# WSU ALL GENDER RESTROOMS

DRAWING SEQUENCE NUMBER

DRAWING TYPE DESIGNATOR

GENERAL, LEGENDS

REFLECTED CEILING PLANS

DOOR AND WINDOW SCHEDULES AND

# 259 MACK AVE DETROIT, MI 48201

APPLICABLE CODES

UNIVERSITY/COLLEGE

DISCIPLINE

DESIGNATOR

G GENERAL

AD ARCHITECTURAL

M MECHANICAL

PLUMBING

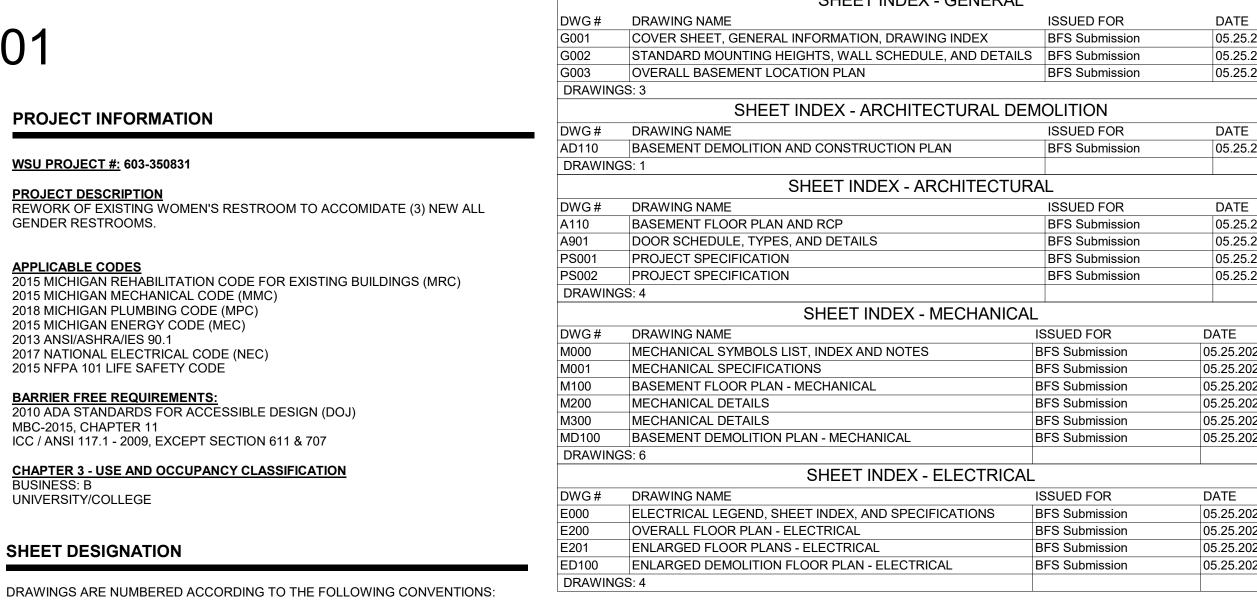
ELECTRICAL FP FIRE PROTECTION

DEMOLITION

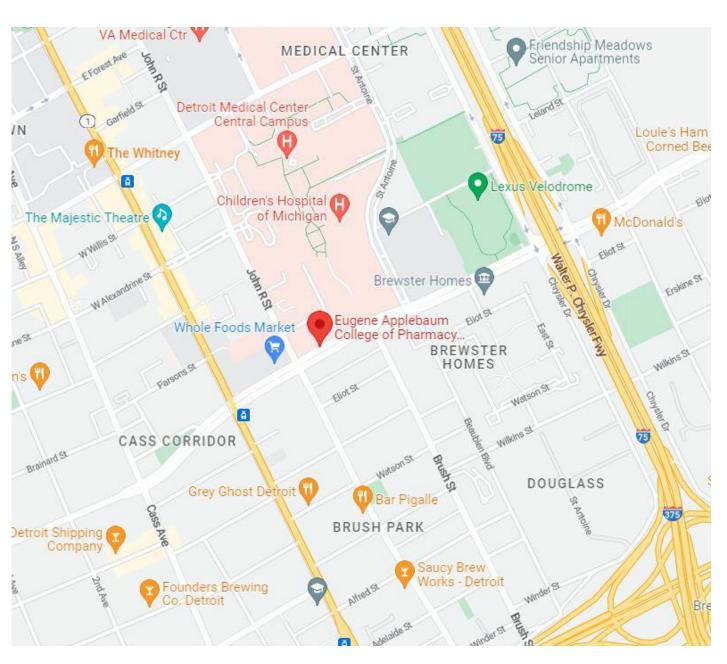
ARCHITECTURAL

# **ARCHITECT**

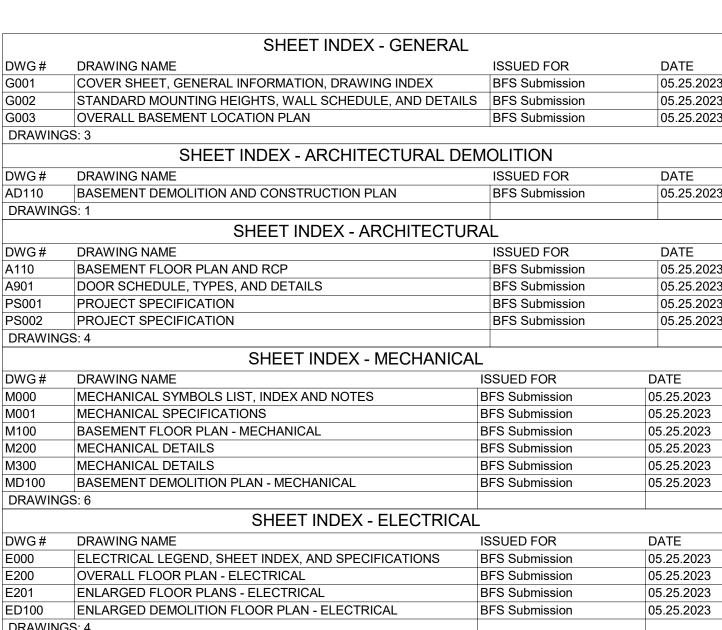
STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE **ROYAL OAK, MICHIGAN 48067** (248) 546-6700

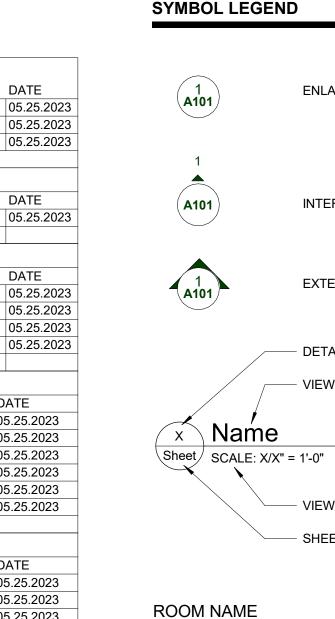


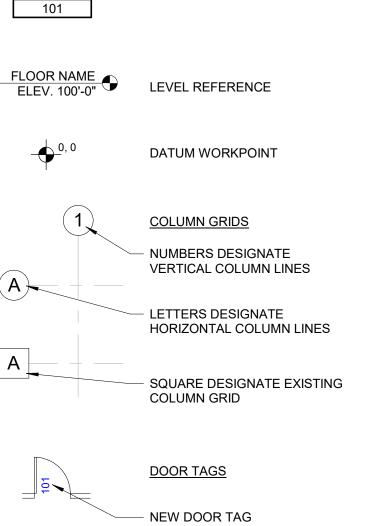
NOTE:
THESE CONSTRUCTION DRAWINGS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES, ISSUED AND APPROVED CODE MODIFICATIONS AND/OR CITY CODE AUTHORITY CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND APPROVAL.



**LOCATION MAP** G001 1" = 1'-0"







ENLARGED CALLOUT TAG

INTERIOR ELEVATION TAG

**EXTERIOR ELEVATION TAG** 

DETAIL NUMBER

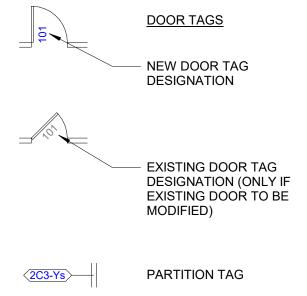
VIEW TITLE

VIEW SCALE

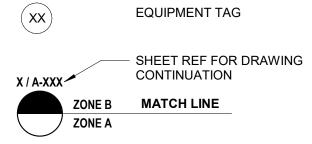
**ROOM TAG** 

**ROOM NAME** 

SHEET NUMBER







**EQUIPMENT TAG** 

### **ABBREVIATION LEGEND**

& L @	AND ANGLE AT	Ø DIA	NTERLINE METER JS OR MIN
ACCESS. ACOUS. ACT A.D.	ACCESSIBILITY ACOUSTICAL ACOUSTICAL CEILING TILE AREA DRAIN	N NIC NOM. NTS	NORTH NOT IN CONTRACT NOMINAL NOT TO SCALE
ADJ A.F.F.	ADJUSTABLE ABOVE FINISH FLOOR	O/C OFC	ON CENTER OFFICE
AL	ALUMINUM	OPNG	OPENING
ANOD. ARCH.	ANODIZED ARCHITECTURAL or ARCHITECT	OPP OVFD	OPPOSITE OVERFLOW DRAIN
ASPH. BD.	ASPHALT BOARD	PL PLAM	PLATE PLASTIC LAMINATE
BF	BARRIER FREE	PLAS	PLASTER
BLDG. BLK'G.	BUILDING BLOCKING	PNT PLYWD	PAINT PLYWOOD
BOT. BR	BOTTOM BRICK	PREFAB PFN	PREFABRICATED PREFINISH or PREFINISHED
CAB. CEM.	CABINET CEMENT	PROJ PT	PROJECTION POINT
C.J.	CONTROL JOINT	R.	RISER
CLG C.F.M.F.	CEILING COLD FORMED METAL FRAMING	RCP R.C.	REFLECTED CEILING PLAN ROOF CONDUCTOR
C.O. CLO.	CLEAN OUT CLOSET	RD REINF	ROOF DRAIN REINFORCING
CLR. COL.	CLEAR COLUMN	REQ'D RESIL	REQUIRED RESILIENT
CONC. C.G.	CONCRETE CORNER GUARD	RFG	ROOFING
CONST.	CONSTRUCTION	RM R.S.	ROOM ROOF SUMP
CONT. COR.	CONTINUOUS CORRIDOR	SAN SC	SANITARY SOLID CORE
CORR. CPT	CORRUGATED CARPET	SCHED SHT	SCHEDULE SHEET
C.T.	CERAMIC TILE	SIM	SIMILAR
CTSK. CW	COUNTER SUNK CURTAIN WALL	SPEC SQ	SPECIFICATIONS SQUARE
D.F. DET.	DRINKING FOUNTAIN DETAIL	ST.STL. SS	STAINLESS STEEL SOLID SURFACE
DIA. DIM.	DIAMETER DIMENSION	ST STD	STONE STANDARD
DN. D.O.	DOWN DOOR OPENING	STL STN	STEEL STAIN
DR.	DOOR	STOR	STORAGE
D.S. DWG.	DOWN SPOUT DRAWING	STRUCT SUSP	STRUCTURAL or STRUCTURE SUSPENDED
DWR. EA	DRAWER EACH	SYM T.	SYMMETRICAL TREAD
E.J. EL	EXPANSION JOINT ELEVATION	T&B TERR.	TOP AND BOTTOM TERRAZZO
ELEC.	ELECTRICAL	T.O.C.	TOP OF CURB
ELEV. E.O.S./EOS		T&G THK	TONGUE AND GROOVE THICK
E.O.D./EOD EP	EDGE OF DECK ELECTRICAL PANEL	THRES. T.O.P.	THRESHOLD TOP OF PARAPET
EPX EQ.	EPOXY EQUAL	TA TV	TOILET ACCESSORY TELEVISION
EQPM E.W.	EQUIPMENT EACH WAY	T.O.W.	TOP OF WALL TOP OF STEEL
EXIST. / EX	EXISTING	TYP. U/C	TYPICAL
EXP. EXT.	EXPOSED EXTERIOR	U.N.O.	UNDERCUT UNLESS NOTED OTHERWISE
FA FD	FIRE ALARM FLOOR DRAIN	U.SK. V.B.	UTILITY SINK VAPOR BARRIER
FON FE	FOUNDATION FIRE EXTINGUISHER	VCT VERT.	VINYL COMPOSITION TILE VERTICAL
FEC FHC	FIRE EXTINGUISHER CABINET FIRE HOSE CABINET	VEST VF	VESTIBULE VINYL FLOORING
FIN FL	FINISH FLOOR	V.I.F. W	VERIFY IN FIELD WIDTH
F.O.	FACE OF	W/	WITH
F.O.S. FPRF	FACE OF STUD FIREPROOF	WB W.C.	WALL BASE WATER CLOSET
FR FRP	FRAME FIBERGLASS REINFORCED PANEL	WC WD	WALLCOVERING WOOD
FRT F.S.	FIRE RETARDANT TREATED FULL SIZE	W/O WR	WITHOUT WATER RESISTANT
FT. FTG.	FOOT or FEET FOOTING	WSCT. WT.	WAINSCOT WEIGHT
FUR	FURRING		WELDED WIRE FABRIC
GA. GALV.	GAUGE GALVANIZED		
G.B. GFRC.	GRAB BAR GLASS FIBER REINFORCED CONCRETE		
GL. GYP.	GLASS GYPSUM		
H.B. H.C.	HOSE BIBB HOLLOW CORE		
HDWD	HARDWOOD		
HDWE HM	HARDWARE HOLLOW METAL		
HORIZ. HR	HORIZONTAL HOUR		
HGT INSUL	HEIGHT INSULATION		
IMP IMWP	INSULATED METAL PANEL INSULATED METAL WALL PANEL		
INT	INTERIOR		
J.C. JT.	JANITOR'S CLOSET JOINT		
KIT. LAV	KITCHEN LAVATORY		
LG L.L.V.	LENGTH LONG LEG VERTICAL		
LT	LIGHT		
LVT MAX	LUXURY VINYL TILE MAXIMUM		
MECH MTL	MECHANICAL METAL		
MFR. MIN.	MANUFACTURER MINIMUM		
MISC.	MISCELLANEOUS MASONRY OPENING		

MASONRY OPENING



STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700

F. 248.546.8454 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants

Seal:

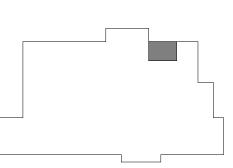


Project:

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

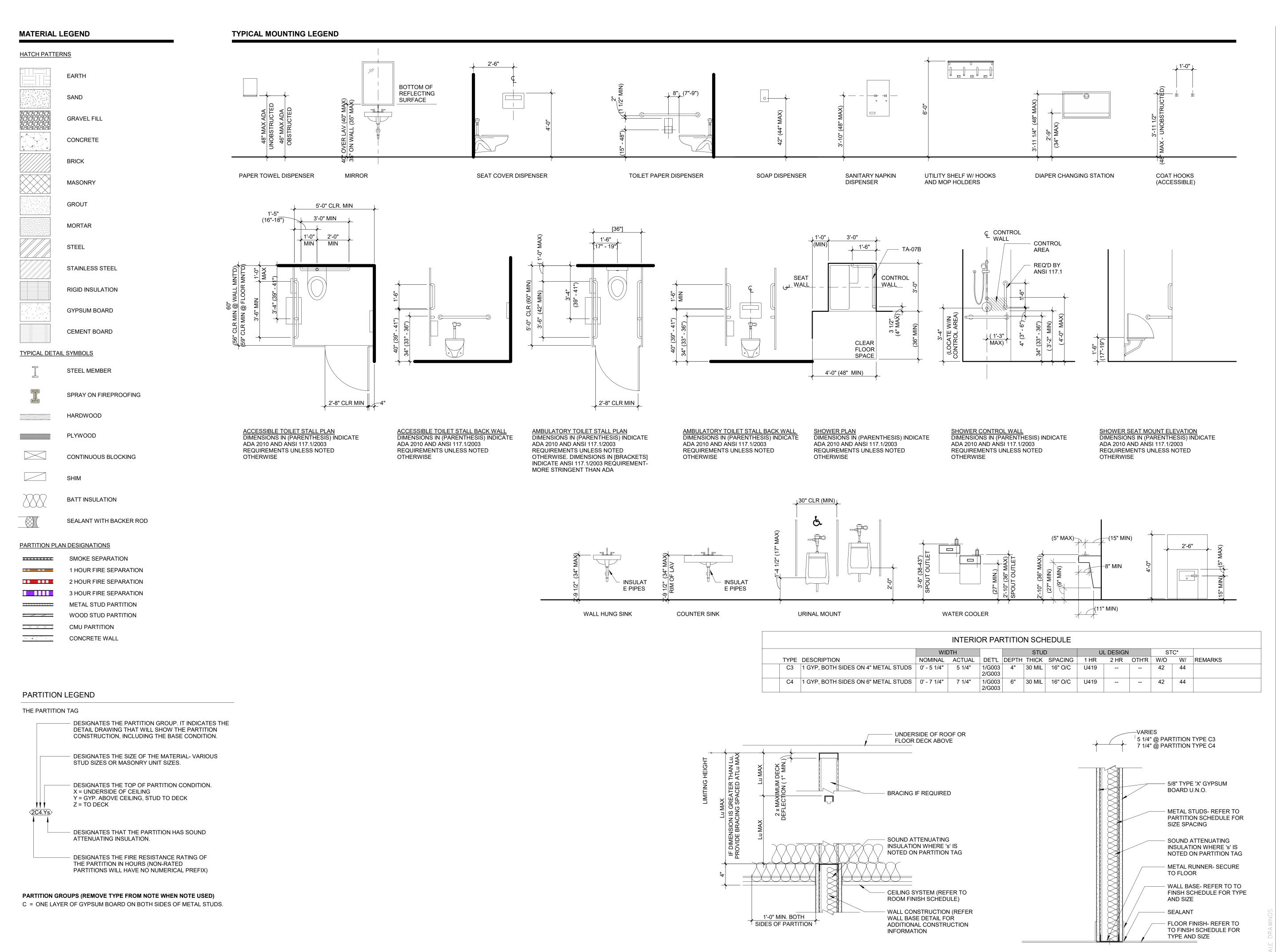
Drawn by: JML

Checked by:

Sheet Title: COVER SHEET, GENERAL INFORMATION, DRAWING

Project No. :

Sheet No. :



SVA
STUCKY VITALE ARCHITECTS

27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700 F. 248.546.8454

WWW.STUCKYVITALE.COM
STATEMENT OF INTELLECTUAL PROPERTY:

THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants

Seal:



Project :
WSU ALL GENDER

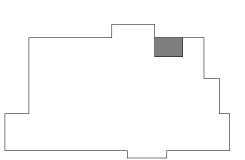
RESTROOMS

259 MACK AVE

DETROIT, MI 48201

IZ ... Dl...

Key Plan:



05.25.2023

N

BFS Submission

Issued for

Drawn by :

JML
Checked by:

ARR
Sheet Title:

STANDARD MOUNTING
HEIGHTS, WALL SCHEDULE,
AND DETAILS

Project No. : 2023.053

Sheet No.:

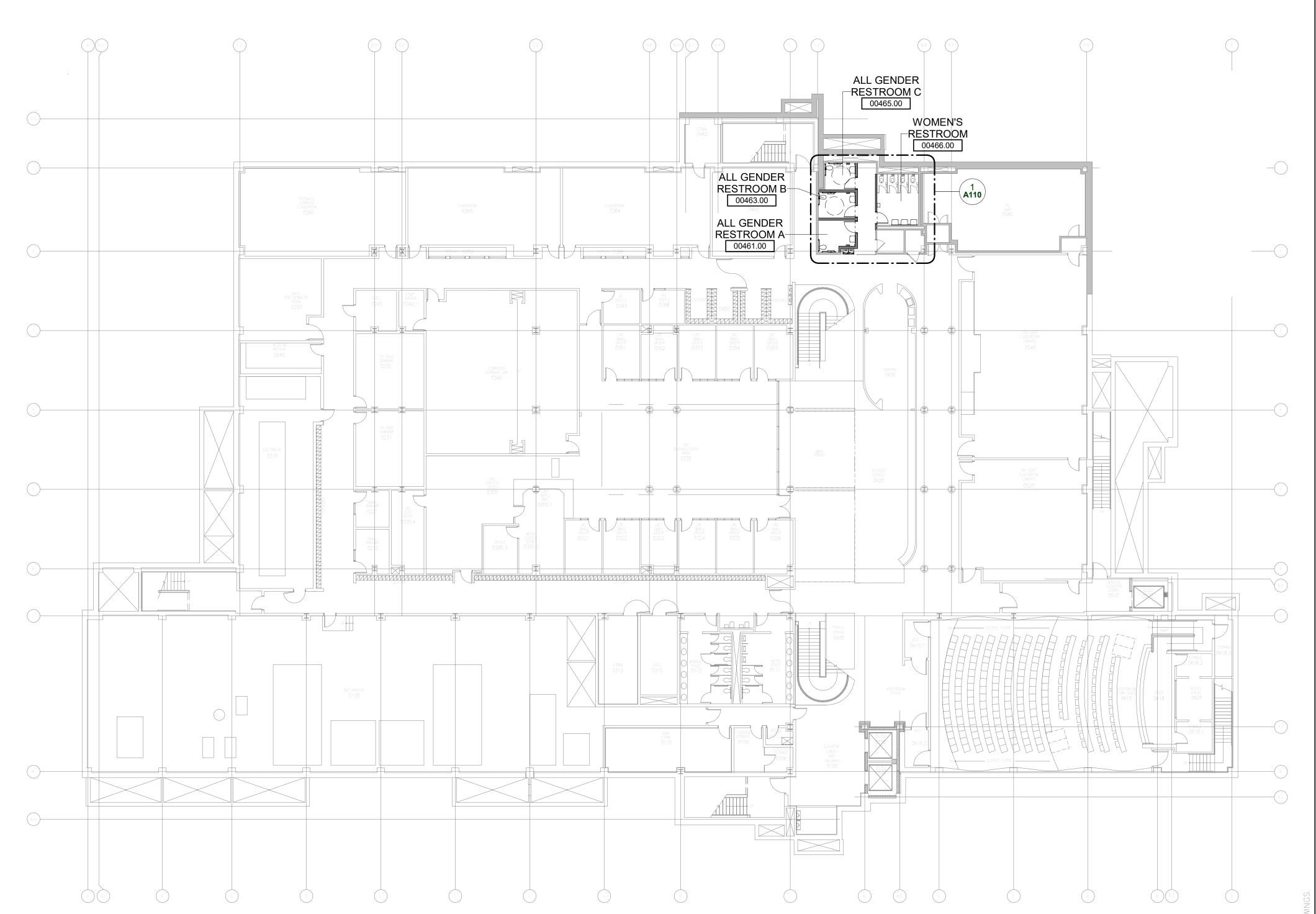
Partition Type C Wall Head Detail (.Y)

1 1/2" = 1'-0"

Partition Type C Wall Base Detail
1 1/2" = 1'-0"

# **GENERAL PLAN NOTES:**

- REMOVE ALL EXISTING CEMENTOUS FIRE PROOFING ON STRUCTURAL MEMBERS IDENTIFIED AS HAVING DISSIMILAR PRODUCTS, OR WHERE FIREPROOFING HAS BEEN DAMAGED DURING DEMOLITION PHASE.
- PREPARE ALL AREAS REQUIRED TO RECEIVE FIREPROOFING IN ACCORDANCE WITH THE APPROVED (1) ONE-HOUR/ (2) TWO- HOURS FIRE RATED FLOOR/ CEILING ASSEMBLY, AS APPLICABLE.
- RE-APPLY (1) INTUMESCENT PAINT (OR CEMENTOUS FIRE PROOFING) TO ALL EXISTING STEEL FLOOR BEAM AND SUPPORT COLUMNS WITHIN THE TENANT SUITE (AT FIRST AND SECOND FLOOR) AS FOLLOWS: UL# N620 FOR BEAMS AND UL#X665 FOR THE COLUMNS
- CONDUCT FIELD INSPECTIONS AFTER DEMOLITION PROCESS IS COMPLETED. WHERE (2) OR MORE DIFFERENT MATERIALS ARE IDENTIFIED AT AREAS WHERE FIRE PROTECTED STRUCTURAL ELEMENTS ARE PRESENT, OR (2) TWO DISSIMILAR FIRE PROTECTION SYSTEMS ARE NOTED ON SAME STRUCTURAL ELEMENT, REMOVE THE PRODUCTS COMPLETELY AND REAPPLY REQUIRED FIRE PROTECTION AS PER PROJECT'S SPECIFICATIONS.
- DISSIMILAR F.R. PRODUCTS/ SYSTEMS SHALL NOT BE USED TOGETHER ON THE SAME PRIMARY STRUCTURAL ELEMENT. IF DISSIMILAR PRODUCTS ARE TO BE USED FOR APPLICATIONS AT SPECIFIC EXISTING SITE CONDITIONS, PRODUCTS MUST BE INSTALLED FOLLOWING PREVIOUS NOTE, AND THE TRANSITION BETWEEN DISSIMILAR MATERIALS MUST OCCUR AT THE ATTACHMENT AREA BETWEEN THE STRUCTURAL ELEMENTS ONLY.
- WHERE EXISTING CONDITIONS REQUIRE FIRESTOPPING SYSTEMS AT PENETRATION GAPS IN EXCESS OF 3" AT ANY POINT AROUND THE PROTECTED ELEMENT, AUGMENT FIRESTOPPING WITH MINERAL WOOL LAYERS. COMPLY WITH LABC 714.4.1.1 & 714.4.1.2
- INSPECT AND VERIFY THE INTEGRITY OF EXISTING (1) ONE-HOUR FIRE BARRIER WALLS AT TENANT SUITE LOCATED AT THE LOWER LEVEL AS WELL AS ALL SIMILAR WALLS WITHIN EXISTING TENANT SUITE.
- REPAIR, INFILL AND/OR EXTEND, EXISTING FIRE BARRIER/ SMOKE BARRIER WALLS, TO THE UNDERSIDE OF METAL DECK / CONCRETE FLOOR ABOVE IN COMPLIANCE WITH THE APPROVED (1) ONE HOUR FIRE BARRIER ASSEMBLY UL#U469 AND (1) ONE-HOUR SMOKE BARRIER ASSEMBLY. NOTIFY ARCHITECT IF ANY OF THE EXISTING (2) HOUR FIRE ASSEMBLIES INTEGRITY IS FOUND COMPROMISED.
- ALL EXISTING PENETRATIONS IN RATED ASSEMBLIES TO BE VERIFIED AND ANY NON-COMPLIANT LOCATION TO BE BROUGHT UP TO THE APPROVED STANDARDS USING FIRESTOP PRODUCTS THAT MEET THE REQUIREMENTS OF ASTM E814 OR UL1479.
- WALLS OF ALL INCIDENTAL USES WHERE (1) HOUR SEPARATION WALL(S) ARE REQUIRED, SUCH AS: MECHANICAL SHAFTS, MECHANICAL ROOM, GENERAL STORAGE ROOM(S), SHALL BE INSPECTED AND ANY NON-COMPLIANT AREAS MUST BE REPAIRED, EXTENDED AND /OR INFILLED AS PER REQUIRED (1) HOUR FIRE BARRIER/ MECHANICAL SHAFT ASSEMBLY UL# U469
- 11. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING RATED WALLS AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES.





G003 1/16" = 1'-0"



STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700 F. 248.546.8454

WWW.STUCKYVITALE.COM STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE

THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants

Seal:

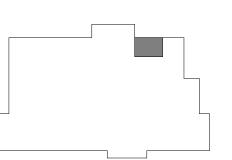


Project:

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023



Issued for **BFS Submission** 

Drawn by:

JML Checked by:

Sheet Title:

OVERALL BASEMENT LOCATION PLAN

Project No. : 2023.053

Sheet No.: G003

### **DEMOLITION PLAN NOTES**

- 1. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT 12. THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH OWNER IS SHOWN ON THE DEMOLITION PLANS. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
- 2. COORDINATE SCOPE AND EXTENT OF DEMOLITION WORK WITH NEW WORK PLANS AND DETAILS.
- 3. ALL WALLS, DOORS, FRAMES, AND RELATED HARDWARE ASSEMBLIES DESIGNATED AS "TO BE REMOVED" (SHOWN AS DASHED LINES) SHALL BE COMPLETELY REMOVED AND DISPOSED OF AS DESIGNATED BY OWNER/TENANT. ALL EXISTING WALLS NOT DESIGNATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE AND REMAIN "AS-IS".
- 4. IN OCCUPIED BUILDINGS, ANY CONSTRUCTION BEYOND 48 HOURS MUST BE ISOLATED WITH HARD BARRIER WALL (1 HR. RATED), PER BUILDING CODE.1 HOUR FIRE RATED PLASTIC BARRIER MAY BE USED, VERIFY WITH LOCAL AHJ. PROVIDE ANY/ALL DUST CONTROL AND INFECTION CONTROL MEASURES TO ISOLATE ALL WORK TO PROJECT AREA.
- PHASED CONSTRUCTION MAY BE REQUIRED, FINAL NUMBER OF PHASES TBD BY OWNER/ ARCHITECT/ GC PRIOR TO CONSTRUCTION. CONTRACTOR PROVIDE ANY/ALL TEMP. CONSTRUCTION MEASURES AS REQUIRED BY LOCAL AHJ (EXIT SIGNS, EMERGENCY LIGHTING, CONSTRUCTION LIGHTING, EGRESS SIGNAGE, ETC.)
- 6. ALL EQUIPMENT, DOORS, FRAMES, RELATED HARDWARE, AND DESIGNATED ITEMS TO BE SALVAGED SHALL BE REMOVED, PROTECTED FROM DAMAGE, AND STORED FOR REUSE.
- 7. CLEAN AND REPAIR ALL EXISTING FLOOR FINISHES AS NECESSARY.
- 8. ALL DEMOLITION WORK SHALL BE PERFORMED IN A NEAT AND WORKMANSHIP MANNER. ALL SURFACES ADJACENT TO AND ABUTTING TO THOSE DESIGNATED "TO BE REMOVED" SHALL BE LEFT WITH A SMOOTH AND FLUSH APPEARANCE.
- 9. THE CONTRACTOR SHALL EXERCISE ALL REQUISITE CARE NECESSARY TO ENSURE THAT ALL EQUIPMENT, MATERIALS, FINISHES AND ASSEMBLIES WHICH ARE NOT BEING REMOVED ARE PROTECTED FROM DAMAGE DURING DEMOLITION AND SUBSEQUENT CONSTRUCTION OPERATIONS.
- 10. REFER TO MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DEMOLITION INFORMATION.

TO ENSURE THAT IMPACTS ON THE BALANCE OF THE BUILDING ARE HELD

13. PREPARE ALL SURFACES TO RECEIVE THE NEW WORK AND FINISHES OF

14. THE CONTRACTOR SHALL DESIGN, PROVIDE, INSTALL AND MAINTAIN ANY

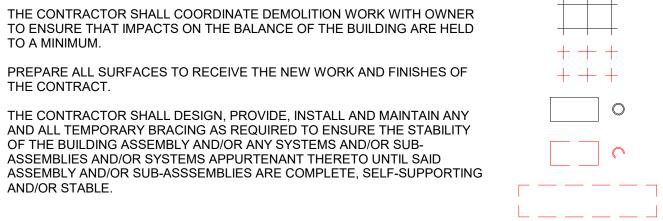
ASSEMBLIES AND/OR SYSTEMS APPURTENANT THERETO UNTIL SAID

OF THE BUILDING ASSEMBLY AND/OR ANY SYSTEMS AND/OR SUB-

AND ALL TEMPORARY BRACING AS REQUIRED TO ENSURE THE STABILITY

TO A MINIMUM.

THE CONTRACT.



# EXISTING CEILING GRID ASSEMBLY TO REMAIN

**DEMOLITION REFLECTED CEILING LEGEND** 

CEILING GRID ASSEMBLY TO BE REMOVED

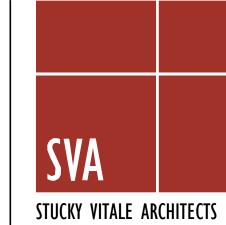
EXISTING CEILING FIXTURE (LIGHT, DIFFUSER, ETC.) TO

REMOVED UNLESS NOTED OTHÉRWISE CEILING FINISH TO BE REMOVED

CEILING (LIGHT, DIFFUSER, ETC.) FIXTURE TO BE

CEILING FINISH TO BE REMOVED

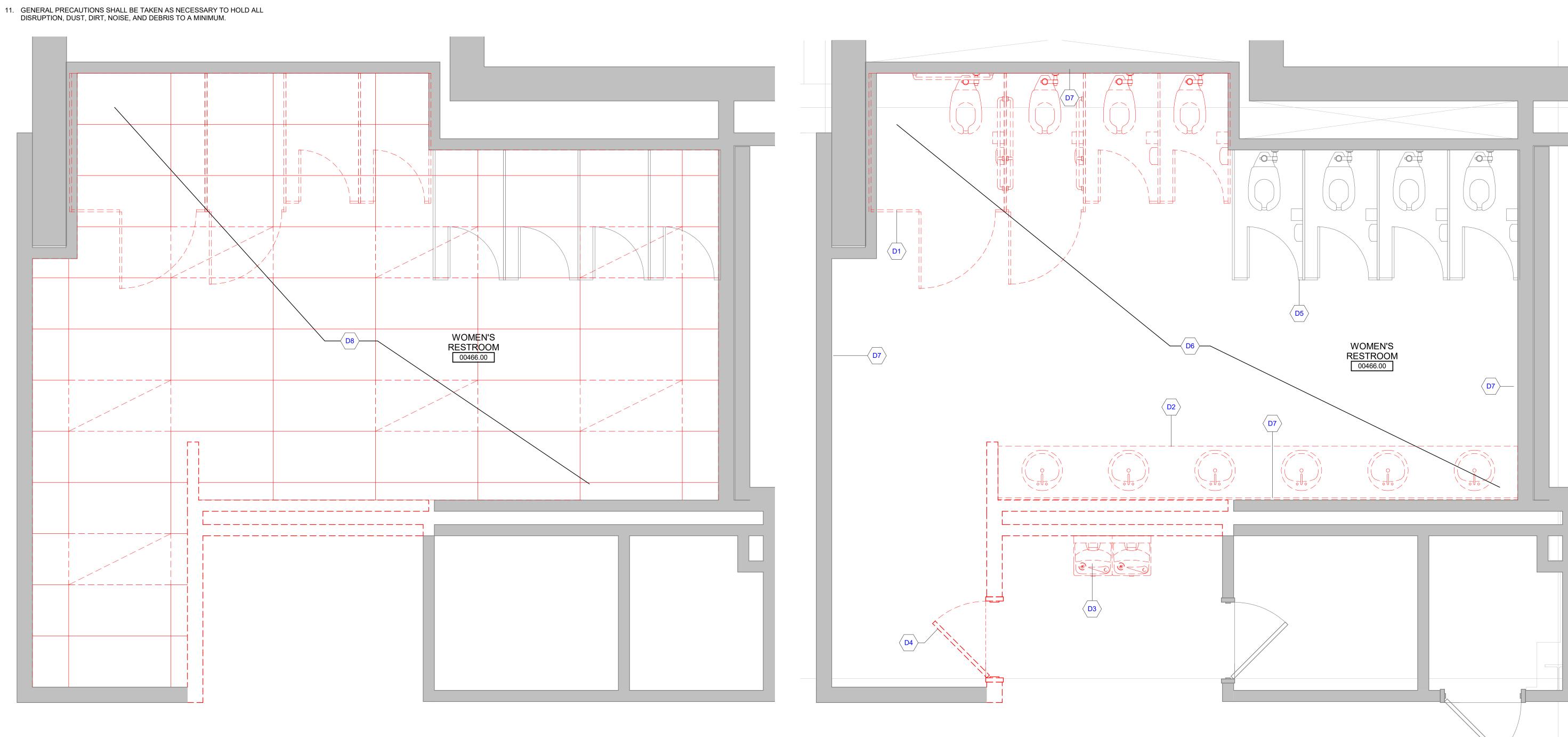
	KEYNOTE - DEMOLITION LEGEND							
KEYNOTE	KEYNOTE DESCRIPTION							
D1	REMOVE EXISTING TOILET PARTITIONS AND SUPPORT SYSTEM.							
D2	REMOVE EXISTING COUNTER AND SINK. REFER TO PLUMBING DEMOLITION FOR ADDITIONAL INFORMATION RELATED TO PLUMBING CAPPING.							
D3	REMOVE EXISTING DRINKING FOUNTAIN. REFER TO PLUMBING DEMOLITINO FOR ADDITIONAL INFORMATINO RELATED TO PLUMBING CAPPING.							
D4	EXISTING DOOR TO BE REMOVED. DOOR LEAF TO BE SALVAGED AND REUSED.							
D5	PARTITIONS, ACCESSORIES, AND TOILETS TO REMAIN. PROTECT DURRING CONSTRUTCION.							
D6	REMOVE EXISTING FLOOR - PATCH AND REPAIR SUBSURFACE AS NECESSARY.							
D7	REMOVE EXISTING WALL FINISHED PATCH AND REPAIR WALLS AS NECESSARY FOR NEW FINISH.							
D8	EREMOVE CEILING GRID AND SUPPORT SUSTEM, LIGHTING, MECHANICAL SUPPLY/RETURN.							



27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700

F. 248.546.8454 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants



Seal:



Project:

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:

Issued for

05.25.2023 BFS Submission

Drawn by

Checked by:

BASEMENT DEMOLITION AND CONSTRUCTION PLAN

Project No. : 2023.053

### **GENERAL REFLECTED CEILING PLAN NOTES**

- 1. CONTRACTOR TO CENTER ALL CEILING MOUNTED ITEMS (i.e., RECESSED LIGHT FIXTURES, SMOKE DETECTORS, FIRE SUPPRESSION HEADS) WITHIN THE ASSOCIATED CEILING TILE AS SHOWN. COORDINATE FINAL LOCATION WITH THE APPROPRIATE MECHANICAL, ELECTRICAL, FIRE ALARM, AND FIRE SUPPRESSION DRAWINGS AS REQUIRED.
- 2. CONTRACTOR SHALL VERIFY IN FIELD IF DESIGNATED CEILING HEIGHTS IN ROOMS AREA POSSIBLE. IF NOT, MAXIMIZE CEILING HEIGHTS AND NOTIFY ARCHITECT, ENGINEER OR PROJECT MANAGER OF ANY DISCREPANCY.
- 3. SPRINKLER HEADS SHOWN FOR REFERENCE ONLY, DESIGN-BUILD FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL LOCATIONS, QUANTITY, TYPE AND FULL FIRE PROTECTION DESIGN. FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND BUILDING STANDARDS INCLUDING NFPA 101 LIFE SAFETY CODE (SPECIFICALLY CHAPTER 20). SEE TITLE SHEET AND CODE SHEETS FOR ADDITIONAL INFORMATION.
- 4. CONTRACTOR SHALL PROVIDE ACOUSTIC SOUND BATT INSULATION ABOVE THE ENTIRE CEILING IN THE FOLLOWING ROOMS (TYPICAL UNO): TOILET ROOMS, OFFICES, RECEPTION REAS, EXAM ROOMS AND CONFERENCE ROOMS.
- 5. CONTRACTOR TO PROVIDE DENS ARMOR PLUS WALL BOARD (MOISTURE RESISTANT) IN ALL CEILING AREAS AND WALLS OF TOILET ROOMS AND VESTIBULES (TYPICAL UNO).
- ACCESS PANELS TO BE INDEPENDENTLY MOUNTED, DO NOT SUPPORT ON CEILING TILE GRID ASSEMBLY, SUPPORT FROM STRUCTURE ABOVE ONLY. COORDINATE SIZE, QUANTITY AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS; IF NOT SHOWN, CONTRACTOR TO PROVIDE WHERE REQUIRED AND COORDINATE FINAL LOCATIONS IN FIELD WHERE REQUIRED PER MEP EQUIPMENT AND DRAWINGS.
- 7. PROVIDE EXTERIOR MOUNTED EMERGENCY EGRESS LIGHT AT ALL EXTERIOR EXITS AS REQUIRED BY CODE, BATTERY BACK-UP AND MOUNTED 36" ABOVE DOOR UNO.
- 8. SOFFITS ABOVE UPPER CABINETS SHALL BE 16" DEEP AND SHALL BE CONSTRUCTED OF 5/8" GYPSUM BOARD ON 3 5/8" METAL FRAMING AT 16" OC (TYPICAL UNO).
- 9. REFER TO WALL TYPES FOR WALLS THAT PENETRATE CEILINGS.
- 10. REFER TO MECHANICAL HVAC PLANS FOR DIFFUSER / GRILLE SIZES.
- 11. FOR LIGHT FIXTURE TYPES SEE ELECTRICAL LIGHTING PLANS.

 $\left\langle \mathsf{D}\right\rangle$ 

Level 1 - New Construction

A110 1/2" = 1'-0"

12. REFER TO DIMENSIONS ON REFLECTED CEILING PLAN TO LOCATE / LAYOUT CEILING GRID AND LIGHT FIXTURES.

 $\langle B \rangle$ 

# **KEYNOTE - RCP LEGEND**

KEYNOTE	KEYNOTE DESCRIPTION
Α	CONTINUE EXISTING CEILING GRID FROM CORRIDOR.
В	2X4 CEILING GRID.
С	2X4 LIGHT FIXTURES.
D	EXHAUST FAN.

### **GENERAL FLOOR PLAN NOTES**

- 1. THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED TO DETERMINE THE DESIGN INTENT. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE SET OF WORK AS INDICATED AND SHALL FIELD VERIFY ALL WORK, COORDINATE ALL DRAWINGS / NEW WORK AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES.
- 2. ALL DIMENSIONS ARE SHOWN FROM FINISH FACE TO FINISH FACE OF PARTITION UNLESS OTHERWISE NOTED.
- 3. WALL THICKNESS' ARE NOMINAL NOT ACTUAL DIMENSIONS. SEE WALL SCHEDULE FOR ACTUAL DIMENSIONS.
- 4. ALL WOOD, INCLUDING BLOCKING, USED ON THE PROJECT SHALL BE FIRE RETARDANT TREATED.
- 5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE, COUNTY CODE REGULATIONS, O.S.H.A., AND THE AMERICAN WITH DISABILITIES ACT (ADA). REFER TO THE CODE PLAN FOR MORE INFORMATION.
- 6. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE CONDITION.
- 7. PROVIDE TRANSITION STRIPS AT EACH CHANGE IN FLOOR FINISH MATERIALS.
- 8. PAINT, PATCH AND REPAIR THE FOLLOWING TO MATCH EXISTING MATERIALS: FLOOR, WALL, AND CEILING SURFACES AS REQUIRED ADJACENT TO AREAS BEING DEMOLISHED. REFER TO DEMOLITION DRAWINGS FOR MORE INFORMATION.
- 9. REINFORCE WALL AND PROVIDE BLOCKING AS REQUIRED TO SUPPORT WALL CABINETS AND COUNTERTOPS.
- 10. THE CONTRACTOR SHALL PROVIDE AND INSTALL WALL REINFORCING FOR INSTALLATION OF ACCESSORIES, COAT RACKS, CHART RACKS, CASEWORK, AND OTHER WALL MOUNTED ITEMS.
- 11. CLEAN AND REPAIR ALL EXISTING FLOOR FINISHES AS NECESSARY.
- 12. ALL EXPOSED PIPES, DUCTS, AND CONDUIT TO BE PAINTED TO MATCH EXISTING.
- 13. PROVIDE CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AT 30'-0" O.C. MAXIMUM AND AS INDICATED IN THE CONTRACT DOCUMENTS.

- 14. COORDINATE WITH OWNER'S EQUIPMENT SUPPLIER FOR INSTALLATION REQUIREMENTS / LOCATIONS OF FLOOR / WALL / CEILING MOUNTED ITEMS; IE. CAMERAS, TV'S, SPEAKERS, SENSORS, SECURITY WIRING, VAULTS,
- 15. CONTRACTOR SHALL CONDUCT A ROUGH ELECTRICAL INSPECTION WITH OWNER, PRIOR TO ENCLOSING WALLS, FOR THE PURPOSE OF CONFIRMING ALL J-BOX LOCATIONS FOR POWER, DATA, VOICE, SWITCH, THERMOSTAT, ETC.
- 16. CONTRACTOR TO FILL ANY AND ALL EQUIPMENT PENETRATIONS OR DEPRESSIONS INTO OR THROUGH THE EXISTING SLAB THAT WILL NOT BE UTILIZED TO FEED NEW EQUIPMENT (I.E. ABANDONED FLOOR CORES, IMPRESSION FROM PREVIOUS EQUIPMENT FLOOR PLATE REMOVAL). PENETRATIONS SHALL BE FILLED WITH NON- SHRINK GROUT. THE SIDES OF ANY EXISTING OPENINGS SHALL BE MODIFIED/TAPERED SO THAT THEY ARE WIDER AT THE TOP THAN AT THE BOTTOM. FOR LARGE OPENINGS, PROVIDE ONE (1) #5 BAR 2" UP FROM BOTTOM OF HOLE.
- 17. A TACTILE SIGN STATING 'EXIT' AND COMPLYING WITH ICC-A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN 'AREA OF REFUGE', AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY, AN EXIT RAMP, AN EXIT PASSAGEWAY, AND THE EXIT DISCHARGE.
- 18. PROVIDE PERMANENT MIN 3-INCH HIGH CONTRASTING COLOR MARKING AND IDENTIFICATION AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS, SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS WITHIN 15 FEET AT THE END OF EACH WALL, AND NOT EXCEEDING 30 FEET MAXIMUM HORIZONTAL INTERVALS, MINIMUM 2 LOCATIONS EACH WALL. TYPICAL FOR ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING, OR ATTIC SPACES PER CODE (MBC 703.7)

# **KEYNOTE - NEW CONSTRUCTION LEGEND**

KEYNOTE	KEYNOTE DESCRIPTION
001	EXISTING TOILET STALL TO REMAIN. TYP.
002	NEW RESTROOM SINK.
003	NEW DRINKING FOUNTAIN WITH BOTTLE FILLER.

	KEYNOTE - TOILET ACCESSORIES
EYNOTE	KEYNOTE DESCRIPTION
A-01	TOILET PAPER HOLDER - DOUBLE ROLL
A-02	PAPER TOWEL DISPENSER - SURFACE MOUNTED
A-07A	GRAB BARS (36" BACK BAR)
A-07B	GRAB BARS (42" SIDE BAR)

GRAB BARS (18" VERTICAL BAR)

SOAP DISPENSER - WALL MOUNTED

TA-07C

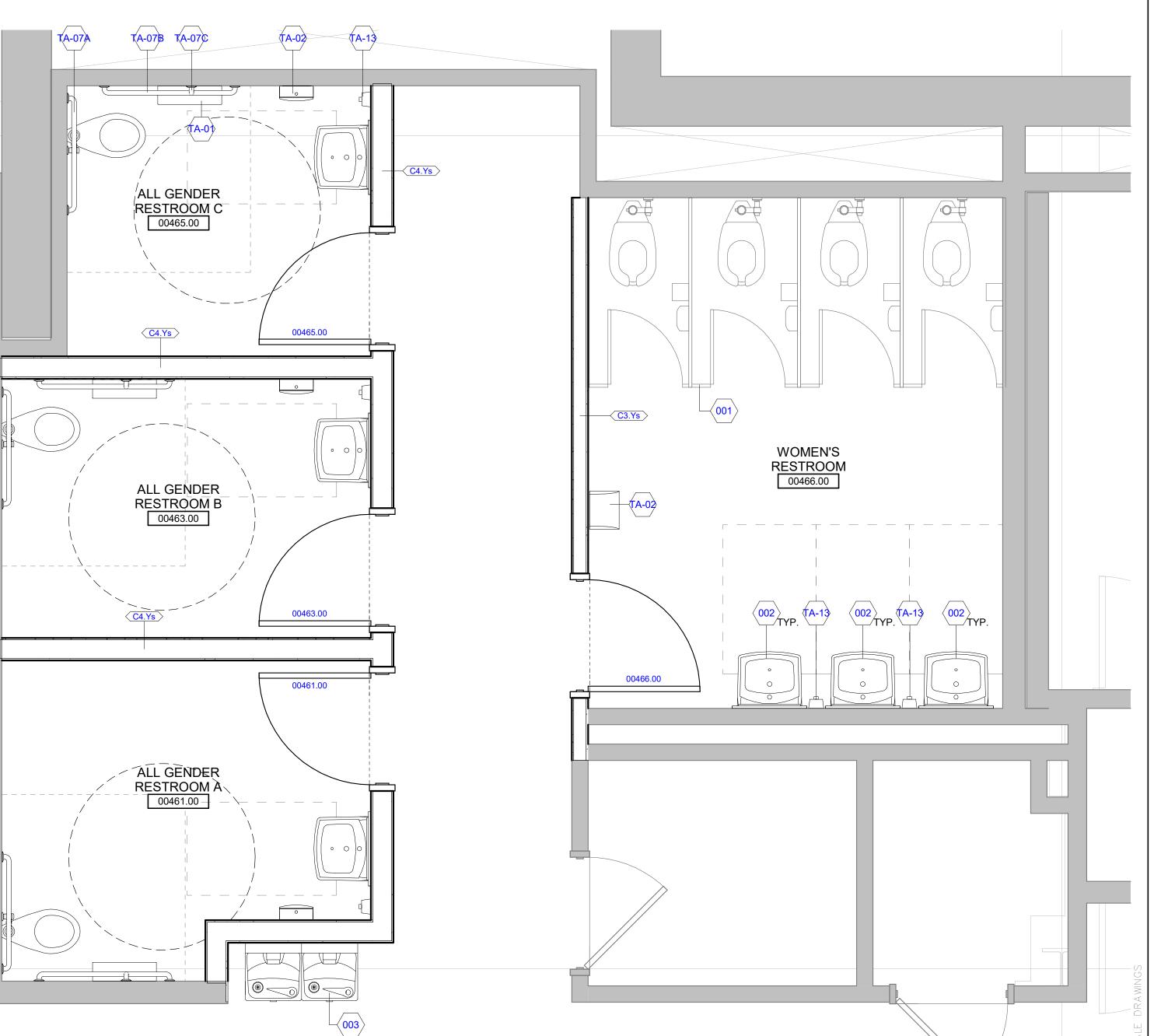
SVA

STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MI 48067-0925
P. 248.546.6700

F. 248.546.8454 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants



Seal:

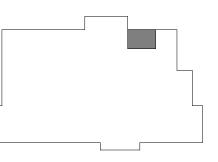


Project :

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

Drawn by :

Checked by:

Sheet Title :

Project No. : 2023.053

Sheet No. :

1 Level 1 - New Construction

A110 1/2" = 1'-0"

DOOR SIZE	C
' - 0" 6' - 8" 1	ESTROOM A 3' - 0
	ESTROOM B 3' - 0 ESTROOM C 3' - 0 TROOM 3' - 0
tions and notify architect	AL NOTES:
te and Local codes, laws	current Federal, State a
not limited to clearance with the limited service e documents will result in labeled frames and id	i both including, but no pared in accordance wi aterpretation of these d
with the required egress stitution, no alternates w d keys; keyed to Master g device specified. ments, brackets, fastenes and cut sheets complying	inated IC Cores and k ceys for each locking di lecessary reinforcement drawings, submittals a
	t w/ Indicator [Lock / Un
26D PBB 32D PD0 26D WS side mount) 689 PD0	½" x 4 ½" NRP 66 BJSJ SFL By WSU A Regular Arm (pull side
side mount) 689 PD0 32D Dor 26D Dor	A Regular Arm (pull side "LDW B4E
	Set [Always Unlocked]
ers) 32D PD0	½" x 4 ½" NRP ount prior to push plate unt over pull fasteners)
side mount) 689 PD0 32D Dor 26D Dor	A Regular Arm (pull sid " LDW B4E
26D Doi	
side mount) 689 PE 32D Do	Regular Arm (pull side

	A- DOOR & FRAME SCHEDULE																
		DOOR	SIZE			D	OOR		PE		ı	RAME			DET	AILS	
NUMBER	ROOM NAME	WIDTH	HEIGHT	HDWE. SET	TYPE	MATERIAL	FINISH	GLASS	THRESHOLD TY	ТҮРЕ	MATERIAL	FINISH	GLASS	FIRE RATING	НЕАБ	JAMB	REMARKS
Level 1																	
00461.00	ALL GENDER RESTROOM A	3' - 0"	6' - 8"	1	F	EXIST	EXIST	-	-	1	HM	PFN	-	-	2/A901	1/A901	
00463.00	ALL GENDER RESTROOM B	3' - 0"	6' - 8"	1	F	EXIST	EXIST	-	-	1	HM	PFN	-	-	2/A901	1/A901	
00465.00	ALL GENDER RESTROOM C	3' - 0"	6' - 8"	1	F	EXIST	EXIST	-	-	1	HM	PFN	-	-	2/A901	1/A901	
00466.00	WOMEN'S RESTROOM	3' - 0"	6' - 8"	2	F	EXIST	EXIST	-	-	1	НМ	PFN	-	-	2/A901	1/A901	

- entractor shall verify all existing field conditions and notify architect immediately if that which exists differs from that which is shown on
- work to comply with current Federal, State and Local codes, laws and ordinances. e requirements of ICC/ANSI A117.1 and the Americans with disabilities act (ADA) are to be fully satisfied. All work shall meet the most
- ngent requirements of both including, but not limited to clearances, limitations, accessories, etc. ese drawings are prepared in accordance with the limited services for which the architect was contracted. The architect makes no resentation that the interpretation of these documents will result in complete compliance with the ADA.
- doors required to be labeled shall be set in labeled frames and identified with UL label and be provided with approved self-closing vices and positive latching hardware.
- designated exit doors shall be equipped with the required egress hardware.
- nish hardware as scheduled without substitution, no alternates will be approved. ovide Cylinders, Combinated IC Cores and keys; keyed to Master System. Include key conference and key system schedule. Furnish a yed core and two cut keys for each locking device specified.
- nish and provide all necessary reinforcements, brackets, fasteners, spacers and fillers to provide a complete functioning opening. ovide complete shop drawings, submittals and cut sheets complying with DHI prescribed methods and vertical format double spaced

32D Don Jo

26D Don Jo

32D Don Jo

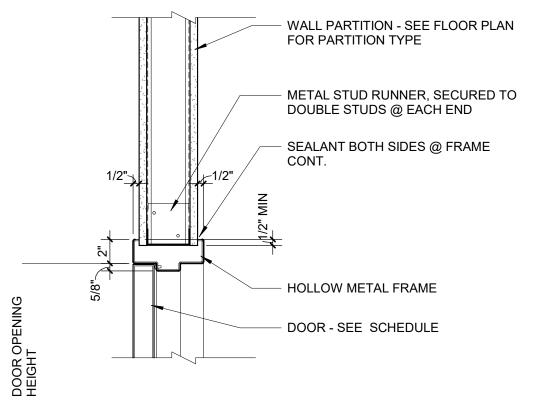
26D Don Jo

rdware schedule.

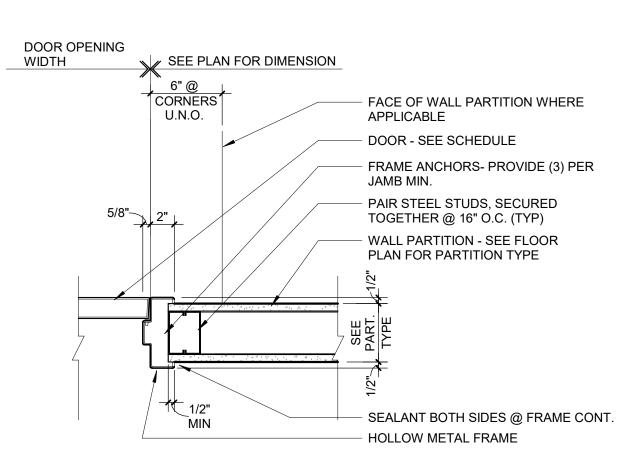
OPENING WIDTH	OPENING WIDTH
ONE LEAF	OPENING HEIGHT
1	F







# 2 HEAD AT TYP STUD PARTITION (LESS THAN 5'-0") A901 1 1/2" = 1'-0"



# 1 JAMB AT TYPICAL STUD PARTITION

A901 1 1/2" = 1'-0"



STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700 F. 248.546.8454

WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants

Seal:



Project:

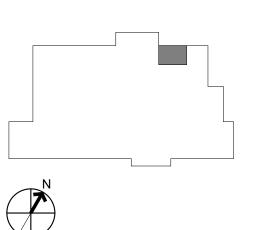
RESTROOMS

WSU ALL GENDER

259 MACK AVE

DETROIT, MI 48201

Key Plan:



Issued for 05.25.2023 **BFS Submission** 

Drawn by :

JML Checked by:

Sheet Title:

Project No. :

DOOR SCHEDULE, TYPES, AND DETAILS

2023.053

Sheet No.:

Architect Refers to Stucky Vitale Architects Refers to the General Contractor Contractor

Subcontractor Refers to trades people having subcontractual agreements with the Contractor Refers to the person, organization or authorized representative identified in the Owner contract documents.

Consist of the documents enumerated in the agreement and generally includes the Contract Documents

contract proposal, drawings and specifications. Are diagrammatic interpretations of the physical work to be performed on the project. Drawings

Work Refers to labor, materials, equipment and services related to the project.

Refers to total of the work to be performed including drawings, engineering and

Is an order from the Owner or an agreement between the Owner and Contractor to Change Order

make a change in the project

N.I.C. Is an abbreviation for "Not Included In Contract" and indicates that a particular item is not to be included in the work to be done by the Contractor.

2. The following is a general list of technical societies referenced in the Specifications.

American Institute of Architects

ACI American Concrete Institute American Institute of Electrical Engineers AIEE AISC American Institute of Steel Construction AITC American Institute of Timber Construction **ASHRAE** American Society of Heating, Refrigerating and Air Conditioning Engineers American Society for Testing and Materials

ASME American Society of Mechanical Engineers ASTM

American Welding Society AWS NAFM National Association of Fan Manufacturers NEC National Electrical Code NEMA National Electrical Manufacturer's Assoc. RCSC Research Council on Structural Connections UL **Underwriters Laboratories** 

**SECTION 010030** 

Project

SPECIAL SUPPLEMENTARY CONDITIONS

1. PERMITS, TAPS AND FEES AND BONDS The Contractor shall obtain building permits, test borings, surveys, licenses, certificates, inspections and other permits as required. The Contractor shall be fully reimbursed for the above items by the Owner upon proper transfer of all receipts. Utility taps and fees and bonds shall be reimbursed by the Owner. Plumbing, HVAC, Electrical and Signage subcontractors shall be responsible to obtain and pay for their own

2. ELECTRICAL SERVICE

Temporary service shall be installed by the Electrical subcontractor. Temporary electrical consumption shall be paid by the General Contractor.

3. TEMPORARY SANITARY FACILITY

The Contractor shall provide self-contained chemical sanitary facilities on the site for workers and Subcontractor's workers for the duration of the construction period.

4. TEMPORARY HEAT AND PROTECTION

If temporary heat is required for the protection of the work, the Contractor shall provide approved salamanders, stoves with smoke pipes to the outside, or other approved apparatus. All apparatus shall be properly vented to the outside. The Contractor shall also provide temporary apparatus for the drying out of work as necessary. No work shall be damaged by the apparatus.

When the permanent heating apparatus is available for use and the building is enclosed, the Owner shall furnish heat and air circulation for that portion of the building that is permanent. If the HVAC units are used during the construction period, the filters shall be changed as needed but at least per month. New filters shall be installed at substantial completion at which time Subcontractor warranty shall commence.

5. CUTTING AND PATCHING

EACH SUBCONTRACTOR shall be required to perform all cutting, patching and excavating necessary for his particular work unless specifically stated otherwise. The Contractor shall be responsible for COORDINATING the cutting and patching. The Contractor shall only perform cutting and patching or fitting necessary for his own work and as necessary to assure that all parts and work of other Subcontractors comes together properly.

The Owner agrees to provide any work and/or materials not an obligation of the Contractor at such time and in

7. RELOCATION OF UTILITIES

The Owner will pay for the relocation of all public utilities that conflict with construction.

such a manner so as not to delay the progress of the work of the Contractor.

8. OCCUPANCY BY OWNER

The Owner may occupy any part or parts of the work and use any equipment which is a reasonable degree of completion (provided the building department will allow such) as will in his opinion make such areas or parts

reasonable safe, fit, and convenient for his use, under the conditions established for such occupancy.

9. RELOCATING OWNER'S EQUIPMENT

The Owner shall be responsible for and pay for the relocation and installation of any of his equipment. 10. CONSTRUCTION TELEPHONE

The Contractor shall maintain a telephone located in the field office at the jobsite. A cellular phone held by the on-

site Superintendent meets this requirement.

**SECTION 013323** SUBMITTAL PROCEDURES

1. Submit shop drawings prepared specifically for this project. Indicate fabrication details and adjacent

construction 2. Submit data and drawings in pdf format with scaled drawings via email.

3. Shop drawings, fabrication details, product literature and certificates shall be submitted bearing the contractor's review stamp for the following structural systems. Failure of the contractor to review and stamp submittals prior to forwarding them to the design professional(s) for review shall constitute grounds for rejection. Use of these drawings, plans or details used as erection plans or shop drawings by the contractor is expressly prohibited. Submittals bearing images electronically copied from these drawings will be rejected. 4. Architect will review submittals for the limited purpose of checking for conformance with information given and

the design concept expressed in the contract documents 5. Finish material samples will be reviewed only for aesthetic, color, or finish selection.

6. Required Submittals but not limited to the following:

- Cold-formed Metal Framing

 Millwork - Doors and Door Frames

- Door Hardware - Sliding Door Glazing System

- As specified in individual spec sections 7. Examination, Preparation, and Execution

- Before proceeding to lay out the work, verify layout information shown on drawings.

- Verify all dimensions and conditions assumed as existing at the site prior to construction and fabrication. If discrepancies are found, notify the architect in writing prior to proceeding, describe discrepancies in

- Comply with manufacturer's written instructions and recommendations for installing products in applications indicated. Notes and details on drawings shall take precedence over general notes. Details and notes are typical. Similar details and notes apply in similar conditions.

**SECTION 014500** 

**QUALITY CONTROL SERVICES** 

1. Independent Professional Testing Agencies shall be retained by the Contractor (reimbursed by the Owner) to inspect and test the materials and methods of construction as hereinafter specified for compliance with the requirements of the Contract Documents and to perform specialized technical services as may be required.

The Laboratory, inspection service, and soils engineer shall be acceptable to the Architect/Engineer

**SECTION 024100 SELECTIVE DEMOLITION** 

1. Subcontractor shall provide all labor, materials, equipment, and incidentals necessary and required for the completion of this Work.

2. Scope of Work shall include but not be limited to the following: Selective demolition of building elements for alteration purposes. - Removal of existing utilities and utility structures.

3. REFERENCE STANDARDS

- 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition. - NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations

4. SUBMITTALS

- Demolition Plan: Submit demolition plan as specified by OSHA and local authorities. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences. Identify demolition firm and submit qualifications. Include a summary of safety procedures. - Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

5. GENERAL PROCEDURES AND PROJECT CONDITIONS - Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.

Obtain required permits.

- Use of explosives is not permitted. - Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.

- Provide, erect, and maintain temporary barriers and security devices. Use physical barriers to prevent

access to areas that could be hazardous to workers or the public - Conduct operations to minimize effects on and interference with adjacent structures and occupants.

Do not close or obstruct roadways or sidewalks without permit. - Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.

- Do not begin removal until receipt of notification to proceed from Owner. - Do not begin removal until built elements to be salvaged or relocated have been removed. - Protect existing structures and other elements that are not to be removed. Provide bracing and

shoring. Prevent movement or settlement of adjacent structures. Stop work immediately if adjacent structures appear to be in danger. - Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution. - If hazardous materials are discovered during removal operations, stop work and notify Architect and

- Partial Removal of Paving: Neatly saw cut at right angle to surface.

Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

6. SELECTIVE DEMOLITION FOR ALTERATIONS

- Drawings showing existing construction and utilities are based on casual field observation and existing record documents only. Verify that construction and utility arrangements are as shown. Report discrepancies to Architect before disturbing existing installation. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition. - Separate areas in which demolition is being conducted from other areas that are still occupied. Provide, erect, and maintain temporary dustproof partitions of construction indicated on drawings. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.

- Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.

Remove existing work as indicated and as required to accomplish new work. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified. - Services (Including but not limited to HVAC, Plumbing, Electrical, and Telecommunications): Remove existing systems and equipment as indicated. --Maintain existing active systems that are to remain in operation; maintain access to equipment and

operational components. --Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service. --Verify that abandoned services serve only abandoned facilities before removal. Remove abandoned

pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification. - Protect existing work to remain. --Prevent movement of structure; provide shoring and bracing if necessary.

--Perform cutting to accomplish removals neatly and as specified for cutting new work.

-Repair adjacent construction and finishes damaged during removal work.

--Patch as specified for patching new work.

7. DEBRIS AND WASTE REMOVAL Remove debris, junk, and trash from site. Leave site in clean condition, ready for subsequent work. Clean up spillage and wind-blown debris from public and private lands.

**COLD-FORMED METAL FRAMING** 1. Subcontractor shall provide all labor, material, equipment and incidentals necessary and required for the

completion of this work. 2. Scope of work shall include but not be limited to the following:

- Provide Interior load-bearing wall framing.

- Provide Interior ceiling framing.

- Provide Interior joist and/or lintel framing. - Provide shop drawings and submittals.

3. COLD-FORMED METAL FRAMING for this project is delegated design and shall be in accordance with the latest edition of the American Iron and Steel Institute (AISI) "COLD-FORMED STEEL DESIGN MANUAL"

4. COLD-FORMED METAL FRAMING shop drawings are to be signed and sealed by a professional engineer

registered in the state of Michigan. Shop drawings to include structural analysis data for system and connections. 5. Structural design to accommodate forces from sliding glass door, and dead loads for new mechanical and

electrical equipment. 6. Shop drawings to include layout, spacings, sizes, thickness, and types of COLD-FORMED FRAMING. They

also shall include fabrication, fastening and anchorage details, including mechanical fasteners. 7. All studs, tracks and bridging shown shall be manufactured per ASTM C-955

8. COLD-FORMED METAL FRAMING members shall be formed of corrosion-resistant steel conforming to ASTM A 653 and ASTM C 955 with a minimum yield strength of 33 KSI for 43 and thinner MIL members and 50 KSI for all thicker MIL members.

9. All cold formed headers and joists shall be constructed of unpunched sections and have web stiffeners at each

10. Perforations will only be allowed in the web of vertical wall studs at a min end distance of 1'-0" and a min spacing of 2'-0" on-center.

11. Splicing of vertical wall studs is not allowed.

12. Provide horizontal bridging lines at 4'-0" on-center at all bearing walls.

13. Screw penetration through joined material shall have at least three exposed threads.

14. Metal studs that extend beyond the ceiling by more than 4" shall have metal blocking at the ceiling line to prevent waves in the gypsum board and provide anchorage for the wall angles of the suspended ceiling system.

15. All runner tracks and shoes for interior partitions shall be not less than 22 gauge galvanized cold rolled steel.

16. Suspended and furred ceilings: Provide componets complying with ASTM C 754

17. Provide one year written guarantee warranting against defects in material and workmanship. 18. The Subcontractor shall keep the premises and surrounding area free from the accumulation of waste materials or rubbish caused by operations under contract. The Subcontractor shall be responsible for the complete removal and disposal of his trade's debris.

SECTION 07213

**BOARD AND BATT INSULATION** 

Refer to Division 1 - General Requirements.

1. Subcontractor shall provide all labor, materials, equipment and incidentals necessary and required for the

SECTION 07213 (Continued)

**BOARD AND BATT INSULATION** 

2. Scope of Work shall include but not be limited to the following

- Board insulation at cavity wall construction, perimeter foundation wall, underside of floor slabs, and exterior wall behind wall finish. - Batt insulation and vapor retarder in exterior wall

construction - Batt insulation for filling crevices in exterior wall and roof.

- See Section 05400 - Cold Formed Metal Framing:

Supporting construction for batt insulation

Supply and install sound blanket insulation.

3. Related Work by Others specified elsewhere

- See Section 06100 - Rough Carpentry: Supporting construction for batt insulation - See Section 07260 - Weather Barriers: Separate air barrier and vapor retarder materials. - See Section 07510 - Built-Up Bituminous Roofing: Insulation specified as part of roofing system. - See Section 07550 - Modified Bituminous Membrane Roofing: Insulation specified as part of roofing system. - See Section 07530 - Elastomeric Membrane Roofing: Insulation specified as part of roofing system. - See Section 07840 - Firestopping. - See Section 09260 - Gypsum Board Assemblies: Acoustic

4. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation

insulation.

5. APPLICATIONS

- Insulation at Perimeter of Foundation: Extruded polystyrene board. Insulation inside Masonry Cavity Walls: Extruded polystyrene board. - Insulation in Metal Framed Walls: Batt insulation with

- Insulation under Concrete Slabs: Extruded polystyrene

- Insulation Above Lay-In Acoustical Ceilings: Batt insulation with no vapor retarder.

6. FOAM BOARD INSULATION MATERIALS: Extruded Polystyrene Board Insulation: ASTM C 578, Type X; Extruded polystyrene board with either natural skin or cut cell surfaces; complying with ASTM E 84 Class A.

> - Board Thickness: 1-1/2 inches. - Board Edges: Square. - Manufacturers: Dow Chemical Co. or Owens Corning Corp.

7. BATT INSULATION MATERIALS: Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C 665, ASTM E 84 Class A and ASTM E 136; friction fit, formaldehyde free.

 Facing: Unfaced. - Facing: Aluminum foil, flame spread 25 rated; one

- Manufacturers: CertainTeed Corp., Johns Manville Corp., or Owens Corning Corp.

8. ACCESSORIES

- Tape: Bright aluminum self-adhering type, mesh reinforced, 2 inch wide. - Staples: Steel wire; electroplated, or galvanized; type and size to suit application for installation in wood framing only.

9. EXAMINATION: Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation. Verify substrate surfaces are flat, free of honeycomb, fins, or irregularities.

perimeter. Extend boards over expansion joints, unbonded to foundation on one side of joint. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane. 11. BOARD INSTALLATION AT EXTERIOR WALLS: Apply adhesive to back of boards per manufacturer's instructions with full bed 1/8 inch thick. Install boards horizontally on walls. Install in running bond pattern. Butt

edges and ends tightly to adjacent boards and to protrusions. Extend boards over expansion joints, unbonded to

10. BOARD INSTALLATION AT FOUNDATION PERIMETER: Install boards horizontally on foundation

wall on one side of joint. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane. 12. BOARD INSTALLATION AT CAVITY WALLS: Apply adhesive to back of boards per manufacturer's instructions with full bed 1/8 inch thick. Install boards to fit snugly between wall ties. Place membrane surface facing out, and tape seal board joints. Install boards horizontally on walls in running bond pattern. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

13. BOARD INSTALLATION UNDER CONCRETE SLABS: Place insulation under slabs on grade after base for slab has been compacted. Insulation shall not reduce the thickness of the slab. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.

14. BATT INSTALLATION: Install insulation and vapor retarder in accordance with manufacturer's instructions. Install in exterior wall spaces without gaps or voids. Do not compress insulation. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation. Install with factory applied vapor retarder membrane facing warm side of building spaces. Lap ends and side flanges of membrane over framing members. Tape insulation batts in place. Tape seal butt ends, lapped flanges, and tears or cuts in membrane. Tape seal tears or cuts in vapor retarder. Extend vapor retarder tightly to full perimeter of adjacent window and door frames and other items interrupting the plane of the membrane. Tape seal in place. Coordinate work of this section with construction of air barrier seal.

- At wood framing, place vapor retarder on warm side of insulation by stapling at 6 inches on center. Lap and seal sheet retarder joints over member face. - At metal framing, place vapor retarder on warm side of insulation; lap and seal sheet retarder joints over member

- Exterior wall blanket insulation: (R=19 min) foil faced

fiberglass insulation. 15. PROTECTION: Do not permit installed insulation to be damaged prior to its concealment.

16. The Subcontractor shall keep the premises and surrounding area free from the accumulation of waste materials or rubbish caused by operations under contract. The Subcontractor shall be responsible for the complete removal and disposal of his trade's debris.

**SECTION 08100** 

**HOLLOW METAL DOORS AND FRAMES** 

1. Refer to Division 1 - General Requirements 2. Work shall include but not be limited to the following:

- Furnish and install non-rated and fire rated rolled steel doors and frames. - Furnish and install louvers where scheduled.

Coordinate installation of hardware.

3. Related Work by Others specified elsewhere: Section 04100 - Mortar: Masonry mortar fill of metal frames

Section 08210 - Wood Doors. Section 08712 - Hardware.

Section 09900 - Painting: Field painting of doors and frames.

· Section 07213 - Batt and Blanket Insulation: Sound insulation in door frames. 4. REFERENCES

· DHI - Door Hardware Institute: The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.

NFPA 80 - Standard for Fire Doors and Other Opening Protectives. NFPA 252 - Fire Tests for Door Assemblies

- SDI-105 - Recommended Erection Instructions for Steel Frames.

- SDI-100 - Standard Steel Doors and Frames.

5. QUALITY ASSURANCE - All work shall be executed in strict accordance with referenced standards and these Specification.

 Conform to requirements of SDI-100. - Fire rated door and frame construction to conform to NFPA 252. Installed frame and door assembly to conform to NFPA 80 for fire rated class indicated on Drawings. - Wherever provisions of pertinent codes, referenced standards, and/or these Specifications conflict, the more

stringent shall govern.

6. REGULATORY REQUIREMENTS - Conform to applicable code for fire rated / accessible frames and doors.

 Submit shop drawings and product data under provisions of Section 01300. Indicate frame configuration, anchor types and spacings, location of cutouts for hardware, reinforcement, and

· Indicate door elevations, internal reinforcement, closure method, and cut outs for glazing and/or louvers.

8. DELIVERY, STORAGE AND PROTECTION

Deliver products to the site, store, handle, and protect under provisions of Section 01600. - Protect doors and frames with resilient packaging sealed with heat shrunk plastic.

 Break seal on-site to permit ventilation. 9. ACCEPTABLE MANUFACTURERS

Assa Abloy Ceco or Curries

 Steelcraft - Windsor Republic Doors - Substitutions: Under provisions of Section 01600.

10. DOORS AND FRAMES

the most stringent.

- Accessibility: Comply with ANSI/ICC A117.1 - Exterior Doors: SDI-100 Grade III Model 3.

 Interior Doors: SDI-100 Grade II Model 3. - Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with all the specified requirements for each type. Where two requirements conflict, comply with

- Exterior Frames: 16 gage thick material, core thickness. Interior Frames: 16 gage Thick material, core thickness.

- Top Closures for Outswinging Doors: Flush with top of faces and edges. 11. DOOR CORE

 Cardboard Honeycomb Core. Polyurethane Core. - Polystyrene Foam Core: Polystyrene insulation with steel channel grid. Space vertical reinforcing 6 inches oc

and extend full door height. Spot weld reinforcing to both face sheets at 5 inches oc maximum. - Mineral Fiberboard Core. Steel Channel Grid. - Vertical Steel Stiffeners.

Louvers: Roll formed steel material, inverted 'V' blade, sightproof design. Silencers: Resilient rubber, fitted into drilled hole; 3 strike side of single door, 3 center mullion of pairs, and 2

head of pairs without center mullions. - Glazing: As specified in Section 08800.

 Fabricate frames as welded unit. - Fabricate frames and doors with hardware reinforcement plates welded in place. Provide mortar guard

· Reinforce frames wider than 48 inches with roll formed steel channels fitted tightly into frame head, flush with top.

· Terminate door stops 6 inches above finished floor. Cut stop at 90 degree angle and close. Prepare frame for silencers. Provide three single rubber silencers for single doors and mullions of double doors on strike side, and two single silencers on frame head at double doors without mullions. · Attach fire rated label to each frame and door unit. LABEL SHALL NOT BE COVERED OR PAINTED, ETC.

- Close top edge of exterior door flush with inverted steel channel closure. Seal joints watertight. - Configure exterior frames with special profile to receive snap-in weatherstripping. - Fabricate frames for masonry wall coursing with 4 inch head member.

- Coatings shall be continuous at top and bottom of doors, typical.

Bituminous Coating: Asphalt emulsion or other high-build, water-resistant, resilient coating Primer: Zinc chromate type Rust-inhibiting, complying with ANSI A250.10.

- Factory Finish: Complying with ANSI A 250.3 - Manufacturer's standard coating. - Baked enamel. - Thermosetting epoxy.

- Color as Scheduled / Selected by Architect. Interior Units: 0.60 oz/sq ft galvanized. Exterior Units: 2.0 oz/ sq ft galvanized. Primer: Baked on.

**SECTION 092000** 

GYPSUM BOARD

1. Subcontractor shall provide all labor, materials, equipment and incidentals necessary and required for the completion

- Coat inside of frame profile with bituminous coating to a thickness of 1/16 inch . Coating may be shop or field

2. Scope of work shall include but not be limited to the following: - Boarding and finishing of interior partitions. - Boarding and finishing of interior ceilings. - Boarding and finishing ceiling drops.

- In general, board shall be 5/8" thick.

- Supply and install sound blanket insulation.

ASTM C 1047.

3. Gypsum Board work: A. Provide and install gypsum wall panels such as USG Sheetrock brand SW or equal with tapered edges. Include the following types as required:

- Board for walls shall be 5/8" thick unless indicated otherwise.

- Board for ceilings shall be 5/8" thick unless indicated otherwise.

Coordinate with finishes to determine if water resistant gypsum board is to be used. - ASTM C 1396, provide Level 4 for gypsum board surface except as noted on drawings. All gypsum board shall be installed horizontally across the partition and wall framing except as otherwise

All gypsum board shall be glued and screwed to metal studs. Screws shall be of the self tapping variety and shall be spaced at 12" o.c.

- Water resistant board shall be used in all toilet rooms, janitor closets and mechanical rooms.

B. Provide and install corner beads, casing beads, expansion joints and trims as necessary, (wherever gypsum board abuts another material). All trim beads and accessories shall be metal unless otherwise indicated. Plastic trims shall be used only where the gypsum board terminates against a dissimilar metal or incompatible material.

All outside corner beads must be glued in addition to screwing or stapling to assure continuous securement.

STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK. MI 48067-0925

F. 248.546.8454 WWW.STUCKYVITALE.COM

P. 248.546.6700

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants

Seal:



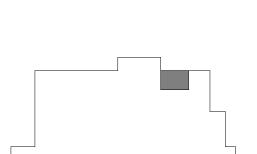
Project: WSU ALL GENDER

RESTROOMS

259 MACK AVE

DETROIT, MI 48201

Key Plan:



05.25.2023

**BFS Submission** 

Issued for

Drawn by:

JML Checked by:

Sheet Title

PROJECT SPECIFICATION

Project No. : 2023.053

disposal of his trade's debris.

Subcontractor shall protect adjoining finish surfaces from damage and shall repair any resultant damage.

**SECTION 096500** CONTRACT FLOORCOVERINGS 8. Supply and install wall base as indicated. Wall base shall be: (Refer to Color and Materials Schedule for manufacturer, size, and color.) 9. Supply and install reducers and transition strips as indicated. Reducers and Transition strips shall be: (Refer to Color and Materials Schedule for manufacturer, style and color). A. Refer to Color and Material Schedule for manufacturer, size and color B. Assure proper temperatures and broom clean, vacuum, and brush clean all foreign materials from the subfloor prior to commencing installation. C. Install resilient tile and base in accordance with the standards of the Resilient Floor Covering Institute (RFCI) and the manufacturer's printed installation instructions. Center floor covering transitions where indicated on Drawings or D. Follow the manufacturer's printed instructions and perform the initial maintenance after installation and preparation for Commercial use 11. Broadloom Carpeting: A. See Color and Material Schedule for manufacturer, size and color. B. All bidding shall be based upon seam layout as determined by the Architect. (See Room Finishes Floor Plan.) C. Subcontractor shall state in his proposal the carpet yardage included. Adequate yardage shall be included to provide a complete installation with a minimum number of end seams. D. Carpet without cushion pad over concrete floors shall be as installed as a direct-glue application. Sections of carpet shall be fit into each space prior to application of adhesive. Trim edges and butt cuts with seaming Apply adhesive uniformly to the substrate in accordance with the manufacturer's instructions. Butt carpet edges tightly together to form seams without gaps. Roll entire carpet lightly to eliminate air pockets and ensure uniform bond. Remove any adhesive promptly from face of carpet by method which will not damage carpet face. 12. Comply with manufacturer's recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. Follow seaming diagrams as indicated. At doors, center seams under doors; do not place seams in traffic direction at doorway. 13. If the carpet nap is laying in the wrong direction at any carpet seams and it is determined to be in the factory roll and not because the carpet was laid in an improper direction, the carpet subcontractor shall be responsible for steam cleaning the carpet to release the nap so it lays in the proper direction. 14. Provide one year written guarantee warranting against defects in material and workmanship. 15. The Subcontractor shall keep the premises and surrounding area free from the accumulation of waste materials or rubbish caused by operations under contract. The Subcontractor shall be responsible for the complete removal and disposal of his trade's debris. SECTION 10800 **TOILET ROOM ACCESSORIES** 1. Subcontractor shall provide all labor, materials, equipment and incidentals necessary and required for the completion 2. Scope of work shall include but not be limited to the following: Supply all toilet accessories. 3. Related work by others specified elsewhere: - Mirrors by others, see Section 08712 - Installation by others, see Section 06100. 4. Exchange information with trades installing adjacent work so that work will be perfectly coordinated. 5. Subcontractor shall submit four sets of shop drawings to the Architect for approval prior to ordering. 6. Subcontractor shall provide one year written guarantee warranting against defects in material and workmanship. 7. Provide and install surface mounted toilet room accessories as follows; Bobrick, Bradley or equal to In Men a. (1) Bobrick B-3900 recessed towel dispenser/disposal. b. (1) Bobrick B-6806 x 36" grab bar. c. (1) Bobrick B-6806 x 48" grab bar. d. (2) Bobrick B-685 toilet paper holder. e. (1) Mirror size: width of counter x 33". In Women: a. (1) Bobrick B-3900 recessed towel dispenser/disposal. b. (1) Bobrick B-6806 x 36" grab bar. c. (1) Bobrick B-6806 x 48" grab bar. d. (2) Bobrick B-685 toilet paper holder. e. (1) Mirror size: width of counter x 33". 8. Additional items to be provided where indicated on Drawings are as follows: a. Wall mounted sanitary napkin unit. b. Wall mounted sanitary napkin disposal. c. Hand dryer unit. d. Clothes hook. e. Shelf unit. f. Soap dispenser. 9. All selections to be approved by Owner.



IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED

Consultants

Seal:

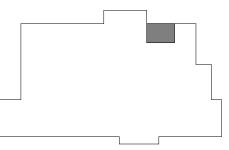
ARCHITECT

Project: WSU ALL GENDER

RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

Drawn by:

JML Checked by:

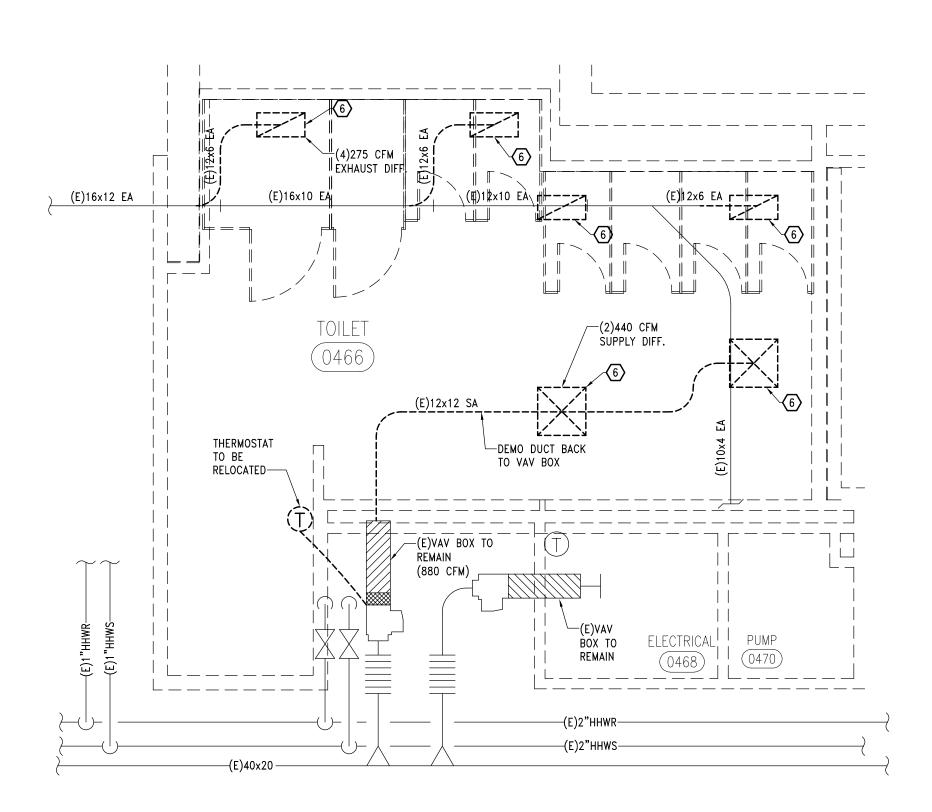
Sheet Title:

PROJECT SPECIFICATION

Project No. :

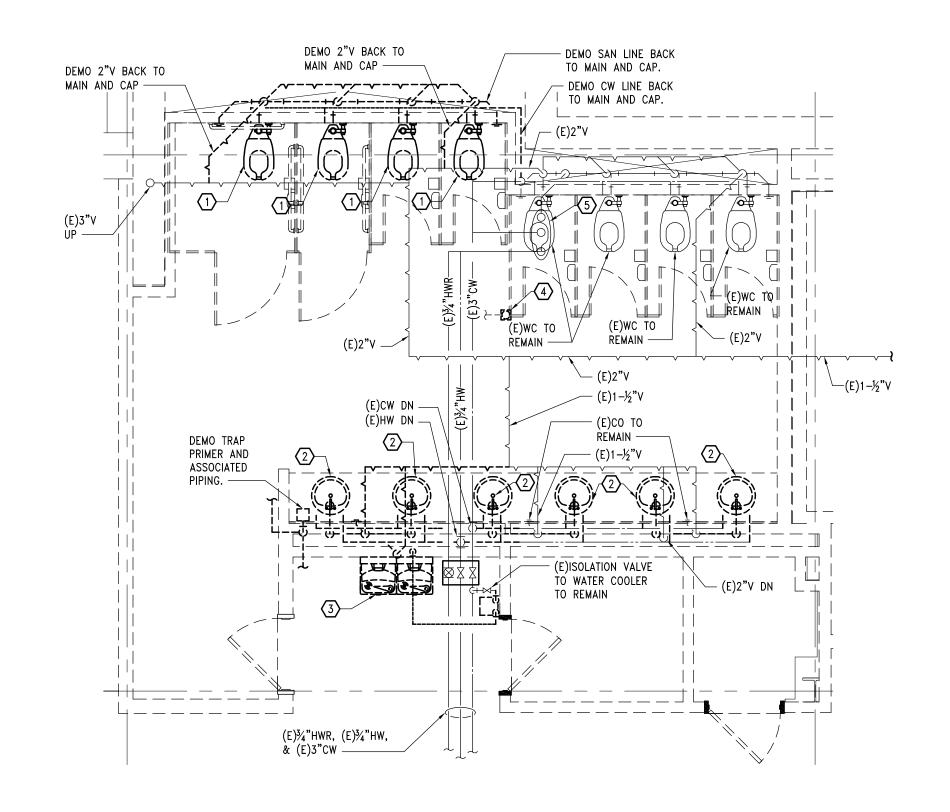
### GENERAL DEMOLITION NOTES:

- A. COORDINATE ALL DEMOLITION WORK WITH ARCHITECTURAL AND ELECTRICAL DEMOLITION PLANS, WITH OWNER'S PROJECT REPRESENTATIVE, OWNER'S FACILITY MANAGER, AND WITH SALVAGED ITEMS AND COMPONENTS TO BE USED ON NEW WORK AS INDICATED ON DRAWINGS AND WITHIN SPECIFICATIONS.
- B. THESE DEMOLITION NOTES AND PLAN DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF INCIDENTAL DEMOLITION WORK NOT INDICATED ON THIS PLAN.
- C. ALL WORK INDICATED WITH SOLID LINES IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED (U.O.N.).
- D. COORDINATE ANY SERVICE SHUTDOWNS WITH OWNER. USE WSU FACILITIES STANDARD PROCEDURE FOR SHUTDOWNS.
- E. REMOVE ALL DUCTWORK, PIPING AND EQUIPMENT COMPLETE INCLUDING ALL HANGERS AND ACCESSORIES.
- F. CAP PIPING AND DUCT AT MAINS. DISPOSE OF ALL MATERIALS IN A LEGAL MANNER.



# DEMOLITION KEY NOTES:

- DEMO EXISTING WATER CLOSET AND ASSOCIATED CW AND SAN BACK TO MAIN, AND CAP.
- DEMO EXISTING LAV AND ASSOCIATED CW, HW, AND SAN BACK TO MAIN AND CAP.
- DEMO EXISTING WATER CHILLER AND ASSOCIATED CONDENSER IN CEILING. DEMO ASSOCIATED SAN BACK TO MAIN AND CAP. DEMO ASSOCIATED CW LINE BACK TO EXISTING ISOLATION VALVE IN CEILING AND CAP.
- DEMO EXISTING FLOOR DRAIN AND ASSOCIATED CW LINE FROM TRAP
- (E)SAN, (E)CW, & (E)HW UP TO REMAIN.
- (6) DEMO EXISTING DIFFUSER AND ASSOCIATED DUCT BRANCH.





STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MI 48067-0925

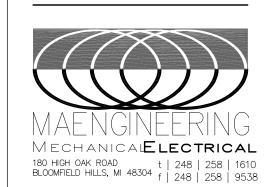
P. 248.546.6700

F. 248.546.8454

WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants



Seal:

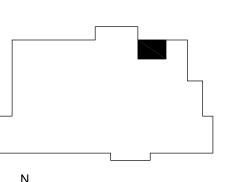


Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

Drawn by :

Checked by:

Sheet Title:

BASEMENT DEMOLITION
PLAN - MECHANICAL

Project No. : 2022.053

Sheet No. :

# MECH\83

### **ABBREVIATIONS**

GENERAL HVAC NOTES:

OTHERWISE INDICATED.

INTERFERENCES.

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE

1. WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE

UNIT TO BE EQUAL TO VENTLOCK No. 666 IN 1/2"x3/8" SIZE.

2. ALL DIMMENSION SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.

4. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS

OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY

5. DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.

6. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL

7. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED

8. ACCESS PANELS AND DOORS ARE REQUIRED THROUGH BUILDING CONSTRUCTION

DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN

INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL

PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING

9. ALL DUCTWORK PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS

10. A 24/7 CRAC UNIT MUST BE PROVIDED FOR THE LAN/SERVER ROOM #410 &

TR1/RWC #320, BUT MUST NOT BE ABOVE THE SPACE. IT MAY BE INSTALLED

OVER ANOTHER ROOM OR IN A HALLWAY (NOT THE HSDN ROOM #409). THIS

IS ALSO TO AVOID LEAKS AND DAMAGE TO IT & SECURITY EQUIPMENT. IF APPLICABLE, THERE MUST ALSO <u>NOT</u> BE ANY ROOF PENETRATIONS DIRECTLY

ABOVE THE LAN/SERVER ROOM & TR1/RWC OR NEAR THE PERIMETER TO AVOID WATER LÉAKS AS WELL. SEE OIT COMPUTER & TELEPHONE ROOM

SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND

CONTRACTOR SHALL COORDINATE LOCATION OF ACESS DOORS AND PANELS

AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER

THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND

ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES

ASSEMBLIES SUCH AS WALLS, CEILING, PARTITONS AND FLOORS TO SERVICE

AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE

ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT

NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL

COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF

3. DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH

ARCHITECTURAL REFLECTED CEILING PLAN.

SIZE AS INDICATED ON THE DRAWINGS.

IN FURRED CHASE OR SUSPENDED CEILING.

BY 18 INCHES UNLESS OTHERWISE NOTED.

STANDARD AND RELATED DOCUMENTS.

TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED

DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING.

ACCU AD AFF AHU AP	AIR CONDITIONING CONDENSING UNIT ACCESS DOOR ABOVE FINISHED FLOOR AIR HANDLING UNIT ACCESS PANEL	F FD FLR FPM FSW	FAHRENHEIT FLOOR DRAIN FLOOR FEET PER MINUTE FLOW SWITCH	P PD PSI PRV	PUMP PRESSURE DROP (FEET OF WATER) POUNDS PER SQUARE INCH PRESSURE REDUCING VALVE
ASR	AUTOMATIC SPRINKLER RISER	FS	FLOOR SINK	RA	RETURN AIR
DTU	DDITICH THERMAL HANT	FT.	FEET	RD/SP BAL.	ROOF DRAIN/STAND PIPE BALANCE
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE	RET	RETURN
CC	COOLING COIL	HB	HOSE BIBB	RF RH	RETURN FAN REHEAT COIL
CF	CENTRIFUGAL FAN	НО	HUB OUTLET	Rh	RELATIVE HUMIDITY
CFM	CUBIC FEET PER MINUTE	HP		RPM	REVOLUTIONS PER MINUTE
CI	CAST IRON	HW	HORSEPOWER HOT WATER (POTABLE)	RS	ROOF SUMP
CO	CLEAN OUT	HWR	HOT WATER (FOTABLE)	RC	RAIN CONDUCTOR
COND	CONDENSATE	пик	HOI WAIER RETORN (POTABLE)	REL	RELOCATED
CONT	CONTINUATION	INI	INCHES	REB	REBALANCE
CUH	CABINET UNIT HEATER	IN	INCHES		
CW	COLD WATER	INL	INLET	SA	SUPPLY AIR
CWS	CHILLED WATER SUPPLY	INV	INVERT	SAN	SANITARY WASTE
CWR	CHILLED WATER RETURN	LAT	LEAVING AIR TEMPERATURE	SD	SMOKE DETECTOR
		LAV	LAVATORY	SF	SUPPLY FAN
Db	DRY BULB TEMPERATURE, *F	LBS/HR	POUNDS PER HOUR	SG	SPECIFIC GRAVITY
dB	DECIBELS	LWT	LEAVING WATER TEMPERATURE	SP	STATIC PRESSURE (INCHES OF WATER
DDC	DIRECT DIGITAL CONTROL			SP	STAND PIPE
DET	DETAIL	MAX.	MAXIMUM	SPR	SPRINKLER
DIA	DIAMETER	MBH	1000 BTU/HR	SPR/STP	SPRINKLER STANDPIPE
DN.	DOWN	MECH	MECHANICAL	SPS	STATIC PRESSURE SENSOR
DS.	DOWNSPOUT	MIN.	MINIMUM	STK	STACK
DWG.	DRAWING	MISC	MISCELLANEOUS		
			INIOGEE IN TEGOS	TP	TOTAL PRESSURE
- 4	EVILATION AID	NC	NORMALLY CLOSED	TYP	TYPICAL
EA ECUH	EXHAUST AIR ELECTRIC CABINET UNIT HEATER	NIC	NOT IN CONTRACT		
ECUH EF	EXHAUST FAN	NO	NORMALLY OPEN	UH	UNIT HEATER
ELEV.	ELEVATION	NOM.	NOMINAL	UON	UNLESS OTHERWISE NOTED
ESP	EXTERNAL STATIC PRESSURE	NFWH	NON FREEZE WALL HYDRANT		
EUH	ELECTRIC UNIT HEATER		TOTAL TREEZE WALL TREET	٧	VALVE
EX.	EXISTING	OA	OUTSIDE AIR	VTR	VENT THRU ROOF
EXH	EXHAUST	OF	OVERFLOW		
EXIST	EXISTING	OFD	OVERFLOW DRAIN	W	WASTE
				WG	WATER GAUGE
				WH	WALL HYDRANT

- 1. FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES AND VARIOUS PIECES OF
- EQUIPMENT REFER TO SPECIFICATIONS. 2. IN ALL WASTE DRAINAGE PIPING THE CONTRACTOR SHALL FURNISH AND INSTALL CLEANOUTS (IN ADDITION TO THE CLEANOUTS INDICATED ON DRAWINGS AS REQUIRED BY THE GOVERNING PLUMBING CODE).

- 1. AREA UNDER RENOVATION IS TO BE FULLY SPRINKLERED. SPRINKLER SYSTEM DESIGN AND LAYOUT TO BE IN COMPLIANCE WITH NFPA 13. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION. ALL UNFINISHED/UNOCCUPIED
- 2. REMOVE ALL AUTOMATIC SPRINKLER HEADS PRESENTLY INSTALLED IN THE AREA OF RENOVATION AND TURN OVER TO THE OWNER. FIELD VERIFY LOCATION OF EXISTING HEADS AND SPRINKLER PIPING LOCATION PRIOR TO DESIGN & INSTALLATION. CONNECT NEW SPRINKLER HEADS TO EXISITNG MAINS IF FEASABLE, PROVIDE NEW MAIN VALVES, FLOW SWITCHES AS REQUIRED. WORK SHALL BE PHASED SO THAT FIRE PROTECTION SERVICE WILL NOT BE INTERRUPTED FOR THE ADJACENT SPACES DURING ALTERATIONS.
- 3. DO NOT SCALE THE PLUMBING AND FIRE PROTECTION DRAWINGS FOR LOCATION OF CEILING MOUNTED SPRINKLER HEADS. ALL CEILING MOUNTED HEADS SHALL BE COORDINATED WITH AND LOCATED AS SHOWN ON REFLECTED ARCHITECTURAL CEILING PLANS, UNLESS OTHERWISE NOTED.
- 4. ALL SPRINKLERS LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE MIDDLE OF THE CEILING TILES UNLESS OTHERWISE INDICATED ON THE
- 5. THOUGH SOME FIRE PROTECTION MAINS ARE SHOWN ON THE DRAWINGS, ADDITIONAL PIPING ARE EXISTING AND REQUIRED TO BE REMOVED & TRASHED. FIELD VERIFY LOCATION PRIOR TO START OF DEMOLITION.

### GAUGE HYDRANT

PLUMBING GENERAL NOTES:

- REFER TO HVAC GENERAL NOTE-4
- 4. FOR ADDITION NOTES COMMON TO PLUMBING REFER TO HVAC NOTES.

# FIRE PROTECTION GENERAL NOTES:

- AREAS SHALL BE TREATED AS STORAGE AREAS.
- ARCHITECTURAL SERIES DRAWINGS.

### PLUMBING, PIPING & FIRE PROTECTION

-			
	ITEM TO BE REMOVED	$ \uparrow $	MANUAL AIR VENT
	EXISTING WORK	×	TEST PLUG (PRESSURE/TEMPERATURE
	NEW WORK	_	NEW CONNECTION
$-\!$	ISOLATION VALVE	<b>⊗</b>	
$\longrightarrow$ $\stackrel{\longrightarrow}{\triangleright}$	CHECK VALVE		COLD WATER PIPING
——FS	WATER FLOW SWITCH		HOT WATER PIPING  HOT WATER RETURN PIPING
	VALVE IN RISER		
	STRAINER		VENT PIPING
×	PIPE ANCHOR	SAN	SANITARY LINE (UNDERGROUND)
	EXPANSION JOINT - SLIDING	———— SAN ———	SANITARY LINE (AVOVE GROUND)
	ALIGNMENT GUIDE	—— ST ——	STORM LINE
——————————————————————————————————————	UNION	——— STM ———	STEAM
	SPRINKLER HEAD ( PENDANT )	—— CR ——	CONDESATE RETURN
0	SPRINKLER HEAD ( UPRIGHT )	—— OXY——	OXYGEN
I CO	CLEANOUT	VAC	VACUUM
———— FCO	CLEANOUT FLOOR	——— MA———	MEDICAL AIR
O WCO	CLEANOUT WALL	—— N2 ——	NITROGEN
——⊚ GCO	CLEANOUT GRADE	N20	NITROUS OXIDE
	FLOOR DRAIN (FD)	—— G ——	NATURAL GAS
	REDUCER - CONCENTRIC	—— F ——	FIRE SPRINKLER PIPE (FS)
$\bigcirc$		HHWS	HEATING HOT WATER SUPPLY
	PRESSURE GAUGE WITH COCK	HHWR	HEATING HOT WATER RETURN
<b>_</b>	THERMOMETER	———CHWS——	CHILLED WATER SUPPLY
<del></del>	CAP OR PLUG	CHWR	CHILLED HOT WATER RETURN
	ELBOW — TURNED DOWN	· · · · · · · · · · · · · · · · · · ·	The state of the s
	ELBOW — TURNED UP		

MECHANICAL SHEET INDEX MECHANICAL SYMBOLS LIST, INDEX AND NOTES MECHANICAL SPECIFICATIONS BASEMENT DEMOLITION PLAN - MECHANICAL BASEMENT FLOOR PLAN - MECHANICAL MECHANICAL DETAILS MECHANICAL SCHEDULES

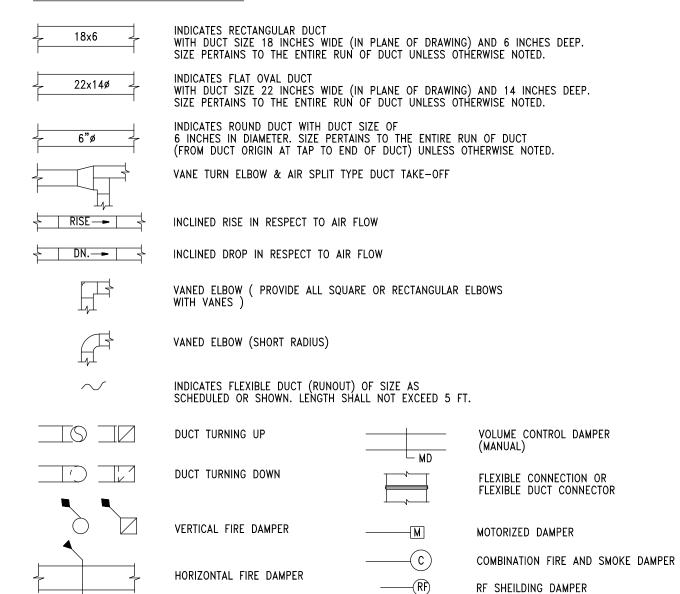
HVAC LEGEND & SYMBOLS

TEE OUTLET - DOWN

TEE OUTLET - UP DIRECTION OF FLOW

BALANCING VALVE TWO-WAY MODULATING CONTROL VALVE

THREE-WAY MODULATING CONTROL VALVE



POINT OF NEW CONNECTION

DUCT SMOKE DETECTOR

ITEM TO BE REMOVED

SUPPLY AIR DIFFUSER

RETURN AIR GRILLE

SUPPLY AIR GRILLE

LINEAR SUPPLY AIR DIFFUSER

T

THERMOSTAT

TEMPERATURE SENSOR

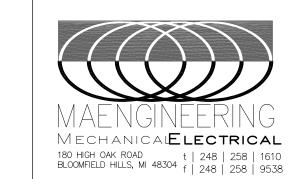


STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925

P. 248.546.6700

F. 248.546.8454 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants



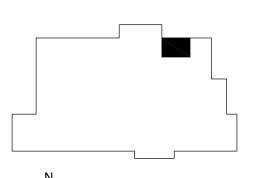


Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

Drawn by: UF

Checked by:

Sheet Title: MECHANICAL SYMBOLS

LIST, INDEX AND NOTES

|Project No

Sheet No.:

### MECHANICAL SPECIFICATION

MECHANICAL MATERIALS, METHODS AND EXECUTION WORK INCLUDED:

A. FURNISH ALL LABOR AND MATERIAL, APPLIANCES, EQUIPMENT AND SUPERVISION TO PUT IN PLACE A COMPLETE AND FUNCTIONING MECHANICAL INSTALLATION READY FOR OPERATION, AS SPECIFIED HEREIN AND AS INDICATED ON THE DRAWINGS. SYSTEMS SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO THE FOLLOWING MAJOR EQUIPMENT OR OPERATIONS:

- HEATING, VENTILATING AND AIR CONDITIONING.
- INSULATION. FIRE PROTECTION
- 5. TEMPERATURE CONTROLS.

A. "PROVIDE": TO FURNISH AND COMPLETELY INSTALL SPECIFIED PRODUCTS AND INCIDENTALS, WHETHER SPECIFICALLY INDICATED OR NOT, NECESSARY FOR A COMPLETE, FUNCTIONAL INSTALLATION. INCLUDES ALL GENERAL AND SPECIALIZED LABOR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE THE INSTALLATION.

B. "PIPING": A COMPLETE SYSTEM, INCLUDING PIPE, TUBING, FITTINGS, HANGERS, SUPPORTS, VALVES, AND ALL SPECIALTIES THAT COMPRISE A FULLY FUNCTIONAL PIPING SYSTEM, WHETHER SPECIFICALLY INDICATED OR NOT.

### CODES, ORDINANCES, AND STANDARDS: A. ALL WORK SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE LATEST ADOPTED FEDERAL, STATE AND LOCAL

CODES, ORDINANCES, AND STANDARDS HAVING JURISDICTION OVER THE WORK. B. WHERE CONTRACT DOCUMENT REQUIREMENTS EXCEED THE REQUIREMENTS OF THE REFERENCED CODES, ORDINANCES, AND STANDARDS, THE CONTRACT DOCUMENT REQUIREMENTS SHALL BE TAKEN AS MINIMUM. C. ALL EQUIPMENT CONTAINING ELECTRICAL WIRING AND/OR ELECTRICAL COMPONENTS SHALL HAVE A UNDERWRITERS LABORATORIES

(UL) "PACKAGE" LABEL. D. ALL GAS FIRED EQUIPMENT SHALL HAVE THE AMERICAN GAS ASSOCIATION (AGA) LABEL.

PERMITS, FEES AND INSPECTIONS: A. SECURE ALL NECESSARY PERMITS, CONNECTION FEES, TAD FEES, LICENSES AND APPROVALS AND ARRANGE FOR ALL INSPECTIONS, INCLUDE ALL RELATED COSTS. B. FURNISH CERTIFICATES OF FINAL INSPECTION AND APPROVAL UPON COMPLETION OF PROJECT.

A. VISIT PROJECT SITE AND BECOME FULLY COGNIZANT OF ALL EXISTING ARCHITECTURAL, MECHANICAL, ELECTRICAL, STRUCTURAL AND SITE CONDITIONS, OR EXISTING CODE VIOLATIONS WHICH MAY AFFECT THE WORK. B. NOTIFY ARCHITECT PRIOR TO SUBMITTING BID IF REVISIONS TO CONTRACT DOCUMENTS ARE NECESSARY TO RECTIFY ANY OF THE

AFOREMENTIONED EXISTING CONDITIONS. C. NO "EXTRAS" TO CONTRACT PRICE WILL BE ALLOWED AFTER RECEIVING BID IN ORDER TO RECTIFY EXISTING CONDITIONS IN ORDER TO MEET THE DESIGN INTENT OF THE CONTRACT DOCUMENTS OR SATISFY CODE REQUIREMENTS.

### **COORDINATION WITH OTHER TRADES:** A. COORDINATE ALL WORK BEFORE AND DURING CONSTRUCTION WITH ALL OTHER AFFECTED TRADES.

WHERE INTERFERENCES DEVELOP, NOTIFY ARCHITECT FOR RESOLUTION OF CONFLICT. RELOCATION OF CONFLICTING INSTALLED WORK, DUE TO LACK OF COORDINATION, OR POOR COORDINATION WILL NOT BE

### CONSIDERED EXTRA WORK.

A. USE ONLY MATERIALS SPECIFICALLY INDICATED IN CONTRACT DOCUMENTS, OR COMPARABLE MATERIALS BY OTHER LISTED ACCEPTABLE MANUFACTURERS. NOTE THAT "ACCEPTABLE MANUFACTURER" DOES NOT CONSTRUE AUTOMATIC APPROVAL OF SPECIFIC MATERIALS BY ONE OR ALL OF THE LISTED ACCEPTABLE MANUFACTURERS. ARCHITECT AND/OR ENGINEER OF RECORD RESERVES THE RIGHT OF FINAL DETERMINATION OF ACCEPTABILITY OF EACH ITEM.

A. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT INTENDED FOR USE ON THIS PROJECT. B. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL PHYSICAL, PERFORMANCE AND ELECTRICAL CHARACTERISTICS FOR ALL MATERIALS

C. SUBMIT ELECTRONIC COPY OF ALL SHOP DRAWINGS FOR REVIEW. D. NO WORK IS TO BE INSTALLED PRIOR TO RETURN OF ARCHITECT REVIEWED SHOP DRAWINGS.

OPERATION AND MAINTENANCE MANUALS: A. UPON COMPLETION OF PROJECT, SUBMIT TWO (2) COMPLETE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS FOR ALL

EQUIPMENT AND SYSTEMS INSTALLED IN THIS PROJECT. B. MANUALS SHALL INCLUDE GUARANTEE(S), COMPLETE OPERATING INSTRUCTIONS, REPAIR PARTS LIST, PREVENTATIVE MAINTENANCE SCHEDULE, BELT AND FILTER SCHEDULE, AND LIST OF ALL SUBCONTRACTORS ASSOCIATED WITH THE WORK, INCLUDING TELEPHONE NUMBER AND CONTACT PERSON.

### OPERATING AND MAINTENANCE INSTRUCTIONS:

A. PRIOR TO FINAL ACCEPTANCE BY OWNER, PROVIDE ALL PERSONNEL, EQUIPMENT, AND LABOR AS NECESSARY TO INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED IN THIS PROJECT. PROVIDE INSTRUCTIONAL SESSION DURING TIME PERIOD AGREED TO WITH OWNER.

A. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY THE GENERAL TRADES UNDER THE DIRECTION OF THE MECHANICAL TRADES. COST WILL BE PAID BY THE MECHANICAL TRADE REQUESTING THE WORK. B. RESTORED SURFACES SHALL BE OF SAME MATERIALS AND QUALITY AS ADJACENT SURFACES, AND SHALL MATCH SURROUNDING SURFACES, AND/OR BE RESTORED TO PRE-CONSTRUCTION CONDITION.

# PROTECTION OF EXISTING SERVICES:

A. PROTECT FROM ALL DAMAGE, EXISTING SERVICES (I.E., GAS, WATER, ELECTRICAL, ETC.), ENCOUNTERED IN THE WORK, NOT SPECIFICALLY INDICATED TO BE DEMOLISHED. INCLUDE ALL RELATED COSTS.

B. REPAIR AND/OR REPLACE EXISTING ACTIVE SERVICES INTENDED TO REMAIN IN SERVICE, BUT DAMAGED DURING THE COURSE OF CONSTRUCTION. ABSORB ALL RELATED COSTS. NO "EXTRAS" WILL BE PAID TO RESTORE EXISTING ACTIVE SERVICES DAMAGED DURING

CONSTRUCTION. C. ARCHITECT WILL DETERMINE COURSE OF ACTION WHEN EXISTING INACTIVE SERVICES ARE DAMAGED DURING COURSE OF CONSTRUCTION. ABSORB ALL COSTS RELATIVE TO ADDITIONAL DEMOLITION, TERMINATION, RELOCATION AND/OR RESTORATION OF EXISTING, DAMAGED INACTIVE SERVICES AS DIRECTED BY ARCHITECT.

A. PROVIDE ALL ELECTRICAL WORK ASSOCIATED WITH, AND NECESSARY TO COMPLETE THIS PROJECT, WHICH IS NOT INCLUDED AS ELECTRICAL TRADES WORK.

B. PROVIDE ALL ELECTRICAL WORK, AS APPLICABLE, IN ACCORDANCE WITH DIVISION 16 REQUIREMENTS. C. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION (WITH ELECTRICAL TRADES) OF CORRECT VOLTAGES FOR ALL MECHANICAL EQUIPMENT. IN CASE OF DISCREPANCY, NOTIFY ENGINEER IMMEDIATELY AND PRIOR TO SHOP DRAWING SUBMITTALS. FAILURE TO COMPLY WITH THIS REQUIREMENT HOLDS THE CONTRACTOR FULLY RESPONSIBLE FOR ANY SUBSEQUENT PROBLEMS

A. PRIOR TO FINAL ACCEPTANCE BY OWNER, THOROUGHLY CLEAN ALL WORK INSIDE AND OUT AS APPLICABLE, AND LEAVE ALL SYSTEMS AND EQUIPMENT IN PERFECT WORKING ORDER. THOROUGHLY CLEAN ALL PLUMBING FIXTURES, EXPOSED PIPING, FLOOR DRAIN GRATES, AND CLEANOUT COVERS AS APPLICABLE.

# A. REFER TO ARCHITECTURAL SPECIFICATIONS FOR GUARANTEES, IF NONE EXIST THE FOLLOWING MINIMUM GUARANTEES SHALL BE

1. PROVIDE A ONE (1) YEAR GUARANTEE COVERING ALL LABOR AND MATERIAL PROVIDED IN THIS PROJECT. GUARANTEE SHALL INCLUDE ALL SHIPPING ÀND TRANSPORTATION CHARGES NECESSARY TO RETURN DEFECTIVE MATERIALS TO MANUFACTURER, AS WELL AS LABOR CHARGES NECESSARY TO REMOVE AND REPLACE DEFECTIVE MATERIALS.

PROVIDE 5 YEAR GUARANTEE FOR ALL COMPRESSORS. 3. DEFECTIVE MATERIALS AND/OR EQUIPMENT MAY BE REPAIRED IN LIEU OF REPLACED WITH PRIOR APPROVAL OF ARCHITECT AND/OR OWNER. <u>PIPING:</u>

# SANITARY WASTE AND VENT PIPE AND FITTINGS:

PIPE AND FITTINGS: CAST IRON HUBLESS SOIL PIPE AND FITTINGS CONFORMING TO THE REQUIREMENTS OF CISPI STANDARD 310 AND LOCAL CODE REQUIREMENTS. HUBLESS COUPLING GASKETS SHALL CONFORM TO ASTM STANDARD C-564.

# DOMESTIC WATER AND HEATING HOT WATER PIPING:

## ABOVEGROUND DOMESTIC HOT AND COLD WATER 2" AND SMALLER:

ASTM B88, TYPE L, SEAMLESS HARD DRAWN RIGID COPPER WATER TUBE. FITTINGS: ANSI B16.22, WROUGHT COPPER, ASTM B32-95TA SOLDER JOINT OR PRESS.

## DOMESTIC HOT AND COLD WATER VALVES:

BALL VALVES 1/4" TO 1" PIPE SIZE: APOLLO 77C-140-01 FULL PORT, TWO PIECE WITH SCREWED ENDS, BRONZE BODY AND END PIECE, STAINLESS STEEL BALL, TEFLON SEAT RINGS, STAINLESS STEEL STEM, REINFORCED PTFE TEFLON PACKING WITH BRASS PACKING GLAND, ZINC PLATED STEEL HANDLE WITH PLASTIC GRIP SECURED BY ZINC PLATED STEEL HANDLE NUT, 150 PSI STEAM, 600 PSI WOG

BALL VALVES 1-1/4" TO 2" PIPE SIZE: APOLLO 82-140-01, 3 PIECE, FULL SIZE PORT WITH SCREWED ENDS, BRONZE BODY, STAINLESS STEEL BALL, TEFLON DOUBLE SEAL SEATS AND THRUST WASHER, BRASS PACKING GLAND, REINFORCED TAFLON PACKING, STAINLESS STEEL STEM, PLASTIC COATED ZINC PLATED STEEL HANDLE AND ZINC PLATED STEEL HANDLE NUT, 150 PSI SATURATES STEAM, 600 PSI WOG.

# CHECK VALVES:

INDUSTRIAL SERVICE, 150 LB., SWP 300 LB., WOG COMPOSITION DISC, THREADED ENDS. MILWAUKEE NO. 510.

# **CLEANOUT:**

PROVIDE CLEANOUTS AS REQUIRED BY LOCAL CODES. THE FINISH OF COVER PLATES, TOP AND TOP FRAME ACCESS COVERS SHALL BE NICKEL BRONZE, UNLESS OTHERWISE SCHEDULED.

### PIPING INSTALLATION:

INSTALL ALL PIPING PARALLEL OR PERPENDICULAR TO BUILDING WALL AND COLUMNS IN LOCATIONS TO AVOID INTERFERENCE WITH DUCTWORK, STRUCTURE, OTHER PIPING, LIGHTING AND ELECTRICAL EQUIPMENT OR OTHER EQUIPMENT.

DO NOT LOCATE PIPING ABOVE OR WITHIN 3 FEET HORIZONTALLY OF ELECTRICAL PANELS OR EQUIPMENT.

FOR PIPING PASSING THROUGH WALLS, PACK VOID BETWEEN PIPE AND STRUCTURE WITH APPROVED, NON-COMBUSTIBLE MATERIAL.

### DO NOT ALLOW CONTACT BETWEEN PIPING AND MASONRY OF CONCRETE SURFACES.

PROVIDE ALL THE NECESSARY HANGERS, RODS, SUPPORTS, CHANNELS, ANGLES, STRUCTURAL MEMBERS AND CONCRETE INSERTS TO PROPERLY SECURE PIPING AND RELATED EQUIPMENT. ALL SUPPORTS AND PARTS SHALL CONFORM TO THE LATEST REQUIREMENTS OF ANSI CODE FOR PRESSURE PIPING B31.1, AND MSS STANDARD PRACTICE SP-58.

PROTECT ALL INSULATED PIPE LINES AGAINST INSULATION DAMAGE AT ALL HANGERS BY THE USE OF 1 FOOT LONG, 12 GAUGE STEEL SEMI-CIRCULAR SHIELDS FOR PIPE SIZES WITH 12" OD AND LESS (INCLUDING INSULATION) AND 2 FOOT LONG, 1/2" STEEL SEMI-CIRCULAR SHIELDS FOR PIPE SIZES OVER 12" OD (INCLUDING INSULATION). SECURELY CEMENT ALL SHIELDS TO THE INSULATION. PROVIDE RIGID PIPE INSULATION AT EACH HANGER.

### PIPING INSULATION:

ALL ADHESIVES, SEALERS AND COATINGS SHALL BE INCOMBUSTIBLE. INSULATION SHALL BE APPLIED BY EXPERIENCED PIPE COVERERS AS PER BEST TRADE PRACTICE. WHERE EXISTING INSULATED PIPING AND SURFACES ARE EXPOSED DUE TO RENOVATIONS, RE-INSULATE EXPOSED SURFACES TO MATCH THE EXISTING INSTALLATION. APPLY INSULATION TO PIPE LINES AND EQUIPMENT ONLY AFTER TESTING AND INSPECTION, AND ALL SURFACES HAVE BEEN THOROUGHLY CLEANED.

DOMESTIC HOT, COLD, AND DOMESTIC HOT WATER RETURN PIPING SHALL BE INSULATED WITH 1" THICK FIBERGLASS INSULATION. PIPING INSULATION AND COVERING SHALL HAVE FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 AND SHALL BE SIMILAR TO OWENS-CORNING NO. 25ASJ/55L-11.

SURE SEAL MODEL SS4009 PRE-ASSEMBLED INLINE FLOOR DRAIN TRAP SEALER. 2 PIECES: 1 COMMERCIAL GRADE ABS PLASTIC HOUSING & PROPRIETARY NEOPRENE RUBBER DIAPHRAGM WITH 1 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE - 1072 FUNCTION: INLINE FLOOR DRAIN TRAP SEALER. CREATES A PHYSICAL BARRIER TO BLOCK SEWER GASES AND THEIR ODORS FROM ESCAPING. CAN BE USED IN EITHER THE STRAINER OR IN THE FLOOR DRAIN OUTLET. NEW CONSTRUCTION: USED IN FLOOR DRAINS TO PROVIDE ADDED PROTECTION AGAINST ESCAPING SEWER GASES. CAN BE USED IN EITHER THE STRAINER OR IN THE FLOOR DRAIN OUTLET. ELIMINATES THE NEED TO REPAIR/REPLACE TRAP PRIMERS WHEN

RETROFIT: USED IN SITUATIONS WHERE TRAP PRIMERS HAVE FAILED OR WHERE TRAP PRIMERS WERE NEVER INSTALLED.

# FIXTURE CONNECTIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:

FIXTURE	SOIL OR WASTE	VENT	TRAP	HOT WATER	COLD WATER
WATER CLOSETS (FLUSH)	4"	2"			1-1/2"
LAVATORY	1-1/2"	1-1/2"	1-1/4"	1/2"	1/2"

OTHERS AS INDICATED IN THE CONTRACT DOCUMENTS. FIXTURES SHALL BE ZURN, AMERICAN STANDARD, KOHLER, MANSFIELD OR AS SPECIFY BELOW. FIXTURE SUPPORTS SHALL BE ZURN. J.R. SMITH, JOSAM OR WADE.

### FLUSH VALVE SHALL BE SLOAN, ZURN OR DELTA. FAUCETS SHALL BE ZURN, CHICAGO, DELTA OR SPEAKMAN.

### **PIPING INSTALLATION:**

PROVIDE ALL THE NECESSARY HANGERS, RODS, SUPPORTS, CHANNELS, ANGLES, STRUCTURAL MEMBERS AND CONCRETE INSERTS TO PROPERLY SECURE PIPING AND RELATED EQUIPMENT. ALL SUPPORTS AND PARTS SHALL CONFORM TO THE LATEST REQUIREMENTS OF ANSI CODE FOR PRESSURE PIPING B31.1, AND MSS STANDARD PRACTICE SP-58.

### SHEET METAL NOTES:

INSTALL TRANSFER GRILLES IN ALL FULL HEIGHT PARTITIONS TO ALLOW RETURN AIR FLOW. SIZE PER MECHANICAL

ENGINEER REQUIREMENTS. THESE SHALL BE FIRE DAMPERS IN RATED WALLS. BLANK-OFF RETURN DUCTWORK IN AREAS OF WORK THAT CREATES DUST TO PREVENT DEBRIS FROM ENTERING MECHANICAL

SYSTEM.

DUCTWORK ON INLET OF V.A.V. BOXES SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "HIGH PRESSURE DUCT CONSTRUCTION STANDARDS".

ALL DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "DUCT CONSTRUCTION STANDARDS".

### IN ADDITION, ALL JOINTS AND SEAMS SHALL BE SEALED WITH DUCT SEALANT EQUAL TO FOSTER #32-14. APPROVED SEALANT MANUFACTURERS: 3M COMPANY, BENJAMIN FOSTER COMPANY, UNITED SHEET METAL, FLINTKOTE.

ALL ROUND TAKE-OFFS DOWNSTREAM OF TERMINAL UNITS SHALL BE MADE WITH CONICAL TAKE-OFF SPIN-IN FITTINGS TYPE SM-2DG, WITH FACTORY INSTALLED ADJUSTABLE DAMPER AS MANUFACTURED BY GENERAL ENVIRONMENT CORPORATION, GLENDALE, CALIFORNIA OR EQUAL.

AT EACH POINT OF CONNECTION OF DUCTWORK TO FANS, PROVIDE A FLEXIBLE CONNECTION, VENTFABRICS, INC., "VENTGLAS L.A." NOT LESS THAN 12" IN LENGTH AND MADE OF HEAVY GRADE GLASS FABRIC DOUBLE COATED WITH NEOPRENE AND PROVIDED WITH A SUITABLE FRAME AT EACH END ARRANGED FOR BOLTING TO INLET AND OUTLET OF FAN AND DUCTWORK,

## VANES AND DEFLECTORS:

ALL ELBOWS AND TURNS SHALL BE MADE WITH A RADIUS NOT LESS THE 1-1/2" TIMES THE DUCT DIAMETER OR WIDTH. WHERE BUILDING CONSTRUCTION DOES NOT PERMIT A LONG RADIUS ELBOW OR TURN OR IF SHOWN ON THE CONTRACT DOCUMENTS, ACOUSTICAL TURNING VANES AND DEFLECTORS SHALL BE PROVIDED.

### FLEXIBLE DUCTWORK:

ALL LOW PRESSURE AND HIGH PRESSURE FLEXIBLE DUCT SHALL BE FLEXMASTER USA, INC., TYPE #8M INSULATED FLEXIBLE DUCT CONSISTING OF A FACTORY FABRICATED ASSEMBLY OF A TRILAMINATE ALUMINUM FOIL, FIBERGLASS AND POLYESTER. THE FLEXIBLE DUCT SHALL BE UL LISTED 181 CLASS 1 AIR DUCT AND COMPLY WITH NFPA 90A AND 90B AND HAVE A FLAME SPREAD OF NOT OVER 25 AND A SMOKE DEVELOPED OF NOT OVER 50. THE FLEXIBLE DUCT SHALL HAVE A MINIMUM PRESSURE RATING OF 12" WC THROUGH TEMPERATURE RANGE OF −20 DEGREES F. TO + 250 DEGREES

### **DUCT INSULATION:**

ALL DUCTWORK SHALL BE THERMALLY INSULATED OR ACOUSTICALLY LINES:

-OUTSIDE AIR INTAKE AND RELIEF PLENUMS AND DUCTS. -RELIEF AIR DUCT DOWNSTREAM OF RELIEF AIR DAMPER.

ALL DUCT INSULATION SHALL HAVE A FLAME SPREAD CLASSIFICATION OF 25 OR LESS, A FUEL CONTRIBUTED RATING OF 35 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, AS RATED BY UNDERWRITERS' LABORATORIES

BLANKET TYPE (UP TO 1-1/2 LB./CU. FT. INSULATION): INSULATION WITH ATTACHED FACING SHALL BE SECURED TO THE DUCTS WITH ADHESIVE APPLIED IN 6" BRUSH WIDTHS EVERY 12". THE ADHESIVE SHALL BE RIDGED SLIGHTLY BY USING A SERRATED TROWEL. INSULATION WITHOUT ATTACHED FACING (PLAIN) SHALL BE SECURED TOT HE DUCTS THE SAME AS ABOVE THEN BIND WITH TYING CORD, SPIRAL WRAPPED OR HALF HITCHED. DUCT FITTINGS SHALL BE INSULATED BY WRAPPING WITH A GLASS FIBER BLANKET. BLANKETS SHALL BE SECURED TOT

HE DUCT FITTINGS BY INSULATION STAPLES OR JUTE TWINE. THE BLANKET SHALL BE COVERED WITH AN OPEN MESH CLOTH OR GLASS FIBER HEAVILY COATED WITH VAPOR BARRIER ADHESIVE. THE INSULATION THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE INSULATION ON THE ADJOINING DUCTWORK.

ACOUSTIC INSULATION SHALL BE JOHNS-MANVILLE OR EQUAL "LINACOUSTIC" WITH A .70 NRC, 1-1/2"/CU.FT. MINIMUM DENSITY, 1" THICK UNLESS OTHERWISE NOTED. INSULATION SHALL BE SUITABLE FOR VELOCITIES OF 5,000 FPM. ABSOLUTE ROUGHNESS FACTOR SHALL NOT EXCEED .0008 FEET. SCOPE: DUCTWORK AND EQUIPMENT LISTED BELOW AND/OR NOTED ON THE CONTRACT DOCUMENTS SHALL BE ACOUSTICALLY LINED. RECTANGULAR SUPPLY DUCTWORK FROM ALL TERMINAL BOXES TO GRILLES, REGISTERS AND DIFFUSERS. ROUND DUCTWORK ON DISCHARGE ON TERMINAL BOXES SHALL BE INSULATED EXTERNALLY UNLESS OTHERWISE NOTED.

### TESTING AND BALANCING:

TEST AND ADJUST ALL NEW PIPING SYSTEMS INSTALLED IN THIS PROJECT. PROVIDE ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TEST. REPAIR ALL DEFECTS DISCLOSED BY TESTS WITHOUT ADDITIONAL COST TO THE OWNER. REPEAT TESTS AFTER ANY DEFECTS DISCLOSED ARE REPAIRED OR REPLACED, UNLESS WAIVED BY ARCHITECT. ARRANGE AND PAY THE COST OF ALL UTILITIES USED ON TESTS. COMPLETE ALL TESTS BEFORE COVERING IS APPLIED. ISOLATE ALL PIPING SYSTEM COMPONENTS NOT CONSTRUCTED TO WITHSTAND TEST PRESSURES.

TEST AT 150 PSIG FOR EIGHT (8) HOURS WITH ZERO LOSS IN PRESSURE. CHECK JOINTS AND FITTINGS FOR LEAKS

WITH LIQUID SOAP SOLUTION.

THE DRAINAGE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS AND IN THE PRESENCE OF THE PROPER INSPECTOR. AIR TEST SHALL BE 5 PSIG AND SHALL REMAIN IN OPERATION FOR A PERIOD OF 15 MINUTES.

BALANCE ALL OUTLETS AND TERMINAL BOXES TO WITHIN 10% OF RATED C.F.M IN ACCORDANCE WITH AABC AND NEBB, SUBMIT BALANCING REPORT.

### FIRE PROTECTION:

FIRE PROTECTION CONTRACTOR SHALL SUBMIT NECESSARY DRAWINGS AND DOCUMENTS TO LOCAL AND STATE AGENCIES AND OBTAIN APPROVALS OF SAME. FIRE PROTECTION CONTRACTOR SHALL DESIGN AND PROVIDE ALL MODIFICATIONS TO THE SPRINKLER SYSTEM INCLUDING RELOCATION OF HEADS TO ACCOMMODATE NEW CEILING AND WALL CONFIGURATIONS AS SHOWN OR REQUIRED COMPLYING WITH N.F.P.A. 13, U.L. AND ALL STATE AND LOCAL CODES.

SPRINKLER HEADS ARE TO MATCH EXISTING CONCEALED TYPE WITH WHITE COVER. ALL SPRINKLER HEADS AND INCANDESCENT LIGHT FIXTURES SHALL BE CENTERED WITHIN THE GRID U.N.O. THE FIRE PROTECTION CONTRACTOR SHALL COORDINATE HEAD AND BRANCH LINE LOCATIONS TO ALLOW INSTALLATION OF LIGHTING, GRILLES AND DUCTWORK AS SHOWN. THE FIRE PROTECTION CONTRACTOR SHALL RELOCATE EXISTING HEADS AND BRANCH LINES AS REQUIRED TO

DEMOLITION DRAWINGS ARE DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF THE WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT. PLUMBING FIXTURES, DUCTS, PIPING AND APPROXIMATE SIZES AND APPROXIMATE LOCATIONS. DO NOT SCALE DRAWINGS FOR EXACT MEASUREMENTS.

ACCOMMODATE NEW MECHANICAL WORK LIGHT FIXTURE LAYOUT AND ALL APPLICABLE CODES.

ALL MECHANICAL WORK SHOWN ON THE DEMOLITION DRAWINGS HAS BEEN TAKEN FROM THE OWNER'S RECORD DRAWINGS AND/OR CERTAIN FIELD OBSERVATIONS. EXACT SIZES, LOCATIONS, ARRANGEMENT AND ELEVATIONS O ALL EXISTING MECHANICAL EQUIPMENT, EXISTING PLUMBING FIXTURES, EXISTING DUCTWORK, EXISTING PIPING AND EXISTING MECHANICAL DEVICES SHALL BE VERIFIED IN THE FIELD.

THE CONTRACTOR SHALL INCLUDE, IN HIS QUOTE, ALLOWANCES FOR REASONABLE DEVIATIONS BETWEEN WHAT IS SHOWN AND ACTUAL JOB CONDITIONS IN ORDER TO COMPLETE THE WORK IN THE SCOPE INDICATED. REMOVE, RECONNECT, CAP, PLUG AND REPLACE EXISTING PIPING AND DUCTWORK ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS. REMOVE AND/OR REPLACE EXISTING EQUIPMENT, VALVES, CONTROLS, ETC., ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS.

INTERRUPTION OF EXISTING ACTIVE PIPING: WHERE THE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICE UNAVOIDABLE, SHUT-DOWN AT TIME AS APPROVED BY THE OWNER, WHICH WILL CAUSE LEAST INTERFERENCES WITH ESTABLISHED OPERATING ROUTINE. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME, IF REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK.

UNLESS SPECIFICALLY NOTED TO THE CONTRARY, REMOVED MATERIALS SHALL NOT BE REUSED IN THE WORK. SALVAGE MATERIALS THAT ARE TO BE REUSED SHALL BE STORED SAFE AGAINST DAMAGE AND TURNED OVER TO THE APPROPRIATE TRADE FOR REUSE. SALVAGED MATERIALS OF VALUE THAT ARE NOT TO BE REUSED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS POSSESSION RIGHTS ARE WAIVED. THE MATERIALS ARE TO BE REMOVED FROM THE SYSTEMS BY THIS CONTRACTOR AND TURNED OVER TO THE OWNER IN THEIR ORIGINAL CONDITIONS. THE OWNER SHALL MOVE AND STORE THE MATERIALS. WHERE THE OWNER WAIVES POSSESSION RIGHTS, THESE MATERIALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR, WHO SHALL REMOVE AND LEGALLY DISPOSE OF THE SAME, AWAY FROM THE PREMISES.



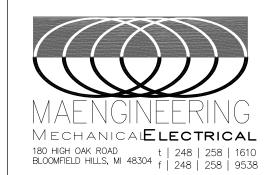
STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925

P. 248.546.6700

F. 248.546.8454

### WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants





Project:

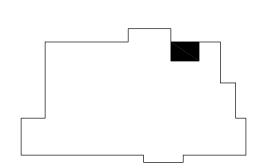
259 MACK AVE

RESTROOMS

**WSU ALL GENDER** 

DETROIT, MI 48201

Key Plan:



Issued for

BFS Submission

05.25.2023

Drawn by:

Checked by:

Sheet Title: MECHANICAL SPECIFICATIONS

Project No 2022.053

Sheet No.:

### NEW WORK KEY NOTES:

- (E)SAN, (E)CW, & (E)HW UP
- OFFSET CW AND HW LINE TO MAINTAIN PIPING WITHIN PLUMBING CHASE TO ACCOMMODATE NEW WALL LOCATION
- (3)  $\frac{1}{2}$ "HW,  $\frac{1}{2}$ "CW, & 1- $\frac{1}{2}$ "V DN TO <u>LAV-1</u>. 1- $\frac{1}{2}$ " SAN UP TO <u>LAV-1</u>.
- 4 1-1/4"CW & 2"V DN TO WC-1. 4"SAN UP TO WC-1.
- 5) ½"HW, ½"CW, & 1-½"SAN TO <u>LAV-1</u>.
- 6 FOR THE AREA INDICATED, MODIFY THE EXISTING FIRE PROTECTION SYSTEM AND PROVIDE A HYDRAULICALLY DESIGNED WET FIRE PROTECTION SYSTEM PER NFPA-13, THE MICHIGAN BUILDING CODE, THE OWNER'S INSURANCE AGENT AND THE AUTHORITY HAVING JURISDICTION. PROVIDE ALL NEW SPRINKLER
- 7 CONTRACTOR TO FIELD CONFIRM INVERT ELEVATION, LOCATION, AND SIZE OF EXISTING SANITARY LINE IS SUITABLE FOR PROPOSED DESIGN, PRIOR TO START OF ANY NEW

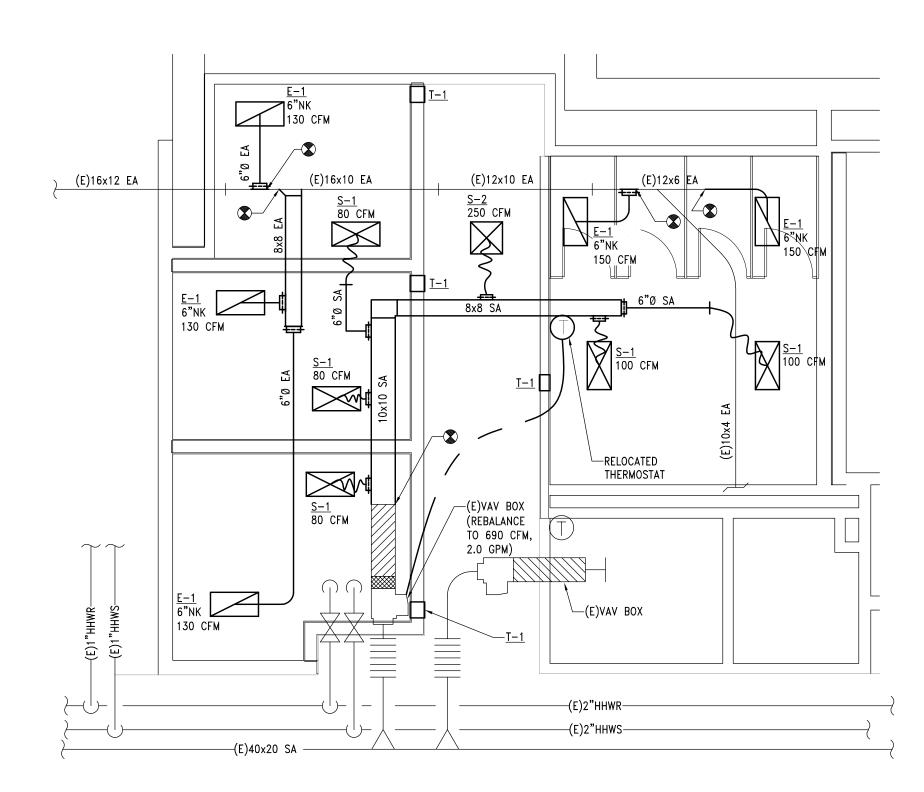
### **GENERAL NOTES:**

- A. COORDINATE ALL WORK WITH OTHER TRADES.
- B. IN AREAS TO BE FULLY SPRINKLERED, SPRINKLER SYSTEM DESIGN AND LAYOUT TO BE IN COMPLIANCE WITH NFPA 13. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
- C. DO NOT SCALE THE PLUMBING AND FIRE PROTECTION DRAWINGS FOR LOCATION OF CEILING MOUNTED SPRINKLER HEADS. ALL CEILING MOUNTED HEADS SHALL BE COORDINATED WITH ARCHITECTURAL CEILING PLANS, UNLESS OTHERWISE NOTED.
- D. ALL SPRINKLERS LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE MIDDLE OF THE CEILING TILES UNLESS OTHERWISE INDICATED ON THE ARCHITECTURAL SERIES DRAWINGS.

E. SPRINKLER HEADS TO BE SIMILAR TO TYCO ROYAL

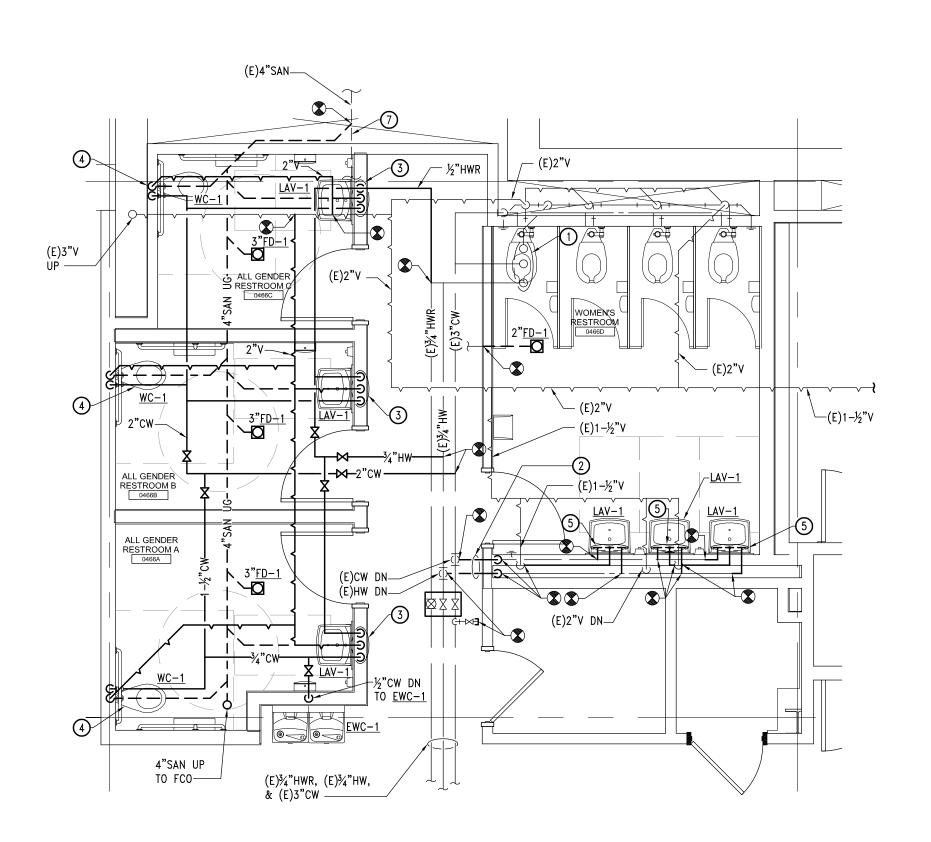
FLUSH II UNLESS OTHERWISE INDICATED ON THE

F. PRIOR TO START OF ANY CONSTRUCTION, SUBMIT DRAWINGS TO OWNER'S INSURANCE COMPANY AND LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL.



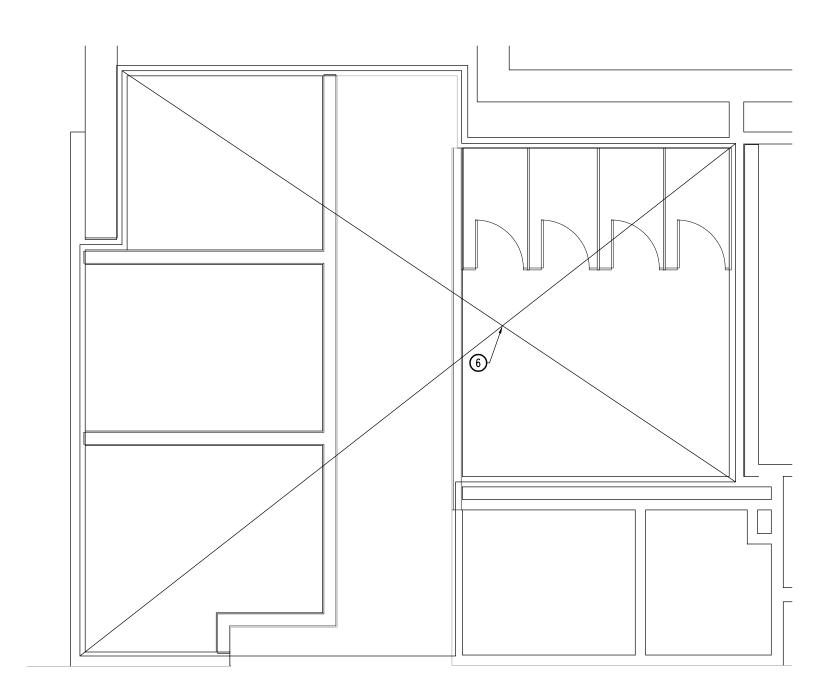
Level 1 - HVAC New Work

M110 1/4" = 1'-0"



Level 1 - Plumbing New Work

1/2" = 1'-0"



Level 1 - Fire Protection New Work

M110 1/2" = 1'-0"

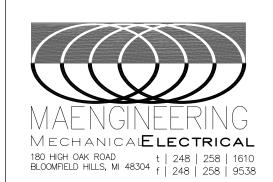
STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925

P. 248.546.6700

F. 248.546.8454

WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants



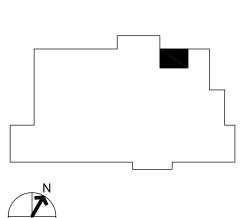


Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023

Issued for

BFS Submission

Drawn by:

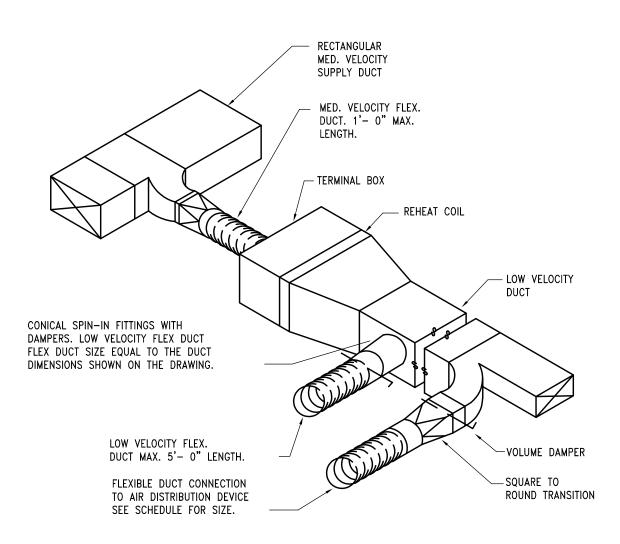
Checked by:

Sheet Title: BASEMENT FLOOR PLAN -MECHANICAL

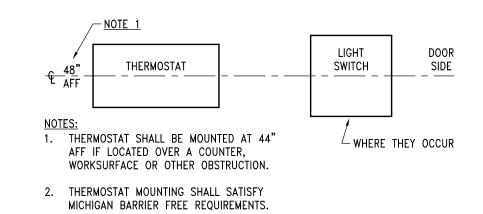
Project No. :

2022.053

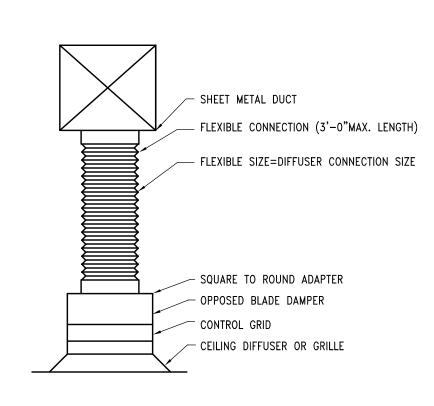
Sheet No.: M100

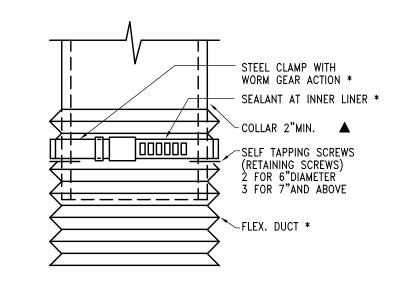


TYPICAL TERMINAL BOX DETAIL
SCALE: NONE



THERMOSTAT MOUNTING DETAIL



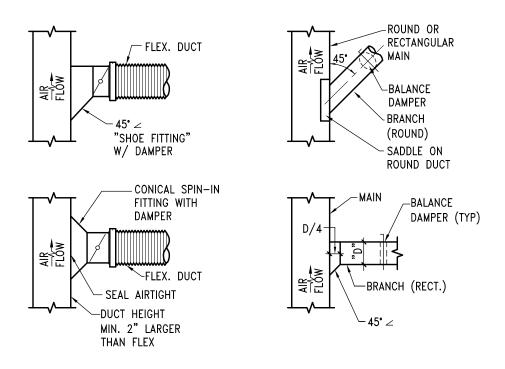


TYPICAL FLEXIBLE CONNECTION DETAIL

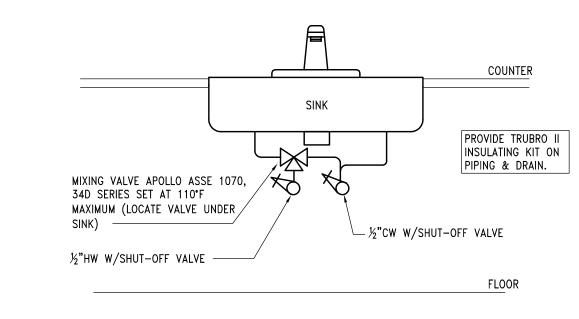
▲ STANDARD PRODUCT COLLAR DIMENSIONS ARE ACCEPTABLE.

\* REFER TO THE SPECIFICATIONS FOR INFORMATION.

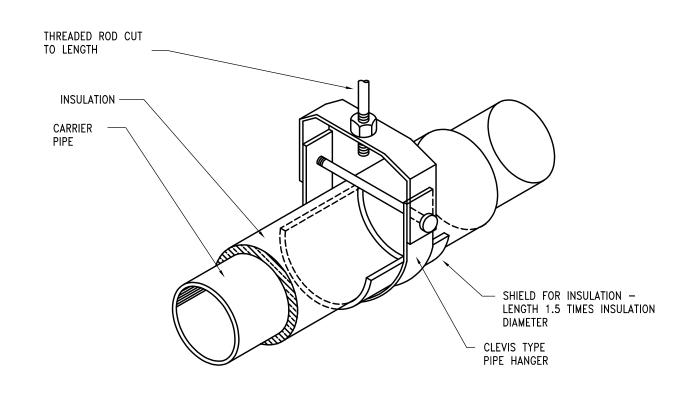
FLEXIBLE DUCT CONNECTION TO DIFFUSERS & GRILLES DETAIL SCALE: NONE



TYPICAL DUCT TAP DETAILS

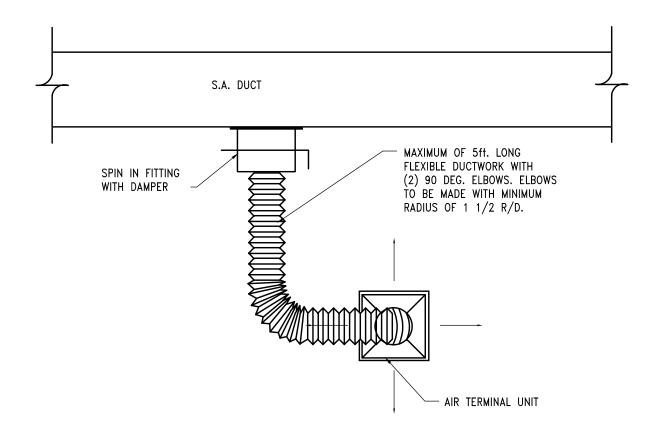


MIXING VALVE PIPING DETAIL
SCALE: NONE

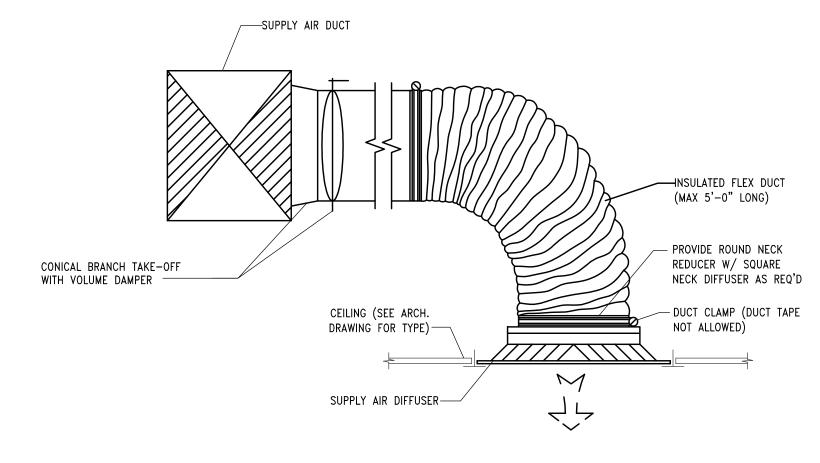


DETAIL OF CLEVIS TYPE HANGER

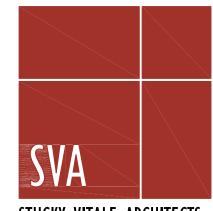
SCALE: NONE



FLEXIBLE DUCT CONNECTION DETAIL SCALE: NONE



SUPPLY AIR DIFFUSER W/ FLEX DUCT DETAIL
SCALE: NONE



STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MI 48067-0925

P. 248.546.6700

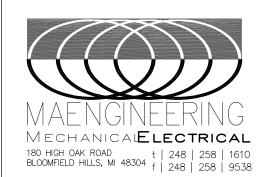
F. 248.546.8454

WWW.STUCKYVITALE.COM

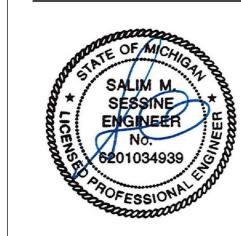
STATEMENT OF INTELLECTUAL PROPERTY:

THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants



Seal:

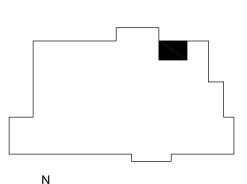


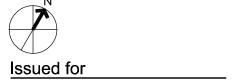
Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:





05.25.2023

BFS Submission

Drawn by :

UF
Checked by:

Sheet Title :

MECHANICAL DETAILS

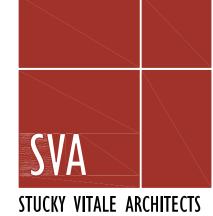
Project No. :

2022.053 Sheet No. :

Sheet No. : M200

	PLUMBING FIXTURE SCHEDULE									
							FIXTURE C	ONNECTION		
ITEM #	FIXTURE	MANUFACTURER	MODEL	MATERIAL	TRIM	COLD WATER	HOT WATER	WASTE	VENT	NOTES/ACCESSORIES
WC-1	WALL MOUNTED WATER CLOSET BARRIER-FREE	SLOAN	ST-2459	WHITE VITREOUS CHINA	FLUSH VALVE: SOLIS 8111 FLUSHOMETER EXPOSED 1.28 GPF FLUSH VALVE	1-1/2"	-	4"	2"	SEAT: BEMIS 1655 SSCT WITH STATITE COMMERCIAL FASTENING SYSTEM, WHITE MOLDED OPEN FRONT. MOUNT TO CONFORM TO A.D.A STANDARDS.
LAV-1	WALL HUNG LAVATORY	AMERICAN STANDARD	DECORUM 9024.001EC	WHITE	SLOAN SF-2450-4-BAT-TEE-CP-0.35GPM WITH CHROME FINISH	1/2"	1/2"	1-1/2"	1-1/2"	MOUNT TO CONFORM TO A.D.A. STANDARDS 20" x 18-1/4" SIZE WITH P-TRAP, ANGLE STOPS AND STRIANER
CO	CLEANOUT	MIFAB	C1230	LACQUERED CAST IRON	LINE OR FLOOR CLEANOUT WITH 1/2" THICK GASKETED COMBINED DUCTILE IRON COVER AND PLUG	-	-	SEE PLAN	-	FURNISH WITH VANDAL RESISTANT STAINLESS STEEL SCREWS. ALSO INSTALL COTG INSIDE PARKING GARAGE AREA
FC0	CLEANOUT TO GRADE	MIFAB	C1300-MF	LACQUERED CAST IRON	HEAVY DUTY ACCESS HOUSING WITH ANCHOR FLANGES. FURNISH WITH MODEL C1230 FLOOR CLEANOUT	-	-	SEE PLAN	_	FURNISH WITH VANDAL RESISTANT STAINLESS STEEL SCREWS. ALSO INSTALL COTG INSIDE PARKING GARAGE AREA
FD-1	FLOOR DRAIN	MIFAB	F1000	LACQUERED CAST IRON	5" DIAMETER LIGHT DUTY DRAIN WITH ROUND TOP, TRAP PRIMER CONNECTION AND MEMBRANE FLASHING CLAMP	1/2"	-	SEE PLAN	_	STAINLESS STEEL STRAINER
EWC-1	ELECTRIC WATER COOLER/BOTTLE FILL STATION, WALL MOUNTED BARRIER-FREE	ELKAY	LVRCGRNTL8WSK	STAINLESS STEEL	BOTTLE FILLING STATION & BI-LEVEL ADA COOLER, FILTERED, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR. FURNISHED WITH FLEXI-GUARD SAFETY BUBBLER. ELECTRONIC BOTTLE FILLER SENSOR WITH ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION.	1/2"		1-1/2"	1-1/2"	MOUNT TO CONFORM TO ADA STANDARDS REFRIGERATED WITH CHILLING CAPACITY OF 8.0 GPH OF 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. AUTOMATIC FILTER STATUS RESET. 115V/60Hz, FLA 6A.
TMV	THERMOSTATIC MIXING VALVE	WATTS	MMV-M1	BRONZE	ASSE 1070 LISTED FOR POINT OF USE APPLICATION WITH ADJUSTABLE THERMOSTAT AND SOLDERED CONNECTIONS	1/2"	1/2"	_	-	INSTALL AT EACH HAND SINK AND LAVATORY TO LIMIT HW TO 110°F

			GRILLE,	REGISTER	AND DIFF	FUSER SCH	HEDULE	
	TAG	MANUFACTURER & MODEL NO.	SERVICE	MOUNTING	OVERALL SIZE	NECK SIZE	CONSTRUCTION	NOTES/ACCESSORIES
	S-1	TITUS PAS-AA	SAD	CEILING LAY-IN	12x24	6"	ALUMINUM	А
	S-1	TITUS PAS-AA	SAD	CEILING	16x16	10"	ALUMINUM	A C
	E-1	TITUS 50F	EAG	CEILING	12x24	SEE PLAN	ALUMINUM	А
	T-1	TITUS CT-700L	TAG	WALL	8x8	SEE PLAN	ALUMINUM	A D
	SAG	– CEILING OR WAL – CEILING OR WAL – WALL TRANSFER	L SUPPLY GRILLE		RAC	R – CEILING OR WA G – CEILING OR WA G – CEILING OR WA	LL RETURN GRILLE	₹
				NOTES AND ACCES	SORIES DESIGNATIO	NC		
A WHITE					С	PROVIDE GYPSUM CEILING BORDER		
PROVIDE RETURN AIR BOOT UNLESS DUCTED					D	SIGHT PROOF BLADES WITH AUXILIARY FRAME		



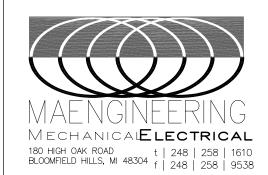
27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925

P. 248.546.6700

F. 248.546.8454

WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants



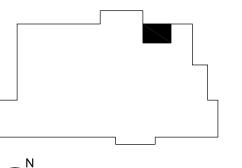


Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.25.2023



BFS Submission

Drawn by : UF

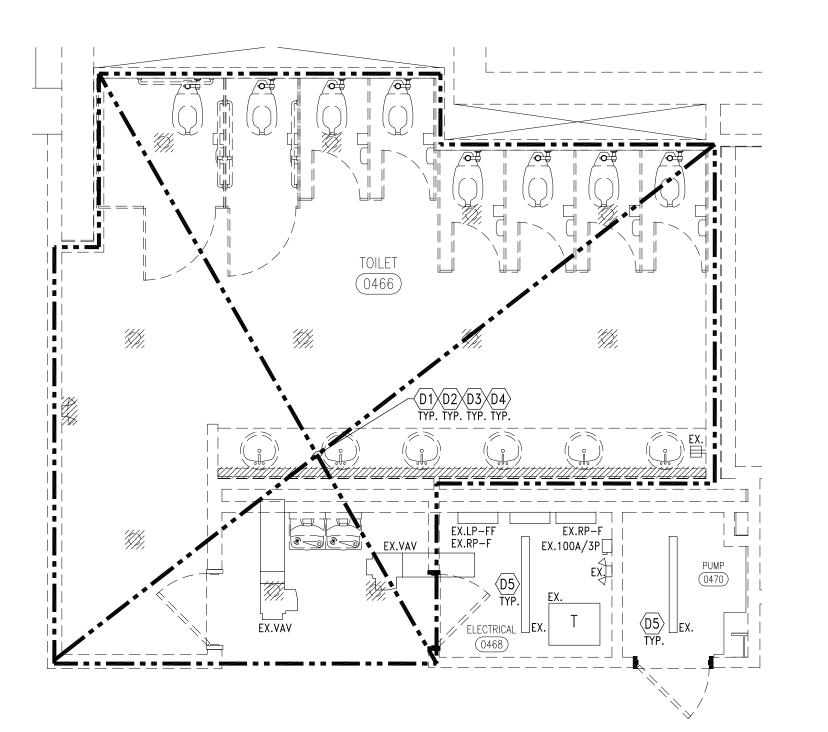
Checked by:

Sheet Title: MECHANICAL DETAILS

Project No. 2022.053

Sheet No. :





ENLARGED DEMOLITION FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"

### **DEMOLITION GENERAL NOTES:**

DA. REFER TO SHEET EOOO FOR ELECTRICAL LEGEND.

- DB. THESE DEMOLITION NOTES AND PLAN DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF INCIDENTAL DEMOLITION WORK NOT INDICATED ON THIS PLAN AND COMPLETE SCOPE OF DEMOLITION WORK. NOT ALL ELECTRICAL DEVICES, LIGHTING, EQUIPMENT, ETC. ARE INDICATED ON THESE PLANS, FIELD VERIFY EXISTING
- DC. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEW OF THE AMOUNT OF DEMOLITION REQUIRED PRIOR TO BID SUBMITTAL.
- DD. ALL ITEMS INDICATED ON THESE DEMOLITION PLANS ARE TO BE DISCONNECTED AND REMOVED (ALL CROSS HATCHED AND DOTTED LINE ITEMS ARE TO BE DISCONNECTED AND REMOVED); ALL DOTTED LINE ITEMS INDICATED WITH ER. TO BE DISCONNECTED AND RELOCATED; EX. INDICATES EXISTING ITEM TO REMAIN.
- DE. EXISTING ELECTRICAL ROOMS TO BE MAINTAINED WITH ALL EXISTING DISTRIBUTION EQUIPMENT.

  DF. MAINTAIN CIRCUIT CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME CIRCUIT OUTSIDE
- OF RENOVATION AREA.

  DG. DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT AND DEVICES ON WALLS TO BE
- DEMOLISHED OR INTERFERING WITH THE NEW WORK, COORDINATE WITH ARCHITECT AND OWNER.

  DH. DEMOLITION WORK SHALL INCLUDE ALL ASSOCIATED AND ABANDONED BOXES, CONDUITS, WIRING,
- SURFACE RACEWAYS, ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- DI. PROVIDE NEW TYPEWRITTEN DIRECTORIES IN ALL PANELS DISTURBED DUE TO NEW WORK. ALL SPARE BREAKERS TO BE PLACED IN "OFF" POSITION. IDENTIFY ALL CIRCUITS: EXISTING, NEW OR SPARE, REFER TO SPECIFICATIONS FOR ADDITIONAL INFO.
- DJ. PROVIDE COVERPLATES FOR ALL ABANDONED DEVICES, REFER TO SPECIFICATION.
- DK. TRACE BACK TO PANELBOARDS ALL BRANCH CIRCUITS WITHIN THE RENOVATED AREAS, IDENTIFY ALL CIRCUITS THAT ARE TO REMAIN AND THE CIRCUITS THAT ARE TO BECOME AVAILABLE AFTER THE DEMOLITION WORK. EXISTING TO REMAIN BRANCH CIRCUITS TO BE PROTECTED DURING THE RENOVATION. THE BRANCH CIRCUITS THAT ARE BECOMING AVAILABLE TO BE RE-USED FOR THE NEW WORK.
- DL. COORDINATE WITH MECHANICAL FOR ALL DEMOLITION WORK RELATED TO THE MECHANICAL EQUIPMENT. PROTECT AND MAINTAIN POWER TO ALL EXISTING TO REMAIN MECHANICAL EQUIPMENT. FOR ALL RELOCATED EQUIPMENT DISCONNECT EXTEND EXISTING WIRING AND RECONNECT AT THE NEW LOCATION, FOR ALL REMOVED EQUIPMENT DISCONNECT AND REMOVE ALL CONDUITS AND WIRING BACK TO SOURCE.

### KEYED DEMOLITION NOTES:

- D1) DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURES WITHIN THE RENOVATED AREA, AND ASSOCIATED LIGHTING CONTROLS, UNLESS OTHERWISE NOTED, EX. INDICATES EXISTING ITEM TO REMAIN. NOT ALL ITEMS ARE INDICATED ON THESE PLANS, FIELD VERIFY EXISTING CONDITIONS.
- D2 DISCONNECT AND REMOVE EXISTING ELECTRICAL AND TELECOMMUNICATION DEVICES WITHIN THE RENOVATED AREA, UNLESS OTHERWISE NOTED (EX. EXISTING TO REMAIN, OR ER. EXISTING TO BE RELOCATED). NOT ALL DEVICES ARE INDICATED ON THESE PLANS, FIELD VERIFY EXISTING
- D3 DISCONNECT AND RELOCATE EXISTING FIRE ALARM SYSTEM DEVICES AND EQUIPMENT INTERFERING WITH NEW WORK, NOT ALL DEVICES ARE INDICATED ON THESE PLANS, FIELD VERIFY EXISTING
- D4 EXISTING TO REMAIN CEILING MOUNTED SECURITY, TELECOMM, SOUND SYSTEM, ETC. DEVICES AND EQUIPMENT WITHIN THE RENOVATED AREA WITH CEILING WORK TO BE RE-SUPPORTED AND PROTECTED OR DISCONNECTED, REMOVED, AND RE-INSTALLED IN THE NEW CEILING, COORDINATE WITH ARCHITECT/OWNER FOR EXACT REQUIREMENTS AND NEW LOCATIONS.
- (D5) EXISTING LIGHTING TO REMAIN, MAINTAIN ON EXISTING LIGHTING BRANCH CIRCUITS, FIELD VERIFY EXISTING CONDITIONS.



STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE

ROYAL OAK, MI 48067-0925 P. 248.546.6700

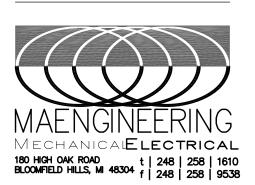
F. 248.546.8454

WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:

THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants



Seal:

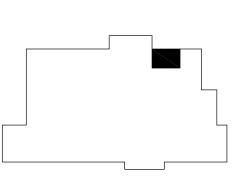


Project

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:





05.24.23

Drawn by:

CD

Checked by:

Sheet Title :

ENLARGED DEMOLITION FLOOR PLAN -ELECTRICAL

Project No. :

2022.053

Sheet No.:
ED100

ALL EQUIPMENT SHALL BE SPECIFICATION GRADE AND SHALL HAVE U.L. LABEL FOR INTENDED USE. ELECTRICAL SYSTEMS SHALL BE COMPLETE IN EVERY DETAIL, INCLUDING ALL INCIDENTAL ITEMS FOR A PROPER AND FUNCTIONING INSTALLATION SUBJECT TO FINAL APPROVAL OF ARCHITECT/ENGINEER. ALL REQUIRED PERMIT AND INSPECTIONS SHALL BE OBTAINED BY CONTRACTOR AND SUCH COSTS SHALL BE INCLUDED IN BID PRICE FOR THIS WORK.

ASSEMBLY. REFER TO ARCHITECTURAL DOCUMENTS FOR RATINGS AND LOCATIONS OF ASSEMBLIES. EXAMINATION OF SITE IS MANDATORY. CONTRACTOR IS HEREBY HELD TO HAVE EXAMINED THE SITE AND HAVE INCLUDED IN HIS BID PRICE ALL COSTS DUE TO

L LISTED SYSTEM FOR FIRE STOPPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PROVIDE SYSTEM WITH EQUAL OR GREATER RATING THAN

COMPLETE IDENTIFICATION OF PROJECT ELECTRICAL COMPONENTS IS REQUIRED. IDENTIFY ALL PANELS, DISCONNECTS, CONTROL DEVICES, ETC., WITH THE NOMENCLATURE INDICATED ON THE DOCUMENTS AND WITH POWER SOURCE AND ELECTRICAL RATINGS USING PLASTIC LAMINATE NAMEPLATE. INSTALL TYPEWRITTEN DIRECTORIES OF ALL CIRCUITS ON INSIDE OF PANELS. IDENTIFY WIRING DEVICE COVERPLATES WITH PANELBOARD AND BRANCH CIRCUIT NUMBER SERVING DEVICE, E.G. "A-15". PROVIDE 1/4" MACHINE-WRITTEN BLACK LETTERING ON CLEAR PLASTIC ADHESIVE TAPE. LOCATE ON BOTTOM FRONT OF COVERPLATE, CENTERED BELOW WIRING DEVICE(S). SUBMIT SAMPLE OF LABELED TAPE WITH WIRING DEVICE/COVERPLATE SUBMITTAL. SAMPLE MAY BE ADHERED TO PAPERWORK IN SUBMITTAL, RATHER THAN TO A COVERPLATE.

PROVIDE TEMPORARY POWER AND LIGHTING DURING CONSTRUCTION. REMOVE TEMPORARY WIRING UPON COMPLETION OF THE PROJECT. TEMPORARY SERVICES SHALL BE AS REQUIRED, BY N.E.C. AND OSHA. GROUND CONTINUITY SHALL BE MAINTAINED THROUGHOUT THE ELECTRICAL SYSTEM. INSTALL EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT. COORDINATE SIZE AND LOCATION OF ANY REQUIRED ACCESS PANELS IN WALLS OR FINISHED CEILINGS WITH ARCHITECT PRIOR TO INSTALLATION.

UNLESS A LONGER PERIOD IS SPECIFIED IN INDIVIDUAL PARAGRAPHS, PROVIDE A MINIMUM OF A ONE YEAR WARRANTY ON ALL ELECTRICAL WORK BEGINNING THE DATE OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.

SUBMIT SHOP DRAWINGS FOR ALL MAJOR COMPONENTS OR SYSTEMS OF THE PROJECT. SUBMIT ADDITIONAL SHOP DRAWINGS IF REQUESTED BY ENGINEER. NO APPARATUS OR EQUIPMENT SHALL BE SHIPPED FROM STOCK OR FABRICATED UNTIL SHOP DRAWINGS FOR SAME HAVE BEEN STAMPED 'REVIEWED" OR "REVIEWED AS NOTED". SUBMIT DATA REQUIRED FOR TRANSFORMERS SUCH AS EFFICIENCY, REGULATION, CORE LOSS AND SOUND LEVELS. (SEE APPLICABLE SECTIONS).

SUBMIT SYSTEM COMPONENTS, PRODUCT DATA AND SHOP DRAWINGS COMPLETE FOR EACH SYSTEM UNDER ONE SUBMITTAL. DO NOT BREAK OUT EQUIPMENT FOR ONE SYSTEM BETWEEN MULTIPLE SUBMITTALS. ALL SHOP DRAWINGS MUST BE CLEARLY MARKED TO SHOW EQUIPMENT SUBMITTED AND ANY DEVIATIONS FROM SPECIFICATIONS SHALL BE NOTED THEREON. DO NOT INCLUDE ONLY MODEL NUMBERS TO INDICATE SUBMITTED EQUIPMENT. STRIKE OUT ANY INFORMATION ON PRODUCT DATA THAT IS NOT PROJECT SPECIFIC, AND EDIT RELEVANT INFORMATION TO SHOW ACTUAL EQUIPMENT SUBMITTED. ELECTRICAL CONTRACTOR MUST SIGN AND APPROVED ALL SHOP DRAWINGS PRIOR TO SUBMITTAL.

UNIQUELY NUMBER EACH PAGE IN SUBMITTAL.

IF DIFFERENT SYSTEMS ARE INCLUDED IN ONE SUBMITTAL, CLEARLY SEPARATE INFORMATION AND PROVIDE DIFFERENT SUB-NUMBERING OF SYSTEMS. SHOP DRAWINGS THAT ARE INCOMPLETE, UNSIGNED AND NOT PLAINLY MARKED WILL NOT BE REVIEWED.

DISCONNECT, REMOVE, RELOCATE, REWIRE OR DISPOSE OF ANY EQUIPMENT INTERFERING WITH NEW CONSTRUCTION OR AFFECTED BY RENOVATION WORK ANY ELECTRICAL EQUIPMENT OR SYSTEMS WHICH ARE TO REMAIN, AND ARE AFFECTED BY THIS WORK, SHALL BE IMMEDIATELY RESTORED TO FULL OPERATING CONDITION AND AT NO ADDITIONAL COST TO THE CONTRACT. EQUIPMENT REMOVED SHALL BE DISPOSED OF AS DIRECTED, EITHER TO STORAGE OR OFF THE PREMISES.

WHERE SERVICES OR CIRCUITS ARE DISCONNECTED OR DISCONTINUED, IT IS MANDATORY THAT ANY EXISTING UNUSED WIRING BE REMOVED TO THE SOURCE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. IT IS THE INTENT OF THIS ARTICLE TO PERMANENTLY DISCONNECT ALL UNUSED CIRCUITS AT THE MAIN SOURCE WHENEVER POSSIBLE. NO ENERGIZED CIRCUIT SHALL BE TAPED AND ABANDONED IN OUTLET BOXES UNLESS SO SPECIFIED ON DRAWINGS. CIRCUIT TRACE EXISTING TO REMAIN CIRCUITS AS NECESSARY FOR PROPER IDENTIFICATION, AND AS REQUIRED TO PERFORM WORK.

REMODELING WORK INVOLVING EXISTING BRANCH CIRCUIT PANELBOARD SHALL BE SUCH THAT, WHEN ALL WORK IS COMPLETED EXISTING PANELS ARE PROVIDED WITH NEW AND UPDATED ACCURATE DIRECTORIES. ALL VACATED CIRCUITS SHALL BE MARKED SPARE. WHEN NEW BREAKERS ARE REQUIRED, THEY SHALL BE INSTALLED IN EXISTING SPACES AND SHALL MATCH THOSE THAT ARE EXISTING. IN THE EVENT THAT MORE BREAKERS ARE REQUIRED THAN THE SPACES

CONTRACTOR MAY USE EXISTING CONDUITS AND OUTLET BOXES, PROVIDED THEY ARE IN GOOD ELECTRICAL CONDITION. RE-SUPPORT EXISTING TO REMAIN CONDUIT AND BOXES IN RENOVATION AREA IF INADEQUATELY SUPPORTED. PROVIDE SUPPORT AS REQUIRED TO COMPLY WITH NEC AND LOCAL AUTHORITY IT IS THE INTENT OF THE OVERALL DESIGN TO CONCEAL ALL WORK EXCEPT IN UNFINISHED AREAS. IN CASES WHERE IT IS IMPOSSIBLE TO CONCEAL THE WORK, SHORT EXPOSED METAL RACEWAYS MAY BE USED SUBJECT TO APPROVAL OF ENGINEER.

ALL ELECTRICAL OPENINGS THAT ARE ABANDONED IN WALLS, CEILINGS OR FLOOR SHALL BE PROVIDED WITH SUITABLE BLANK COVER PLATES. ABANDONED FLOOR OUTLET SHALL BE PROVIDED WITH .040 BRASS PLATES. CONDUITS AND OTHER PARTS OF ELECTRICAL SYSTEMS THAT BECOME EXPOSED AS A PART OF NEW WORK SHALL BE REMOVED AS REQUIRED TO A POINT WHERE THE ABANDONED PORTION IS TOTALLY CONCEALED.

ALL SURFACES DAMAGED BY THIS CONTRACTOR IN THE COURSE OF PERFORMING WORK SHALL BE RESTORED TO SATISFACTORY CONDITION, AS DIRECTED BY THE ARCHITECT AND ALL COSTS OF REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR

REMOVE SERVICE TO MECHANICAL, ELECTRICAL AND BUILDING EQUIPMENT INDICATED AS REMOVED OR DISCONNECTED. MAINTAIN CIRCUITS TO EXISTING-TO-REMAIN EQUIPMENT. IDENTIFY UNUSED, REMOVED CIRCUITS ON PANEL SCHEDULE AS SPARE. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR EXISTING TO REMAIN EQUIPMENT AND FOR DEMOLITION WORK. SERVICE SHUTDOWN AND POWER OUTAGES SHALL BE SCHEDULED WITH THE OWNER PRIOR TO PERFORMING ANY WORK ON EXISTING SERVICE. SCHEDULE SHALL BE IN WRITING AND SHALL SHOW A DETAILED DESCRIPTION OF THE PROPOSED WORK AND THE DURATION OF OUTAGE. ELECTRICAL EQUIPMENT AND DEVICES:

GENERAL USE RECEPTACLES SHALL BE SPECIFICATION GRADE TAMPER PROOF TYPE, GROUNDING TYPE, 2-POLE, 3-WIRE, AND POLARIZED. RECEPTACLES IN GENERAL SHALL BE 20 AMPERES, HUBBELL #BR20TR OR EQUAL. RECEPTACLES SHALL BE MOUNTED 16" AFF EXCEPT AT COUNTERS WHERE THEY SHALL BE 6" ABOVE COUNTER AND IN TOILET ROOMS AT 48" AFF.

RECEPTACLES DESIGNATED "GFR" SHALL BE GROUND FAULT RECEPTACLES AND TAMPER RESISTANT, HUBBELL #GFTR20W OR EQUAL. FOR OUTDOOR OR WET LOCATIONS, PROVIDE WEATHERPROOF BOX AND GASKETED COVER PLATE. SWITCHES SHALL BE SINGLE POLE, TWO POLE, OR THREE-WAY, AS INDICATED, TOGGLE TYPE, 20A, 120/277V., QUIET TYPE, HUBBELL #1221/1222/1223 OR EQUAL. PILOT TYPE SWITCHES HUBBELL #1251. PROVIDE DIMMERS RATED FOR LOAD WATTAGE AND VOLTAGE CONTROLLED. CONTRACTOR TO COORDINATE RATING BASED ON APPROVED FIXTURE SUBMITTALS AND ACTUAL FIXTURE QUANTITIES. PROVIDE DIMMERS DESIGNED FOR CONTROLLED LOAD (INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE OR FLUORESCENT).

DEVICE COVER PLATES SHALL BE OF TYPE AND NUMBER OF GANGS FOR DEVICES INSTALLED, COLOR AND MATERIAL AS SPECIFIED BY INTERIOR DESIGNER/ARCHITECT. PROVIDE BRANCH CIRCUIT IDENTIFICATION ON ALL COVERPLATES AS SPECIFIED UNDER "GENERAL REQUIREMENTS". COVERPLATES FOR DEVICES CONNECTED TO THE EMERGENCY SYSTEM SHALL ALSO BE FACTORY LABELED WITH BLACK LETTERING TO READ "EMERGENCY". PROVIDE TELEPHONE/DATA OUTLETS AND STUBS AS INDICATED. TELEPHONE/DATA OUTLETS SHALL CONSIST OF TWO GANG OUTLET BOX WITH PLASTER RING AND NO COVER PLATE. JACK AND COVER PLATE ARE SUPPLIED BY OTHERS. HEIGHT OF OUTLET FOR DESK PHONE IS 16" AFF AND FOR WALL PHONE 48" AFF. TELEPHONE/DATA OUTLETS SHALL CONTAIN OF 3/4" CONDUIT FROM OUTLET TO AN ACCESSIBLE PORTION OF CEILING SPACE. TERMINATE WITH **CONDUCTORS:** 

ALL CONDUCTORS SHALL BE SOFT-DRAWN COPPER OF SIZES INDICATED ON THE DRAWINGS. ALL CONDUCTORS SHALL BE INSULATED FOR 600 VOLTS AND WITH 75 DEGREES (CENTIGRADE) CODE GRADE INSULATION. CONDUCTORS SIZED #10 AND SMALLER SHALL BE SOLID. ALL CONDUCTORS LARGER THAN #10 SHALL BE MADE UP OF STRANDED SINGLE CONDUCTOR CABLE. CONDUCTORS SHALL HAVE THWN OR THEN INSULATION AS APPLICABLE. CONDUCTORS IN UNDERGROUND CONDUIT AND FOR SERVICE ENTRANCE CONDUCTOR

#12 AWG SHALL BE THE MINIMUM WIRE SIZE ALLOWED EXCEPT #14 AWG MAY BE USED FOR CONTROL WIRING.

TYPICAL BRANCH CIRCUITS FROM 20A, 1-POLE BRANCH OVERRCURRENT DEVICES ARE 1/2"C, 2 #12 AND 1 # 12G.

MC CABLE SHALL BE PERMITTED FOR USE AS APPROVED BY N.E.C AND AUTHORITY HAVING JURISDICTION.

TYPE NM CABLE MAY BE USED BY THE CONTRACTOR FOR BRANCH WIRING IN THE RESIDENT UNITS AS ALLOWED BY THE AUTHORITIES HAVING JURISDICTION.

STARTERS, SAFETY SWITCHES, FUSES AND HEATERS:

WIRING DEVICE COLORS SHALL BE AS SELECTED BY THE OWNER/ARCHITECT.

MANUAL MOTOR STARTERS SHALL BE 600V TOGGLE TYPE WITH THERMAL OVERLOAD ELEMENT FOR MOTOR PROTECTION STAINLESS STEEL COVER PLATE AND PILOT LIGHT; FLUSH IN ALL AREAS EXCEPT IN UNFINISHED SPACES. CONTRACTOR TO COORDINATE AND PROVIDE QUANTITY OF POLES AS REQUIRED FOR BRANCH CIRCUIT AND LOAD SERVED. MANUAL MOTOR SWITCHES SHALL BE THE SAME AS MANUAL STARTERS EXCEPT WITHOUT OVERLOADS AND USED AS DISCONNECTING

INSTALLATION AND METHODS OF EXECUTION:

2

ALL WIRING SHALL BE IN CONDUIT, MINIMUM ½". FLEXIBLE METAL CONDUIT SHALL BE USED FOR SHORT CONNECTION TO MOTORS, FINAL CONNECTION TO RECESSED LIGHTING FIXTURES FROM RIGIDLY MOUNTED OUTLET BOX (NOT BETWEEN FIXTURES), VIBRATING EQUIPMENT, ETC., BUT NEVER LONGER THAN 6 FEET. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR ALL APPLICATIONS EXPOSED TO WATER OR WEATHER. PROVIDE ANTI-SHORT BUSHINGS FOR ALL FLEXIBLE CONDUIT ARMOR TERMINATIONS. PROVIDE SEPARATE EQUIPMENT GROUND WIRE IN ALL CONDUIT RUNS.

CONDUIT CONCEALED IN CEILING, WALLS OR FURRED SPACES OR EXPOSED IN DRY LOCATIONS SHALL BE EMT, THIN WALL ELECTRIC METALLIC TUBING. CONDUIT EXPOSED TO WEATHER, IN CONTACT WITH CONCRETE, BURIED IN SLAB, OR IN HAZARDOUS AREAS, SHALL BE HEAVY WALL, RIGID. ALL CONDUITS SHALL BE PLASTIC CONDUIT, PVC-40, SHALL BE USED ONLY AS INDICATED ON THE DRAWINGS. PLASTIC CONDUIT SHALL BE APPROVED FOR UNDERGROUND USE. PVC BURIAL DEPTH SHALL BE 36" MINIMUM BELOW FINISH GRADE. IN PVC CONDUIT SYSTEMS, RISERS ABOVEGROUND SHALL BE RIGID HEAVY WALL STEEL. CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. EXACT ROUTING OF CONDUIT RUNS SHALL SUIT JOB CONDITIONS. EXPOSED CONDUIT SHALL BE RUN ONLY IN UNFINISHED AREAS SUBJECT TO FINAL APPROVAL OF ENGINEER AND SHALL RUN PARALLEL TO BUILDING LINES, NEVER DIAGONALLY.

CONNECTION TO EQUIPMENT SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SHOP AND INSTALLATION DRAWINGS. REQUIREMENTS GENERALLY VARY FROM ONE MANUFACTURER TO ANOTHER AND CONTRACTOR IS BOUND TO COMPLY AND PROVIDE ALL WORK AS REQUIRED ALTHOUGH CERTAIN DISCREPANCIES MAY EXIST REGARDING THE REQUIREMENT FROM ONE MANUFACTURER TO ANOTHER. PROVIDE POWER WIRING, DISCONNECTS, AND PROTECTION DEVICES TO ALL MECHANICAL EQUIPMENT AND MAKE FINAL CONNECTIONS, INCLUDING TESTING OF

OUTLET BOXES MAY-BE SURFACE MOUNTED ON EXISTING WALLS (CMU, BRICK OR CONCRETE) WITH SMALLEST SURFACE RACEWAY AS REQUIRED FOR WIRING INSTALLED. PROVIDE FLUSH OUTLET BOXES AND CONDUIT AT NEW CONSTRUCTION WALL AND AT EXISTING WALLS WHICH ARE NOT CMU BRICK OR CONCRETE CONSTRUCTION. CUT AND PATCH EXISTING WALLS AS REQUIRED FOR FLUSH INSTALLATION.

<u>LIGHTING SPECIFICATIONS:</u> LED LIGHTING FIXTURES SHALL HAVE 5 YEAR WARRANTY, A COLOR RENDERING INDEX OF 90 OR HIGHER, 3500K COLOR TEMPERATURE UNLESS OTHERWISE INDICATED ON DRAWINGS, LIFETIME: 50,000 HOURS OR GREATER AND MAINTAIN AT LEAST 70% OF INITIAL LUMEN OUTPUT. RATED FOR OUTDOOR USE AND WET LOCATION, IF IN OPEN FIXTURE.

SHALL POSSESS COLOR MANAGEMENT SYSTEM TO MAINTAIN COLOR CONSISTENCY OVER TIME AND TEMPERATURE OF NO GREATER THAN ±100K OVER LIFE. REFER TO LIGHTING FIXTURE SCHEDULE FOR LED FIXTURES WITH DIMMING CONTROLS. LED DRIVERS TO BE ELECTRONIC, HIGH POWER FACTOR, MIN. 0.9; UNIVERSAL VOLTAGE 120-277V; 5 YEAR WARRANTY, COMPATIBLE WITH THE LED LAMP OR MODULE USED.

EMERGENCY BATTERY BALLASTS INTEGRAL TO FIXTURES SHALL BE SELF-DIAGNOSTIC TYPE, WITH 5 YEAR WARRANTY AND TEST SWITCH INTEGRAL TO FIXTURE, BODINE B50ST OR APPROVED EQUAL. PROVIDE EXIT AND EMERGENCY BATTERY LIGHTING UNITS WITH SELF DIAGNOSTICS, MAINTENANCE-FREE NI-CAD BATTERY, AND WITH UNIVERSAL VOLTAGE INPUT - 120V THROUGH 277V. REQUIREMENTS SPECIFIED HERE TAKE PRECEDENCE OVER SCHEDULED INFORMATION.

FOR ALL ELECTRIC-DISCHARGE LIGHTING FIXTURES, PROVIDE A LUMINAIRE DISCONNECTING MEANS TO DISCONNECT PHASE AND NEUTRAL CONDUCTORS FROM THE BRANCH CIRCUIT TO THE BALLAST. LOCATE DISCONNECTING MEANS CONCEALED WITHIN THE FIXTURE. TYPICAL FOR NEW, REUSED AND RELOCATED FIXTURES. ASSUME ALL REUSED AND RELOCATED FIXTURES REQUIRE THE FIELD ADDITION OF THE DISCONNECTING MEANS AND INCLUDE WORK IN BID. PROVIDE ALL NEW

FIXTURES WITH DISCONNECTING MEANS FACTORY-INSTALLED. PROVIDE THOMAS & BETTS STA-KON LUMINAIRE DISCONNECT OR EQUAL

SUBMIT LAMP AND BALLAST PRODUCT DATA WITH EACH FIXTURE TYPE

<u>FIRE ALARM SYSTEM — PERFORMANCE SPECIFICATION:</u>

PROVIDE COMPLETE FIRE ALARM SYSTEM COVERAGE FOR THE RENOVATED AREAS AS AN EXTENSION OF THE BUILDING EXISTING FIRE ALARM SYSTEM, PROVIDE NEW DEVICES AND RELOCATE EXISTING AND ALL NECESSARY COMPONENTS AS REQUIRED FOR A COMPLETE, FUNCTIONING AND APPROVED INSTALLATION. DEVICES ARE NOT SPECIFICALLY INDICATED ON THESE PLANS. SYSTEM SHALL BE LAYED OUT ON A PERFORMANCE BASIS BY A CERTIFIED DESIGNER. EXISTING FIRE ALARM CONTROL PANEL TO BE FIELD VERIFIED.

NEW EQUIPMENT AND DEVICES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM. COORDINATE WITH OWNER FOR BUILDING STANDARDS AND FIELD VERIFY EXISTING CONDITIONS. SURVEY EXISTING CONDITIONS PRIOR TO BID. COORDINATE WORK WITH BUILDING FINISHES AND WITH OTHER WORK BEING PERFORMED.

THE SYSTEM AS DESCRIBED SHALL BE INSTALLED, TESTED, AND APPROVED BY THE AHJ. THE SYSTEM SHALL INCLUDE ALL THE REQUIRED HARDWARE, RACEWAYS, INTERCONNECTING WIRING AND SOFTWARE TO ACCOMPLISH THE INTENT OF THESE SPECIFICATIONS AND THE CONTRACT DOCUMENTS, WHETHER OR NOT SPECIFICALLY ITEMIZED HEREIN.

ALL EQUIPMENT FURNISHED SHALL BE NEW AND INCLUDE THE LATEST STATE OF THE ART PRODUCTS FROM A SINGLE MANUFACTURER, ENGAGED IN THE MANUFACTURING AND SALE OF FIRE DETECTION SYSTEMS FOR OVER FIVE YEARS. THE INSTALLING CONTRACTOR SHALL CONTRACT WITH A SINGLE SOURCE FOR SUPPLYING DEVICES/MATERIALS, SERVICES, AND PROGRAMMING, INCLUDING FINAL INSPECTION/TEST SERVICES FOR THE FIRE ALARM SYSTEM. CONTROL AND OTHER PANELS SHALL BE MOUNTED WITH SUFFICIENT CLEARANCE FOR OBSERVATION AND TESTING. ALL FIRE ALARM JUNCTION BOXES MUST BE CLEARLY MARKED FOR EASY IDENTIFICATION.

PROVIDE ALL INTERWIRING WITH OTHER SYSTEMS: AIR HANDLING UNITS SMOKE DETECTION, KITCHEN ANSUL SYSTEM AND FIRE SUPPRESSION SYSTEMS. FIRE ALARM PULL STATIONS AND HORNS INSTALLED IN FINISHED AREAS SHALL BE MOUNTED SEMI-FLUSH AND MAY BE SURFACE MOUNTED IN EXISTING AND NON-FINISHED AREAS. SMOKE DETECTORS AND THERMAL DETECTORS SHALL BE MOUNTED ON A RECESS MOUNTED JUNCTION BOX IN FINISHED AREAS AND TO SURFACE MOUNTED JUNCTION BOXES IN NON-FINISHED AREAS.

MOUNT OUTLET BOX FOR ELECTRIC DOOR HOLDER TO WITHSTAND 80 POUNDS PULLING FORCE.

ALL FIRE ALARM WIRING SHALL BE RUN IN A DEDICATED RACEWAY SYSTEM APPROVED BY THE AHJ. WITH APPROVAL OF LANDLORD AND THE AHJ, PLENUM RATED WIRING MAY BE RUN WITHOUT RACEWAYS ABOVE ACCESSIBLE FINISHED CEILINGS.
WHERE EXPOSED RACEWAY IS PERMITTED BY ARCHITECT IN FINISHED SPACES, SUCH AS IN EXISTING CONSTRUCTION, COORDINATE APPROVAL OF RACEWAY TYPE, ROUTING AND FINISH WITH THE AHJ AND WITH THE ARCHITECT.

NO WIRING OTHER THAN THAT DIRECTLY ASSOCIATED WITH FIRE ALARM DETECTION, ALARM OR AUXILIARY FIRE PROTECTION FUNCTIONS SHALL BE PERMITTED IN FIRE ALARM CONDUITS. WIRING SPLICES ARE TO BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NEEDED THEY MUST BE MADE ONLY IN JUNCTION BOXES AND SHALL BE CRIMP CONNECTED. TRANSPOSING OR CHANGING COLOR CODING OF WIRE SHALL NOT BE PERMITTED. ALL CONDUCTORS IN CONDUIT CONTAINING MORE THAN ONE WIRE SHALL BE LABELED AND HARNESSED SO THAT EACH DROPS OFF DIRECTLY OPPOSITE TO ITS TERMINAL.

ALL WIRING SHALL BE CHECKED AND TESTED TO ENSURE THAT THERE ARE NO GROUNDS, OPENS, OR SHORTS.

RE—CERTIFY EXISTING FIRE ALARM SYSTEM AS REQUIRED.
FIRE ALARM SYSTEM SHALL BE TESTED IN PRESENCE OF LOCAL INSPECTING AUTHORITY AND TEST REPORT OF RESULTS
SHALL BE FILED WITH OWNER/ARCHITECT/ENGINEER AS PART OF SYSTEMS DOCUMENTATION.
MAKE ALL REVISIONS OR CHANGES NECESSARY TO MAINTAIN FINAL APPROVAL AT NO EXTRA COST TO OWNER.

PROVIDE ALL PERSONNEL AND MATERIALS REQUIRED FOR SYSTEM TESTING.

● POLE MOUNTED LIGHTING FIXTURE

HALF SHADED LIGHTING FIXTURES CONNECTED TO THE EMERGENCY GENERATOR

- TYPICAL FOR ALL HALF SHADED LIGHTING SYMBOLS



LED EMERGENCY BATTERY PACK UNIT

☐ O LED LIGHTING FIXTURES

**⊗** EXIT LIGHTING FIXTURE

S<sub>2</sub> DOUBLE POLE LIGHT SWITCH S<sub>3</sub> THREE WAY LIGHT SWITCH

SWITCH WITH PILOT LIGHT S<sub>D</sub> DIMMER SWITCH

GFR DUPLEX RECEPTACLE TAMPER RESISTANT

JUNCTION BOX

COMBINATION DATA AND TELEPHONE OUTLET

THREE PHASE COMBINATION MAGNETIC FUSIBLE MOTOR STARTER

FUSIBLE DISCONNECT SWITCH

MOTOR - SINGLE PHASE

TIME SWITCH

TV OUTLET

DOOR CONTACTS

FIRE ALARM PULL STATION

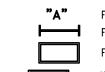
FIRE ALARM LOW FREQUENCY SOUNDER FOR SLEEPING AREAS

TAMPER SWITCH (REFER TO MECHANICAL FOR QUANTITIES)

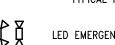
A/V AUDIO/VISUAL ALARM

### ELECTRICAL LEGEND

"A" FIXTURE TYPE FLUORESCENT STRIP LIGHTING FIXTURE



FLUORESCENT LIGHTING FIXTURE



OH WALL MOUNTED LIGHTING FIXTURE

S SINGLE POLE LIGHT SWITCH

S₄ FOUR WAY LIGHT SWITCH SK KEY SWITCH

DUPLEX RECEPTACLE TAMPER RESISTANT QUAD RECEPTACLE TAMPER RESISTANT

DUPLEX RECEPTACLE WITH USB PORT (DUAL) — TAMPER RESISTANT

WIRELESS ACCESS POINT

TELEVISION OUTLET 4-SQUARE BOX - SINGLE GANG, 60" AFF EXCEPT AS NOTED; 1"CONDUIT TO BOX FROM ABOVE SUSPENDED CEILING.

AUDIO/VIDEO OUTLET, 2-GANG BACK BOX WITH 1 1/4"C TO ABOVE ACCESIBLE CEILING, TERMINATE CONDUIT WITH INSULATING BUSHING, PROVIDE PULL STRING

MANUAL SINGLE PHASE MOTOR STARTER

NON-FUSIBLE DISCONNECT SWITCH

MOTOR - THREE PHASE

LIGHTING AND/OR RECEPTACLE PANEL HOMERUN TO LIGHTING PANEL

TRANSFORMER

CONTACTOR

CONTROL PANEL

INTERCOM UNIT, PROVIDE 3/4"CONDUIT TO 4"X4" DEEP BACK BOX - OR AS DIRECTED BY OWNER'S VENDOR

MUSHROOM TYPE EMERGENCY SHUT-OFF PUSHBUTTON

HEAT DETECTOR

(DSD) DUCT SMOKE DETECTOR CARD READER

MAGNETIC DOOR HOLDER

F FIRE ALARM STROBE

**F**✓ FIRE ALARM HORN-STROBE

FIRE ALARM HORN/STROBE — CEILING OR PENDANT MOUNTED

FLOW SWITCH (REFER TO MECHANICAL FOR QUANTITIES)

FACP FIRE ALARM CONTROL PANEL - FLUSH FAAP FIRE ALARM ANNUNCIATOR PANEL - FLUSH

### ELECTRICAL LEGEND CONTINUED

NURSE CALL PATIENT STATION

SECURITY CAMERA

HANDICAP DOOR ACTIVATOR

PANIC ALARM PUSH BUTTON, TIED TO ALERTING SYSTEM (SECURITY) TO SUMMON HELP

-OS- OCCUPANCY SENSOR MULTI-TECHNOLOGY CEILING MOUNTED

OCCUPANCY SENSOR MULTI-TECHNOLOGY WALL MOUNTED WITH LIGHT SWITCH OCCUPANCY SENSOR POWER PACK

X KEY NOTE

DOOR CONTACT

WIRELESS DOORBELL HAND-OFF-AUTOMATIC

EWC ELECTRIC WATER COOLER

UNIT HEATER EXHAUST FAN

ABOVE FINISHED FLOOR WP WEATHERPROOF NEC NATIONAL ELECTRIC CODE

SERVICE DISCONNECT GFR GROUND FAULT CIRCUIT INTERRUPTER

EGA EMERGENCY GENERATOR ANNUNCIATOR PANEL

MICROWAVE

GARBAGE DISPOSAL REF. REFRIGERATOR

DW DISHWASHER

LEGEND NOTES:

1. ALL OCCUPANCY SENSORS SHALL HAVE ISOLATED AUXILIARY CONTACTS FOR USE BY MECHANICAL TRADES TO CONTROL MECHANICAL EQUIPMENT.

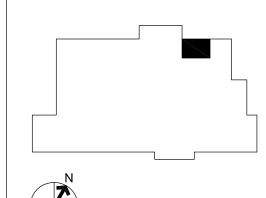
2. THIS IS STANDARD SYMBOL LIST — SOME OF THESE SYMBOL MAY NOT APPEAR ON DRAWINGS

ELECTRICAL SHEET INDEX ELECTRICAL LEGEND, SHEET INDEX AND SPECIFICATIONS

ENLARGED FLOOR PLAN - ELECTRICAL

ENLARGED DEMOLITION FLOOR PLAN — DEMOLITION OVERALL FLOOR PLAN — ELECTRICAL

Key Plan:



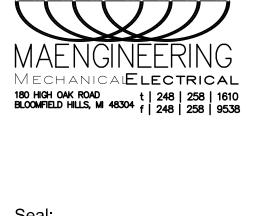
Sheet Title:

SPECIFICATIONS Project No.:

Sheet No.:

27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700 F. 248.546.8454 WWW.STUCKYVITALE.COM STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED Consultants

STUCKY VITALE ARCHITECTS



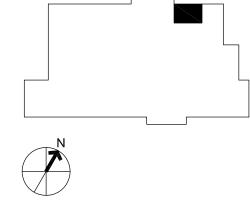


259 MACK AVE

DETROIT, MI 48201

WSU ALL GENDER

**RESTROOMS** 



05.24.23

Drawn by

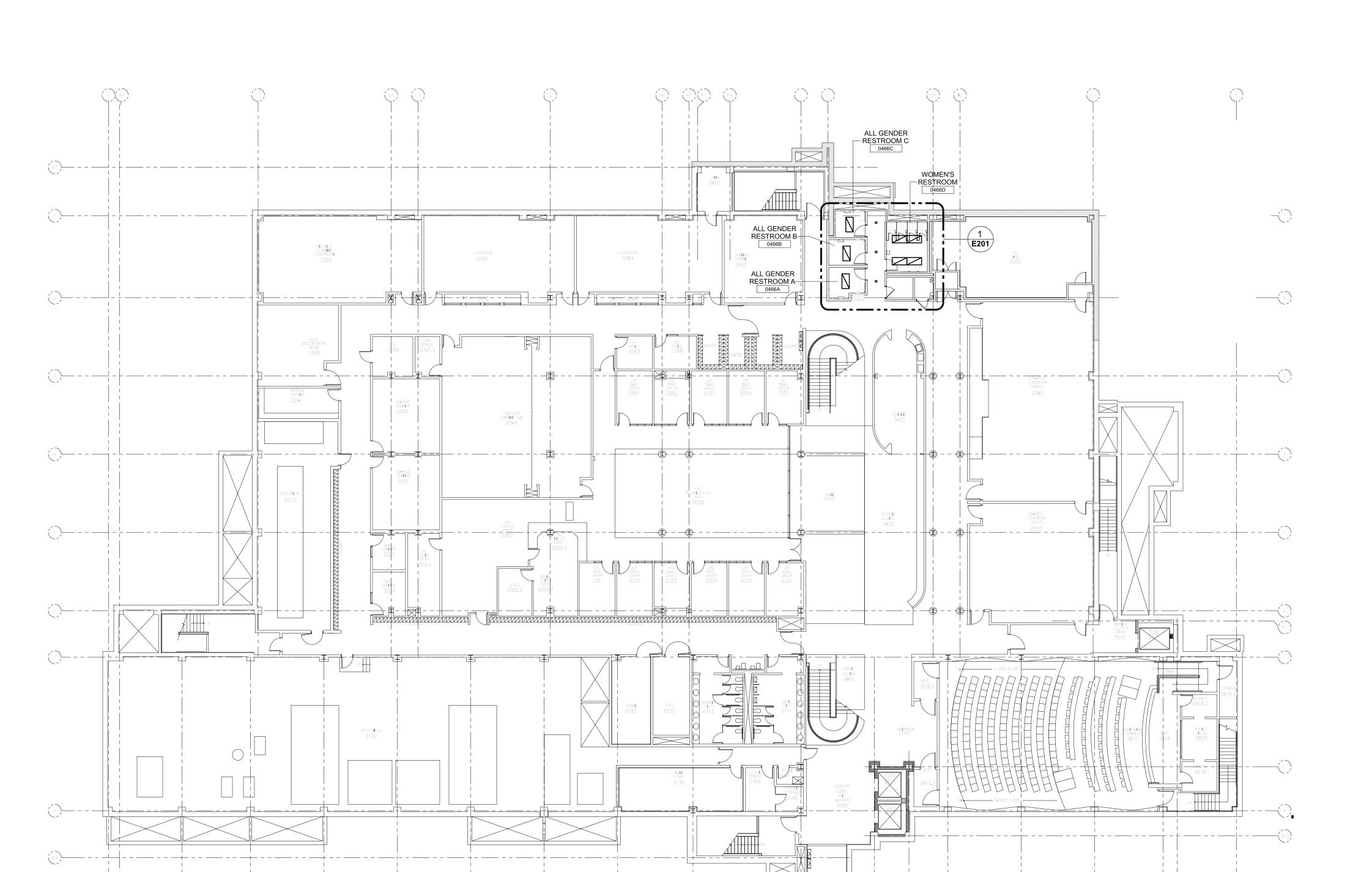
Issued for

CD

Checked by

ELECTRICAL LEGEND SHEET INDEX, AND

- A. REFER TO SHEET E000 FOR ELECTRICAL LEGEND.
- B. THIS PLAN IS ISSUED FOR REFERENCE ONLY TO INDICATE LOCATION OF THE RENOVATED WORK AREA IN THE BUILDING.



1 OVERALL FLOOR PLAN - ELECTRICAL
E200 1/16" = 1'-0"



STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE

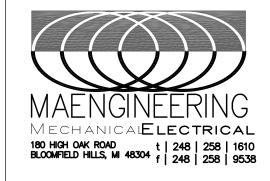
ROYAL OAK, MI 48067-0925

P. 248.546.6700

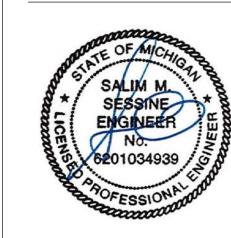
F. 248.546.8454
WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE
THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF
DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT
THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION
IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants



Seal:

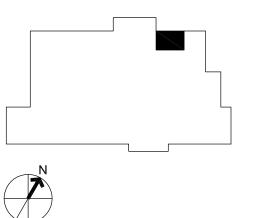


Project :

WSU ALL GENDER RESTROOMS

259 MACK AVE DETROIT, MI 48201

Key Plan:



05.24.23

Drawn by :

Checked by:

Issued for

CD

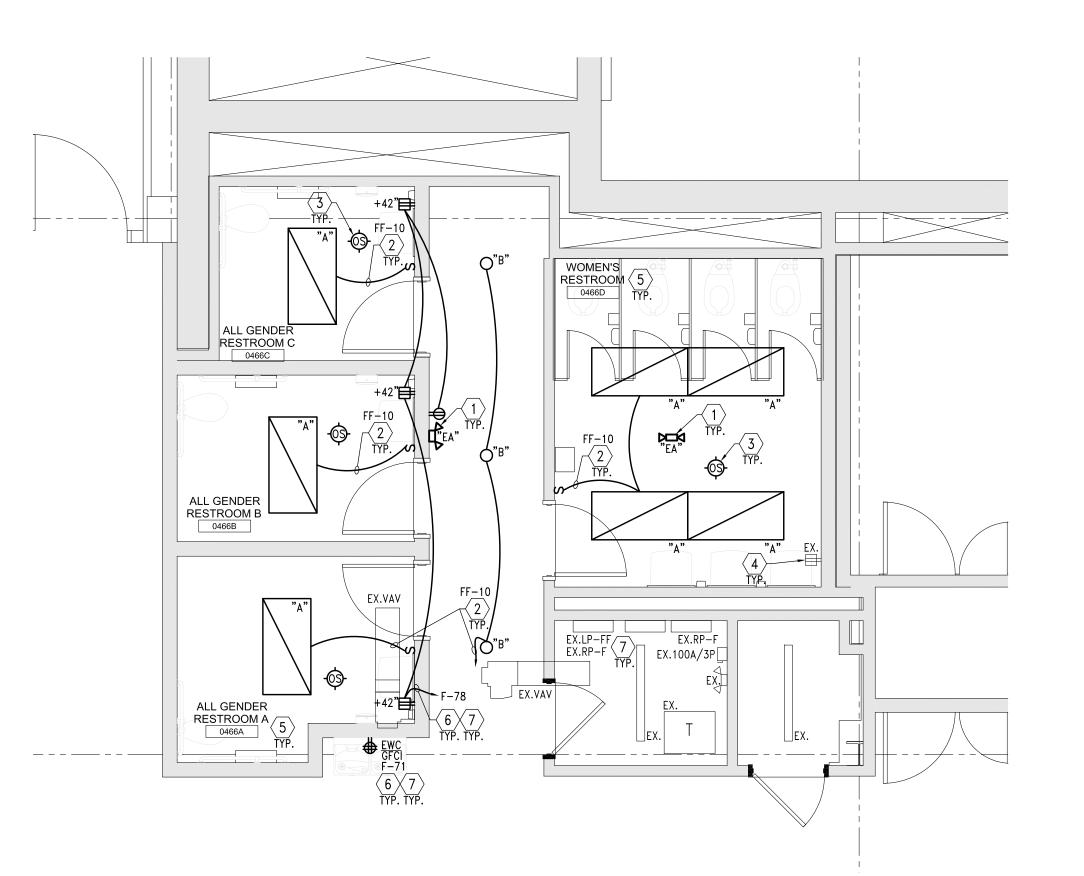
Sheet Title:

OVERALL FLOOR PLAN 
ELECTRICAL

Project No. :

Sheet No. :

E200



ENLARGED FLOOR PLAN - ELECTRICAL E201 1/4" = 1'-0"

### GENERAL ELECTRICAL NOTES:

A. REFER TO SHEET E000 FOR ELECTRICAL LEGEND.

- PROVIDE COMPLETE ADDRESSABLE FIRE ALARM SYSTEM FOR THE RENOVATED AREA AS AN EXTENSION AND COMPATIBLE WITH THE FACILITY EXISTING FIRE ALARM. INITIATING DEVICES, INDICATING APPLIANCES, CONTROL MODULES AND WIRING AS REQUIRED BY AUTHORITIES HAVING JURISDICTION FR AN APPROVED INSTALLATION, REFER TO SPECIFICATIONS. SYSTEM SHALL BE LAYED OUT ON A PERFORMANCE BASIS, DEVICES ARE NOT INDICATED ON THESE PLANS. FIRE ALARM SYSTEM SHALL BE INTER-WIRED WITH WITH THE FACILITY EXISTING FIRE ALARM SYSTEM.
- PROVIDE RACEWAYS AND CONDUIT STUBS WITH PULL STRING FOR LOW VOLTAGE CABLING AS REQUESTED BY OWNER, COORDINATE WITH TECHNOLOGY CONTRACTOR AND OWNER'S IT REPRESENTATIVE.
- D. ALL CONDUITS IN FINISHED AREAS SHALL BE RUN CONCEALED IN BUILDING CONSTRUCTION, NO EXPOSED CONDUITS ARE PERMITTED.
- E. COORDINATE LOCATION OF POWER AND DATA OUTLETS WITH FINAL FURNITURE AND EQUIPMENT
- PROVIDE BACK BOXES WITH 3/4" CONDUIT WITH PULL STRING TO ACCESSIBLE CEILING SPACE FOR CEILING SPEAKERS REQUIRED IN DRYWALL CEILINGS, COORDINATE WITH SOUND SYSTEM PROVIDER AND ARCHITECT/ONWER FOR EXACT REQUIREMENTS.
- FOR SOUND, SECURITY, ACCESS CONTROL, CLOCK SYSTEMS PROVIDE BRANCH CIRCUITS, BOXES, CONDUITS AS REQUIRED, DEVICES INDICATED ON THESE PLANS ARE FOR REFERENCE ONLY, COORDINATE WITH SYSTEMS DESIGNER/SUPPLIER AND ARCHITECT/OWNER, REFER TO
- BACK TO BACK ELECTRICAL/COMMUNICATION BOXES ARE NOT ACCEPTABLE. LOCATE IN SEPARATE STUD CAVITIES TO DAMPEN SOUND.
- PROVIDE FIRE STOPPING SYSTEM WHERE REQUIRED TO MAINTAIN THE FIRE RESISTANCE RATINGS
- EXACT REQUIREMENTS FOR ALL EQUIPMENT SHALL BE VERIFIED WITH APPROVED SUBMITTALS, INSTALLATION MANUALS AND NAMEPLATE DATA. ELECTRICAL SERVICE TO THESE EQUIPMENT SHALL BE PROVIDED ACCORDINGLY.
- K. LOCATE DISCONNECT SWITCHES FOR MECHANICAL AND BUILDING EQUIPMENT TO MAINTAIN WORKING CLEARANCES. LOCATIONS ON THESE PLANS ARE FOR REFERENCE ONLY.
- L. ALL RECEPTACLES IN PUBLIC AREAS ARE TO BE TAMPER RESISTANT.
- M. MAINTAIN SERVICE CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME BRANCH CIRCUITS OR CONNECT TO NEAREST AVAILABLE OR PROVIDE NEW AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS, TRACE BACK TO SOURCE AND IDENTIFY ALL BRANCH CIRCUITS SERVING THE AREA.
- N. WITHIN THE RENOVATED AREAS PROVIDE NEW DEVICE AND COVER PLATE TO MATCH NEW DEVICES FOR ALL INDICATED AS EXISTING TO REMAIN.
- O. ALL ITEMS INDICATED ON THESES PLANS ARE NEW UNLESS OTHERWISE NOTED. EX.— INDICATES EXISTING ITEM TO REMAIN.
- P. USE #10 WIRE FOR LIGHTING CIRCUIT HOMERUNS LONGER THAN 150 FEET FROM PANEL. ALL WIRING SHALL BE SIZED PROPERLY FOR FULL COMPLIANCE WITH THE NEC REQUIREMENTS FOR AMPACITY AND MAXIMUM VOLTAGE DROP LIMITATIONS.
- Q. COORDINATE LOCATION OF ALL SWITCHES WITH DOOR LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS.
- R. PROPOSED EQUAL LIGHTING FIXTURES TO BE SUBMITTED FOR ARCHITECT/OWNER REVIEW AND APPROVAL PRIOR TO BID.
- S. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS AND SECTIONS FOR EXACT LOCATIONS AND MOUNTING OF ALL CEILING, PENDANT & WALL MOUNTED LIGHTING FIXTURES.
- T. N ADDITION TO THE LOCAL SWITCHES SHOWN PROVIDE A COMPLETE OCCUPANCY SENSOR BASED AUTOMATIC LIGHTING CONTROL SYSTEM AS AN EXTENSION AND COMPATIBLE WITH THE FACILITY EXISTING LIGHTING CONTROL SYSTEM TO COMPLY WITH THE MICHIGAN UNIFORM ENERGY CODE, REFER TO SPECIFICATIONS FOR EXACT REQUIREMENTS. SYSTEM SHALL BE LAYED OUT ON A PERFORMANCE BASIS, TYPICAL FOR ALL ROOMS/AREAS.

### **KEYED ELECTRICAL NOTES:**

- ALL EXIT LIGHTS AND BATTERY UNITS TO BE CONNECTED TO AREA EXISTING NORMAL LIGHTING CIRCUIT AHEAD OF LOCAL AND AUTOMATIC LIGHTING CONTROL.
- CONNECT NEW LIGHTING FIXTURES TO AREA EXISTING LIGHTING BRANCH CIRCUIT AND CONTROLS, NOT TO EXCEED 16A ON A 20A/1P BRANCH BREAKER, BRANCH CIRCUIT NUMBERS INDICATED ARE FOR REFERENCE ONLY, FIELD VERIFY EXISTING CONDITIONS.
- PROVIDE OCCUPANCY SENSORS AS REQUIRED, DEVICES INDICATED ARE FOR REFERENCE ONLY, REFER TO GENERAL NOTE-T AND SPECIFICATIONS.
- PROVIDE NEW DEVICES AND COVER PLATES FOR ALL EXISTING TO REMAIN, MATCH EXISTING INSTALLATION, REFER TO GENERAL NOTES THIS SHEET, EXISTING DEVICES ARE NOT INDICATED ON THESE PLANS, FIELD VERIFY EXISTING CONDITIONS. ALL NEW DEVICES TO BE TAMPER PROOF.
- 5 PROVIDE NEW FIRE ALARM, LOW VOLTAGE, AND SECURITY DEVICES FOR ALL EXISTING TO REMAIN DEVICES IN THE RENOVATED AREA AND PROVIDE NEW FOR COMPLETE COVERAGE, EXTEND EXISTING WIRING TO NEW LOCATIONS OR PROVIDE NEW, FIELD VERIFY EXISTING CONDITIONS, EXISTING DEVICES ARE NOT INDICATED ON THESE PLANS, FIELD VERIFY EXISTING CONDITIONS.
- 6 CONNECT NEW RECEPTACLE TO EXISTING BRANCH CIRCUITS RECOVERED FROM DEMOLITION OR PROVIDE NEW 20A/1P BREAKER IN EXISITING PANEL SPARE/SPACE, NOT TO EXCEED 16A ON A 20A/1P BRANCH BREAKER, FIELD VERIFY AND TRACE BACK TO SOURCE BRANCH CIRCUITS, BRANCH CIRCUIT NUMBERS INDICATED ARE FOR REFERENCE ONLY.
- PROVIDE NEW BRANCH BREAKERS IN EXISTING SPACE IN EXISTING PANELBOARDS AS REQUIRED FOR NEW WORK, FIELD VERIFY EXISTING CONDITIONS, BRANCH CIRCUIT NUMBER INDICATED ARE FOR REFERENCE ONLY.

# LIGHTING FIXTURE SCHEDULE:

- "A" LED RECESSED 2X4 LAY-IN LIGHTING FIXTURE, COLD-ROLLED STEEL CONSTRUCTION WITH ACRYLIC DIFFUSER, 120/277V HPF ELECTRONIC DRIVER, DIMMING CONTROL, 0-10V DIMMING AND 59W, 7200 LUMENS. LITHONIA #2VTL4-72L OR APPROVED EQUAL TO MATCH EXISTING INSTALLATION.
- "B" LED RECESSED 4" DIA. DOWNLIGHT LIGHTING FIXTURE, ALUMINUM HOUSING, MEDIUM-WIDE DISTRIBUTION, 120/277V HPF ELECTRONIC DRIVER, 0-10V DIMMING, DIMMING CONTROL, 39W, 3500 LUMENS. GOTHAM #EVO4-/35-MWD-MVOLT OR APPROVED EQUAL TO MATCH EXISTING INSTALLATION.
- "EA" LED UNIVERSAL MOUNT SELF CONTAINED EMERGENCY BATTERY UNIT, WHITE FINISH, NI-CAD BATTERY, WITH SELF DIAGNOSTICS, NO AUDIO ALARM, 120-277V, (2)6W 12V LED HEADS. LIGHTALARMS "GRANDE COMPACT SERIES" OR APPROVED EQUAL TO MATCH EXISTING INSTALLATION.
- "X" LED UNIVERSAL MOUNT SELF CONTAINED EDGE-LIT EXIT LIGHT, RED LETTERS, SINGLE OR DOUBLE FACE, AND DIRECTIONAL ARROWS AS INDICATED, FINISH SELECTED BY ARCHITECT, 120/277V INPUT, NI-CAD, BATTERY WITH SELF-DIAGNOSTICS (NO AUDIBLE) LITHONIA "LRP" SERIES OR APPROVED EQUAL TO MATCH EXISTING INSTALLATION.



STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE

ROYAL OAK, MI 48067-0925 P. 248.546.6700

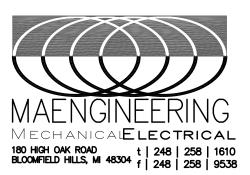
F. 248.546.8454

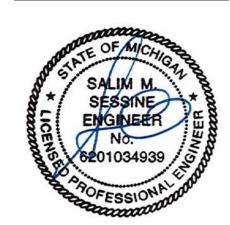
WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY: THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT

THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW, ALL RIGHTS RESERVED

Consultants





Project:

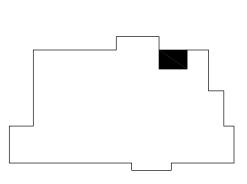
WSU ALL GENDER

RESTROOMS

259 MACK AVE

DETROIT, MI 48201

Key Plan:





Issued for

CD 05.24.23

Drawn by: KM

Checked by:

Sheet Title:

ENLARGED FLOOR PLANS - ELECTRICAL

Project No :

2022.053 Sheet No.:

E201