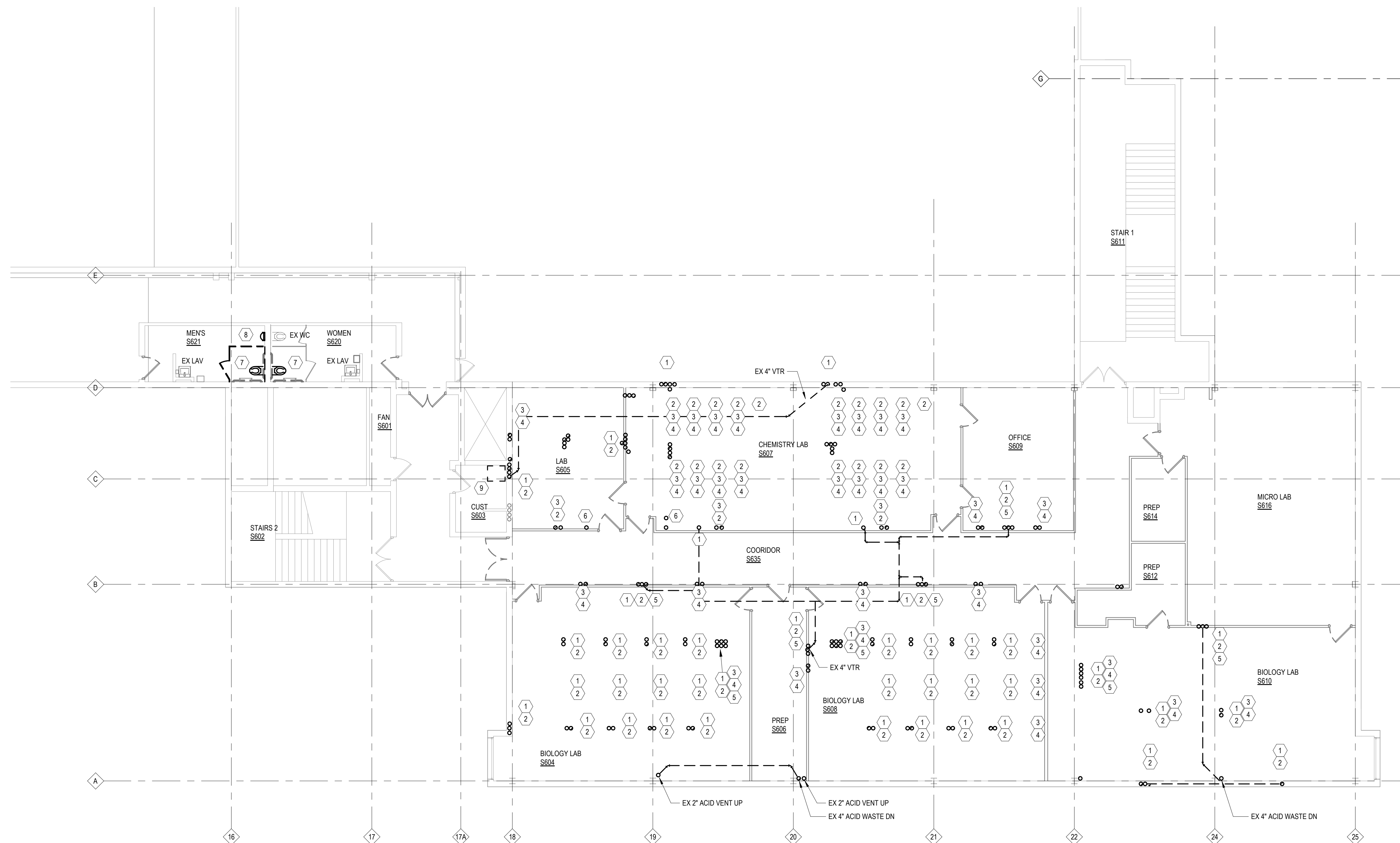
E

D

C

B

A



1 **PLUMBING SIXTH FLOOR DEMOLITION PLAN**
1/8" = 1'-0"

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:

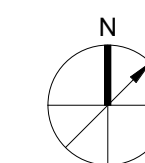


PROJECT NAME:
**CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS**

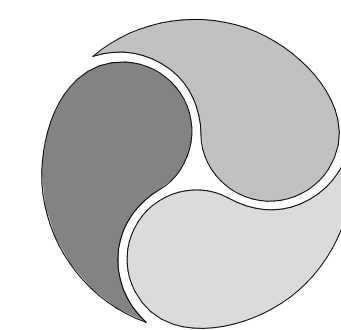
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
**PLUMBING SIXTH FLOOR
DEMOLITION PLAN**

DRAWN BY: SW
CHECKED BY: RB
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

**PD102**

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

**AE WORKS**

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

KEYNOTES

- 1 2" SANITARY AND 2" ISLAND VENT UP TO LAB TABLE SINK.
- 2 1/2" HW, 1/2" CW & 3/4" GAS UP TO LAB TABLE SINK.
- 3 1" HW & 1" CW UP TO EMERGENCY SHOWER FIXTURE.

E

D

1 **PLUMBING FIFTH FLOOR PLAN - SANITARY & VENT**
1/8" = 1'-0"

C

B

A

Autodesk Docs\\CCAC-008 Boyce Bio Lab\\CCAC-008_MEP_24.rvt
4/19/2025 10:18:51 AM

2 **PLUMBING FIFTH FLOOR PLAN - SUPPLY PIPING**
1/8" = 1'-0"

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:

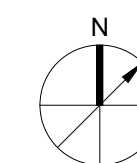


PROJECT NAME:
**CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS**

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
**PLUMBING 5TH FLOOR
PLANS**

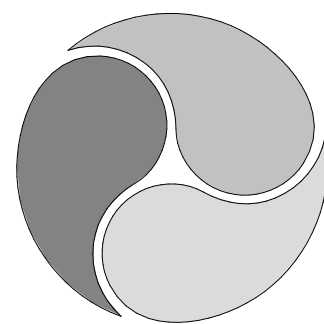
DRAWN BY: SW
CHECKED BY: RB
PROJ. NO:
DATE: 04-14-2025
DRAWING NO:

**P101**

COPYRIGHT 2025 BY AE WORKS LTD ALL RIGHTS RESERVED.

KEYNOTES

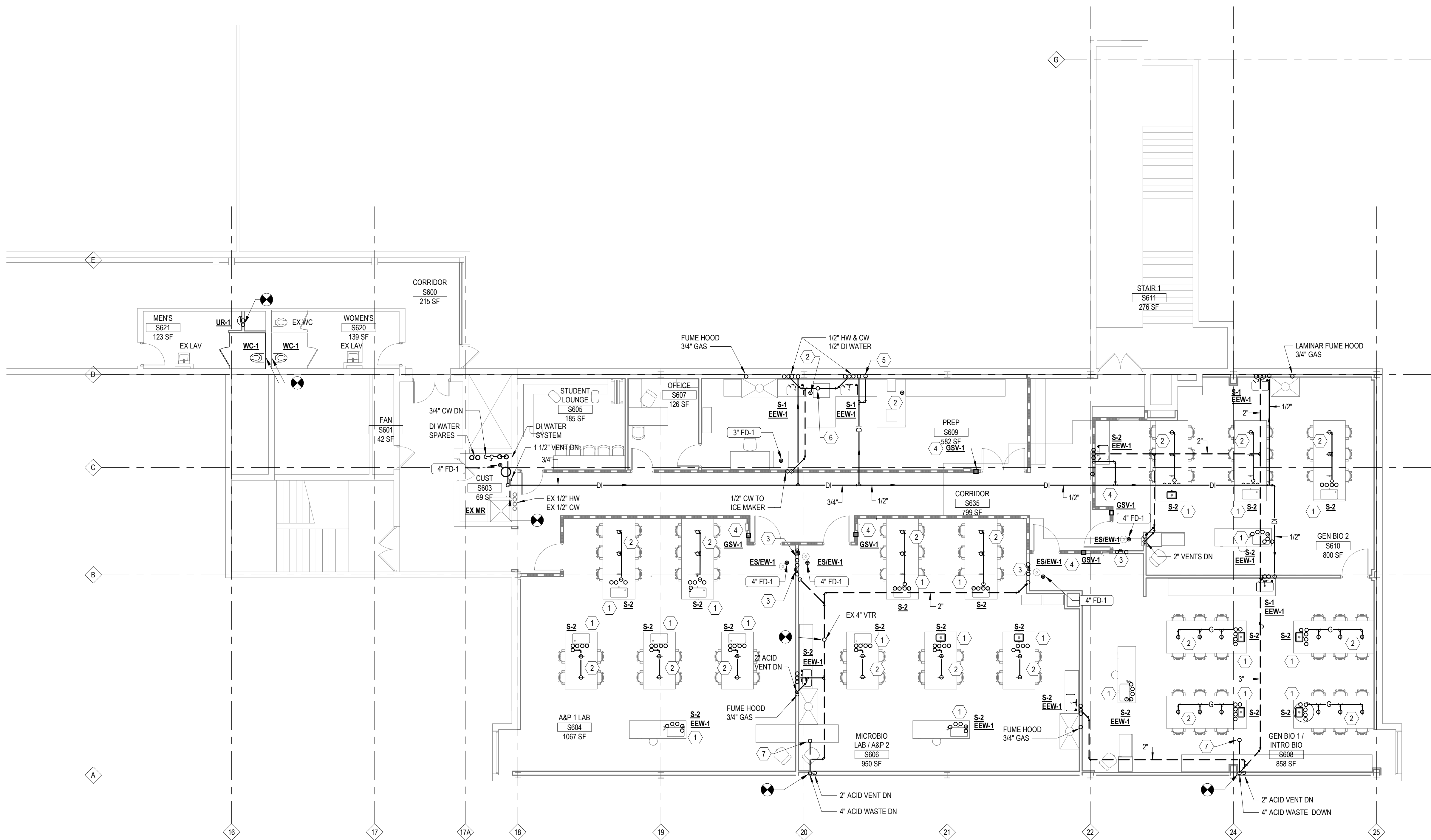
- 1 2" SANITARY AND ISLAND VENT, 1/2" HW & CW AND 3/4" GAS UP INTO SINK CASEWORK
- 2 3/4" GAS PIPE RUN IN CASEWORK TO GAS OUTLETS
- 3 1" HW & CW UP TO EMERGENCY SHOWER
- 4 EMERGENCY GAS SHUT-OFF VALVE
- 5 3/4" DI WATER DN TO MILLIPORE WATER SYSTEM
- 6 PROVIDE A NEW 3" ACID WASTE VENT UP
- 7 PROVIDE A NEW 4" ACID WASTE VENT UP



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY



1 PLUMBING SIXTH FLOOR PLAN
1/8" = 1'-0"

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PLUMBING SIXTH FLOOR
PLAN

DRAWN BY: SW
CHECKED BY: RB
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

P102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



A



P103





NOT TO SCALE

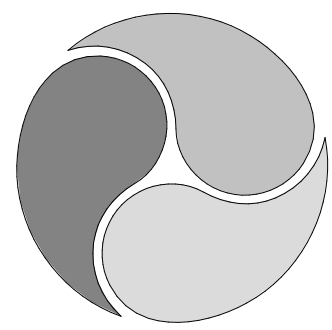
NOT TO SCALE

3 GAS J
NOT TO SCALE

4 NOT TO SCALE

5) **ENTER**
NOT TO SCALE

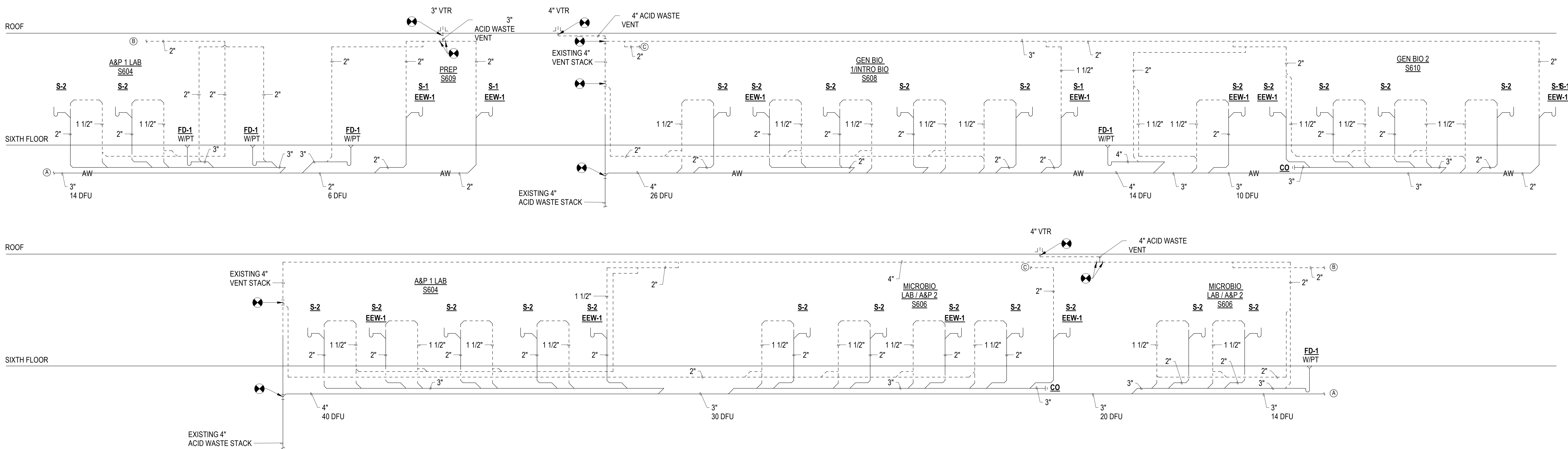
6 NOT TO SCALE



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY



1 SANITARY RISER DIAGRAM
NOT TO SCALE

595 Beatty Rd
Monroeville, PA 15146

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

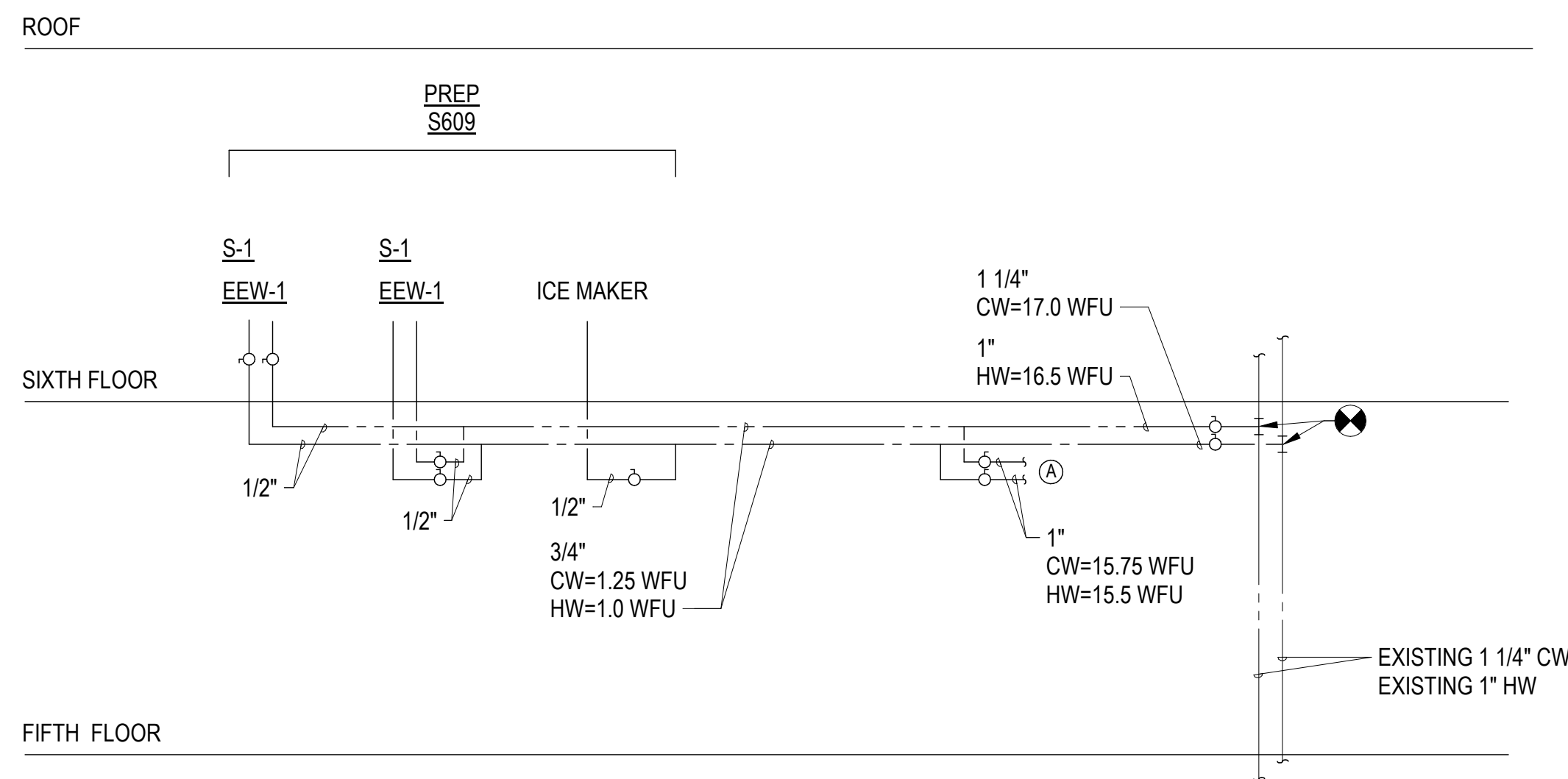
DRAWING TITLE:
WASTE & VENT RISER
DIAGRAMS

DRAWN BY: SW
CHECKED BY: Checker
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:

P901

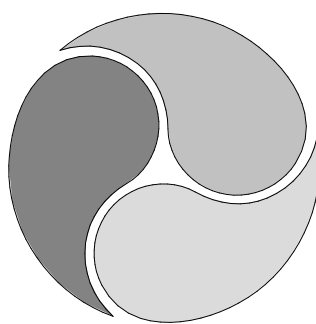


CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY



Copyright 2020 by AE Works Ltd All Rights Reserved.

NOT TO SCALE



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

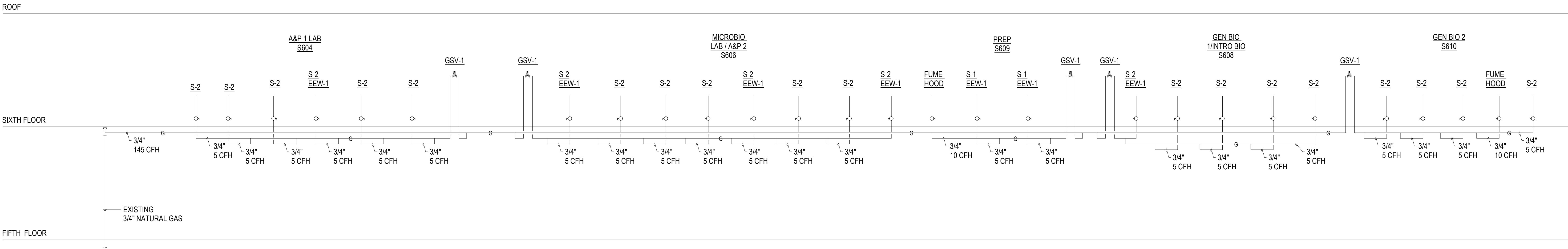
CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

KEY NOTES:

1. CONTRACTOR SHALL VERIFY THAT THE AVAILABLE NATURAL GAS PRESSURE
AT ALL LABORATORY GAS OUTLETS IS ADEQUATE TO SERVE THE CONNECTED
EQUIPMENT IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.

PARTIAL BUILDING LOAD: 145 CFH
BUILDING LOAD SIZING CRITERIA

- 2PSIG SERVICE
- 1 PSIG PRESSURE DROP
- SCHEDULE 40 METALLIC PIPE
- SIZE PER IFGC 2018 TABLE 402.4(5) AND
- FROM GAS METER 300 DEVELOPED LENGTH



GAS RISER DIAGRAM

1
NOT TO SCALE

595 Beatty Rd
Monroeville, PA 15146

BID DOCUMENTS

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
GAS RISER DIAGRAM

DRAWN BY: SW
CHECKED BY: Checker
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

P903

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

C

B

- CCAC-006 Boyce Bio Lab/CCAC-006_MEP_24.vt
-
- 8 AM

ELECTRICAL GENERAL NOTES

- THE FOLLOWING GENERAL NOTES AS LISTED BELOW SHALL APPLY TO ALL ELECTRICAL REQUIREMENTS AS INDICATED ON ALL A SERIES CONTRACT DRAWINGS.
- 1 THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE DOCUMENT SET. I.E. IF WORK IS SHOWN ON OTHER DRAWINGS AS "BY CONTRACTOR," THE CONTRACTOR IS RESPONSIBLE FOR THAT WORK.
- 2 DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC AND INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK BECAUSE OF THE SCALE OF THE DRAWINGS. CERTAIN BASIC ITEMS SUCH AS ACCESS PANELS, COULDS, CABINET SIZES, PENETRATION SLEEVES, ETC. ARE NOT SHOWN. THE CONTRACTOR SHALL MAINTAIN, INCLUDING ALL ITEMS WHERE REQUIRED BY CODE, MANUFACTURER AND RELATED SPECIFICATION SECTIONS FOR THE PROPER INSTALLATION OF ALL WORK.
- 3 DUE TO SCALE OF THE DRAWINGS, ALL ELECTRICAL DEVICE SYMBOLS ARE SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE TO THEIR INTENDED LOCATION. CONTRACTOR SHALL COORDINATE IN THE FIELD THE PROPER INSTALLATION OF ALL EQUIPMENT, DEVICES, CONTROLS AND CONDUITS TO THE FIELD CONDITIONS OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF ALL WORK.
- 4 COORDINATE WITH ALL TRADES AND SYSTEM INTEGRATORS ANY CONDITIONS RELATED TO THE INSTALLATION OF ALL SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE TRADE AT ALL INSTALLATION REQUIREMENTS IMPACTING THE PLACEMENT OF ALL SYSTEM COMPONENTS TO THE SATISFACTION OF ALL CONCERNED TRADES.
- 5 PROVIDE THE PROPER LOCATION OF ALL DATA AND TELEPHONE OUTLETS, ELECTRICAL RECEPTACLES WITH THE ARCHITECTURAL PLANS, FURNITURE PLANS AND ALL AFFECTED TRADES PRIOR TO INSTALLATION.
- 6 ALL CONDUITS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH NFPA 70 AND PROJECT SPECIFICATIONS. ALL CONDUITS SHALL BE A MINIMUM OF 3/4" UNLESS OTHERWISE NOTED.
- 7 PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
- 8 WHERE EQUIPMENT AND/OR JUNCTION BOXES ARE INSTALLED ABOVE FINISHED CEILING, THE CONTRACTOR SHALL PROVIDE ACCESS HATCHES LISTED FOR THE INTENDED APPLICATION. ACCESS HATCHES SHALL BE LOCATED SO THAT SERVICE ACCESS TO THE EQUIPMENT AND/OR JUNCTION BOXES IS UNHINDERED.
- 9 ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE-STOP SHALL BE PERFORMED BY A QUALIFIED PERSONNEL AND QUALITY CONTROL TRAINING BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
- 10 ALL EQUIPMENT ENCLOSURES LOCATED OUTSIDE OR IN ALL AREAS WITH HIGH MOISTURE OR A RELATIVE HUMIDITY OF 75% OR GREATER SHALL BE NEMA 3X STAINLESS STEEL AND RATED FOR THAT APPLICATION.
- 11 ALL EQUIPMENT AND/OR ELECTRICAL EQUIPMENT EXPOSED TO THE GENERAL POPULATION SHALL BE INSTALLED IN SECURED EQUIPMENT ENCLOSURES WITH TAMPER SWITCHES AND INSTALLED IN SUCH A MANNER THAT RESISTS TAMPERING AND/OR REMOVAL WITHOUT THE USE OF SPECIALIZED TOOLS.
- 12 ALL WORK INSTALLATIONS REQUIRING COORDINATION WITH OTHER TRADES, THE CONTRACTOR SHALL PROVIDE ALL TEMPLATES, BACKSPOCS AND/OR EQUIPMENT AND/OR EQUIPMENT MOUNTING OR PLUMB MOUNTING PREPARATION (E.G. REDESTRAL OR OTHER DEVICES REQUIRING MOUNTING ON WALLS, CONCRETE PADS OR OTHER MATERIALS), COORDINATE DELIVERY OF TEMPLATES AND EQUIPMENT WITH ALL AFFECTED CONTRACTORS.
- 13 ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (LATEST VERSION BEING ENFORCED) AND ALL OTHER APPLICABLE CODES, ORDINANCES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- 14 THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS OR INSTRUCTIONS FOR CONSTRUCTION SAFETY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY WORKMANS OR TRANSPORTS SAFETY, OR FOR THE ADEQUACY OF EQUIPMENT, BUILDING COMPONENTS, WORK AIDS, OR ANY NECESSITY TO WORK ON ENERGIZED ELECTRICAL COMPONENTS. FURTHER, NO SUPERINTENDENCE IS INCLUDED OR IMPLIED.
- 15 ALL EQUIPMENT AND/OR ELECTRICAL EQUIPMENT SHALL BE TESTED AND WIRING ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 16 ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE TESTED AND INSTALLED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
- 17 THE CONTRACTOR SHALL COORDINATE CONDUIT ROUTING (PLAN AND ELEVATION) WITH THE LIGHTING (NEW AND EXISTING), CEILING ELEVATION, STRUCTURE, AND NETWORK, IF REQUIRED FOR THE COMPLETION OF THE PROJECT, PRIOR TO INSTALLATION.
- 18 THE CONTRACTOR SHALL SECURE AND PROTECT THE BUILDING AND/OR WORK AREA WITH FIRE RETARDANT TEMPORARY PLYWOOD PARTITIONS (WITH LOCKING DOORS), ETC. CLOSE ALL EXISTING OPENINGS AS REQUIRED. COORDINATE THIS WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING. IF TEMPORARY PARTITIONS BEHIND THE FLOW OF EGRESS TO REQUIRED EGRESS DOORS AND STAIRS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIGNAGE AND ACCESS TO EGRESS DOORS AND STAIRS.
- 19 THE CONTRACTOR SHALL CAULK ALL JOINTS BETWEEN METAL FRAMES AND EXISTING CONDITIONS. THIS APPLIES TO BOTH INTERIOR AND EXTERIOR INSTALLATIONS.
- 20 THE DIMENSIONS SHOWN ON THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO PERFORMANCE OF WORK.
- 21 THE CONTRACTOR SHALL INSTALL ALL CONDUITS CONCEALED UNLESS NOTED OTHERWISE. EXPOSED CONDUIT SHALL ONLY BE INSTALLED IN CHASES, EXPOSED CEILING AREAS, JUNKIE OR CLOSETS, AND MECHANICAL/ELECTRICAL ROOMS.
- 22 THE CONTRACTOR SHALL SECURE AND PROTECT THE BUILDING AND/OR WORK AREA WITH FIRE RETARDANT TEMPORARY PLYWOOD PARTITIONS (WITH LOCKING DOORS), ETC. CLOSE ALL EXISTING OPENINGS AS REQUIRED. COORDINATE THIS WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING. IF TEMPORARY PARTITIONS BEHIND THE FLOW OF EGRESS TO REQUIRED EGRESS DOORS AND STAIRS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIGNAGE AND ACCESS TO EGRESS DOORS AND STAIRS.
- 23 THE CONTRACTOR SHALL PROVIDE UPDATED TYPED PANELBOARD DIRECTIONS, INDICATING THE LOADS SERVED BY THE RESPECTIVE PANELS. AMEND AS REQUIRED FOR AS-BUILT CONDITIONS. PROVIDE ELECTRONIC VERSIONS OF THE PANELBOARD SCHEDULES FOR FUTURE USE BY THE OWNER.
- 24 THE CONTRACTOR SHALL REVIEW THE WORK REQUIRED WITH THE APPLICABLE UTILITY COMPANIES SERVING THE PROJECT. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANIES.

ELECTRICAL GENERAL NOTES

- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER PRIOR TO STARTING ALL PHASES OF THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER WHAT WORK, IF ANY, HAS TO BE COMPLETED DURING SECOND OR THIRD SHIFT.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY POWER CONNECTIONS TO KEEP AREAS UP AND OPERATIONAL DURING THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES.
- THE VERBAGE ON THE DRAWINGS INDICATING TYPES OF MATERIALS TO BE ENCOUNTERED IS INTENDED TO AID THE ELECTRICAL CONTRACTOR IN UNDERSTANDING THE VARIOUS CONDITIONS LIKELY TO BE ENCOUNTERED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXISTENCE OF UTILITIES ON THE PROJECT.
- THE LOCATIONS OF EXISTING UTILITIES, STRUCTURE, AND OTHER CONDITIONS SHOWN ON THE PLANS ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING ANY WORK.
- FURNISH AND INSTALL ALL REQUIRED UNTELS AND SLEEVES. ALL CONDUITS SHALL HAVE SLEEVES INSTALLED. ALL SLEEVES INSTALLED THROUGH ROOFS SHALL BE PROTECTED BY FLASHING.
- THE CONTRACTOR SHALL MAINTAIN THE BUILDING IN WEATHERTIGHT AND WATERPROOF CONDITION THROUGHOUT THE DURATION OF THEIR WORK. DO NOT LEAVE HOLES THROUGH WALLS AND/AND ROOFS OPEN TO THE ELEMENTS WHEN NO WORK IS OCCURRING IN THOSE AREAS.
- THE CONTRACTOR SHALL GENERATE A DETAILED METHOD OF PROCEDURE (MOP) DOCUMENT FOR THE WORK. THE MOP IS REQUIRED TO BE PREPARED AND SUBMITTED TO THE OWNER AND ENGINEER FOR SIGN OFF PRIOR TO STARTING THE PROJECT. THE MOP MAY BE REVISED BASED ON CHANGES IN THE PROJECT CONSTRUCTION, ETC. AT ALL POINTS IN THE PROJECT THE OWNER SHALL BE MADE AWARE OF CHANGES TO THE MOP AND ANY CHANGES WILL BE SUBMITTED TO THE OWNER AND ENGINEER FOR SIGN OFF.
- PROVIDE 120V/240V BONDING AND OTHER PULLING TOOLS REQUIRED FOR ALL TYPES OF PULLING AND TO MEET THE MAXIMUM NUMBER OF BENDS PER NEC REQUIREMENTS FOR A CODE COMPLIANT INSTALLATION. NOT ALL CONDUITS, PULL BOXES AND OTHER REWAYCETIMES SHOWN ON THE DOCUMENTS. THE CONTRACTOR SHALL PROVIDE A COMPLETE REWAYCETIMES SYSTEM MEETING THE REQUIREMENTS OUTLINED IN THE NATIONAL ELECTRICAL SAFETY CODE (NEC).
- DISTRIBUTION EQUIPMENT SHALL BE ARC RATED, AND ANY OTHER CIRCUIT BREAKERS SELECTED AND SET BASED ON THE OUTCOME OF THE CONTRACTOR'S OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY. STUDY SHALL INCLUDE ALL ELEMENTS OF THE EXISTING AND NEW DISTRIBUTION SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED EQUIPMENT TO BE USED TO CONDUCT THE COORDINATION STUDY.
- ARC FLASH LABELS SHALL BE PROVIDED TO ALL NEW EQUIPMENT BASED ON THE OUTCOME OF THE CONTRACTOR'S ARC FLASH STUDY. ANY EQUIPMENT MODIFIED AS PART OF THIS PROJECT SHALL ALSO BE INCLUDED IN THE ARC FLASH STUDY AND SHALL BE RELABELLED AS REQUIRED.
- THESE DRAWINGS DO NOT INDICATE ALL CONDUITS INTERCONNECTING EQUIPMENT, AND WHERE CONDUITS ARE INDICATED, THE ROUTING IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR THE ROUTING AND INSTALLATION OF ALL CONDUIT IN COORDINATION WITH OTHER TRADES AND EXISTING CONDITIONS.
- MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED. ALL SINGLE POLE BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. SHARING OF NEUTRALS IS PROHIBITED. ALL CIRCUITS SHALL CONTAIN AN INDIVIDUAL GROUND WIRE. USE OF THE CONDUIT SYSTEMS FOR THE GROUND PATH IS PROHIBITED.
- MULTIPLE SMALL 20/41P BRANCH CIRCUITS MAY SHARE A SINGLE CONDUIT PROVIDED THE CONTRACTOR USES THE WIRES (INCLUDING THE GROUND) AND CONDUIT AS REQUIRED PER NEC.
- THE COMPLETE LIST OF FIXTURES AND EQUIPMENT IS NOT SHOWN ON THE DRAWINGS. AN ABBREVIATED FORM (S) USED TO INDICATE WHICH FIXTURES/DEVICES ARE CONNECTED TO A COMMON CIRCUIT OR SWITCH. THIS IS PROVIDED AS A GUIDE TO THE CONTRACTOR TO ILLUSTRATE CIRCUITS AND CONTROL INTENT. ACTUAL WIRING MAY DIFFER DUE TO FIELD CONDITIONS. COLOR CODING OF WIRES SHALL BE AS PER NEC.
- PROVIDE 120V/240V 2P/2R RECEPTACLE AT ALL FAN COILS FOR CONDENSATE PUMP POWER AND HOT WATER RECIRCULATING PUMPS, WHETHER SAME AREA OR REMOTE. PROVIDE 120V/240V 2P/2R RECEPTACLE AT ALL FAN COILS FOR CONDENSATE PUMP POWER AND HOT WATER RECIRCULATING PUMPS, WHETHER SAME AREA OR REMOTE.
- PROVIDE 120V/240V CONNECTION TO ALL MOTORIZED DAMPERS INDICATED ON MECHANICAL PLANS, WHETHER SHOWN ON DIVISION 26 DRAWINGS OR NOT. FIRE/SMOKE DAMPER CIRCUITS ARE TO BE PROVIDED FROM EMERGENCY (LIFE SAFETY) BRANCH PANEL. MOTORIZED DAMPERS DIVISION 26 DRAWINGS OR NOT.
- DURING THE BIDDING PROCESS, THE ELECTRICAL CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS OF ALL OTHER TRADES (ARCHITECTURAL, STEEL/SCAFFOLDING, HVAC, PLUMBING, AND SPECIALTY TRADES) ALL ITEMS REQUIRING POWER INDICATED ON THESE DRAWINGS SHALL BE INDICATED ON THE ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL CONTRACTOR'S WORK. THIS WORK SHALL BE INSTALLED AS PER NEC REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVISE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL SUBMITTAL CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
- GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVISE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL SUBMITTAL CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
- GENERAL CONTRACTOR SHALL SURVEY AND DOCUMENT EXISTING CEILING GRID AND DEVISE LAYOUT PRIOR TO ALL ABOVE CEILING WORK. SURVEY SHALL BE BASIS FOR OVERALL WORK COORDINATION WITH ALL SUBMITTAL CONTRACTORS AND SUBMITTAL FOR APPROVAL OF WORK.
- ALL WORK AREAS PRIOR TO START OF WORK. PHASING PLAN SHALL INCLUDE AREAS OF WORK PER PHASE. TYPE OF WORK PER PHASE. DURATION OF EACH PHASE. LOCATION OF DUST CONTAINMENT ENCLOSURES, AND PHOTOS OF EXISTING CONDITIONS PRIOR TO START OF WORK.
- GENERAL CONTRACTOR SHALL ASSURE ALL PROJECTS ARE COMPLETED AS PER THE REQUIREMENTS OF THE PROJECT.
- GENERAL CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
- ALL PRIME CONTRACTORS SHALL REMOVE CEILING AREAS AS REQUIRED TO PERFORM FTH FLOOR UNDERLAYS WORK FOR LAB RENOVATIONS.
- ALL PRIME CONTRACTORS SHALL RENEWAL ALL REMOVED CEILING GRID, TILE, AND DEVICES AT THE COMPLETION OF EACH PHASE BEFORE NEXT PHASE.
- ALL PRIME CONTRACTORS SHALL COORDINATE WORK TO OCCUR OVER SUMMER, HOLIDAY BREAKS, AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.
- REFER TO G102 PHASING PLAN FOR LOCATION OF CONSTRUCTION BARRIERS AND AREA OF WORK AVAILABLE FOR DURATION OF PROJECT AT FTH FLOOR.
- PHASE WORK TO MAINTAIN ACCESS TO ONE TOILET ROOM DURING ENTIRE DURATION OF CONSTRUCTION.

595 Beatty Rd
Monroeville, PA 15146

BID DOCUMENTS

BID DOCUMENTS

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

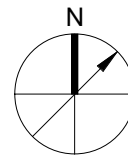
595 Beatty RD, Monroeville PA
15146

ELECTRICAL SYMBOLS AND ABBREVIATIONS

DRAWING NO:

E001

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



GENERAL NOTES - UNDERFLOOR WORK

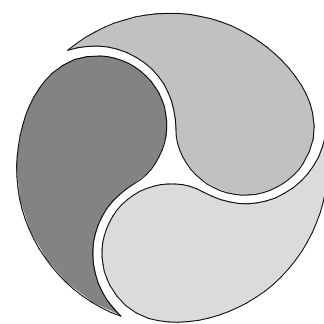
- 1 CONTRACTOR SHALL PROVIDE A PHASING PLAN OF ALL WORK AREAS FOR REVIEW BY THE OWNER PRIOR TO CEILING REMOVAL. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO START OF WORK.
- 2 CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
- 3 COORDINATE WORK WITH ALL PRIME CONTRACTORS TO OCCUR OVER SUMMER AND HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

ELECTRICAL DEMOLITION GENERAL NOTES

- 1 UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL DEVICES FROM WITHIN THE AREA OF DEMOLITION WORK IDENTIFIED. THE DEVICES TO BE REMOVED SHALL INCLUDE BUT ARE NOT LIMITED TO: RECEPTACLES, FIRE ALARM DEVICES AND TERMINAL CABINETS, SWITCHES, JUNCTION BOXES, LIGHTS, LIGHTING CONTROLS, PANELBOARDS AND FLOOR BOXES. REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE UPSTREAM DISTRIBUTION DEVICE. THE INTENT IS FOR ALL DEVICES TO BE REMOVED TO ALLOW THE RENOVATION AND INSTALLATION OF ALL NEW DEVICES AS SHOWN ON THE NEW WORK DOCUMENTS. EXISTING DEVICES SHOWN ARE DIAGRAMMATIC AND BASED ON FIELD SURVEYS AND/OR RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REPRESENT THE FULL SCOPE OF DEMOLITION WORK. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE PLANS ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES AND IN NO WAY RELIEVE THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY. COMPONENTS RELATED TO THE EXISTING BUILDING-WIDE LIGHTING CONTROL SYSTEM SHALL BE RETAINED AND REUSED WHERE FEASIBLE WITH NEW LIGHTING AND CONTROL DEVICES.
- 2 CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
- 3 OWNER SHALL HAVE RIGHT OF FIRST REFUSAL TO ANY EQUIPMENT, DEVICES, LUMINAIRES, ETC. DEMOLISHED FROM RENOVATION AREA PRIOR TO DISPOSAL.
- 4 MAINTAIN CONTINUITY OF SERVICE TO AREAS OUTSIDE THE PROJECT BOUNDARY. PATCH AND REPAIR ALL CIRCUITS CUT OFF DURING DEMOLITION BY WIRING METHODS COMPATIBLE WITH THE EXISTING INSTALLATION.
- 5 THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS OF ALL OTHER TRADES IN THIS CONTRACT. THE REMOVAL OF ELECTRICAL SERVICE TO ALL EQUIPMENT IDENTIFIED ON OTHER TRADE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 6 EXERCISE EXTREME CAUTION WHEN REMOVING/RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
- 7 CONTRACTOR SHALL EXAMINE CONDITIONS AND TEST FUNCTIONALITIES OF ALL EXISTING ELECTRICAL EQUIPMENT IDENTIFIED TO BE REUSED AND/OR RELOCATED. PROVIDE REPORT TO ENGINEER AND OWNER PRIOR TO DEMOLITION.
- 8 COORDINATE EXISTING TELECOMMUNICATIONS ROOM LOCATION WITH LOCAL CLIENT REPRESENTATIVE.
- 9 REMOVE AND RETURN WIRELESS ACCESS POINTS AND PAGING SPEAKERS TO THE OWNER. INDIVIDUALLY CAP SPEAKER WIRING AND TAG FOR REUSE IN SAME LOCATION.
- 10 REMOVE EXISTING COMMUNICATIONS WORK AREA OUTLETS AND RACEWAYS IN THEIR ENTIRETY. PULL ALL CABLES BACK TO THE EXISTING TELECOMMUNICATIONS ROOM AND COIL FOR REUSE. LABEL CABLES ON BOTH ENDS WITH CLEAR IDENTIFICATION OF PATCH PANEL DESIGNATION.
- 11 REMOVE EXISTING SECURITY WORK AREA OUTLETS, CABLES, AND RACEWAYS IN THEIR ENTIRETY FROM THEIR SOURCE IN EXISTING TELECOMMUNICATIONS ROOM.

ELECTRICAL DEMOLITION KEYNOTES

- 1 ALL 2X4 AND 2X2 LED FIXTURES (EXCLUDING THOSE SHADED BLACK) SHALL BE REMOVED, STORED, AND REINSTALLED PER THE NEW LIGHTING PLAN. ASSOCIATED WIRING AND CONDUIT SHALL BE DEMOLISHED BACK TO THE SOURCE. LIGHTING CONTROL DEVICES IN CORRIDORS ARE EXISTING TO REMAIN.
- 2 2X4 FLUORESCENT FIXTURE (SHADED BLACK) SHALL BE DEMOLISHED ALONG WITH ALL ASSOCIATED WIRING AND CONDUIT BACK TO THEIR SOURCE.
- 3 ALL SWITCHES MARKED WITH A 'R' SHALL BE REMOVED, STORED, AND REINSTALLED PER THE NEW LIGHTING PLAN. ALL OTHER SWITCHES SHALL BE DEMOLISHED ALONG WITH ALL ASSOCIATED WIRE AND CONDUIT BACK TO THE SOURCE.
- 4 EXISTING LIGHT FIXTURE IS EXISTING TO REMAIN.
- 5 DEMOLISH FIXTURE AND RETURN TO OWNER. EXISTING BRANCH CIRCUITING TO REMAIN FOR CONNECTION TO NEW LIGHT FIXTURES.
- 6 EXISTING LIGHT FIXTURES IN THIS AREA ARE EXISTING TO REMAIN.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143

PH: 412.287.7333

www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

PARTIAL SIXTH FLOOR
LIGHTING DEMOLITION
PLAN

DRAWN BY: JC

CHECKED BY: DF

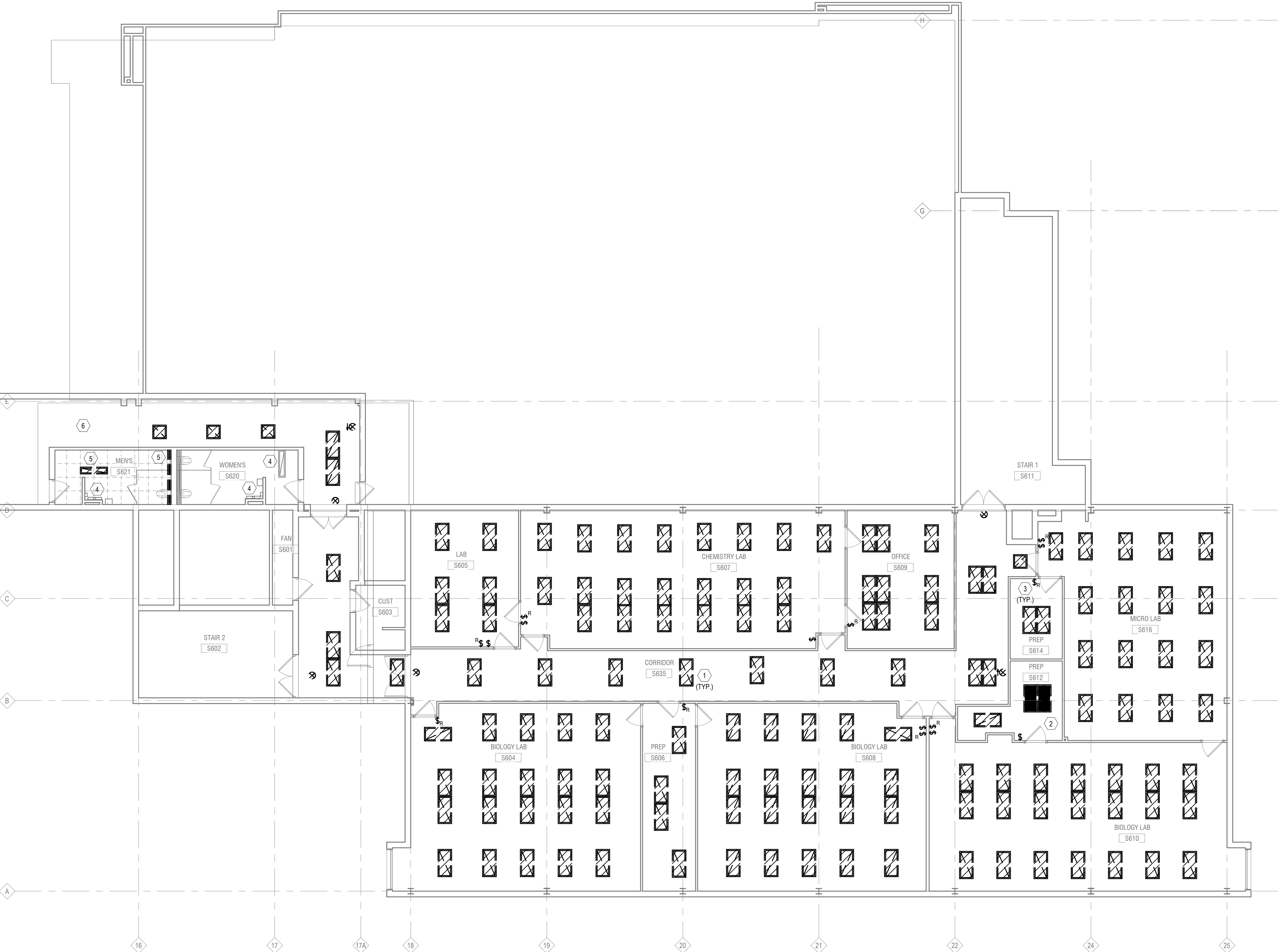
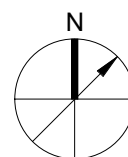
PROJ. NO:

DATE: 04/14/2028

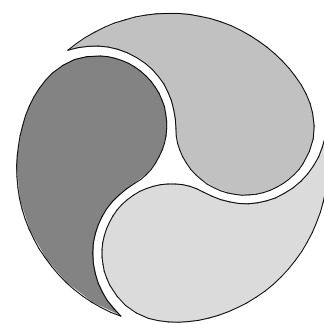
DRAWING NO:

ED101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



1 PARTIAL SIXTH FLOOR LIGHTING DEMOLITION PLAN
1/8" = 1'-0"



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

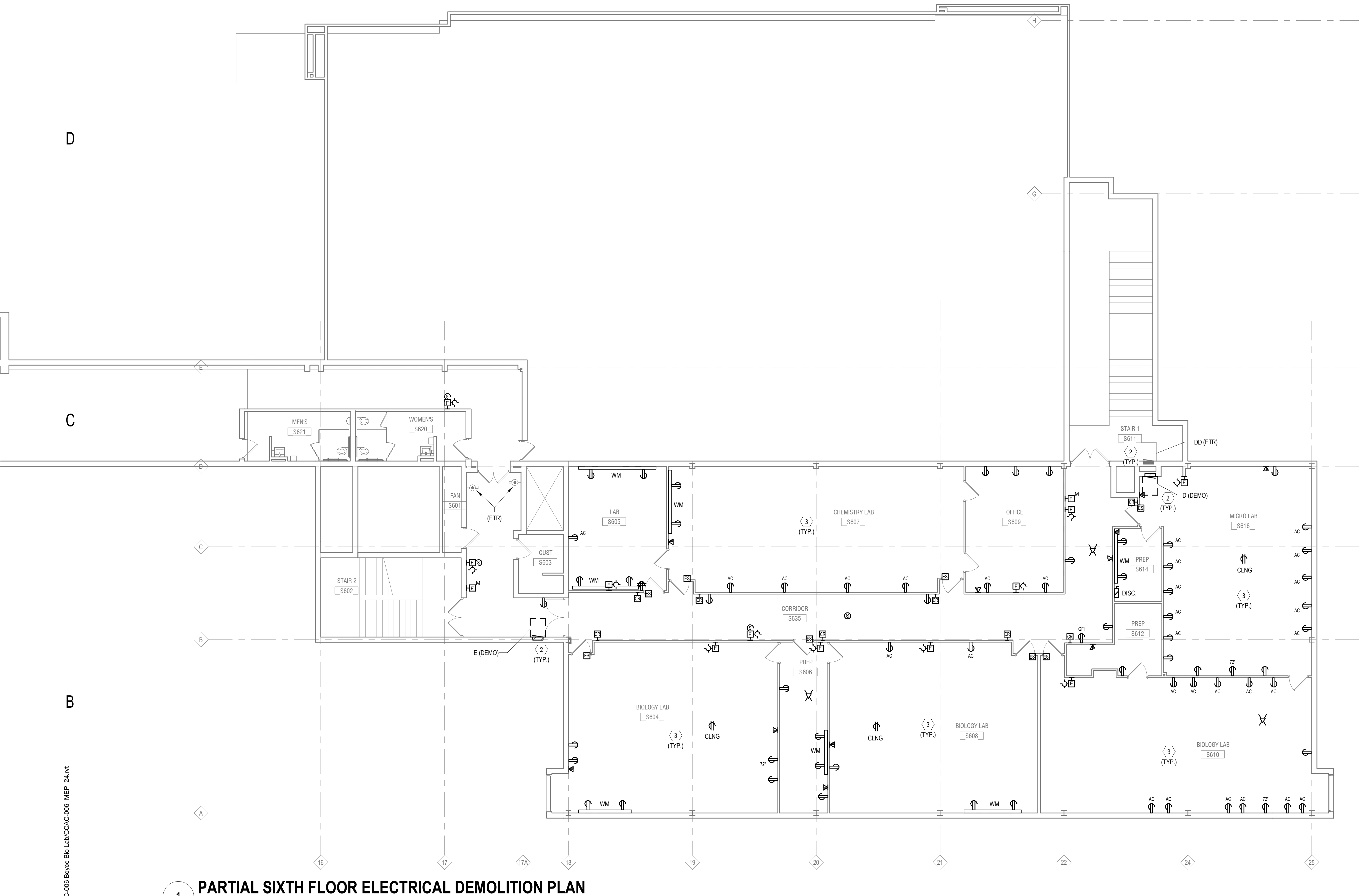
CLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY**

ELECTRICAL DEMOLITION GENERAL NOTES

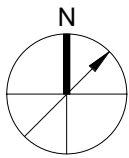
- 1 UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL DEVICES FROM WITHIN THE AREA OF DEMOLITION WORK IDENTIFIED. THE DEVICES TO BE REMOVED SHALL INCLUDE BUT ARE NOT LIMITED TO: RECEPTACLES, FIRE ALARM DEVICES AND TERMINAL CABINETS, SWITCHES, JUNCTION BOXES, LIGHTS, LIGHTING CONTROLS, PANELBOARDS AND FLOOR BOXES. REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE UPSTREAM DISTRIBUTION DEVICE. THE INTENT IS FOR ALL DEVICES TO BE REMOVED TO ALLOW THE RENOVATION AND INSTALLATION OF ALL NEW DEVICES AS SHOWN ON THE NEW WORK DOCUMENTS. EXISTING DEVICES SHOWN ARE DIAGRAMMATIC AND BASED ON FIELD SURVEYS AND/OR RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REPRESENT THE FULL SCOPE OF DEMOLITION WORK. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE PLANS ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES AND IN NO WAY RELIEVE THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY. COMPONENTS RELATED TO THE EXISTING BUILDING-WIDE LIGHTING CONTROL SYSTEM SHALL BE RETAINED AND REUSED WHERE FEASIBLE WITH NEW LIGHTING AND CONTROL DEVICES.
- 2 CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
- 3 OWNER SHALL HAVE RIGHT OF FIRST REFUSAL TO ANY EQUIPMENT, DEVICES, LUMINAIRES, ETC. DEMOLISHED FROM RENOVATION AREA PRIOR TO DISPOSAL.
- 4 MAINTAIN CONTINUITY OF SERVICE TO AREAS OUTSIDE THE PROJECT BOUNDARY. PATCH AND REPAIR ALL CIRCUITS CUT OFF DURING DEMOLITION BY WIRING METHODS COMPATIBLE WITH THE EXISTING INSTALLATION.
- 5 THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS OF ALL OTHER TRADES IN THIS CONTRACT. THE REMOVAL OF ELECTRICAL SERVICE TO ALL EQUIPMENT IDENTIFIED ON OTHER TRADE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 6 EXERCISE EXTREME CAUTION WHEN REMOVING/RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
- 7 CONTRACTOR SHALL EXAMINE CONDITIONS AND TEST FUNCTIONALITIES OF ALL EXISTING ELECTRICAL EQUIPMENT IDENTIFIED TO BE REUSED AND/OR RELOCATED. PROVIDE REPORT TO ENGINEER AND OWNER PRIOR TO DEMOLITION.
- 8 COORDINATE EXISTING TELECOMMUNICATIONS ROOM LOCATION WITH LOCAL CLIENT REPRESENTATIVE.
- 9 REMOVE AND RETURN WIRELESS ACCESS POINTS AND PAGING SPEAKERS TO THE OWNER. INDIVIDUALLY CAP SPEAKER WIRING AND TAG FOR REUSE IN SAME LOCATION.
- 10 REMOVE EXISTING COMMUNICATIONS WORK AREA OUTLETS AND RACEWAYS IN THEIR ENTIRETY. PULL ALL CABLES BACK TO THE EXISTING TELECOMMUNICATIONS ROOM AND COIL FOR REUSE. LABEL CABLES ON BOTH ENDS WITH CLEAR IDENTIFICATION OF PATCH PANEL DESIGNATION.
- 11 REMOVE EXISTING SECURITY WORK AREA OUTLETS, CABLEING AND RACEWAYS IN THEIR ENTIRETY FROM THEIR # SOURCE.

ELECTRICAL DEMOLITION KEYNOTES

- 1 PANELS 'E' AND 'D' SHALL BE DEMOLISHED AND REPLACED WITH NEW PANELS WITH ADDITIONAL POLES. PANEL 'D' IS EXISTING TO REMAIN AND SHALL BE RECONNECTED TO PANEL 'D' VIA A NEW 3-POLE BREAKER INSTEAD OF A BUS TAP. EXISTING BRANCH CIRCUITS NOT IMPACTED BY THIS PROJECT TO BE RECONNECTED TO NEW PANEL 'E'.
- 2 ALL WIRES AND CONDUITS ASSOCIATED WITH POWERED DESK PULLS SHALL BE REMOVED BACK TO THEIR SOURCE.



1 PARTIAL SIXTH FLOOR ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
**CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS**

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
**PARTIAL SIXTH FLOOR
ELECTRICAL
DEMOLITION PLAN**

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

ED102

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

E

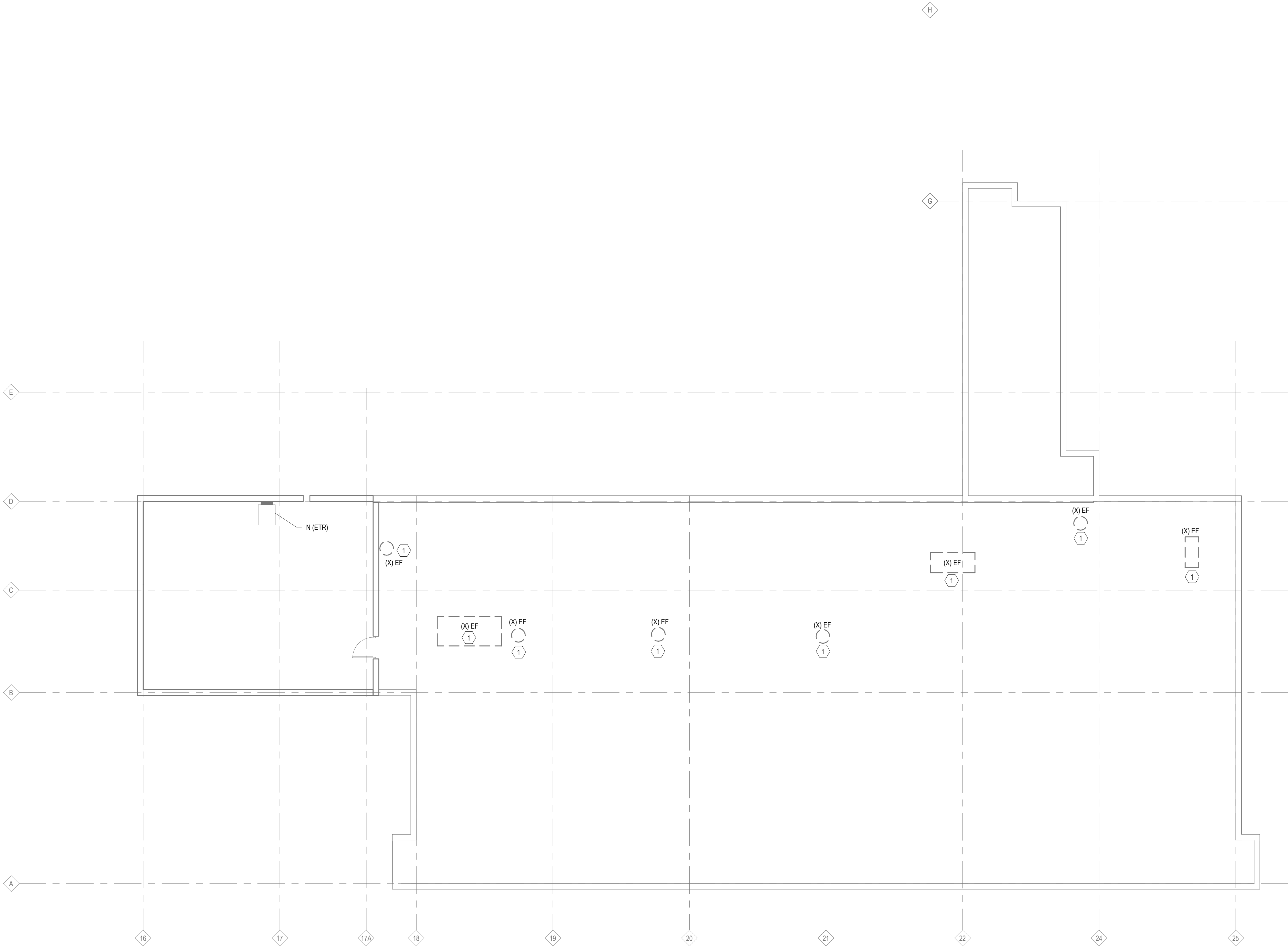
D

C

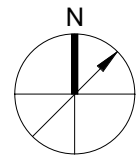
B

A

Autodesk Docs://CCAC-008 Boyce Bio Lab/CCAC-008 MEP_24.rvt
4/17/2028 8:54:55 AM



1 ELECTRICAL ROOF DEMOLITION PLAN
1/8" = 1'-0"

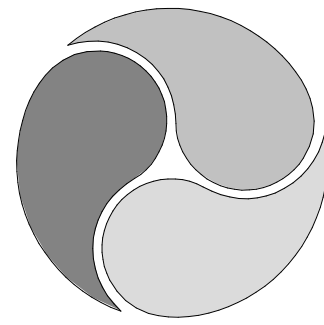


ELECTRICAL DEMOLITION GENERAL NOTES

- 1 UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL DEVICES FROM WITHIN THE AREA OF DEMOLITION WORK IDENTIFIED. THE DEVICES TO BE REMOVED SHALL INCLUDE BUT ARE NOT LIMITED TO: RECEPTACLES, FIRE ALARM DEVICES AND TERMINAL CABINETS, SWITCHES, JUNCTION BOXES, LIGHTS, LIGHTING CONTROLS, PANELBOARDS AND FLOOR BOXES. REMOVE ALL ASSOCIATED CONDUIT AND WIRE BACK TO THE UPSTREAM DISTRIBUTION DEVICE. THE INTENT IS FOR ALL DEVICES TO BE REMOVED TO ALLOW THE RENOVATION AND INSTALLATION OF ALL NEW DEVICES AS SHOWN ON THE NEW WORK DOCUMENTS. EXISTING DEVICES SHOWN ARE DIAGRAMMATIC AND BASED ON FIELD SURVEYS AND/OR RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REPRESENT THE FULL SCOPE OF DEMOLITION WORK. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE PLANS ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES AND IN NO WAY RELIEVE THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY. COMPONENTS RELATED TO THE EXISTING BUILDING-WIDE LIGHTING CONTROL SYSTEM SHALL BE RETAINED AND REUSED WHERE FEASIBLE WITH NEW LIGHTING AND CONTROL DEVICES.
- 2 CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEKS WRITTEN NOTICE PRIOR TO ANY SHUT DOWN. NOTICE IS TO INCLUDE BUT IS NOT LIMITED TO THE LOCATION, PANELS AND DURATION OF SHUT DOWN.
- 3 OWNER SHALL HAVE RIGHT OF FIRST REFUSAL TO ANY EQUIPMENT, DEVICES, LUMINAIRES, ETC. DEMOLISHED FROM RENOVATION AREA PRIOR TO DISPOSAL.
- 4 MAINTAIN CONTINUITY OF SERVICE TO AREAS OUTSIDE THE PROJECT BOUNDARY. PATCH AND REPAIR ALL CIRCUITS CUT OFF DURING DEMOLITION BY WIRING METHODS COMPATIBLE WITH THE EXISTING INSTALLATION.
- 5 THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS OF ALL OTHER TRADES IN THIS CONTRACT. THE REMOVAL OF ELECTRICAL SERVICE TO ALL EQUIPMENT IDENTIFIED ON OTHER TRADE DRAWINGS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 6 EXERCISE EXTREME CAUTION WHEN REMOVING/RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
- 7 CONTRACTOR SHALL EXAMINE CONDITIONS AND TEST FUNCTIONALITIES OF ALL EXISTING ELECTRICAL EQUIPMENT IDENTIFIED TO BE REUSED AND/OR RELOCATED. PROVIDE REPORT TO ENGINEER AND OWNER PRIOR TO DEMOLITION.
- 8 COORDINATE EXISTING TELECOMMUNICATIONS ROOM LOCATION WITH LOCAL CLIENT REPRESENTATIVE.
- 9 REMOVE AND RETURN WIRELESS ACCESS POINTS AND PAGING SPEAKERS TO THE OWNER. INDIVIDUALLY CAP SPEAKER WIRING AND TAG FOR REUSE IN SAME LOCATION.
- 10 REMOVE EXISTING COMMUNICATIONS WORK AREA OUTLETS AND RACEWAYS IN THEIR ENTIRETY. PULL ALL CABLES BACK TO THE EXISTING TELECOMMUNICATIONS ROOM AND COIL FOR REUSE. LABEL CABLES ON BOTH ENDS WITH CLEAR IDENTIFICATION OF PATCH PANEL DESIGNATION.
- 11 REMOVE EXISTING SECURITY WORK AREA OUTLETS, CABLES AND RACEWAYS IN THEIR ENTIRETY FROM THEIR ORIGINAL LOCATION.

ELECTRICAL DEMOLITION KEYNOTES

- 1 ALL WIRES, CONDUITS, AND DISCONNECTS ASSOCIATED WITH DEMOLISHED MECHANICAL EQUIPMENT SHALL BE REMOVED BACK TO THEIR SOURCE.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
ELECTRICAL ROOF
DEMOLITION PLAN

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

ED103

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

A

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED

GENERAL NOTES - UNDERFLOOR WORK

- 1 CONTRACTOR SHALL PROVIDE A PHASING PLAN OF ALL WORK AREAS FOR REVIEW BY THE OWNER PRIOR TO CEILING REMOVAL. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO START OF WORK.
- 2 CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
- 3 COORDINATE WORK WITH ALL PRIME CONTRACTORS TO OCCUR OVER SUMMER AND HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

ADD ALTERNATE

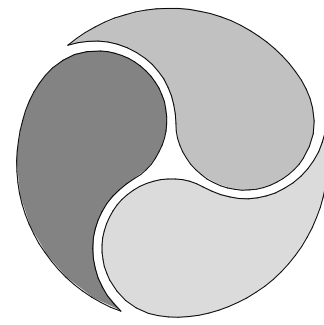
PROVIDE WALL MOUNTED KEY SWITCH ADJACENT TO THE ROOM LIGHTING CONTROL IN ALL LAB SPACES. THE KEY SWITCH IS TO ALLOW MANUAL (ON/OFF) CONTROL OF RECEPTACLE POWER IN THAT SPACE. CONTRACTOR IS TO PROVIDE A SHUNT-TRIP BREAKER FOR EACH RECEPTACLE CIRCUIT AT THE BRACH PANELBOARD.

POWER PLAN GENERAL NOTES

- 1 FINAL LOCATION OF ALL EQUIPMENT SHALL BE DETERMINED IN THE FIELD AND SHALL BE INSTALLED AS DIRECTED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL WALLS AND FLOORS AS REQUIRED TO PERMIT PASSAGE OF CONDUITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A MARKED-UP PLAN WITH LOCATION PENETRATIONS FOR REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER BEFORE ROUGH-IN BEGINS.
- 2 RECEPTACLES FOR ALL EQUIPMENT SHALL BE COMPLETE WITH PLUGS FOR THIS EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL VERIFY NEARBY CONFIGURATIONS OF PLUGS AND RECEPTACLES FOR EQUIPMENT IN THE SPACE.
- 3 DURING THE BIDDING PROCESS, THE ELECTRICAL CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS OF ALL OTHER TRADES (ARCHITECTURAL, SITE/LANDSCAPING, HVAC, PLUMBING AND SPECIALTY TRADES). ALL ITEMS REQUIRING POWER INDICATED ON THESE DRAWINGS BUT NOT INDICATED ON THE ELECTRICAL DRAWINGS SHALL BE CONSIDERED A PART OF THE ELECTRICAL CONTRACTOR'S WORK. THIS WORK SHALL BE INSTALLED AS PER NEC REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
- 4 THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAKE ALL FEEDER RUNS CONTINUOUS (NO CABLE BREAKS). IF SPLICING CABLES IN BOXES BECOMES NECESSARY, USE 0.2 G. TYPE "XW" CABLE TAPS, OR APPROVED EQUAL, AND TAPE EACH TAP IN APPROVED MANNER.
- 5 THE MECHANICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES, VFD'S, OR COMBINATION STARTERS FOR ALL OF THEIR UNITS. THE ELECTRICAL CONTRACTOR SHALL RECEIVE THESE ITEMS FROM THE MECHANICAL CONTRACTOR FOR INSTALLATION BY THE ELECTRICAL CONTRACTOR.
- 6 THE ELECTRICAL CONTRACTOR SHALL COORDINATE CONDUIT PENETRATIONS FOR ROOF TOP EQUIPMENT WITH MECHANICAL AND ROOFING CONTRACTORS. IF PROVISIONS ARE NOT IN PLACE FOR THESE PENETRATIONS THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING OWN PENETRATIONS AND CONTRACTING THE ROOF CONTRACTOR FOR SEALING THE ROOF PENETRATIONS.
- 7 REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
- 8 PROVIDE CONDUIT AND WIRING AS REQUIRED TO MEET CIRCUITING SHOWN TO CONFORM TO NEC REQUIREMENTS.
- 9 PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. REFER TO PANELBOARD SCHEDULES.
- 10 REFER TO EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND CIRCUIT DESIGNATIONS.
- 11 ROUTE CONDUIT HIGH AGAINST STRUCTURE AND OFF-SET UP BETWEEN JOISTS WHERE NECESSARY TO AVOID DUCT WORK AND HVAC SYSTEM.
- 12 VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
- 13 CONTRACTOR SHALL LABEL ALL RECEPTACLES ON DEDICATED CIRCUITS AS "DEDICATED FOR EQUIPMENT".

POWER PLAN KEYNOTES

- 1 JUNCTION BOXES IN FLOOR SHALL CONNECT TO MANUFACTURER POWER CONNECTION POINT. IN LAB BENCHES, JUNCTION BOXES SHALL INCLUDE POKE THROUGH TO SUPPORT 3/4" CONDUIT AND NOT CONTAIN ANY RECEPTACLES. CONDUITS SHALL BE RUN IN CEILING OF THE FLOOR BELOW.
- 2 JUNCTION SHALL BE UTILIZED FOR POWER PULL TO PRESENTER DESK.
- 3 RECEPTACLES SHALL BE MOUNTED IN BASE OF SEATING.
- 4 RECEPTACLES SHALL BE MOUNTED IN CASEWORK.
- 5 JUNCTION BOX FOR EMERGENCY GAS SHUTDOWN VALVE. COORDINATE EXACT LOCATION WITH PLUMBING DRAWINGS.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

PARTIAL SIXTH FLOOR
POWER PLAN

DRAWN BY: JC

CHECKED BY: DF

PROJ. NO:

DATE: 04/14/2028

DRAWING NO:

E201

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

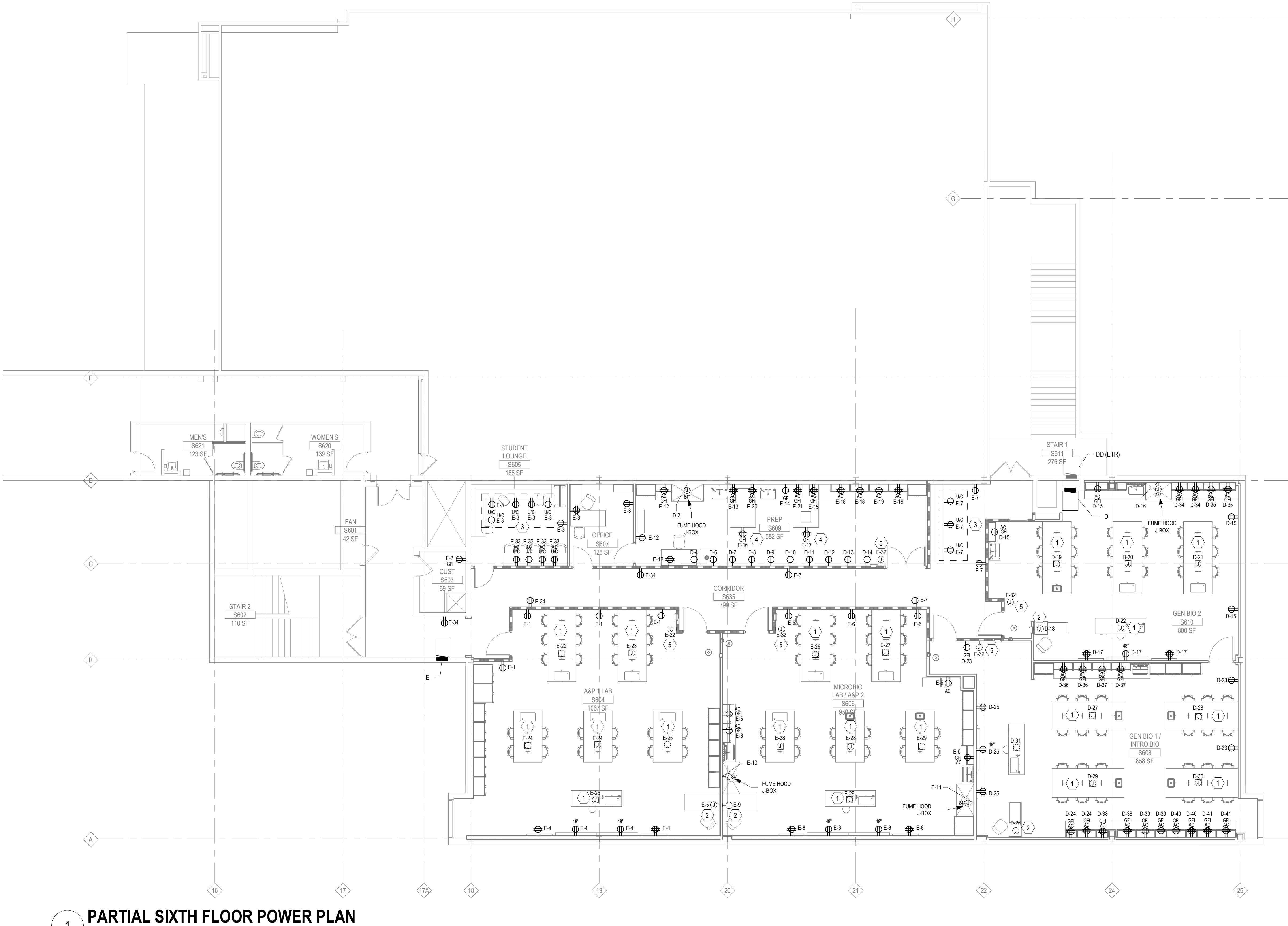
E

D

C

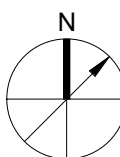
B

A



1 PARTIAL SIXTH FLOOR POWER PLAN

1/8" = 1'-0"



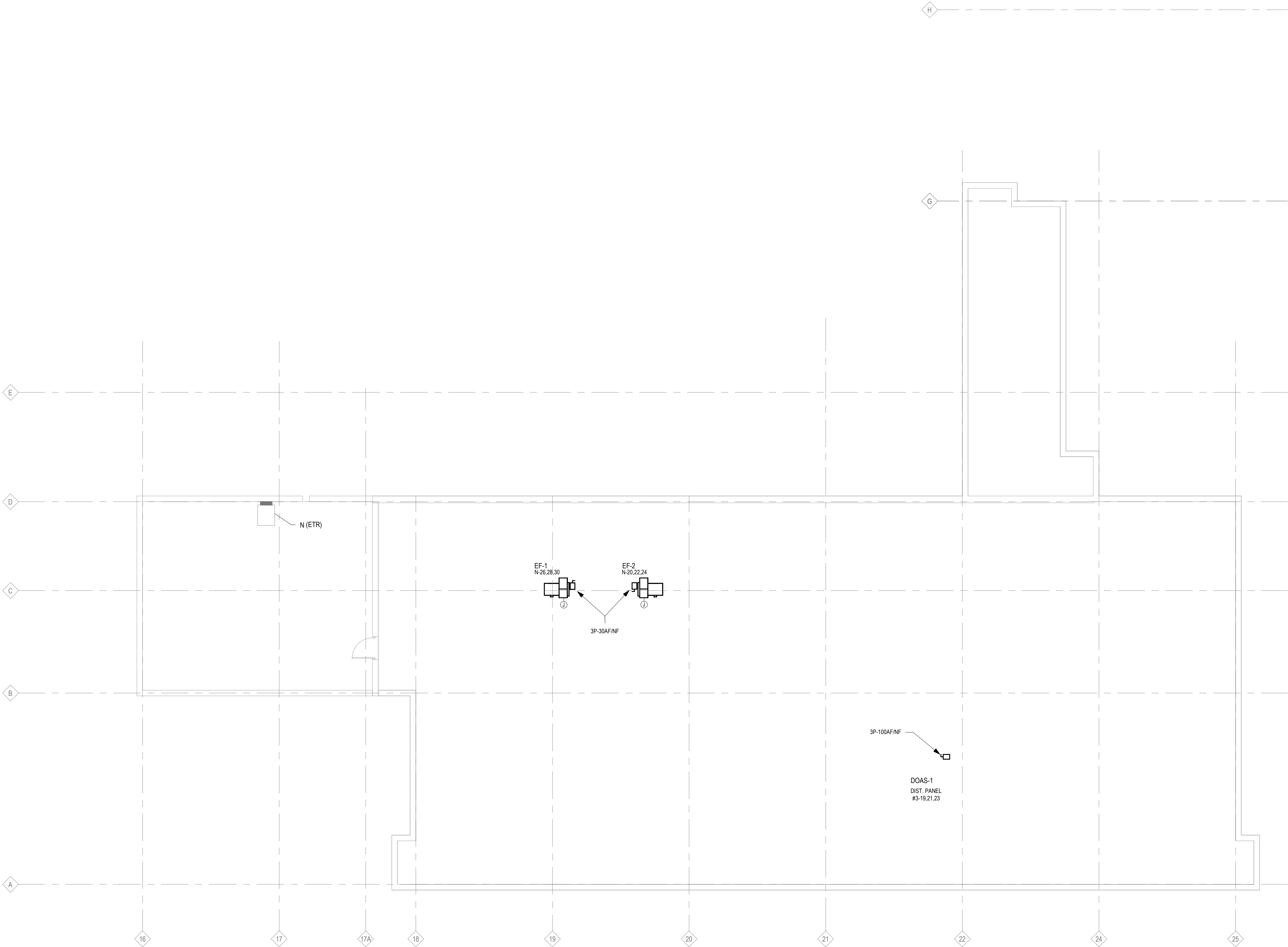
E

D

C

B

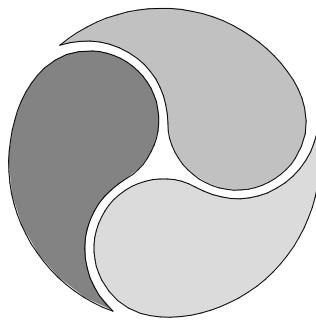
A



1 PARTIAL ROOF POWER PLAN
1/8" = 1'-0"

POWER PLAN GENERAL NOTES

1. FINAL LOCATION OF ALL EQUIPMENT SHALL BE DETERMINED IN THE FIELD AND SHALL BE INSTALLED AS DIRECTED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL WALLS AND FLOORS AS REQUIRED TO PERMIT PASSAGE OF CONDUITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A MARKED-UP PLAN WITH LOCATION PENETRATIONS FOR REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER BEFORE ROUGH-IN BEGINS.
2. RECEPTACLES FOR ALL EQUIPMENT SHALL BE COMPLETE WITH PLUGS FOR THIS EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL VERIFY NEMA CONFIGURATIONS OF PLUGS AND RECEPTACLES FOR EQUIPMENT IN THE SPACE.
3. DURING THE BIDDING PROCESS, THE ELECTRICAL CONTRACTOR SHALL REVIEW DRAWINGS AND SPECIFICATIONS OF ALL OTHER TRADES (ARCHITECTURAL, SITE/LANDSCAPING, HVAC, PLUMBING AND SPECIALTY TRADES). ALL ITEMS REQUIRING POWER INDICATED ON THESE DRAWINGS BUT NOT INDICATED ON THE ELECTRICAL DRAWINGS SHALL BE CONSIDERED A PART OF THE ELECTRICAL CONTRACTOR'S WORK. THIS WORK SHALL BE INSTALLED AS PER NEC REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAKE ALL FEEDER RUNS CONTINUOUS (NO CABLE BREAKS). IF SPLICING CABLES IN BOXES BECOMES NECESSARY, USE 0.2 G. TYPE "XW" CABLE TAPS, OR APPROVED EQUAL, AND TAPE EACH TAP IN APPROVED MANNER.
5. THE MECHANICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES, VFD'S, OR COMBINATION STARTERS FOR ALL OF THEIR UNITS. THE ELECTRICAL CONTRACTOR SHALL RECEIVE THESE ITEMS FROM THE MECHANICAL CONTRACTOR FOR INSTALLATION BY THE ELECTRICAL CONTRACTOR.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE CONDUIT PENETRATIONS FOR ROOFTOP EQUIPMENT WITH MECHANICAL AND ROOFING CONTRACTORS. IF PROVISIONS ARE NOT IN PLACE FOR THESE PENETRATIONS THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING OWN PENETRATIONS AND CONTRACTING THE ROOF CONTRACTOR FOR SEALING THE ROOF PENETRATIONS.
7. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
8. PROVIDE CONDUIT AND WIRING AS REQUIRED TO MEET CIRCUITING SHOWN TO CONFORM TO NEC REQUIREMENTS.
9. PROVIDE EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. REFER TO PANELBOARD SCHEDULES.
10. REFER TO EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL REQUIREMENTS AND CIRCUIT DESIGNATIONS.
11. ROUTE CONDUIT HIGH AGAINST STRUCTURE AND OFF-SET UP BETWEEN JOISTS WHERE NECESSARY TO AVOID DUCT WORK AND HVAC SYSTEM.
12. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
13. CONTRACTOR SHALL LABEL ALL RECEPTACLES ON DEDICATED CIRCUITS AS "DEDICATED FOR EQUIPMENT".



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:

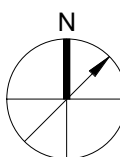


PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PARTIAL ROOF POWER
PLAN

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2026
DRAWING NO:



E202

GENERAL NOTES - UNDERFLOOR WORK

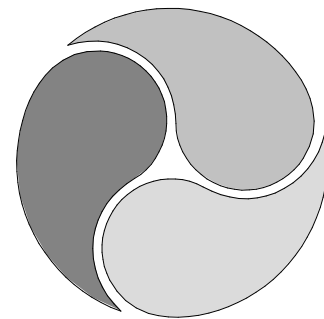
- 1 CONTRACTOR SHALL PROVIDE A PHASING PLAN OF ALL WORK AREAS FOR REVIEW BY THE OWNER PRIOR TO CEILING REMOVAL. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO START OF WORK.
- 2 CONTRACTOR SHALL PROVIDE DUST CONTAINMENT ENCLOSURE AT EACH PHASE OF WORK.
- 3 COORDINATE WORK WITH ALL PRIME CONTRACTORS TO OCCUR OVER SUMMER AND HOLIDAY BREAKS AND WEEKENDS TO MINIMIZE DISRUPTION TO STUDENT SERVICES.

COMMUNICATIONS GENERAL NOTES

- 1 THE DIVISION 27 COMMUNICATIONS SPECIFICATIONS OUTLINE THE PROJECT PERFORMANCE REQUIREMENTS AND SHALL BE USED IN COMBINATION WITH THE CONSTRUCTION DRAWINGS TO PROVIDE A COMPLETE INFORMATION AND COMMUNICATIONS TECHNOLOGY CABLING INFRASTRUCTURE, READY FOR USE. POWERED EQUIPMENT AND ELECTRONIC DEVICES NOT IN CONTRACTOR SCOPE UNLESS NOTED OTHERWISE.
- 2 THE DRAWINGS ARE DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENTS OF WORK AREA OUTLETS AND SUBSYSTEMS. COORDINATE WORK WITH FURNITURE, LOCAL CLIENT REPRESENTATIVES, AND OTHER DISCIPLINES TO MEET THE DESIGN INTENT OF BEING PRACTICAL AND READILY ACCESSIBLE.
- 3 PATHWAYS PENETRATING FIRE-RATED BARRIERS SHALL BE SELF-SEALING UL LISTED MECHANICAL ASSEMBLIES RATED FOR USE AND THAT ALLOW RE-ENTRY WITHOUT THE NEED FOR FIRE-STOP PILLOWS, CAULK, PUTTY, ETC. CONTRACTOR SHALL SEAL USED AND UNUSED PENETRATIONS ALONG CABLING ROUTES.
- 4 UTILIZE EXISTING CODE COMPLIANT PATHWAYS TO THE EXTENT POSSIBLE AND PROVIDE NEW AS NOTED ON DRAWINGS, AND AS NECESSARY TO COMPLETE THE WORK PER INDUSTRY BEST PRACTICES. OPEN TOP STRUCTURALLY SUPPORTED J-HOOKS APPROVED AS SUPPLEMENTAL MEANS IN WORK AREAS.
- 5 COORDINATE EXISTING TELECOMMUNICATIONS ROOM LOCATION WITH LOCAL CLIENT REPRESENTATIVE. ENSURE TERMINATED WORK AREA OUTLET CABLING DOES NOT EXCEED 90 METERS.
- 6 REINSTALL EXISTING WORK AREA COMMUNICATIONS CABLING FROM EXISTING TELECOMMUNICATIONS ROOM TO NEW WORK AREA OUTLET LOCATIONS AND PROVIDE NEW TERMINATION COMPONENTS.
- 7 PROVIDE NEW CABLING AND COMPONENTS FROM EXISTING TELECOMMUNICATIONS ROOM TO WORK AREA OUTLETS AS NECESSARY TO COMPLETE WORK.
- 8 COORDINATE WIRELESS ACCESS POINT LOCATIONS WITH OTHER DISCIPLINES TO AVOID CONFLICT WITH OTHER BUILDING ELEMENTS.
- 9 COORDINATE SPEAKER LOCATIONS WITH OTHER DISCIPLINES TO AVOID CONFLICT WITH OTHER BUILDING ELEMENTS.
- 10 INTEGRATE NEW ELECTRONIC SECURITY SYSTEM DEVICES, BUILDING FIRE ALARM, INTRUSION ALARM, AND BUILDING AUTOMATION SYSTEMS IN ACCORDANCE WITH APPLICABLE LIFE SAFETY CODES. COORDINATE SYSTEMS LOCATIONS WITH LOCAL CLIENT REPRESENTATIVES.
- 11 THE CONTRACTOR SHALL EVALUATE EXISTING SECURITY SYSTEMS AND COORDINATE WITH MANUFACTURERS AND SERVICE PROVIDERS TO FINALIZE REQUIREMENTS AND DEVELOP SHOP DRAWINGS TO EXECUTE THE WORK.

COMMUNICATIONS KEY NOTES

- 1 PROVIDE 1 1/2" CONDUIT, BACKBOX, AND PULL THROUGH COVER PLATE FOR SMART BOARD CONNECTION. CONDUIT STUB SHALL TERMINATE ABOVE CEILING. SEE DETAIL 1 ON SHEET E402 FOR WALL ELEVATION.
- 2 PRESENTER DESK: PROVIDE TWO 4-GANG AUDIO-VISUAL BACKBOXES WITH ONE 1-1/2" CONDUIT EACH. CONDUIT STUB SHALL TERMINATE ABOVE CEILING. SEE DETAIL 1 ON SHEET E403 FOR FACEPLATE DETAIL. SEE ARCHITECTURAL DRAWINGS FOR FURNITURE DETAILS.
- 3 PRESENTER DESK: PROVIDE ONE 4-GANG AUDIO-VISUAL BACKBOX WITH ONE 1-1/2" CONDUIT TERMINATED ABOVE CEILING AND ONE 1-1/2" CONDUIT TERMINATED TO A FLOOR BOX AT THE INSTRUCTOR LAB DESK. SEE ARCHITECTURAL DRAWINGS FOR FURNITURE AND CUBBY DETAILS.
- 4 PROVIDE 2 X 2 DROP-IN FOR CEILING MOUNTED AUDIO-VISUAL SPEAKERS (TYPICAL). LOCATION SHALL BE FIELD VERIFIED AND CONFIRMED WITH OWNER.
- 5 PROVIDE CEILING MOUNTED AUDIO-VISUAL CAMERAS. LOCATION SHALL BE FIELD VERIFIED AND CONFIRMED WITH OWNER.
- 6 REPOSITION EXISTING MAGNETIC DOOR HOLD OPEN DEVICES TO FUNCTION WITH NEW DOORS.
- 7 WALL PHONE OUTLET MOUNTED AT +42" AFF TO CENTER.
- 8 REINSTALL OWNER FURNISHED PAGING SPEAKER USING EXISTING WIRING TAGGED FOR REUSE IN SAME LOCATION.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PARTIAL SIXTH FLOOR
SYSTEMS PLAN

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

E301

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

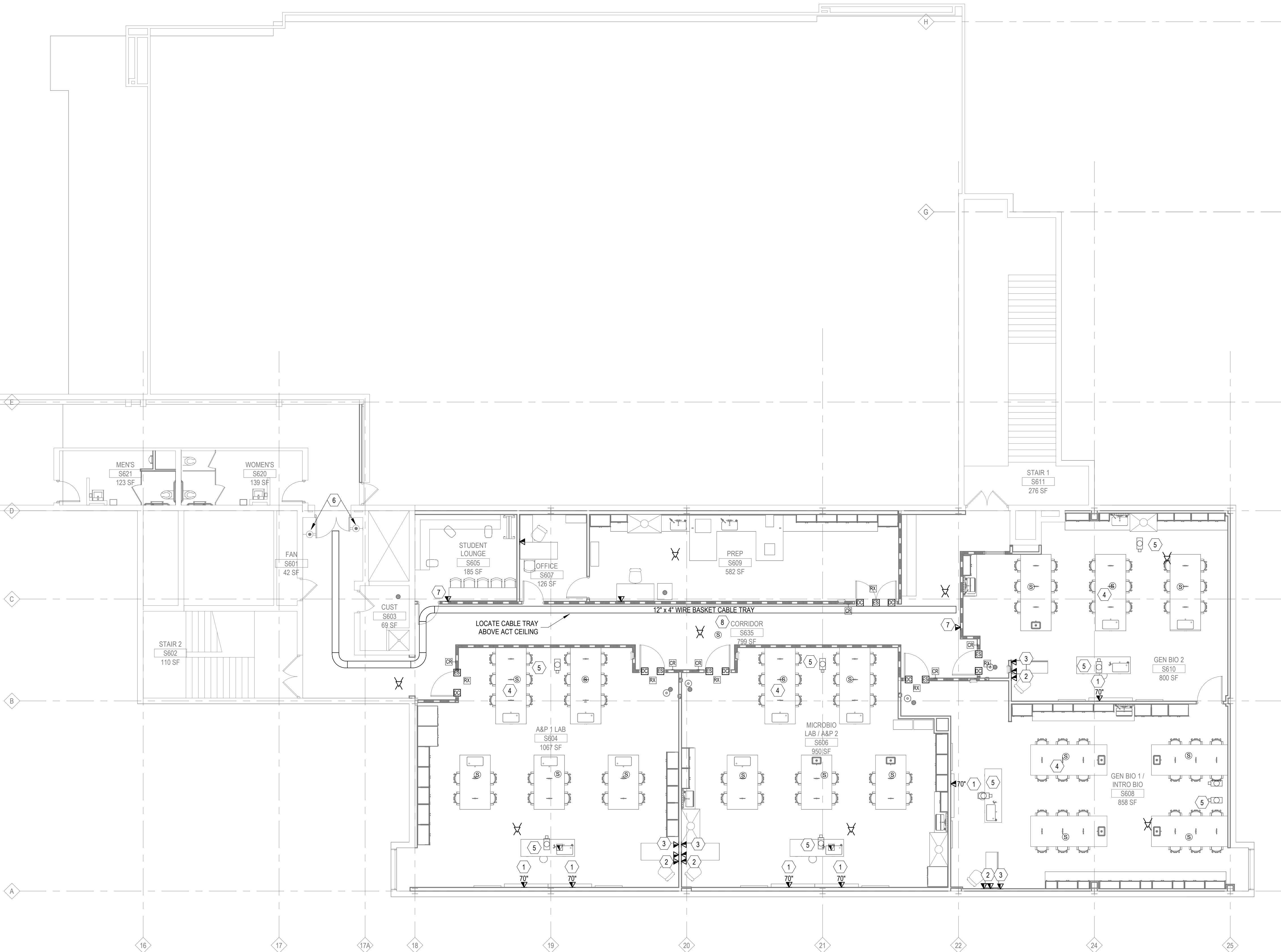
E

D

C

B

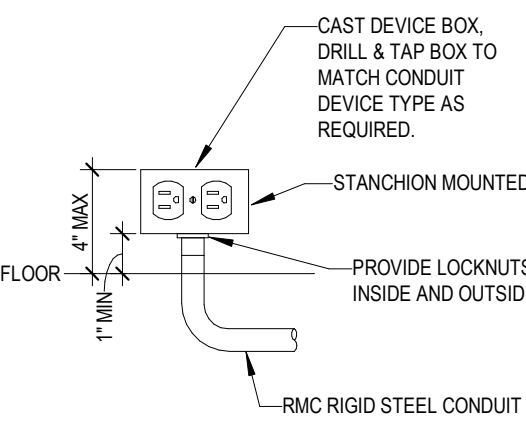
A



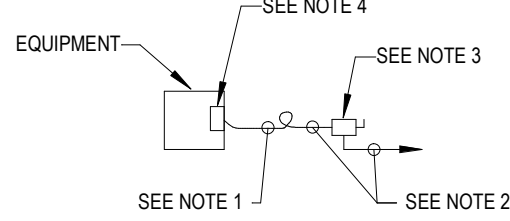
1 PARTIAL SIXTH FLOOR SYSTEMS PLAN
1/8" = 1'-0"

1 ELEC CONNECTION DETAILS

NOT TO SCALE

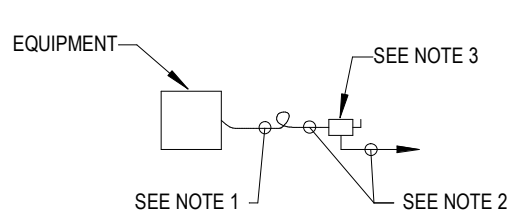


CONNECTION DETAIL 7



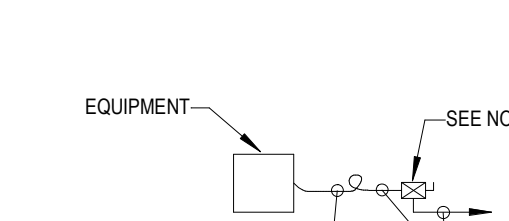
- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. INSTALL DISCONNECT SWITCH NEW OR RELOCATED TO MATCH EQUIPMENT AND IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION. INSTALL ADJACENT TO EQUIPMENT IN ACCORDANCE WITH NEC REQUIREMENTS.
 4. INTERNAL DISCONNECT OR CIRCUIT BREAKER.

CONNECTION DETAIL 4



- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. INSTALL DISCONNECT SWITCH NEW OR RELOCATED TO MATCH EQUIPMENT AND IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION. INSTALL ADJACENT TO EQUIPMENT IN ACCORDANCE WITH NEC REQUIREMENTS.
 4. INTERNAL DISCONNECT OR CIRCUIT BREAKER.

CONNECTION DETAIL 5

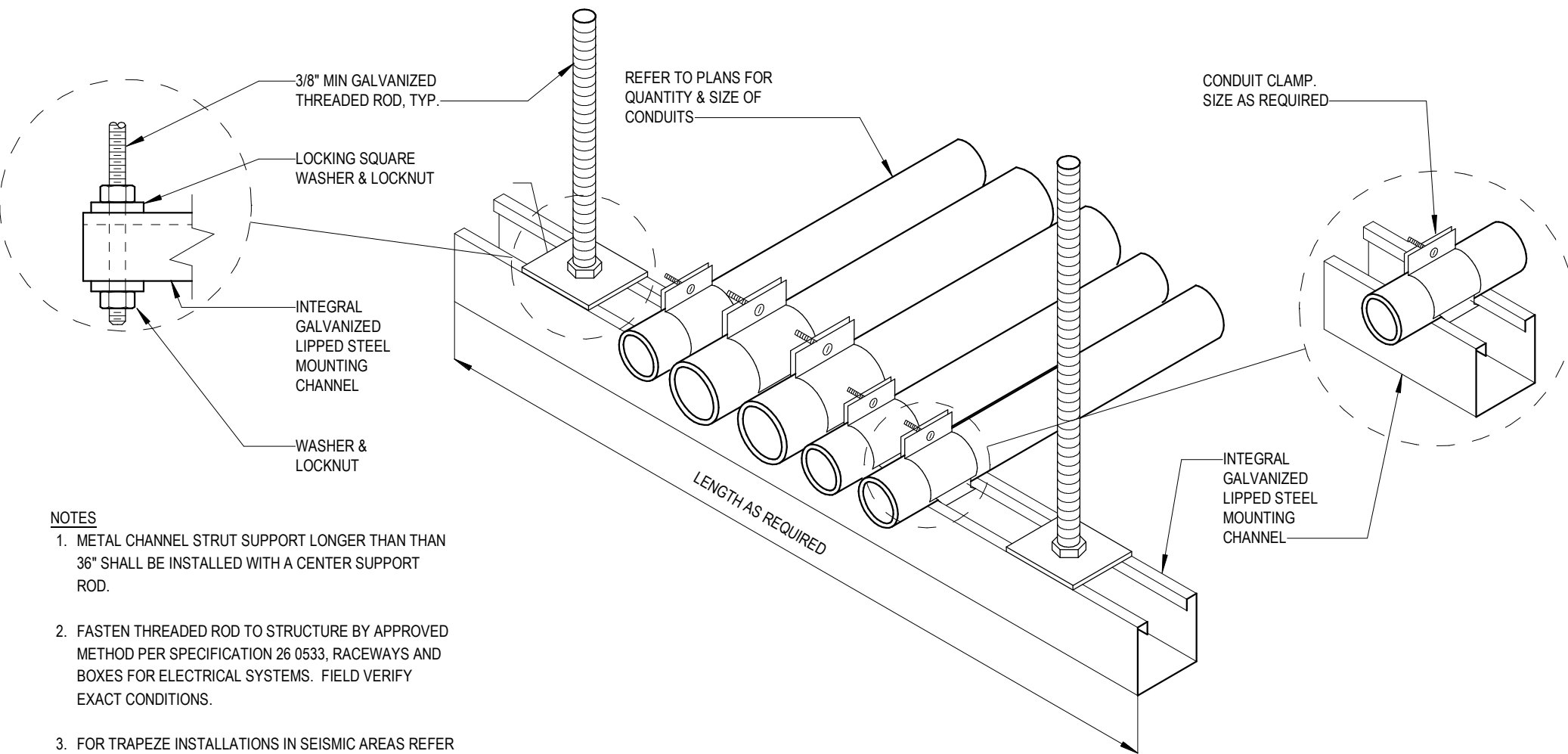


- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. PROVIDE A JUNCTION BOX ADJACENT TO EQUIPMENT.
 4. INTEGRAL DISCONNECT SWITCH (BY H.C.)

CONNECTION DETAIL 6

ELECTRICAL CONNECTION DETAILS

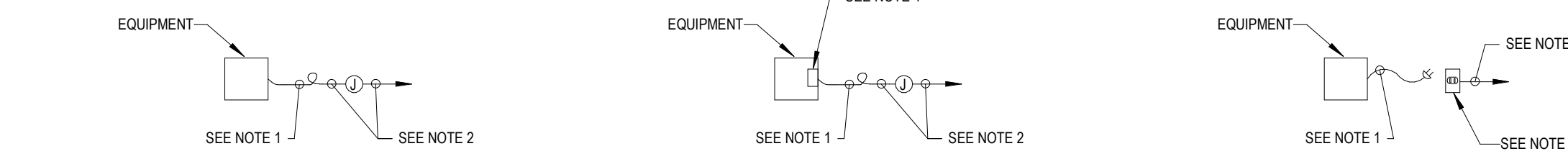
D



4 CONDUIT TRAPEZE MOUNTING DETAIL

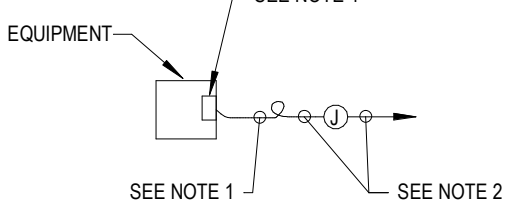
NOT TO SCALE

C



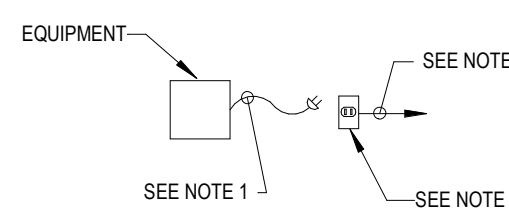
- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. PROVIDE A JUNCTION BOX ADJACENT TO EQUIPMENT.

CONNECTION DETAIL 1



- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. PROVIDE A JUNCTION BOX ADJACENT TO EQUIPMENT.
 4. INTEGRAL DISCONNECT SWITCH (BY H.C.)

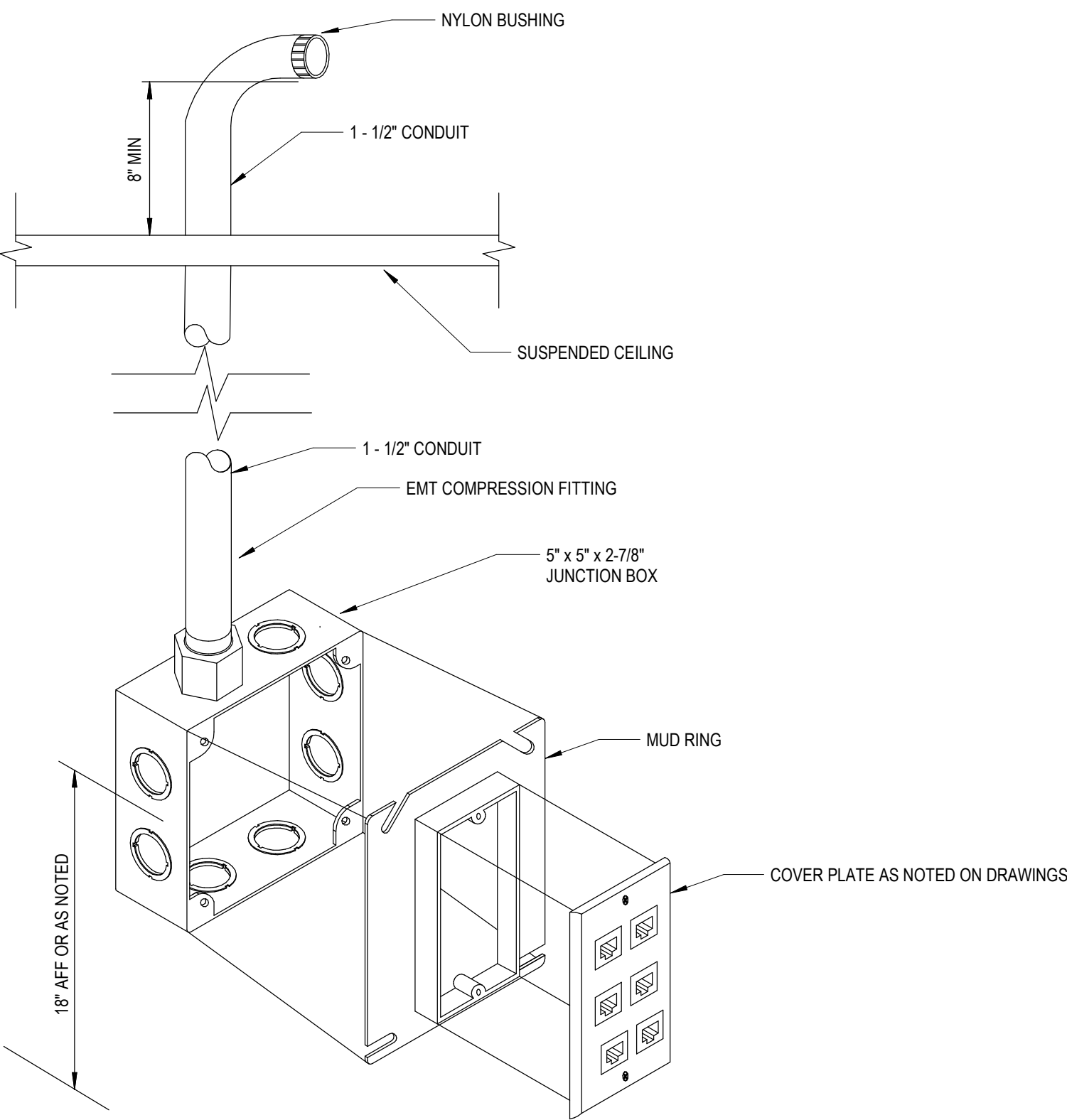
CONNECTION DETAIL 2



- NOTES:**
1. PROVIDE FLEXIBLE CONDUIT IN ACCORDANCE WITH THE SPECIFICATION.
 2. PROVIDE WIRING IN ACCORDANCE WITH EQUIPMENT SCHEDULE.
 3. PROVIDE A JUNCTION BOX ADJACENT TO EQUIPMENT.
 4. INTEGRAL DISCONNECT SWITCH (BY H.C.)

CONNECTION DETAIL 3

E



WAO ROUGH-IN DETAIL

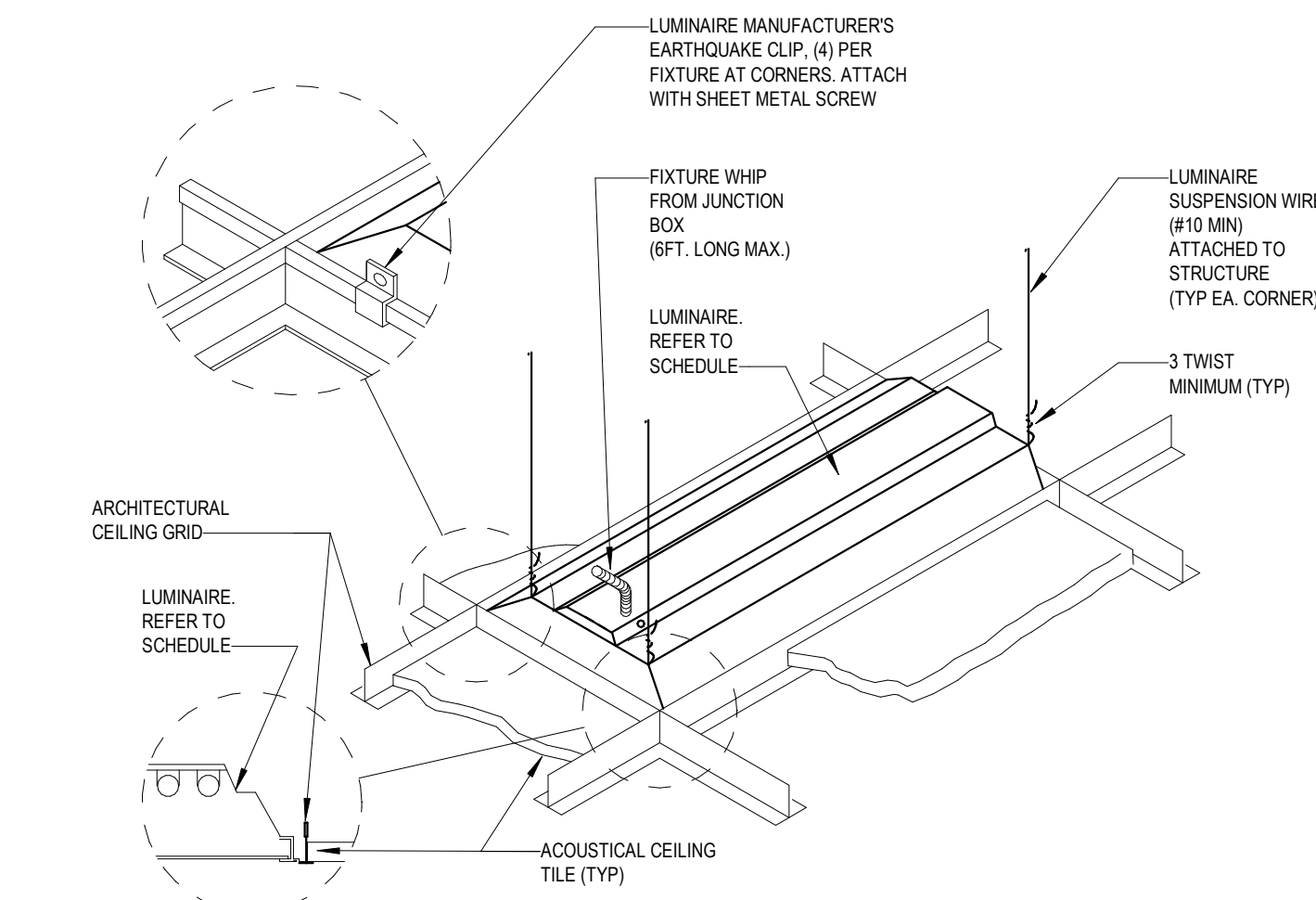
NOT TO SCALE

2 CONDUIT THROUGH FIRE RATED DRYWALL PARTITION

NOT TO SCALE

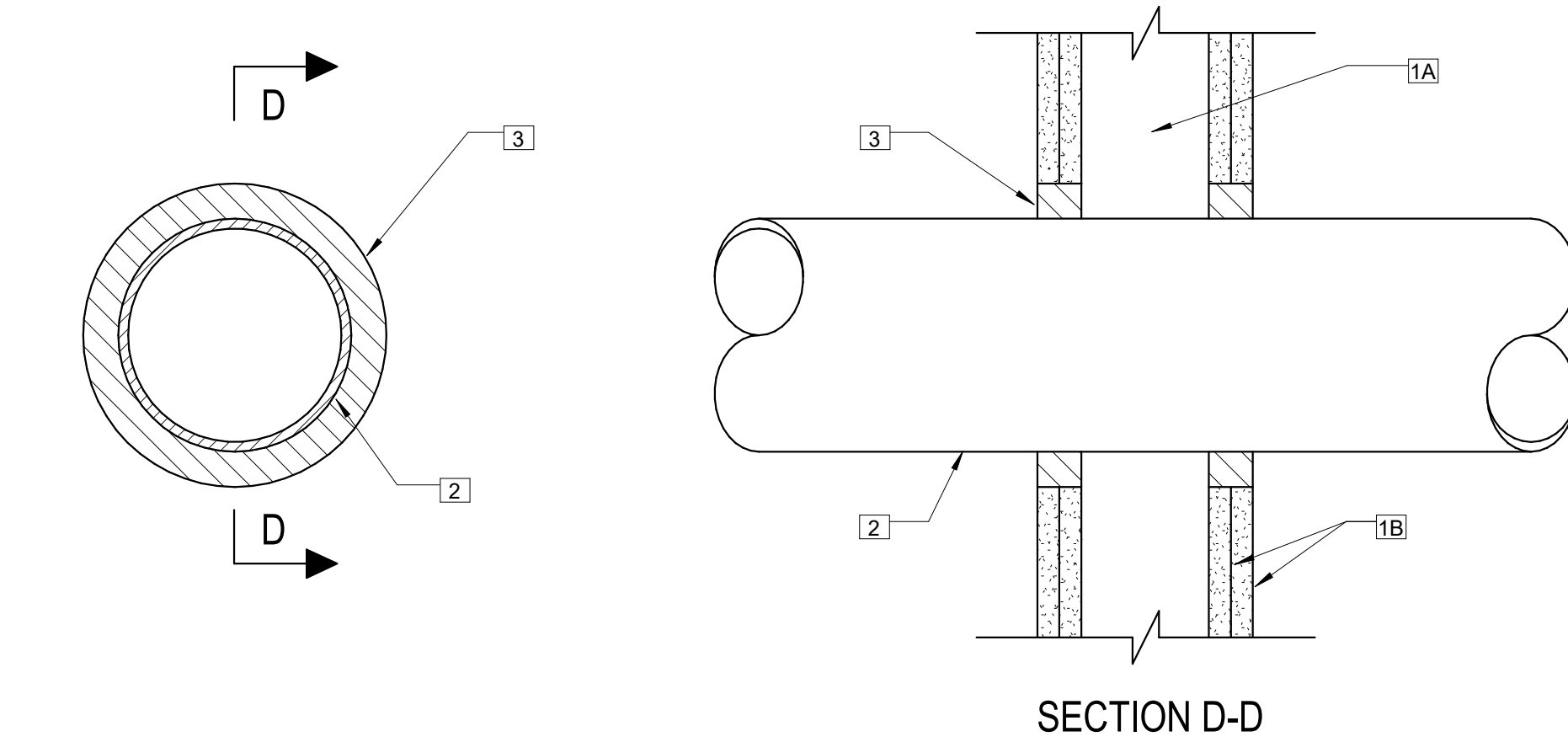
8 BRANCH WIRING IDENTIFICATION

NOT TO SCALE



5 LUMINAIRE MOUNTING - LAY-IN CIELING

NOT TO SCALE

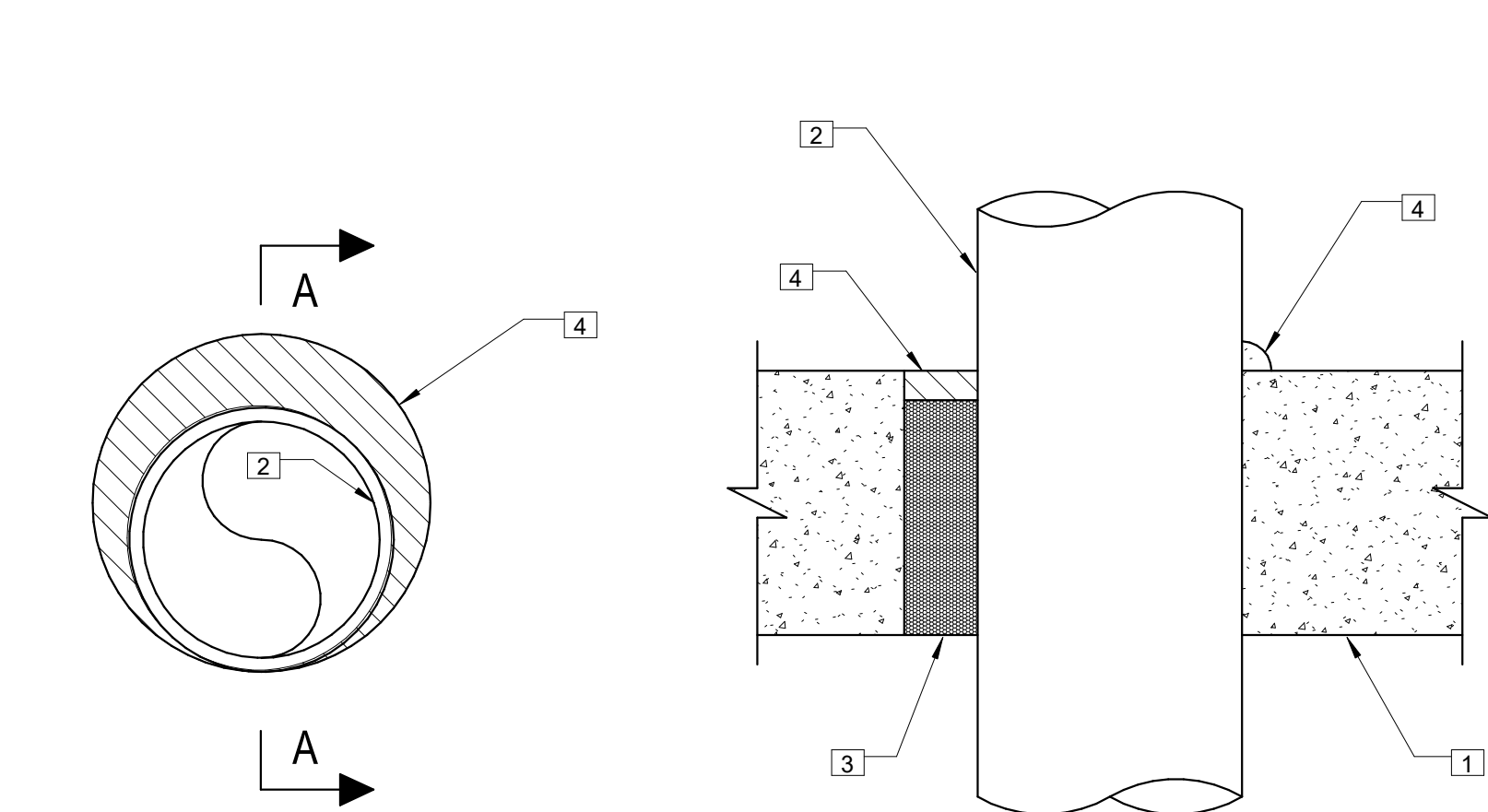


SECTION D-D

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD TO WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL, UDOO OR LAGO SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2x12 IN. WIDE AND SPACED MAX 24 IN. OC. WHEN STEEL STUDS ARE USED AND THE DAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 8 IN. WIDER AND 4 TO 8 IN. HIGHER THAN THE DAM OF THE PENETRATING ITEM SUCH THAT WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
B. GYPSUM BOARD - 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL, UDOO OR LAGO SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DAM OF OPENING IS 32-1/4 IN. FOR STEEL STUD WALLS. MAX DAM OF OPENING IS 14 IN. FOR WOOD STUD WALLS.
C. DAM OF OPENING - THE DAM OF OPENING SHALL BE AS SPECIFIED IN THE UL FIRE RESISTANCE DIRECTORY FOR THE RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.
D. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 1/4 IN. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45 DEGREES FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
A. STEEL PIPE - NOM 3/4 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
B. IRON PIPE - NOM 3/4 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAM STEEL CONDUIT.
D. COPPER TUBING - NOM 6 IN. DIAM (OR SMALLER) TYPE L OR HEAVIER COPPER TUBING.
E. COPPER PIPE - NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
F. FILL VOID OR CAVITY MATERIAL - SEALANT - MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL, AT THE POINT OF CONTACT. SEALANT SHALL BE APPLIED TO BOTH SURFACES OF WALL AND WALL, A MIN 1/2 IN. DAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE/WALL INTERFACE ON BOTH SIDES OF WALL ASSEMBLY.
G. SEALANT - SEALANT - MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL, AT THE POINT OF CONTACT. SEALANT SHALL BE APPLIED TO BOTH SURFACES OF WALL AND WALL, A MIN 1/2 IN. DAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE/WALL INTERFACE ON BOTH SIDES OF WALL ASSEMBLY.
H. HLT CONSTRUCTION CHEMICALS, DIV OF HLT INC. - FS-ONE SEALANT BEARING THE UL CLASSIFICATION MARK.

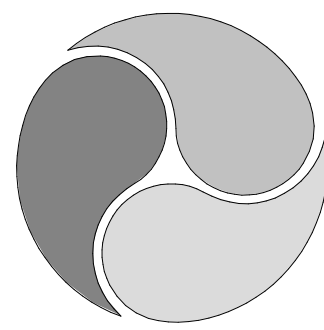
3 CONDUIT THROUGH CONCRETE WALL - FLOOR ASSEMBLY

NOT TO SCALE



SECTION A-A

1. FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS * MAX DAM OF OPENING IS 12 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE 1/4 IN. (POINT CONTACT) TO MAX 1/4 IN. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
A. STEEL PIPE - NOM 10 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
B. IRON PIPE - NOM 10 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
D. COPPER TUBING - NOM 4 IN. DIAM (OR SMALLER) TYPE L OR HEAVIER COPPER TUBING.
E. COPPER PIPE - NOM 4 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. PACKING MATERIAL - MIN 3 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FOR NOM 4 IN. DIAM (AND SMALLER) PIPES, CONDUITS OR TUBINGS AND A MIN 4 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FOR PIPE GREATER THAN MIN 4 IN. DIAM. FRAMING PACKED WITH OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
4. FILL VOID OR CAVITY MATERIAL - SEALANT - MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH THE TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL, AT THE POINT OF CONTACT. SEALANT SHALL BE APPLIED TO BOTH SURFACES OF FLOOR AND WALL, A MIN 1/2 IN. DAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL, IN RATING APPLIES ONLY WHEN CP-015 OR CP-016 SEALANT IS USED.
H. HLT CONSTRUCTION CHEMICALS, DIV OF HLT INC. - CP-015, CP-016, CP-018 OR FS-ONE SEALANT BEARING THE UL CLASSIFICATION MARK.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

ELECTRICAL DETAILS

DRAWN BY: JC

CHECKED BY: OF

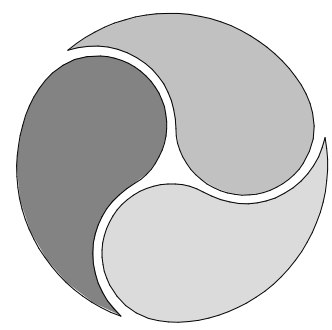
PROJ. NO:

DATE: 04/14/2028

DRAWING NO:

E401

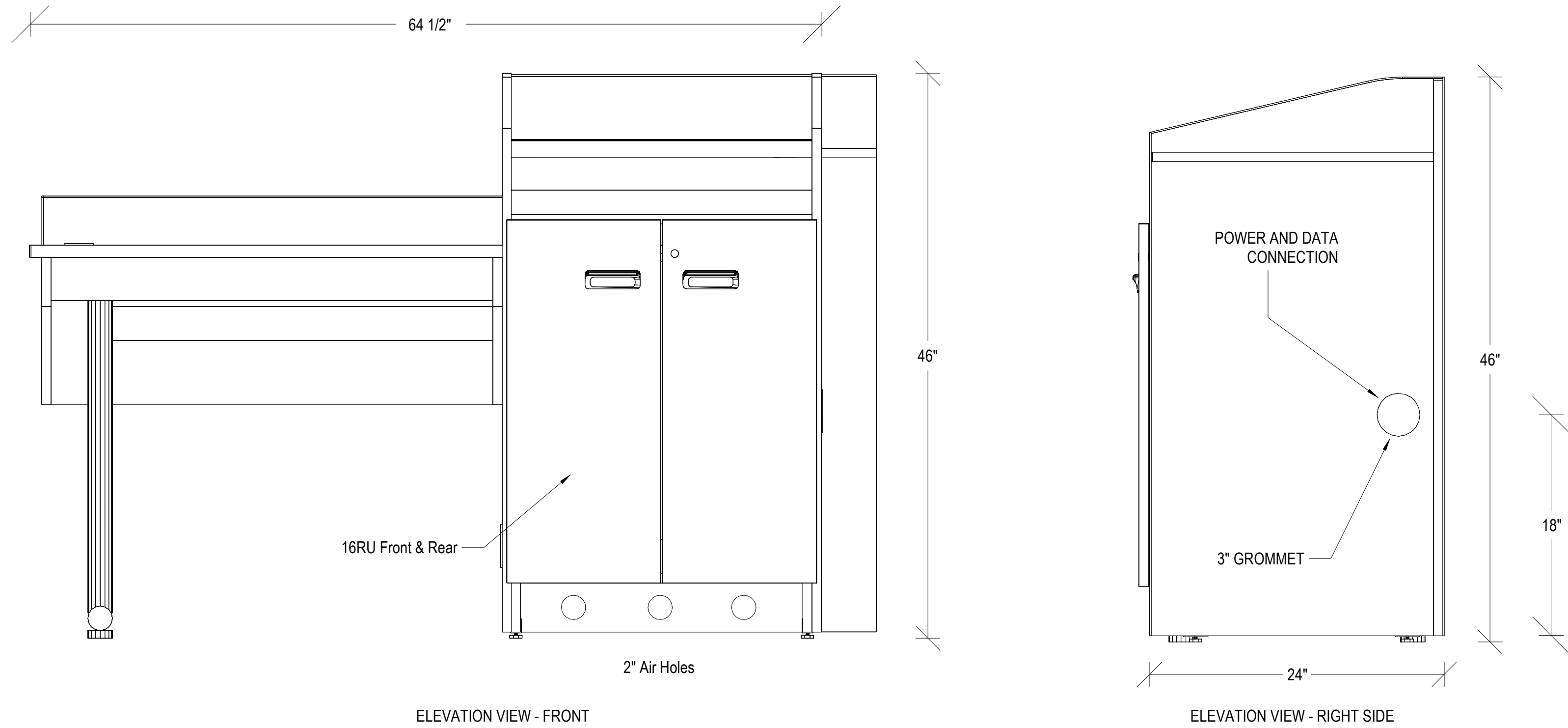
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



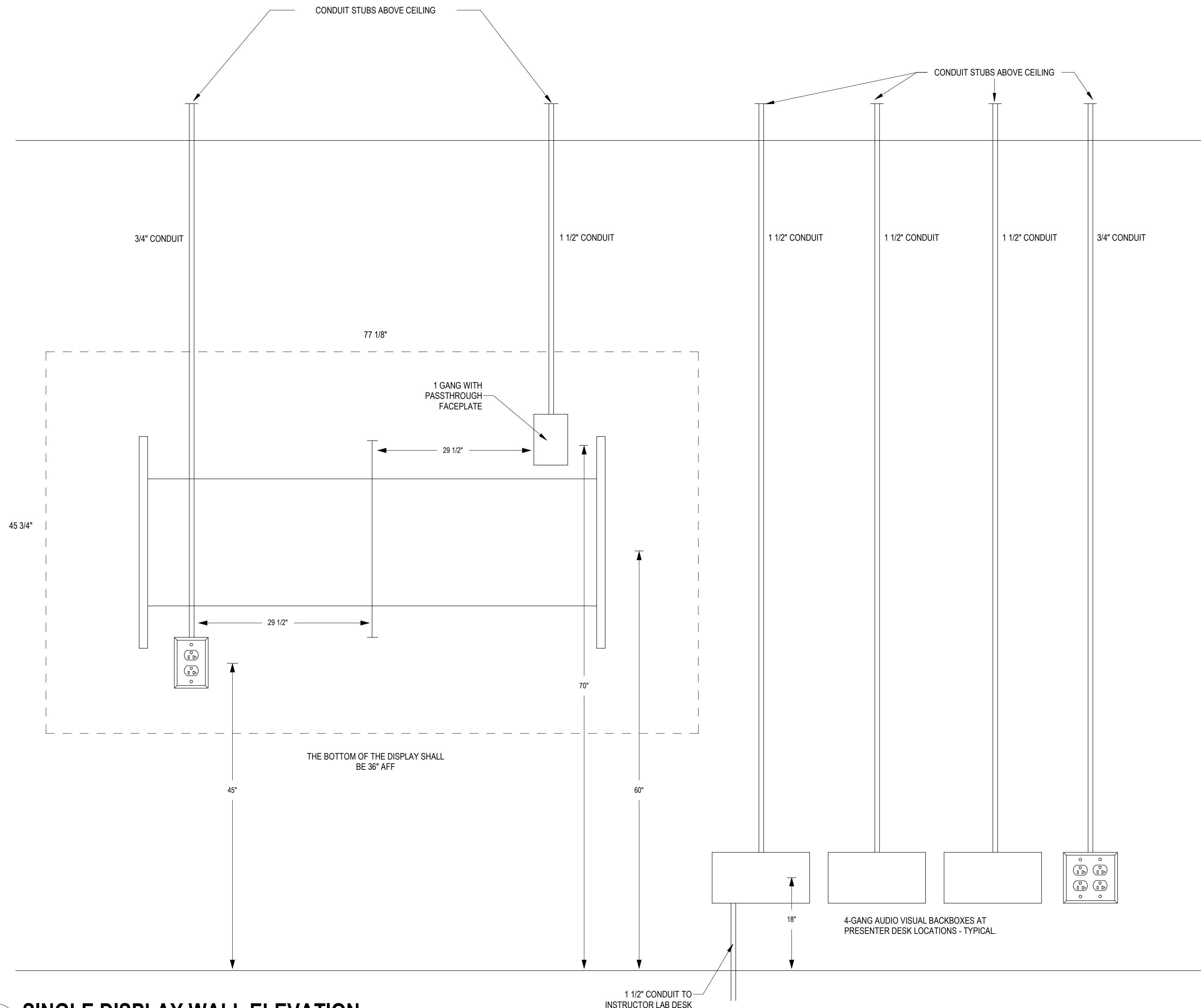
AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

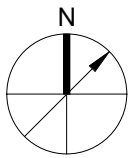
CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY



2 PRESENTER DESK ELEVATION
NOT TO SCALE
NOTE: SHOWN FOR COORDINATION PURPOSES ONLY.



1 SINGLE DISPLAY WALL ELEVATION
NOT TO SCALE



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
ELECTRICAL DETAILS

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04/14/2026
DRAWING NO:

E402

Autodesk Docs://CCAC-008 Boyce Bio Lab/CCAC-008 MEP_24.rvt
4/17/2028 8:56:18 AM

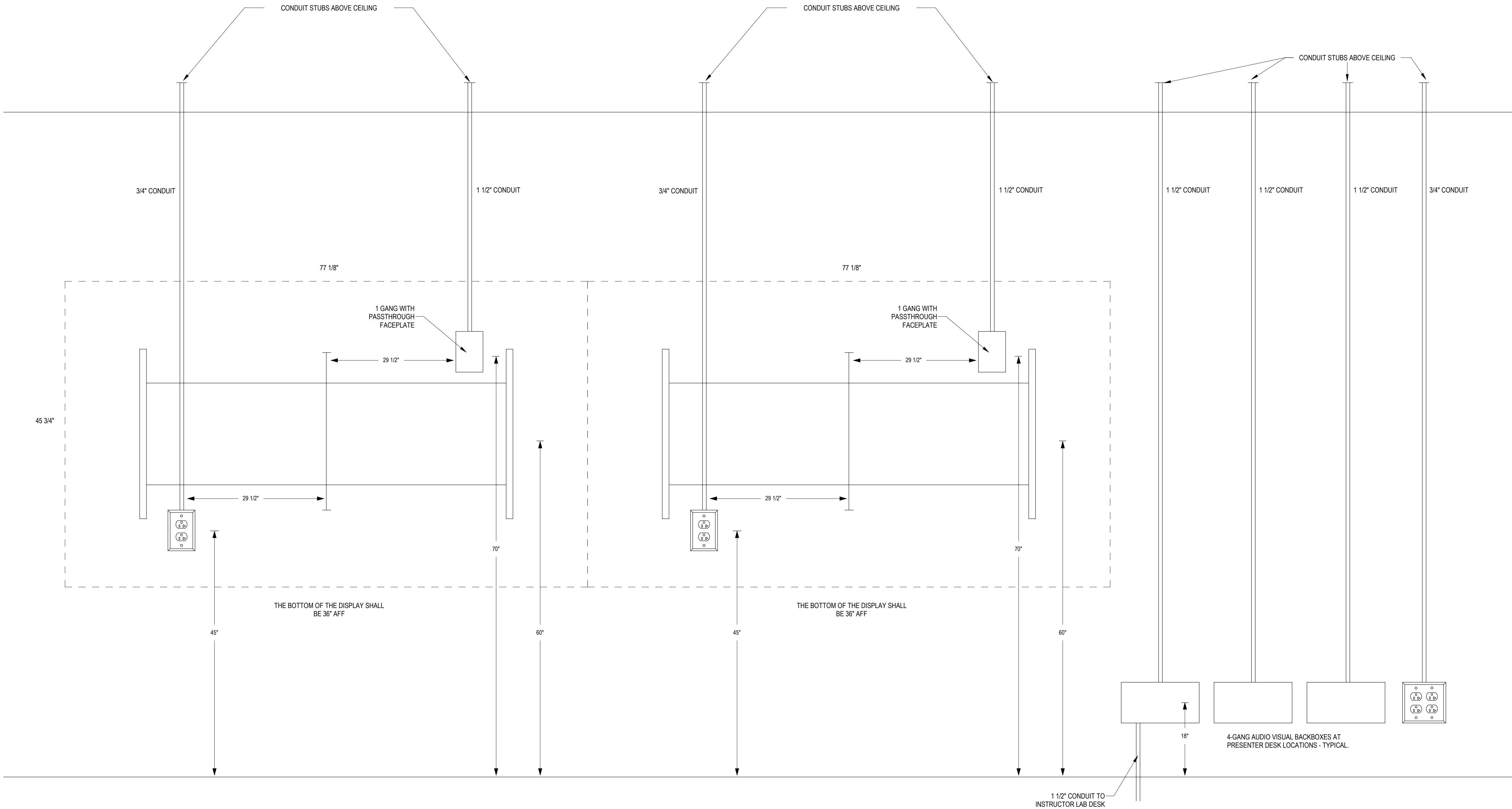
A

B

C

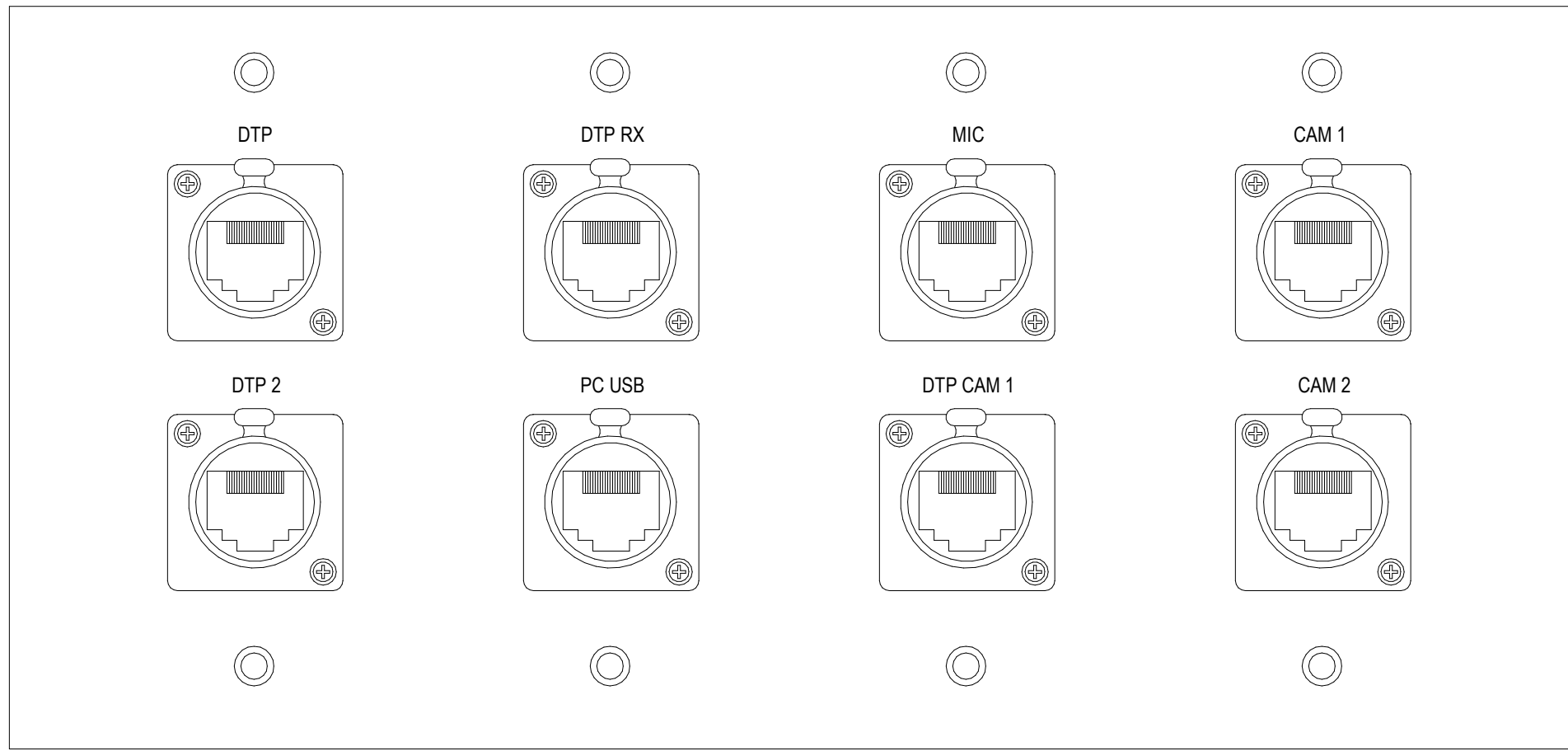
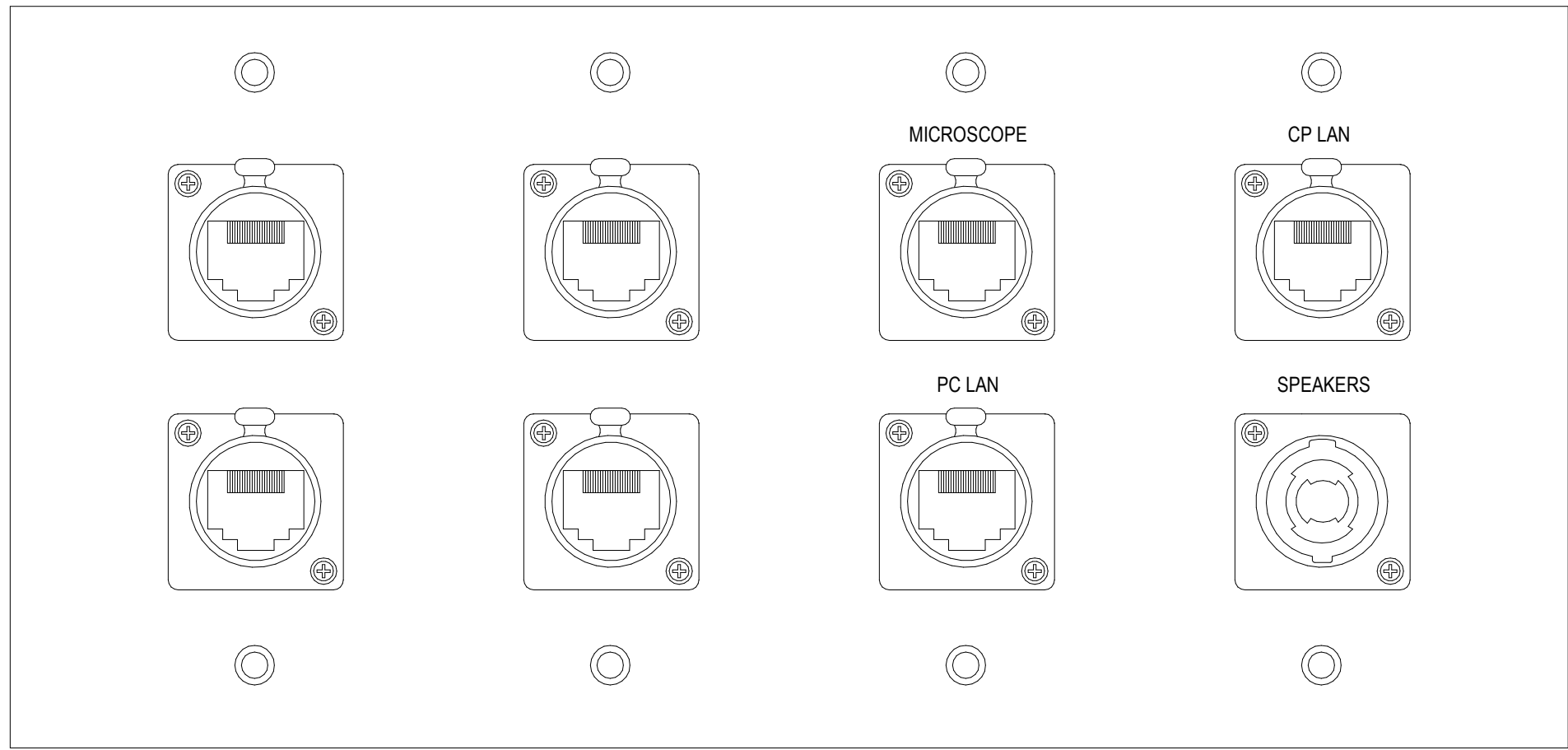
E

D

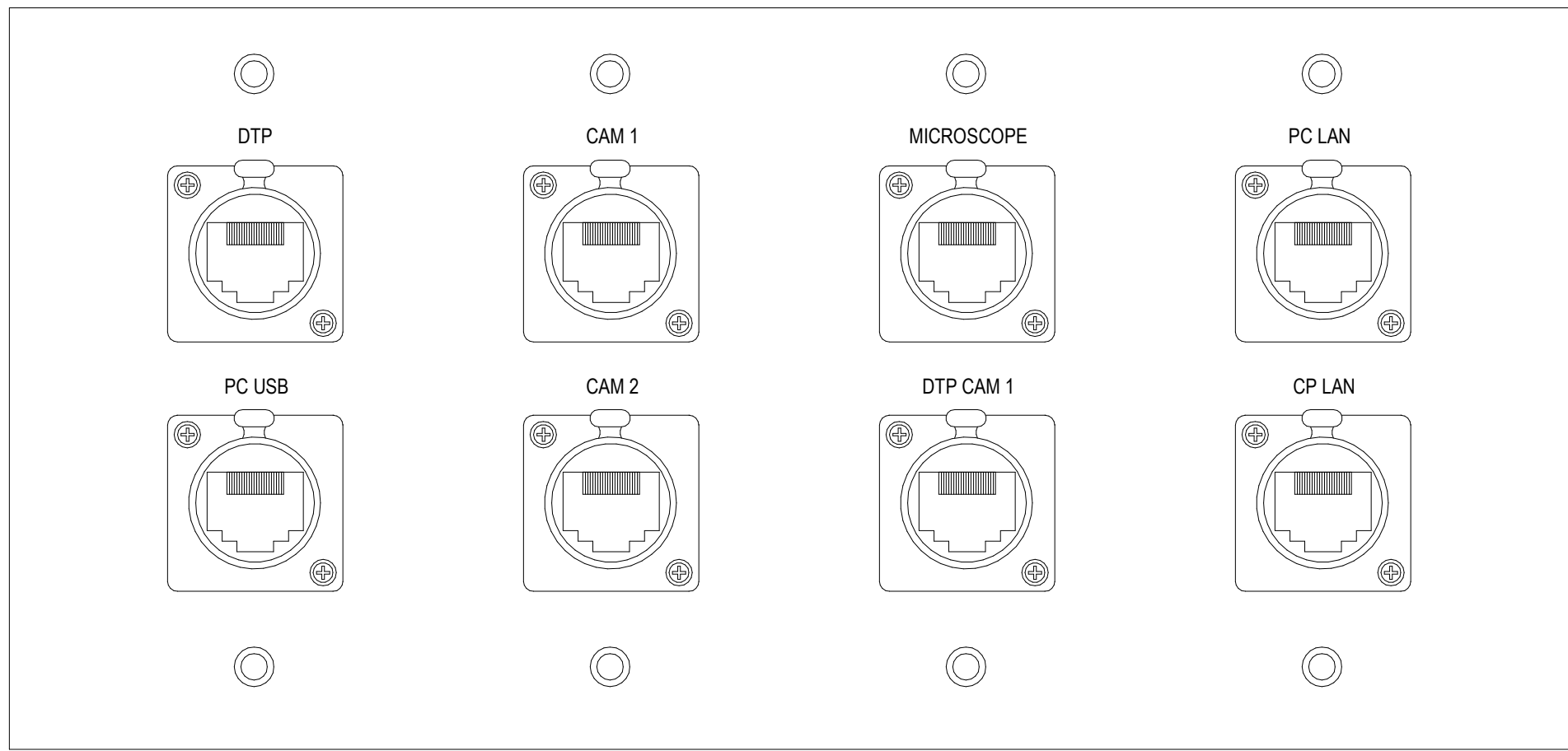
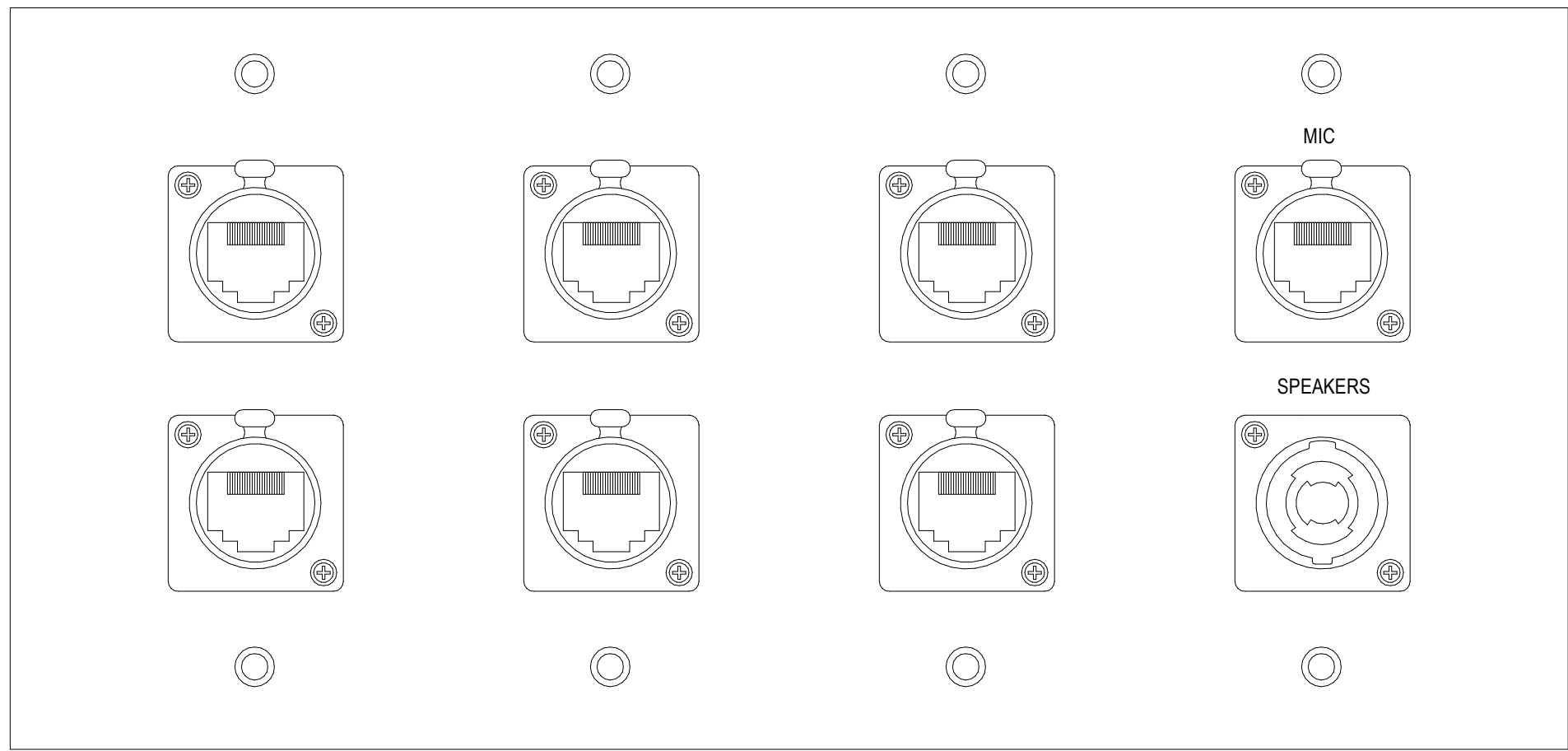


2 DUAL DISPLAY WALL ELEVATION
NOT TO SCALE

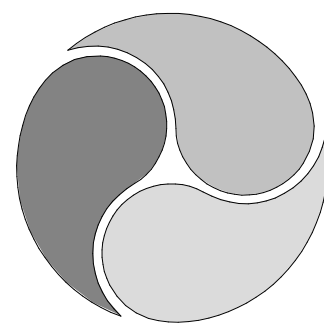
MICROBIOLOGY AND AP LABS



GEN BIO LABS



1 FACEPLATE DETAIL
NOT TO SCALE



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

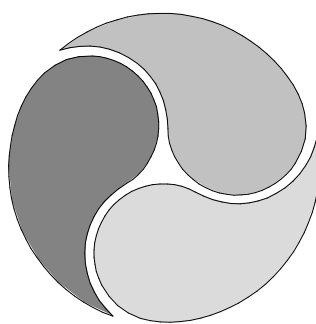
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
ELECTRICAL DETAILS

DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

E403

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

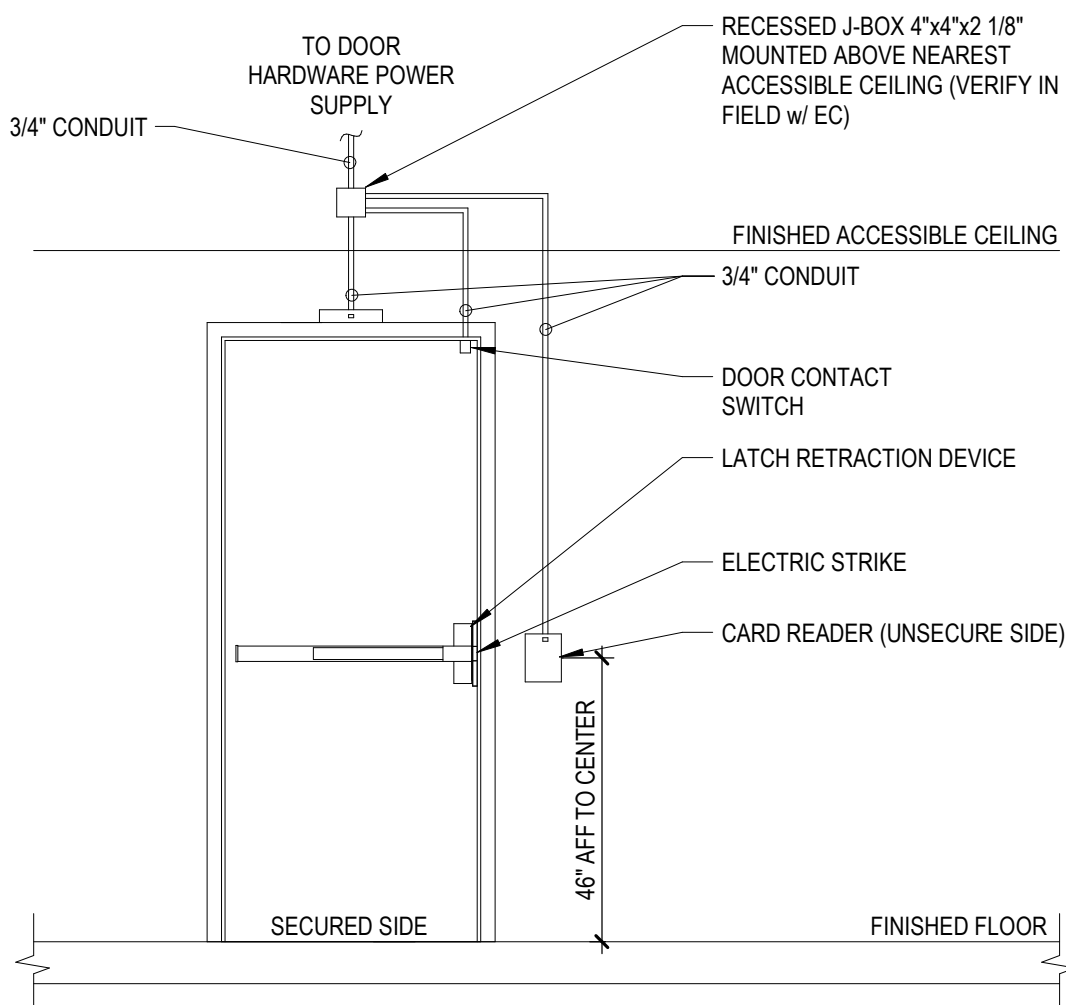
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
ELECTRICAL DETAILS

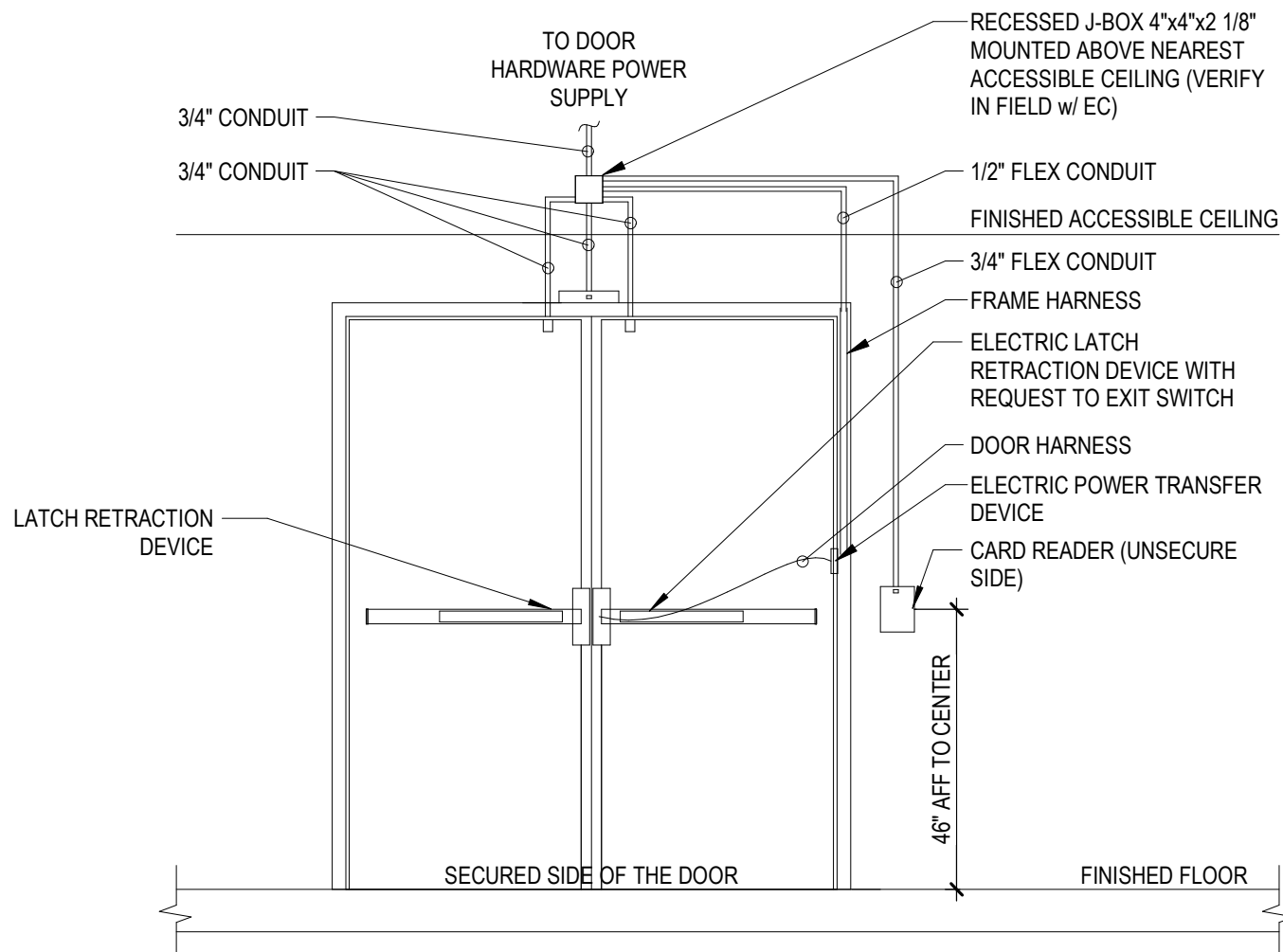
DRAWN BY: JC
CHECKED BY:DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

E404

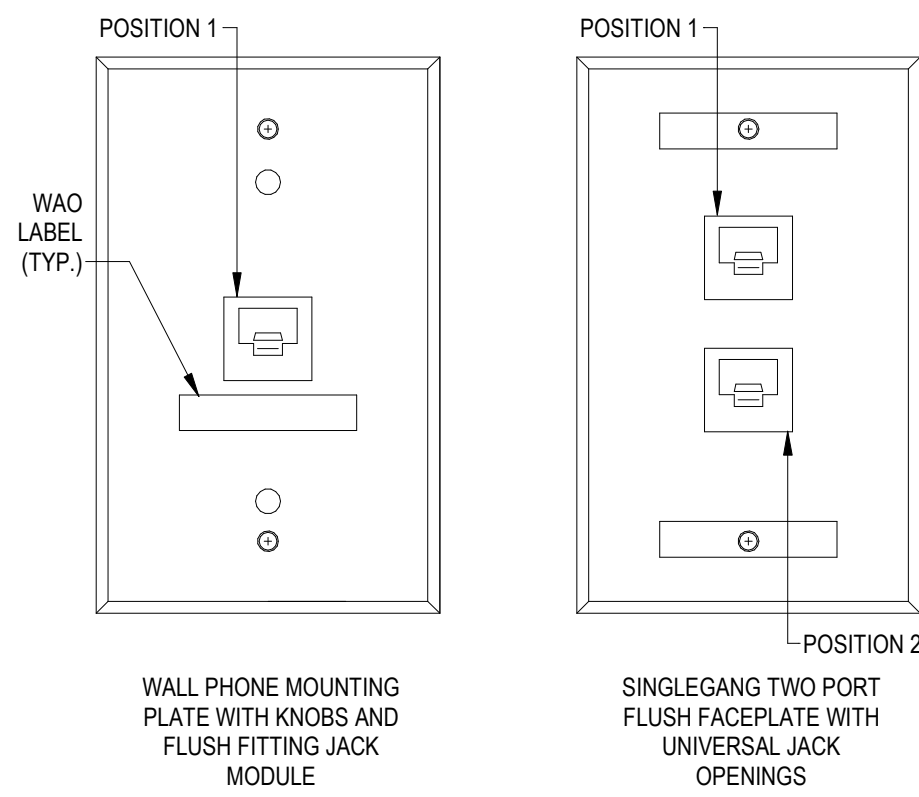
COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



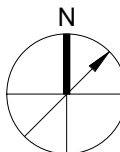
3 DOOR HARDWARE ELEVATION - SINGLE DOOR
NOT TO SCALE



2 DOOR HARDWARE ELEVATION - DOUBLE DOOR
NOT TO SCALE



1 STANDARD COMMUNICATIONS FACEPLATE DETAILS
NOT TO SCALE



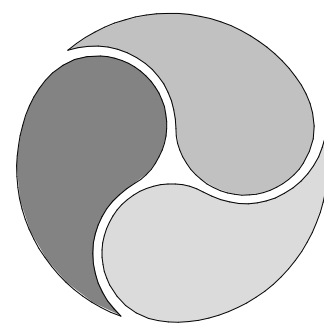
E

D

C

B

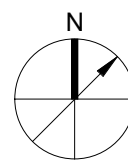
A



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
**COMMUNITY COLLEGE
OF ALLEGHENY COUNTY**



DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04/14/2026
DRAWING NO:

E501

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

PANEL D												
RATINGS: 208Y/120 BUS RATING: 200 AMPS A.L.C. RATING: 22,000 AMPS SYMMETRICAL				MAINS TYPE: MCB MCB RATING: 200.0 A				LOCATION: CORRIDOR 610 FED FROM: DIST. PANEL #2 MOUNTING: RECESSED				
CKT NO	CIRCUIT DESCRIPTION	BREAKER		LOAD (KVA)			BREAKER		CIRCUIT DESCRIPTION	CKT NO		
		P	TRIP	A	B	C	TRIP	P				
1	DO (EXISTING TO REMAIN, RECONNECT TO NEW PANEL VIA NEW BREAKER)	3	100.0 A	0.00	1.20	0.00	1.50	20.0 A	1	FUME HOOD ROOM 609	2	
3								20.0 A	1	DEDICATED RCPT PREP 609	4	
5							0.00	1.50	20.0 A	1	DEDICATED RCPT PREP 609	6
7	DEDICATED RCPT PREP 609	1	20.0 A	1.50	1.50			20.0 A	1	DEDICATED RCPT PREP 609	8	
9	DEDICATED RCPT PREP 609	1	20.0 A		1.50	1.50		20.0 A	1	DEDICATED RCPT PREP 609	10	
11	DEDICATED RCPT PREP 609	1	20.0 A			1.50	1.50	20.0 A	1	DEDICATED RCPT PREP 609	12	
13	DEDICATED RCPT PREP 609	1	20.0 A	1.50	1.50			20.0 A	1	DEDICATED RCPT PREP 609	14	
15	RCPT ROOM 610	1	20.0 A			0.72	1.20	20.0 A	1	FUME HOOD ROOM 610	16	
17	RCPT ROOM 610 MEDIA WALL	1	20.0 A				0.54	1.00	20.0 A	1	PRESENTER DESK ROOM 610	18
19	FLOOR BOX 1 ROOM 610	1	20.0 A	1.08	1.08			20.0 A	1	FLOOR BOX 2 ROOM 610	20	
21	FLOOR BOX 3 ROOM 610	1	20.0 A			1.08	0.18	20.0 A	1	FLOOR BOX 4 ROOM 610	22	
23	RCPT ROOM 608	1	20.0 A				0.54	0.36	20.0 A	1	RCPT ROOM 608	24
25	RCPT ROOM 608 MEDIA WALL	1	20.0 A	0.54	1.00			20.0 A	1	PRESENTER DESK ROOM 608	26	
27	FLOOR BOX 1 ROOM 608	1	20.0 A			1.08	1.08	20.0 A	1	FLOOR BOX 2 ROOM 608	28	
29	FLOOR BOX 3 ROOM 608	1	20.0 A				1.08	1.08	20.0 A	1	FLOOR BOX 4 ROOM 608	30
31	FLOOR BOX 5 ROOM 608	1	20.0 A	0.18	1.38			20.0 A	1	LIGHTS ROOMS 608 & 610	32	
33	LIGHTS CORR. 635, ROOM 609	1	20.0 A			0.70	0.36	20.0 A	1	DEDICATED RCPTS ROOM 610	34	
35	DEDICATED RCPTS ROOM 610	1	20.0 A				0.36	0.36	20.0 A	1	DEDICATED RCPTS ROOM 608	36
37	DEDICATED RCPTS ROOM 608	1	20.0 A	0.36	0.36			20.0 A	1	DEDICATED RCPTS ROOM 608	38	
39	DEDICATED RCPTS ROOM 608	1	20.0 A			0.36	0.36	20.0 A	1	DEDICATED RCPTS ROOM 608	40	
41	DEDICATED RCPTS ROOM 608	1	20.0 A				0.36	0.00	20.0 A	1	SPARE	42
				12.8	11.3	9.9		:CONNECTED LOAD/PHASE (KVA)				
				108.8	96.2	82.7		:CONNECTED LOAD/PHASE (A)				
							34.1	:TOTAL CONNECTED LOAD (KVA)				
								94.6 :TOTAL CONNECTED LOAD (A)				
								75.41% :TOTAL DEMAND FACTOR				
								25.7 :TOTAL DEMAND LOAD (KVA)				
								71.4 :TOTAL DEMAND LOAD (A)				
NOTES: DEDICATED RECEPTACLES ARE INTENDED FOR LAB EQUIPMENT. EXACT LOCATION AND LOADS ARE NOT KNOWN. ENSURE RECEPTACLES CALLED "DEDICATED" ARE CIRCUITED AS SHOWN AS DRAWINGS.												

ADD ALTERNATE: PROVIDE SHUNT-TRIP BREAKER FOR ALL RECEPTACLE CIRCUITS SERVING LAB S608, AND S610.

PANEL E												
RATINGS: 208Y/120 BUS RATING: 150 AMPS A.L.C. RATING: 22,000 AMPS SYMMETRICAL				MAINS TYPE: MCB MCB RATING: 150.0 A				LOCATION: CORRIDOR 635 FED FROM: DIST. PANEL #2 MOUNTING: RECESSED				
CKT NO	CIRCUIT DESCRIPTION	BREAKER		LOAD (KVA)				BREAKER		CIRCUIT DESCRIPTION	CKT NO	
		P	TRIP	A	B	C	TRIP	P				
1	RCPT ROOM 604	1	20.0 A	0.72	0.18			20.0 A	1	RCPT ROOM 603 DI WATER	2	
3	RCPT ROOM 605 & ROOM 607	1	20.0 A		1.44	0.72		20.0 A	1	RCPT ROOM 604 MEDIA WALL	4	
5	PRESENTER DESK ROOM 604	1	20.0 A				1.00	1.26	20.0 A	1	RCPT ROOM 606	6
7	RCPT CORRIDOR 635	1	20.0 A	1.26	0.72			20.0 A	1	RCPT ROOM 606 MEDIA WALL	8	
9	PRESENTER DESK ROOM 606	1	20.0 A		1.00	1.20		20.0 A	1	FUME HOOD 1 ROOM 606	10	
11	FUME HOOD 2 ROOM 606	1	20.0 A				1.20	0.53	20.0 A	1	RCPT PREP 609	12
13	DEDICATED RCPT PREP 609	1	20.0 A	1.50	1.20			20.0 A	1	DEDICATED RCPT PREP 609	14	
15	DEDICATED RCPT PREP 609	1	20.0 A		1.50	1.50		20.0 A	1	DEDICATED RCPT PREP 609	16	
17	DEDICATED RCPT PREP 609	1	20.0 A				1.50	0.36	20.0 A	1	RCPT PREP 606	18
19	RCPT PREP 609	1	20.0 A	0.36	1.50			20.0 A	1	RCPT PREP 606	20	
21	DEDICATED RCPT PREP 609	1	20.0 A		1.50	1.08		20.0 A	1	FLOOR BOX 1 ROOM 604	22	
23	FLOOR BOX 2 ROOM 604	1	20.0 A				1.08	1.44	20.0 A	1	FLOOR BOX 3 & 4 ROOM 604	24
25	FLOOR BOX 5 & 6 ROOM 604	1	20.0 A	0.90	1.08			20.0 A	1	FLOOR BOX 1 ROOM 606	26	
27	FLOOR BOX 2 ROOM 606	1	20.0 A		1.08	1.44		20.0 A	1	FLOOR BOX 3 & 4 ROOM 606	28	
29	FLOOR BOX 5 & 6 ROOM 606	1	20.0 A				0.90	0.72	20.0 A	1	LIGHTS COOR. 635, ROOMS 605 & 607	30
31	LIGHTS ROOMS 604 & 606	1	20.0 A	1.41	0.50			20.0 A	1	EMERGENCY GAS SHUTDOWN	32	
33	RCPT STUDENT LOUNGE 608	1	20.0 A			0.00	0.54	20.0 A	1	RCPT CORRIDOR 605	34	
35	SPARE	1	20.0 A					0.00	0.00	SPARE	36	
37	SPARE	1	20.0 A	0.00	0.00			20.0 A	1	SPARE	38	
39	SPARE	1	20.0 A			0.00	0.00	20.0 A	1	SPARE	40	
41	SPARE	1	20.0 A				0.00	0.00	20.0 A	1	SPARE	42
				11.1	12.8	9.8		:CONNECTED LOAD/PHASE (KVA)				
				93.7	106.1	82.0		:CONNECTED LOAD/PHASE (A)				
							33.6	:TOTAL CONNECTED LOAD (KVA)				
								93.4 :TOTAL CONNECTED LOAD (A)				
							76.79%	:TOTAL DEMAND FACTOR				
							25.8	:TOTAL DEMAND LOAD (KVA)				
							71.7	:TOTAL DEMAND LOAD (A)				
NOTES: DEDICATED RECEPTACLES ARE INTENDED FOR LAB EQUIPMENT. CONFIRM FINAL LOCATION OF RECEPTACLES WITH OWNER PRIOR TO INSTALL. ENSURE RECEPTACLES CALLED "DEDICATED" ARE ON THEIR OWN CIRCUIT.												

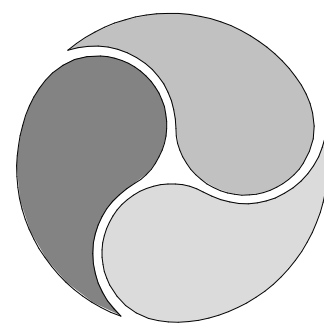
ADD ALTERNATE: PROVIDE SHUNT-TRIP BREAKER FOR ALL RECEPTACLE CIRCUITS SERVING LAB S604, AND S606.

EXISTING PANEL DIST. PANEL #2											
RATINGS: 208Y/120 BUS RATING: 1200 AMPS A.L.C. RATING: 65,000 AMPS SYMMETRICAL						MAINS TYPE: MLO			LOCATION: ROOM 416 FED FROM: MAIN SWBD SOUTH MOUNTING: SURFACE		
CKT NO	CIRCUIT DESCRIPTION	BREAKER		LOAD (KVA)			BREAKER		CIRCUIT DESCRIPTION	CKT NO	
		P	TRIP	A	B	C	TRIP	P			
1				2.40	11.05					2	
3	PANEL N (ETR)	3	125.0 A		2.40	12.78		150.0 A	3	PANEL E (1)	
5							2.40	9.84		4	
7				0.00	0.00					6	
9	PANEL C (ETR)	3	150.0 A	0.00	0.00	0.00		150.0 A	3	PANEL B (ETR)	
11							0.00	0.00		10	
13				0.00	12.84					12	
15	PANEL O AND PANEL A (ETR)	3	150.0 A		0.00	11.33		200.0 A	3	PANEL D (1)	
17										14	
19							0.00	9.92		16	
21	PANEL C-1 (ETR)	3	150.0 A	0.00	0.00	0.00		200.0 A	3	PANEL M (ETR)	
23							0.00	0.00		20	
25				0.00	0.00					22	
27	XFMR T-20 "EAST FAN" (ETR)	3	300.0 A		0.00	0.00		125.0 A	3	CHILLED WATER PUMP (ETR)	
29							0.00	0.00		28	
				26.2	26.5	22.1	:CONNECTED LOAD/PHASE (KVA)				
				224.1	225.8	183.9	:CONNECTED LOAD/PHASE (A)				
							74.7	:TOTAL CONNECTED LOAD (KVA)			
							207.5	:TOTAL CONNECTED LOAD (A)			
							71.77%	:TOTAL DEMAND FACTOR			
							53.6	:TOTAL DEMAND LOAD (KVA)			
							148.9	:TOTAL DEMAND LOAD (A)			
NOTES: (1) - PANEL 'E' AND 'D' ARE TO BE REPLACED AS NOTED ON FLOOR PLANS. MAINTAIN EXISTING CONDUIT BUT RUN NEW FEEDERS TO BOTH PANELS. PANEL E BREAKER IS NEW AND PANEL D BREAKER IS ETR.											

EXISTING PANEL DIST. PANEL #3												
RATINGS: 208Y/120 BUS RATING: 600 AMPS A.L.C. RATING: 65,000 AMPS SYMMETRICAL				MAINS TYPE: MLO				LOCATION: ROOM 549 FED FROM: MAIN SWBD SOUTH MOUNTING: SURFACE				
CKT NO	CIRCUIT DESCRIPTION	BREAKER		LOAD (KVA)				BREAKER		CIRCUIT DESCRIPTION	CKT NO	
		P	TRIP	A	B	C		TRIP	P			
1	SPACE	3	--	--	--				--	3	SPACE	2
5				--	--							4
7				--	--							6
9	SPACE	3	--	--	--	--			--	3	SPACE	8
11				--	--			--				10
13				--	--			--				12
15	SPACE	3	--	--	--	--			--	3	SPACE	14
17				--	--			--				16
19				6.63	--							18
21	DOAS-1	3	70.0 A		6.63	--			--	3	SPACE	20
23							6.63	--				22
25				0.00	0.00							24
27	ICE MELT PANEL (ETR)	3	150.0 A			0.00	0.00		150.0 A	3	PANEL AA (ETR)	26
29								0.00	0.00			28
31				0.00	0.00							30
33	XFMR T-19 (ETR - DE-ENERGIZED)	3	150.0 A			0.00	0.00		125.0 A	3	PANEL HH (ETR)	32
35								0.00	0.00			34
				6.6	6.6		6.6					36
				55.2	55.2		55.2					
								.CONNECTED LOAD/PHASE (KVA)				
								.CONNECTED LOAD/PHASE (A)				
								19.9-.TOTAL CONNECTED LOAD (KVA)				
								55.2-.TOTAL CONNECTED LOAD (A)				
								100.00%-.TOTAL DEMAND FACTOR				
								19.9-.TOTAL DEMAND LOAD (KVA)				
								55.2-.TOTAL DEMAND LOAD (A)				
NOTES:												
XFMR T-19 IS DE-ENERGIZED. THIS BREAKER SHALL NOT												
BE TURNED BACK ON TO ENSURE THE PANEL IS NOT												
OVERLOADED. THE MAIN FEEDER TO DIST. PANEL #3												
IS TAPPED IN ROOM 418 TO FEED 100A PANEL CA												

SHEET NOTE:

1 AUDIO-VISUAL EQUIPMENT SCHEDULES PROVIDED BY CCAC FOR COORDINATION PURPOSES. OFCI = OWNER FURNISHED/CONTRACTOR INSTALLED. OFOI = OWNER FURNISHED/OWNER INSTALLED.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

GEN BIO 1					
QUANTITY	PART NUMBER	MANUFACTURER	DESCRIPTION	OFCI	OFOI
2	60-1927-02	Extron	Cable Cubby 202 Cable organizer with power		✓
1	60-1999-02	Extron	TLP Pro 1035T - Black Tabletop		✓
1	60-1570-12	Extron	DTP3 CrossPoint 622 IPCP A		✓
1	60-1869-62	Extron	DTP3 T 202 4K/60 Tx - 330ft		✓
2	60-1869-63	Extron	DTP3 R 201 4K/60 RX - 330ft		✓
1	60-2042-01	Extron	Pro 4K USB-C 10G Dock		✓
1	C-D9F/OPEN-25	Kramer	RS-232 DB9 Female to open end control cable		✓
6	LCT 81 C/T	JBL	2' x 2' Tile Loudspeaker, 6-1/2" O.D. LF Speaker-1" HF, Extended Response, 20W-70V Rotary Select Transformer, Integrated Ba	✓	
8	NFHD18G-9PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 9' Nanoflex Certified 4K 18G HDMI		✓
4	NFHD18G-3PROBLK	Comprehensive	Comprehensive NFHD18G-3PROBLK, 3' Nanoflex Certified 4K 18G HDMI		✓
2	NFHD18G-6PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 6' Nanoflex Certified 4K 18G HDMI		✓
2	DPM-HD4K	Comprehensive	DisplayPort Male to HDMI 4K Female Dongle Adapter		✓
2	USB10G-CC-10PROBLK	Comprehensive	Pro AV/IT Integrator Series Ultra Flexible 10G 4K USB-C Male to Male Cable 10'		✓
2	USB2-AB-3SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 3ft		✓
2	USB2-AB-10SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 10ft		✓
2	USB5G-AB-10PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 10ft		✓
2	USB5G-AB-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 10ft		✓
1	USB3-7HUB	Comprehensive	Versahub 7 port USB 3.0 Hub		✓
2	WB-PWR-360-3FT-BLK	Snap AV	3' WattBox® 360 Rotating Male Power Cord with 3-Prong IEC Socket		✓
1	GSM4212PX	Netgear	Netgear GSM4212PX, 8x1G PoE+ 240w Managed Switch		✓
2	AC-EXUSB-3-KIT	AV Pro Edge	100M USB 3.2 Gen 1 Extender		✓
1	AC-EX100-444-KIT	AV Pro Edge	100M 17Gpbs HDBaseT Extender		✓
1	RLNK-915R	Middle Atlantic	Networked Power Distribution Center		✓
2	UFA-8-F2	Middle Atlantic	Rackshelf with 2 RU faceplate		✓
1	JG-9-NS	Juice Goose	Power Distribution Center for 19" Rack Systems No Switch		✓
1	US3344I	ATEN	USB 3.1 HUB Switch 4x4		✓
1	0AD8-8012-33MG	ATEN	Switching Power for Aten USB Hub		✓
1	PBAB00AB00AF00-0	Catchbox	Plus System with 2 Channel Hub DSP receiver with Dante and 1 clip including charger - Red		✓
15	DURASHIELD-6NB45	Rapco	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 6 ft.		✓
1	H16-30N2N2	RHC	16GA Speaker Cable SpeakOn-SpeakOn		✓
1	DURASHIELD-10NB45	RHC	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 10 ft.		✓
1	CG40489	C2G	1.5" Grommet pass through single gang wall plate - brushed aluminum		✓
1	999-60210-000	Vaddio	Vaddio EasyIP Decoder		✓
2	999-30230-000W	Vaddio	EasyIP 20 PTZ Camera	✓	
1	999-85810-000	Vaddio	EasyIP Ceiling Mic	✓	
2	535-2000-206	Vaddio	Vaddio Suspended Ceiling Mount	✓	
1		ACT Entertainment	Black 4 Gang Plate w/ (8) NE8FDX-P6-B Engraved		✓
1		ACT Entertainment	Black 4 Gang Plate w/ (7) NE8FDX-P6-B , (1) NL4MP-ST Engraved		✓
1	CTI-6086A-UH40	Cleartouch	86" 4K Interactive Display - 6000A+ Series	✓	
1	CTI-EXWITY-6086-2Y	Cleartouch	5 year warranty for display		✓
1	Lot	Misc	AV Equipment Freight Costs		✓

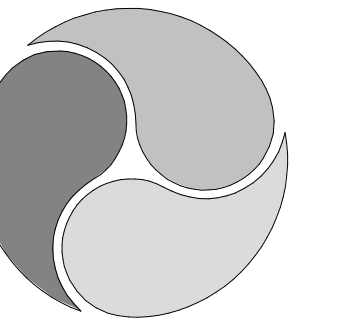
A & P 1 LAB					
QUANTITY	PART NUMBER	MANUFACTURER	DESCRIPTION	OFCI	OFOI
2	60-1927-02	Extron	Cable Cubby 202 Cable organizer with power		✓
1	60-1999-02	Extron	TLP Pro 1035T - Black Tabletop		✓
1	60-1570-12	Extron	DTP3 CrossPoint 622 IPCP A		✓
1	60-1869-62	Extron	DTP3 T 202 4K/60 Tx - 330ft		✓
2	60-1869-63	Extron	DTP3 R 201 4K/60 RX - 330ft		✓
1	60-2042-01	Extron	Pro 4K USB-C 10G Dock		✓
1	C-D9F/OPEN-25	Kramer	RS-232 DB9 Female to open end control cable		✓
6	LCT 81 C/T	JBL	2' x 2' Tile Loudspeaker, 6-1/2" O.D. LF Speaker-1" HF, Extended Response, 20W-70V Rotary Select Transformer, Integrated Ba	✓	
8	NFHD18G-9PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 9' Nanoflex Certified 4K 18G HDMI		✓
4	NFHD18G-3PROBLK	Comprehensive	Comprehensive NFHD18G-3PROBLK, 3' Nanoflex Certified 4K 18G HDMI		✓
2	NFHD18G-6PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 6' Nanoflex Certified 4K 18G HDMI		✓
2	DPM-HD4K	Comprehensive	DisplayPort Male to HDMI 4K Female Dongle Adapter		✓
2	USB10G-CC-10PROBLK	Comprehensive	Pro AV/IT Integrator Series Ultra Flexible 10G 4K USB-C Male to Male Cable 10'		✓
2	USB2-AB-3SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 3ft		✓
2	USB2-AB-10SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 10ft		✓
2	USB5G-AB-10PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 10ft		✓
2	USB5G-AB-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 10ft		✓
1	USB3-7HUB	Comprehensive	Versahub 7 port USB 3.0 Hub		✓
2	WB-PWR-360-3FT-BLK	Snap AV	3' WattBox® 360 Rotating Male Power Cord with 3-Prong IEC Socket		✓
1	GSM4212PX	Netgear	Netgear GSM4212PX, 8x1G PoE+ 240w Managed Switch		✓
2	AC-EXUSB-3-KIT	AV Pro Edge	100M USB 3.2 Gen 1 Extender		✓
1	AC-EX100-444-KIT	AV Pro Edge	100M 17Gpbs HDBaseT Extender		✓
1	RLNK-915R	Middle Atlantic	Networked Power Distribution Center		✓
2	UFA-8-F2	Middle Atlantic	Rackshelf with 2 RU faceplate		✓
1	JG-9-NS	Juice Goose	Power Distribution Center for 19" Rack Systems No Switch		✓
1	US3344I	ATEN	USB 3.1 HUB Switch 4x4		✓
1	0AD8-8012-33MG	ATEN	Switching Power for Aten USB Hub		✓
1	PBAB00AB00AF00-0	Catchbox	Plus System with 2 Channel Hub DSP receiver with Dante and 1 clip including charger - Red		✓
15	DURASHIELD-6NB45	Rapco	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 6 ft.		✓
1	H16-30N2N2	RHC	16GA Speaker Cable SpeakOn-SpeakOn		✓
1	DURASHIELD-10NB45	RHC	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 10 ft.		✓
1	CG40489	C2G	1.5" Grommet pass through single gang wall plate - brushed aluminum		✓
1	999-60210-000	Vaddio	Vaddio EasyIP Decoder		✓
2	999-30230-000W	Vaddio	EasyIP 20 PTZ Camera	✓	
1	999-85810-000	Vaddio	EasyIP Ceiling Mic	✓	
2	535-2000-206	Vaddio	Vaddio Suspended Ceiling Mount	✓	
1		ACT Entertainment	Black 4 Gang Plate w/ (8) NE8FDX-P6-B Engraved		✓
1		ACT Entertainment	Black 4 Gang Plate w/ (7) NE8FDX-P6-B , (1) NL4MP-ST Engraved		✓
2	CTI-6086A-UH40	Cleartouch	86" 4K Interactive Display - 6000A+ Series	✓	
2	CTI-EXWITY-6086-2Y	Cleartouch	5 year warranty for display		✓
1	Lot	Misc	AV Equipment Freight Costs		✓

GEN BIO 2					
QUANTITY	PART NUMBER	MANUFACTURER	DESCRIPTION	OFCI	OFOI
2	60-1927-02	Extron	Cable Cubby 202 Cable organizer with power		✓
1	60-1999-02	Extron	TLP Pro 1035T - Black Tabletop		✓
1	60-1570-12	Extron	DTP3 CrossPoint 622 IPCP A		✓
1	60-1869-62	Extron	DTP3 T 202 4K/60 Tx - 330ft		✓
2	60-1869-63	Extron	DTP3 R 201 4K/60 RX - 330ft		✓
1	60-2042-01	Extron	Pro 4K USB-C 10G Dock		✓
1	C-D9F/OPEN-25	Kramer	RS-232 DB9 Female to open end control cable		✓
6	LCT 81 C/T	JBL	2' x 2' Tile Loudspeaker, 6-1/2" O.D. LF Speaker-1" HF, Extended Response, 20W-70V Rotary Select Transformer, Integrated Ba	✓	
8	NFHD18G-9PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 9' Nanoflex Certified 4K 18G HDMI		✓
4	NFHD18G-3PROBLK	Comprehensive	Comprehensive NFHD18G-3PROBLK, 3' Nanoflex Certified 4K 18G HDMI		✓
2	NFHD18G-6PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 6' Nanoflex Certified 4K 18G HDMI		✓
2	DPM-HD4K	Comprehensive	DisplayPort Male to HDMI 4K Female Dongle Adapter		✓
2	USB10G-CC-10PROBLK	Comprehensive	Pro AV/IT Integrator Series Ultra Flexible 10G 4K USB-C Male to Male Cable 10'		✓
2	USB2-AB-3SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 3ft		✓
2	USB2-AB-10SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 10ft		✓
2	USB5G-AB-10PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 10ft		✓
2	USB5G-AB-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 10ft		✓
1	USB3-7HUB	Comprehensive	Versahub 7 port USB 3.0 Hub		✓
2	WB-PWR-360-3FT-BLK	Snap AV	3' WattBox® 360 Rotating Male Power Cord with 3-Prong IEC Socket		✓
1	GSM4212PX	Netgear	Netgear GSM4212PX, 8x1G PoE+ 240w Managed Switch		✓
2	AC-EXUSB-3-KIT	AV Pro Edge	100M USB 3.2 Gen 1 Extender		✓
1	AC-EX100-444-KIT	AV Pro Edge	100M 17Gpbs HDBaseT Extender		✓
1	RLNK-915R	Middle Atlantic	Networked Power Distribution Center		✓
2	UFA-8-F2	Middle Atlantic	Rackshelf with 2 RU faceplate		✓
1	JG-9-NS	Juice Goose	Power Distribution Center for 19" Rack Systems No Switch		✓
1	US3344I	ATEN	USB 3.1 HUB Switch 4x4		✓
1	0AD8-8012-33MG	ATEN	Switching Power for Aten USB Hub		✓
1	PBAB00AB00AF00-0	Catchbox	Plus System with 2 Channel Hub DSP receiver with Dante and 1 clip including charger - Red		✓
15	DURASHIELD-6NB45	Rapco	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 6 ft.		✓
1	H16-30N2N2	RHC	16GA Speaker Cable SpeakOn-SpeakOn		✓
1	DURASHIELD-10NB45	RHC	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 10 ft.		✓
1	CG40489	C2G	1.5" Grommet pass through single gang wall plate - brushed aluminum		✓
1	999-60210-000	Vaddio	Vaddio EasyIP Decoder		✓
2	999-30230-000W	Vaddio	EasyIP 20 PTZ Camera	✓	
1	999-85810-000	Vaddio	EasyIP Ceiling Mic	✓	
2	535-2000-206	Vaddio	Vaddio Suspended Ceiling Mount	✓	
1		ACT Entertainment	Black 4 Gang Plate w/ (8) NE8FDX-P6-B Engraved		✓
1		ACT Entertainment	Black 4 Gang Plate w/ (7) NE8FDX-P6-B , (1) NL4MP-ST Engraved		✓
1	CTI-6086A-UH40	Cleartouch	86" 4K Interactive Display - 6000A+ Series	✓	
1	CTI-EXWITY-6086-2Y	Cleartouch	5 year warranty for display		✓
1	Lot	Misc	AV Equipment Freight Costs		✓

A & P 2 MICRO BIO LAB					
QUANTITY	PART NUMBER	MANUFACTURER	DESCRIPTION	OFCI	OFOI
2	60-1927-02	Extron	Cable Cubby 202 Cable organizer with power		✓
1	60-1999-02	Extron	TLP Pro 1035T - Black Tabletop		✓
1	60-1570-12	Extron	DTP3 CrossPoint 622 IPCP A		✓
1	60-1869-62	Extron	DTP3 T 202 4K/60 Tx - 330ft		✓
2	60-1869-63	Extron	DTP3 R 201 4K/60 RX - 330ft		✓
1	60-2042-01	Extron	Pro 4K USB-C 10G Dock		✓
1	C-D9F/OPEN-25	Kramer	RS-232 DB9 Female to open end control cable		✓
6	LCT 81 C/T	JBL	2' x 2' Tile Loudspeaker, 6-1/2" O.D. LF Speaker-1" HF, Extended Response, 20W-70V Rotary Select Transformer, Integrated Ba	✓	
8	NFHD18G-9PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 9' Nanoflex Certified 4K 18G HDMI		✓
4	NFHD18G-3PROBLK	Comprehensive	Comprehensive NFHD18G-3PROBLK, 3' Nanoflex Certified 4K 18G HDMI		✓
2	NFHD18G-6PROBLK	Comprehensive	Comprehensive NFHD18G-6PROBLK, 6' Nanoflex Certified 4K 18G HDMI		✓
2	DPM-HD4K	Comprehensive	DisplayPort Male to HDMI 4K Female Dongle Adapter		✓
2	USB10G-CC-10PROBLK	Comprehensive	Pro AV/IT Integrator Series Ultra Flexible 10G 4K USB-C Male to Male Cable 10'		✓
2	USB2-AB-3SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 3ft		✓
2	USB2-AB-10SP	Comprehensive	Pro AV/IT Specialist Series USB 2.0 USB A to USB B 10ft		✓
2	USB5G-AB-10PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 10ft		✓
2	USB5G-AB-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB B 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 3ft		✓
1	USB5G-AC-3PROBLK	Comprehensive	Pro AV/IT Integrator Series ultra flexible USB 3.0 5G USB A to USB C 10ft		✓
1	USB3-7HUB	Comprehensive	Versahub 7 port USB 3.0 Hub		✓
2	WB-PWR-360-3FT-BLK	Snap AV	3' WattBox® 360 Rotating Male Power Cord with 3-Prong IEC Socket		✓
1	GSM4212PX	Netgear	Netgear GSM4212PX, 8x1G PoE+ 240w Managed Switch		✓
2	AC-EXUSB-3-KIT	AV Pro Edge	100M USB 3.2 Gen 1 Extender		✓
1	AC-EX100-444-KIT	AV Pro Edge	100M 17Gpbs HDBaseT Extender		✓
1	RLNK-915R	Middle Atlantic	Networked Power Distribution Center		✓
2	UFA-8-F2	Middle Atlantic	Rackshelf with 2 RU faceplate		✓
1	JG-9-NS	Juice Goose	Power Distribution Center for 19" Rack Systems No Switch		✓
1	US3344I	ATEN	USB 3.1 HUB Switch 4x4		✓
1	0AD8-8012-33MG	ATEN	Switching Power for Aten USB Hub		✓
1	PBAB00AB00AF00-0	Catchbox	Plus System with 2 Channel Hub DSP receiver with Dante and 1 clip including charger - Red		✓
15	DURASHIELD-6NB45	Rapco	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 6 ft.		✓
1	H16-30N2N2	RHC	16GA Speaker Cable SpeakOn-SpeakOn		✓
1	DURASHIELD-10NB45	RHC	Neutrik Ethercon - Shielded RJ45 to Ethercon Durashield CAT6A 10 ft.		✓
1	CG40489	C2G	1.5" Grommet pass through single gang wall plate - brushed aluminum		✓
1	999-60210-000	Vaddio	Vaddio EasyIP Decoder		✓
2	999-30230-000W	Vaddio	EasyIP 20 PTZ Camera	✓	
1	999-85810-000	Vaddio	EasyIP Ceiling Mic	✓	
2	535-2000-206	Vaddio	Vaddio Suspended Ceiling Mount	✓	
1		ACT Entertainment	Black 4 Gang Plate w/ (8) NE8FDX-P6-B Engraved		✓
1		ACT Entertainment	Black 4 Gang Plate w/ (7) NE8FDX-P6-B , (1) NL4MP-ST Engraved		✓
2	CTI-6086A-UH40	Cleartouch	86" 4K Interactive Display - 6000A+ Series	✓	
2	CTI-EXWITY-6086-2Y	Cleartouch	5 year warranty for display		✓
1	Lot	Misc	AV Equipment Freight Costs		✓

CABLING AND ACCESSORIES					
QUANTITY	PART NUMBER	MANUFACTURER	DESCRIPTION	OFCI	OFOI
4	101000	Belden	4K UHD Media Cable 23 AWG Solid Bare Copper, F/UTP	✓	
4	CAT6ASP-WHT	Windy City Wire	Category 6 F/UTP 23 AWG 4 Pair Shielded Cable-White	✓	
2	16-02-65STR-WHT	Windy City Wire	16/2 Unshielded speaker wire - 1000ft	✓	
4		Panel Solutions	Ceramic White 4x4 Boards	✓	
4		Panel Solutions	Ceramic White 6x4 Boards	✓	
8		Panel Solutions	White board shipping and freight		
6	P2723QE	Dell	Dell 27" 4k display		✓
4	CW91661-B	Cisco	Catalyst W6E WAP with mounts and license	✓	
1	PL3628	AvinED	Left Podium/Desk Combo with left filler		✓
1	PL3628	AvinED	Right Podium/Desk Combo with right filler		✓
1	CTM-MPD673033	AvinED	Left AV Rack Desk with left filler		✓
1	CTM-MPD673033	AvinED	Right AV Rack Desk with left filler		✓

1 DASHED BOXES INDICATE NEW OR MODIFIED EQUIPMENT WITHIN. ALL OTHER EQUIPMENT ON THE RISER IS EXISTING TO REMAIN AND SHOWN FOR COORDINATION PURPOSES ONLY. SEE SHEET E602 FOR THE PARTIAL ONE-LINE DIAGRAM OF NEW WORK.

**AE WORKS®**

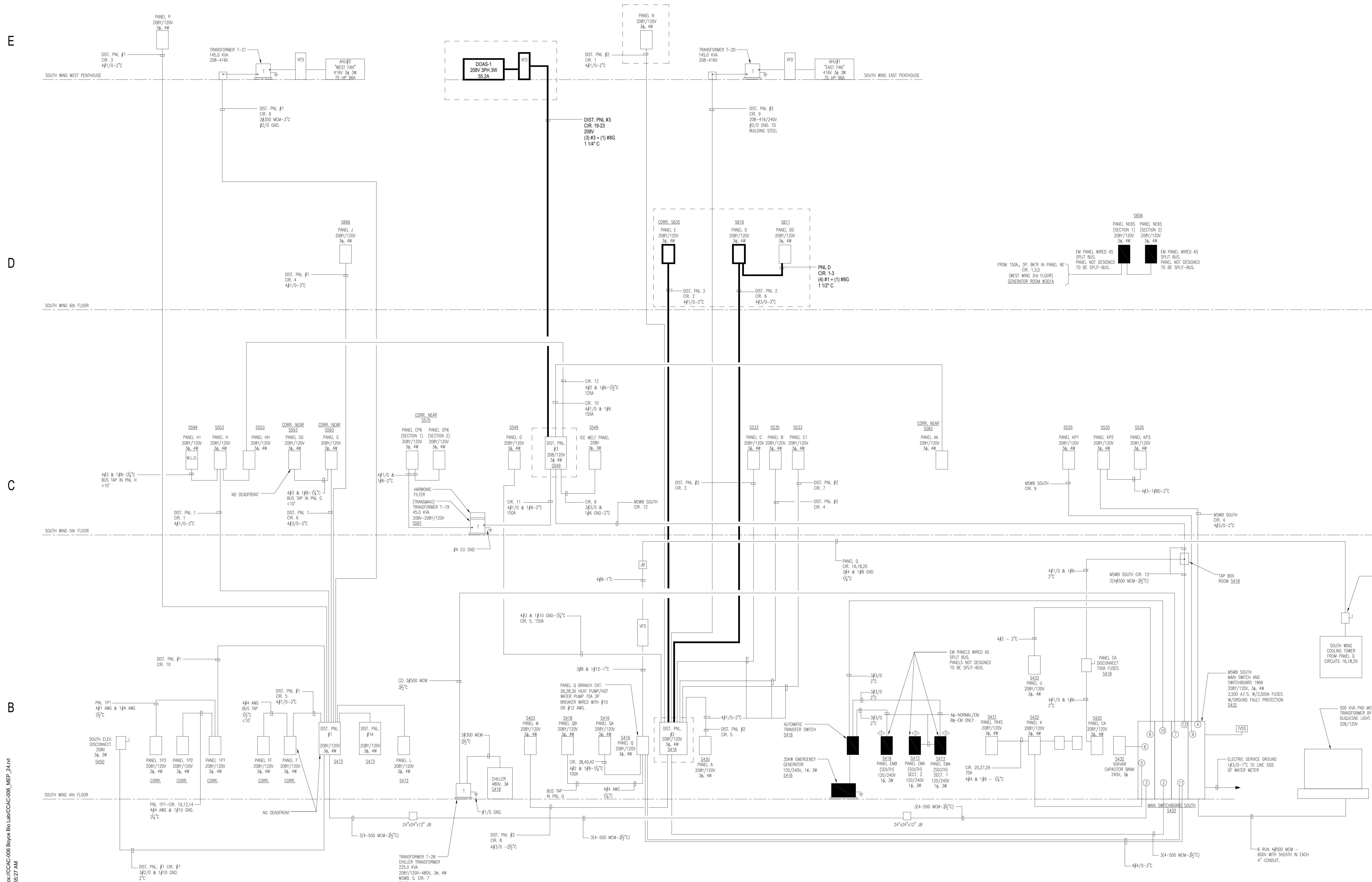
418 BEAVER STREET

EWICKLEY, PA 15143

PH. 412.267.7333
www.ccnetworks.com

CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

[illegible]

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

RISER DIAGRAM

DRAWN BY: JC

CHECKED BY:DF

PROJ. NO:

DATE: 04.14.2026

E601

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

E

D

C

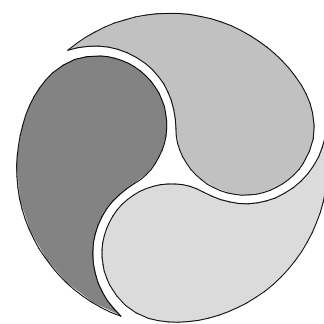
B

A

Autodesk Docs // CCAC-008 Boyce Bio Lab CCAC-008 MEP_24.rvt
4/17/2028 8:55:23 AM

ONE-LINE DIAGRAM KEYNOTES

- EXISTING CONDUIT SHALL BE REUSED TO THE EXTENT POSSIBLE. FEEDERS TO PANELS E AND D SHALL BE NEW.
- BREAKER IS EXISTING TO REMAIN AND TO BE RE-USED.
- BREAKER IS NEW AND TO BE INSTALLED IN EXISTING PANEL.
- SEE EQUIPMENT CONNECTION SCHEDULE FOR MECHANICAL EQUIPMENT FEEDER AND DISCONNECT SIZES.
- PANEL DD IS EXISTING TO REMAIN BUT A NEW FEEDER SHALL BE PULLED FROM PANEL D TO FEED IT.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

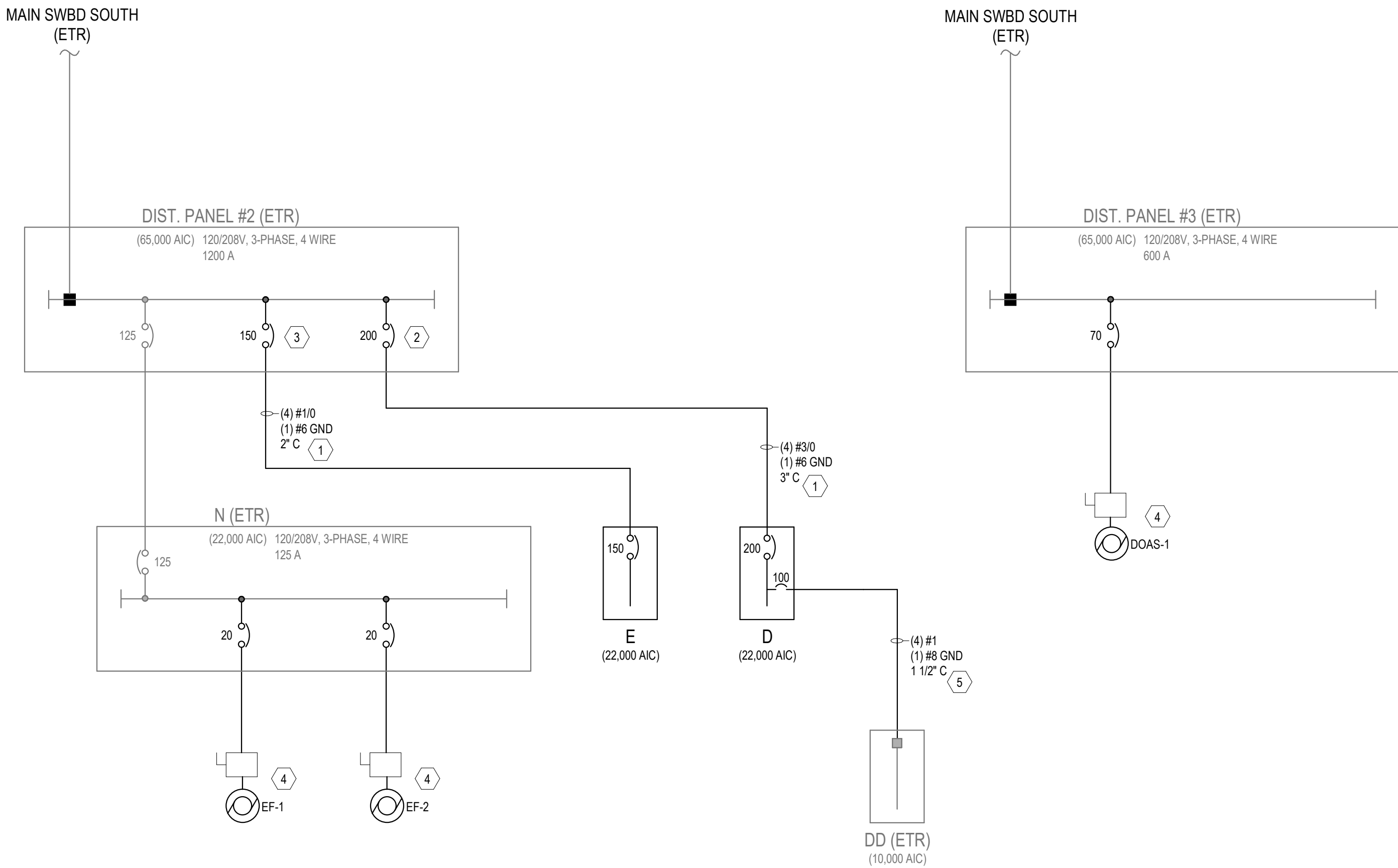
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PARTIAL ONE-LINE
DIAGRAM

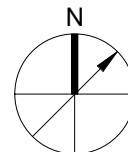
DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

E602

COPYRIGHT 2028 BY AE WORKS LTD ALL RIGHTS RESERVED.

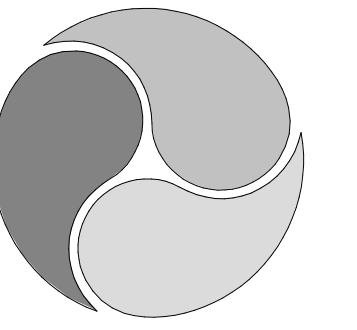


1 PARTIAL ONE-LINE DIAGRAM
NOT TO SCALE



SHEET NOTE:

1 AUDIO-VISUAL SYSTEM DIAGRAM PROVIDED BY CCAC FOR COORDINATION PURPOSES.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

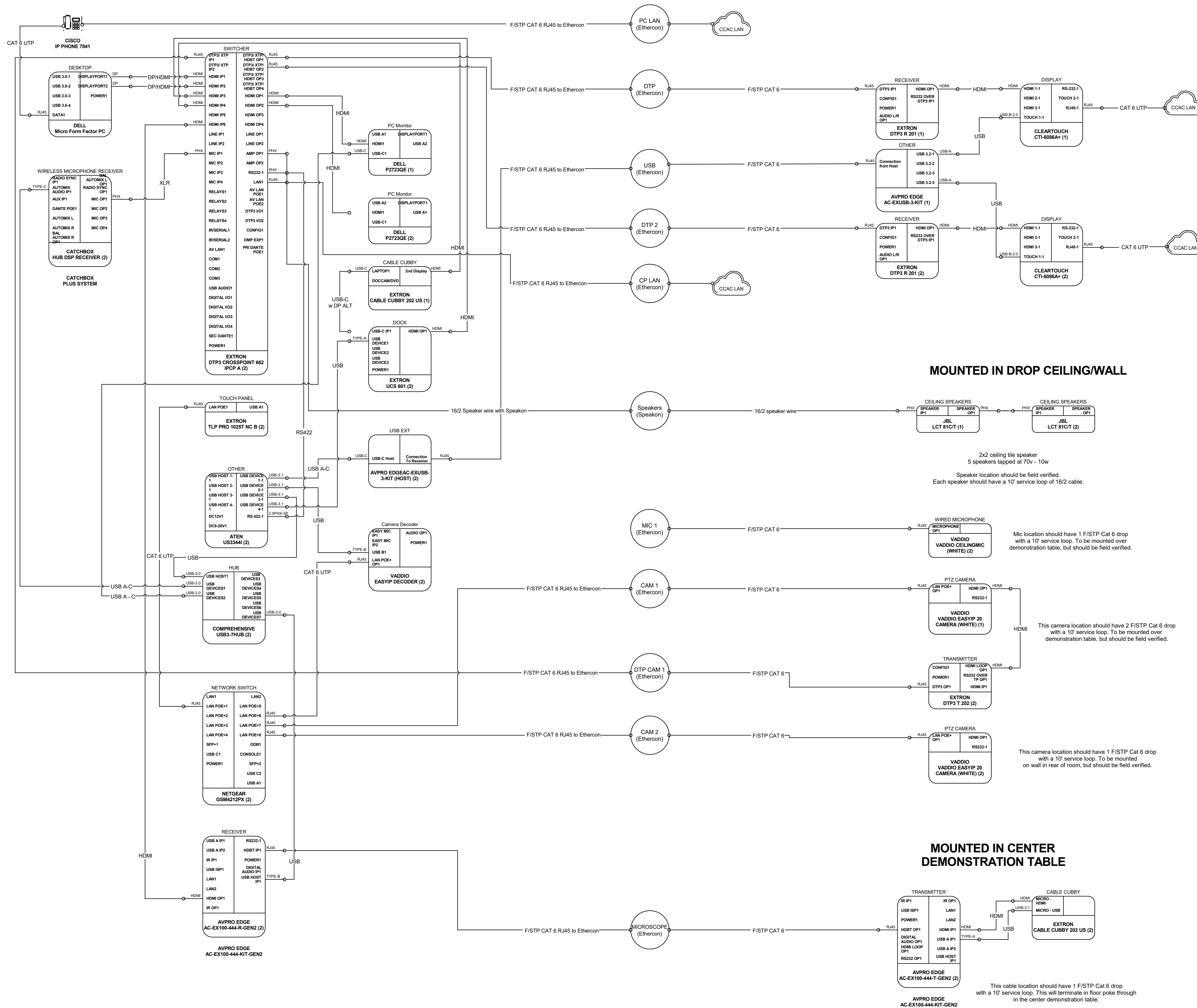
CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

A&P and Micro Bio Labs

MOUNTED IN AVINED
DESK WITH RACKTWO 4-GANG
WALL MOUNTED FACEPLATES

DISPLAY LOCATION



MOUNTED IN DROP CEILING/WALL

2x2 ceiling tile speaker
5 speakers tapped at 70v - 10w
Speaker location should be field verified.
Each speaker should have a 10' service loop of 16/2 cable.

Wired Microphone
MICROPHONE
VADDDO
VADDDO EASYIP 20
CAMERA (WHITE) (2)

This camera location should have 2 F/STP Cat 6 drop
with a 10' service loop. To be mounted over
demonstration table, but should be field verified.

MOUNTED IN CENTER
DEMONSTRATION TABLE

This cable location should have 1 F/STP Cat 6 drop
with a 10' service loop. This will terminate in floor poke through
in the center demonstration table.

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

AUDIO-VISUAL SYSTEMS
DIAGRAM

DRAWN BY: JC

CHECKED BY: DF

PROJ. NO:

DATE: 04/14/2028

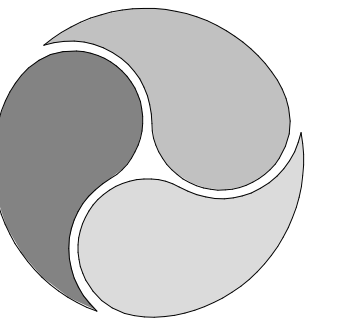
DRAWING NO:

E603

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

SHEET NOTE:

1 AUDIO-VISUAL SYSTEM DIAGRAM PROVIDED BY CCAC FOR COORDINATION PURPOSES.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

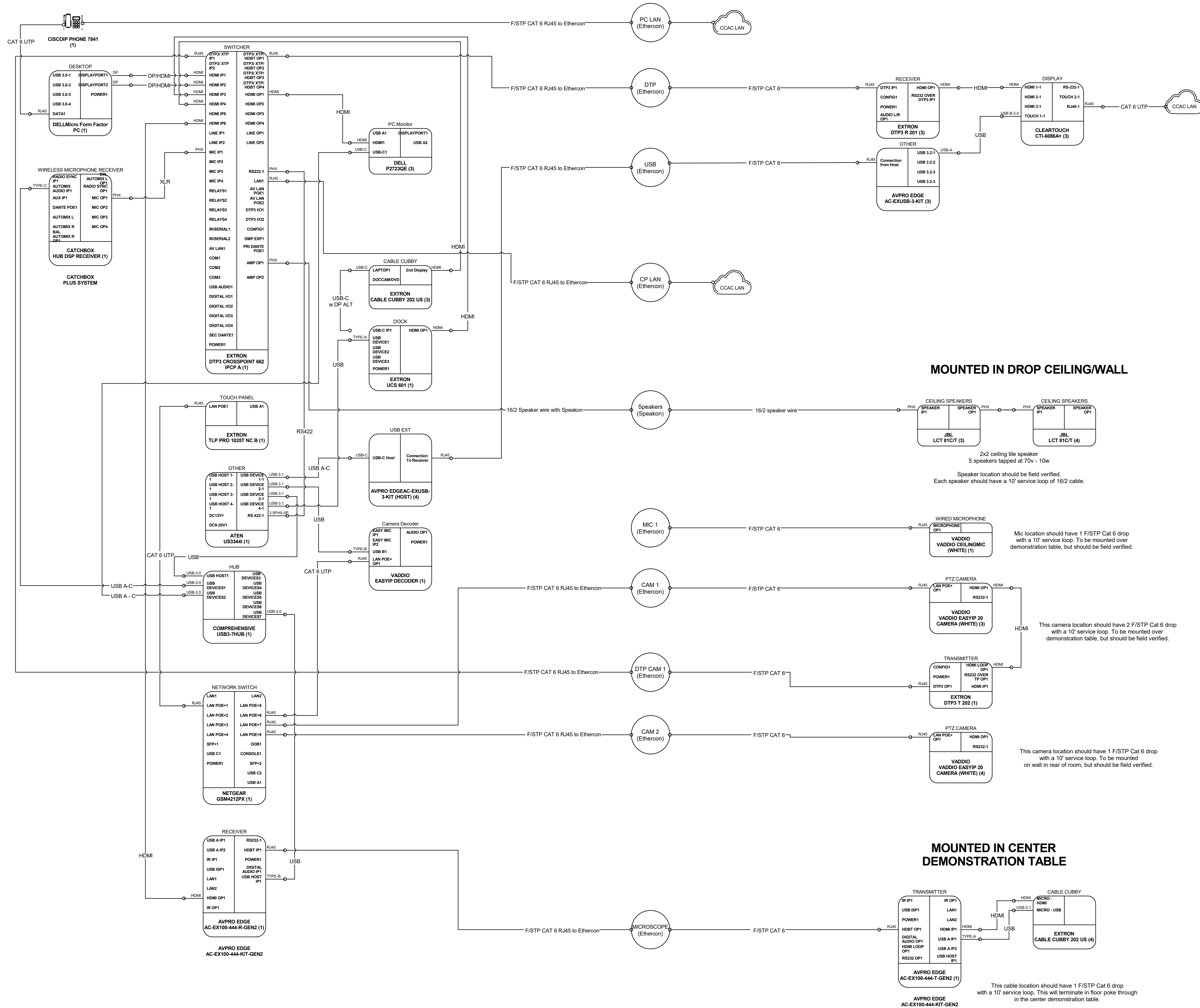
CLIENT:

COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

Gen Bio Labs

MOUNTED IN AVINED
DESK WITH RACKTWO 4-GANG
WALL MOUNTED FACEPLATES

DISPLAY LOCATION



595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:

BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:

CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:

AUDIO-VISUAL SYSTEMS
DIAGRAM

DRAWN BY: JC

CHECKED BY: DF

PROJ. NO:

DATE: 04.14.2028

DRAWING NO:

E604

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.

E

D

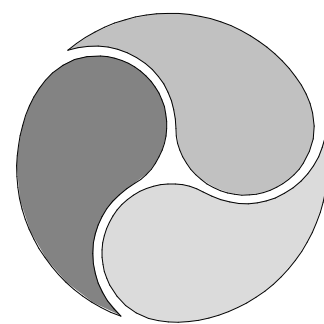
C

B

A

FIRE ALARM PLAN GENERAL NOTES

- 1 ALL FIRE ALARM WIRING & DEVICES SHALL BE IN ACCORDANCE WITH THE EXISTING FACILITY FIRE ALARM SYSTEM MANUFACTURER VENDOR'S POINT BY POINT WIRING DIAGRAM. THE FLOOR PLAN SHOWS THE PROPOSED QUANTITY OF FIRE ALARM SYSTEM COMPONENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL DEVICES AND MODULES AS REQUIRED TO PROVIDE A FULLY FUNCTIONAL AND LOCALNATIONAL CODE COMPLIANT SYSTEM.
- 2 CONTRACTOR / VENDOR SHALL PREPARE PENNSYLVANIA LICENSED P.E. WORKING FIRE ALARM SYSTEM DRAWINGS INCORPORATING THE FIRE ALARM CRITERIA DESIGN AND CONFORMING TO AHJ REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL MATERIAL REQUIRED PER AHJ DESIGN CRITERIA FOR A FULLY FUNCTIONING FIRE ALARM SYSTEM. SUBMIT SIGNED AND SEALED DOCUMENTS TO THE DESIGN PROFESSIONAL AS A SHOP DRAWING FOR REVIEW.
- 3 THE INTENT IS FOR THE CONTRACTOR TO INSTALL ALL REQUIRED COMPONENTS FOR A FULLY FUNCTIONING FIRE ALARM SYSTEM AS AN EXTENSION TO THE EXISTING FIRE ALARM SYSTEM IN THE FACILITY.



AE WORKS®

418 BEAVER STREET
SEWICKLEY, PA 15143
PH: 412.287.7333
www.aeworks.com

CLIENT:
COMMUNITY COLLEGE
OF ALLEGHENY COUNTY

595 Beatty Rd
Monroeville, PA 15146

SUBMISSION:
BID DOCUMENTS

NOT FOR CONSTRUCTION

NO	DATE	REVISION

PROFESSIONAL:



PROJECT NAME:
CCAC BIOLOGY LAB
RENOVATIONS BOYCE
CAMPUS

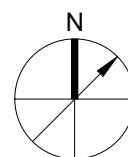
595 Beatty RD, Monroeville PA
15146

DRAWING TITLE:
PARTIAL SIXTH FLOOR
FIRE ALARM PLAN

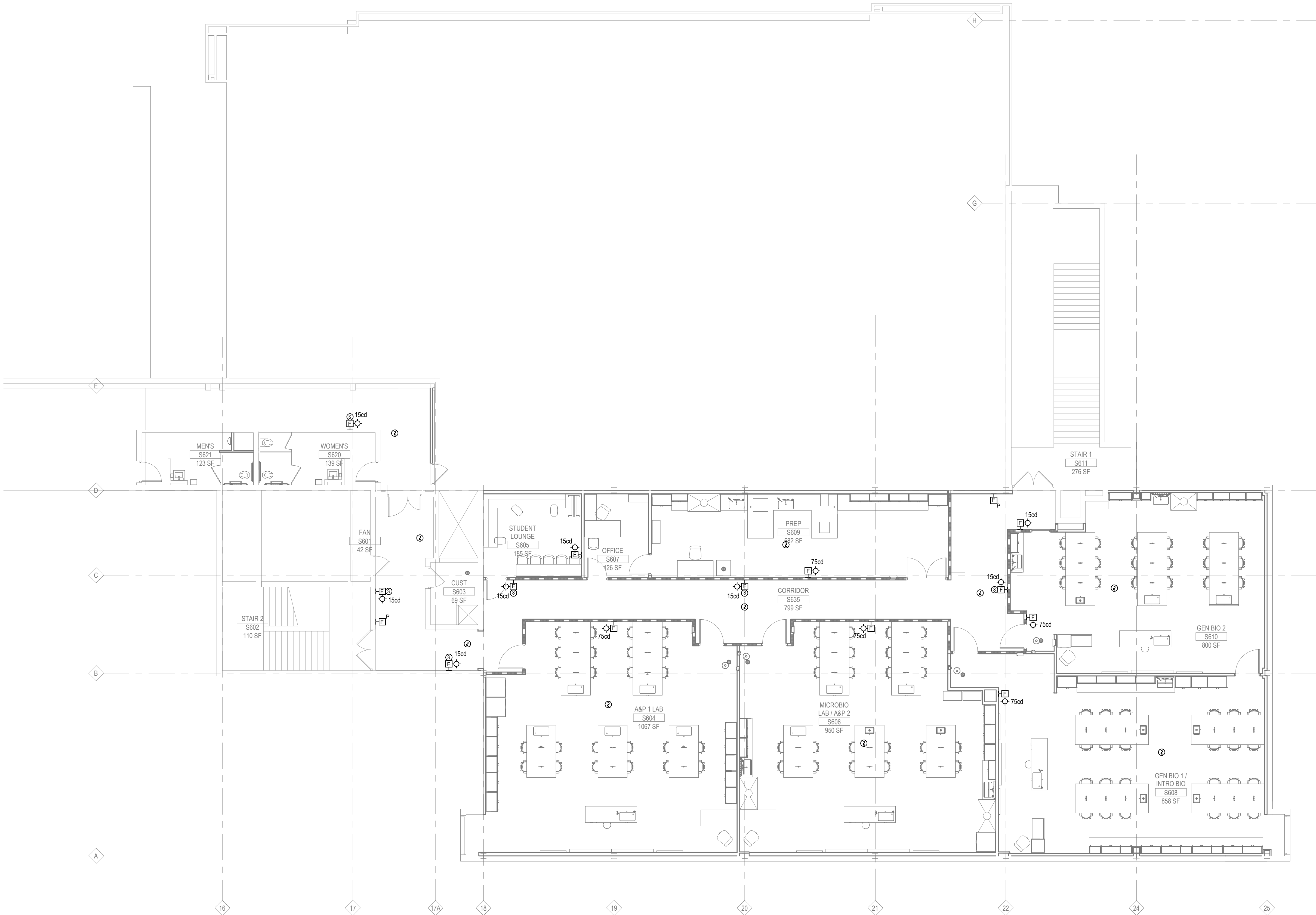
DRAWN BY: JC
CHECKED BY: DF
PROJ. NO:
DATE: 04-14-2028
DRAWING NO:

FA101

COPYRIGHT 2020 BY AE WORKS LTD ALL RIGHTS RESERVED.



1 PARTIAL SIXTH FLOOR FIRE ALARM PLAN
1/8" = 1'-0"



E

D

C

B

A