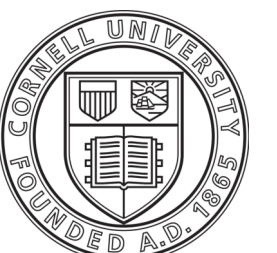


Cornell University

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION



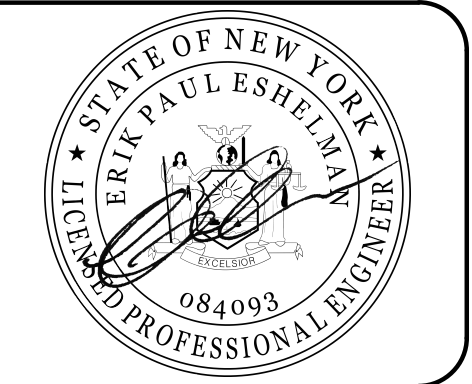
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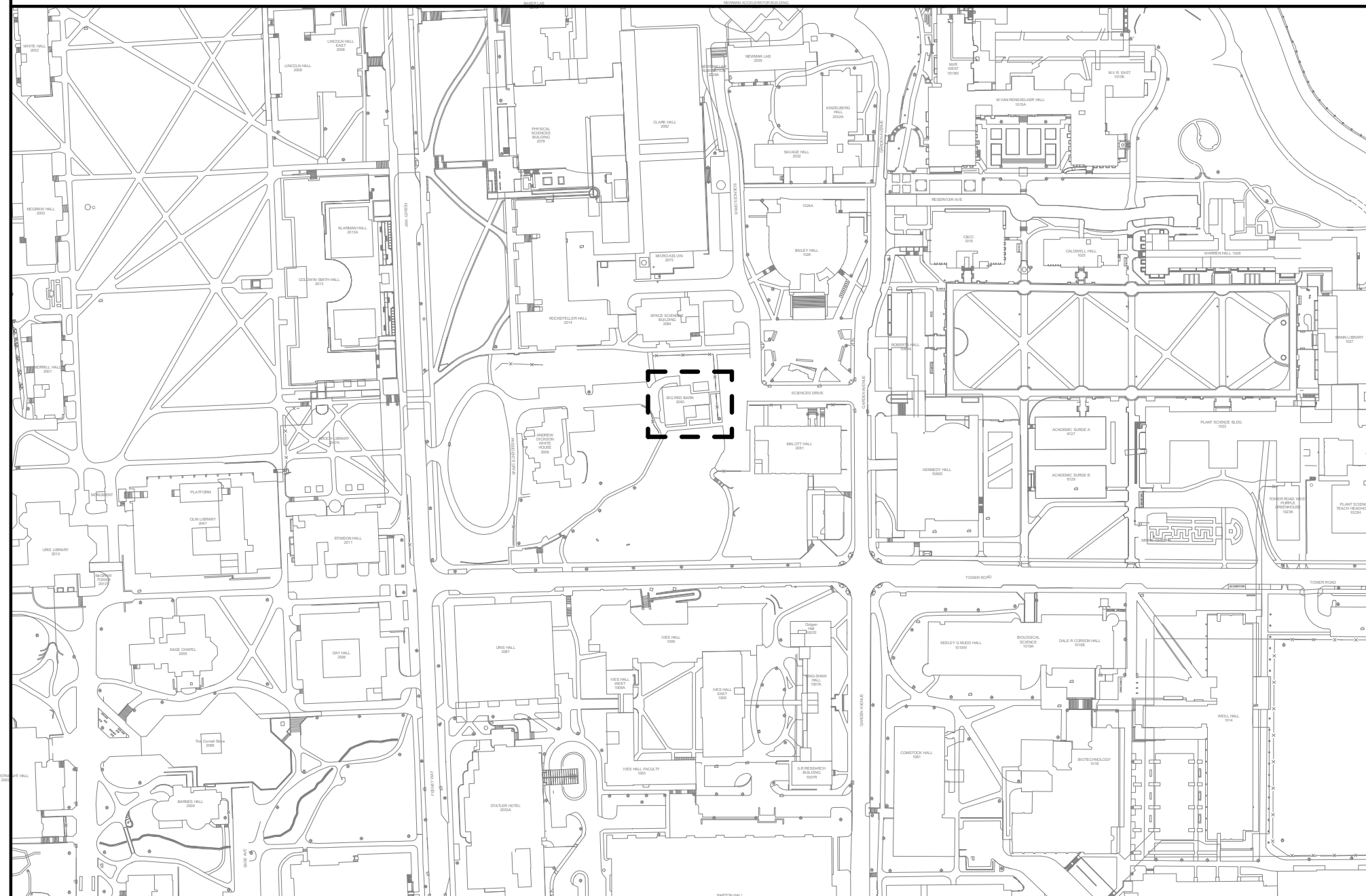
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ARCH/ CIVIL: *WJ*
ELECTRICAL: *ZTR*
MECHANICAL: *JF*



SITE LOCATION - BIG RED BARN



SITE PHOTO

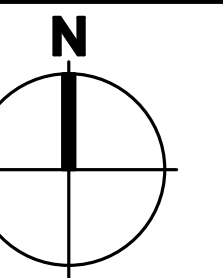


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ARCHITECTURAL	A-001	GENERAL NOTES, SYMBOLOGY, AND ABBREVIATIONS
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	E-101	ELECTRICAL DEMOLITION & RENOVATION PLANS

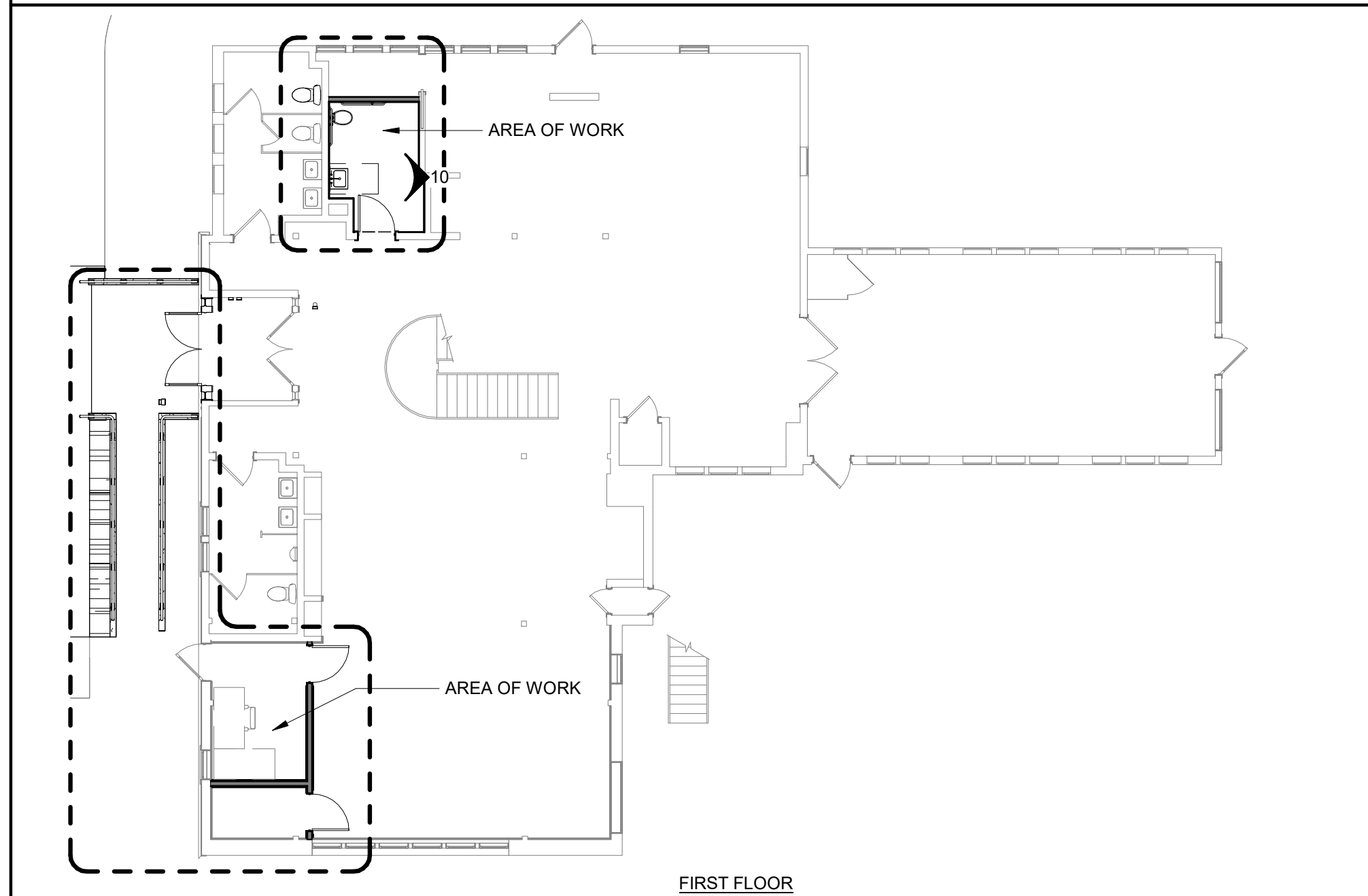
REVISIONS

1	12/15/23	ISSUE FOR DD REVIEW
2	02/16/24	ISSUE FOR 90% REVIEW
3	03/21/24	ISSUE FOR CONSTRUCTION



0' 4' 8' 12' 24'
SCALE: 3/32" = 1'-0"

KEY PLAN - FIRST FLOOR LEVEL



PROJECT SCOPE

THE PURPOSE OF THIS PROJECT IS TO CREATE AN ADA ACCESSIBLE SINGLE-USER TOILET ROOM AND A NEW OFFICE IN THE BIG RED BARN (2040). THIS PROJECT INCLUDES REPLACING THE EXTERIOR ENTRY STAIRS/ ADA RAMP, ADDING ADA OPERATORS TO THE MAIN ENTRY DOORS AND REPLACING THE EXTERIOR MAIN ENTRY DOORS (ALTERNATE).

GENERAL SYMBOLS LEGEND

	EXTERIOR ELEVATION		INTERIOR ELEVATION
	1/ A-101	PHOTO/ VIEW REFERENCE	
	X-100	SECTION MARKER	
	X-100	ENLARGED DETAIL	
	#	CONSTRUCTION KEYED NOTE	
	#	DEMOLITION KEYED NOTE	
	#	DRAWING REVISION NOTE	
	---	LINETYPE: EXISTING TO REMAIN	
	---	LINETYPE: DEMOLITION / TO BE RELOCATED	
	---	LINETYPE: TO BE PROVIDED / NEW	

BUILDING CODE SUMMARY

APPLICABLE CODES
 2020 NYS BUILDING CODE
 2020 NYS EXISTING BUILDING CODE
 2020 NYS FIRE CODE
 2020 NYS PLUMBING CODE
 2020 NYS MECHANICAL CODE
 2020 NYS ENERGY CONSERVATION CODE
 2009 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
 2010 AMERICANS WITH DISABILITIES ACT (ADA)

PROJECT SUMMARY
 THIS PROJECT INCLUDES THE RENOVATION OF (0,000) SF OF (LABS/OFFICES/ DORMS). THE WORK IS ALTERATION LEVEL (1/2/3) (INSERT JUSTIFICATION FOR ALTERATION LEVEL INTERPRETATION HERE).

BUILDING LIMITATIONS
 CONSTRUCTION CLASSIFICATION: V NONE
 CLASSIFICATION OF HAZARDS: NO
 HIGH-RISE BUILDING: THE EXISTING BUILDING IS FULLY SPRINKLERED
 EXTINGUISHING REQUIREMENT:

OCCUPANCY
 OCCUPANCY CLASSIFICATION: ASSEMBLY (A)

135 PRESIDENT'S DRIVE
ITHACA, NEW YORK 14853

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: FE DESIGN
DRAWN: JGC

TITLE SHEET

T-001
15921574

ARCHIVE BAR CODE

UTILITY ABBREVIATIONS	
ABND	ABANDONED
BITUM	BITUMINOUS
CB	CATCH BASIN
CO	CLEANOUT
CONC	CONCRETE
COND	CONDENSATE
CW	CITY WATER (CITY OF ITHACA DOMESTIC AND FIRE WATER)
CWS/ CWR	CHILLED WATER SUPPLY/ RETURN
DIA	DIAMETER
DW	DOMESTIC WATER
E	ELECTRIC(AL)
EL	ELEVATION
EXST	EXISTING
FT	FEET
FW	FIRE WATER (CORNELL UNIVERSITY FIRE AND DOMESTIC WATER)
HP	HIGH POINT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
LP	LOW POINT
MH	MANHOLE
NG	NATURAL GAS
OD	OUTSIDE DIAMETER
PCR	PUMPED CONDENSATE RETURN
PIV	POST INDICATOR AND VALVE
PVMT	PAVEMENT
R	RADIUS
RD	ROAD
REF	REFERENCE
REQD	REQUIRED
STA	STATION
STM	STEAM
T	TELEPHONE
UD	UNDERDRAIN
W	WITH
W/O	WITHOUT
X	SANITARY
XX	STORM WATER

GENERAL ABBREVIATIONS	
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
CC	CENTER TO CENTER
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONST	CONSTRUCTION
CONT	CONTINUOUS
DIM	DIMENSION
DTL	DETAIL
DWG	DRAWING
EXT	EXTERIOR
FF	FINISHED
FIN	FINISHED
GA	GAUGE
H	HEIGHT
INCL	INCLUDED
INT	INTERIOR
L	LENGTH
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
RO	ROUGH OPENING
SHT	SHEET
STD	STANDARD
STL	STEEL
TYP	TYPICAL
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDTH

SPECIAL INSPECTIONS		
INSPECTIONS AND TESTS (CONTINUOUS AND PERIODIC IS AS DEFINED BY THE 2020 NYSBC AND ACI 318, LATEST ED.)	CONTINUOUS	PERIODIC
CONCRETE CONSTRUCTION		2020 BCNYS SECTION 1705.3 AND TABLE 1705.3
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	X	ACI 318 CH. 20, 25.2, 25.3, 26.6.1-26.6.3, IBC 1908.4
3. INSPECT ANCHORS CAST IN CONCRETE.	X	ACI 318 CH 17.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:		
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	ACI 318 CH 17.8.2.4
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a	X	ACI 318 CH 17.8.2
5. VERIFY USE OF REQUIRED DESIGN MIX.	X	ACI 318 CH 19, 26.4.3, 26.4.4; IBC 1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	ACI 318 CH 26.5, 26.12; ASTM C172; ASTM C31; IBC 1908.10
7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	ACI 318 CH 26.5; IBC 1908.9 - 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	X	ACI 318 CH 26.5.5.3 - 26.5.5; IBC 1908.9
11. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	X	ACI 318 CH 26.11.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	X	ACI 318 CH 26.11.1.2(b)
NOTES:		
1. TESTING AND INSPECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE 2020 BCNYS AND THE REQUIREMENTS OF LOCAL CODES.		
2. DESIGNATIONS FOR TESTING AND INSPECTION FREQUENCY: A. O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. B. P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER		

STRUCTURAL NOTES CONT'D		
POST-INSTALLED ANCHORS		
1. POST INSTALLED ANCHORS EMBEDDED IN CONCRETE SHALL USE HILTI HIT HY200R, DEWALT AC208+, DEWALT AC100+ GOLD, OR EQUAL.		
EARTHWORK		
1. THE VERTICAL BEARING PRESSURE IS ASSUMED TO BE 1500 PSF, THE LATERAL BEARING PRESSURE IS ASSUMED TO BE 100 PSF, AND THE COHESION IS ASSUMED TO BE 130 (PSF) PER THE 2020 BCNYS TABLE 1806.2 PRESUMPTIVE LOAD-BEARING VALUES. THE MAXIMUM BEARING PRESSURE IS FOR CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, AND SANDY SILT (CL, ML, MH AND CH). NO GEOTECHNICAL INVESTIGATION HAS BEEN CONDUCTED AT THIS LOCATION AND THEREFORE THE LOWEST LOAD-BEARING VALUES HAVE BEEN ASSUMED.		
2. IF UNSUITABLE BEARING MATERIAL IS FOUND AT THIS LOCATION, FOUNDATIONS SHALL BE OVEREXCAVATED AND BEARING MATERIAL SHALL BE REPLACED WITH LEAN CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.		
METAL HANDRAILS		
1. CONTRACTOR SHALL SUBMIT FOR REVIEW: A. FINISH PRODUCT DATA AND COLOR SAMPLE B. MILL TEST DATA WITH STRENGTH AND MATERIAL PROPERTIES C. SHOP DRAWING		
2. ALL METAL MEMBERS SHALL BE INSTALLED WITH CAMBER UP, EXCEPT WHERE NOTED OTHERWISE ON DRAWINGS AND EXCEPT AT CANTILEVERS WHERE METAL MEMBERS SHALL BE INSTALLED WITH CAMBER DOWN.		
3. NO FABRICATION SHALL PROCEED PRIOR TO SHOP DRAWING APPROVAL. SHOP DRAWINGS MARKED "REJECTED" OR "REVISE AND RESUBMIT" MAY NOT BE FABRICATED WITHOUT ADDITIONAL CHANGES BEING MADE.		
4. SHOP DRAWINGS SHALL INCLUDE DETAILS FOR APPLICATIONS AND ASSEMBLY OF ALL METAL MEMBERS, INCLUDE DETAILS OF CUTS, CONNECTIONS, HOLES, AND OTHER PERTINENT DATA; AND INDICATE WELDS BY STANDARD AWS 2.1 SYMBOLS SHOWING SIZE, LENGTH, AND TYPE OF EACH WELD. SHOP DRAWINGS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO FABRICATION.		
5. SPLICING OF METAL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPlice, AND CONNECTION TO BE MADE.		
6. ALL BOLT HOLES IN METAL MEMBERS SHALL BE 1/16" LARGER IN DIAMETER THAN THE NOMINAL SIZE OF THE BOLT USED, U.N.O. ON DRAWINGS.		
7. WELDING SHALL MEET THE REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" AWS D11.1-2006. ELECTRODES SHALL HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI AND BE LOW-HYDROGEN TYPE. THE LENGTH OF WELD SPECIFIED ON THE DRAWINGS IS THE MINIMUM EFFECTIVE LENGTH OF THE WELD. ALL WELDS SHALL BE A MINIMUM 1/4" FILLET WELD U.N.O. ON DRAWINGS.		
BASIS OF DESIGN:		
8. ALL BRONZE SHALL BE COPPER ALLOY AND SHALL MEET THE REQUIREMENTS OF ASTM B455 ALLOY C38500 OR ASTM B36 ALLOY C28000.		
9. BRONZE FASTENERS AND THREADED RODS SHALL BE USED WITH BRONZE HANDRAIL, STEEL FASTENERS AND THREADED RODS SHALL BE USED WITH STEEL HANDRAIL. MINIMUM TENSILE STRENGTH OF THREADED RODS IS 50 KSI.		
10. ALL BRONZE HANDRAILS SHALL BE FABRICATED FROM SOLID BRONZE FLAT BARS WITH PATINA FINISH OF BLACK PATINA CB WITH ACRYLAQ-1046 FLAT LACQUER FROM SUR FIN CHEMICAL COMPANY OR APPROVED EQUAL. THOROUGHLY CLEAN AND PREPARE BRONZE BAR STOCK PRIOR TO FINISH APPLICATION.		
ALTERNATE:		
11. ALL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC "STEEL CONSTRUCTION MANUAL" AND ALL WORK SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."		
12. ALL STEEL HANDRAIL FABRICATION AND INSTALLATION SHALL COMPLY WITH AISC REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS).		
13. ALL STEEL NUTS SHALL MEET THE REQUIREMENTS OF ASTM A-563 DH OR ASTM A-194 2H.		
14. ALL STEEL WASHERS SHALL MEET REQUIREMENTS OF ASTM F-436.		
15. ALL STEEL HANDRAILS SHALL BE HOT DIP GALVANIZED AND POWDER COATED. FINISH COLOR SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE OFFICE OF THE UNIVERSITY ARCHITECT.		

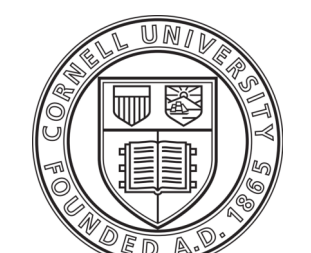
STRUCTURAL STEEL GRADES	
WIDE FLANGE MEMBERS	A992, Fy = 50 KSI
HSS RECTANGULAR MEMBERS	A500 GRADE B, Fy = 46 KSI
HSS ROUND MEMBERS	A500 GRADE B, Fy = 42 KSI
CHANNELS AND ANGLES	A36, Fy = 36 KSI
PLATES	A572, Fy = 50 KSI
PIPES	A53, Fy = 35 KSI
THREADED RODS	F1554 GRADE 36, Fy = 36 KSI

CONCRETE CLEAR COVER			
STRUCTURAL ELEMENT	INTERIOR NOT IN CONTACT WITH GROUND	INTERIOR IN CONTACT WITH GROUND AND ALL EXTERIOR	ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND
SLABS, WALLS, AND JOISTS	3/4" #11 & SMALLER	1-1/2" #5 BAR, W31 OR D31 WIRE & SMALLER	3"
	1-1/2" #14 & #18	2" #6 THRU #18 BARS	
BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	1-1/2"	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	3"

DIG SAFELY NOTES (UDig NY)	
1.0	CLICK OR CALL BEFORE YOU DIG. STATE LAW REQUIRES YOU TO PLACE A LOCATION REQUEST WITH UDig NY PRIOR TO DIGGING OR EXCAVATING. CALL 811 OR 1-800-962-7962, OR SUBMIT A REQUEST ONLINE AT UDIGNY.ORG. YOU WILL RECEIVE A LOCATION REQUEST NUMBER AND A LIST OF MEMBER UTILITY COMPANIES THAT WILL BE NOTIFIED OF YOUR PLANNED DIGGING PROJECT.
2.0	WAIT + LOCATE. ALLOW THE UTILITIES TIME TO LOCATE YOUR PROPOSED DIG SITE BY CONTACTING UDig NY AT LEAST 2 AND NOT MORE THAN 10 FULL WORKING DAYS PRIOR TO STARTING YOUR WORK, NOT COUNTING THE DAY OF YOUR CALL, WEEKENDS, OR HOLIDAYS.
3.0	CONFIRM UTILITY RESPONSE. AFTER UDig NY HAS NOTIFIED MEMBER UTILITIES OF THE PENDING EXCAVATION, YOU ARE RESPONSIBLE FOR MAKING SURE EACH OPERATOR HAS RESPONDED PRIOR TO DIGGING ON YOUR STATED COMMENCEMENT DATE.
4.0	RESPECT THE MARKS. FAMILIARIZE YOURSELF WITH THE MARKINGS AND THE LOCATIONS OF BURIED FACILITIES AT THE SITE PRIOR TO EXCAVATION.
5.0	DIG WITH CARE. DIG TEST HOLES TO VERIFY LOCATION, TYPE, SIZE, DIRECTION-OF-RUN, AND DEPTHS OF THE MARKED FACILITY.

CONCRETE CURING & FINISHING NOTES	
1.	RAMP FLATWORK AND CURB SHALL BE FLOATED AND HAND FINISHED. RAMP SURFACE SHALL RECEIVE A MEDIUM BROOM FINISH PERPENDICULAR TO THE PATH OF TRAVEL. CURB SHALL BE TOOLED WITH A 1/2" EDGER ON TOP OF CURB ON BOTH EDGES AND A LIGHT BROOM FINISH ON THE TOP SURFACE. CURING SHALL EMPLOY A 7 DAY CONTINUOUS WET CURE WITH NO CONTACT FROM SHEET GOODS, BURLAP OR OTHER PRODUCTS. METHODS MAY INCLUDE MISTERS, SPRINKLERS AND/OR TENTING TO MAINTAIN MOISTURE. FORMS MAY BE LEFT IN PLACE ON VERTICAL SURFACES UNTIL CONCRETE HAS HARDENED WHEN THEY SHALL BE STRIPPED, ANY IMPERFECTIONS PATCHED, AND ENTIRE WALL RUBBED. ONCE REPAIRS TO FINISH HAVE BEEN MADE, THEY SHALL BE CONTINUOUSLY WET CURED WITH THE REMAINDER OF THE POUR. A PENETRATING SEALER SHALL BE APPLIED UPON COMPLETION OF CURING AND IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S RECOMMENDATIONS. REMOVE ANY EXCESS EXPANSION MATERIAL OR CAPS, AND CAULK ALL EXPANSION JOINTS WITH A CONCRETE CAULK UPON COMPLETION OF SEALING.
2.	PROVIDE SAWCUT JOINTS AT INTERVALS SHOWN ON PLANS FOR RAMP SURFACES AND CURBING WITHIN 8 HOURS OF PLACEMENT TO CONTROL SHRINKAGE CRACKS. CONCRETE SHALL REMAIN WET DURING CUTTING TO MAINTAIN PROPER CURING.

STRUCTURAL NOTES	
CODES & GENERAL REQUIREMENTS	
1. PERFORM ALL CONSTRUCTION IN ACCORDANCE WITH THE 2020 NEW YORK STATE EXISTING BUILDING CODE AND THE 2020 NEW YORK STATE BUILDING CODE. THE FOLLOWING CODES AND STANDARDS ARE REFERENCED IN THE PROJECT DOCUMENTS: A. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE B. AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS C. AISC 308-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES WITH SUPPLEMENT NO. 1	
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF WORK.	
TESTING & INSPECTIONS	
1. OWNER SHALL RETAIN THE SERVICES OF AN INSPECTION AGENCY TO PERFORM THE FOLLOWING SERVICES. ADDITIONAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.	
2. INSPECTION OF SUBGRADE BELOW ALL FOUNDATIONS AND SLAB ON GRADE TO VERIFY THE ADEQUACY OF THE BEARING MATERIAL.	
CAST IN PLACE CONCRETE	
1. CLEAR COVER FOR REINFORCING STEEL SHALL BE PER THE TABLE ON THIS SHEET WHICH CONFORMS TO ACI 318-14 TABLE 20.6.1.3.1.	
2. CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD: A. SHOP DRAWINGS WITH REINFORCEMENT LAYOUT B. CEMENT PRODUCT DATA a. PORTLAND CEMENT SHALL BE TYPE I, TYPE II, OR TYPE II-H AND SHALL MEET THE REQUIREMENTS OF ASTM C-150. C. AGGREGATE PRODUCT DATA INCLUDING GRADING D. MIX DESIGN PRODUCT DATA INCLUDING STRENGTH TESTS E. ADMIXTURE PRODUCT DATA a. WATER REDUCING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C-494. HIGH RANGE WATER REDUCING ADMIXTURES, OR SUPERPLASTICIZERS, SHALL MEET THE REQUIREMENTS OF ASTM C-494 TYPE F OR TYPE G. b. AIR-ENTRAINING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C-260. AIR-ENTRAINMENT SHALL BE PER ACI 318-14 TABLE 19.3.3.1 WHERE AIR-ENTRAINING ADMIXTURES ARE USED. c. RETARDING AND ACCELERATING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C-494. F. REINFORCEMENT MILL CERTIFICATES a. STEEL REINFORCING BARS SHALL MEET THE REQUIREMENTS OF ASTM A-615 AND SHALL BE GRADE 60. EPOXY COATED STEEL REINFORCING BARS SHALL MEET THE REQUIREMENTS OF ASTM A-775 AND SHALL BE GRADE 80. STAINLESS STEEL REINFORCING BARS SHALL MEET THE REQUIREMENTS OF ASTM A-955. WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A-1064. STAINLESS STEEL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A-1022. G. CURING PRODUCTS H. LAYOUT OF ALL CONSTRUCTION JOINTS I. CURING METHODS J. HOT WEATHER PROCEDURES AND/OR COLD WEATHER PROCEDURES AS APPLICABLE	
3. FOR CONCRETE EXPOSED TO MOISTURE, 15% TO 20% OF THE CEMENTITIOUS MATERIAL SHALL BE REPLACED WITH CLASS F FLY ASH CONFORMING TO ASTM C-618.	
4. NORMAL WEIGHT AGGREGATES SHALL MEET THE REQUIREMENTS OF ASTM C-33 AND THE FOLLOWING CRITERIA: a. COARSE AND FINE AGGREGATES MUST BE FROM A NYSDOT APPROVED SOURCE AND NOT BE FLAGGED FOR ASR. b. THE MINIMUM BULK SSD SPECIFIC GRAVITY OF THE COARSE AGGREGATE ON THE NEW YORK STATE DOT POSTED TEST RESULTS SHALL BE 2.67. c. THE MAXIMUM ABSORPTION OF THE COARSE AGGREGATE ON THE NEW YORK STATE DOT POSTED TEST RESULTS SHALL BE 1.2%	
5. THE DENSITY OF THE CONCRETE MIX SHALL BE 145 PCF +/- 5 PCF FOR NORMAL WEIGHT CONCRETE.	
6. CONCRETE DURABILITY DESIGN CLASSIFICATIONS PER ACI 318-14 TABLE 19.3.1.1, SHALL BE F3, C2, W1, AND S0. CONCRETE MIX DESIGNS SHALL MEET THE REQUIREMENTS OF ACI FOR THOSE CATEGORIES.	
7. CONCRETE PRODUCER SHALL VERIFY THAT SUBMITTED CONCRETE MIXES DO NOT EXCEED THE MAXIMUM WATER-SOLUBLE CHLORIDE ION LIMITS PER THIS EXPOSURE CLASS AS STATED IN ACI 318-14 TABLE 19.3.2.1.	
8. THE WATER CEMENT RATIO SHALL BE 0.36 MINIMUM AND 0.40 MAXIMUM. THE CONTRACTOR IS NOT PERMITTED TO ADD MORE WATER THAN IS SPECIFIED ON THE SUBMITTED MIX DESIGNS WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER. CONTRACTOR IS REQUIRED TO CLEARLY NOTE ON THE DELIVERY TICKET THE QUANTITY OF WATER WITHHELD AT THE BATCHING PLANT THAT CAN BE ADDED ONSITE.	
9. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI UNLESS NOTED OTHERWISE.	



FACILITIES ENGINEERING
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ARCHITECTURAL, STRUCTURAL, CIVIL, ENVIRONMENTAL, MECHANICAL, AND ELECTRICAL ENGINEERING

201 HUMPHREYS SERVICE BLDG
ITHACA, NEW YORK 14853-3701

WARNING
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ARCH/ CIVIL: *[Signature]*
ELECTRICAL: *[Signature]*
MECHANICAL: *[Signature]*



ERIK PAUL ESHELMAN
PROFESSIONAL ENGINEER
084093

REVISIONS		
1	02/16/24	ISSUE FOR 90% REVIEW
2	03/21/24	ISSUE FOR CONSTRUCTION

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION	
135 PRESIDENT'S DRIVE ITHACA, NEW YORK 14853	

DATE:	
MARCH 21, 2024	
FACILITY:	
2040	
DESIGN:	
OLSEN-BIEBER, TOFTE	
DRAWN:	
EWK	

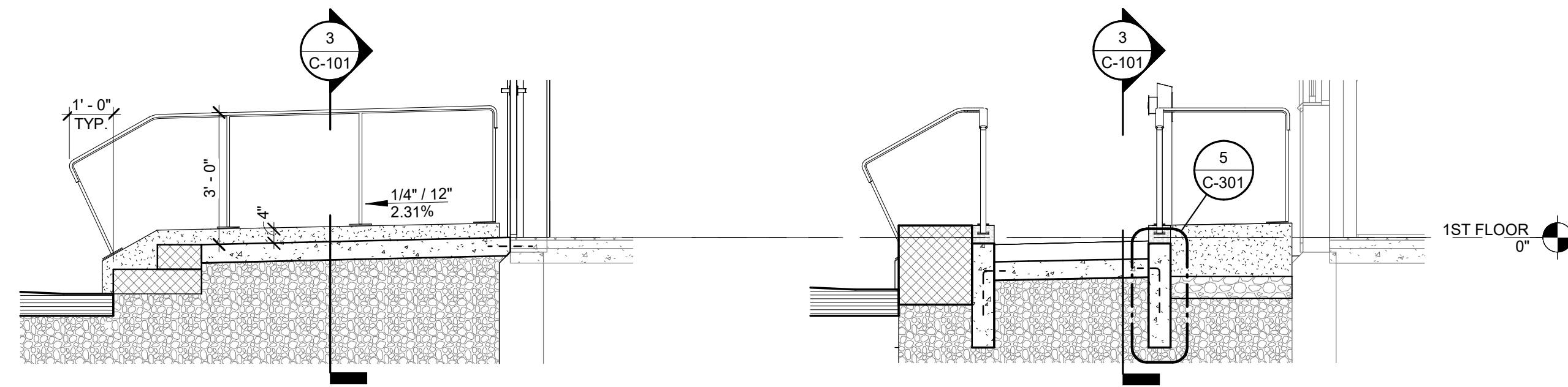
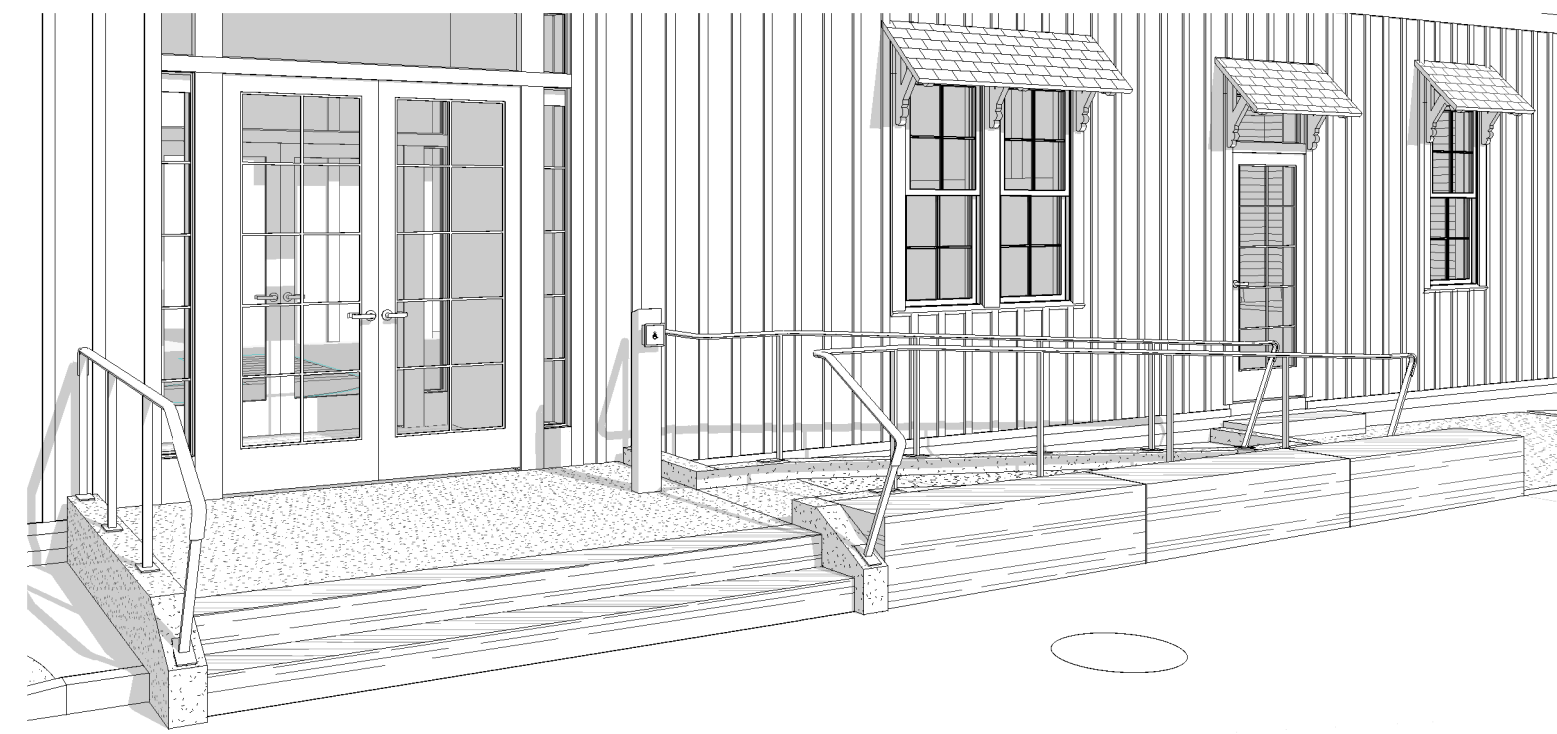
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EWK	

NOTES, LEGENDS AND ABBREVIATIONS

C-001
15921574

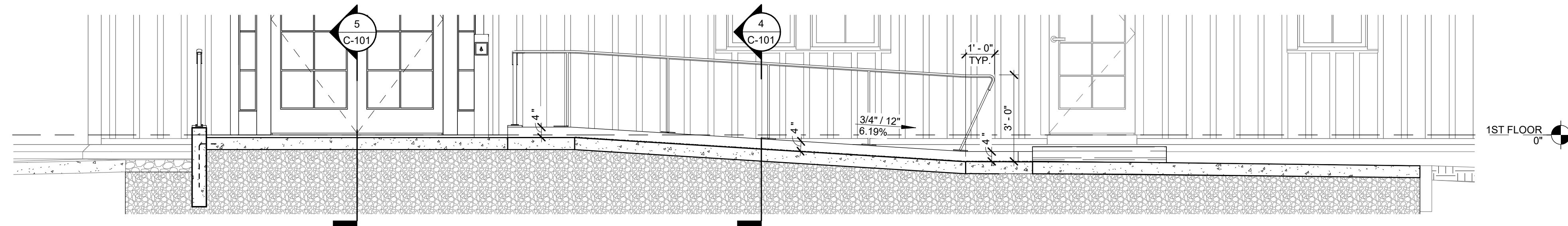


ARCHIVE BAR CODE

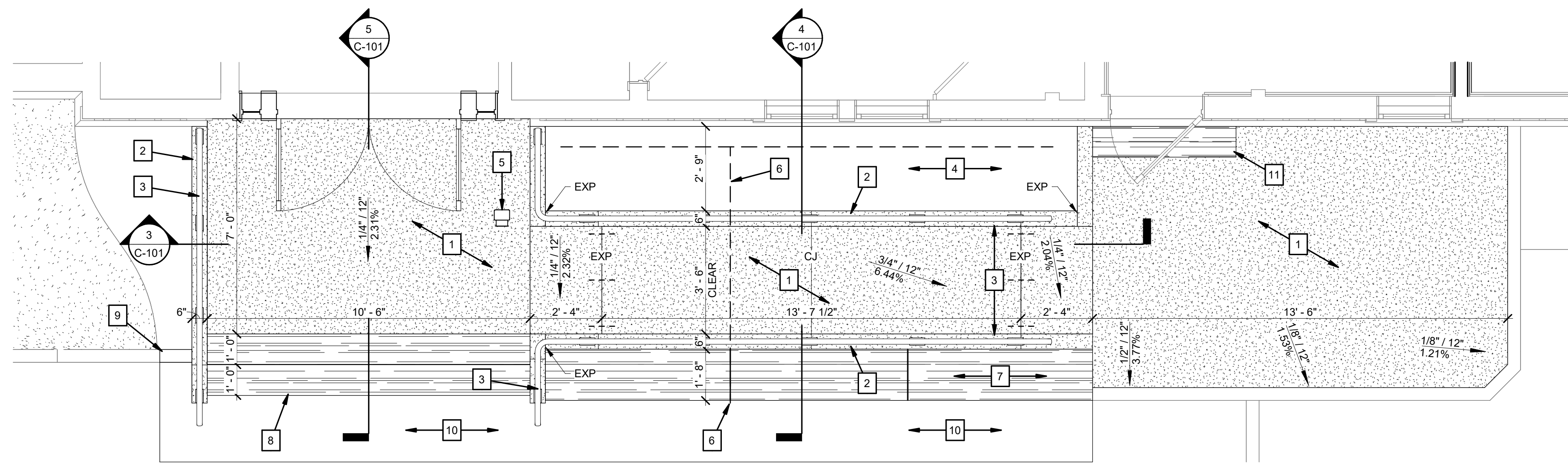


5 E-W SECTION THRU LANDING
SCALE: 3/8" = 1'-0"

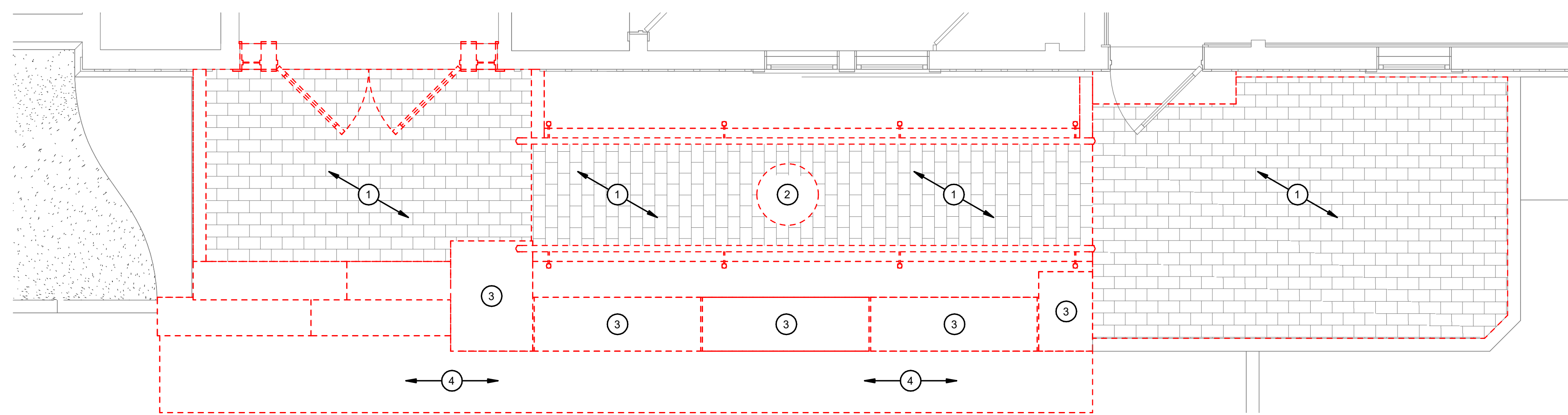
4 E-W SECTION THRU RAMP/ SEAT WALL
SCALE: 3/8" = 1'-0"



3 N-S SECTION THRU RAMP
SCALE: 3/8" = 1'-0"



2 RAMP RENOVATION PLAN
SCALE: 3/8" = 1'-0"



1 RAMP DEMOLITION PLAN
SCALE: 3/8" = 1'-0"

C-101 KEYED DEMOLITION NOTES

- 1 REMOVE EXISTING RAMP, PAVERS, RAILINGS, STEPS, AND RELATED COMPONENTS AS SHOWN.
- 2 EXISTING ELECTRICAL MANHOLE TO BE INSPECTED. IF INSPECTION INDICATES ABANDONMENT IS APPROPRIATE, REMOVE LID AND FRAME, AND BACKFILL REMAINING STRUCTURE.
- 3 REMOVE EXISTING LLENROC SEAT WALL. SALVAGE EXISTING STONWORK AND CAP STONES AND TURN OVER TO GROUNDS FOR REUSE.
- 4 SAWCUT EXISTING ASPHALT PAVING TO EXTENT SHOWN AND DISPOSE OF MATERIALS.

C-101 KEYED IMPROVEMENT NOTES

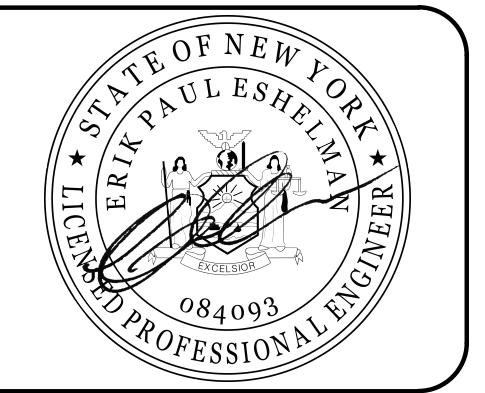
- 1 PROVIDE 5" THICK INTEGRALLY COLORED MACRO FIBER REINFORCED CONCRETE LANDINGS AND RAMP WITH DOWELED EXPANSION JOINTS PER DETAIL 1/ C-301. COLOR SHALL BE A SLATE GRAY TO MATCH NATURAL TONES OF SELECTED GRANITE VENEER AND OTHER STONWORK. FINAL COLOR SELECTION TO BE PROVIDED BY CORNELL REPRESENTATIVE. PROVIDE TOOLED CONTRACTION JOINT AT RAMP MIDPOINT. REFER TO CONCRETE CURING AND FINISHING NOTES ON C-001 FOR ADDITIONAL INFORMATION.
- 2 PROVIDE 6" WIDE x 30" DEEP CONCRETE WALL AND CURB PER DETAIL 5/ C-301. CURB SHALL PROJECT 4" ABOVE WALKING SURFACE TO PROVIDE EDGE PROTECTION. PROVIDE TOOLED CONTRACTION JOINT IN CURB AT RAMP MIDPOINT. PROVIDE EXPANSION JOINTS AT RAMP CURB TOP AND BOTTOM TO SEPARATE THE POURS. REFER TO CONCRETE CURING AND FINISHING NOTES ON C-001 FOR ADDITIONAL INFORMATION.
- 3 NEW HANDRAIL: BRONZE JULIUS BLUM #4535 HANDRAIL PROFILE ON 1-1/2x3/4" BAR STOCK SUB-STRUCTURE & POSTS. POSTS TO BE WELDED TO 6"Lx3"Wx1/4" STEEL MOUNTING PLATES IN "L" OR "T" CONFIGURATIONS PER PLAN. PLATES TO BE BOLTED TO TOP OF CONCRETE CURB WALL GRADE BEAM USING NUT STANDOFFS.
- 4 PROVIDE WASHED ROUND RIVER COBBLES NOT EXCEEDING 2" IN DIAMETER ON GEOTEXTILE WEED CONTROL FABRIC, WITH COLORS TO MATCH PROPOSED STONWORK.
- 5 NEW POST-MOUNTED DOOR OPERATOR AND CARD READER. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS.
- 6 PROVIDE 4" HDPE UNDERDRAIN PIPE, DISCHARGING THROUGH UNIVERSAL RETAINING WALL BLOCK DRAIN (WALL DRAIN PRO BY SRW PRODUCTS OR EQUAL) AT JOINT BETWEEN MONOLITHIC GRANITE BLOCKS AND ONTO EXISTING PAVEMENT.
- 7 PROVIDE THREE (3) NEW MONOLITHIC GRANITE BLOCKS TO FORM SEAT WALL.
- 8 PROVIDE TWO (2) 6 3/4" THICK SOLID GRANITE STEPS AS SHOWN.
- 9 PROVIDE GRANITE CURBING TO MATCH EXISTING WHERE EXISTING STEP WAS REMOVED.
- 10 PROVIDE ASPHALT PAVING PER DETAILS 2 AND 3/ C-301.
- 11 PROVIDE ONE (1) 7" THICK x 12" DEEP SOLID GRANITE STEP AS SHOWN.



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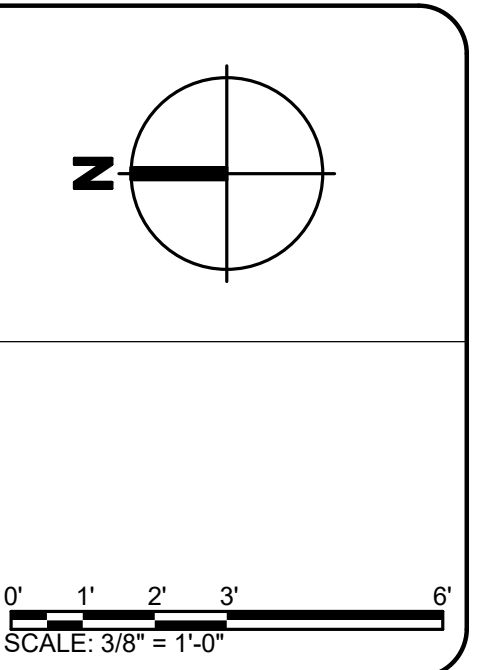
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ARCH/ CIVIL: *WJ*
ELECTRICAL: *ZTR*
MECHANICAL: *JF*



REVISIONS

1	02/16/24	ISSUE FOR 90% REVIEW
2	03/21/24	ISSUE FOR CONSTRUCTION



135 PRESIDENT'S DRIVE
ITHACA, NEW YORK 14853

**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

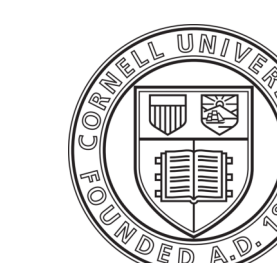
DATE:	MARCH 21, 2024
FACILITY:	2040
DESIGN:	J. TOFTE
DRAWN:	EWK



**RAMP
DEMOLITION AND
RENOVATION
PLANS**

**C-101
15921574**

ARCHIVE BAR CODE

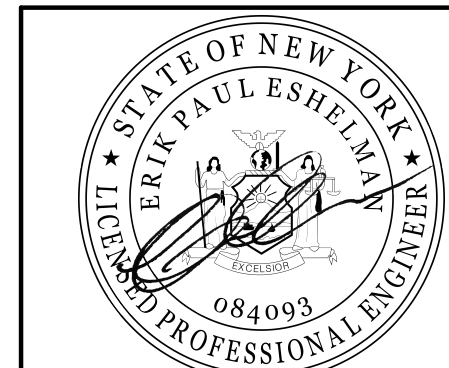


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MECHANICAL: *JF*



REVISIONS

1	02/16/24	ISSUE FOR 90% REVIEW
2	03/21/24	ISSUE FOR CONSTRUCTION

135 PRESIDENT'S DRIVE
ITHACA, NEW YORK 14853

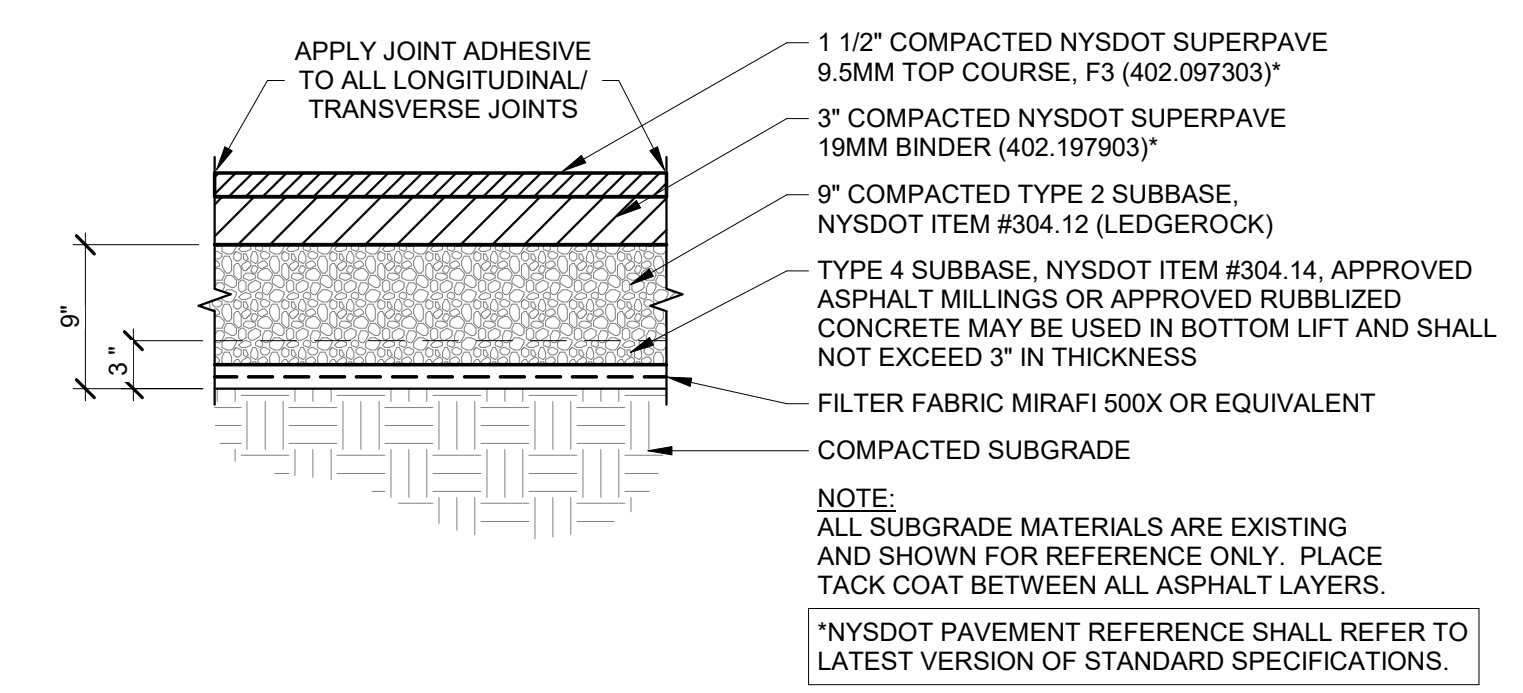
BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: J. TOFTE
DRAWN: EWK

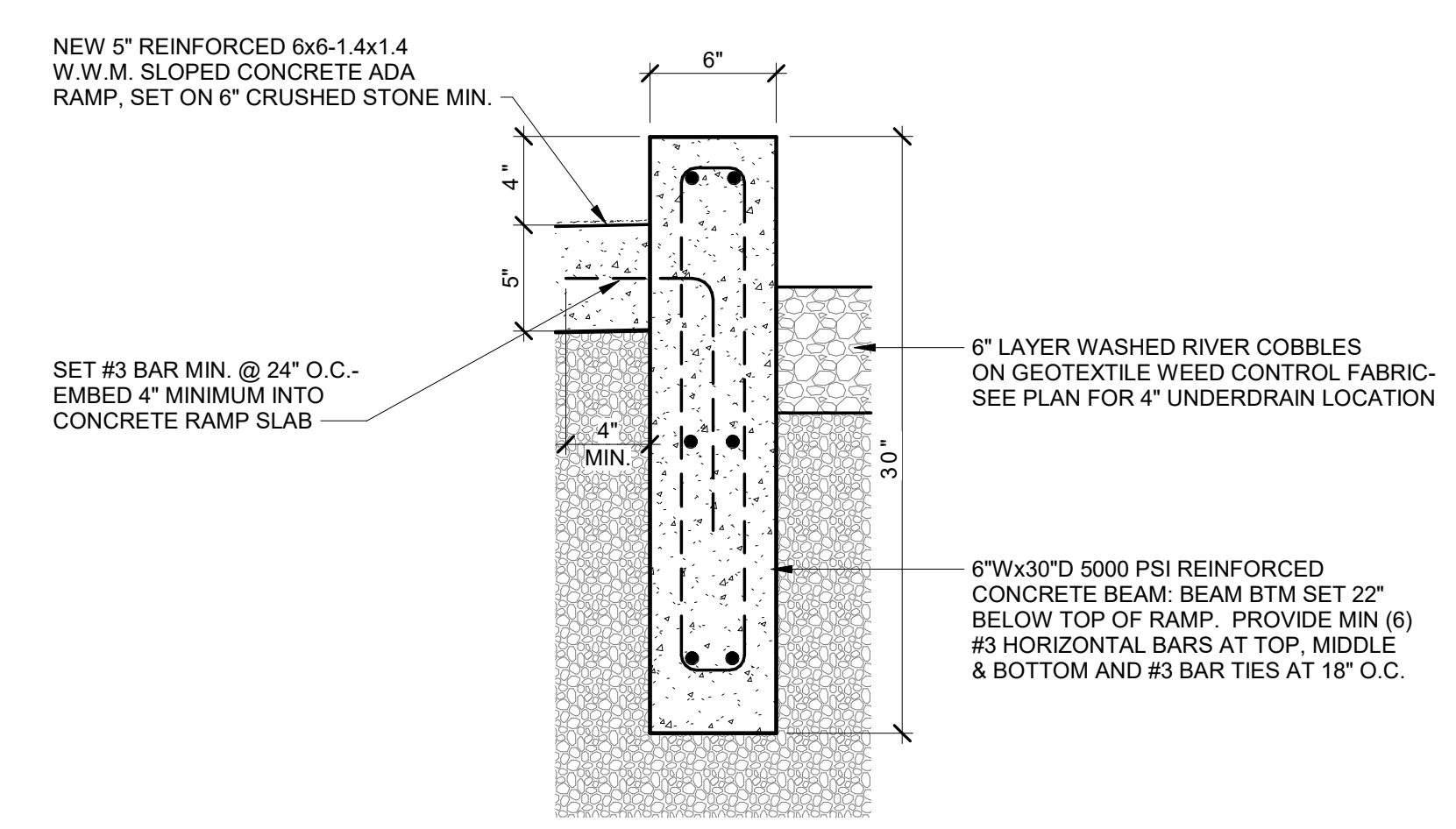
DETAILS

C-301
15921574

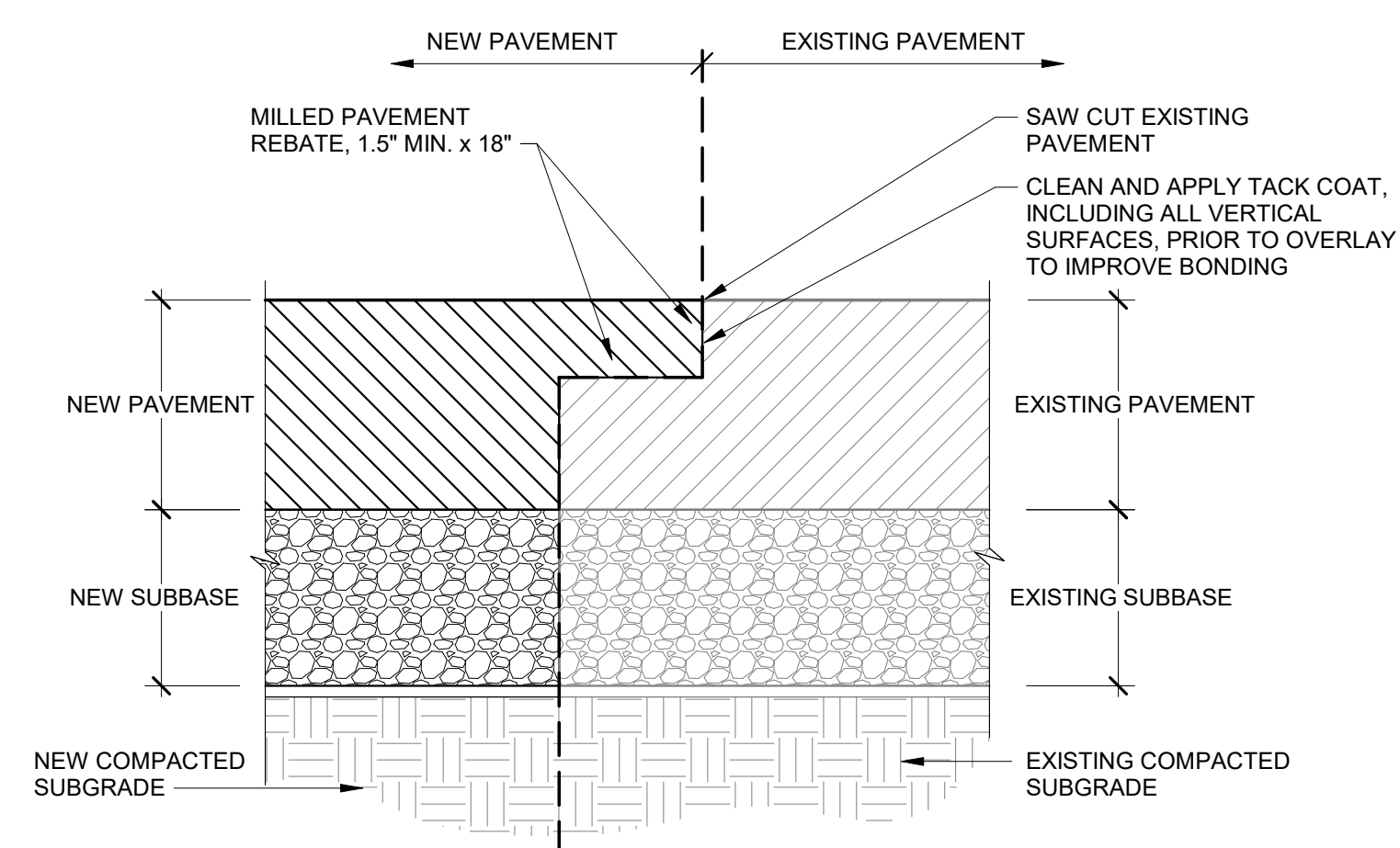
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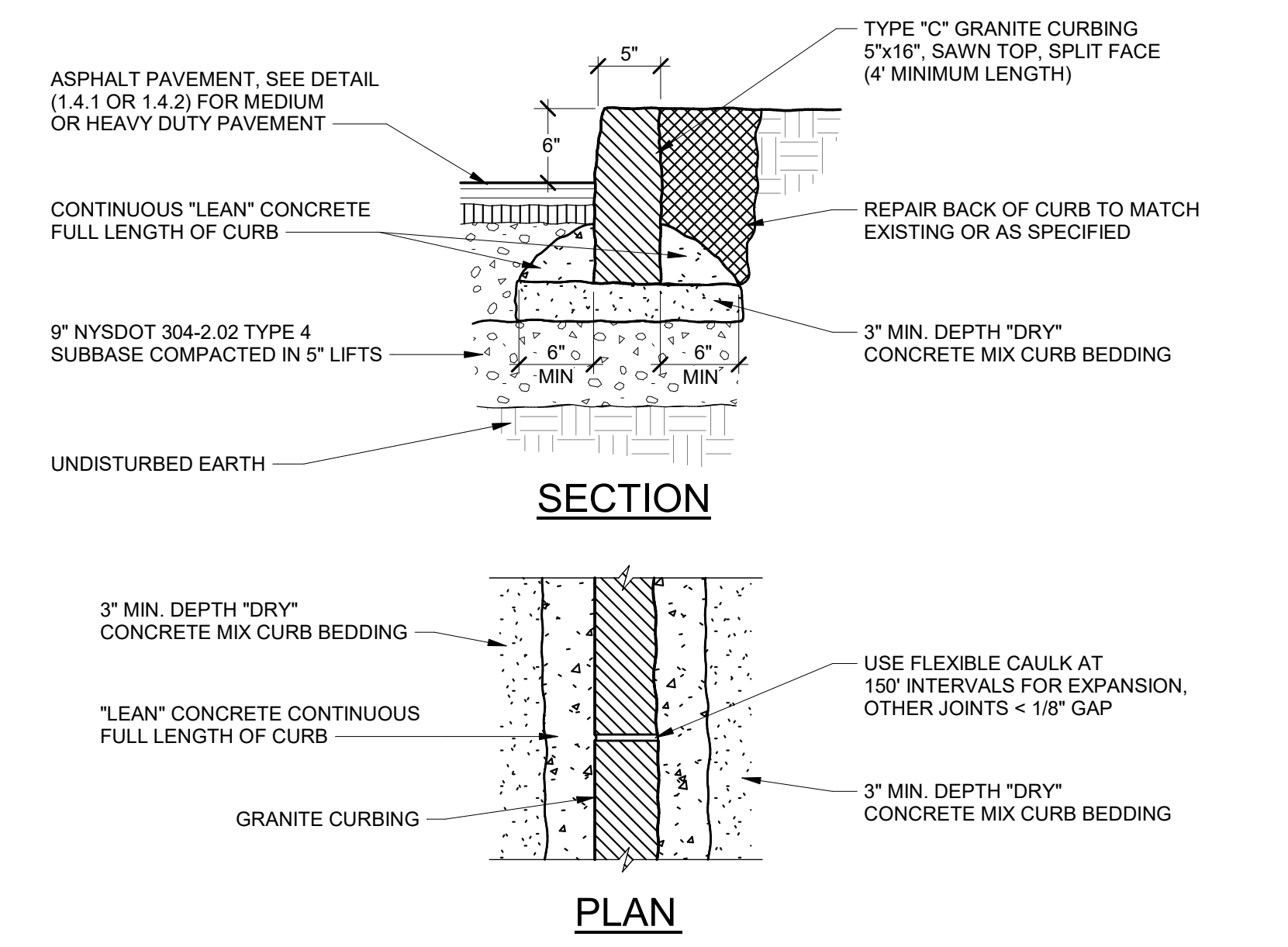
3 MEDIUM DUTY ASPHALT PAVEMENT DETAIL (SUPERPAVE)
NOT TO SCALE



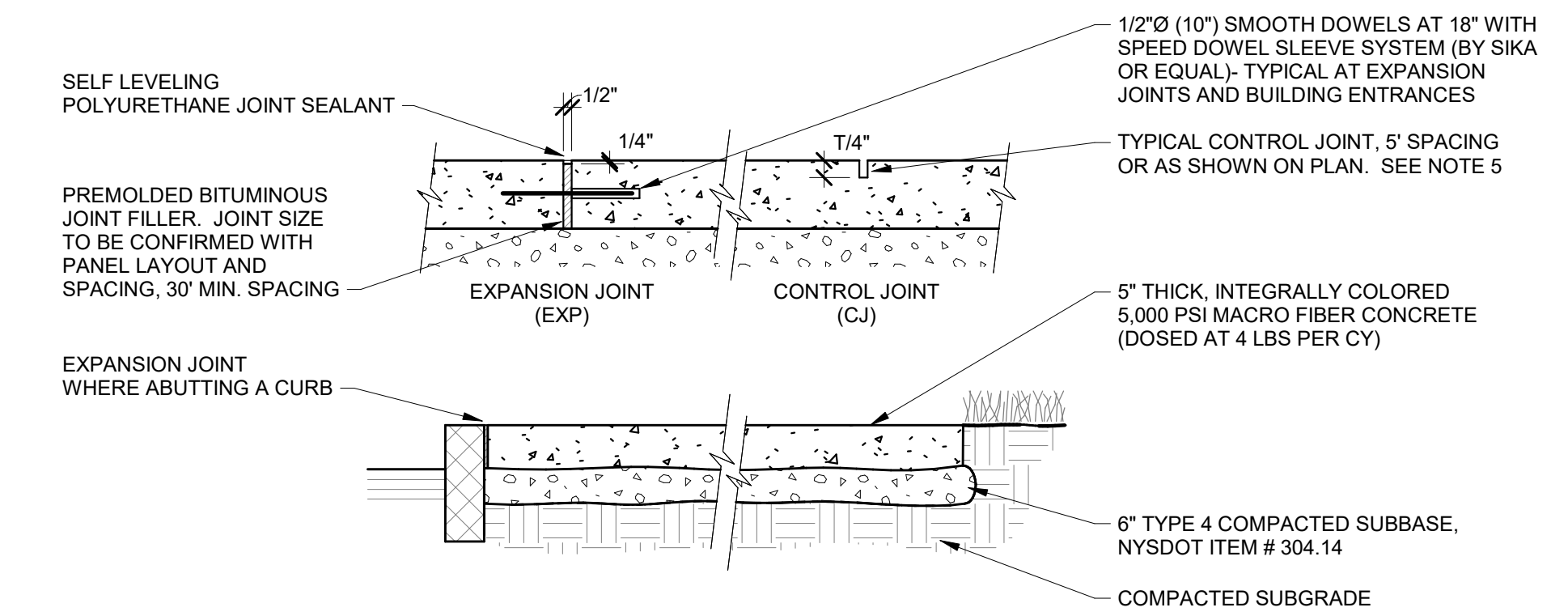
5 SECTION THRU CURB WALL
NOT TO SCALE



2 ASPHALT PAVEMENT- JOINING NEW TO EXISTING DETAIL
NOT TO SCALE

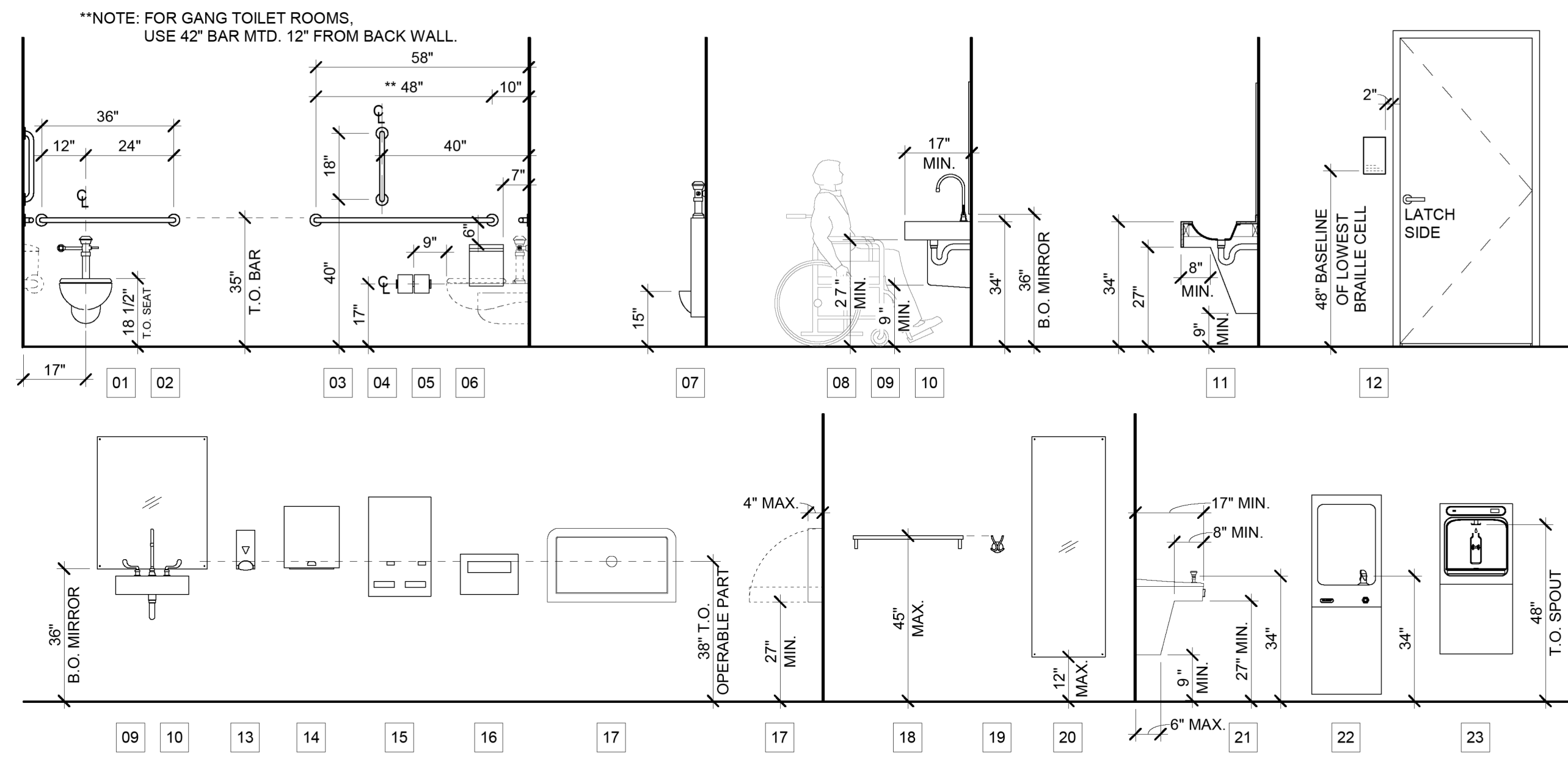


4 GRANITE CURBING DETAIL
NOT TO SCALE



- NOTES:**
- 1.0 1/4" PER FOOT SLOPE MINIMUM FOR DRAINAGE.
 - 2.0 CONCRETE SHALL HAVE 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, 6% AIR ENTRAINMENT (+/-1%), MAXIMUM W/C = 0.40. USE OF PLASTICIZERS AND RETARDERS IS PERMITTED TO MEET PLACEMENT AND QUALITY REQ. DEPENDENT UPON WEATHER CONDITIONS.
 - 3.0 USE VIBRATORY SCREED DURING PLACEMENT IN CONFORMANCE WITH ACI 309, LATEST EDITION.
 - 4.0 AFTER SURFACE SHEEN IS GONE, THE CONCRETE SURFACE SHALL BE CURED BY KEEPING CONCRETE CONTINUOUSLY WET FOR 7 DAYS MINIMUM.
 - 5.0 JOINT PATTERN AS PER PLAN OR PER DIRECTION OF ENGINEER. CONTROL JOINTS TO BE SAWCUT TO 1/4 OF SLAB THICKNESS. CONTRACTOR TO SUBMIT JOINT PLAN FOR ENGINEER'S APPROVAL.
 - 6.0 SEAL ALL EXPOSED CONCRETE WITH PENETRATING SEALER AT COMPLETION OF WET CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1 INTEGRALLY COLORED STAMPED FIBER REINFORCED CONCRETE
NOT TO SCALE



- ADDITIONAL NOTES:**
1. MOUNTING HEIGHTS FOR SOME FIXTURES MAY CHANGE DEPENDING ON THE SPECIFIC FIXTURE SELECTED. ALL PROPOSED FIXTURES MUST BE REVIEWED AND APPROVED BY A CORNELL UNIVERSITY REPRESENTATIVE.
 2. THESE ARE SPECIFIC HEIGHTS SELECTED WITHIN THE RANGES ALLOWED BY THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND ICC A117.1-2009.
 3. COMPLETE COMPLIANCE WITH ALL ASPECTS OF 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND ICC A117.1-2009 IS REQUIRED FOR ALL PROJECTS AND ACTIVITIES.
 4. ALL OPERABLE HARDWARE, INCLUDING DOOR HARDWARE AND TOILET PARTITION HARDWARE, TO BE LEVER TYPE.
 5. AVOID MOUNTING GRAB BARS ON TOILET PARTITIONS WHEREVER POSSIBLE.
 6. WHERE A LOOSE TRASH RECEPTACLE IS PROVIDED, ENSURE THAT RECEPTACLE LOCATION DOES NOT INTERFERE WITH ANY REQUIRED MANEUVERING CLEARANCES.
 7. DOOR THRESHOLDS SHALL BE FLUSH WHEREVER POSSIBLE. THRESHOLD HEIGHT SHALL NOT EXCEED 1/8".

- LEGEND**
- | | | |
|----------------------------|----------------------------|-------------------------------|
| 01 TOILET | 09 WALL-MTD LAVATORY | 17 BABY CHANGING STATION |
| 02 36" GRAB BAR | 10 LAVATORY MIRROR | 18 SHELF |
| 03 48" GRAB BAR | 11 COUNTER-MTD LAVATORY | 19 COAT/ BAG HOOK |
| 04 18" GRAB BAR | 12 ROOM SIGNAGE | 20 FULL-LENGTH MIRROR |
| 05 TOILET PAPER DISP. | 13 SOAP DISPENSER | 21 WALL-MTD DRINKING FOUNTAIN |
| 06 SANITARY NAPKIN RECEPT. | 14 PAPER TOWER DISPENSER | 22 RECESSED DRINKING FOUNTAIN |
| 07 URINAL | 15 SANITARY NAPKIN DISP. | 23 BOTTLE FILLING STATION |
| 08 KNEE CLEARANCE | 16 TOILET SEAT COVER DISP. | |

ADA MOUNTING HEIGHTS FOR RESTROOM ACCESSORIES

SYMBOLS		ABBREVIATIONS	
	DOOR/ WALL - DEMOLITION	A & @ ACT	AND AT ACOUSTICAL CEILING TILE
	DOOR/ WALL - EXISTING	ALUM	ALUMINUM
	DOOR/ WALL - NEW	AVG	AVERAGE ABOVE FINISH FLOOR
	ITEMS FOR DEMOLITION	B BLDG	BOARD BUILDING
	WALL - BRICK	BOD	BOTTOM OF DECK
	WALL - CMU	BSMT	BASEMENT
	WALL - CONCRETE	CG	CORNER GUARDS
	WALL - METAL STUD/ GWB	CJ	CONTROL JOINT
	WALL - EXISTING	CLG	CEILING
	TAG - DOOR	CLR	CLEAR
	TAG - WINDOW	CMU	CONCRETE MASONRY UNIT
	TAG - WALL	COL	COLUMN
	TAG - ROOM #	CONC	CONCRETE
	CENTER LINE	CONF	CONFERENCE
	LEVEL MARKER	CONT	CONTINUOUS
	ELEVATION MARKER	CORR	CORRIDOR
	ELEVATION CHANGE ARROWS	CPT	CARPET
	BREAK LINE	CRS	COURSE(S)
	1-HOUR FIRE SEPARATION	CT	CERAMIC TILE
	2-HOUR FIRE SEPARATION	D	DEMOLITION
	NOT IN CONTRACT	DF	DRINKING FOUNTAIN
	MATCHLINE	DIA	DIAMETER
		DM	DIMENSION
		DN	DOWN
		DO	DOOR OPENING
		DWG	DRAWING
		E	EACH
		EJ	EXPANSION JOINT
		ELEC	ELECTRIC
		ELEV	ELEVATION/ ELEVATOR
		EPDM	RUBBER ROOF MEMBRANE
		EQ	EQUAL
		EXG	EXISTING
		EXT	EXTERIOR
		FD	FLOOR DRAIN
		FDN	FOUNDATION
		FEC	FIRE EXTINGUISHER CABINET
		FFE	FINISH FLOOR ELEVATION
		FFRF	FIBER REINFORCED POLYESTER
		FT	FOOT/FEET
		FTG	FOOTING
		G	GAGE
		GALV	GALVANIZED
		GC	GENERAL CONTRACTOR
		GEN	GENERAL
		GL	GLASS
		GWB	GYPSTUM WALL BOARD
		H	HANDICAPPED
		HC	HANDICAPPED
		HT	HEIGHT
		HM	HOLLOW METAL
		HR	HOUR
		HVAC	HEATING, VENTILATING & AC
		J	JANITOR
		JAN	JANITOR
		L	LAVATORY
		LAV#	POUND
		LGMF	LIGHT GAGE METAL FRAMING
		M	MANUFACTURER
		MAT	MATERIAL
		MAX	MAXIMUM
		MEZZ	MEZZANINE
		MIN	MINIMUM
		MO	MASONRY OPENING
		MTL	METAL
		NA	NOT APPLICABLE
		NIC	NOT IN CONTRACT
		NR	NOT RATED
		NRS	NOT TO SCALE
		O	ON CENTER
		OC	OUTSIDE DIAMETER
		OD	OWNER FURNISHED, CONTRACTOR INSTALLED
		OFCI	OPENING
		OSB	ORIENTER STRAND BOARD
		P	PLUS OR MINUS
		P/SF	POUNDS PER SQUARE FOOT
		PSI	POUNDS PER SQUARE INCH
		PT	PRESSURE TREATED
		Q	QUANTITY
		QTY	QUANTITY
		R	RISER
		RC	REFLECTED CEILING PLAN
		RDP	ROOF DRAIN
		REF	REFRIGERATOR
		REQ	REQUIRED
		REV	REVISION
		RO	ROUGH OPENING
		RTU	ROOF TOP UNIT
		S	STANDARD
		SH	SHEATHING
		SIM	SIMILAR
		SF	SQUARE FOOT/ FEET
		SS	STAINLESS STEEL
		STL	STEEL
		STD	STANDARD
		T	TREAD
		T&G	TONGUE & GROOVE
		TEL	TELEPHONE
		TEMP	TEMPERATURE
		TOS	TOP OF STEEL
		TV	TELEVISION
		TYP	TYPICAL
		U	UNEVEN DOORS W/ VISION PANEL
		UEF	UNEVEN FLUSH DOOR
		UNO	UNLESS NOTED OTHERWISE
		V	VINYL COMPOSITION TILE
		VIF	VERIFY IN FIELD
		W	WITHOUT
		W/O	WITHOUT
		WD	WOOD

- GENERAL NOTES**
- 1.0 DESIGN, CONSTRUCTION AND SAFETY SHALL CONFORM TO ALL LOCAL, STATE AND OWNER SPECIFIC CODES, INCLUDING (BUT NOT LIMITED TO) THE NEW YORK STATE UNIFORM FIRE PROTECTION AND BUILDING CODE, LATEST REVISION, THE NFPA 101 LIFE SAFETY CODE, LATEST REVISION, ANSI A117.1 - LATEST REVISION, OSHA, AND ANY OTHER CODES GOVERNED BY THE JURISDICTION IN WHICH THIS PROJECT IS BEING CONSTRUCTED.
 - 2.0 THIS CONTRACT REQUIRES COMPLETE, FINISHED WORKABLE PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS, AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE, REGARDLESS OF WHETHER OR NOT ALL WORK OR EACH ITEM IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWINGS AND / OR NOTES.
 - 3.0 WHERE MATERIALS REFERENCED ON DRAWINGS, OR NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT ARE NOT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIALS. WHERE MATERIALS ARE INTENDED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH, SUBJECT TO OWNER'S APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW, UNLESS INDICATED EXISTING. ALL WORK WHICH HAS BEEN DAMAGED SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER. WHERE ITEMS CAN NOT BE REPAIRED TO A "NEW CONDITION" OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEMS SHALL BE REPLACED AT NO COST TO THE OWNER.
 - 4.0 CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SITE, FIELD AND BUILDING CONDITIONS PRIOR TO SUBMITTING BIDS AND COMMENCING WORK. IF THERE ARE ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS, NOTIFY THE PROJECT MANAGER, WHO WILL REQUEST CLARIFICATION FROM THE ARCHITECT/ENGINEER AND PROVIDE CLARIFICATION IN WRITING.
 - 5.0 WHERE EXISTING CONSTRUCTION OR ITEMS HAVE BEEN INFILLED, REMOVED AND / OR DISTURBED FOR INSTALLATION OF NEW WORK, CAUSING THE EXPOSURE OF UNFINISHED AND/OR DAMAGED SURFACES RESULTING SURFACES AND INFILLED SURFACES SHALL BE RECONSTRUCTED WITH MATERIALS TO MATCH FINISHED AREAS. ALL ABANDONED OPENINGS (i.e. DUCT/PIPE REMOVALS, ETC.) AT WALLS, ROOF OR FLOOR TO BE INFILLED SOLID.
 - 6.0 WORK IS REQUIRED IN VARIOUS PORTIONS OF THE FACILITY TO EXECUTE WORK OF OTHER TRADES (i.e. ELECTRICAL, MECHANICAL), ALTHOUGH NOT NECESSARILY SHOWN ON DRAWINGS. WORK IS REQUIRED IN THESE AREAS CONSISTING OF REMOVAL / REPLACEMENT OF CEILINGS, WALLS, FINISHES, PAVEMENT AND OTHER CONSTRUCTION AS NECESSARY TO PERFORM WORK AND RESTORE THESE SPACES OR AREAS TO ORIGINAL CONDITION.
 - 7.0 GENERAL CONTRACTOR IS TO COORDINATE WORK OF ALL TRADES. SCHEDULE WORK PROGRESS THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCES. OBTAIN ALL NECESSARY INFORMATION SUCH AS SIZES, LOCATIONS, TEMPERATURES, LAYOUT, DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL COORDINATED INSTALLATION. PRIOR TO INSTALLATION OF ITEMS, VERIFY AND CONFIRM WITH EACH CONTRACTOR EXACT LOCATION OF ALL ITEMS.
 - 8.0 ALL PENETRATIONS (EXISTING OR NEW) THROUGH FLOORS AND FULL HEIGHT WALLS - IN AREA OF WORK TO BE FIRE STOPPED. ALL GAPS AND JOINTS AT RATED FLOORS, ROOFS AND WALLS TO BE FIRE & SMOKE STOPPED. GAPS AND JOINTS INCLUDE (BUT ARE NOT LIMITED TO) TOP OF WALL TO FLOOR OR ROOF DECK, WALL TO BEAMS, AND CONTROL OR EXPANSION JOINTS. FIRE STOPPING INCLUDES BOTH FORM OR PACKING MATERIAL AND THE FILL. VOID OR CAVITY MATERIAL. PROVIDE AND INSTALL LABELING REQUIRED BY CODE. LABELS SHALL INCLUDE PENETRATION TYPE WITH UL LISTING USED, MATERIAL USED, DATE INSTALL AND NAME OF INSTALLER.
 - 9.0 JOBSITE WILL BE CLEANED DAILY AND DEBRIS REMOVED TO CONTAINERS OR TO VEHICLE WHICH WILL REMOVE DEBRIS FROM CAMPUS. CONTAINERS WILL BE REMOVED AS SOON AS FULL OR WHEN THE PROJECT HAS PROGRESSED TO A POINT THAT A CONTAINER IS NO LONGER REQUIRED.
 - 10.0 CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL AREAS USED TO BRING SUPPLIES AND EQUIPMENT INTO THE PROJECT AREA. ANY DAMAGE TO AREAS OUTSIDE THE PROJECT AREA INCLUDING BUT NOT LIMITED TO THE LOBBY AND CORRIDOR SHALL BE REPAIRED AT NO COST TO THE OWNER.

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ARCH/ CIVIL: *WJ*
ELECTRICAL: *ZTR*
MECHANICAL: *JF*

REVISIONS

1	12/15/23	ISSUE FOR DD REVIEW
2	02/16/24	ISSUE FOR 90% REVIEW
3	03/21/24	ISSUE FOR CONSTRUCTION

135 PRESIDENT'S DRIVE
ITHACA, NEW YORK 14853

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: J. COOLBAUGH
DRAWN: JGC

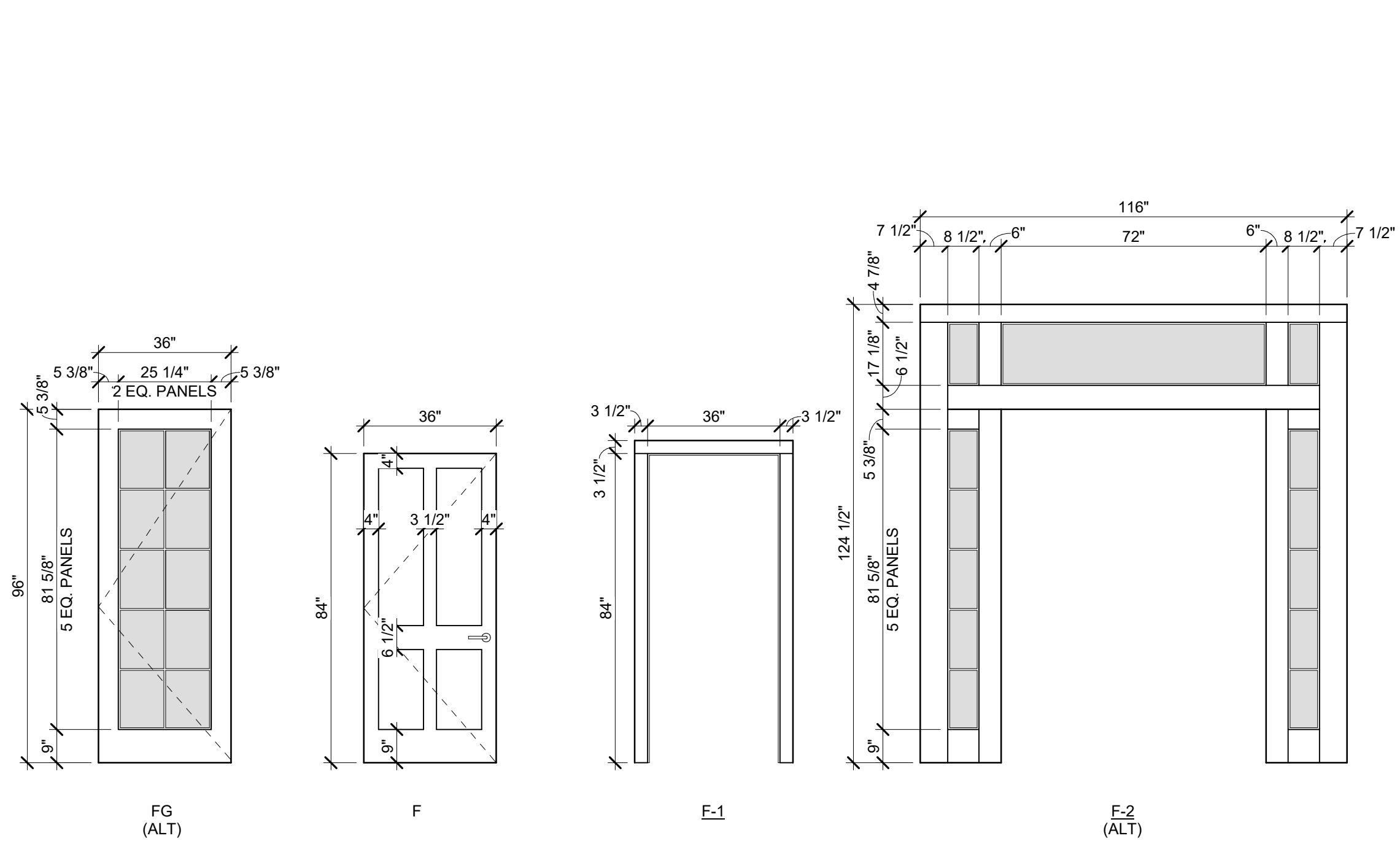
GENERAL NOTES, SYMBOLOGY, AND ABBREVIATIONS

A-001
15921574

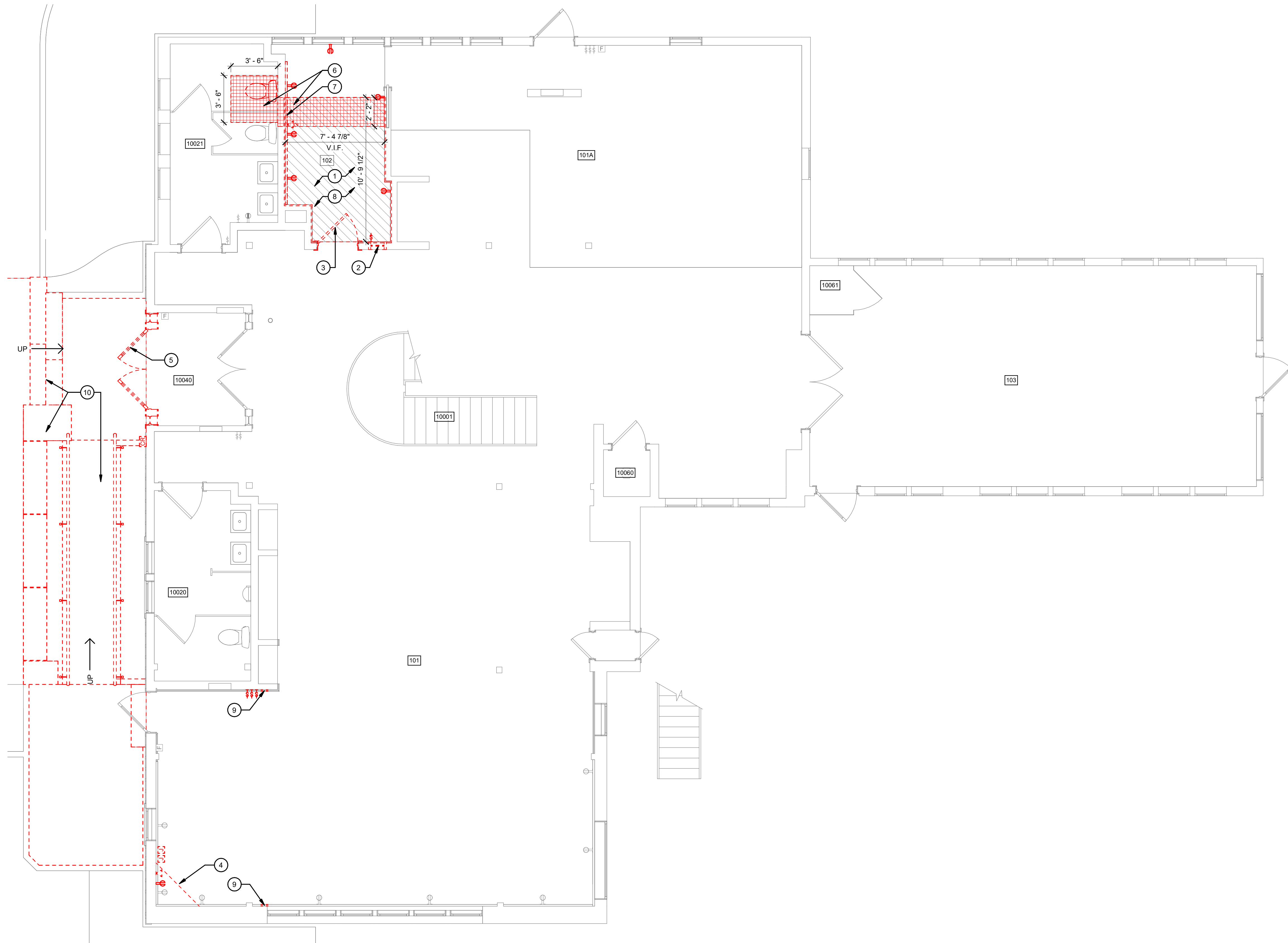
ARCHIVE BAR CODE

DOOR / HARDWARE SCHEDULE

MARK	LOCATION		DOOR					FRAME					DETAILS							
	FROM RM. #	TO RM. #	HAND	# OF PANELS	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	FIRE RATING	GLAZING TYPE	HARDWARE SET	HEAD	JAMB	THRESHOLD	REMARKS
101C	101C	101	RHR	(1)	3'-0"	7'-0"	1 3/4"	F	WD	PF	F-1	WD	PF	-	-	3				
101D	101D	101	LHR	(1)	3'-0"	7'-0"	1 3/4"	F	WD	PF	F-1	WD	PF	-	-	4				
10022	101	10022	LH	(1)	3'-0"	7'-0"	1 3/4"	F	WD	PF	F-1	WD	PF	-	-	2				
10040	10040	EXTERIOR	LHRA	(2)	3'-0"	8'-0"	2 1/4"	FG	WD	PF	F-2	WD	PT	-	IG-1	1				



DOOR AND FRAME ELEVATIONS
SCALE: 3/8" = 1'-0"



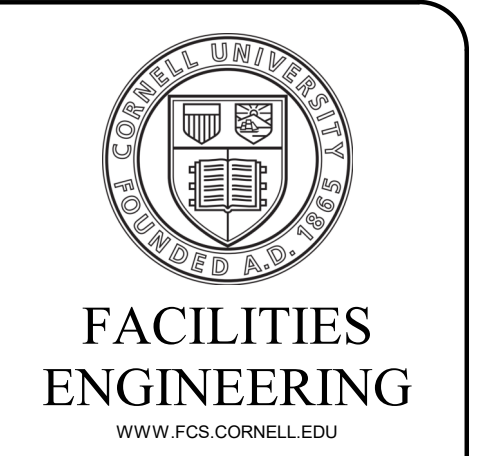
1 FIRST FLOOR DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

A-101 GENERAL DEMOLITION NOTES

- 1.0 CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO THE START OF DEMOLITION.
- 2.0 CONTRACTOR IS RESPONSIBLE TO REPAIR ANY DAMAGED SUSTAINED TO ADJACENT EXISTING CONDITIONS DURING THE REMOVAL OF EXISTING BUILDING ELEMENTS.
- 3.0 CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL REMOVALS WITH THE MEPPF CONTRACTORS.

A-101 KEYED DEMOLITION NOTES

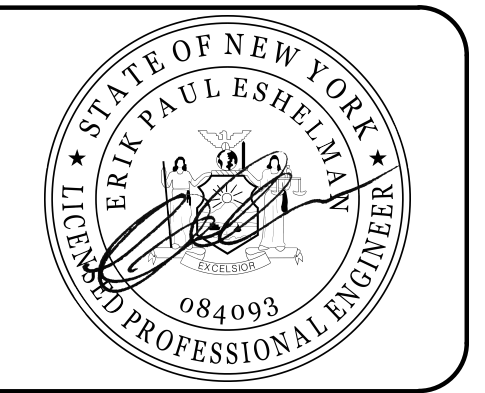
- | | |
|----|---|
| 1 | REMOVE EXISTING HARDWOOD FLOORING DOWN TO EXISTING SUBFLOOR. |
| 2 | REMOVE EXISTING WOOD WINDOW. PREP WALL FOR INFILL. |
| 3 | REMOVE EXISTING WOOD DOOR. EXISTING FRAME TO REMAIN. PREP DOOR FRAME FOR NEW DOOR LEAF. |
| 4 | REMOVE EXISTING TV AND WOOD WALL. TURN TV OVER TO OWNER. |
| 5 | REMOVE EXISTING EXTERIOR WOOD DOORS AND FRAME. PREP OPENING FOR NEW WOOD DOOR AND FRAME. (ALTERNATE) |
| 6 | REMOVE A PORTION OF EXISTING CONCRETE SLAB TO ACCESS SANITARY LINE BELOW. COORDINATE LOCATION WITH PLUMBING DRAWINGS. |
| 7 | REMOVE A PORTION OF EXISTING WALL. COORDINATE LOCATION WITH PLUMBING DRAWINGS. |
| 8 | TO THE EXTENTS SHOWN, REMOVE EXISTING GYPSUM WALLBOARD DOWN TO EXISTING WOOD STUDS FOR A HEIGHT OF 7'-0" A.F.F. EXISTING GYPSUM WALLBOARD ABOVE 7'-0" TO REMAIN AND BE PREPPED FOR PAINT. |
| 9 | REMOVE A PORTION EXISTING WOOD BASE FOR INSTALLATION OF NEW WALL. |
| 10 | COORDINATE THE REMOVAL OF THE RAMP AND STAIRS WITH CIVIL DRAWINGS. |



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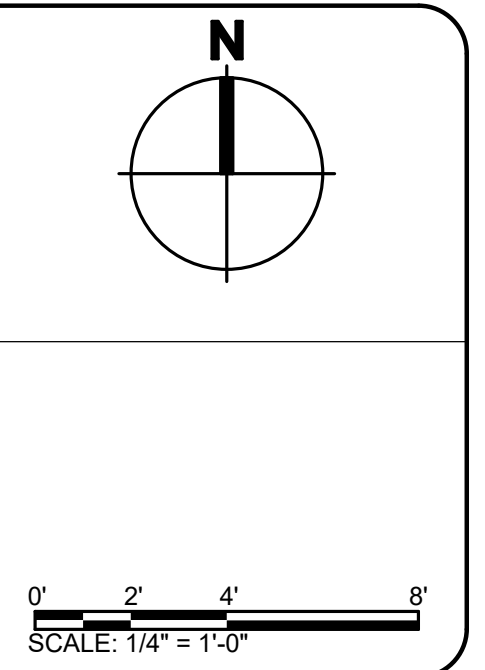
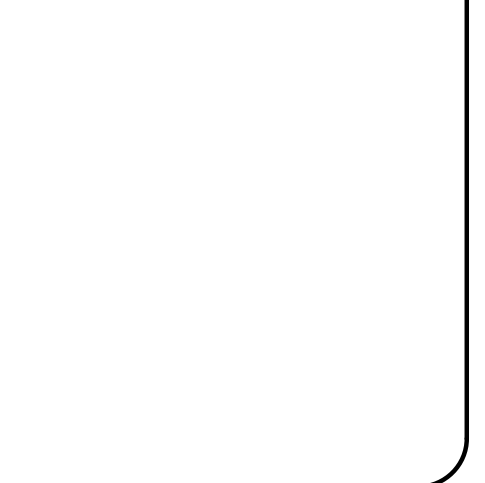
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ELECTRICAL: *ZTR*
MECHANICAL: *JF*



REVISIONS

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2	02/16/24	ISSUE FOR 95% REVIEW
3	03/21/24	ISSUE FOR CONSTRUCTION



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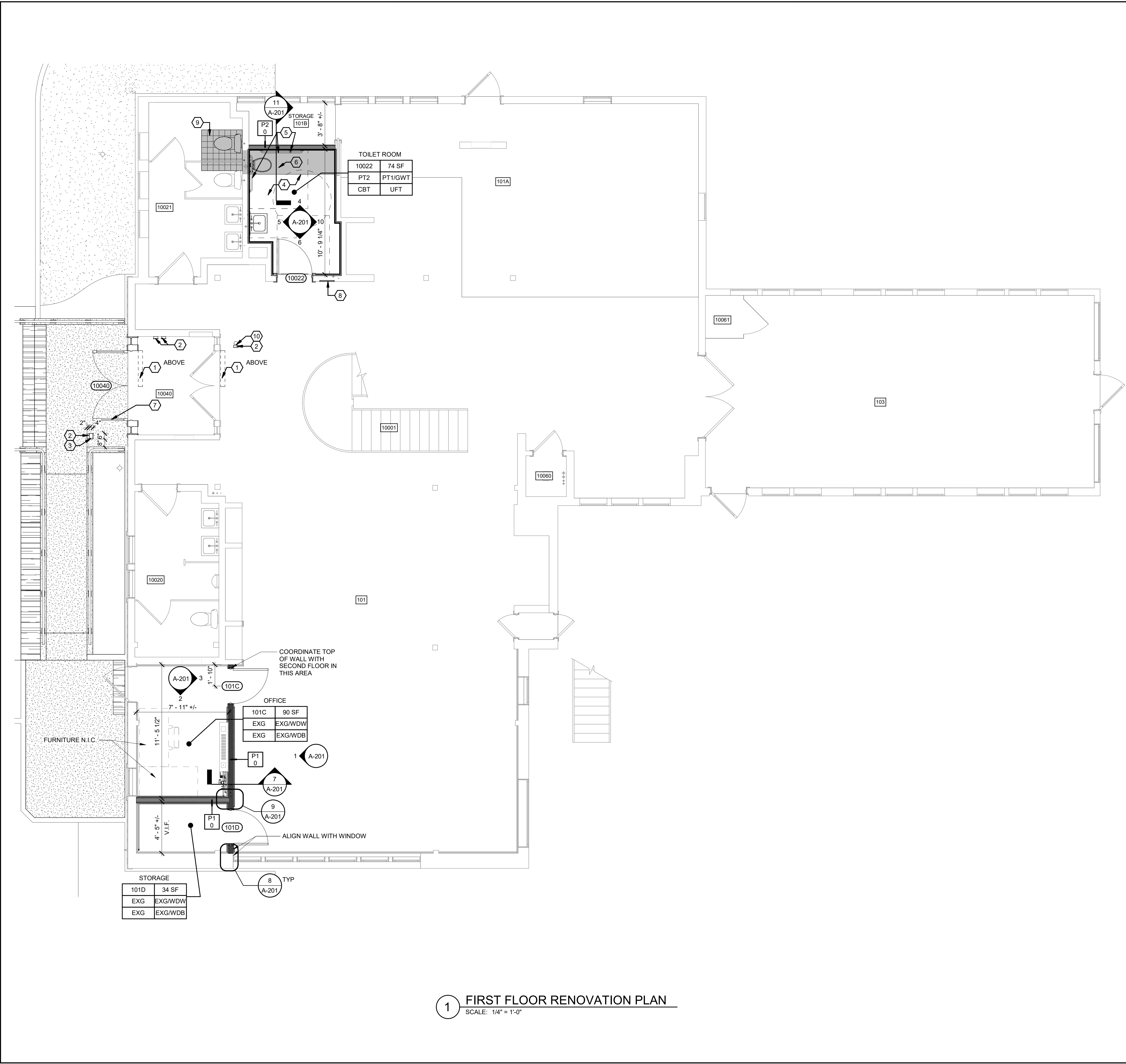
**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

DATE:	MARCH 21, 2024
FACILITY:	2040
DESIGN:	J. COOLBAUGH
DRAWN:	JGC

**FIRST FLOOR
DEMOLITION
PLAN**

A-101
15921574

ARCHIVE BAR CODE



1 FIRST FLOOR RENOVATION PLAN
SCALE: 1/4" = 1'-0"

**FINISH LEGEND
(BASIS OF DESIGN PRODUCTS)**

ROOM NAME	
ROOM #	AREA
CLG FIN	WALL FIN
FLR FIN	BASE FIN

EXG	EXISTING TO REMAIN
GYP	GYPSUM BOARD
PT1	BENJAMIN MOORE, COLOR: 912 "LINEN WHITE", EGGSHELL INTERIOR WALLS (TYPICAL INTERIOR WALLS)
PT2	BENJAMIN MOORE, COLOR MATCH EXISTING, FLAT CEILING/ EXPOSED DUCT/ PIPING
WDW	WOOD WALL BOARDS (BEADED FIR TO MATCH EXISTING)
WDB	WOOD BASE (TO MATCH EXISTING)
CBT	COVE BASE TILE, 4" x 4" AMERICAN OLEAN - COLORSTORY WALL GLAZED CERAMIC PATTERN / COLOR: 0061 "MATTE DESIGNER WHITE"
UFT	UNGLAZED FLOOR TILE, 1" x 1" MOSAICS AMERICAN OLEAN - UNGLAZED COLORBODY PORCELAIN MOSAICS PATTERN / COLOR: A48 "TRUSTED BLEND"
GWT	GLAZED WALL TILE, 4" x 16" AMERICAN OLEAN - COLORSTORY WALL GLAZED CERAMIC PATTERN / COLOR: 0061 "MATTE DESIGNER WHITE"

A-102 KEYED RENOVATION NOTES

- 1 PROVIDE NEW ADA DOOR OPERATOR.
- 2 PROVIDE A SURFACE MOUNTED ADA PADDLE.
- 3 NEW CUSTOM ADA BOLLARD. REFER TO A-201 FOR MORE INFORMATION.
- 4 PROVIDE NEW 1/2" CEMENT BOARD AND TILE UP TO 7'-0" A.F.F. AROUND PERIMETER OF ROOM. PAINT EXISTING GYPSUM WALLBOARD ABOVE.
- 5 PROVIDE NEW GRAB BARS. REFER TO A-001 FOR SIZES AND MOUNTING LOCATIONS.
- 6 INFILL CONCRETE SLAB WHERE NEW PLUMBING LINE WAS INSTALLED. REFER TO SECTION ON A-201.
- 7 PROVIDE NEW EXTERIOR WOOD DOOR AND FRAME TO MATCH EXISTING. (ALTERNATE)
- 8 INFILL WALL WITH LIKE MATERIALS AFTER REMOVAL OF EXISTING WINDOW. MATCH ADJACENT FINISH.
- 9 INFILL CONCRETE SLAB WHERE NEW PLUMBING LINE WAS INSTALLED. REFER TO SECTION ON A-201. PROVIDE NEW QUARRY TILE TO MATCH EXISTING.
- 10 WELD A 1/8" STEEL PLATE TO THE COLUMN TO PROVIDE A MOUNT FOR ADA PADDLE JUNCTION BOX. PAINT TO MATCH EXISTING COLUMN COLOR.

PARTITION TYPES:

- **P1:** 2"x4" WOOD STUD @ 16" O.C. WITH 3 1/2" SOUND BATT AND BEADED FIR BOARDS (TO MATCH EXISTING) ON BOTH SIDES. NO FIRE RATING.
- **P2:** 2"x4" WOOD STUD @ 16" O.C. WITH 1 LAYER OF 5/8" TYPE X GYPSUM WALL BOARD ON ONE SIDE AND 1 LAYER OF 1/2" CEMENT BOARD ON THE OTHER. NO FIRE RATING.

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0' 2' 4' 8'
SCALE: 1/4" = 1'-0"

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ITHACA, NEW YORK 14853

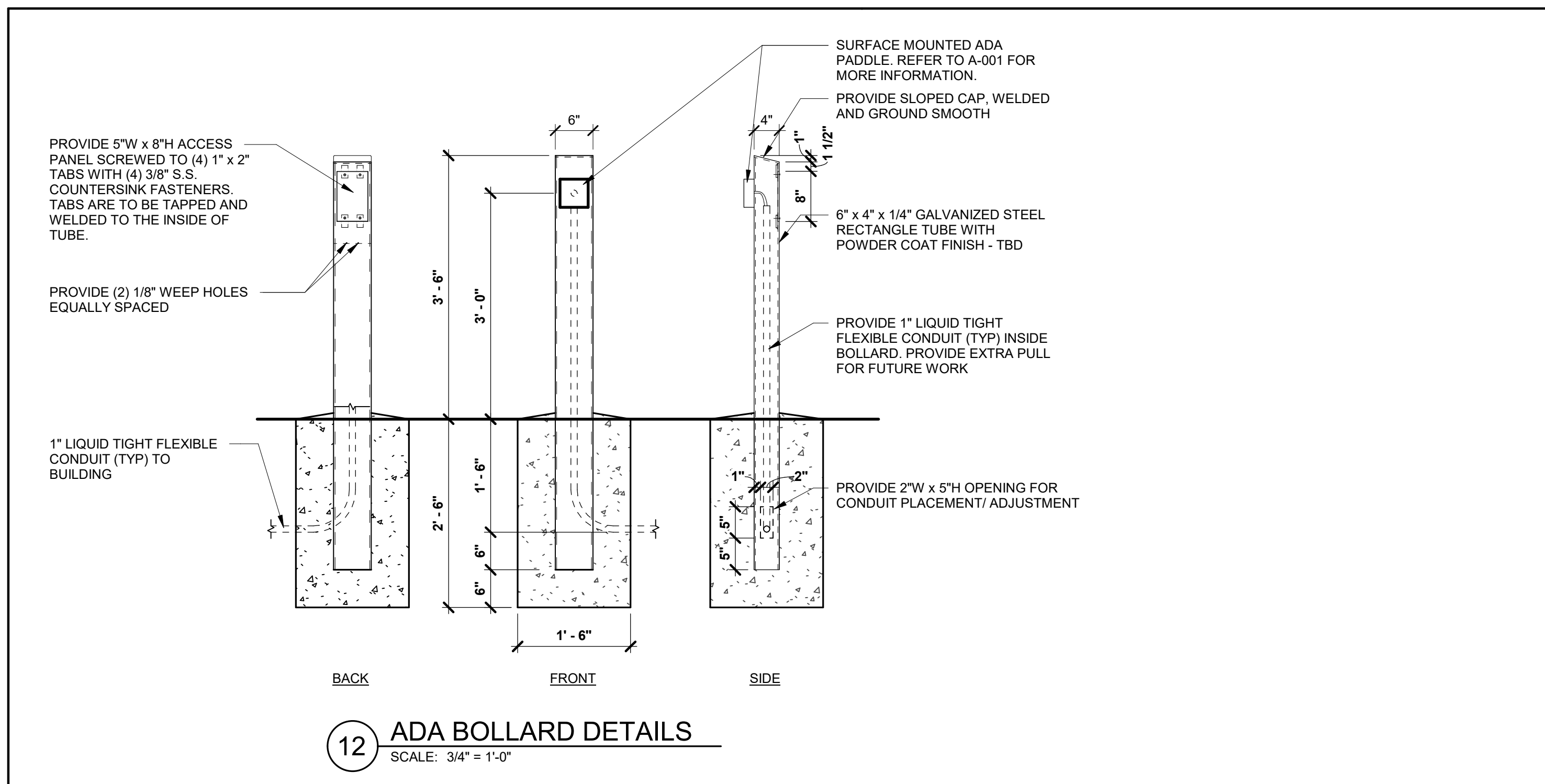
**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

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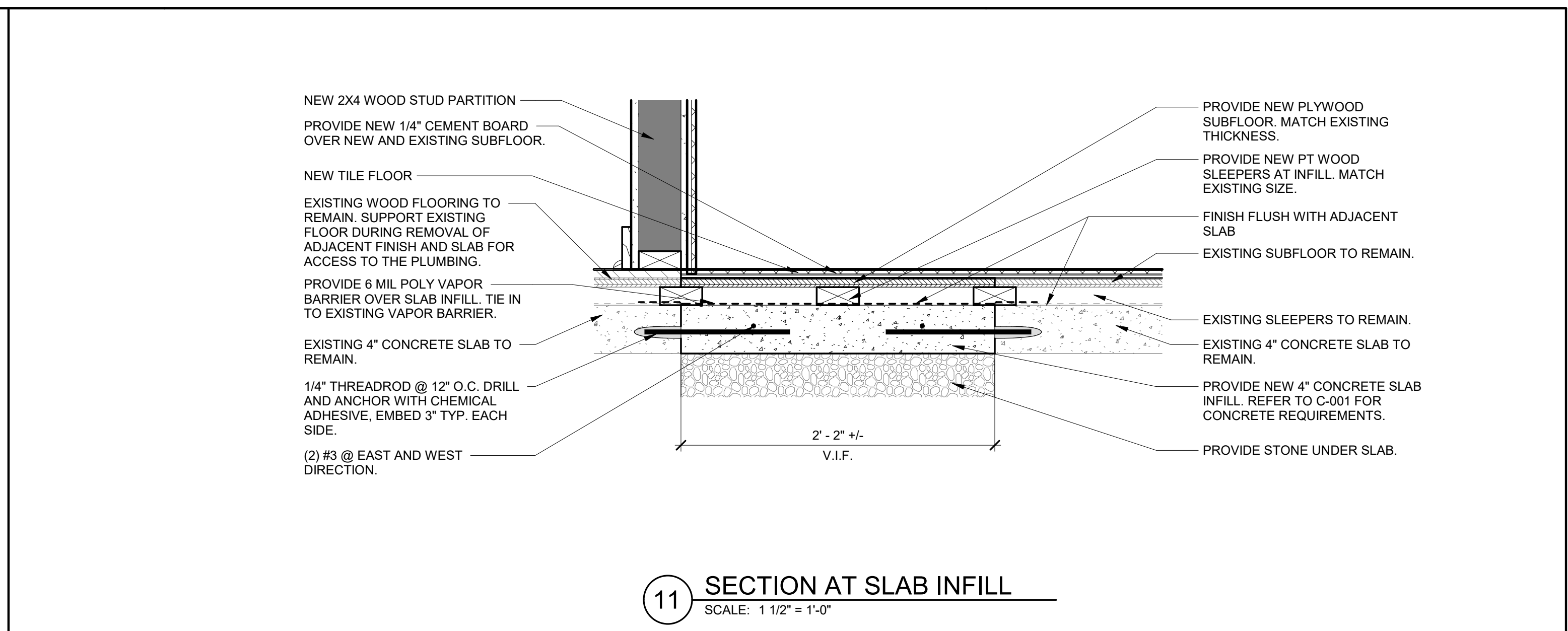
**FIRST FLOOR
RENOVATION
PLAN**

A-102
15921574

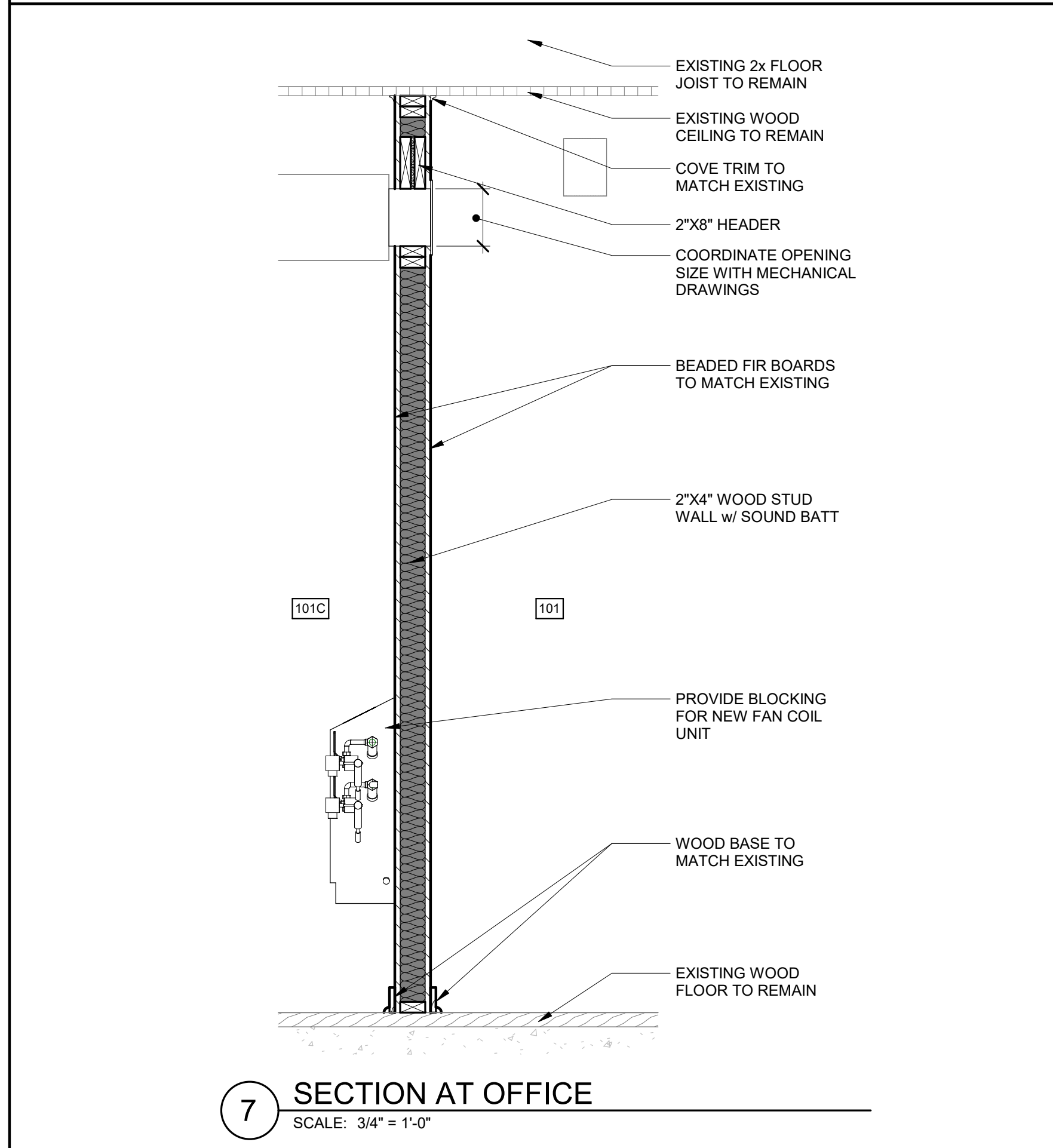
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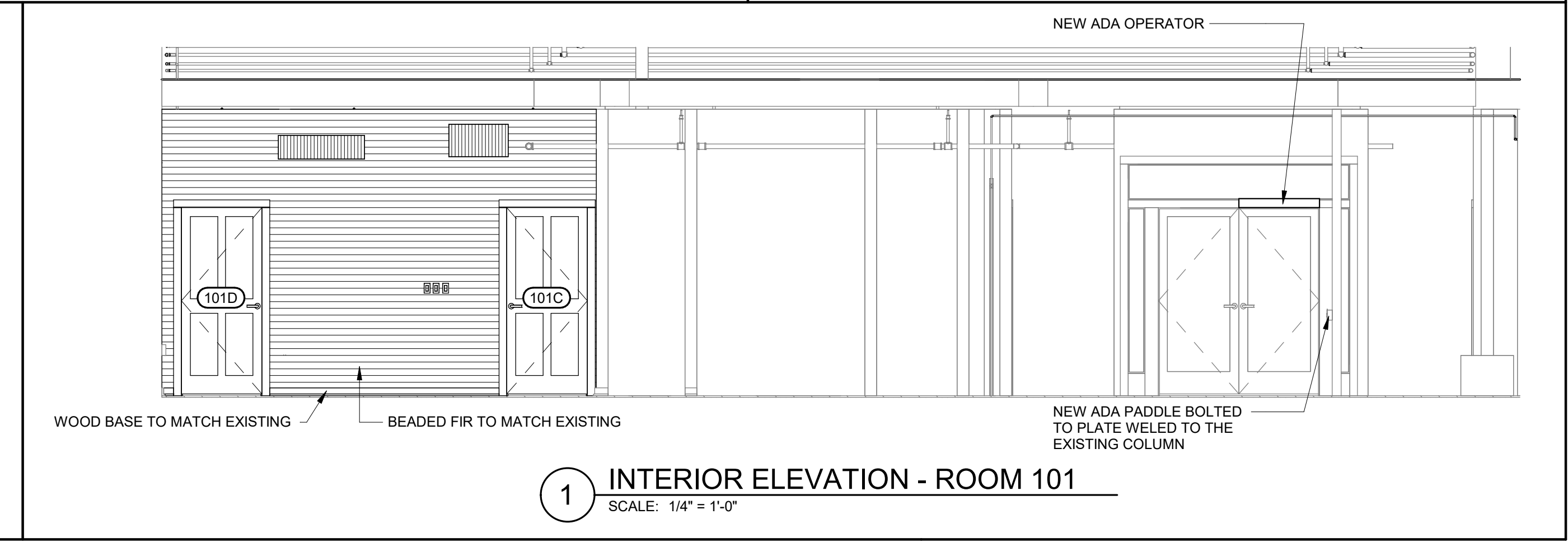
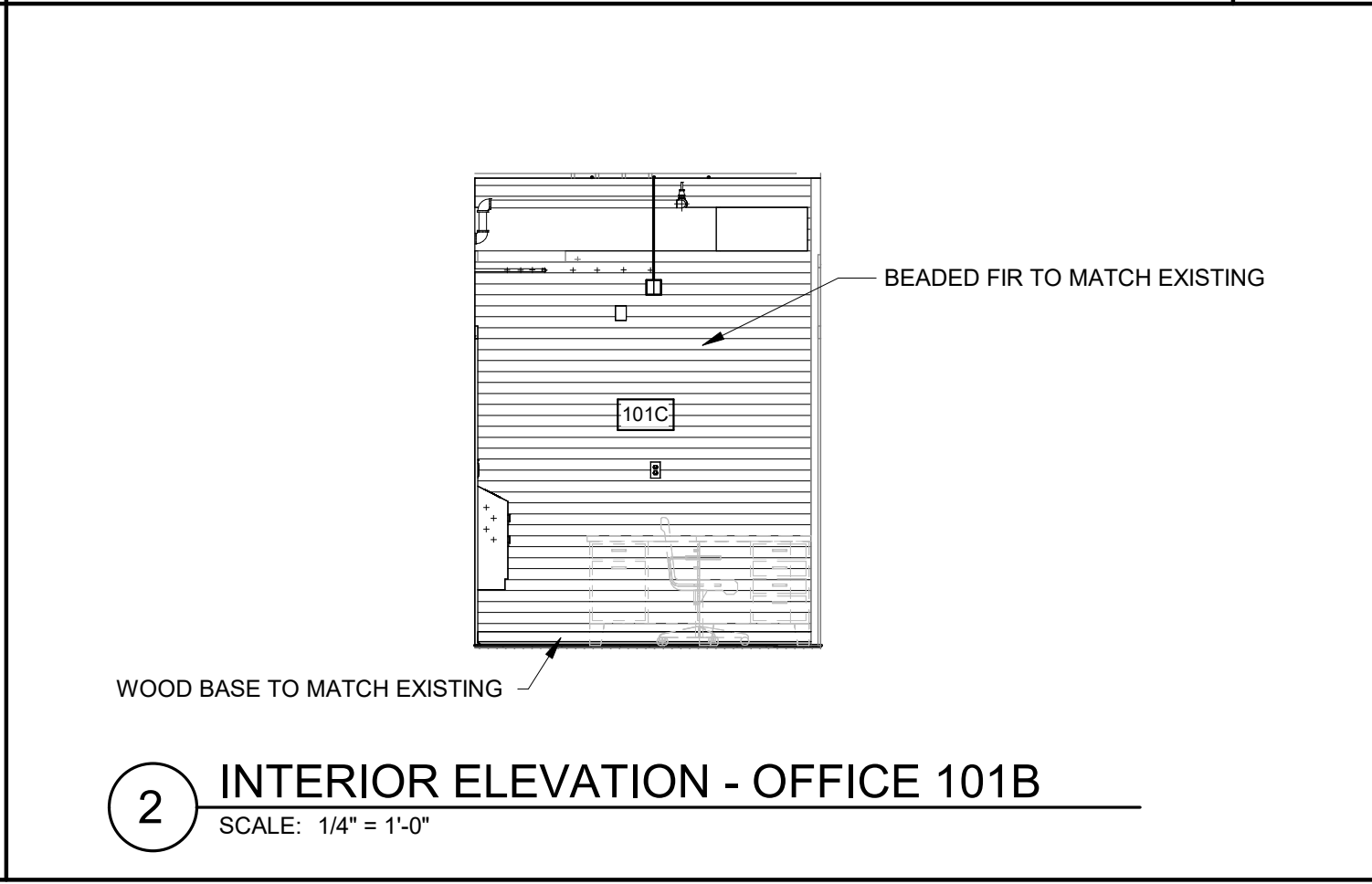
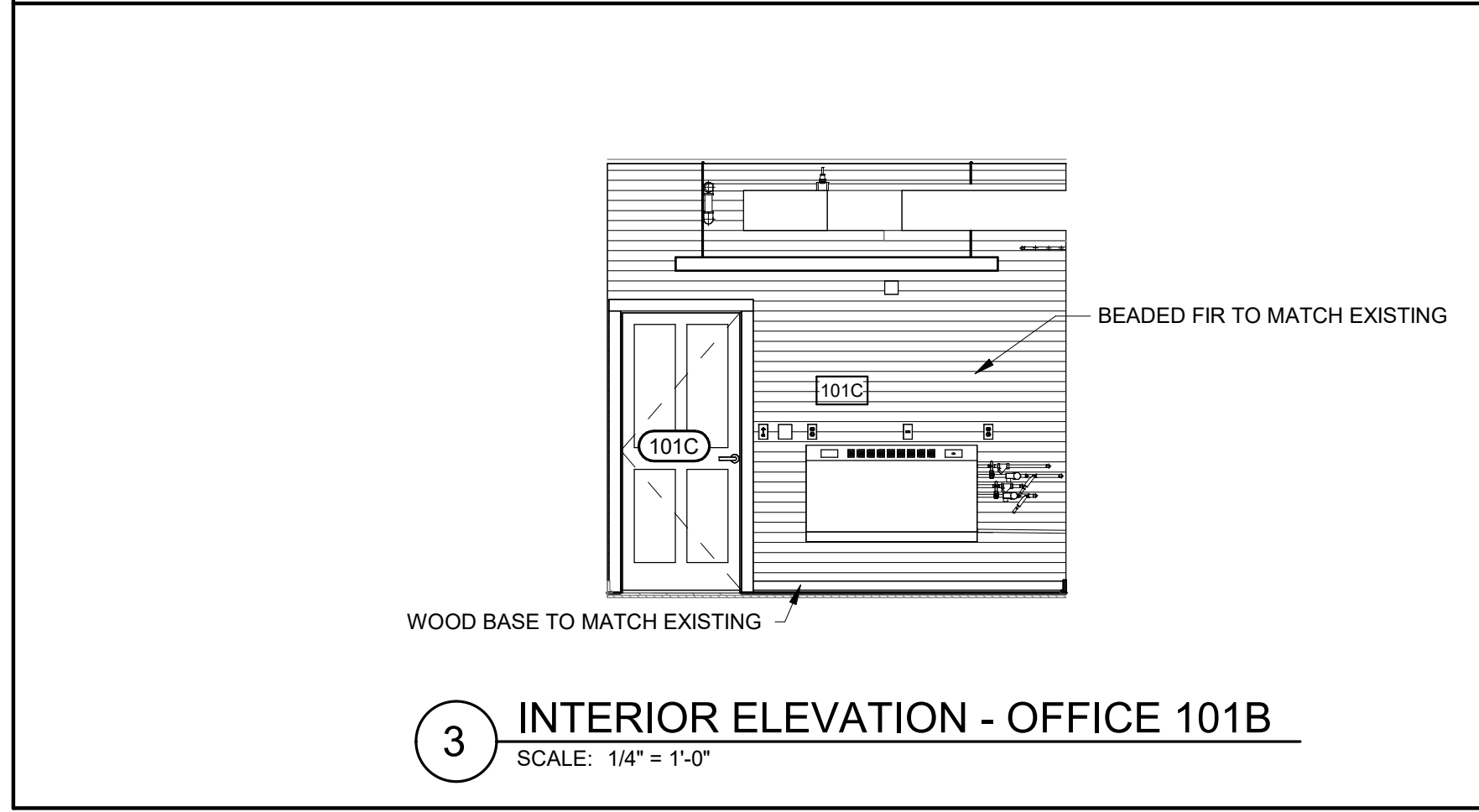
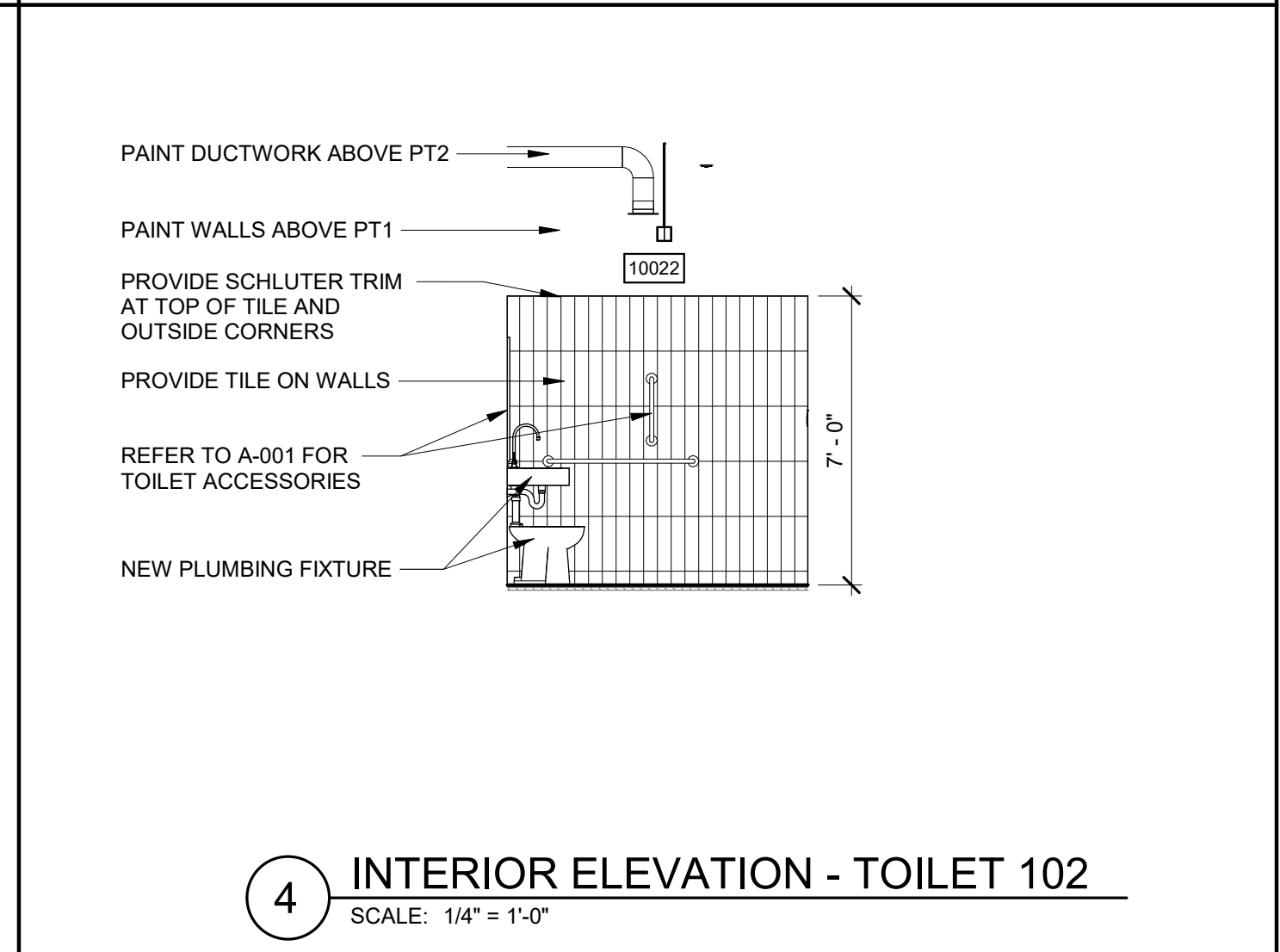
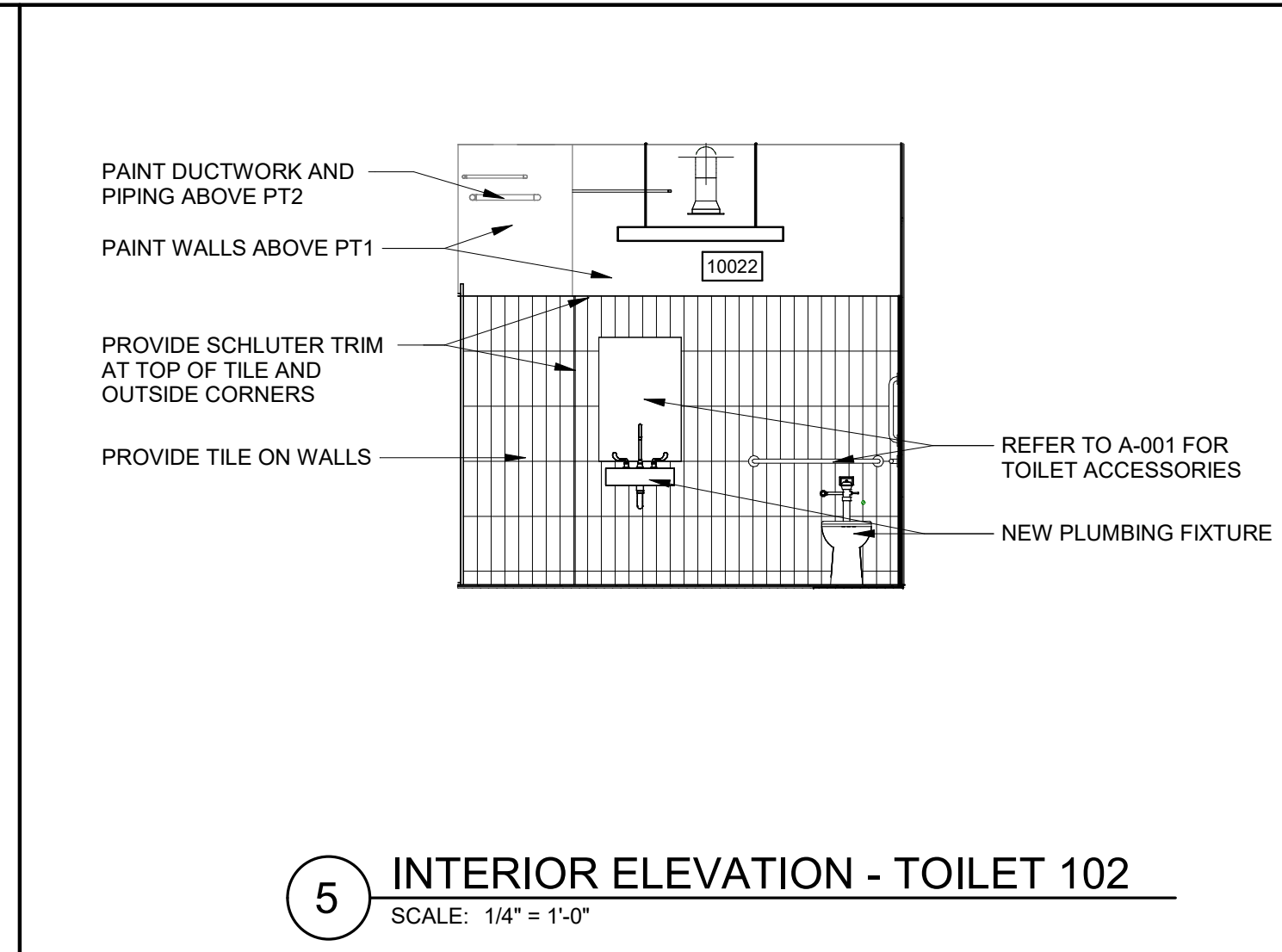
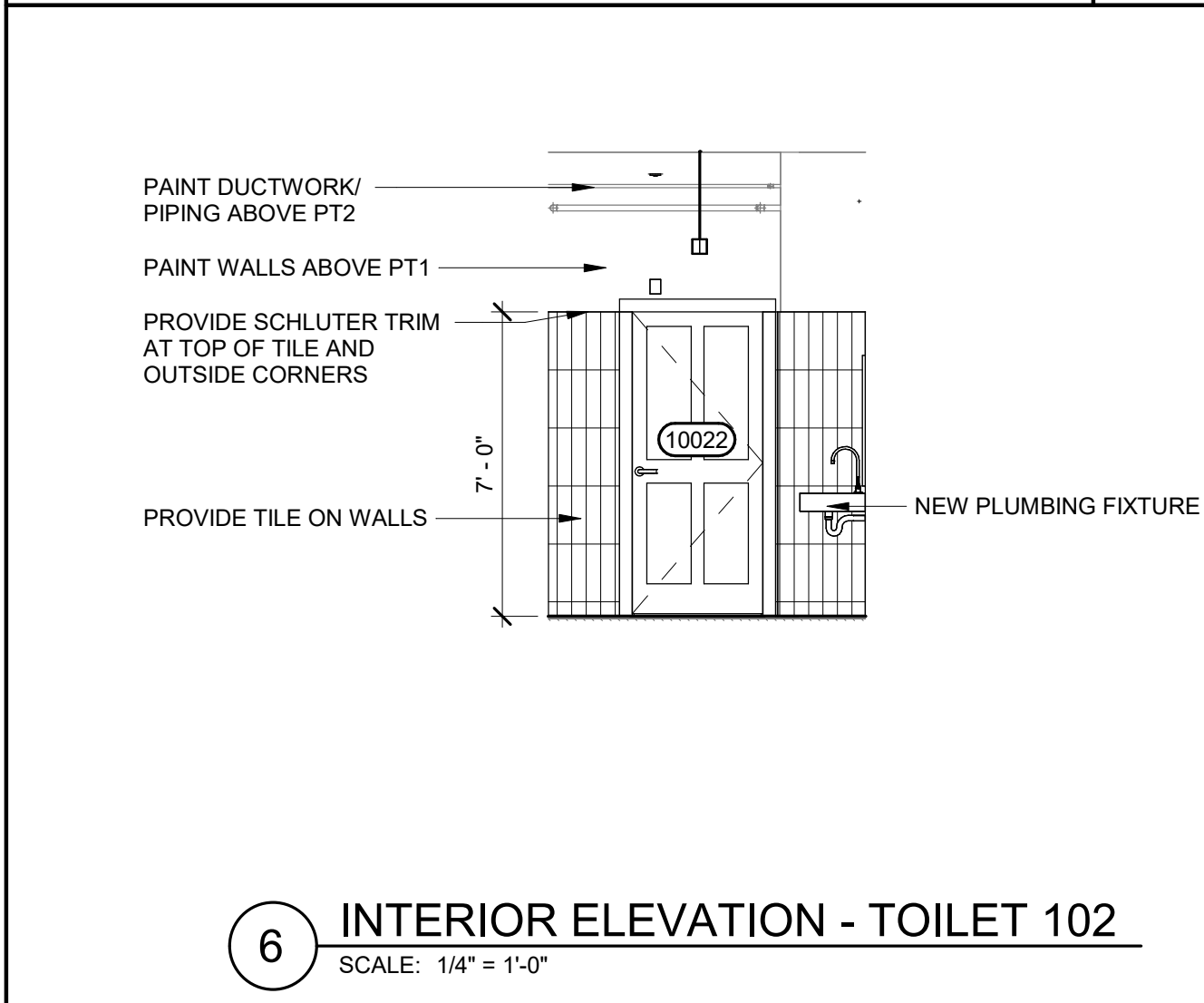
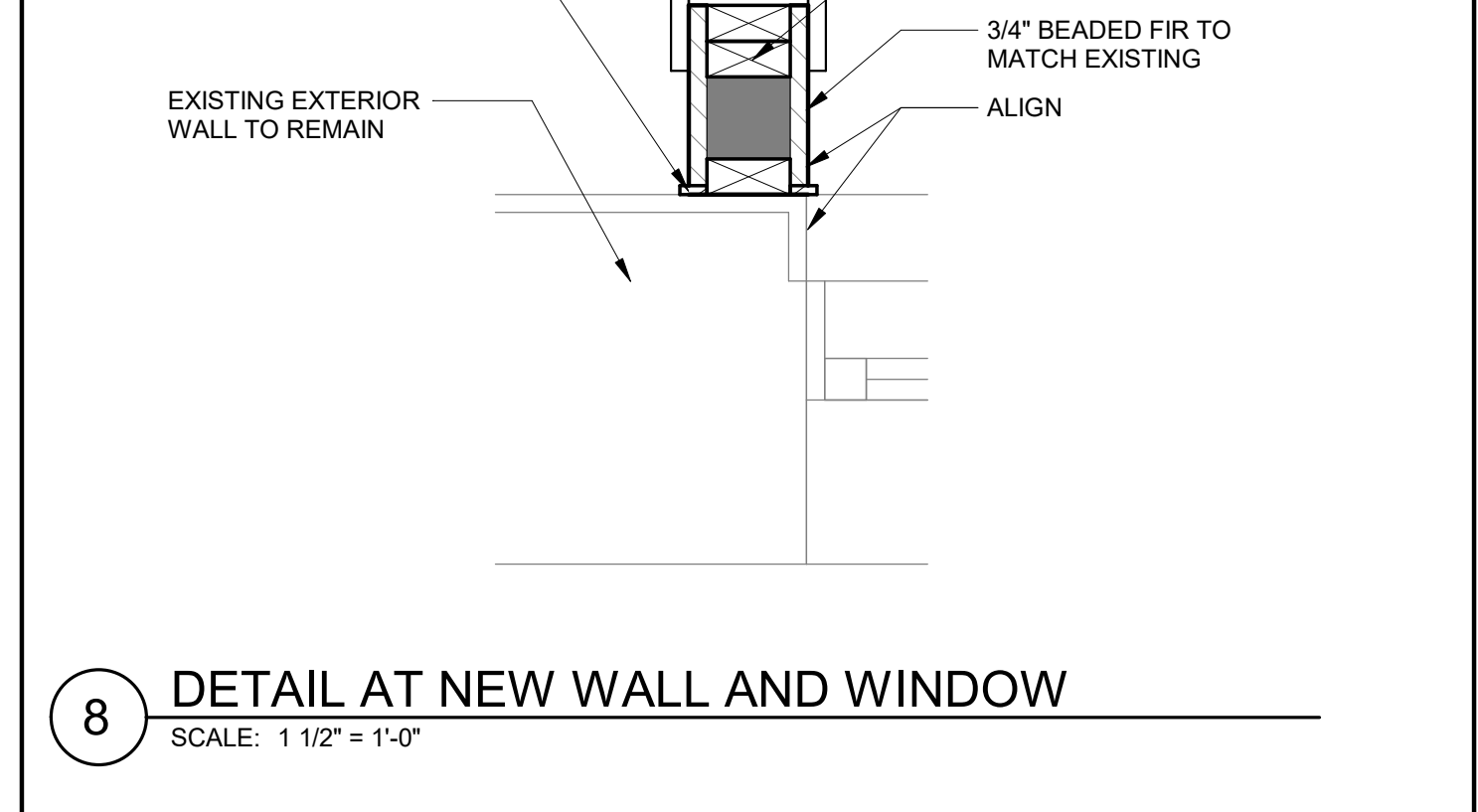
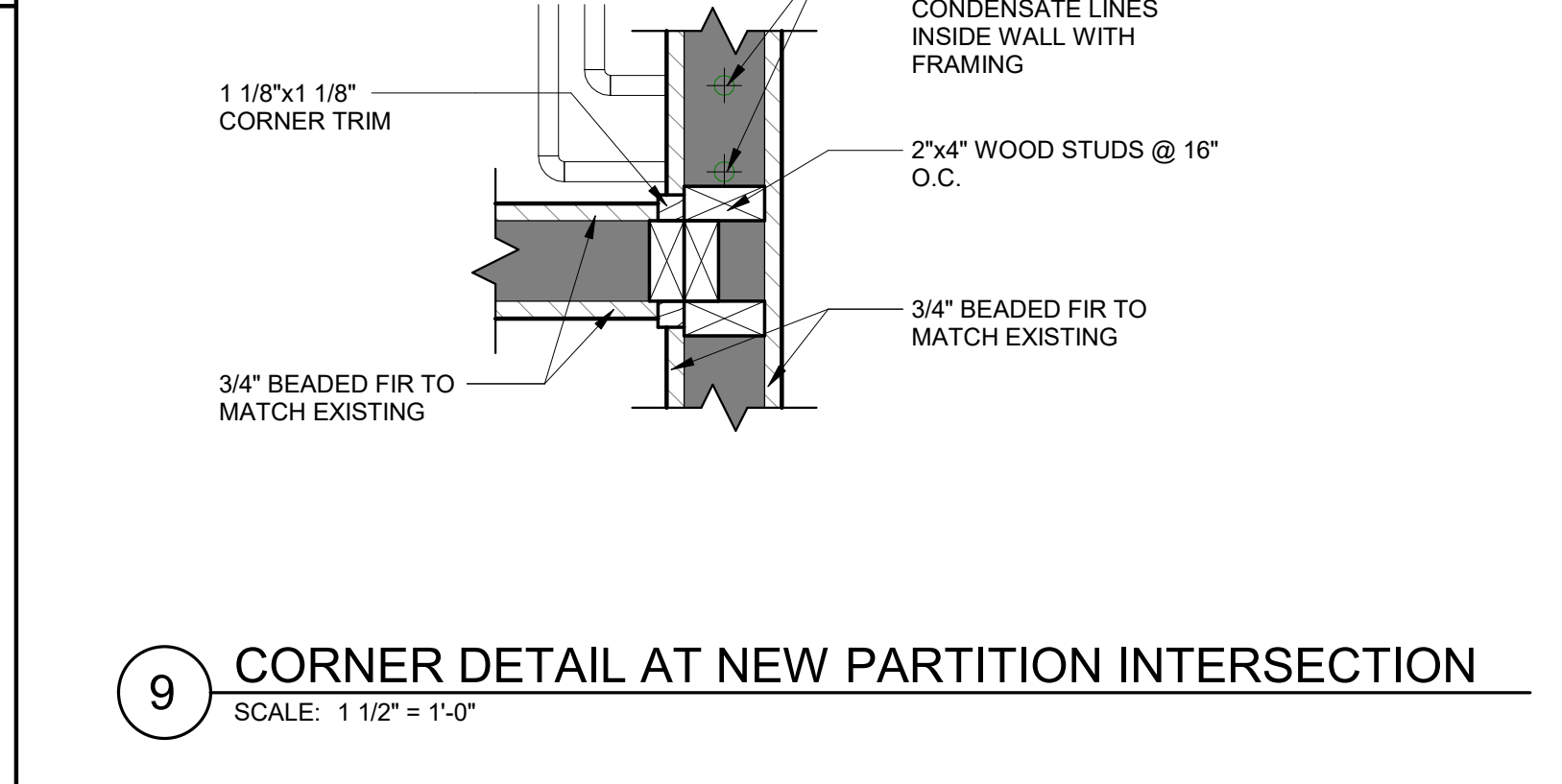
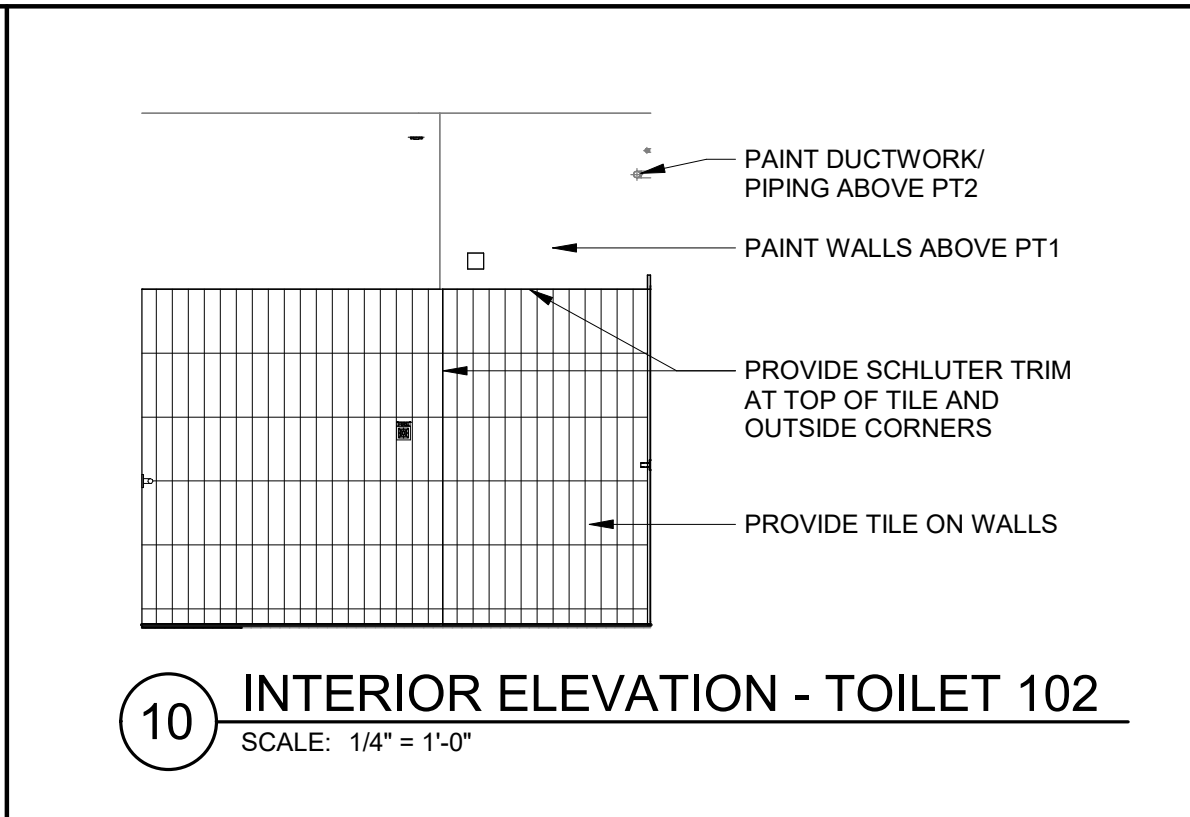
12 ADA BOLLARD DETAILS
SCALE: 3/4" = 1'-0"



11 SECTION AT SLAB INFILL
SCALE: 1 1/2" = 1'-0"

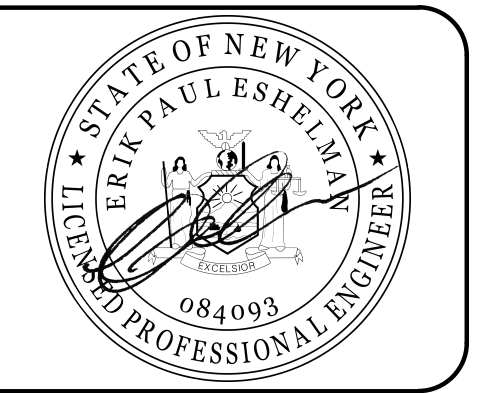


7 SECTION AT OFFICE
SCALE: 3/4" = 1'-0"



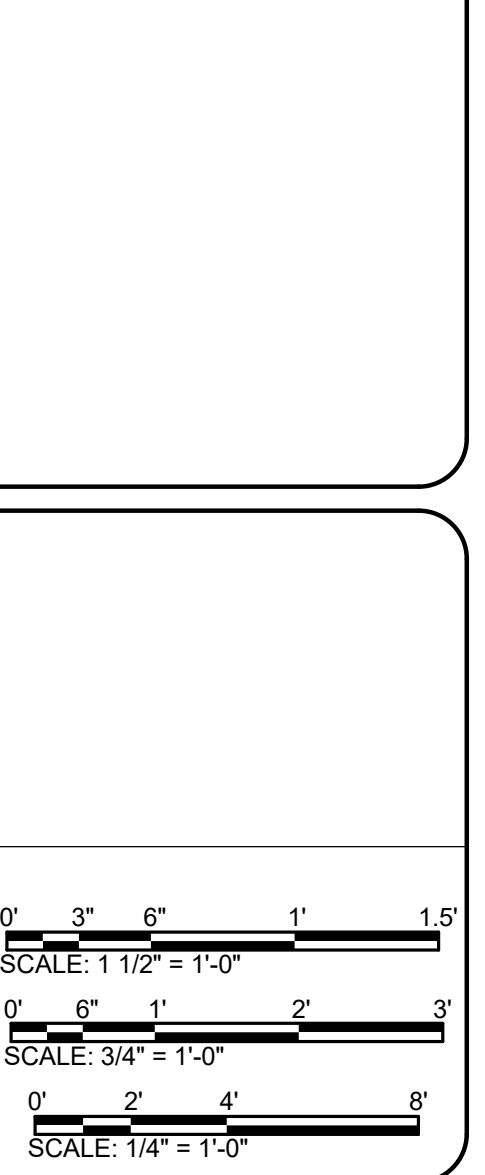
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135 PRESIDENT'S DRIVE ITHACA, NEW YORK 14853

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE: MARCH 21, 2024
 FACILITY: 2040
 DESIGN: J. COOLBAUGH
 DRAWN: JGC

ELEVATIONS

A-201
 15921574

ARCHIVE BAR CODE

GENERAL DRAWING SYMBOLOGY

---	DEMOLISHED WORK
---	EXISTING PIPING TO REMAIN
(E)	EXISTING TO REMAIN
---	EXISTING WORK TO REMAIN
---	NEW WORK
⊕	POINT OF CONNECTION
⊖	POINT OF DISCONNECTION

FIRE PROTECTION ABBREVIATIONS

BFP	BACKFLOW PREVENTOR
BOP	BOTTOM OF PIPE
DN	DOWN
DPV	DRY PIPE VALVE
FP	FIRE PROTECTION
NTS	NOT TO SCALE
RPZ	REDUCED PRESSURE ZONE ASSEMBLY
SP	SPRINKLER
TYP	TYPICAL
WM	WATER METER

FIRE PROTECTION PIPING SCHEDULE

PIPE SERVICE	ABBREVIATION	PIPE SIZE	MATERIAL	FITTINGS
DRY SPRINKLER	FP (DRY)	ALL SIZES	ASTM A 53 TYPE F STEEL, SCHEDULE 40 BLACK, GRADE B	CAST OR MALLEABLE IRON THREADED OR DUCTILE IRON GROOVED

SPRINKLER SCHEDULE

SPRINKLER TYPE	SERVES	MANF BOD	MODEL BOD (SIN)	RESPONSE	ORIFICE (IN)	K-FACTOR	TEMPERATURE RATING (°F)	CONSTRUCTION	FINISH
UPRIGHT	101B, 101C	RELIABLE	F156 (RA3125)	STANDARD	1/2	5.6	155	BRASS	BRONZE

FIRE PROTECTION SUBMITTAL REGISTRY

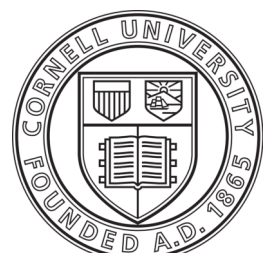
SECTION	DESCRIPTION	MATERIAL	SHOP DRAWINGS	COORD. DRAWINGS	AS-BUILT DRAWINGS	PRODUCT DATA	SCHEDULES	WIRING DIAGRAMS	CALCULATIONS	SAMPLES	STANDARDS	CERTIFICATIONS	MFR INSTRUCTIONS	INSP. & TEST REPORTS	OPS & MAINT. DATA	WARRANTIES & BONDS
211316	DRY-PIPE SPRINKLER SYSTEMS	STEEL PIPE & FITTINGS	X	X	X	X				X		X	X	X	X	X
211316	--	SPRINKLERS	X	X	X	X				X		X	X	X	X	X
211316	--	FIRE PROTECTION VALVES	X	X	X	X				X		X	X	X	X	X

FIRE PROTECTION SCOPE OF WORK

1.0 PROVIDE MODIFICATIONS TO EXISTING DRY SPRINKLER SYSTEM TO PROVIDE ADEQUATE COVERAGE IN NEW OFFICE AND BATHROOM.

FIRE PROTECTION GENERAL NOTES

- IT IS THE INTENT OF THESE DRAWINGS TO PROVIDE MODIFICATIONS TO THE DRY FIRE PROTECTION SYSTEMS FOR THE PROTECTION OF THE BIG RED BARN.
- PRIOR TO ALTERATIONS, THE SPRINKLER CONTRACTOR SHALL FIELD VERIFY EXTENT OF ALTERATION AND NEW WORK, WITH REGARD TO EXISTING CONDITIONS AT PIPE PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND SOFFITS.
- ALL SPRINKLER COMPONENTS SHALL BE UNDERWRITER'S LABORATORIES (UL) AND FACTORY MUTUAL (FM) APPROVED.
- NEW SPRINKLER SYSTEM PIPING SHALL BE INSTALLED IN EXPOSED CEILING AREAS AS SHOWN ON PLANS. PIPING AND HANGER ASSEMBLIES SHALL BE UN-PAINTED.
- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE GENERAL ARRANGEMENT OF THE ITEMS INCLUDED IN THE FIRE PROTECTION WORK. AS SUCH, CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF FM GLOBAL STANDARDS, THE NFPA 13-INSTALLATION OF FIRE PROTECTION SYSTEMS, THE NEW YORK STATE BUILDING CODES, THE NEW YORK STATE FIRE CODES, LOCAL CODES, AND GOVERNING AUTHORITIES. THE DESIGN OF FIRE PROTECTION SYSTEMS TO WITHSTAND SEISMIC EVENTS SHALL BE IN ACCORDANCE WITH THE CRITERIA DEVELOPED BY THE NFPA.
- CONTRACTOR SHALL REQUEST SPRINKLER SYSTEM SHUTDOWNS THROUGH CORNELL CUSTOMER SERVICE (607.255.5322) A MINIMUM OF TEN (10) DAYS PRIOR TO THE SHUTDOWN DATE. THE CONTRACTOR SHALL BEAR THE COST OF THE UTILITY SHUTDOWN. NOTIFY THE OWNER'S REPRESENTATIVE TO COORDINATE BUILDING FUNCTIONS WITH THE BUILDING COORDINATOR.
- COORDINATE THE EXACT LOCATION OF SPRINKLERS, EQUIPMENT, AND DEVICES WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND ALL OTHER TRADES DRAWINGS PRIOR TO ROUGH-IN AND INSTALLATION.
- SPRINKLER PIPING SHALL BE ARRANGED TO DRAIN THROUGH THE MAIN DRAIN VALVE WHENEVER PRACTICAL. ALL TRAPPED SECTIONS OF PIPE, EXCEPT THOSE SUPPLYING A SINGLE SPRINKLER, SHALL BE PROVIDED WITH A DRUM-DRIP ASSEMBLY.
- PENETRATIONS THROUGH CONCRETE FLOORS AND WALLS SHALL BE MADE WITH GALVANIZED PIPE SLEEVES. ALL PENETRATIONS SHALL CONTAIN FIRE STOPPING WITH A FIRE RATING EQUAL TO THAT OF THE AREA BEING PENETRATED.
- SPRINKLER PIPING SHALL BE LABELED.
- AFTER ALL WORK HAS BEEN COMPLETED, ACCEPTANCE TESTING SHALL BE SCHEDULED THROUGH EH&S, AND SHALL BE WITNESSED BY EH&S AND CITY OF ITHACA REPRESENTATIVES.
- HYDROSTATIC TEST SHALL BE PERFORMED AT 200 PSI (OR 50 PSI ABOVE STATIC PRESSURE IF SYSTEM PRESSURE IS ABOVE 150 PSI), FOR A PERIOD OF 2-HOURS. A REPRESENTATIVE OF ENVIRONMENTAL HEALTH AND SAFETY SHALL WITNESS HYDROSTATIC TESTING OF THE NEW PIPING INSTALLATIONS AND ALTERATIONS. THE AUTHORITY HAVING JURISDICTION (ITHACA FIRE DEPARTMENT) REQUIRES THAT ONE OF THEIR REPRESENTATIVES WITNESSES HYDROSTATIC TESTING AND FLUSHING. ADVANCE NOTICE AND SCHEDULING IS REQUIRED THROUGH EH&S.
- ANY FIRESTOPPING DISTURBED DURING THE COURSE OF WORK SHALL BE REPAIRED TO MAINTAIN A 2-HOUR FIRE RATING.

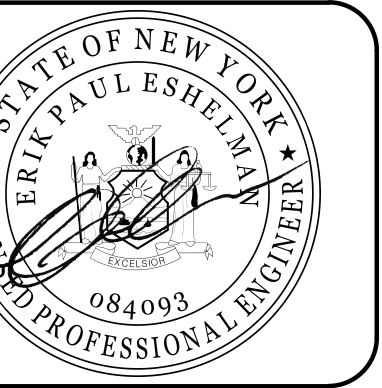


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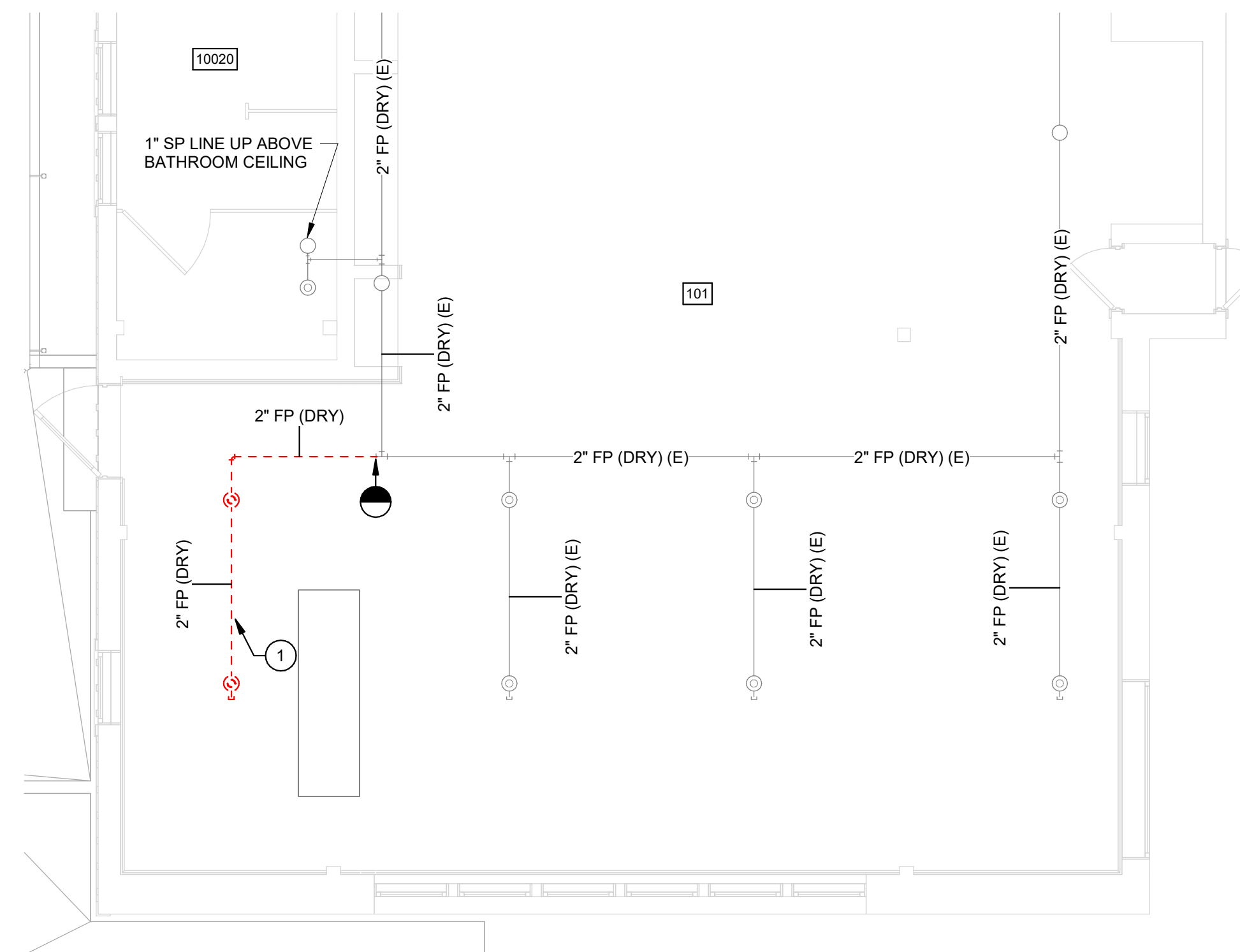
**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: TJK
DRAWN: TJK

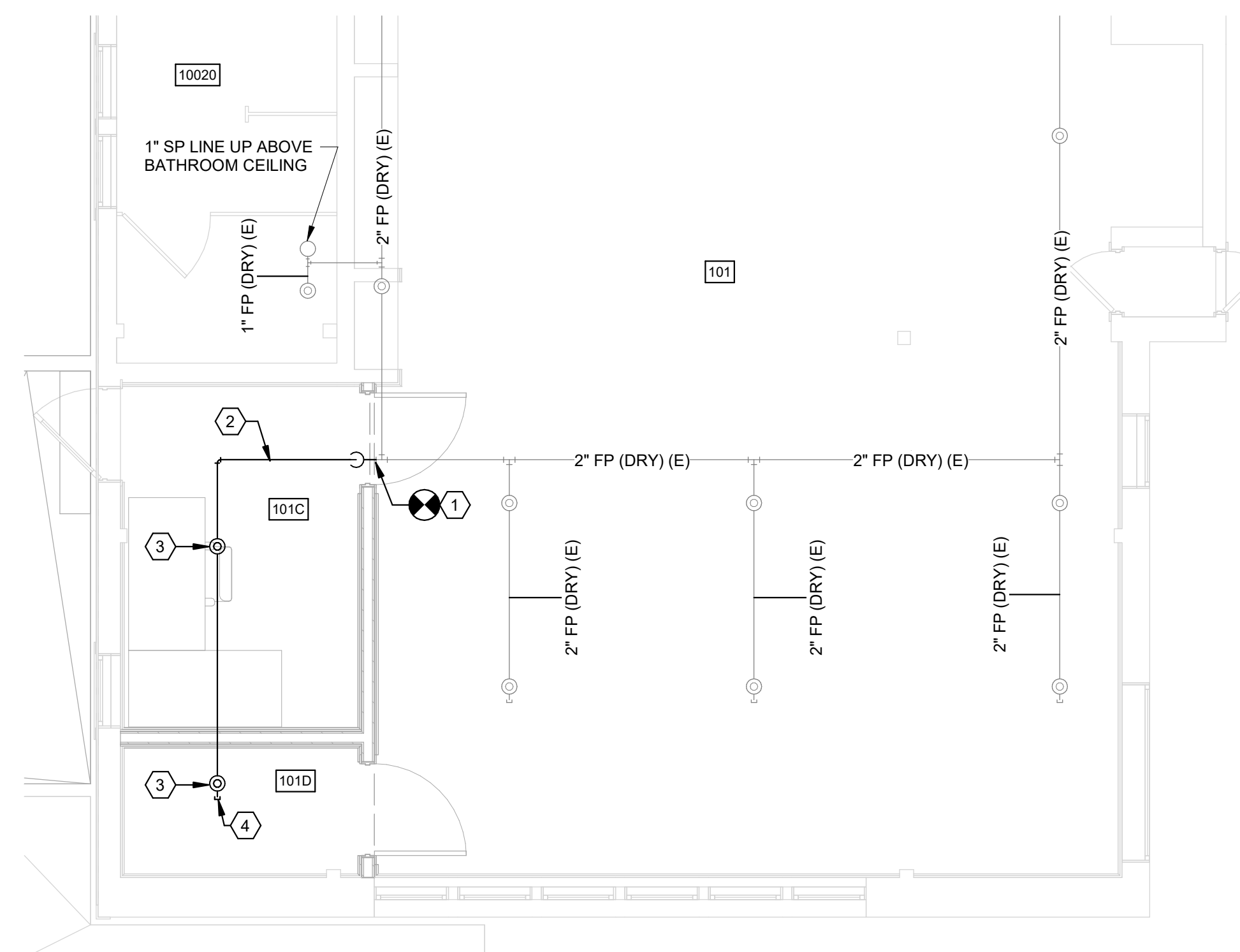
**FIRE PROTECTION
GENERAL NOTES
AND SYMBOL
LEGENDS**

FP-001
15921574

ARCHIVE BAR CODE



1 FIRE PROTECTION FIRST FLOOR DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



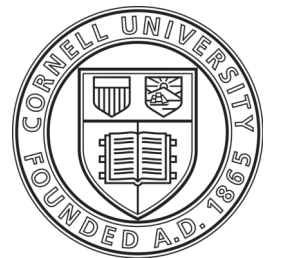
2 FIRE PROTECTION FIRST FLOOR RENOVATION PLAN
SCALE: 1/4" = 1'-0"

FP-101 KEYED DEMOLITION NOTES

- 1 DISCONNECT SPRINKLER PIPING AND DRAIN VALVE BACK TO POINT OF DISCONNECT SHOWN. RETAIN SPRINKLER DISTRIBUTION PIPING, VALVES, AND FITTINGS.

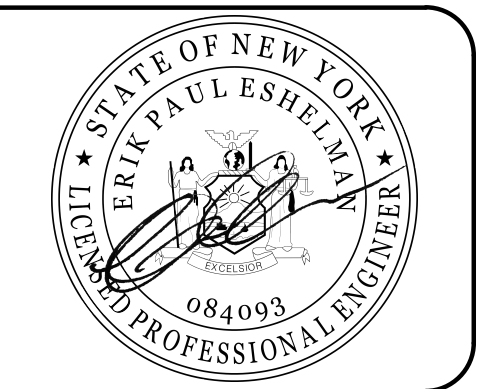
FP-101 KEYED RENOVATION NOTES

- 1 CONNECT SPRINKLER DISTRIBUTION PIPING TO EXISTING DRY SPRINKLER SYSTEM.
- 2 RAISE EXISTING SPRINKLER PIPING TO COORDINATE WITH NEW MECHANICAL FCU DUCTWORK. PROVIDE DISTRIBUTION PIPING AS REQUIRED TO RE-FEED EXISTING PIPING. NEW SPRINKLER HEADS MUST BE PROVIDED. PIPE RISES TO UPRIGHT SPRINKLERS WILL BE REPLACED WITH NEW, SHORTER PIPING. SPRINKLERS MUST BE WITHIN 12" OF CEILING TO COMPLY WITH NFPA 13 (2016).
- 3 PROVIDE NEW RELIABLE UPRIGHT SPRINKLER HEADS IN OFFICE 101C AND STORAGE ROOM 101D.
- 4 EXISTING DRAIN VALVE TO BE REINSTALLED WITH EXISTING DISTRIBUTION PIPING. PROVIDE ACCESS TO DRAIN VALVE TO FACILITATE FUTURE MAINTENANCE ON SPRINKLER SYSTEM.


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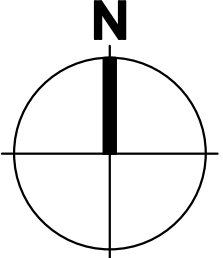
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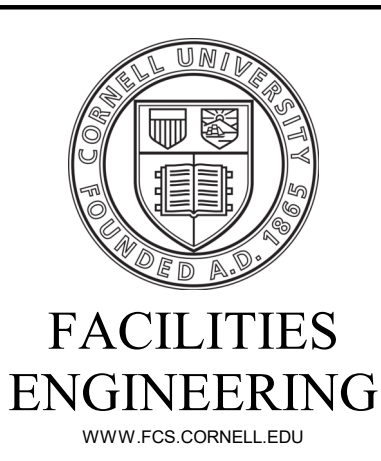
**BIG RED BARN
 ADA RESTROOM
 & OFFICE
 RENOVATION**

DATE:	MARCH 21, 2024
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DESIGN:	TJK
DRAWN:	TJK

**FIRE PROTECTION
 DEMOLITION AND
 RENOVATION
 PLANS**

FP-101
 15921574

ARCHIVE BAR CODE



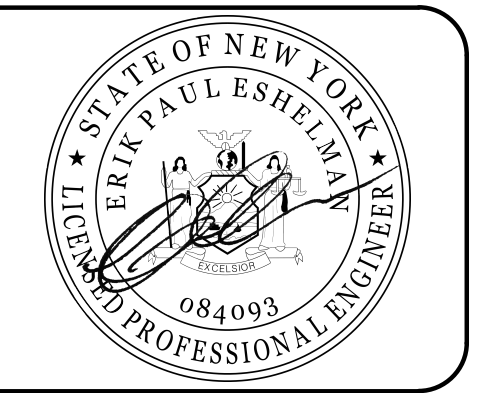
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BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE:	MARCH 21, 2024
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PLUMBING GENERAL NOTES, SYMBOL LEGENDS, AND SCHEDULES

P-001
15921574

ARCHIVE BAR CODE

PLUMBING SCOPE OF WORK

- REMOVE WATER CLOSET IN BATHROOM 10021 AND PLUMBING SERVICES IN ORDER TO FACILITATE RENOVATION WORK.
- PROVIDE UNDERSLAB SANITARY PIPING TO SERVE NEW PLUMBING FIXTURES IN BATHROOM 102 AND RE-FEED WATER CLOSET IN BATHROOM 10021.
- REINSTALL (1) WATER CLOSET IN BATHROOM 10021 AND PROVIDE (1) WATER CLOSET AND (1) LAVATORY IN BATHROOM 102.
- RE-PLUMB WATER CLOSET IN BATHROOM 10021 AND PROVIDE PLUMBING SERVICES TO NEW FIXTURES IN BATHROOM 102.

PLUMBING GENERAL NOTES

- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. IF DIMENSIONS OR CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY REFER THE CONFLICT TO THE ENGINEER.
- UTILITY SHUTDOWNS: SHUTDOWN OF ANY BUILDING UTILITY SYSTEM SHALL BE COORDINATED WITH THE BUILDING MANAGER. THE CONTRACTOR SHALL BEAR THE COST OF THE UTILITY SHUTDOWN. SCHEDULE WORK TEN DAYS IN ADVANCE AND NOTIFY THE OWNER'S REPRESENTATIVE TO COORDINATE BUILDING FUNCTIONS WITH THE BUILDING COORDINATOR.
- WORK IS REQUIRED IN VARIOUS PORTIONS OF MULTIPLE FACILITIES TO EXECUTE WORK OF OTHER TRADES (EG ELECTRICAL, MECHANICAL). ALTHOUGH NOT NECESSARILY SHOWN ON DRAWINGS, WORK IS REQUIRED IN THESE AREAS CONSISTING OF REMOVAL/ REPLACEMENT OF CEILINGS, WALLS, FINISHES, AND OTHER CONSTRUCTION AS NECESSARY TO PERFORM WORK AND RESTORE THESE SPACES OR AREAS TO ORIGINAL CONDITION.
- ALL PENETRATIONS THROUGH FULL HEIGHT WALLS ARE TO BE FIRESTOPPED IN ACCORDANCE WITH UL STANDARDS. ALL GAPS AND JOINTS AT RATED FLOORS AND WALLS ARE TO BE FIRE AND SMOKE STOPPED. CAPS AND JOINTS INCLUDE (BUT ARE NOT LIMITED TO) TOP OF WALL TO FLOOR OR ROOF DECK, WALL TO BEAMS, AND CONTROL OR EXPANSION JOINTS. FIRESTOPPING INCLUDES BOTH FORM OR PACKING MATERIAL AND THE FILL, VOID OR CAVITY MATERIAL.
- INSTALL EQUIPMENT TO ENSURE PROPER ACCESS TO CONTROL DEVICES AND WITH SUFFICIENT SPACE TO PERFORM ROUTINE MAINTENANCE AND REPAIR. EQUIPMENT THAT IS NOT INSTALLED WITH THIS REQUIREMENT IN MIND SHALL BE RELOCATED AT NO EXPENSE TO THE UNIVERSITY UNTIL DEFICIENCIES ARE CORRECTED.
- ALL SYSTEM TESTING SHALL BE CONDUCTED PRIOR TO INSULATION, FIREPROOFING, AND ENCLOSURE IN SHAFTS. ANY RESTORATION WORK REQUIRED AS A RESULT OF DISTURBING FINISHES OR STRUCTURE IN ORDER TO ACCESS SYSTEMS REQUIRING REPAIR SHALL BE AT NO COST TO THE UNIVERSITY.
- SCHEDULE A PRE-INSTALLATION MEETING TO REVIEW FINAL EQUIPMENT/FIXTURE LOCATIONS PRIOR TO ROUGHING-IN. OBTAIN ALL REQUIREMENTS FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT FROM THE OWNER OR DESIGNATED AGENT.
- CUTTING AND PATCHING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, FITTING, AND PATCHING TO COMPLETE THE WORK. WHERE EXISTING CONSTRUCTION IS REMOVED, CAUSING AN EXPOSURE OF UNFINISHED AND/OR DAMAGED SURFACES, RESULTING SURFACES SHALL BE RECONSTRUCTED WITH MATERIALS TO MATCH FINISHED AREAS.
- TESTING AND BALANCING: THE CONTRACTOR SHALL BALANCE ALL AIR AND WATER SYSTEMS AS INDICATED. SUBMIT RESULTS OF TESTING AND BALANCING ON STANDARD TAB CONTRACTOR'S FORMS TO THE ENGINEER FOR REVIEW. SYSTEMS SHALL BE BALANCED TO WITHIN +/- 10% OF DESIGN VALUES.
- ANY FIRESTOPPING DISTURBED DURING THE COURSE OF WORK SHALL BE REPAIRED TO MAINTAIN A 2-HOUR FIRE RATING.
- PROTECT/ MAINTAIN EXISTING FIRE PROTECTION SYSTEM THROUGHOUT CONSTRUCTION.

GENERAL DRAWING SYMBOLOGY

	DEMOLISHED WORK
	EXISTING PIPING TO REMAIN
(E)	EXISTING TO REMAIN
	EXISTING WORK TO REMAIN
	NEW WORK
	POINT OF CONNECTION
	POINT OF DISCONNECTION

PLUMBING ABBREVIATIONS

BFP	BACKFLOW PREVENTER
BOP	BOTTOM OF PIPE
CO	CLEAN OUT
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHW/R	DOMESTIC HOT WATER RECIRC
DN	DOWN
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FS	FLOOR SINK
ID	INDIRECT WASTE
LAV	LAVATORY
MSB	MOP SINK BASIN
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OS&Y	OUTSIDE SCREW & YOKE
PVC	POLYVINYL CHLORIDE
RPZ	REDUCED PRESSURE ZONE BFP ASSEMBLY
SAN	SANITARY
SK	SINK
SS	STAINLESS STEEL
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WHA	WATER HAMMER ARRESTOR
WM	WATER METER

PLUMBING SUBMITTAL REGISTRY

SECTION	DESCRIPTION	MATERIAL	SHOP DRAWINGS	COORD. DRAWINGS	AS-BUILT DRAWINGS	PRODUCT DATA	SCHEDULES	WIRING DIAGRAMS	CALCULATIONS	SAMPLES	STANDARDS	QUALIFICATIONS	CERTIFICATIONS	MFR INSTRUCTIONS	INSP. & TEST REPORTS	OPS & MAINT. DATA	WARRANTIES & BONDS
220523	GENERAL DUTY VALVES FOR PLUMB PIPING	BALL VALVES				X											
220529	HANGERS & SUPPORTS FOR PLUMB PIPING	METAL PIPE HANGERS AND SUPPORTS				X											
220719	PLUMBING PIPING INSULATION	INSULATION MATERIALS				X											
221116	DOMESTIC WATER PIPING	COPPER PIPING AND FITTINGS	X	X	X												
221316	SAN WASTE AND VENT PIPING (BELOW GRADE)	SERVICE WEIGHT CAST IRON PIPING AND FITTINGS	X	X	X												
221316	SAN WASTE AND VENT PIPING (ABOVE GRADE)	COPPER DRAINAGE TUBE PIPING AND FITTINGS	X	X	X												
224000	PLUMBING FIXTURES	WATER CLOSETS/ FLUSH VALVES/ SEATS															
224000	--	LAVATORIES/ SINKS/ FAUCETS												X			
224000	--	FLOOR DRAINS															
224000	--	CLEANOUTS				X											

PLUMBING PIPING ACCESSORIES SCHEDULE

NOTES:
1) PROVIDE P-TRAP WITH ADA, WALL-MOUNT LAVATORY.
2) PROVIDE VALVES WITH UNIONS AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUTDOWN.
3) PROVIDE UNIONS ADJACENT TO VALVES AND AT FINAL EQUIPMENT CONNECTIONS.

TAG	COMPONENT	ACCEPTABLE MANUFACTURERS	BOD MODEL	PRESSURE RATING	SPECIFICATIONS
PV-1	BALL VALVE, DCW/DHW, NPS 1/2 - 2 INCH	WATTS	LFB6000-SS or LFB6001-SS	300 PSIG @ 250 F	ACCEPTABLE MANUFACTURERS: APOLLO, NIBCO, WATTS MSS SP-110, NSF 61 FOR POTABLE WATER SERVICE, 2-PIECE, STANDARD PORT, BRONZE BODY, 316 SS BALL & STEM, PTFE OR TFE SEAT

PLUMBING FIXTURE SCHEDULE & SPEC

NOTES:
1) PROVIDE P-TRAP WITH ADA, WALL-MOUNT LAVATORY.
2) PROVIDE AMERICAN STANDARD 605B 205 INNSBROOK SELECTION ELECTRONIC TOUCHLESS LAVATORY FAUCET WITH PK00.WRK 10-YEAR BATTERY PACK.
3) PROVIDE AMERICAN STANDARD ULTIMA MANUAL TOILET 6047121.002 FLUSH VALVE FOR WATER CLOSET.
4) PROVIDE AMERICAN STANDARD 5901.100SS COMMERCIAL TOILET SEAT.
5) NO-HUB CONNECTION WITH 5" STRAINER.
6) NO-HUB CONNECTION, D.C.C.I. W/ POLISHED NICKEL BRONZE TOP.

TAG	COMPONENTS	MANUFACTURER	MODEL	DESCRIPTION	MATERIAL	COLD WATER	HOT WATER	WASTE / SANITARY	VENT	NOTES
SK-1	ADA, WALL-MOUNT LAVATORY	AMERICAN STANDARD	0356.921	LUCERNE WALL-HUNG LAVATORY	VITREOUS CHINA	1/2"	1/2"	2"	1-1/2"	1,2
WC-1	ADA, FLOOR-MOUNTED WATER CLOSET	AMERICAN STANDARD	3312.001	HURON UNIVERSAL BOWL WITH EVERCLEAN FLUSH VALVE WATER CLOSET	VITREOUS CHINA	1"	-	4"	2"	3,4
FD-1	FLOOR DRAIN	ZURN	ZN415B	ADJUSTABLE FLOOR DRAIN, ROUND TOP	DURA COAT CAST IRON	-	-	3"	-	5
CO-1	FLOOR CLEANOUT	ZURN	ZN1400-BZ-1	FLOOR CLEANOUT WITH "TYPE B" COVER AND EZ1 TECHNOLOGY	DURA COAT CAST IRON	-	-	3"	-	6

PLUMBING PIPING SCHEDULE AND SPECIFICATIONS

SPECIFICATIONS:
1) DIELECTRIC FITTINGS: USE FLANGES OR COUPLINGS. UNIONS ARE UNACCEPTABLE.
2) INSTALL SLEEVES AND ESCUTCHEONS FOR PENETRATIONS OF WALLS, CEILING, AND FLOORS.
3) INSTALL PLUMBING SYSTEMS TO FACILITATE SERVICE, MAINTENANCE AND REPAIR OR REPLACEMENT OF COMPONENTS.
4) MAINTAIN INDICATED FIRE RATING OF WALLS, PARTITIONS, CEILINGS, AND FLOORS AT PIPE PENETRATIONS. SEAL PIPE PENETRATIONS WITH FM APPROVED FIRESTOP MATERIALS.
5) DO NOT ENCLOSE / COVER PIPING AND DO NOT PUT PLUMBING PIPING SYSTEMS INTO OPERATION UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION.
6) PROVIDE PIPE LABELS AND DIRECTIONAL ARROWS ON ALL NEW PIPING SYSTEMS. LABELS SHALL BE PRINTED PLASTIC WITH CONTACT-TYPE, PERMANENT ADHESIVE BACKING.
7) INSULATION AND ADHESIVE:
SHALL HAVE A MAXIMUM FLAME-SPREAD INDEX OF 25 AND A MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
PROVIDE VAPOR RETARDER ON PIPING INSULATION SYSTEMS CARRYING FLUIDS WITH AN OPERATING TEMPERATURE LOWER THAN 60 DEGREES F.
TYPE A INSULATION: PRE-FORMED MINERAL FIBERGLASS, ASTM C547 TYPE I, ASTM C1136 FACTORY APPLIED SELF-SEALING ALL SERVICE JACKET.
8) POTABLE WATER SYSTEMS:
CAP AND SUBJECT DOMESTIC WATER PIPING TO STATIC WATER PRESSURE OF 50 PSIG ABOVE OPERATING PRESSURE. WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS.
ISOLATE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.
REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING UNTIL SATISFACTORY RESULTS ARE OBTAINED.
FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.
FILL SYSTEM WITH WATER/CHLORINE SOLUTION WITH AT LEAST 50 PPM OF CHLORINE. ISOLATE WITH VALVES AND ALLOW TO STAND FOR 24 HOURS. DRAIN TO SANITARY.
FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO TSP REMAINS IN WATER COMING FROM SYSTEM.
SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITIES HAVING JURISDICTION. REPEAT PROCEDURE IF BIOLOGICAL EXAMINATION SHOWS EVIDENCE OF CONTAMINATION.

PIPE SERVICE	ABBREVIATION	PIPE SIZE	MATERIAL	FITTINGS	JOINT	INSULATION			
						THICKNESS (IN)	CONDUCTIVITY (BTU-IN/HR-FT2-F)	MEAN TEMP (F)	MATERIAL
DOMESTIC COLD WATER	DCW	1" AND BELOW	ASTM B88 TYPE L COPPER	ASME B16.22 WROUGHT COPPER	ASTM B32 SOLDER, LEAD FREE	1	0.21-0.27	75	A
DOMESTIC HOT WATER	DHW	1" AND BELOW	ASTM B88 TYPE L COPPER	ASME B16.22 WROUGHT COPPER	ASTM B32 SOLDER, LEAD FREE	1	0.22-0.28	100	A
DOMESTIC HOT WATER RECIR	DHW/R	1" AND BELOW	ASTM B88 TYPE L COPPER	ASME B16.22 WROUGHT COPPER	ASTM B32 SOLDER, LEAD FREE	1	0.22-0.28	100	A
SANITARY, ABOVE GRADE	SAN / VENT	ALL SIZES	ASTM A74, ASTM A888 SERVICE WEIGHT CAST IRON	ASTM A74, ASTM A888 CAST IRON NO-HUB ASTM A74 CAST IRON BELL & SPIGOT	ASTM C1277 NEOPRENE GASKET SS BANDS ASTM C564 BELL & SPIGOT NEOPRENE GASKET	N/A	N/A	N/A	N/A
SANITARY, BELOW GRADE	SAN / VENT	ALL SIZES	ASTM A74 SERVICE WEIGHT CAST IRON	ASTM A74 CAST IRON BELL & SPIGOT	ASTM C564 BELL & SPIGOT NEOPRENE GASKET	N/A	N/A	N/A	N/A

CONTROL SYMBOLOGY	
	2-WAY CONTROL VALVE, DIGITAL
	2-WAY CONTROL VALVE, PNEUMATIC
	3-WAY CONTROL VALVE, DIGITAL
	3-WAY CONTROL VALVE, PNEUMATIC
	ADDRESSABLE OUTPUT MODULE (FIRE ALARM INTERFACE)
	AIRFLOW CONTROL VALVE (VENTURI OR VORTEX SHEDDING)
	AVERAGING SENSOR
	BINARY POINT
	BUTTERFLY CONTROL DAMPER
	CARBON DIOXIDE SENSOR
	CONDENSATE SENSOR
	CURRENT SENSOR
	DEW-POINT SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	DIFFERENTIAL PRESSURE SENSOR
	ELECTRIC TO PNEUMATIC SWITCH
	ELECTRIC TO PNEUMATIC TRANSDUCER
	END SWITCH
	FLOW ELEMENT (METER)
	FLOW SENSOR
	HIGH LEVEL SWITCH
	HUMIDSTAT SENSOR
	LIQUID IMERSION TEMPERATURE SENSOR
	LOW LEVEL SWITCH
	MODULATING
	MOTOR
	MOTOR STARTER
	NETWORK COMMUNICATION POINT, BACnet MSTP
	OCCUPANCY SENSOR
	OPEN/CLOSE
	OPPOSED BLADE CONTROL DAMPER
	PARALLEL BLADE CONTROL DAMPER
	PNEUMATIC THERMOSTAT
	PRESSURE SENSOR
	PRESSURE SWITCH
	RELATIVE HUMIDITY SENSOR
	RELAY
	ROOM TEMPERATURE SENSOR WITH ADJUSTABLE THERMOSTAT
	ROOM TEMPERATURE SENSOR WITH OCCUPANCY OVERRIDE
	ROOM TEMPERATURE SENSOR WITH ON/OFF SWITCH
	ROOM TEMPERATURE SENSOR WITH VISUAL DISPLAY
	ROTATION DETECTOR
	SINGLE POINT SENSOR
	SMOKE DETECTOR
	SPEED COMMAND
	START/STOP
	STATIC PRESSURE SENSOR
	SWITCH
	TEMPERATURE SENSOR
	TEMPERATURE SENSOR
	TEMPERATURE SENSOR WITH ADJUSTABLE SETPOINT

MECHANICAL SYMBOLOGY	
	AIRFLOW
	BACKFLOW PREVENTER
	BALANCE VALVE
	BALL VALVE
	BOTTOM PIPE CONNECTION
	BUTTERFLY VALVE
	CAP OR PLUG
	CHECK VALVE
	CIRCULATING PUMP
	DIRECTION OF FLOW
	DUCT AIRFLOW
	DUCT DOWN (EXHAUST OR RETURN)
	DUCT DOWN (SUPPLY)
	FIRE AND SMOKE DAMPER IN DUCT
	FIRE DAMPER IN DUCT
	FLANGE CONNECTION
	FLEX CONNECTOR
	FLEXIBLE CONNECTION
	FLEXIBLE DUCT
	FLOW METER
	FLOW SWITCH
	FUSIBLE LINK VALVE
	GLOBE VALVE
	MANUAL AIRVENT
	ORIFICE METER
	PIPE DOWN
	PIPE UP
	PIPING REDUCER (CONCENTRIC)
	PIPING REDUCER (ECCENTRIC)
	PRESSURE GAUGE
	PRESSURE OR TEMPERATURE PETES PLUG
	PRESSURE REDUCING VALVE
	PRESSURE SWITCH
	RECTANGULAR ELBOW
	RECTANGULAR ELBOW WITH TURNING VANES
	RELIEF VALVE
	SMOKE DAMPER IN DUCT
	SOLENOID VALVE
	STANDARD BRANCH DUCT
	STEAM TRAP
	STRAINER (DUPLX)
	STRAINER WITH BLOWDOWN VALVE AND CAP
	SUPPLY THROUGH NEXT FLOOR OR ROOF
	TEMPERATURE WELL
	THERMOMETER
	THERMOMETER (DIAL)
	TOP PIPE CONNECTION
	UNION CONNECTION
	VACUUM BREAKER
	VOLUME DAMPER IN DUCT


GENERAL DRAWING SYMBOLOGY	
	DEMOLISHED WORK
	EXISTING PIPING TO REMAIN
	EXISTING TO REMAIN
	EXISTING WORK TO REMAIN
	NEW WORK
	POINT OF CONNECTION
	POINT OF DISCONNECTION

MECHANICAL ABBREVIATIONS	
BCU	BLOWER COIL UNIT
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CC	CLEAN CONDENSATE
CO	CLEAN OUT
CS	CLEAN STEAM
CD	CONDENSATE DRAIN
EA	EXHAUST AIR
EA(G)	EXHAUST AIR (GREASE DUCT)
EAG	EXHAUST AIR GRILLE
FD	FIRE DAMPER
GW/R	GLYCOL HEATING RETURN
GW/S	GLYCOL HEATING SUPPLY
HPR	HIGH PRESSURE STEAM RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HWR	HOT WATER HEATING RETURN
HWS	HOT WATER HEATING SUPPLY
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
MU	MAKE UP WATER
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
NG	NATURAL GAS
PCWR	PROCESS CHILLED WATER RETURN
PCWS	PROCESS CHILLED WATER SUPPLY
HG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RAG	RETURN AIR GRILLE
SA	SUPPLY AIR
SAD	SUPPLY AIR DIFFUSER
TA	TRANSFER AIR
VD	VOLUME DAMPER

CONTROL ABBREVIATIONS	
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AV	ANALOG VALUE
BI	BINARY INPUT
BO	BINARY OUTPUT
BV	BINARY VALUE
F.L.	FAIL LAST
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
VFD	VARIABLE FREQUENCY DRIVE

MECHANICAL SUBMITTAL REGISTRY													
SECTION	DESCRIPTION	MATERIAL	SHOP DRAWINGS	COORD. DRAWINGS	AS-BUILT DRAWINGS	PRODUCT DATA	SCHEDULES	WIRING DIAGRAMS	CALCULATIONS	SAMPLES	STANDARDS	QUALIFICATIONS	WARRANTIES & BONDS
230500	COMMON WORK RESULTS FOR HVAC	WELDING CERTIFICATES											
230513	MOTOR REQUIREMENTS FOR HVAC	MOTORS			X		X					X	X
230523	GENERAL DUTY VALVES FOR HVAC	BALL VALVES			X								
230523	--	CHECK VALVES			X								
230529	HANGERS & SUPPORTS FOR HVAC	STEEL PIPE HANGERS			X								
230529	--	FASTENERS			X								
230529	--	EQUIPMENT SUPPORTS	X		X								
230593	TESTING, ADJUSTING, & BALANCING FOR HVAC	CERTIFIED TEST REPORT							X			X	X
230593	--	EQUIPMENT CALIBRATION										X	X
230700	HVAC INSULATION	PIPING INSULATION			X							X	
230700	--	DUCTWORK INSULATION			X							X	
230900	INSTRUMENTATION & CONTROL FOR HVAC	CONTROLLERS & ENCLOSURES	X	X	X	X						X	
230900	--	POINTS/ ALARM LIST	X	X									
230900	--	SCHEMATIC CONTROL DIAGRAMS	X	X									
230900	--	SEQUENCES OF OPERATION	X	X									
230900	--	BILL OF MATERIALS	X	X									
230900	--	TEMPERATURE SENSORS			X							X	
230900	--	AIRFLOW SENSORS			X							X	
230900	--	STATUS INPUTS			X							X	
230900	--	ACTUATORS			X							X	
230900	--	CONTROL VALVES			X	X						X	
230900	--	CONTROL DAMPERS			X	X						X	
232113	HYDRONIC PIPING SYSTEMS	PIPES, TUBES, FITTINGS	X	X	X								
232113	--	JOINING MATERIALS	X	X	X								
232113	--	BALANCING VALVES	X	X	X								
233133	METAL DUCTS	RECTANGULAR DUCTWORK	X	X	X								
233133	--	ROUND DUCTWORK	X	X	X								
233300	AIR DUCT ACCESSORIES	VOLUME DAMPERS	X	X	X								
233300	--	CONTROL DAMPERS	X	X	X								
233300	--	ACCESS DOORS	X	X	X								
233300	--	FLEXIBLE CONNECTORS	X	X	X								
233300	--	FLEXIBLE DUCTS	X	X	X								
233416	CENTRIFUGAL FANS	EXHAUST FANS	X	X	X	X						X	X
233713	DIFFUSERS, REGISTERS, AND GRILLES	LOUVER FACE DIFFUSERS	X	X	X							X	X
233713	--	OPPOSED-BLADE DAMPER GRILLES	X	X	X								
238219	FAN COIL UNITS	FAN COIL UNITS	X	X	X	X						X	X

- ### MECHANICAL SCOPE OF WORK
- PROVIDE EXHAUST FAN AND DUCTWORK.
 - PROVIDE FCU TO HEAT AND COOL NEW OFFICE. CONNECT FCU TO EXISTING HYDRONICS SYSTEM. PROVIDE ADEQUATE CONDENSATE DRAINAGE FOR FCU.
 - REBALANCE HYDRONIC SYSTEM FOR FCU'S SERVING 101 AND NEW OFFICE.
- ### MECHANICAL GENERAL NOTES
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. IF DIMENSIONS OR CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY REFER THE CONFLICT TO THE ENGINEER.
 - ALL DUCT DIMENSIONS INDICATED ARE IN INCHES, AND ARE INSIDE FREE AND CLEAR DIMENSIONS.
 - INSTALL EQUIPMENT TO ENSURE PROPER ACCESS TO CONTROL DEVICES AND WITH SUFFICIENT SPACE TO PERFORM ROUTINE MAINTENANCE AND REPAIR. EQUIPMENT THAT IS NOT INSTALLED WITH THIS REQUIREMENT IN MIND SHALL BE RELOCATED AT NO EXPENSE TO THE UNIVERSITY UNTIL DEFICIENCIES ARE CORRECTED.
 - ALL SYSTEM TESTING SHALL BE CONDUCTED PRIOR TO INSULATION, FIREPROOFING, AND ENCLOSURE IN SHAFTS. ANY RESTORATION WORK REQUIRED AS A RESULT OF DISTURBING FINISHES OR STRUCTURE IN ORDER TO ACCESS SYSTEMS REQUIRING REPAIR SHALL BE AT NO COST TO THE UNIVERSITY.
 - CUTTING AND PATCHING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, FITTING, AND PATCHING TO COMPLETE THE WORK. WHERE EXISTING CONSTRUCTION IS REMOVED, CAUSING AN EXPOSURE OF UNFINISHED AND/OR DAMAGED SURFACES, RESULTING SURFACES SHALL BE RECONSTRUCTED WITH MATERIALS TO MATCH FINISHED AREAS.
 - TESTING AND BALANCING: THE CONTRACTOR SHALL BALANCE ALL AIR SYSTEMS AS INDICATED. SUBMIT RESULTS OF TESTING AND BALANCING ON STANDARD TAB CONTRACTOR'S FORMS TO THE ENGINEER FOR REVIEW. SYSTEMS SHALL BE BALANCED TO WITHIN +/- 5% OF DESIGN VALUES. FINAL BALANCING SHALL OCCUR AFTER ALL LEAKS IN THE BUILDING ENVELOPE HAVE BEEN IDENTIFIED AND SEALED.
 - ANY FIRESTOPPING DISTURBED DURING THE COURSE OF WORK SHALL BE REPAIRED TO MAINTAIN A 2-HOUR FIRE RATING.
 - PNEUMATIC TERMINATIONS: IF COPPER: DEMO BACK TO MAIN AND PROVIDED SOLDERED END CAP IF POLY: DEMO BACK TO MAIN AND PROVIDE BRASS PLUG
DO NOT USE SHEETMETAL SCREW OR BEND OVER END OF COPPER TUBE.




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ARCHITECTURAL, STRUCTURAL, CIVIL, ENVIRONMENTAL, MECHANICAL, AND ELECTRICAL ENGINEERING

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ITHACA, NEW YORK 14853-3701

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ARCH/ CIVIL: *WJ*
ELECTRICAL: *ZTR*
MECHANICAL: *JF*



ERIK PAUL ESHELMAN
PROFESSIONAL ENGINEER
084093

REVISIONS		
1	12/15/23	ISSUE FOR DD REVIEW
2	02/16/24	ISSUE FOR 90% REVIEW
3	03/21/24	ISSUE FOR CONSTRUCTION

PROJECT ADDRESS
ITHACA, NEW YORK 14850

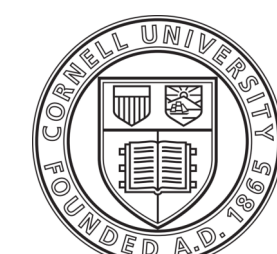
**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

DATE:	MARCH 21, 2024
FACILITY:	2040
DESIGN:	JBF
DRAWN:	TJK

**MECHANICAL
GENERAL NOTES
AND SYMBOL
LEGENDS**

M-001
15921574

ARCHIVE BAR CODE

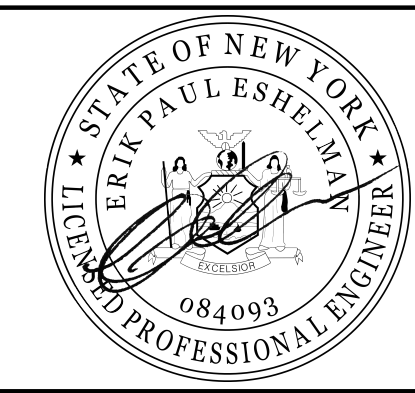


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ARCH/ CIVIL: [Signature] ELECTRICAL: [Signature] MECHANICAL: [Signature]



REVISIONS table with 2 entries: 1) 02/16/24 ISSUE FOR 90% REVIEW, 2) 03/21/24 ISSUE FOR CONSTRUCTION

Empty table for additional revisions

Empty table for additional revisions

PROJECT ADDRESS ITHACA, NEW YORK 14850

BIG RED BARN ADA RESTROOM & OFFICE RENOVATION

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: JBF
DRAWN: TJK

MECHANICAL SCHEDULES

M-501
15921574

ARCHIVE BAR CODE

CONTROL VALVE SCHEDULE AND SPECIFICATIONS

SPECS:
1) ACCEPTABLE MANUFACTURERS: BELIMO, VSI
2) ELECTRIC INPUT: 4-20mA OR 0-10VDC
3) 2-WAY VALVES: EQUAL PERCENTAGE FLOW CHARACTERISTIC
4) CONSTRUCTION - BELIMO: CHARACTERIZING DISK, FORGED BRASS, NICKEL PLATED BODY, STAINLESS STEEL BALL AND STEM, FIBERGLASS REINFORCED PTFE SEAT
5) CONTROL WIRING IN MECHANICAL EQUIPMENT ROOMS, NON-ACCESSIBLE CEILINGS, AND VERTICAL CHASES SHALL BE INSTALLED IN ELECTROMETALLIC TUBING WITH COMPRESSION FITTINGS.
6) CONTROL WIRING INSTALLED ABOVE ACCESSIBLE CEILING SPACES SHALL BE PLENUM TYPE, NOT INSTALLED IN CONDUIT, BUT NEATLY RUN WITH GENEROUS USE OF RINGS OR TIES.
7) CONTROL WIRING SHALL BE UNSPLICED FROM THE CONTROLLER TO THE SENSOR OR DEVICE.
8) CONTROL WIRING SHALL NOT BE ROUTED IN THE SAME RACEWAY AS POWER WIRING.
9) CONTROL WIRING SHALL BE COLOR CODED AND LABELED AT ALL POINTS OF TERMINATION.

Table with columns: TAG, MANF, VALVE MODEL, ACTUATOR MODEL, SERVICE, VALVE TYPE, CONTROL, CAPACITY (GPM), VALVE SIZE (IN), CV, MAX PD (PSIG), FAIL POS. Rows: CV-1, CV-2

DIFFUSER/GRILLE SCHEDULE

SPECS:
1) ACCEPTABLE MANUFACTURERS: ANEMOSTAT, CARNES, KRUEGER, PRICE, TITUS
2) FINISH: WHITE, UNLESS NOTED OTHERWISE

Table with columns: TAG #, SERVICE, MANF, MODEL, TYPE, NECK SIZE WxH OR DIA., FACE SIZE, MATERIAL, MOUNTING, NOTES. Rows: EG-1, RG-1, SG-1

DUCT SCHEDULE AND SPECIFICATIONS

SPECS:
1) ALL DUCTWORK AND ACCESSORIES SHALL BE FABRICATED AND INSTALLED IN COMPLIANCE WITH THE LATEST ISSUE OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
2) CONSTRUCT TEES, BENDS, AND ELBOWS WITH RADIUS OF NOT LESS THAN 1.0 TIMES THE WIDTH OF DUCT ON CENTER LINES.
3) WHERE RECTANGULAR ELBOWS ARE USED, PROVIDE AIR FOIL TYPE TURNING VANES.
4) INCREASE DUCT SIZES GRADUALLY, AND IN COMPLIANCE WITH FIGURE 4-7 OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.
5) BRANCH CONNECTIONS SHALL BE MADE WITH A 45 DEGREE ENTRY. STRAIGHT TEES ARE NOT ACCEPTABLE.
6) SEALANTS AND GASKETS: SURFACE BURNING CHARACTERISTICS SHALL HAVE A MAXIMUM FLAME-SPREAD INDEX OF 25, AND MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED TO UL 723.
7) ALL MANUAL BALANCING DAMPERS SHALL BE PROVIDED WITH LOCKING HAND QUADRANT.
8) CONNECT DIFFUSERS TO SUPPLY DUCTS WITH MAXIMUM OF 36-INCHES OF FLEXIBLE DUCT CLAMPED OR STRAPPED IN PLACE.
9) INSTALL VOLUME DAMPERS AT POINTS ON SUPPLY, RETURN, AND EXHAUST SYSTEMS WHERE BRANCHES EXTEND FROM LARGER DUCTS.
10) REMOVE SURFACE CONTAMINANTS AND DEPOSITS FROM DUCTWORK AND EQUIPMENT PRIOR TO TESTING AND BALANCING.
11) ALL INSULATION AND ADHESIVE SHALL HAVE A MAXIMUM FLAME-SPREAD INDEX OF 25 AND A MAXIMUM SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
TYPE A INSULATION: MINERAL FIBERGLASS BLANKET, ASTM C553 TYPE I, ASTM C1136 TYPE I FACTORY APPLIED FSK JACKET, K-VALUE BETWEEN 0.22 - 0.29 BTU-IN/HR-FT² @ 75 °F, 0.75 PCF
TYPE B INSULATION: ACOUSTICAL DUCT LAGGING, STC 29
12) PAINT DUCTWORK TO MATCH EXISTING WHERE EXPOSED.

Table with columns: SYSTEM, LOCATION, SERVICE, PRESSURE CLASS, SEAL CLASS, LEAKAGE CLASS (RECT, ROUND), DUCT MATERIAL, LINING, INSULATION (MIN R-VALUE, MATERIAL, FIELD JACKET, VAPOR RETARDER), DUCT FINISH. Rows: EXHAUST, SUPPLY AIR, RETURN AIR, EXHAUST

EXHAUST FAN SCHEDULE

SPECS:
1) ACCEPTABLE MANUFACTURERS: GREENHECK, LOREN COOK, PENN / BARRY.
2) TYPE: CEILING MOUNTED, DIRECT DRIVE, CENTRIFUGAL, WITH INTEGRAL FACE GRILLE.
3) FAN SHALL BEAR THE AMCA CERTIFIED RATINGS SEAL FOR SOUND AND AIR PERFORMANCE.
4) FAN SHALL BE LISTED BY UNDERWRITERS LABORATORIES UL 705 OR UL 507.
5) WHEEL: NON-OVERLOADING, (BACKWARD / FORWARD) CURVED CENTRIFUGAL, STATICALLY AND DYNAMICALLY BALANCED IN ACCORDANCE WITH AMCA 205-05.
6) MOTOR: 1 HP AND BELOW - PSC (PERMANENT SPLIT CAPACITOR MOTORS) OR ECM OPEN DRIP PROOF, PERMANENTLY SEALED LUBRICATED BEARINGS, IMPEDANCE, OR THERMAL OVERLOAD PROTECTION, ISOLATION MOUNTED, DISCONNECT PLUG.
7) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
8) ACCESSORIES: IPF05 SPEED CONTROL

Table with columns: TAG #, BASIS OF DESIGN (MAKE, MODEL), LOCATION, SERVICE, TYPE, AIRFLOW (CFM), ESP (IN WC), DRIVE (BELT / DIRECT), MAX NC, ELECTRICAL (V / PH / Hz, HP, RPM, SPEED CONTROL), WEIGHT (LBS), NOTES. Row: EF-1

FAN COIL SCHEDULE (4 PIPE)

NOTES:
1) PROVIDE EC MOTOR.
2) PROVIDE WITH MANUFACTURER'S 20 NON-FUSED SERVICE INTEGRAL DISCONNECT.
3) PROVIDE WITH MANUFACTURER'S CONDENSATE OVERFLOW SWITCH.
4) PROVIDE WITH MANUFACTURER'S I-VU INTEGRATED BACNET CONTROLS.
5) FACTORY PROVIDED VALVES, PROVIDE BELIMO ACTUATOR FOR FIELD INSTALLATION.
6) FACTORY PROVIDED THERMOSTAT CONTROL PACKAGE.

Table with columns: TAG, MANUFACTURER, MODEL NO., CONFIGURATION, FINISH, ROW (COOLING / HEATING), FAN SPEED, COOLING (SENSIBLE LOAD, TOTAL LOAD, CFM, GPM, FLUID TYPE, EAT DB, EAT WB, LAT DB, LAT WB, EWT, LWT, WPD), HEATING (TOTAL LOAD, GPM, FLUID TYPE, EAT, LAT, EWT, LWT, WPD), ELECTRICAL (VOLT, PH, HZ, MOTOR FLA, UNIT MCA, MFS), NOTES. Row: FCU-1

ELECTRICAL ABBREVIATIONS	
AC	AIR CONDITIONER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTER
AMM	ADDRESSABLE MONITOR MODULE
AM	ADDRESSABLE OUTPUT MODULE
ARB	AUXILIARY RELAY BOARD
ATS	AUTOMATIC TRANSFER SWITCH
B	BASEBOARD
BKR	BREAKER
C	CONDUIT
CD	CANDELA
CKT	CIRCUIT
CR	CONTROL RELAY
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF STATION

ELECTRICAL ABBREVIATIONS	
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FSD	FIRE SMOKE DAMPER
GAA	GENERATOR ALARM ANNUNCIATOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HP	HORSEPOWER
KW	KILOWATT
LC	LIGHTING CONTACTOR
LFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUIT
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
MTS	MANUAL TRANSFER SWITCH
NAC	NOTIFICATION APPLIANCE CIRCUIT
NIC	NOT IN CONTRACT
OE	OVERHEAD ELECTRIC

ELECTRICAL ABBREVIATIONS	
PC	PHOTOCELL
PM	PLUGMOLD
PP	POWER PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
RE	RELOCATE EXISTING
RGS	RIGID GALVANIZED STEEL CONDUIT
SR	SURFACE RACEWAY
ST	SHUNT TRIP
TM	THERMAL MAGNETIC
TR	TRIM/CASEWORK/WAINSCOTT
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UE	UNDERGROUND ELECTRIC
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPS
WP	WATERPROOF

LIGHTING LEGEND	
	LIGHT POLE WITH LED LUMINAIRES, REFER TO PLANS FOR NUMBER AND CONFIGURATION OF HEADS
	1'x2' LUMINAIRE
	1'x4' LUMINAIRE
	2'x4' LUMINAIRE
	CEILING MOUNTED LUMINAIRE
	EM LIGHTING BATTERY UNIT
	COMBO EXIT SIGN/EM LIGHTING BATTERY UNIT
	SINGLE FACE, WALL MOUNT EXIT SIGN
	DOUBLE FACE, WALL MOUNT EXIT SIGN
	SINGLE FACE, CEILING MOUNT EXIT SIGN
	DOUBLE FACE, CEILING MOUNT EXIT SIGN
	WIRELESS OCCUPANCY SENSOR
	WIRELESS DAYLIGHT SENSOR
	LIGHT SWITCH: 3 = 3-WAY SWITCH 4 = 4-WAY SWITCH D = DIMMER SWITCH O = WALL SWITCH OCCUPANCY SENSOR W = WALL SWITCH VACANCY SENSOR W = WIRELESS SWITCH S = WIRELESS SCENE SWITCH
	EMERGENCY LIGHT FIXTURE

LINETYPES LEGEND	
	EXISTING TO REMAIN
	DEMOLITION / TO BE RELOCATED
	TO BE PROVIDED
	UNDERGROUND ELECTRIC
	UNDERGROUND LIGHTING
	UNDERGROUND TELCO
	OVERHEAD ELECTRIC

ELECTRICAL LEGEND	
	PANELBOARD
	JUNCTION BOX
	DUPEX RECEPTACLE: B = INSTALLED IN BASEBOARD TR = INSTALLED IN WOOD TRIM CASEWORK/WAINSCOTT SR = SURFACE RACEWAY WP = WEATHERPROOF AC = AIR CONDITIONER EM = EMERGENCY
	DUPEX RECEPTACLE WITH GFCI PROTECTION
	DUPEX RECEPTACLE WITH AFCI PROTECTION
	DOUBLE DUPEX RECEPTACLE
	QUAD RECEPTACLE
	SPECIAL RECEPTACLE
	MOTOR
	MOTOR STARTER
	HARDWIRED EQUIPMENT CONNECTION
	EMERGENCY POWER OFF (EPO)
	GROUND ROD ELECTRODE
	SAFETY SWITCH (NON-FUSED)
	SAFETY SWITCH (FUSED)
	CARD READER
	DATA RECEPTACLE X = NUMBER OF CABLES TO BE PROVIDED
	WIRELESS ACCESS POINT OUTLET- CEILING MTD.
	WIRELESS ACCESS POINT OUTLET- WALL MTD.

IT/ COMMUNICATIONS LEGEND	
	DATA RECEPTACLE X = NUMBER OF CABLES TO BE PROVIDED
	WIRELESS ACCESS POINT OUTLET- CEILING MTD.
	WIRELESS ACCESS POINT OUTLET- WALL MTD.

MOUNTING HEIGHTS	
CARD READER	48" TOP OF BOX
LIGHT SWITCH	48" TOP OF BOX
RECEPTACLE	18" TOP OF BOX
DATA OUTLET	18" TOP OF BOX
TV OUTLET	84" TOP OF BOX
PHONE OUTLET	48" TOP OF BOX
SAFETY SWITCH	60" CENTERLINE OF HANDLE
MOTOR STARTER	60" CENTERLINE OF HANDLE
PANELBOARD	72" TOP OF PANELBOARD
MANUAL PULL STATION	48" OPERABLE HANDLE
NOTIFICATION APPLIANCE	80" BOTTOM OF LENS
DOOR HOLD OPEN	COORDINATE IN FIELD
EM BATTERY UNIT	96" BOTTOM OF UNIT
EM REMOTE UNIT	102" BOTTOM OF UNIT
EXIT SIGN	96" BOTTOM OF UNIT

FIRE ALARM LEGEND	
	FIRE ALARM CONTROL PANEL
	BATTERY CABINET
	MUXPAD
	REMOTE ANNUNCIATOR
	NAC PANEL
	MANUAL PULL STATION
	SMOKE DETECTOR: D = DUCT SMOKE DETECTOR R = RELAY BASE BR = BEAM RECEIVER BT = BEAM TRANSMITTER SB = SOUNDER BASE
	HEAT DETECTOR: F = FIXED TEMPERATURE R = RATE OF RISE RIF = COMBINATION RISE/FIXED TEMPERATURE
	CARBON MONOXIDE DETECTOR
	WATER FLOW SWITCH
	TAMPER SWITCH
	ADDRESSABLE MODULE
	SUPPRESSION SYSTEM
	COMBO AVV NOTIFICATION APPLIANCE: Xkcd = CANDELA C = CEILING
	VISUAL NOTIFICATION APPLIANCE: Xkcd = CANDELA C = CEILING
	AUDIBLE NOTIFICATION APPLIANCE
	MAGNETIC DOOR HOLDER

ELECTRICAL SCOPE OF WORK

1.0 PROVIDE ELECTRICAL DESIGN FOR RESTROOM SPACE MODIFICATION INCLUDING PROVIDING POWER TO ANY EQUIPMENT (NEW ADA SINK WASH BASIN, WATER CLOSETS), OUTLETS, LIGHTING, AND RELATED MODIFICATIONS.

GENERAL ELECTRICAL NOTES

- ELECTRICAL SCHEMATICS INDICATED ON CONTRACT DOCUMENTS ARE DIAGRAMMATIC. IT IS NOT THE INTENT TO SHOW EXACT OR MOST EFFICIENT ROUTING. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS ON SITE. ANY CONFLICTS BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS SHALL BE BROUGHT TO CORNELL'S PROJECT MANAGER FOR RESOLUTION BEFORE WORK PROCEEDS.
- ASSURE PUBLIC AND WORKER SAFETY AT ALL TIMES. PROTECT ADJOINING AREAS FROM DAMAGE AND DUST. REMOVE ALL DEBRIS FROM SITE AND DISPOSE OF WASTE MATERIAL IN A SAFE MANNER. KEEP THE PREMISES FREE OF DEBRIS FROM THE EXECUTION OF WORK. DELIVER A FINAL PRODUCT THAT IS CLEAN AND OPERABLE.
- FIRE STOP ELECTRICAL PENETRATIONS THROUGH FIRE RATED WALLS AND/OR FLOORS WITH MATERIAL EQUAL IN RATING TO THE CONSTRUCTION OF THE MATERIAL PENETRATED.
- WORK SHALL BE COMPLETED AS SPECIFIED AND INDICATED ON CONTRACT DOCUMENTS. ANY SUGGESTED ALTERNATE MANUFACTURER OR METHOD OF INSTALLATION SHALL BE SUBMITTED TO PROJECT ENGINEER FOR APPROVAL PRIOR TO ORDERING ANY MATERIALS OR COMMENCING EXECUTION OF WORK.
- GROUNDING SHALL BE IN STRICT ACCORDANCE WITH NEC ARTICLE 250. PROVIDE EQUIPMENT GROUND CONDUCTOR WITH EACH BRANCH CIRCUIT INDICATED ON CONTRACT DOCUMENTS. EQUIPMENT GROUND CONDUCTOR SHALL BE ROUTED WITH ASSOCIATED PHASE CONDUCTORS.
- PROVIDE A NEW TYPED PANELBOARD DIRECTORY FOR EACH PANELBOARD. LABEL ALL NEW DEVICE FACEPLATES WITH SOURCE AND CIRCUIT NUMBER. PROVIDE PERMANENT LABEL ON SWITCHING DEVICES INDICATING EQUIPMENT SERVICE AND INVENTORY NUMBERS. COORDINATE EQUIPMENT INVENTORY NUMBERS WITH CORNELL UNIVERSITY'S MECHANICAL SHOP, 255-8667.
- CIRCUITS RATED 20-AMP, 120 VOLT SHALL CONTAIN SEPARATE NEUTRAL CONDUCTORS.
- CONDUCTORS SHALL BE A MINIMUM OF 12AWG, STRANDED COPPER, 600VAC, 90 DEGREE C, TYPE THHN/THWN-2 FOR DRY AREAS AND XHHW/THWN-2 FOR WET AREAS.
- CONDUITS SHALL BE A MINIMUM OF 3/4 INCHES DIAMETER. CONDUITS SHALL BE ELECTRICAL METALLIC TUBING (EMT) AND SURFACE MOUNTED UNLESS NOTED OTHERWISE.
- AIC RATING OF NEW CIRCUIT BREAKERS SHALL MATCH RATING OF RESPECTIVE PANELBOARD. SIZE AS INDICATED.
- PROVIDE PULL STRING THROUGH NEW CONDUIT AND BOXES. PROVIDE SUPPORT HANGERS FOR CONDUIT AS NEEDED.
- INSTALL RACEWAY SYSTEMS ENSURING PROPER ACCESS TO EQUIPMENT AND DEVICES AND WITH SUFFICIENT SPACE TO PERFORM ROUTINE MAINTENANCE AND REPAIR. RACEWAYS THAT ARE NOT INSTALLED WITH THIS REQUIREMENT IN MIND SHALL BE RELOCATED AT NO EXPENSE TO THE UNIVERSITY UNTIL DEFICIENCIES ARE CORRECTED.

GENERAL ELECTRICAL DEMOLITION NOTES

- ELECTRICAL EQUIPMENT SHOWN DASHED ON DEMOLITION DRAWINGS, INCLUDING ASSOCIATED ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS, AND OTHER APPURTENANCES NOT SHOWN, SHALL BE DISCONNECTED AND REMOVED. REMOVE ASSOCIATED BRANCH CIRCUITRY TO SOURCE, UNLESS NOTED OTHERWISE.
- EXISTING RACEWAYS AND DEVICE BACKBOXES NOT INTERFERING WITH NEW WORK SHALL BE REUSED WHERE POSSIBLE.
- PROVIDE JUNCTION BOXES, RACEWAYS, AND WIRING TO MODIFY/EXTEND EXISTING SYSTEMS AND CIRCUITS FED DOWNSTREAM OF ELECTRICAL EQUIPMENT SHOWN TO BE DEMOLISHED.
- CUT DEMOLISHED CONDUITS INSTALLED THRU WALLS AND FLOORS FLUSH WITH THE SURFACE AND PATCH PENETRATIONS (FIRESTOP IF LOCATED ON A FIRE RATED SURFACE). PATCH AND PAINT SURFACES IN EXPOSED AREAS TO MATCH SURROUNDING MATERIALS, FINISHES, AND COLORS.
- PROVIDE BLANK COVERPLATES ON UNUSED BACKBOXES REMAINING FROM DEMOLITION NOT SPECIFIED TO BE INFILLED.
- EXISTING EQUIPMENT SHOWN TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.

FIRE ALARM GENERAL NOTES

- COMPLY WITH THE AUTHORITY HAVING JURISDICTION (AHJ), NFPA 72, THE NATIONAL ELECTRICAL CODE, THE AMERICANS WITH DISABILITIES ACT (ADA) AND ALL STATE, LOCAL AND MUNICIPAL ORDINANCES.
- REFER TO FIRE ALARM PLANS FOR QUANTITIES AND LOCATIONS OF FIRE ALARM EQUIPMENT.
- IDENTIFY FIRE ALARM WIRING BY SYSTEM AND FUNCTION AT BOTH ENDS AND WITHIN CABINETS AND JUNCTION BOXES WITH PREMARKED, SELF-ADHESIVE, WRAPAROUND TYPE LABELS. WIRE DESIGNATIONS SHALL CORRESPOND WITH POINT-TO-POINT WIRING DIAGRAMS.
- FIRE ALARM EQUIPMENT SHALL BE UL LISTED COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM.
- SYNCHRONIZE ALL VISUAL NOTIFICATION APPLIANCES.
- PROVIDE ALL EQUIPMENT, ACCESSORIES AND PROGRAMMING REQUIRED TO MODIFY THE EXISTING FIRE ALARM SYSTEM.
- FIRE ALARM CABLING SHALL BE INSTALLED IN MINIMUM 3/4" EMT CONDUIT. REUSE EXSITING CONDUIT WHERE POSSIBLE.

FIRE ALARM TESTING NOTES

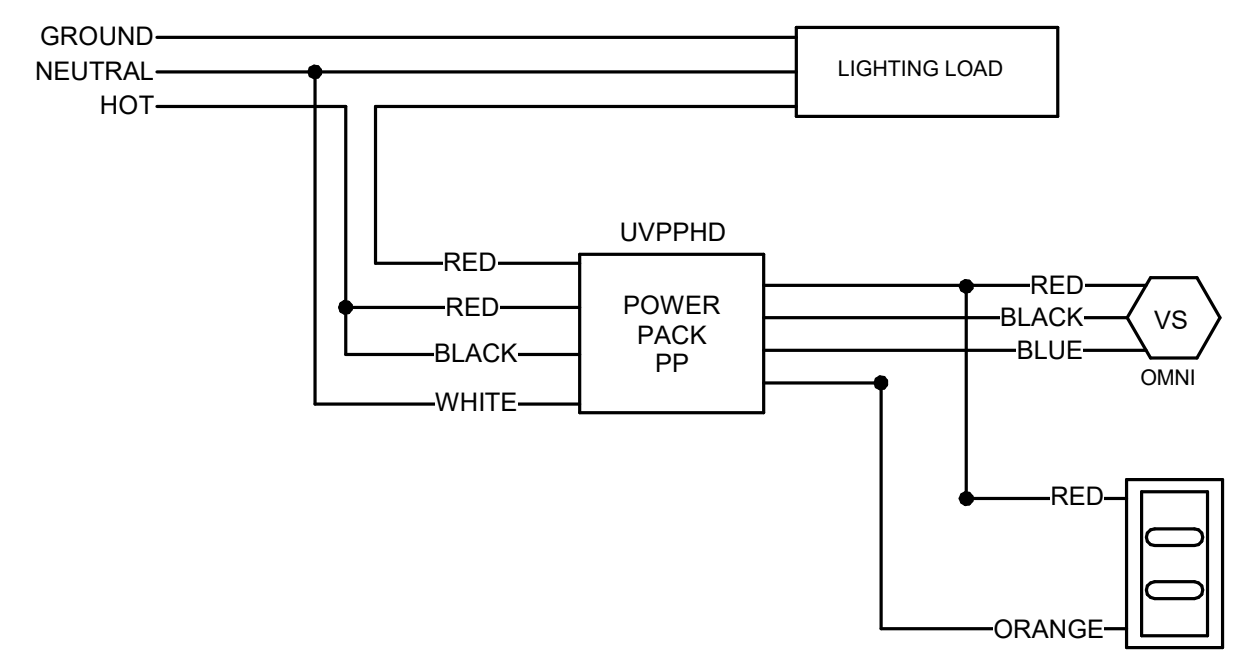
- TEST ALL FIRE ALARM WIRING FOR CONTINUITY AND VERIFY THAT ALL FIRE ALARM WIRING TESTS FREE FROM GROUNDS BETWEEN CONDUCTORS.
- UPON COMPLETION OF FIRE ALARM WORK IN THE BUILDING, PERFORM A RECEPTANCE TEST PER NFPA 72 WITH CORNELL EHS'S REPRESENTATIVE. VERIFY CORRECT RECEIPT OF ALARM, SUPERVISORY AND TROUBLE SIGNALS (INPUTS), OPERATION OF EVACUATION SIGNALS AND AUXILIARY FUNCTIONS (OUTPUTS); CIRCUIT SUPERVISION, INCLUDING DETECTION OF OPEN CIRCUITS AND GROUND FAULTS; AND POWER SUPPLY SUPERVISION FOR DETECTION OF LOSS OF AC POWER AND DISCONNECTION OF SECONDARY BATTERIES.
- FIRE ALARM SYSTEM SHALL BE COMPLETELY OPERABLE AT ALL TIMES DURING CONSTRUCTION. IN THE EVENT A ZONE MUST BE DEACTIVATED, COORDINATE SHUTDOWN IN ADVANCE WITH THE OWNER AND AHJ AND PROVIDE FIRE WATCH IN ALL PUBLIC SPACES OF THE AFFECTED ZONE(S) AT ALL TIMES THE BUILDING IS OCCUPIED.
- FIRE ALARM SYSTEM SHALL BE FULLY OPERATIONAL AT THE END OF EACH DAY.
- THROUGH WALL PENETRATIONS FOR REMOVED CONDUITS AND/OR THE INSTALLATION OF PROPOSED CONDUITS SHALL BE FIRE STOPPED TO MAINTAIN THE FIRE RATING OF WALL ASSEMBLY.

SUBMITTAL SCHEDULE

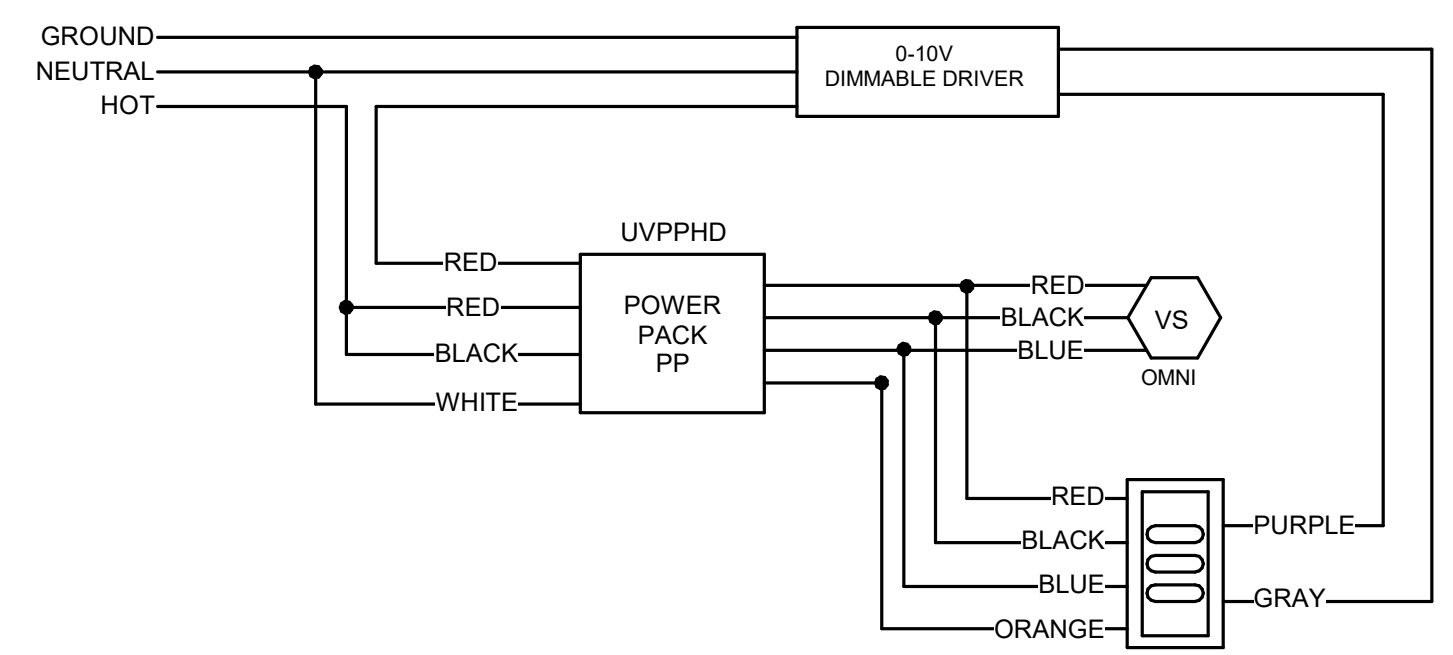
SECTION	TITLE	REQUIRED
260000	ELECTRICAL GENERAL REQUIREMENTS	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M
260533	RACEWAY & BOXES FOR ELECTRICAL	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M
260923	LIGHTING CONTROL DEVICES	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M
262726	WIRING DEVICES	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M
265000	LIGHTING	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M
271116	COMM SYS COMPONENTS	PRODUCT DATA, MANUFACTURERS INSTRUCTIONS, O&M

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	SIZE	FINISH	MANUFACTURER	CATALOG NO.	VOLTAGE	WATTAGE	LAMP	LUMENS	CCT	DRIVER	COUNT	NOTES
A1	LINEAR LED DIRECT	PENDANT	4"x4.75"x48"	BLACK	FINELITE	HP4-P-D-4-V-835-F-120-SC-FC-10%-FA50-FE-FB	120V	37	LED	3705	3500K	0-10V 10% DIMMING	1	
A2	LINEAR LED DIRECT	PENDANT	4"x4.75"x96"	BLACK	FINELITE	HP4-P-D-8-V-835-F-120-SC-FC-10%-FA50-FE-FB	120V	75	LED	7410	3500K	0-10V 10% DIMMING	1	
B1	LINEAR LED DIRECT	PENDANT	3"x3"x48"	BLACK	COLUMBIA	MPS4-35-XW-FW-ED-U	120V	20	LED	2509	3500K	0-10V 10% DIMMING	2	



2 MANUAL ON VACANCY SENSOR CONTROL
NOT TO SCALE



1 MANUAL ON VACANCY SENSOR CONTROL W/ FULL DIMMING
NOT TO SCALE

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ARCH/ CIVIL: *WJL*
ELECTRICAL: *ZTR*
MECHANICAL: *87*

STATE OF NEW YORK
E. K. PAUL, E.S.H. J. M. A. S.
REGISTERED PROFESSIONAL ENGINEER
084093

REVISIONS	
1	12/15/23 ISSUE FOR DD REVIEW
2	02/16/24 ISSUE FOR 90% CD REVIEW
3	03/21/24 ISSUE FOR CONSTRUCTION

135 PRESIDENTS DR
ITHACA, NEW YORK 14850

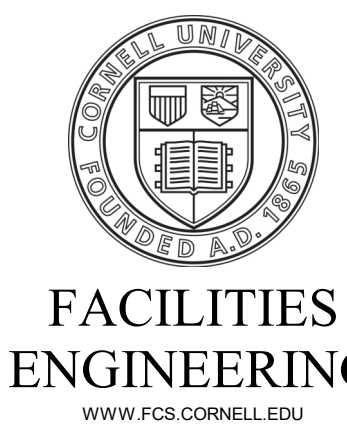
**BIG RED BARN
ADA RESTROOM
& OFFICE
RENOVATION**

DATE: MARCH 21, 2024
FACILITY: 2040
DESIGN: M. SCHOLENO
DRAWN: MPS

GENERAL NOTES AND SYMBOL LEGENDS

E-001
15921574

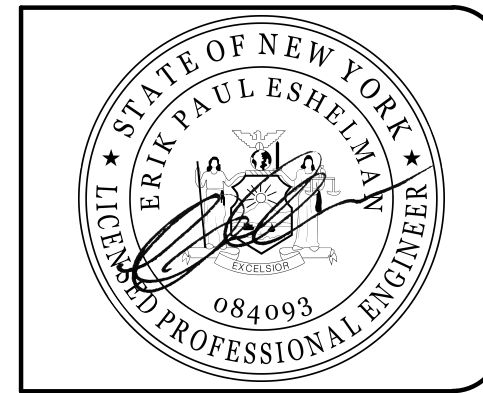
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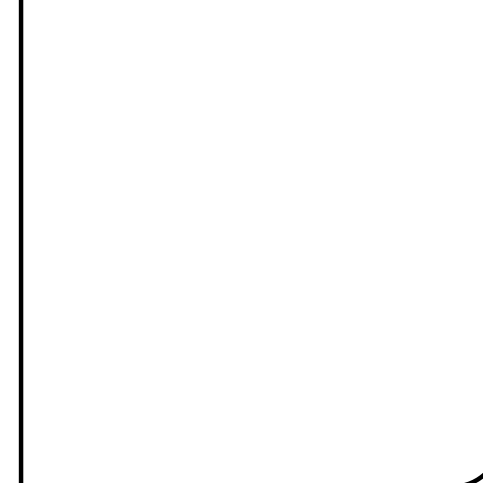
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**BIG RED BARN
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DATE:	MARCH 21, 2024
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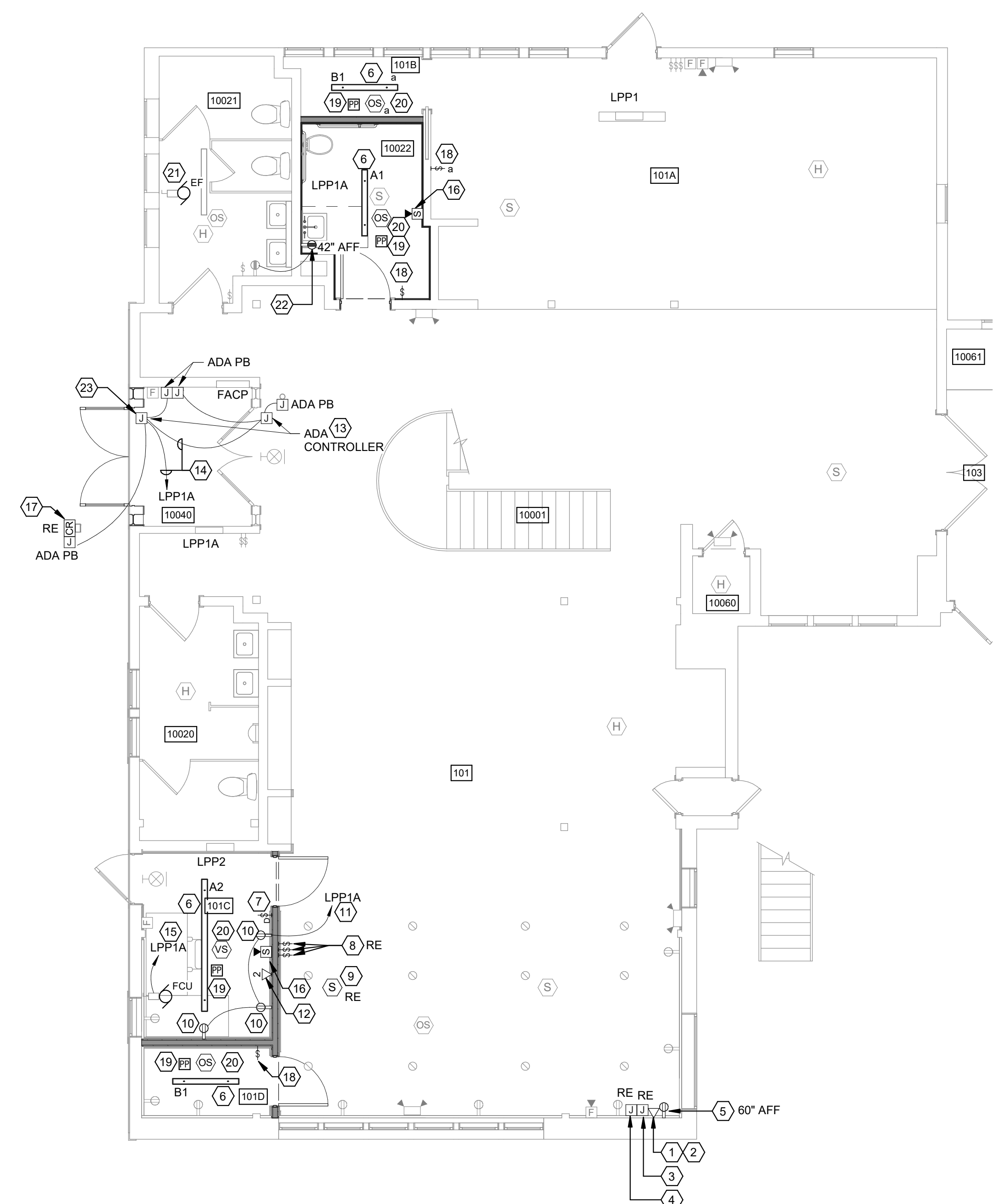
**ELECTRICAL
DEMOLITION &
RENOVATION
PLANS**

E-101
15921574

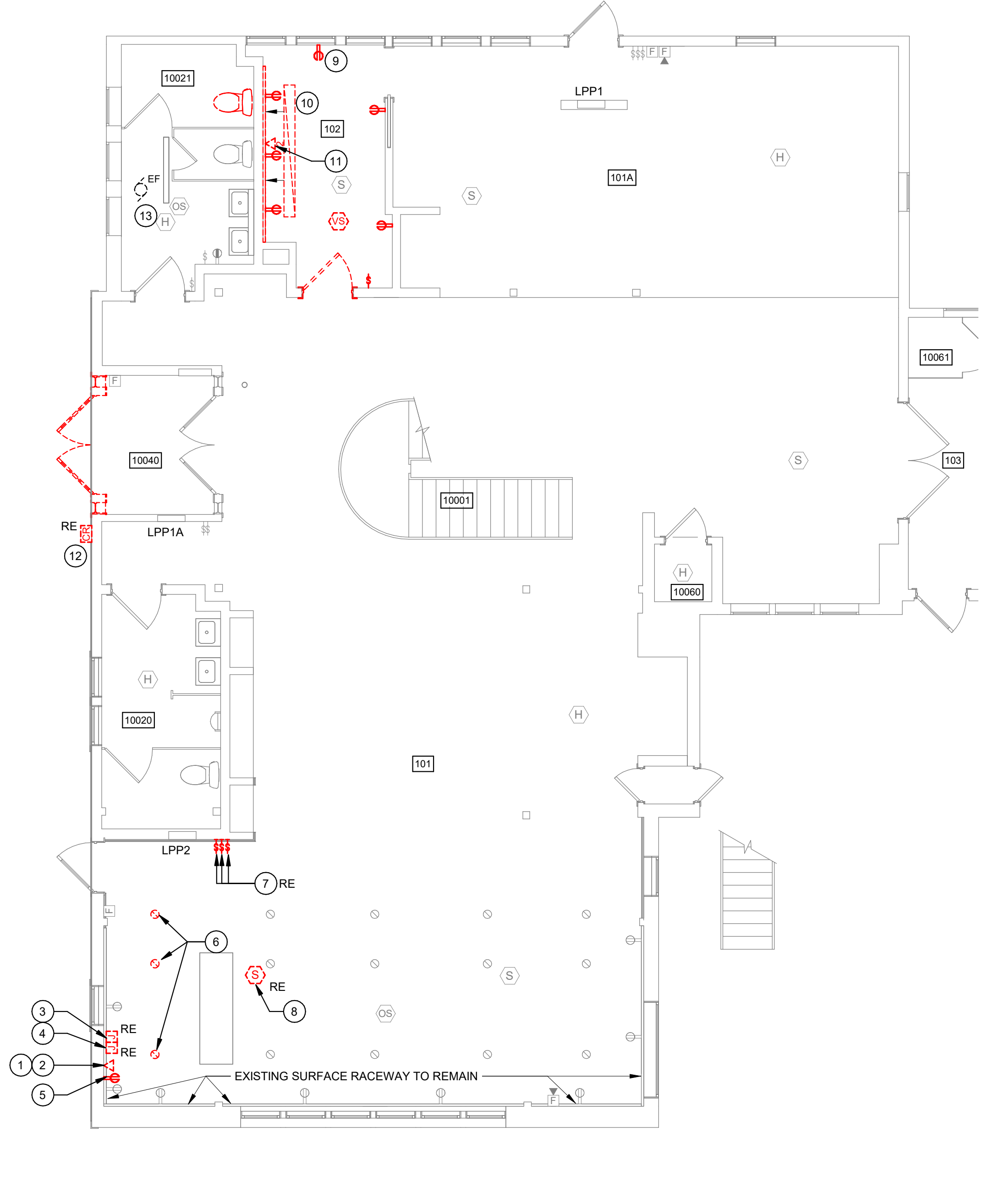
#	E-101 KEYED DEMOLITION NOTES
1	DISCONNECT AND REMOVE EXISTING DATA CABLING BACK TO BEYOND DEMOLITION AND TAG FOR REUSE. REMOVE EXISTING CONDUIT BACK TO SURFACE RACEWAY.
2	DISCONNECT EXISTING ASSISTED LISTENING DEVICE AND PROPERLY STORE FOR REUSE. REMOVE ASSOCIATED CABLE BACK BEYOND DEMOLITION AND TAG FOR REUSE. REMOVE EXISTING CONDUIT BACK TO SURFACE RACEWAY.
3	DISCONNECT AND REMOVE 3 EXISTING MICROPHONE JACKS AND BACK BOX. PROPERLY STORE FOR REUSE. REMOVE CABLE BACK BEYOND DEMOLITION AND TAG FOR REUSE.
4	DISCONNECT AND REMOVE 3 (HDMI, VGA, MINI) EXISTING DIGITAL VIDEO & AUDIO JACKS AND BACK BOX. PROPERLY STORE FOR REUSE. REMOVE EXISTING CABLING BACK BEYOND DEMOLITION AND TAG FOR REUSE.
5	DISCONNECT AND REMOVE EXISTING DUPLEX OUTLET. REMOVE CONDUIT AND CIRCUIT BACK TO SURFACE RACEWAY. TAG EXISTING CIRCUIT FOR REUSE.
6	DISCONNECT AND REMOVE EXISTING LIGHTING. TAG EXISTING CIRCUIT FOR REUSE.
7	DISCONNECT AND REMOVE EXISTING LIGHT SWITCH. PROPERLY STORE FOR REUSE. TAG EXISTING CIRCUIT FOR REUSE.
8	DISCONNECT AND REMOVE EXISTING SMOKE DETECTOR. PROPERLY STORE FOR REUSE. TAG EXISTING INITIATION CIRCUIT FOR REUSE. PROVIDE TEMPORARY HEAT DETECTION DURING CONSTRUCTION.
9	DISCONNECT AND REMOVE ALL EXISTING DUPLEX OUTLETS AND ASSOCIATED RACEWAY IN THIS ROOM. REMOVE BRANCH CIRCUIT BACK TO SOURCE.
10	DISCONNECT AND REMOVE EXISTING LIGHTING AND LIGHTING CONTROLS. TAG EXISTING LIGHTING CIRCUIT FOR REUSE.
11	DISCONNECT AND REMOVE EXISTING DATA OUTLET. REMOVE CABLING BACK TO SOURCE.
12	DISCONNECT AND REMOVE EXISTING CARD READER. PROPERLY STORE FOR REUSE. TAG EXISTING CIRCUIT FOR REUSE.
13	DISCONNECT EXISTING EXHAUST FAN. TAG EXISTING CIRCUIT FOR REUSE.

#	E-101 KEYED RENOVATION NOTES
1	MODIFY/EXTEND EXISTING DATA CABLING SAVED DURING DEMOLITION TO NEW LOCATION AND RECONNECT TO EXISTING TV. COORDINATE WITH CIT AND END USER.
2	MODIFY/EXTEND EXISTING ASSISTED LISTENING DEVICE CABLING SAVED DURING DEMOLITION TO NEW LOCATION. PROPERLY MOUNT EXISTING ASSISTED LISTENING DEVICE AND RECONNECT. COORDINATE EXACT LOCATION WITH END USER.
3	MODIFY/EXTEND EXISTING CABLING FOR EXISTING DIGITAL & AUDIO JACKS SAVED DURING DEMOLITION TO NEW LOCATION. REINSTALL EXISTING JACKS AND RECONNECT. COORDINATE EXACT LOCATION WITH END USER.
4	MODIFY/EXTEND EXISTING MIC CABLING TO NEW LOCATION. REINSTALL EXISTING MIC JACKS SAVED DURING DEMOLITION AND CONNECT. COORDINATE EXACT LOCATION WITH END USER.
5	PROVIDE NEW SPECIFICATION GRADE 120V, 20A DUPLEX RECEPTACLE IN SURFACE MOUNTED BACKBOX. MODIFY/EXTEND EXISTING CIRCUIT SAVED DURING DEMOLITION AND CONNECT. PROVIDE 2#12 AWG & 1#12 AWG GROUND IN 3/4" EMT CONDUIT.
6	PROVIDE NEW PENDANT MOUNTED LED LIGHT FIXTURES AS INDICATED. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION. MOUNT BOTTOM OF FIXTURE 8'-6" AFF. MODIFY/EXTEND EXISTING LIGHTING CIRCUIT SAVED DURING DEMOLITION AND CONNECT. CIRCUIT NEW LIGHT FIXTURES WITH 2#12 AWG & 1#12 AWG GROUND IN 3/4" EMT CONDUIT. TYPICAL.
7	PROVIDE 0-10V WALL-BOX DIMMER SWITCHES FOR CONTROL. DESIGN BASIS: HUBBELL LVSD-M-3. CIRCUIT TO LIGHT FIXTURES INDICATED. PROVIDE 120V CONNECTION & 0-10V WIRING PER MANUFACTURERS RECOMMENDATIONS AND DETAIL 1/E-001.
8	RELOCATE EXISTING LIGHTS SWITCHES SAVED DURING DEMOLITION. MODIFY/EXTEND EXISTING LIGHT CIRCUITS AND RECONNECT.
9	REMOVE TEMPORARY HEAT DETECTION. RELOCATE EXISTING SMOKE DETECTOR TO NEW LOCATION INDICATED. MODIFY/EXTEND EXISTING FIRE ALARM CIRCUIT AS NEEDED AND RECONNECT.
10	PROVIDE NEW 120V, 20A SPECIFICATION GRADE DUPLEX RECEPTACLES AND CIRCUIT AS INDICATED WITH 2#12 AWG & 1#12 AWG GND CONDUCTORS IN 3/4" EMT.
11	PROVIDE 120V, 20A/1 POLE CIRCUIT BREAKER IN PANEL INDICATED AND CONNECT TO ASSOCIATED BRANCH CIRCUIT. MATCH EXISTING PANEL TYPE AND AIC RATINGS.
12	PROVIDE QUANTITY OF DATA JACKS AS INDICATED BY NUMBER ADJACENT TO SYMBOL. PROVIDE RACEWAY WITH PULL STRING FOR FUTURE CABLING BY CIT FROM EXISTING TELECOMMUNICATIONS ROOM. CIT SHALL PULL CABLE, TERMINATE AND TEST. TYPICAL. COORDINATE ALL ROUTING, LOCATIONS AND QUANTITY OF JACKS WITH CIT PRIOR CONSTRUCTION.
13	PROVIDE CONNECTION TO ADA PADDLES ON THE INTERIOR PEDESTAL, IN VESTIBULE AND ON EXTERIOR BOLLARD AS INDICATED. ROUTE DOWN TO BELOW GRADE (18" MINIMUM) IN 3/4" PVC CONDUIT, OVER AND UP INTO NEW BOLLARD FOR CONNECTION TO ADA PADDLE. PROVIDE MANUFACTURER RECOMMENDED CABLE & CONDUIT BETWEEN DOOR OPENER AND ADA PADDLES. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS, LOCATION AND CLEARANCES.
14	PROVIDE 120V, 20A POWER AS INDICATED AND CIRCUIT WITH 2#12 AWG & 1#12 AWG GROUND CONDUCTORS IN 3/4" EMT CONDUIT. PROVIDE 20A, 1 POLE CIRCUIT BREAKER IN ASSOCIATED PANEL. MATCH EXISTING TYPE AND RATINGS.
15	PROVIDE 208V, 20A POWER AS INDICATED AND CIRCUIT WITH 2#12 AWG & 1#12 AWG GROUND CONDUCTORS IN 3/4" EMT CONDUIT. PROVIDE 20A, 2 POLE CIRCUIT BREAKER IN ASSOCIATED PANEL. MATCH EXISTING TYPE AND RATINGS.
16	PROVIDE FIRE ALARM NOTIFICATION DEVICE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THEN 80" AFF OR GREATER THAN 96" AFF. CIRCUIT FROM NEAREST FIRE ALARM NOTIFICATION CIRCUIT SERVING ROOM AREA AND MATCH EXISTING SYSTEM CABLING AND FIRE ALARM DEVICES.
17	RELOCATE EXISTING CARD READER TO NEW BOLLARD. MODIFY/EXTEND EXISTING CABLING & CONDUIT AS NEEDED. ROUTE DOWN TO BELOW GRADE (18" MINIMUM) IN 3/4" PVC CONDUIT, OVER AND UP INTO NEW BOLLARD FOR CONNECTION TO RELOCATED CARD READER. MATCH EXISTING WIRING. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHTS, LOCATIONS AND CLEARANCES.
18	PROVIDE WALL-BOX ON/OFF SWITCH FOR CONTROL. DESIGN BASIS: HUBBELL LVSM-1-1NP. CIRCUIT TO LIGHT FIXTURE INDICATED BY LOWER CASE LETTER ADJACENT TO LIGHT FIXTURE. PROVIDE 120V CONNECTION & ANY ADDITIONAL WIRING PER MANUFACTURERS RECOMMENDATIONS AND DETAIL 2/E-001.
19	PROVIDE POWER PACK CONTROLLER FOR LIGHTING. CIRCUIT PER MANUFACTURERS RECOMMENDATIONS AND DETAILS 21 & 2/E-001. DESIGN BASIS: HUBBELL UVPPHD.
20	PROVIDE CEILING MOUNTED PIR VACANCY DETECTOR. CIRCUIT PER MANUFACTURERS RECOMMENDATIONS AND DETAILS 2 & 3/E-001. DESIGN BASIS: NX CONTROLS OMNI-IR-RP.
21	MODIFY/EXTEND EXISTING CIRCUIT SAVED DURING DEMOLITION AND CONNECT TO NEW EXHAUST FAN.
22	PROVIDE SPECIFICATION GRADE 120V, 20A GFCI DUPLEX RECEPTACLE. CIRCUIT TO EXISTING RECEPTACLE CIRCUIT AS INDICATED WITH 2#12 AWG & 1#12 AWG GND CONDUCTORS IN 3/4" EMT.
23	PROVIDE RELAY (SPACE AGE PAM1 10A) IN ADA DOOR OPERATOR AND CIRCUIT TO EXISTING CARD ACCESS CONTROL READER INTERFACE MODULE SO ADA OPERATOR ENERGIZES ONLY AFTER CARD ACCESS HAS BEEN INITIATED.

TELECOMMUNICATIONS GENERAL NOTES	
1.0	NEW COMMUNICATION OUTLETS:
1.1	PROVIDE 8 POSITION, 8 WIRE, T568A CODED CATEGORY 6 MODULAR JACKS. PANDUIT CJ688TG.
1.2	OUTLETS (FACEPLATES AND ADAPTERS) FOR THE JACK MODULES WILL BE FROM THE SAME MANUFACTURER. PANDUIT IVORY BEZEL CBEE SERIES.
2.0	OBTAIN OUTLET NUMBER CONFIGURATION FOR ROOM LAYOUTS FROM THE CIT/INFRASTRUCTURE ENGINEER. TYPICALLY THE OUTLET DESIGNATIONS ARE ASSIGNED USING THE ROOM NUMBER FOLLOWED BY THE LETTERS A-Z IN A CLOCKWISE ORIENTATION FROM THE LEFT OF THE PRIMARY ENTRANCE OF THE ROOM.
3.0	REFER TO CORNELL COMMUNICATIONS DESIGN AND CONSTRUCTION STANDARD FOR MORE INFORMATION.
4.0	ALL CABLING, TERMINATING AND TESTING SHALL BE PROVIDED BY CIT.



2 1ST FLOOR RENOVATION PLAN
SCALE: 3/16" = 1'-0"



1 1ST FLOOR DEMOLITION
SCALE: 3/16" = 1'-0"

ARCHIVE BAR CODE