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## ORCHARD VIEW SCHOOL DISTRICT

DESCRIPTION

BID PACKAGE #2 - BIDS AND

DATE

11/10/2023

### COMMUNITY EDUCATION CENTER

RENOVATIONS - BID PACKAGE NO. 2 1765 ADA AVENUE MUSKEGON, MI 49442

11/10/2023

#### PROJECT CONTACT LIST

- ORCHARD VIEW SCHOOLS
- MUSKEGON, MI
- CONTACT: **BRANDY CAREY** JACK TIMMER

#### **ELECTRICAL ENGINEER:**

- BERGMANN
- 7050 W SAGINAW HWY, SUITE 200 LANSING, MI
- CONTACT: ANGELA ROBINSON - PHONE: 517.827.8726

- CONTACT: BUDDY HUYLER

#### GRAND RAPIDS, MI

#### 08 - ELECTRICAL E001 LEGEND

G000 COVER SHEET

A003 SPECIFICATIONS

A101 FIRST FLOOR PLAN

A001 GENERAL NOTES AND LEGENDS

AD101 FIRST FLOOR DEMOLITION PLAN

A121 FIRST FLOOR CEILING PLAN

A141 FIRST FLOOR FINISH PLAN

A201 EXTERIOR ELEVATIONS

AD121 FIRST FLOOR DEMOLITION CEILING PLAN

A601 SCHEDULES, DOOR AND WINDOW DETAILS

AD201 EXTERIOR DEMOLITION ELEVATIONS

E002 SPECIFICATIONS

A301 WALL SECTIONS

E201 LIGHTING PLAN

E801 SCHEDULES ED101 ELECTRICAL DEMOLITION PLAN

#### **DRAWING INDEX CODE SUMMARY** PROJECT SCOPE - BID PACKAGE #2

NOT LIMITED TO NEW WALL PAINT, NEW CEILINGS/LIGHTING, AND PERIMETER EXTERIOR WINDOW REPLACEMENT. REFER TO ALTERNATE #1 (EXPOSED CORRIDOR PIPING).

#### APPLICABLE BUILDING CODES

2015 MICHIGAN BUILDING CODE

2015 MICHIGAN REHABILITATION CODE BUILDING CODE (MI FIRE SAFETY STATE RULES): NFPA 101, 2012 MECHANICAL CODE: 2015 MICHIGAN MECHANICAL CODE

ELECTRICAL CODE: 2017 MICHIGAN ELECTRICAL CODE (PART 8 RULES)

PLUMBING CODE: 2018 MICHIGAN PLUMBING CODE **ENERGY CODE:** 2015 MICHIGAN ENERGY CODE ACCESSIBILITY: BARRIER FREE - ICC / ANSI-117

#### **BUILDING DATA**

TOTAL BUILDING AREA: 34,845 SQ FT TOTAL RENOVATION AREA: 5,772 SQ FT

CONSTRUCTION TYPE = II-B "NON-COMBUSTIBLE"

**USE AND OCCUPANCY** BUILDING IS CLASSIFIED AS EDUCATIONAL "E"

> MBC SECTION 305.1 **BUSINESS "B"**

NON-SPRINKLERED

MBC SECTION 304.1 INTERIOR AREAS OF RENOVATION ARE CORRIDORS AND HAVE NO OCCUPANT LOAD/TYPE.

INTERIOR FINISH:			(CHAPTER 8)
WALL AND CEILING			
OCCUPANCY: B	USINESS		
FINISH CLASS	LOCATION		
X A	X EXITS	☐ CORRIDORS/ EXIT ACCESS	☐ ROOMS/ SPACES
X B	☐ EXITS	X CORRIDORS/ EXIT ACCESS	☐ ROOMS/ SPACES
X C	☐ EXITS	☐ CORRIDORS/ EXIT ACCESS	X ROOMS/ SPACES

CCUPANCY:	<b>EDUCATIONAL</b>	
INISH CLASS	LOCATION	
\[\times\] \	V EVITO	1 00DDIDODO/ EVIT 4 00E00

#### ☐ ROOMS/ SPACES X B ☐ EXITS X CORRIDORS/ EXIT ACCESS ☐ ROOMS/ SPACES ☐ EXITS ☐ CORRIDORS/ EXIT ACCESS ☒ ROOMS/ SPACES

#### ADDITIONAL NOTES:

A. PROVIDE FIRE EXTINGUISHERS IN CONFORMANCE WITH THE INTERNATIONAL FIRE CODE SECTION 906 AND COORDINATE WITH FIRE MARSHAL PRIOR TO INSTALLATION. DO NOT INSTALL FIRE EXTINGUISHERS UNTIL LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.

OBTAIN ALL REQUIRED PERMITS AND PAYMENT OF PERMIT AND APPLICATION FEES

CERTIFICATIONS: A. THE ARCHITECTS CERTIFICATION IS ONLY FOR THE WORK SHOWN TO BE DONE. IT

DOES NOT CONSTITUTE APPROVAL OF PRE-EXISTING CONDITIONS OR REVIEW OF

THOSE CONDITIONS FOR CODE COMPLIANCE. THE ARCHITECTS CERTIFICATION IS FOR COMPLIANCE WITH THE BUILDING CODE OF MICHIGAN AND IT'S VARIOUS REFERENCE STANDARDS, FOR PURPOSES OF OBTAINING A BUILDING PERMIT THROUGH THE AUTHORITY HAVING JURISDICTION AND TO CONVEY CONSTRUCTION REQUIREMENTS FOR THE PROJECT. CERTIFICATION DOES NOT GUARANTEE COMPLIANCE WITH LOCAL CODES THAT MAT APPLY.

CONSTRUCTION SAFETY COMPLIANCE WITH:

X CHAPTER 33 SAFE GUARDS DURING CONSTRUCTION OF THE IBC

☐ CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION OF THE IFC

### PROJECT LOCATION MAP



#### MATERIAL INDICATORS

	UNDISTURBED EARTH	STEEL	FINISH WOOD
	GRAVEL OR CRUSHED STONE	RIGID INSULATION	BATT INSULATION
	CAST STONE	BRICK	WOOD FRAMING (CONTINUOUS
M	CONCRETE	PLYWOOD	WOOD BLOCKING (DISCONTIN.)
	CONCRETE MASONRY UNIT	SAND OR GYPSUM BOARD	EXISTING

#### WALL STYLES

EXISTING BRICK WALL	BRICK WALL	EXISTING WALL REMOVAL
EXISTING CMU WALL	CMU WALL	
EXISTING STUD WALL	STUD WALL	

#### **ABBREVIATIONS**

A/C	AIR CONDITIONING	ID	INTERIOR DIAMETER		
ACP	ACOUSTICAL CEILING PANELS	INSUL	INSULATION	T	TREAD
ADJ	ADJUSTABLE	INT	INTERIOR	T&G	TONGUE AND GROOVE
AFF	ABOVE FINISH FLOOR	INV	INVERT	TEMP	TEMPORARY
ALUM	ALUMINUM	""	IIIV LIXI	TH	THRESHOLD
ALUIVI	ALOWINOW	JAN CL	JANITORS CLOSET	TO	TOP OF
DD	DOADD	1			
BD	BOARD	JT	JOINT	TR	TRANSITION
BLKG	BLOCKING	1.		TYP	TYPICAL
ВО	BOTTOM OF	L	LONG		
		LAM	LAMINATE	UNO	UNLESS NOTED OTHERWIS
CG	CORNER GUARD	LAV	LAVATORY	UPH	UPHOLSTERY
CJ	CONTROL JOINT	LLV	LONG LEG VERTICAL	UR	URINAL
CL	CENTER LINE	LMC	LINEAR METAL CEILING		
CLG	CEILING	LTL	LINTEL	VAR	VARIES
CLR	CLEAR	LVR	LOUVER	VB	VINYL BASE
CM	CONSTRUCTION MANAGER	LVT	LUXURY VINYL TILE	VCT	VINYL COMPOSITION TILE
CMT	CERAMIC MOSAIC TILE			VERT	VERTICAL
CMU	CONCRETE MASONRY UNIT	MAX	MAXIMUM	VEST	VESTIBULE
COL	COLUMN	MECH	MECHANICAL	VIF	VERIFY IN FIELD
CONC	CONCRETE	MEZZ	MEZZANINE	VWC	VINYL WALL COVERING
CONT	CONTINUOUS	MFR	MANUFACTURER		
CT	CERAMIC TILE	MIN	MINIMUM	W	WIDE
CTB	CERAMIC TILE BASE	MO	MASONRY OPENING	W/	WITH
OID	OLIVAINIO TILL DAGE				
D	DEED	MTL	METAL	W/O	WITHOUT
D	DEEP	\"	NOT IN CONTRACT	WB	WOOD BASE
DF	DRINKING FOUNTAIN	NIC	NOT IN CONTRACT	WC	WATER CLOSET
DIA	DIAMETER	NTS	NOT TO SCALE	WCV	WALL COVERING
DIM	DIMENSION	1		WD	WOOD
DWG	DRAWING	OC	ON CENTER	WDT	WINDOW TREATMENT
		OPP	OPPOSITE	WF	WOOD FLOORING
EA	EACH			WOM	WALKOFF MAT
EIFS	EXTERIOR INSULATION FINISH	P	PAINTED	WP	WATERPROOF
	SYSTEM	PB	PORCELAIN BASE	WT	WALL TILE
ELEC	ELECTRICAL	PCC	PRE CAST CONCRETE		
ELEV	ELEVATIONS	PCF	POUNDS PER CUBIC FOOT		
EXF	EPOXY FLOORING	PL	PLATE		
EXP	EXPANSION	PLF	POUNDS PER LINEAR FOOT		
EXP BT	EXPANSION BOLT	PLM	PLASTIC LAMINATE		
EXT	EXTERIOR	PP	PLASTIC PANELING		
		PSF	POUNDS PER SQUARE FOOT		
F	FABRIC	PSI	POUNDS PER SQUARE INCH		
FCO	FLOOR CLEANOUT				
FD	FLOOR DRAIN	PT	PORCELAIN TILE		
FE	FIRE EXTINGUISHER	PTWD	(PRESSURE) PRESERVATIVE-TREATED WOOD		
FEC	FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET	1	I RESERVATIVE-INLATED WOOD		
			OHADDY THE		
FFE	FINISH FLOOR ELEVATION	QT	QUARRY TILE		
FLG	FLOORING	_	DIOED		
FLR	FLOOR	R	RISER		
FR	FIRE RATED	RB	RUBBER BASE		
FRP	FIBER REINFORCED PLASTIC	RCP	REFLECTED CEILING PLAN		
FT	FLOOR TILE	RD	ROOF DRAIN		
FTG	FOOTING	REBAR	REINFORCED STEEL BARS		
		REINF	REINFORCING		
GA	GAUGE	RESIL	RESILIENT		
GALV	GLAVANIZED	RF	RESILIENT FLOORING		
GC	GENERAL CONTRACTOR	RM	ROOM		
		RO	ROUGH OPENING		
Н	HIGH	RTU	ROOF TOP UNIT		
HB	HOSE BIBB	1			
HC	HOLLOW CORE	sc	SEALED CONCRETE		
HDR	HEADER	SIM	SIMILAR		
HDWR	HARDWARE	SMS	SHEET METAL SCREW		
HM	HOLLOW METAL	SPEC	SPECIFICATION		
HORIZ	HORIZONTAL	SS	SOLID SURFACE		
HPC	HIGH PERFORMANCE COATING	SST	STAINLESS STEEL		
HVAC	HEATING/VENTILATION/AIR	STC	SOUND TRANSMISSION CLASS		
	CONDITIONING	STD	STANDARD		
HW	HOT WATER	STL	STEEL		
HWT	HOT WATER TANK	STRUCT	STRUCTURAL		
		SYS	SYSTEM	Ī	

#### **GENERAL NOTES:**

#### ALL GENERAL NOTES PERTAIN TO ALL ARCHITECTURAL (A-SERIES) DRAWINGS IN THIS SET

- 1. DEFINITIONS: "PROVIDE" MEANS FURNISH AND INSTALL. SUPPLY LABOR AND MATERIALS TO RESULT IN A FINISHED AND/OR OPERABLE
- 2. CONTRACTOR RESPONSIBILITIES:
  A. MATERIALS, CONSTRUCTION METHODS INCLUDING BUT NOT LIMITED TO LAYOUT, COORDINATION, SCHEDULE AND CONSTRUCTION SITE
- ACCESS AND WORK.
- B. DAILY CLEANING: KEEP SITE FREE FROM WASTE, RUBBISH, AND DEBRIS. REMOVE DAILY. WHEN WORK IS COMPLETE, LEAVE THE PREMISES BROOM CLEAN AND CLEAN FINISHED SURFACES, FIXTURES, GLASS, STOREFRONT, ETC.
- C. FINAL CLEANING, PRIOR TO PUNCHLIST INSPECTION BROOM CLEAN ALL HARD SURFACE FLOORS, VACUUM ALL CARPETING AND WIPE DOWN ALL HORIZONTAL AND GLASS SURFACES PROVIDING A DUST FREE SURFACE.
- D. TEMPORARY PROTECTION IS REQUIRED TO MAINTAIN ONGOING BUILDING OPERATIONS, EXITING PATHS, DUST CONTROL AND OCCUPANT SAFETY. IDENTIFY THE REQUIREMENTS FOR TEMPORARY PROTECTION AND PROJECT PHASING. COORDINATE WITH OWNER FOR OTHER REQUIREMENTS.
- E. COORDINATE STARTUP AND ADJUSTING OF EQUIPMENT AND OPERATING COMPONENTS. START EQUIPMENT AND OPERATING COMPONENTS AND TEST TO CONFIRM PROPER OPERATION AND CONTROL. REMOVE MALFUNCTIONING UNITS, REPLACE WITH NEW UNITS. AND RETEST.
- F. CLOSEOUT DOCUMENTS, CERTIFICATE OF RELEASE FROM THE AUTHORITY OF JURISDICTION AND INSURANCE FOR CONTINUING COVERAGE, WARRANTIES, TEST & INSPECTION RESULTS AND OPERATION, EMERGENCY & MAINTENANCE MANUALS.
- 3. EXISTING CONDITIONS: REVIEW EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK AND REPORT DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.

#### 4. CONTRACT DOCUMENTS:

- A. PLANS, ELEVATIONS, SECTIONS, DETAILS AND SCHEDULES ARE COMPLEMENTARY. PLAN DRAWINGS WILL TAKE PRECEDENCE OVER ELEVATION, SECTION AND DETAILS DRAWINGS IN ANY CONFLICTS OF HORIZONTAL DIMENSIONS. DETAIL PLAN DRAWINGS WILL TAKE PRECEDENCE OVER LARGER SCALE PLANS IN ANY CONFLICTS WITH HORIZONTAL DIMENSIONS. WALL AND BUILDING SECTIONS WILL
- TAKE PRECEDENCE OVER PLAN DRAWING AND DETAILS IN ANY CONFLICTS WITH VERTICAL DIMENSIONS. DETAILS AND WALL SECTIONS WILL TAKE PRECEDENCE OVER ELEVATION AND PLAN DRAWINGS IN ANY CONFLICTS WITH MATERIAL DESCRIPTION. SCHEDULES WILL TAKE PRECEDENCE OVER OTHER ARCHITECTURAL DRAWINGS IN AND CONFLICTS WITH WALL, FLOOR AND CEILING FINISHES AND DOOR, DOOR HARDWARE AND FENESTRATION INFORMATION.
- B. DRAWINGS PREPARED BY THE ARCHITECT ARE INSTRUMENTS OF THE ARCHITECT'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND, UNLESS OTHERWISE PROVIDED, BERGMANN SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT.
- C. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.

#### FIELD CONDITIONS

- 1. REPAIR: EXISTING SURFACES TO REMAIN IMPACTED BY DEMOLITION TO MATCH EXISTING ADJACENT SURFACES.
- 2. DISCREPANCIES: NOTIFY ARCHITECT OF EXISTING DAMAGED OR DETERIORATED BUILDING ELEMENTS REVEALED DURING DEMOLITION OR CONSTRUCTION PRIOR TO PROCEEDING WITH ADDITIONAL WORK IN THE AREA.
- 3. HAZARDOUS MATERIALS: A PRE-DEMOLITION ASBESTOS SURVEY IS REQUIRED PRIOR TO DEMOLITION OF SUSPECT BUILDING MATERIALS IN ACCORDANCE WITH OSHA 29 DFR 1926.1101, AND USEPA 40 CRF 61.145. ALL SUSPECT ASBESTOS CONTAINING MATERIALS INCLUDING THERMAL SYSTEMS INSULATIONS AND SURFACING MATERIALS (PACM) UNLESS PROVEN OTHERWISE BY APPROPRIATE BULK SAMPLING AND LABORATORY ANALYSIS CONDUCTED BY APPROVED LICENSED COMPANIES AND PERSONNEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL REGULATIONS. THE OWNER IS REQUIRED TO PROVIDE COPIES OF ANY ASBESTOS SURVEYS OR ASBESTOS OPERATIONS AND MAINTENANCE PLANS THEY HAVE ON FILE AT THE REQUEST OF THE CONTRACTOR. A COMPLETE ASBETOS SURVEY FOR THE PROPOSED WORK TO BE PERFORMED IS THE RESPONSIBILITY OF THE BUILDING OWNER. BERGMANN DOES NOT WARRANT THE COMPLETENESS OF DOCUMENTS AND REPORTS PROVIDED BY OTHERS.

  NO EXEMPTION TO THE REQUIREMENT TO CONDUCT AN ASBESTOS SURVEY SHALL EXEMPT ANY PERSON, ASBESTOS CONTRACTOR,
- PROPERTY OWNER OR BUSINESS ENTITY FROM THE INSPECTION OR ASBESTOS SURVEY REQUIREMENTS OF EPA AND OSHA.

  4. SAFETY: FOLLOW THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR 1926.62, LEAD EXPOSURE IN CONSTRUCTION
- REGULATION. MATERIALS HAVING A CONCENTRATION EQUAL OR GREATER THAN 0.5% BY WEIGHT IN LEAD ARE CONSIDERED TO BE LEAD BASED. HOWEVER, OSHA CONSIDERS ANY AMOUNT OF LEAD ENCOUNTERED DURING CONSTRUCTION TO BE OF CONCERN. THE REGULATION STATES THAT THE EMPLOYER SHALL ASSURE THAT NO EMPLOYEE IS EXPOSED TO LEAD AT CONCENTRATIONS GREATER THAN FIFTY MICROGRAMS PER CUBIC METER OF AIR (50 MG/M^3) AVERAGED OVER AN 8-HOUR PERIOD. CONTRACTORS SHALL DETERMINE AND TAKE APPROPRIATE MEASURES IF THEY SUSPECT THE PRESENCE OF LEAD.

#### <u>FINISHES</u>

- A. GENERAL: FINISHED FLOORS EXTEND INTO TOE SPACES, UNDER CASEWORK ON LAB PROJECTS, CLOSETS, DOOR REVEALS AND SIMILAR OPENINGS.
- B. PRODUCTS:
- PRODUCTS:
   A. INSTALL MATERIALS USING MANUFACTURER'S APPROVED ADHESIVES AND METHODS, U.N.O.
- B. PAINT DESIGNATIONS INDICATE COLOR ONLY, REFER TO SPECIFICATION FOR FINISH TYPE.
- C. PROVIDE SELF LEVELING TROWELABLE UNDERLAYMENT WHERE REQUIRED TO OBTAIN FINISH MANUFACTURER'S REQUIRED SUBFLOOR CONDITION.
- D. PROVIDE THE REQUIRED TRANSITIONS BASED ON TYPES IDENTIFIED ON DRAWINGS AT EACH FINISH TRANSITION LOCATION.
- EXECUTION:
  A. ADHERE TO MATERIAL OR SYSTEM MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND TOLERANCES. ANY VARIATIONS FROM
- WRITTEN INSTALLATION AND INSTRUCTIONS MUST RECEIVE WRITTEN APPROVAL FROM THE MANUFACTURER AND MAINTAIN MANUFACTURER'S WARRANTIES.
- B. PRIOR TO STARTING THE INSTALLATION OF A MATERIAL OR SYSTEM, VERIFY THE SUBSTRATE IS WITHIN THE MANUFACTURER'S REQUIRED TOLERANCES AND REQUIRED CLEARANCES ARE PROVIDED. NOTIFY THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR AND DEIGN PROFESSIONAL IN WRITING WHEN THE SUBSTRATE IS NOT WITHIN MANUFACTURER'S TOLERANCE OR REQUIRED CLEARANCES ARE NOT PROVIDED. PROCEEDING WITH INSTALLATION SIGNIFIES ACCEPTANCE OF THE SUBSTRATE AND CLEARANCES.
- C. PROVIDE MANUFACTURER'S REQUIRED ENVIRONMENTAL TESTS FOR MOISTURE, VAPOR DRIVE, RELATIVE HUMIDITY AND TEMPERATURE TO VERIFY THESE ARE WITHIN THE MATERIAL MANUFACTURER'S TOLERANCE PRIOR TO INSTALLING MATERIALS.
- D. MATERIAL AND INSTALLATION SHALL CONFORM WITH LOCAL, STATE AND NATIONAL BUILDING CODES AND CONSTRUCTION STANDARDS ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

#### E. REQUIRED DOCUMENTATION:

- SAFETY DATA SHEETS.
   PROVIDE SAMPLES WHEN SPECIFICALLY REQUESTED IN THESE DOCUMENTS.
- 3. PROVIDE SHOP DRAWINGS OF MATERIALS AND SYSTEMS, WHICH WILL BE BUILT INTO AND MUST BE COORDINATED WITH OTHER CONSTRUCTION. SHOP DRAWINGS SHALL CONSIST OF PLAN, ELEVATION, SECTION VIEWS AND DETAILS AS REQUIRED TO COMMUNICATE FINAL APPEARANCE AND CONNECTION TO ADJOINING CONSTRUCTION.
- F. PROTECT ADJACENT SURFACES DURING WORK.
- G. REMOVE ADHESIVE OR PAINT SPOTS FROM FINISHED FLOORS, WALLS, GLASS OR OTHER SURFACES. FINISHES TO MEET OR EXCEED CODE REQUIREMENTS.
- H. FILL MINOR DRYWALL IRREGULARITIES WITH SPACKLING COMPOUND AND SAND TO A SMOOTH LEVEL SURFACE. EXERCISE CARE TO AVOID RAISING THE NAP OF PAPER.
- I. DO NOT PERFORM PAINTING AND OTHER FINISHING WORK UNDER CONDITIONS UNSUITABLE FOR EXECUTION OF PAINTING WORK. AIR SHALL BE FREE FROM DUST AND DIRT TO PREVENT LODGING OF FOREIGN MATTER IN FRESH PAINT. FLOORS TO BE BROOM CLEAN BEFORE PAINTING IS STARTED.
- J. EDGES OF PAINT ADJOINING OTHER COLORS OR MATERIALS TO BE SHARP AND CLEAN WITHOUT OVERLAP.
- K. WHENEVER NECESSARY TO OBTAIN REQUIRED RESULTS, REFINISH AN ENTIRE WALL RATHER THAN SPOT FINISHING WHERE A PORTION OF THE FINISH HAS BEEN DAMAGED OR IS UNSATISFACTORY.
- L. WHEN INSTALLING CARPET FOLLOW THE CARPET AND RUG INSTITUTE METHODS OF INSTALLATION AND MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
- M. WHEN INSTALLING TILE FOLLOW THE TILE COUNCIL OF NORTH AMERICA'S INSTALLATION SPECIFICATIONS AND MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
- N. CENTER FLOOR MATERIAL TRANSITIONS ON DOOR ABOVE.
- O. FLOOR MATERIAL TRANSITIONS SHALL OCCUR BELOW THE DOOR.

#### WALLS

#### A. DIMENSIONS:

- a. STUD WALLS ARE TO FACE OF STUD, UNLESS OTHERWISE INDICATED IN A.c. OR A.d. BELOW.
- b. MASONRY WALLS ARE TO FACE OF MASONRY.
- c. EXISTING CONSTRUCTION ARE TO FINISHED FACE OF CONSTRUCTION.

a. WALLS NOT INDICATED WITH A WALL TYPE SHALL BE TYPE M30.

HEADS & SOFFITS NOT EXTENDING FLOOR TO DECK.

d. WHERE NOTED AS "CLR" DIMENSIONS ARE TO FINISHED SURFACE AND ARE CRITICAL FOR ACCESSIBILITY REQUIREMENTS OR BUILT-IN FURNISHINGS.

#### TYPES:

- b. COLUMN ENCLOSURES, CHASES AND ENCLOSED UNINHABITABLE SPACES SHALL BE WALL TYPE M31, UNLESS NOTED OTHERWISE.
- c. BRACING: PROVIDE CHANNEL COLD ROLLED STEEL (CRSS) BRACING AT ALL METAL STUD WALLS. INSTALL TWO ROWS OF BRACING 4'-0" O.C. FOR WALLS UP TO 13'-0" HIGH.
- d. PROVIDE (2) #10-7/16" HEX HEAD SHEET METAL SCREWS AT EACH STUD/TRACK CONNECTION AT ALL WALLS, BULK
- e. PROVIDE DEFLECTION TRACK OR CLIP AT TOP OF METAL STUD WALLS THAT EXTEND TO THE UNDERSIDE OF STRUCTURAL MEMBERS OR FLOOR/ ROOF DECK.
- f. METAL STUD WALLS IN WHICH STUDS DO NOT EXTEND TO DECK ABOVE SHALL BE LATERALLY BRACED AT 45 DEGREES TO THE STRUCTURE ABOVE WITH 3 5/8" x 20 GA. STUDS @ 48" O.C. MAX., AND AT ENDS OF SUCH WALLS WHICH DO NOT INTERSECT OTHER WALLS.
- g. PROVIDE FULL HEIGHT DOUBLE STUDS AT DOOR AND WINDOW JAMBS.
- h. FIRE-RESISTANT JOINT SYSTEMS: AT FIRE-RESISTANT RATED WALLS, FLOORS OR FLOOR/CEILING ASSEMBLIES, AND ROOFS OR ROOF/CEILING ASSEMBLIES, PROVIDE AN APPROVED TESTED JOINT ASSEMBLY PROVIDING THE MINIMUM TIME AND TEMPERATURE RISE AT THE WALL, FLOOR, OR ROOF SUITABLE FOR THE CONSTRUCTION WHERE THE SYSTEM IS TO BE INSTALLED.
- i. THE BOTTOM EDGE OF GYPSUM WALL BOARD SHALL BE INSTALLED 3/8" ABOVE THE FLOOR AND SEALED AS NOTED IN WALL TYPES.

#### C. RATINGS:

- a. SMOKE WALLS AND SMOKE BARRIERS: SMOKE WALLS AND SMOKE BARRIERS MUST FORM A COMPLETE BARRIER TO LIMIT THE TRANSFER OF SMOKE, INCLUDING PERIMETER DETAILS, PENETRATIONS, AND AS REQUIRED BETWEEN WALLS AND DOOR JAMBS, OR SIDELIGHT FRAMES. THE MEMBRANE IS TO BE CONTINUOUS THROUGH ALL CONCEALED SPACES
- 1. RECESSED CABINETS, OUTLET BOXES, AND OTHER PENETRATIONS MUST BE SEALED
- 2. OPENINGS AROUND PENETRATIONS ARE TO BE SEALED.
- 3. ALL EXPOSED JOINTS, ANGLES, AND ABUTMENTS IN THE SYSTEM, INCLUDING FLOOR AND ABOVE CEILING MUST BE TAPED AND FINISHED.
- 4. SEAL THE INTERFACE BETWEEN WALLS AND DOOR JAMBS, OR SIDELIGHT FRAMES.
- b. FIRE WALLS AND FIRE BARRIERS: FIRE WALLS AND FIRE BARRIERS MUST BE SIMILARLY CONSTRUCTED AS A COMPLETE BARRIER TO RESIST THE SPREAD OF SMOKE AND FIRE. PENETRATIONS MUST BE SEALED AND LABELED WITH AN APPROVED FIRE RESISTANT JOINT SYSTEM. INSTALL A FIRE RESISTANT JOINT SYSTEM AT THE HEAD AND FLOOR CONDITION OF FIRE RATED WALLS AND BARRIERS.
- c. FIRE AND SMOKE WALL / BARRIER / WALLS LABELING: PROVIDE LABELS ABOVE ACOUSTIC CEILINGS IN LETTERS AT LEAST 2-INCHES IN HEIGHT AND NO MORE THAN 10-LINEAL FEET ALONG THE WALL. LABELS SHALL BE PLACED IN SUCH A MANNER AS TO BE OBVIOUS TO WORKERS IN THE CONCEALED SPACE ON BOTH SIDES OF THE WALL AND WILL READ AS FOLLOWS: "X" HR. FIRE [SMOKE] WALL [BARRIER] [WALL]. PENETRATIONS MUST BE FIRE [SMOKE] STOPPED." PROVIDE LABELING AT 12'-0" O.C. SPACING. ELECTRICAL, MECHANICAL OR PLUMBING PENETRATIONS THROUGH FIRE-RATED WALL OR FLOOR ASSEMBLIES SHALL BE SEALED WITH A U.L. APPROVED THROUGH-PENETRATION FIRESTOP SYSTEM APPROPRIATE FOR THE RATING OF THE WALL BEING PENETRATED. SUBMIT PROPOSED U.L. NUMBERS AND DETAILS TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- d. ACOUSTICAL WALLS: WALLS INDICATED WITH ACOUSTICAL BATT, AND/OR A GIVEN AN STC RATING, SHALL BE CONSTRUCTED TO MINIMIZE SOUND TRANSMISSION AS FOLLOWS:
- 1. PROVIDE ACOUSTICAL SEALANT AT ALL FLOOR AND HEAD LEVELS, EACH SIDE OF THE WALLS.
- 2. SET TRACK IN 3 CONTINUOUS BEADS OF ACOUSTICAL SEALANT.
- 3. EXTEND SOUND BATTS THOROUGH ANY INTERSECTING WALLS.
- 4. STAGGER OUTLETS A MINIMUM OF 24 INCHES HORIZONTAL. DO NOT INSTALL MORE THAN ONE OUTLET IN A COMMON STUD CAVITY. SEAL JOINTS AROUND OUTLETS WITH ACOUSTICAL SEALANT.
- D. GYPSUM BOARD WALL COMPONENTS AND ACCESSORIES:
- a. WALL TYPES DO NOT INDICATE FINAL FINISHES. REFER TO FINISH PLANS AND FINISH SCHEDULE.
- b. GYPSUM BOARD SHALL BE TYPE "X" FIRE RATED WITH:
- LEVEL 1 FINISH AT JOINTS WHICH WILL REMAIN CONCEALED. PROVIDE GALVANIZED STEEL CORNER BEADS AT CORNERS.
- 2. LEVEL 3 FINISH WHERE WALLS EXPOSED TO VIEW SCHEDULED FOR PAINT IN SERVICE SPACES (eg. TELE / DATA
- CLOSETS, MECHANICAL ROOMS, JANITOR CLOSETS, STORAGE ROOMS).

  3. LEVEL 4 FINISH WHERE EXPOSED TO VIEW UPON PROJECT COMPLETION U.N.O.
- 4. LEVEL 5 FINISH AT GRAPHIC CORRIDOR, AS WELL AS DRY ERASE AND CHALK BOARD PAINTED AREAS. REFER TO FINISH LOCATION ON PLANS, AND COORDINATE WITH DESIGNER IN THE FIELD.
- c. PROVIDE MOISTURE/ MOLD / ABUSE RESISTANT GYPSUM BOARD AT WALLS IN TOILET ROOMS, JANITORS CLOSETS AND
- ANY ROOM WHERE MOISTURE CONDITIONS WILL OCCUR AND NOT RECEIVING TILE FINISH.

  d. PROVIDE GLASS MATT GYPSUM BOARD AT WALLS DIRECTLY ADJACENT TO LIVING WALL ELEMENT AND AT ALL WET
- AREAS (SHOWER ROOMS, COMMUNAL KITCHEN/DISHWASHER, ETC.) GLASS MAT GYPSUM BOARD SHALL RECEIVE FIBERGLASS TAPE AND FINISH AS RECOMMENDED BY MANUFACTURER.

#### e. METAL TRIM:

- 1. EXPOSED METAL J-TRIM TO BE COMPLETELY COVERED WITH SKIM COAT
- 2. NON-METALIC J-TRIM OR OTHER SHAPES ARE NOT ACCEPTABLE, UNLESS OTHERWISE NOTED
- f. LOCATIONS WHERE GYPSUM BOARD WALLS TERMINATE AT DISSIMILAR MATERIALS, PROVIDE A FINISH-ABLE METAL END TRIM AND A 1/4" GAP BETWEEN TRIM AND ADJACENT MATERIAL. FILL GAP WITH BACKER ROD AND SEALANT.
- g. PROVIDE SOLID FIRE TREATED WOOD BLOCKING IN WALL AND CEILING CONSTRUCTION AS REQUIRED TO SUPPORT WALL MOUNTED MILLWORK AND CASEWORK, FURNISHINGS, RAILINGS, GRAB BARS, TOILET & BATH ACCESSORIES OR ANY OTHER WALL MOUNTED ITEMS INDICATED ON THESE DRAWINGS REQUIRING BLOCKING.
- h. PROVIDE PAPER FACED "L" SHAPED TAPE ON TRIM AT THE TOP OF ALL GYP. BD. THAT ABUTS SUSPENDED CEILINGS AND EXPOSED STRUCTURE.

#### E. CONTROL JOINTS: a. PROVIDE IN GYPSUM WALL BOARD CONSTRUCTION AS FOLLOWS:

- 1. PROVIDE CONTROL JOINTS IN EXPANSES OF WALLS AT MAXIMUM 25-FOOT INTERVALS, AND FULL HEIGHT. CONTROL JOINTS ARE RECOMMENDED AT DOOR JAMBS, EXTENDING FROM DOOR HEAD TO TOP OF WALL.
- 2. CONTROL JOINTS ARE REQUIRED IN CEILINGS TO LIMIT AREAS TO 2,500 SQUARE FEET. INSTALL CONTROL JOINTS IN CEILINGS TO LIMIT DIMENSIONS IN EITHER DIRECTION TO 50 FEET MAXIMUM WITH PERIMETER RELIEF, 30 FEET MAXIMUM OTHERWISE. INSTALL CONTROL JOINTS WHERE CEILING FRAMING OR FURRING CHANGES DIRECTION.
- 3. PROVIDE CONTROL JOINTS IN GYPSUM WALL BOARD WHERE THE UNDERLYING STRUCTURE CONTAINS A CONTROL OR MOVEMENT JOINT.
- 4. IN AN ACOUSTICALLY RATED ASSEMBLY, PROVIDE ACOUSTICALLY TESTED CONTROL JOINT ASSEMBLY WITH A STC RATING MINIMALLY EQUAL TO THE WALLS STC RATING. COORDINATE REQUIRED LOCATIONS ON FEATURE WALLS WITH DESIGNER IN THE FIELD. METAL TRIM: EXPOSED METAL OR NON-METALLIC J-MOLD IS NOT ACCEPTABLE.
- 5. PROVIDE CONTROL JOINTS AT ALL BUILDING CONTROL OR EXPANSION JOINTS.
- b. IN MASONRY WALLS, PROVIDE FULL HEIGHT CONTROL JOINTS AT MAXIMUM 30-FOOT INTERVALS. CONTROL JOINTS ARE RECOMMENDED AT DOOR JAMBS OF OPENINGS EXTENDING FULL HEIGHT OF WALL.



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## ORCHARD VIEW SCHOOL DISTRICT

## COMMUNITY EDUCATION CENTER

1765 ADA AVENUE MUSKEGON, MI 49442

Date Revised Description

11/10/2023 BID PACKAGE #2 - BIDS AND CONSTRUCTION

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GENERAL NOTES AND LEGENDS

Drawing Number

#### ALLOWANCES:

- A. AT THE EARLIEST PRACTICAL DATE AFTER AWARD OF THE CONTRACT, ADVISE ARCHITECT OF THE DATE WHEN FINAL SELECTION, OR PURCHASE AND DELIVERY, OF EACH PRODUCT OR SYSTEM DESCRIBED BY AN ALLOWANCE MUST BE COMPLETED BY THE OWNER TO AVOID DELAYING THE WORK.
- B. OBTAIN PROPOSALS FOR EACH ALLOWANCE FOR USE IN MAKING FINAL SELECTIONS. INCLUDE RECOMMENDATIONS THAT ARE RELEVANT TO PERFORMING THE WORK.
- C. SUBMIT PROPOSALS FOR PURCHASE OF PRODUCTS OR SYSTEMS INCLUDED IN ALLOWANCES IN THE FORM OF SPECIFIED FOR CHANGE ORDERS. THIS ALLOWANCE INCLUDES MATERIAL COST, RECEIVING, HANDLING, AND INSTALLATION AND CONTRACTOR OVERHEAD AND PROFIT.

#### UNIT PRICES:

- A. UNIT PRICE IS AN AMOUNT INCORPORATED INTO THE AGREEMENT, APPLICABLE DURING THE DURATION OF THE WORK AS A PRICE PER UNIT OF MEASUREMENT FOR MATERIALS, EQUIPMENT, OR SERVICES, OR A PORTION OF THE WORK, ADDED TO OR DEDUCTED FROM THE CONTRACT SUM BY APPROPRIATE MODIFICATION, IF THE SCOPE OF WORK OR ESTIMATED QUANTITIES OF WORK REQUIRED BY THE CONTRACT DOCUMENTS ARE INCREASED OR DECREASED.
- B. UNIT PRICES INCLUDE ALL NECESSARY MATERIAL, PLUS COST FOR DELIVERY, INSTALLATION, INSURANCE, OVERHEAD, AND PROFIT.
- C. MEASUREMENT AND PAYMENT: SEE QUANTITY ALLOWANCE FOR WORK THAT REQUIRES ESTABLISHMENT OF UNIT PRICES. UNITS OF MEASUREMENT AND PAYMENT FOR UNIT PRICES ARE LISTED IN THAT SECTION.
- D. OWNER RESERVES THE RIGHT TO REJECT CONTRACTOR'S MEASUREMENT OF WORK-IN-PLACE THAT INVOLVES USE OF ESTABLISHED UNIT PRICES AND TO HAVE THIS WORK MEASURED, AT OWNER'S EXPENSE, BY AN INDEPENDENT SURVEYOR ACCEPTABLE TO CONTRACTOR.
- E. UNIT PRICE NO. 1 QUANTITY ALLOWANCE NO. 1: PROVIDE COST PER UNIT LISTED FOR ADDING TO OR DEDUCTING FROM THE CONTRACT AMOUNT.

#### ALTERNATES:

- A. ALTERNATES ARE AN AMOUNT PROPOSED BY BIDDERS AND STATED ON THE BID PROM FOR CERTAIN WORK DEFINED IN THE BIDDING REQUIREMENTS THAT MAY BE ADDED TO OR DEDUCTED FROM THE BASE BID AMOUNT IF THE OWNER DECIDES TO ACCEPT A CORRESPONDING CHANGE EITHER IN THE AMOUNT OF CONSTRUCTION TO BE COMPLETED OR IN THE PRODUCTS, MATERIALS, EQUIPMENT, SYSTEMS, OR INSTALLATION METHODS DESCRIBED IN THE CONTRACT DOCUMENTS.
- B. INCLUDE AS PART OF EACH ALTERNATE, MISCELLANEOUS DEVICES, ACCESSORY OBJECTS, AND SIMILAR ITEMS INCIDENTAL TO OR REQUIRED FOR A COMPLETE INSTALLATION WHETHER INDICATED AS PART OF ALTERNATE. EXECUTE ACCEPTABLE ALTERNATES UNDER THE SAME CONDITIONS AS OTHER WORK OF THE CONTRACT.
- C. PROVIDE ALTERNATE PRICING AS FOLLOWS:
- a. ALTERNATE #1 (EXPOSED CORRIDOR PIPING)
- BASE BID SHALL MAINTAIN EXISTING PIPING IN MAIN CORRIDORS
- PROVIDE ADDED PRICING TO RELOCATE ALL EXPOSED PIPING, CONDUIT, AND WIRE MOLDING TO ABOVE NEW CEILING SYSTEM. IT WILL BE THE
  CONTRACTORS RESPONSIBILITY FOR MEANS AND METHODS OF REMOVING THE EXISTING BRACKETS AND PIPING FOR RELOCATION AND INSTALL
  ABOVE NEW CEILING SYSTEM. THE SYSTEM SHALL BE FULLY OPERATIONAL UPON RELOCATION. CONTRACTOR WILL NEED TO COORDINATE THIS
  EFFORT WITH ABOVE CEILING SYSTEMS AND MAINTAIN ACCESSIBILITY. GENERAL AREAS NOTED ON DRAWINGS ALTHOUGH THE CONTRACTOR

#### SUBSTITUTION PROCEDURES:

- A. SUBSTITUTIONS FOR CAUSE: CHANGES PROPOSED BY CONTRACTOR THAT ARE REQUIRED DUE TO CHANGED PROJECT CONDITIONS, SUCH AS UNAVAILABILITY OF PRODUCT, REGULATORY CHANGES, OR UNAVAILABILITY OF REQUIRED WARRANTY TERMS.
- B. SUBSTITUTIONS FOR CONVENIENCE: CHANGES PROPOSED BY CONTRACTOR OR OWNER THAT ARE NOT REQUIRED IN ORDER TO MEET OTHER PROJECT REQUIREMENTS BUT MAY OFFER ADVANTAGE TO CONTRACTOR OR OWNER. SUBSTITUTIONS FOR CONVENIENCE ARE ALLOWED ONLY BY APPROVAL OF THE OWNER OR OWNER'S AGENT.
- C. SUBMIT REQUEST FOR CONSIDERATION. IDENTIFY PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED. INCLUDE PRODUCT, MATERIAL OR SYSTEM NAME AND AFFECTED DRAWING NUMBERS AND TITLES.
- D. EXECUTE ACCEPTED SUBSTITUTIONS UNDER THE SAME CONDITIONS AS OTHER WORK OF THE CONTRACT.

SHALL BE RESPONSIBLE TO VERIFY EXISTING CONDITIONS FOR AN ACCURATE TAKE OFF.

E. DOCUMENTATION: SHOW COMPLIANCE WITH REQUIREMENTS FOR SUBSTITUTIONS AND THE FOLLOWING, AS APPLICABLE: 1. COST INFORMATION, INCLUDING A PROPOSAL OF CHANGE, IF ANY, IN THE CONTRACT SUM.

SPECIFIC FEATURES AND REQUIREMENTS INDICATED. INDICATE DEVIATIONS, IF ANY, FROM THE WORK SPECIFIED

- 2. CONTRACTOR'S CERTIFICATION THAT PROPOSED SUBSTITUTION COMPLIES WITH REQUIREMENTS IN THE CONTRACT DOCUMENTS, EXCEPT AS INDICATED IN SUBSTITUTION REQUEST, IS COMPATIBLE WITH RELATED MATERIALS AND IS APPROPRIATE FOR APPLICATIONS INDICATED.
- 3. STATEMENT INDICATING WHY SPECIFIED PRODUCT OR FABRICATION, OR INSTALLATION METHOD CANNOT BE PROVIDED, IF APPLICABLE.

PERFORMED BY OWNER AND SEPARATE CONTRACTORS THAT WILL BE NECESSARY TO ACCOMMODATE PROPOSED SUBSTITUTION.

- 4. COORDINATION OF INFORMATION, INCLUDING A LIST OF CHANGES OR REVISIONS NEEDED TO OTHER PARTS OF THE WORK AND TO CONSTRUCTION
- 5. PRODUCT DATA, INCLUDING DRAWINGS AND DESCRIPTIONS OF PRODUCTS AND FABRICATION AND INSTALLATION PROCEDURES. INCLUDE DETAILED COMPARISON OF SIGNIFICANT QUALITIES OF PROPOSED SUBSTITUTIONS WITH THOSE OF THE WORK SPECIFIED. SIGNIFICANT QUALITIES MAY INCLUDE ATTRIBUTES, SUCH AS PERFORMANCE, WEIGHT, SIZE, DURABILITY, VISUAL EFFECT, SUSTAINABLE DESIGN CHARACTERISTICS, WARRANTIES, AND
- 6. CONTRACTOR'S WAIVER OF RIGHTS TO ADDITIONAL PAYMENT OR TIME THAT MAY SUBSEQUENTLY BECOME NECESSARY BECAUSE OF FAILURE OF PROPOSED SUBSTITUTION TO PRODUCE INDICATED RESULTS.
- F. ARCHITECT'S ACTION: IF NECESSARY, ARCHITECT WILL REQUEST ADDITIONAL INFORMATION OR DOCUMENTATION FOR EVALUATION WITHIN 7 DAYS OF RECEIPT OF A REQUEST FOR SUBSTITUTION. ARCHITECT WILL NOTIFY CONTRACTOR OF ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTION WITHIN 14 DAYS OF RECEIPT OF REQUEST, OR 7 DAYS OF RECEIPT OF ADDITIONAL INFORMATION OR DOCUMENTATION.
- G. ARCHITECT WILL CONSIDER CONTRACTOR'S REQUEST FOR SUBSTITUTION WHEN THE LISTED REQUIREMENTS ARE SATISFIED. IF THE LISTED REQUIREMENTS ARE NOT SATISFIED, ARCHITECT WILL RETURN REQUESTS WITHOUT ACTION, EXCEPT TO RECORD NONCOMPLIANCE WITH LISTED
- H. FORMS OF ACCEPTANCE: CHANGE ORDER, CONSTRUCTION CHANGE DIRECTIVE, OR ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS FOR MINOR CHANGES IN THE WORK.

#### SUBMITTAL REQUIREMENTS:

- A. PREPARE SUBMITTAL SCHEDULE: SUBMIT, AS AN ACTION SUBMITTAL, A LIST OF SUBMITTALS, ARRANGED IN CHRONOLOGICAL ORDER BY DATES REQUIRED BY CONSTRUCTION SCHEDULE. INCLUDE TIME REQUIRED FOR REVIEW, ORDERING, MANUFACTURING, FABRICATION, AND DELIVERY WHEN ESTABLISHING DATES. INCLUDE ADDITIONAL TIME REQUIRED FOR MAKING CORRECTIONS OR REVISIONS TO SUBMITTALS NOTED BY ARCHITECT AND CONTRACTOR AND ADDITIONAL TIME FOR HANDLING AND REVIEWING SUBMITTALS REQUIRED BY THOSE CORRECTIONS.
- B. PREPARE AND SUBMIT SUBMITTALS AS INCLUDED IN THE SUBMITTAL SCHEDULED.
- C. EMAIL: PREPARE SUBMITTALS AS PDF PACKAGE AND TRANSMIT TO ARCHITECT BY SENDING VIA EMAIL. INCLUDE PDF TRANSMITTAL FORM. INCLUDE INFORMATION IN EMAIL SUBJECT LINE AS REQUESTED BY ARCHITECT.
- D. WEB-BASED PROJECT MANAGEMENT SOFTWARE: PREPARE SUBMITTALS IN PDF FORM, AND UPLOAD TO WEB-BASED PROJECT MANAGEMENT SOFTWARE WEBSITE. ENTER REQUIRED DATA IN WEB-BASED SOFTWARE SITE TO FULLY IDENTIFY SUBMITTAL.
- E. ACTION SUBMITTALS AND INFORMATIONAL SUBMITTALS: REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO ARCHITECT.
- F. USE FOR CONSTRUCTION: RETAIN COMPLETE COPIES OF SUBMITTALS ON PROJECT SITE. USE ONLY FINAL ACTION SUBMITTALS THAT ARE MARKED WITH APPROVAL NOTATION FROM ARCHITECT'S AND CONTRACTOR'S ACTION STAMP.
- G. SUBMITTAL INFORMATION: INCLUDE THE FOLLOWING INFORMATION IN EACH SUBMITTAL:

  1. PROJECT NAME, DATE AND INDICATION OF FULL OR PARTIAL SUBMITTAL.
- 2. ARCHITECT'S AND CONTRACTOR'S AND/OR CONSTRUCTION MANAGER'S, FIRM OR ENTITY THAT PREPARED SUBMITTAL AND SUBCONTRACTOR, MANUFACTURER, AND SUPPLIER NAMES.
- 3. NUMBER AND TITLE OF SPECIFICATION SECTION, WITH PARAGRAPH NUMBER AND GENERIC NAME FOR EACH OF MULTIPLE ITEMS
- 4. MATERIAL OR SYSTEM NAME AND DRAWING NUMBER AND DETAIL REFERENCES, AS APPROPRIATE.
- 5. IDENTIFY OPTIONS REQUIRING SELECTION BY ARCHITECT.
- 6. LOCATION(S) WHERE PRODUCT IS TO BE INSTALLED, AS APPROPRIATE AND OTHER NECESSARY INFORMATION.
- 7. ON EACH SUBMITTAL, CLEARLY INDICATE DEVIATIONS FROM REQUIREMENTS IN THE CONTRACT DOCUMENTS, INCLUDING MINOR VARIATIONS AND LIMITATIONS; INCLUDE RELEVANT ADDITIONAL INFORMATION AND REVISIONS, OTHER THAN THOSE REQUESTED BY ARCHITECT AND CONTRACTOR OR ON PREVIOUS SUBMITTALS. INDICATE BY HIGHLIGHTING ON EACH SUBMITTAL OR NOTING ON ATTACHED SEPARATE SHEET.
- H. INCOMPLETE SUBMITTALS ARE UNACCEPTABLE, WILL BE CONSIDERED NONRESPONSIVE, AND WILL BE RETURNED FOR RESUBMITTAL WITHOUT REVIEW.
- I. ARCHITECT'S ACTION: ARCHITECT WILL REVIEW INFORMATION OR DOCUMENTATION NOTIFY CONTRACTOR OF ACCEPTANCE REQUEST FOR MORE INFORMATION OR REJECTION WITHIN 14 DAYS OF RECEIPT. ARCHITECT WILL REVIEW RESUBMITTAL WITHIN 7 DAYS OF RECEIPT.
- J. SUBMITTALS NOT REQUIRED BY THE CONTRACT DOCUMENTS WILL BE RETURNED BY ARCHITECT WITHOUT ACTION.

#### QUALITY REQUIREMENTS:

- A. CONFLICTING STANDARDS AND OTHER REQUIREMENTS: IF COMPLIANCE WITH TWO OR MORE STANDARDS OR REQUIREMENTS IS SPECIFIED AND THE STANDARDS OR REQUIREMENTS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, INFORM THE ARCHITECT REGARDING THE CONFLICT AND OBTAIN CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK. REFER CONFLICTING REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING.
- B. PREPARE AND SUBMIT CERTIFIED WRITTEN REPORTS REQUIRED. INCLUDE THE FOLLOWING:
- 1. PROJECT TITLE AND NUMBER AND DATE OF ISSUE. RECORD OF TEMPERATURE AND WEATHER CONDITIONS AT TIME OF SAMPLE TAKING AND TESTING AND INSPECTION. NAME AND SIGNATURE OF LABORATORY INSPECTOR.
- 2. NAME, ADDRESS, TELEPHONE NUMBER, AND EMAIL ADDRESS OF TESTING AGENCY
- 3. DATES AND LOCATIONS OF SAMPLES AND TESTS OR INSPECTIONS.
- 4. TEST AND INSPECTION RESULTS AND AN INTERPRETATION OF TEST RESULTS. COMMENTS OR PROFESSIONAL OPINION ON WHETHER TESTED OR INSPECTED WORK COMPLIES WITH THE CONTRACT DOCUMENT REQUIREMENTS. RECOMMENDATIONS ON RETESTING AND REINSPECTING.
- C. MANUFACTURER QUALIFICATIONS: A FIRM EXPERIENCED IN MANUFACTURING PRODUCTS OR SYSTEMS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS. AS APPLICABLE, PROCURE PRODUCTS FROM MANUFACTURERS ABLE TO MEET QUALIFICATION REQUIREMENTS, WARRANTY REQUIREMENTS, AND TECHNICAL OR FACTORY-AUTHORIZED SERVICE REPRESENTATIVE REQUIREMENTS.
- D. FABRICATOR QUALIFICATIONS: A FIRM EXPERIENCED IN PRODUCING PRODUCTS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS.
- INSTALLER QUALIFICATIONS: A FIRM OR INDIVIDUAL EXPERIENCED IN INSTALLING, ERECTING, APPLYING, OR ASSEMBLING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT, WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
- F. TESTING AND INSPECTING AGENCY QUALIFICATIONS: AN NRTL, AN NVLAP, OR AN INDEPENDENT AGENCY WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT TESTING AND INSPECTION INDICATED, AS DOCUMENTED ACCORDING TO ASTM E329; AND WITH ADDITIONAL QUALIFICATIONS REQUIRED BY THE CONSTRUCTION DOCUMENTS; AND, WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION, THAT IS ACCEPTABLE TO AUTHORITIES.
- G. PRECONSTRUCTION TESTING: WHERE TESTING AGENCY IS INDICATED TO PERFORM PRECONSTRUCTION TESTING FOR COMPLIANCE WITH SPECIFIED REQUIREMENTS FOR PERFORMANCE AND TEST METHODS, COMPLY WITH THE FOLLOWING:
- CONTRACTOR RESPONSIBILITIES INCLUDE THE FOLLOWING: PROVIDE TEST SPECIMENS REPRESENTATIVE OF PROPOSED PRODUCTS AND CONSTRUCTION. SUBMIT SPECIMENS IN A TIMELY MANNER WITH SUFFICIENT TIME FOR TESTING AND ANALYZING RESULTS TO PREVENT DELAYING THE WORK. WHEN TESTING IS COMPLETE, REMOVE TEST SPECIMENS AND TEST ASSEMBLIES, AND MOCKUPS UNLESS NOTED OTHERWISE; DO NOT REUSE PRODUCTS ON PROJECT.
- 2. TESTING AGENCY RESPONSIBILITIES: SUBMIT A CERTIFIED WRITTEN REPORT OF EACH TEST, INSPECTION, AND SIMILAR QUALITY-ASSURANCE SERVICE TO ARCHITECT, CONTRACTOR. INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER TESTED AND INSPECTED WORK COMPLIES WITH OR DEVIATES FROM THE CONTRACT DOCUMENTS.
- H. MOCKUPS: BEFORE INSTALLING PORTIONS OF THE WORK REQUIRING MOCKUPS, BUILD MOCKUPS FOR EACH FORM OF CONSTRUCTION AND FINISH REQUIRED TO COMPLY WITH THE FOLLOWING REQUIREMENTS, USING MATERIALS INDICATED FOR THE COMPLETED WORK, TO SIZE AND LOCATION INDICATED. DEMONSTRATE THE PROPOSED RANGE OF AESTHETIC EFFECTS AND WORKMANSHIP. NOTIFY ARCHITECT, CONTRACTOR 7 DAYS IN ADVANCE OF DATES AND TIMES WHEN MOCKUPS WILL BE CONSTRUCTED AND ALLOW 7 DAYS FOR REVIEW AND APPROVAL. OBTAIN THE APPROVAL FROM ARCHITECT, CONTRACTOR BEFORE STARTING CORRESPONDING WORK, FABRICATION, OR CONSTRUCTION. MAINTAIN MOCKUPS DURING CONSTRUCTION IN AN UNDISTURBED CONDITION AS A STANDARD FOR JUDGING THE COMPLETED WORK. DEMOLISH AND REMOVE MOCKUPS WHEN DIRECTED UNLESS OTHERWISE INDICATED.

#### I. QUALITY CONTROL:

- 1. CONTRACTOR RESPONSIBILITIES: TESTS AND INSPECTIONS ARE CONTRACTOR'S RESPONSIBILITY. PERFORM ADDITIONAL QUALITY-CONTROL ACTIVITIES, WHETHER SPECIFIED OR NOT, TO VERIFY AND DOCUMENT THAT THE WORK COMPLIES WITH REQUIREMENTS. ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM QUALITY-CONTROL SERVICES. NOTIFY TESTING AGENCIES AT LEAST [72] HOURS IN ADVANCE OF TIME WHEN WORK THAT REQUIRES TESTING OR INSPECTION WILL BE PERFORMED. COOPERATE WITH AGENCIES AND REPRESENTATIVES PERFORMING REQUIRED TESTS, INSPECTIONS, AND SIMILAR QUALITY-CONTROL SERVICES, AND PROVIDE REASONABLE AUXILIARY SERVICES AS REQUESTED.
- 2. TESTING AGENCY RESPONSIBILITIES: COOPERATE WITH ARCHITECT AND CONTRACTOR IN PERFORMANCE OF DUTIES. PROVIDE QUALIFIED PERSONNEL TO PERFORM REQUIRED TESTS AND INSPECTIONS. INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER TESTED AND INSPECTED WORK COMPLIES WITH OR DEVIATES FROM REQUIREMENTS. NOTIFY ARCHITECT AND CONTRACTOR PROMPTLY OF IRREGULARITIES OR DEFICIENCIES OBSERVED IN THE WORK DURING PERFORMANCE OF ITS SERVICES.
- 3. CONTRACTOR AND TESTING AGENCY SHALL COORDINATE SEQUENCE OF ACTIVITIES TO ACCOMMODATE REQUIRED QUALITY-ASSURANCE AND QUALITY-CONTROL SERVICES WITH A MINIMUM OF DELAY AND TO AVOID NECESSITY OF REMOVING AND REPLACING CONSTRUCTION TO ACCOMMODATE TESTING AND INSPECTION.
- SPECIAL TESTS AND INSPECTIONS: OWNER WILL ENGAGE A QUALIFIED **TESTING AGENCY** OR **SPECIAL INSPECTOR** TO CONDUCT SPECIAL TESTS AND INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION AS THE RESPONSIBILITY OF OWNER AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS, AND AS FOLLOWS:
- 1. VERIFYING THAT MANUFACTURER MAINTAINS DETAILED FABRICATION AND QUALITY-CONTROL PROCEDURES AND REVIEWING THE COMPLETENESS AND ADEQUACY OF THOSE PROCEDURES TO PERFORM THE WORK.
- 2. NOTIFY ARCHITECT AND CONTRACTOR PROMPTLY OF IRREGULARITIES OR DEFICIENCIES OBSERVED IN THE WORK DURING PERFORMANCE OF ITS SERVICES.
- 3. SUBMITTING A CERTIFIED WRITTEN REPORT OF EACH TEST, INSPECTION, AND SIMILAR QUALITY-CONTROL SERVICE TO ARCHITECT AND CONTRACTOR WITH COPY TO CONTRACTOR AND TO AUTHORITIES HAVING JURISDICTION. SUBMIT A FINAL REPORT OF SPECIAL TESTS AND INSPECTIONS AT SUBSTANTIAL COMPLETION, WHICH INCLUDES A LIST OF UNRESOLVED DEFICIENCIES.
- 4. RETESTING AND REINSPECTING CORRECTED WORK.
- K. ALL RETESTING/REINSPECTING: REGARDLESS OF WHETHER ORIGINAL TESTS OR INSPECTIONS WERE CONTRACTOR'S RESPONSIBILITY OR THE OWNER'S SPECIAL INSPECTIONS, PROVIDE QUALITY-CONTROL SERVICES, INCLUDING RETESTING AND REINSPECTING, FOR CONSTRUCTION THAT REPLACED WORK THAT FAILED TO COMPLY WITH THE CONTRACT DOCUMENTS.

#### CONSTRUCTION WASTE MANAGEMENT:

- A. DEVELOP A WASTE MANAGEMENT PLAN AND SUBMIT PLAN FOR APPROVAL WITHIN 14 DAYS OF DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK.
- B. DISTRIBUTE AND IMPLEMENT APPROVED WASTE MANAGEMENT PLAN. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION, AND OTHER ITEMS AS REQUIRED TO IMPLEMENT WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
- C. TRAIN WORKERS, SUBCONTRACTORS, AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK.
- D. SITE ACCESS AND TEMPORARY CONTROLS: CONDUCT WASTE MANAGEMENT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. DESIGNATE AND LABEL SPECIFIC AREAS ON PROJECT SITE NECESSARY FOR SEPARATING MATERIALS THAT ARE TO BE SALVAGED AND RECYCLED.

#### CLOSEOUT PROCEDURES:

- A. CONTRACTOR'S LIST OF INCOMPLETE ITEMS: PREPARE AND SUBMIT A LIST OF ITEMS TO BE COMPLETED AND CORRECTED (CONTRACTOR'S "PUNCH LIST"), INDICATING THE VALUE OF EACH ITEM ON THE LIST AND REASONS WHY THE WORK IS INCOMPLETE.
- B. SUBMITTALS PRIOR TO SUBSTANTIAL COMPLETION: COMPLETE THE FOLLOWING A MINIMUM OF **10** DAYS PRIOR TO REQUESTING INSPECTION FOR DETERMINING DATE OF SUBSTANTIAL COMPLETION.

#### 1. SUBMIT A FINAL APPLICATION FOR PAYMENT.

- 2. CERTIFICATE OF INSURANCE: SUBMIT EVIDENCE OF FINAL, CONTINUING INSURANCE COVERAGE.
- 3. CERTIFIED LIST OF INCOMPLETE ITEMS: SUBMIT CERTIFIED COPY OF ARCHITECT'S SUBSTANTIAL COMPLETION INSPECTION LIST OF ITEMS TO BE COMPLETED OR CORRECTED (PUNCH LIST), ENDORSED AND DATED BY ARCHITECT. CERTIFIED COPY OF THE LIST SHALL STATE THAT EACH ITEM HAS BEEN COMPLETED OR OTHERWISE RESOLVED FOR ACCEPTANCE.
- 4. CERTIFICATES OF RELEASE: OBTAIN AND SUBMIT RELEASES FROM AUTHORITIES HAVING JURISDICTION, PERMITTING OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES. INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES, AND SIMILAR RELEASES.
- 5. SUBMIT CLOSEOUT SUBMITTALS AS REQUIRED, INCLUDING SPECIFIC WARRANTIES, WORKMANSHIP BONDS, MAINTENANCE SERVICE AGREEMENTS, FINAL CERTIFICATIONS, AND SIMILAR DOCUMENTS.
- 6. SUBMIT MAINTENANCE MATERIAL SUBMITTALS SPECIFIED IN INDIVIDUAL SECTIONS, INCLUDING TOOLS, SPARE PARTS, EXTRA MATERIALS, AND SIMILAR ITEMS, AND DELIVER TO LOCATION DESIGNATED BY OWNER OR OWNER'S AGENT. LABEL WITH MANUFACTURER'S NAME AND MODEL NUMBER
- 7. SUBMIT TESTING, ADJUSTING, AND BALANCING RECORDS.
- 8. SUBMIT CHANGEOVER INFORMATION RELATED TO OWNER'S OCCUPANCY, USE, OPERATION, AND MAINTENANCE.

#### C. FINAL CLEANING

- 1. EMPLOY EXPERIENCED WORKERS OR PROFESSIONAL CLEANERS FOR FINAL CLEANING. CLEAN EACH SURFACE OR UNIT TO CONDITION EXPECTED IN AN AVERAGE COMMERCIAL BUILDING CLEANING AND MAINTENANCE PROGRAM. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- USE CLEANING PRODUCTS THAT COMPLY WITH GREEN SEAL'S GS-37, OR IF GS-37 IS NOT APPLICABLE, USE PRODUCTS THAT COMPLY WITH THE CALIFORNIA CODE OF REGULATIONS MAXIMUM ALLOWABLE VOC LEVELS.
- CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS, AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES. RESTORE REFLECTIVE SURFACES TO THEIR ORIGINAL CONDITION.
- 4. VACUUM CARPET AND SIMILAR SOFT SURFACES, REMOVING DEBRIS AND EXCESS NAP; CLEAN ACCORDING TO MANUFACTURER'S RECOMMENDATIONS IF VISIBLE SOIL OR STAINS REMAIN.
- CLEAN TRANSPARENT MATERIALS, INCLUDING MIRRORS AND GLASS IN DOORS AND WINDOWS. REMOVE GLAZING COMPOUNDS AND OTHER NOTICEABLE, VISION-OBSCURING MATERIALS. POLISH MIRRORS AND GLASS, TAKING CARE NOT TO SCRATCH SURFACES.
- 6. CLEAN PLUMBING FIXTURES TO A SANITARY CONDITION, FREE OF STAINS, INCLUDING STAINS RESULTING FROM WATER EXPOSURE.

#### OPERATIONS AND MAINTENANCE DATA:

- A. SUBMIT EACH MANUAL IN FINAL FORM PRIOR TO REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION AND AT LEAST **10** DAYS BEFORE COMMENCING DEMONSTRATION AND TRAINING.
- B. CORRECT OR REVISE EACH MANUAL TO COMPLY WITH ARCHITECT'S COMMENTS. SUBMIT COPIES OF EACH CORRECTED MANUAL WITHIN 10 DAYS OF RECEIPT OF ARCHITECT'S COMMENTS AND PRIOR TO COMMENCING DEMONSTRATION AND TRAINING.
- C. SUBMIT ON DIGITAL MEDIA ACCEPTABLE TO ARCHITECT BY UPLOADING TO WEB-BASED PROJECT SOFTWARE SITE OR BY EMAIL TO ARCHITECT, IF WEB-BASED SOFTWARE IS NOT UTILIZED. ENABLE REVIEWER COMMENTS ON DRAFT SUBMITTALS.
- ELECTRONIC FILES: USE ELECTRONIC FILES PREPARED BY MANUFACTURER WHERE AVAILABLE. WHERE SCANNING OF PAPER DOCUMENTS IS REQUIRED, CONFIGURE SCANNED FILE FOR MINIMUM READABLE FILE SIZE.
- 2. BOOKMARK INDIVIDUAL DOCUMENTS BASED ON FILE NAMES. NAME DOCUMENT FILES TO CORRESPOND TO SYSTEM, SUBSYSTEM, AND EQUIPMENT NAMES USED IN MANUAL DIRECTORY AND TABLE OF CONTENTS. GROUP DOCUMENTS FOR EACH SYSTEM AND SUBSYSTEM INTO INDIVIDUAL COMPOSITE BOOKMARKED FILES, THEN CREATE COMPOSITE MANUAL, SO THAT RESULTING BOOKMARKS REFLECT THE SYSTEM, SUBSYSTEM, AND EQUIPMENT NAMES IN A READILY NAVIGATED FILE TREE. CONFIGURE ELECTRONIC MANUAL TO DISPLAY BOOKMARK PANEL ON OPENING FILE.
- D. ORGANIZATION OF MANUALS: UNLESS OTHERWISE INDICATED, ORGANIZE EACH MANUAL INTO A SEPARATE SECTION FOR EACH SYSTEM AND SUBSYSTEM, AND A SEPARATE SECTION FOR EACH PIECE OF EQUIPMENT NOT PART OF A SYSTEM. PROVIDE A TITLE PAGE AND TABLE OF CONTENTS.

#### 1. TITLE PAGE SHALL INCLUDE:

a. SUBJECT MATTER INCLUDED IN MANUAL.

USE A DEMONSTRATION PERFORMANCE-BASED TEST.

- b. DATE OF SUBMITTAL.c. NAME AND CONTACT INFORMATION FOR CONTRACTOR AND CONSTRUCTION MANAGER WHEN APPLICABLE.
- d. NAME AND CONTACT INFORMATION FOR CONTRACTOR AND CONSTRUCT
   d. NAME AND CONTACT INFORMATION FOR COMMISSIONING AUTHORITY.
- 2. EMERGENCY MANUAL: ASSEMBLE A COMPLETE SET OF EMERGENCY INFORMATION INDICATING PROCEDURES FOR USE BY EMERGENCY PERSONNEL AND BY OWNER'S OPERATING PERSONNEL FOR TYPES OF EMERGENCIES INDICATED.
- 3. SYSTEMS AND EQUIPMENT OPERATION MANUAL: ASSEMBLE A COMPLETE SET OF DATA INDICATING OPERATION OF EACH SYSTEM, SUBSYSTEM, AND PIECE OF EQUIPMENT NOT PART OF A SYSTEM. INCLUDE INFORMATION REQUIRED FOR DAILY OPERATION AND MANAGEMENT, OPERATING STANDARDS, AND ROUTINE AND SPECIAL OPERATING PROCEDURES.
- 4. SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS: ASSEMBLE A COMPLETE SET OF DATA INDICATING MAINTENANCE OF EACH SYSTEM, SUBSYSTEM, AND PIECE OF EQUIPMENT NOT PART OF A SYSTEM. INCLUDE MANUFACTURERS' MAINTENANCE DOCUMENTATION, PREVENTIVE MAINTENANCE PROCEDURES AND FREQUENCY, REPAIR PROCEDURES, WIRING AND SYSTEMS DIAGRAMS, LISTS OF SPARE PARTS, AND WARRANTY INFORMATION.
- 5. PRODUCT MAINTENANCE MANUAL: ASSEMBLE A COMPLETE SET OF MAINTENANCE DATA INDICATING CARE AND MAINTENANCE OF EACH PRODUCT, MATERIAL, AND FINISH INCORPORATED INTO THE WORK.

#### PROJECT RECORD DOCUMENTS:

- A. RECORD PRINTS: MAINTAIN ONE SET OF MARKED-UP PAPER COPIES OF THE CONTRACT DRAWINGS AND SHOP DRAWINGS, INCORPORATING NEW AND REVISED DRAWINGS AS MODIFICATIONS ARE ISSUED.
- B. MAINTAIN ONE COPY OF EACH SUBMITTAL DURING THE CONSTRUCTION PERIOD FOR PROJECT RECORD DOCUMENT PURPOSES.

POST CHANGES AND REVISIONS TO PROJECT RECORD DOCUMENTS AS THEY OCCUR; DO NOT WAIT UNTIL END OF PROJECT

C. RECORD DIGITAL DATA FILES: IMMEDIATELY BEFORE INSPECTION FOR CERTIFICATE OF SUBSTANTIAL COMPLETION, REVIEW MARKED-UP RECORD DOCUMENTS WITH ARCHITECT AND CONTRACTOR. WHEN AUTHORIZED, PREPARE A FULL SET OF CORRECTED DIGITAL DATA FILES OF THE CONTRACT DOCUMENTS. SEE OPERATIONS AND MAINTENANCE DATA SECTION ABOVE FOR SUBMISSION FORMAT REQUIREMENTS.

#### DEMONSTRATION AND TRAINING:

- A. FACILITATOR: CONTRACTOR OR CONSTRUCTION MANAGER SHALL PREPARE INSTRUCTION PROGRAM AND TRAINING MODULES, TO COORDINATE INSTRUCTORS, AND TO COORDINATE BETWEEN CONTRACTOR AND OWNER FOR NUMBER OF PARTICIPANTS, INSTRUCTION TIMES, AND LOCATION.
- B. ENGAGE QUALIFIED INSTRUCTORS TO INSTRUCT OWNER'S PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN SYSTEMS, SUBSYSTEMS, AND EQUIPMENT NOT PART OF A SYSTEM.
- C. PROVIDE INSTRUCTION AT MUTUALLY AGREED-ON TIMES. FOR EQUIPMENT THAT REQUIRES SEASONAL OPERATION, PROVIDE SIMILAR INSTRUCTION AT START OF EACH SEASON.
- D. TRAINING LOCATION AND REFERENCE MATERIAL: CONDUCT TRAINING ON-SITE IN THE COMPLETED AND FULLY OPERATIONAL FACILITY USING THE ACTUAL EQUIPMENT IN-PLACE. CONDUCT TRAINING USING FINAL OPERATION AND MAINTENANCE DATA SUBMITTALS.
- F. COLLECT USED AND LEFTOVER EDUCATIONAL MATERIALS AND **GIVE TO OWNER**. REMOVE INSTRUCTIONAL EQUIPMENT. RESTORE SYSTEMS AND EQUIPMENT TO CONDITION EXISTING BEFORE INITIAL TRAINING USE.

E. EVALUATION: AT CONCLUSION OF EACH TRAINING MODULE, ASSESS AND DOCUMENT EACH PARTICIPANT'S MASTERY OF MODULE BY

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Project Manager Discipline Lead

D HOLTROP B HUYLER

Designer Reviewer

E POST D HOLTROP

Date Issued Project Number

11/10/2023 16600.00

Sheet Name

GENERAL REQUIREMENTS

Drawing Number

#### PAINT SPECIFICATION

- A. BASIS OF DESIGN MANUFACTURER: SHERWIN WILLIAMS. ALSO ACCEPTABLE: BENJAMIN MOORE AND PPG PAINTS
- B. INTERIOR PAINT SYSTEMS:
- a. GYPSUM BOARD AND PLASTER: NEW & PREVIOUSLY PAINTED. PRIMER: PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER, B28 SERIES
- INTERMEDIATE COAT: MATCH TOPCOAT TOPCOAT: PROMAR 200 ZERO VOC INTERIOR LATEX EG-SHEL, B20
- b. CMU: PREVIOUSLY PAINTED LOXON CONCRETE AND MASONRY PRIMER LX02 SERIES
- INTERMEDIATE COAT: MATCH TOPCOAT TOPCOAT: PROMAR 200 ZERO VOC INTERIOR LATEX EG-SHEL, B20
- c. CMU: GLAZED MASONRY
- EXISTING SURFACE SHALL BE CLEAN, DRY, DULL, AND SOUND. LIGHT ABRASION OF SURFACE IF POSSIBLE
- PRIMER: EXTREME BOND PRIMER, B51 SERIES
- 1. 3.1 MILS WET, EQUATES TO 1 MIL DRY
- ADHESION TEST: USE PRINCIPLES OF ASTM D3359 AFTER MIN 7 DAY CURE TIME OF PRIMER TO ENSURE 90% OF COATING CONTINUES TO ADHERE,
- CONTACT COATINGS MANUF FOR ASSISTANCE AS NEEDED INTERMEDIATE COAT: TO MATCH TOP COAT
- TOPCOAT:PRO INDUSTRIAL PRE CATALYZED WATERBASED EPOXY EG-SHEL, K45 SERIES
- 1. 4 MILS WET, EQUATES TO 1.5 MILS DRY PROVIDE MOCKUP IN LOCATION COORDINATED WITH ARCHITECT. SEE MOCKUP REQUIREMENTS ON A002
- d. HOLLOW METAL FRAMES AND DOORS
- PRO INDUSTRIAL PRO CRYL UNIVERSAL PRIMER, B66 SERIES.
- INTERMEDIATE COAT: MATCH TOPCOAT TOPCOAT: PRO INDUSTRIAL PRE CATALYZED WATERBASED EPOXY EG-SHEL,
- K45 SERIES
- e. CERAMIC WALL TILE
- EXISTING SURFACE SHALL BE CLEAN, DRY, DULL, AND SOUND, LIGHT
- ABRASION OF SURFACE IF POSSIBLE PRIMER: EXTREME BOND PRIMER, B51 SERIES
- 1. 3.1 MILS WET, EQUATES TO 1 MIL DRY ADHESION TEST: USE PRINCIPLES OF ASTM D3359 AFTER MIN 7 DAY CURE
- TIME OF PRIMER TO ENSURE 90% OF COATING CONTINUES TO ADHERE. CONTACT COATINGS MANUF FOR ASSISTANCE AS NEEDED
- INTERMEDIATE COAT: TO MATCH TOPCOAT TOPCOAT: PRO INDUSTRIAL PRE CATALYZED WATERBASED EPOXY EG-SHEL, K45 SERIES
- 1. 4 MILS WET, EQUATES TO 1.5 MILS DRY PROVIDE MOCKUP IN LOCATION COORDINATED WITH ARCHITECT. SEE
- MOCKUP REQUIREMENTS ON A002 f. WOOD: PREVIOUSLY PAINTED (FRAMES AND DOORS)
- PRIMER: PREPRITE PROBLOCK LATEX, B51 SERIES
- INTERMEDIATE COAT: MATCH TOPCOAT TOPCOAT: PROMAR 200 ZERO VOC INTERIOR LATEX EG-SHEL, B20
- C. EXTERIOR PAINT SYSTEMS:
- PRIMER: LOXON CONCRETE AND MASONRY PRIMER, LX02 SERIES INTERMEDIATE COAT: TO MATCH TOPCOAT
- TOPCOAT: A-100 EXTERIOR ACRYLIC LATEX SATIN, A82 SERIES
- b. WOOD TRIM:
- PRIMER: EXTERIOR LATEX WOOD PRIMER, B42 SERIES INTERMEDIATE COAT: TO MATCH TOPCOAT
- TOPCOAT: A-100 EXTERIOR ACRYLIC LATEX SATIN, A82 SERIES
- c. HOLLOW METAL:
  - PRIMER: PRO INDUSTRIAL PRO CRYL UNIVERSAL PRIMER, B66 SERIES INTERMEDIATE COAT: TO MATCH TOPCOAT
- TOPCOAT: PRO INDUSTRIAL WATERBASED ALKYD URETHANE ENAMEL SEMI-GLOSS, B53
- d. STANDING SEAM METAL:
- PREP: REMOVE ALL LOOSE RUST
- PRIMER: PRO INDUSTRIAL PRO CRYL UNIVERSAL PRIMER, B66 SERIES INTERMEDIATE COAT: TO MATCH TOPCOAT
- TOPCOAT: PRO INDUSTRIAL ACRYLIC SEMI-GLOSS, B66 SERIES
- e. T111 WOOD SIDING:
- PRIMER: EXTERIOR LATEX WOOD PRIMER, B42 SERIES INTERMEDIATE COAT: TO MATCH TOPCOAT
- TOPCOAT: A-100 EXTERIOR ACRYLIC LATEX SATIN, A82 SERIES
- D. COLORS: REFER TO BASIS OF DESIGN AND FINISH SCHEDULE

#### **SPECIFICATIONS:**

#### ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

- A. MANUFACTURER: TUBELITE OR APPROVED COMPARABLE MANUFACTURER AND PRODUCT.
- B. PRODUCTS:
- a. TYPE A: TUBELITE T14000 (4-1/2" DEPTH FRAME).
- C. FRAMING MEMBERS: EXTERIOR FRAMING TO BE THERMALLY BROKEN.
- D. FINISH: EXTERIOR TO BE COLOR ANODIC FINISH AAMA 611, AA-M12C22A42/A44, CLASS 1, MINIMUM 0.7 MIL THICKNESS, DARK BRONZE.
- E. INFILL: 1" AT EXTERIOR.
- F. FABRICATION METHOD: FIELD FABRICATED STICK SYSTEM.

#### 2. ALUMINUM FRAMED OPERABLE WINDOWS

- A. MANUFACTURER: TUBELITE OR APPROVED COMPARABLE MANUFACTURER AND PRODUCT.
- B. PRODUCT: CW3700 PROJECT OUT CASEMENT WINDOW.
- C. FRAMING MEMBERS: EXTRUSIONS ARE 2" IN DEPTH WITH 2-3/4" SIGHTLINE. FRAMES HAVE SCREW-SPLINE CONNECTIONS, MITERED
- D. FINISH: COLOR ANODIC FINISH AAMA 611, AA-M12C22A42/A44, CLASS 1, MINUMIM 0.7 MIL THICKNESS, DARK BRONZE.
- E. HARDWARE: HEAVY DUTY SURFACE HINGES AND ROTO-CRANK OPERATED. EMERGENCY EGRESS HINGE HARDWARE.
- F. SCREENS: FIBERGLASS WITH ALUMINUM FRAME, FINISH TO MATCH WINDOWS
- G. INFILL: 1" AT EXTERIOR.

#### 3. POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

- A. MANUFACTURER: DRYVIT SYSTEMS, INC, STO CORP, OR APPROVED COMPARABLE MANUFACTURER AND PRODUCTS.
- B. EIFS MATERIALS:
- a. INSULATION ADHEDIVE: EIFS MANUFACTURER'S STANDARD FORMULATION DESIGNED FOR INDICATED USE; COMPATIBLE WITH
- b. MOLDED, (EXPANDED) RIGID CELLULAR POLYSTYRENE BOARD INSULATION: COMPLY WITH ASTM E 2430/E 2430M c. REINFORCING MESH: BALANCED, ALKALI-RESISTANT, OPEN-WEAVE, GLASS FIBER MESH TREATED FOR COMPATABILITY WITH OTHER
- EIFS MATERIALS, MADE FROM CONTINUOUS MULTI-END STRANDS WITH RETAINED MESH TENSILE STRENGTH OF NOT LESS THAN 120 LBF/IN. ACCORDING TO ASTM E 2090/E 2098M.
- HEAVYDUTY MESH SUCH AS PANZER 15 OR APPROVED COMPARABLE PRODUCT.
- d. BASE COAT: EIFS MANUFACTURER'S STANDARD MIXTURE, ONE-COMPONENT, POLYMER-MODIFIED, CEMENT BASED MATERIAL. e. PRIMER: EIFS MANUFACTURER'S STANDARD FACTORY-MIXED, ELASTOMERIC-POLYMER PRIMER FOR PREPARING BASE-COAT
- SURFACE FOR APPLICATION OF FINISH COAT.
- f. FINISH COAT: EIFS MANUFACTURER'S STANDARD ACRYLIC-BASED COATING.
- COLORS: MATCH ARCHITECT'S SAMPLE TEXTURES: MATCH EXISTING.
- g. TRIM ACCESSORIES: TYPE AS DESIGNATED OR REQUIRED TO SUIT CONDITIONS INDICATED AND TO COMPLY WITH EIFS MANUFACTURER'S WRITTEN INSTRUCTIONS.
- CASING BEAD: PREFABRICATED, ONE-PIECE TYPE FOR ATTACHMENT BEHIND INSULATION, OF DEPTH REQUIRED TO SUIT
- THICKNESS OF COATING AND INSULATION, WITH FACE LEG PERFORATED FOR BONDING TO COATING AND BACK LEG. DRIP SCREEN/TRACK: PREFABRICATED, ONE-PIECE TYPE FOR ATTACHMENT BEHIND INSULATION, WITH FACE LEG EXTENDED TO
- FORM A DRIP, OF DEPTH REQUIRED TO SUIT THICKNESS OF COATING AND INSULATION, WITH FACE LEG PERFORATED FOR BONDING TO COATING AND BACK LEG.
- EXPANSION JOINT: CLOSED-CELL POLYETHYLENE BACKER ROD AND ELASTOMERIC SEALANT, 3/4" MINIMUM.
- WINDOWSILL FLASHING: PREFABRICATED TYPE FOR BOTH FLASHING AND SLOPING SILL OVER FRAMING BENEATH WINDOWS; WITH END AND BACK DAMS; DESIGNED TO DIRECT WATER TO EXTERIOR.

#### 4. ALUMINUM DOORS

- A. MANUFACTURER: SPECIAL-LITE, INC. OR APPROVED COMPARABLE MANUFACTURER AND PRODUCTS.
- B. PRODUCT: SL-16 ALUMINUM FLUSH DOOR
- a. DOOR SIZE: SEE DOOR SCHEDULE.
- b. FACE SHEET: STANDARD INTERIOR AND EXTERIOR 0.062" THICK SMOOTH ALUMINUM SHEET.
- C. FINISHES: ALUMINUM
- a. ANODIZING: CLAS 1 ANODIZING, MINIMUM 0,7 MILS THICK COLOR: DARK BRONZE
- 1. CONFIRM COLOR MATCH WITH ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

#### 5. **GLAZING**

- A. INSULATED GLASS VISION
- a. CONFORMANCE: ASTM E 2190.
- b. BASIS OF DESIGN: GUARDIAN GLASS, SUNGUARD SN 68. c. OVERALL THICKNESS: 1 INCH.
- d. MINIMUM THICKNESS OF EACH GLASS LITE: 6 MM. e. OUTDOOR LITE: HEAT-STRENGHTENED FLOAT GLASS.
- f. INTERSPACE CONTENT: AIR OR ARGON AS REQUIRED TO MEET SPECIFIED U-FACTOR. a. INDOOR LITE: CLEAR FLOAT GLASS.
- n. LOW-E COATING: SPUTTERED ON NO. 2 SURFACE.
- i. WINTER NIGHTTIME U-FACTOR: 0.29 MAXIMUM.
- SUMMER DAYTIME U-FACTOR: 0.28 MAXIMUM. . VISIBLE LIGHT TRANSMITTANCE: 68 PERCENT
- I. LOCATIONS: EXTERIOR UNLESS OTHERWISE INDICATED.
- B. INSULATED GLASS SPANDREL a. CONFORMANCE: ASTM E 2190.
- b. BASIS OF DESIGN: GUARDIAN GLASS, SUNGUARD SN 68. c. OVERALL THICKNESS: 1 INCH.
- d. MINIMUM THICKNESS OF EACH GLASS LITE: 6 MM. e. OUTDOOR LITE: HEAT-STRENGHTENE FLOAT GLASS.
- f. INTERSPACE CONTENT: AIR OR ARGON AS REQUIRED TO MEET SPECIFIED U-FACTOR. g. INDOOR LITE: CLEAR FLOAT GLASS. n. LOW-E COATING: SPUTTERED ON NO. 2 SURFACE.
- i. GUARDIAN DECO HT IN WARM GRAY ON NO. 4 SURFACE. j. LOCATIONS: EXTERIOR WHERE INDICATED.

#### 6. **HARDWARE SETS**

- A. HARDWARE SET #1 (DOOR 119)
- a. (1) CONT. HINGE; CATALOG NUMBER 112HD; FINISH 313AN; MFR IVE b. (1) PANIC HARDWARE; CATALOG NUMBER 98-EO; FINISH 313; MFR VON
- c. (1) SURFACE CLOSER; CATALOG NUMBER 4040XP-SCUSH; FINISH 695; MFR LCN
- d. (1) CUSH SHOE SUPPORT; CATALOG NUMBER 4040XP-30; FINISH 695; MFR LCN e. (1) BLADE STOP SPACER; CATALOG NUMBER 4040XP-61; FINISH 695; MFR LCN
- f. (1) DOOR SWEEP; CATALOG NUMBER 8192D; FINISH D; MFR ZER
- g. (1) THRESHOLD; CATALOG NUMBER 655A; FINISH A; MFR ZER WEATHERSTRIP BY DOOR/FRAME MANUFACTURER



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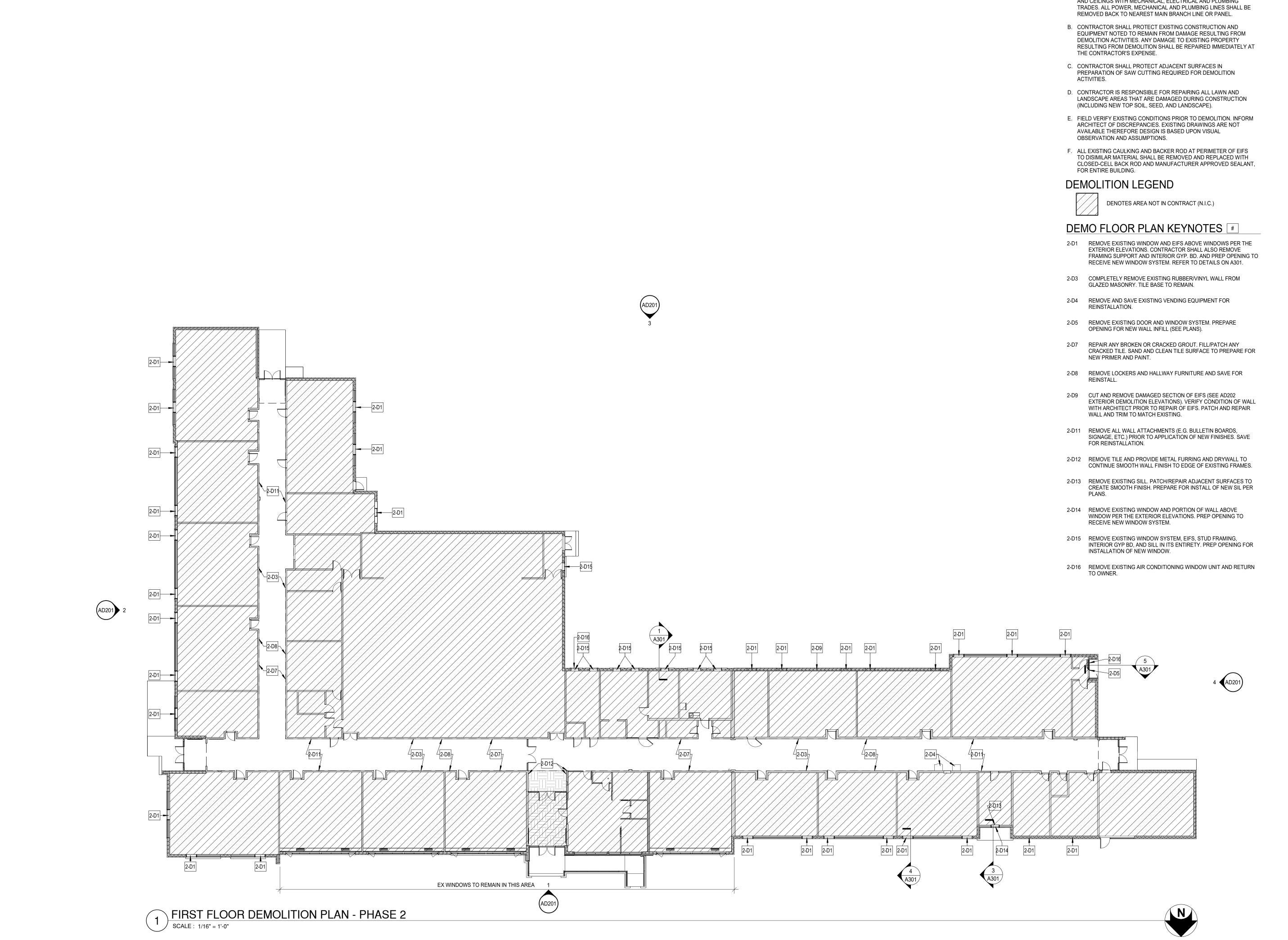
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Project Manager Discipline Lead **B HUYLER** D HOLTROP Designer Reviewer E POST D HOLTROP Date Issued **Project Number** 16600.00 11/10/2023

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**SPECIFICATIONS** 





A. CONTRACTOR SHALL COORDINATE REMOVAL OF FLOORS, WALLS AND CEILINGS WITH MECHANICAL, ELECTRICAL AND PLUMBING



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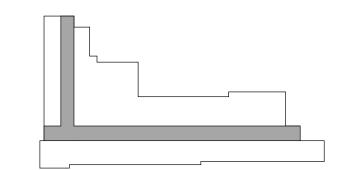
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Project Manager Discipline Lead B HUYLER Designer Reviewer **B HUYLER** Date Issued Project Number 16600.00

Sheet Name

FIRST FLOOR DEMOLITION PLAN

**Drawing Number** 

**AD101** 

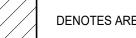
#### DEMO CEILING PLAN KEYNOTES #

- 2-D1 REMOVE EXISTING LIGHTING, ACOUSTICAL CEILING SYSTEM, GRID, AND HANGERS. SALVAGE ATTACHED EQUIPMENT (I.E. CAMERAS, SPEAKERS, ETC) FOR REINSTALLATION.
- 2-D2 CUT BACK AND REMOVE EXISTING CEILING AS REQUIRED FOR NEW B. CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION AND
- 2-D3 REMOVE EXISTING LIGHTING, 1X1 GLUE ON CEILING TILE, AND PLASTER BACK UP CEILING SYSTEM INCLUDING ALL HANGER SUPPORTS. EXISTING CONDUIT AND RACEWAY TO BE SUPPORTED DURING CEILING REMOVAL. REFER TO ALTERNATE #1.
- 2-D4 REMOVE EXISTING BULKHEAD AND ASSOCIATED FRAMING AT CEILING TRANSITION. PATCH ADJACENT WALLS AS REQUIRED TO RECEIVE NEW WALL FINISH.
- 2-D5 ALL CONDUIT/WIRE MOULD WHICH CROSSES THE EXISTING CEILING TO BE RELOCATED ABOVE NEW CEILING. SEE PLANS. CONDUIT/WIRE MOULD AT PERIMETER OF CEILING TO RECEIVE TEMPORARY SUPPORTS AS REQUIRED AND REMAIN IN LOCATION (REFER TO ALTERNATE #1).
- 2-D6 REFER TO ALTERNATE #1 FOR EXISTING EXPOSED PIPING LOCATIONS AND EXPOSED CONDUIT/WIRE MOLDING. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXPOSED LOCATIONS. DEMO DRAWINGS ARE FOR REFERENCE ONLY. EXISTING SITE TAKE OFF IS REQUIRED.
- 2-D7 REMOVE EXISTING GYP BD CEILING AND ANY SUPPORTS. PREPARE AREA FOR NEW ACT CEILING.
- 2-D8 VERIFY ALL EX CAMERA AND SPEAKER LOCATIONS TO BE REMOVED AND REINSTALLED AFTER NEW CEILING INSTALLATION,
- 2-D9 COMPLETELY REMOVE EXISTING OFFICE SIGN.
- 2-D10 BULKHEAD TO REMAIN. PREP TO RECEIVE NEW PAINT PER PLANS.

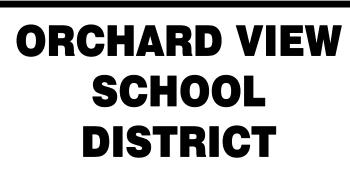
#### GENERAL DEMOLITION NOTES

- A. CONTRACTOR SHALL COORDINATE REMOVAL OF FLOORS, WALLS AND CEILINGS WITH MECHANICAL, ELECTRICAL AND PLUMBING TRADES. ALL POWER, MECHANICAL AND PLUMBING LINES SHALL BE REMOVED BACK TO NEAREST MAIN BRANCH LINE OR PANEL.
- EQUIPMENT NOTED TO REMAIN FROM DAMAGE RESULTING FROM DEMOLITION ACTIVITIES. ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM DEMOLITION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROTECT ADJACENT SURFACES IN PREPARATION OF SAW CUTTING REQUIRED FOR DEMOLITION ACTIVITIES.
- D. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL LAWN AND LANDSCAPE AREAS THAT ARE DAMAGED DURING CONSTRUCTION (INCLUDING NEW TOP SOIL, SEED, AND LANDSCAPE).
- E. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. INFORM ARCHITECT OF DISCREPANCIES. EXISTING DRAWINGS ARE NOT AVAILABLE THEREFORE DESIGN IS BASED UPON VISUAL OBSERVATION AND ASSUMPTIONS.
- F. ALL EXISTING CAULKING AND BACKER ROD AT PERIMETER OF EIFS TO DISIMILAR MATERIAL SHALL BE REMOVED AND REPLACED WITH CLOSED-CELL BACK ROD AND MANUFACTURER APPROVED SEALANT, FOR ENTIRE BUILDING.

#### DEMOLITION LEGEND



DENOTES AREA NOT IN CONTRACT (N.I.C.)



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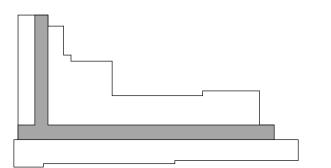
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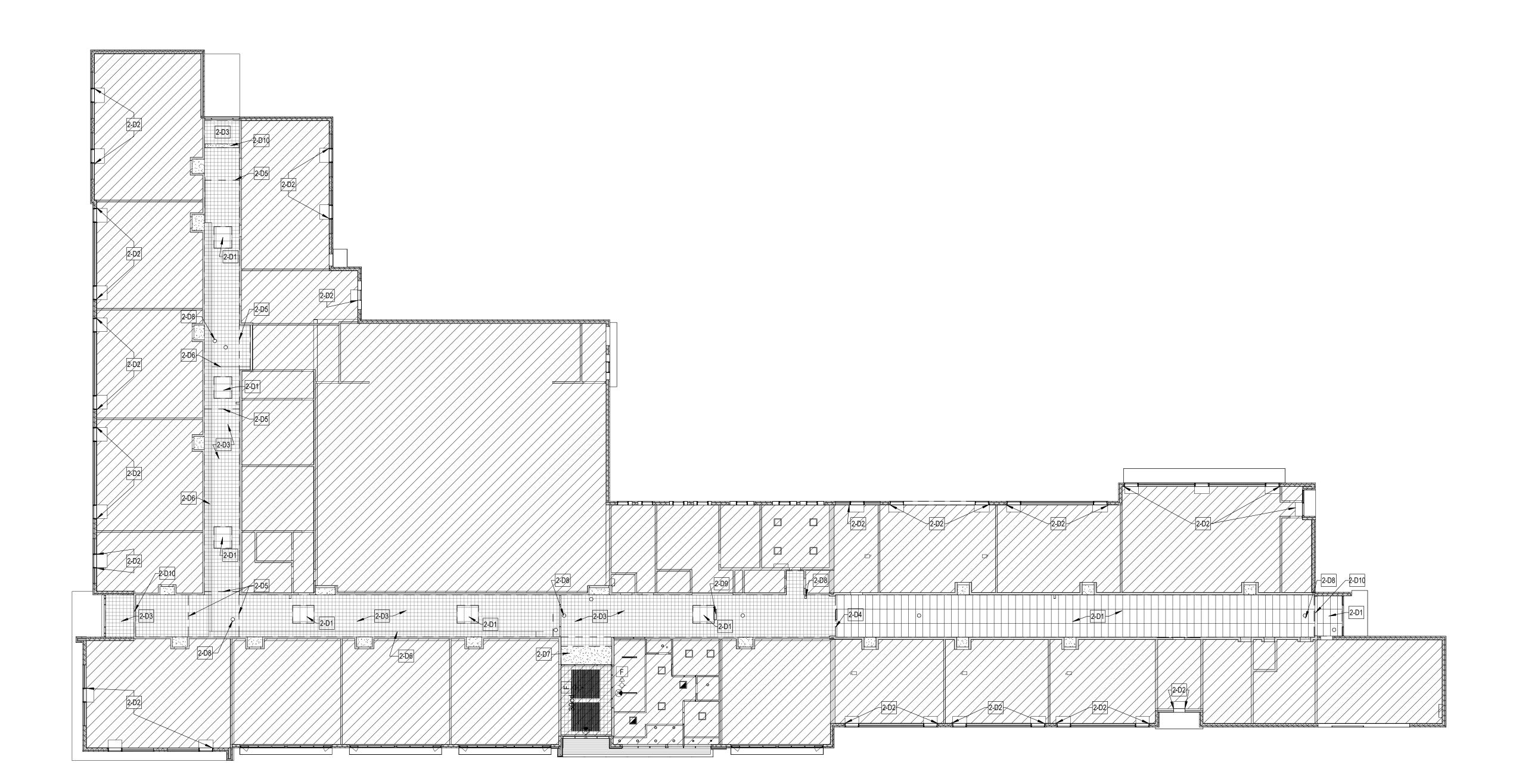
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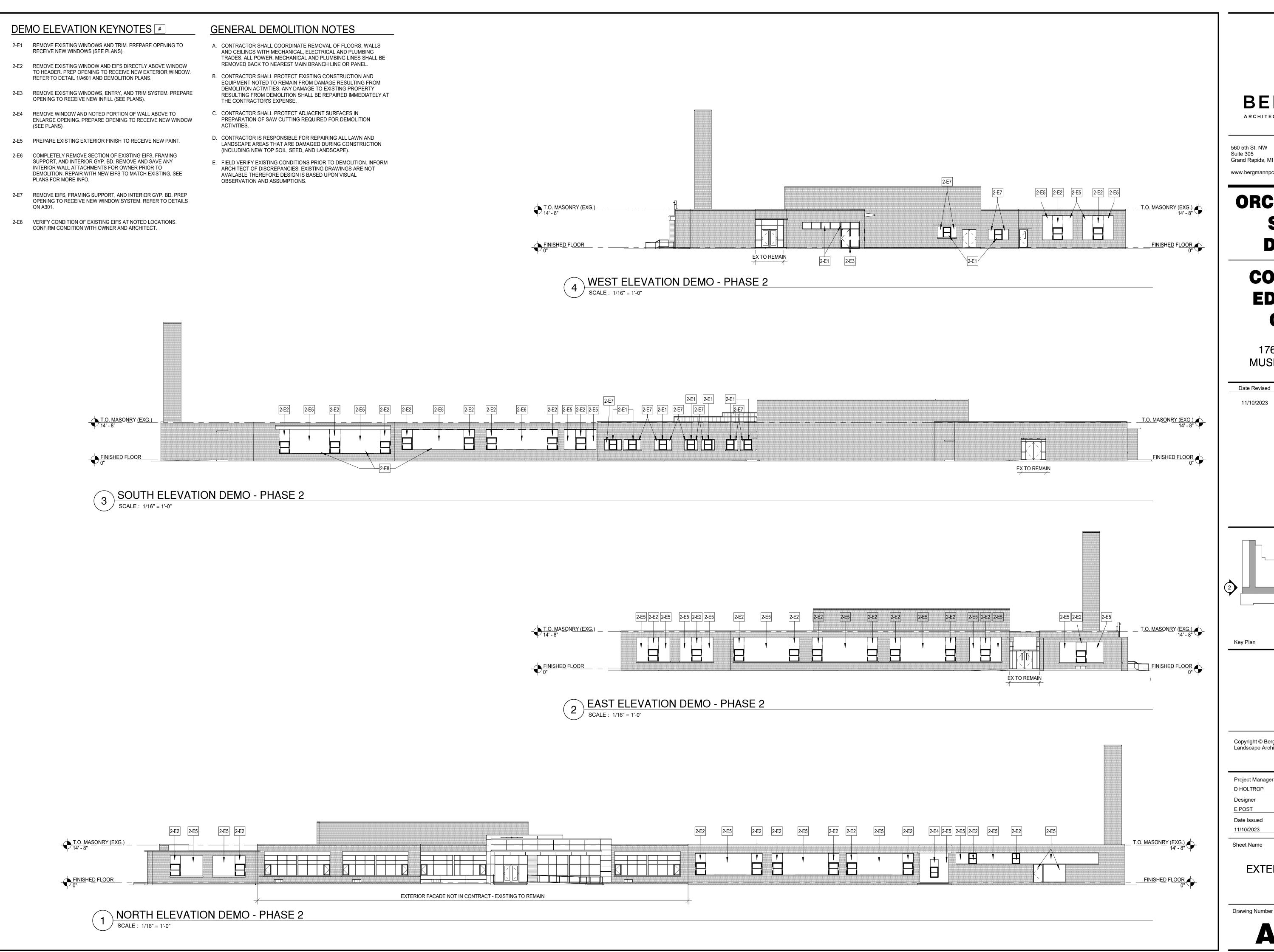
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FIRST FLOOR DEMOLITION **CEILING PLAN** 

**Drawing Number** 

**AD121** 





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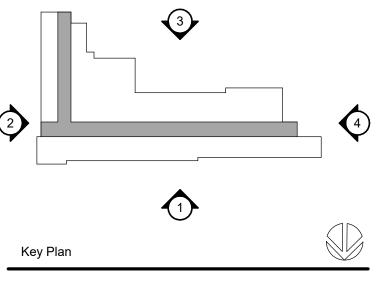
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Project Manager	Discipline Lead
D HOLTROP	B HUYLER
Designer	Reviewer
E POST	B HUYLER
Date Issued	Project Number
11/10/2023	16600.00

Sheet Name

**EXTERIOR DEMOLITION ELEVATIONS** 

**AD201** 

#### FLOOR PLAN KEYNOTES (#)

- 2-F1 NEW WALL/INFILL: EIFS ON 6" METAL STUD 18 GA @ 16" OC, FILL WITH BATT INSULATION, (1) ONE LAYER 5/8" GYP BOARD ON
- 2-F2 PROVIDE ALLOWANCE FOR VENTING/COOLING OF INTERIOR ROOM. COORDINATE WITH OWNER/TECHNOLOGY.
- 2-F3 NEW WALL: BEHIND REMOVAL OF TILE, NEW 3/4" METAL FURRING AND 5/8" GYP BOARD. PROVIDE SEAMLESS FINISH WITH EXISTING WALLBOARD. PAINT PER A141.
- 2-F4 NEW WALL: BEHIND REMOVAL OF TILE, 5/8" GYP BD ON 2" LT GA METAL FURRING. PROVIDE SEAMLESS JOINT BETWEEN NEW AND EXISTING. GYP BD RETURN TO FRAME, PROVIDE SEALANT AS REQ'D. PAINT PER A141.
- 2-F5 NEW WALL: BENEATH INSTALL OF NEW WINDOW, BUILD UP NEW WALL TO MATCH EXISTING. PROVIDE NEW HEADER ABOVE WINDOW. REFER TO DETAIL ON A301.

#### **GENERAL NOTES**

- A. REFER TO A001 FOR GENERAL NOTES AND LEGENDS.
- B. REFER TO A120 SERIES DRAWINGS FOR REFLECTED CEILING PLANS AND DETAILS.
- C. REFER TO A140 SERIES DRAWINGS FOR FINISH PLANS, SCHEDULES, AND DETAILS.
- D. REFER TO A300 SERIES DRAWINGS FOR WALL SECTIONS AND DETAILS.
- E. REFER TO A600 SERIES DRAWINGS FOR DOOR SCHEDULE, WINDOW SCHEDULE, DETAILS, AND BASIS OF DESIGN.
- F. ALL DOORS TO BE LOCATED 4" FROM DRYWALL ADJACENT WALL UNLESS OTHERWISE NOTED.
- G. ALIGN FACES OF MASONRY AND STUD WALLS INDICATED IN THE SAME PLANE ON PLANS, U.O.N.



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1765 ADA AVENUE MUSKEGON, MI 49442

Date Revised	Description	
11/10/2023	BID PACKAGE #2 - BIDS AND CONSTRUCTION	



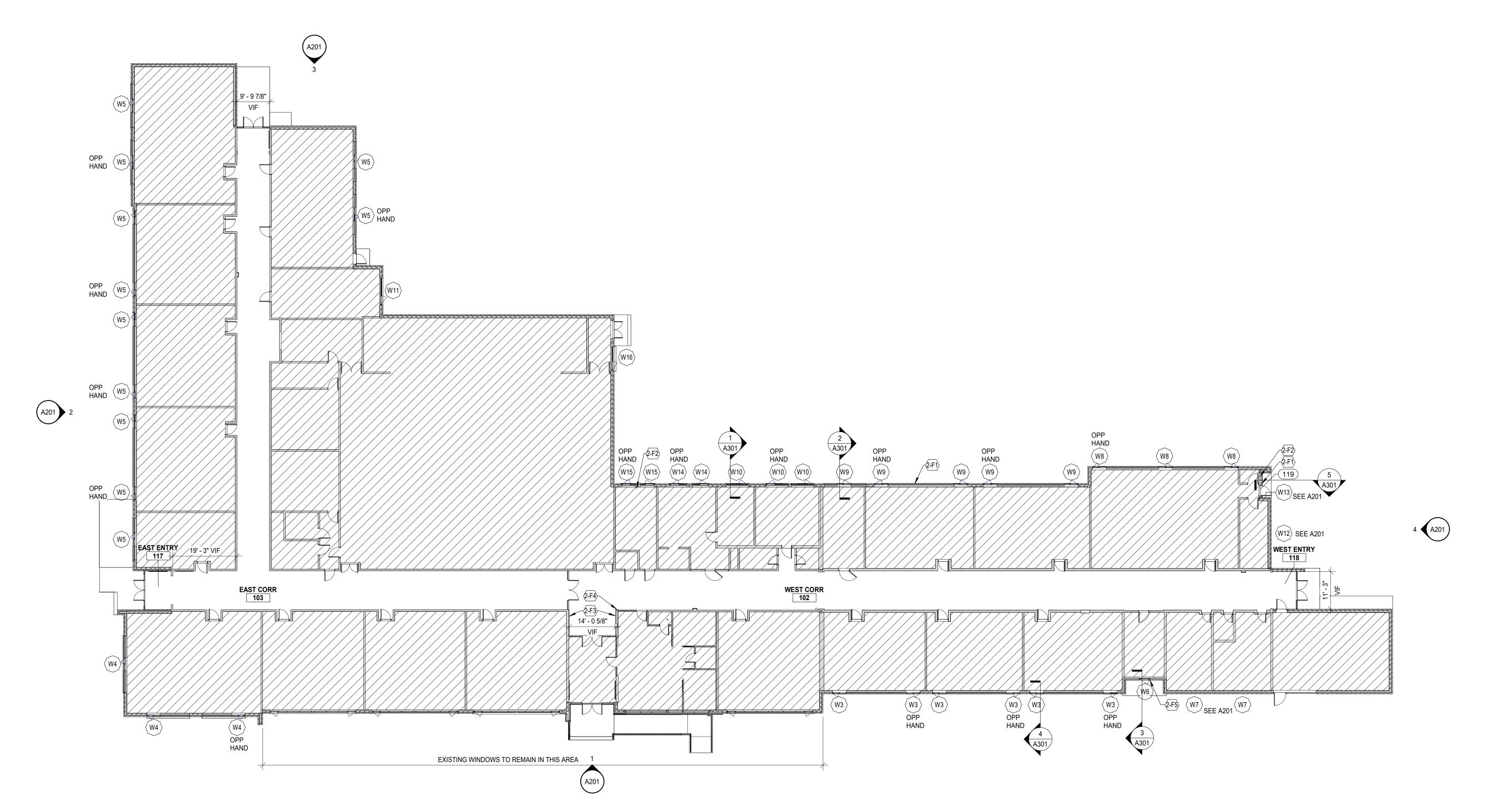
Key Plan

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Project Manager	Discipline Lead
D HOLTROP	B HUYLER
Designer	Reviewer
E POST	B HUYLER
Date Issued	Project Number
11/10/2023	16600.00

Sheet Name

FIRST FLOOR PLAN







#### CEILING PLAN KEYNOTES #

- 2-C1 EXISTING HARD LID CEILING TO REMAIN
- 2-C2 EXISTING PIPING AND SUPPORT BRACKETS TO REMAIN EXPOSED BELOW NEW CEILING. REFER TO ALTERNATE #1.
- 2-C3 NEW CEILING PATCHING TO MATCH EXISTING BEHIND INSTALLATION OF NEW WINDOWS, TYP.

#### **GENERAL NOTES**

- A. SUSPENDED CEILING GRID SHALL BE LAID OUT SO THAT THE GRID IS EQUALLY SPACED BETWEEN THE MOST REMOTE WALLS IN EACH DIRECTION, U.O.N..
- B. LAYOUT SHALL ENSURE THAT NO GRID SPACE OR TILE IS LESS THAN 6" IN WIDTH.
- C. ALL CEILING-MOUNTED ITEMS SHALL BE CUT AND LOCATED IN THE CENTER OF THE ACOUSTICAL TILE UNLESS OTHERWISE NOTED.
- D. GYP. BD. BULKHEADS AND SOFFITS SHALL ALIGN WITH FINISH FACE OF ADJACENT WALL(S).
- E. GYP. BD. CEILING AND BULKHEADS TO BE PAINTED: P1 U.O.N., REFER TO BASIS OF DESIGN



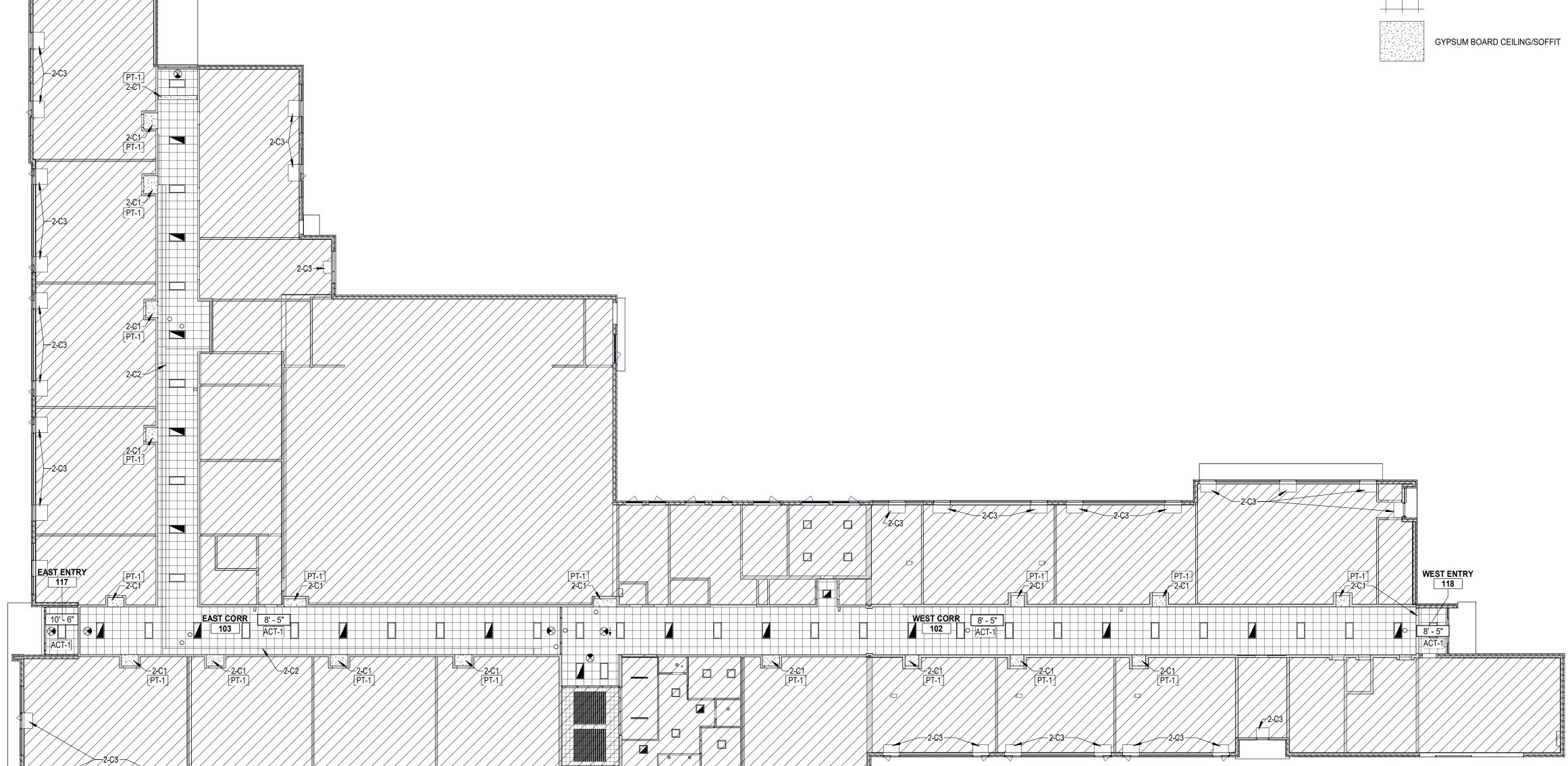
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#### LEGEND

NOTE: SEE OTHER DISCIPLINE DRAWINGS (E.G. MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS) FOR ASSOCIATED SYSTEMS AND INFORMATION ABOUT SYMBOLS NOT INDICATED IN THIS LEGEND.



2' x 2' SUSPENDED CEILING TILE



1 FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 1/16" = 1'-0"





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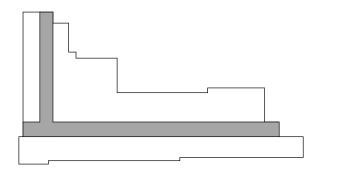
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DHOLTROP

BHUYLER

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FIRST FLOOR CEILING PLAN

Drawing Number

		1		
BASIS OF DESIG	SN .			
095113 ACOUSTICAL PANEL CEILINGS		09843	3 INTERIOR PA	INT
ACT-1: ACOUSTICAL CEILING TILE; 24" x 24"  MANUFACTURER: ARMSTRONG  STYLE: CALLA  COLOR: WHITE  EDGE: SQUARE LAY-IN  GRID: 15/16" WHITE  NOTE:			COLOR: FINISH: LOCATION: ACCENT - INTERIOR	SHERWIN-WILLIAMS SW 7005 PURE WHITE PER SPEC PLASTER, CMU, *GLAZED CMU
096513 RESILIENT BASE			COLOR: FINISH:	SW7071 GRAY SCREEN PER SPEC
RB-1: RESILIENT WALL BASE; 4" H MANUFACTURER: JOHNSONITE STYLE: TRADITIONAL 4" DC COLOR: 48 GREY TOE STYLE: COVE LOCATION: GLAZED CMU (NOT EXISTING	WALL TILE OR BRICK)	PT-3:	ACCENT - INTERIOR MANUFACTURER: COLOR: FINISH:	OFFICE CORRIDOR BUMP OUT, WALL TILE, CORRIDOR UNIT VENT HEATERS  R PAINT SHERWIN-WILLIAMS SW7074 SOFTWARE PER SPEC INTERIOR DOORS AND FRAMES
066116 SOLID SURFACE			LOOATION.	(HM AND WOOD)
SS-1: SOLID SURFACE  MANUFACTURER: CORIAN COLOR: SORREL LOCATION: WINDOW INTERIOR SILLS		PT-4:	FIELD - EXTERIOR F MANUFACTURER: COLOR: FINISH: LOCATION:	PAINT SHERWIN-WILLIAMS SW 7012 CREAMY PER SPEC EXTERIOR EIFS

FIRST FLOOR FINISH PLAN

SCALE: 1/16" = 1'-0"

			ROOM	FINISH SCH	EDULE				
ROOM					WAL	LS			
NUMBER	ROOM NAME	FLOOR	BASE	NORTH	SOUTH	EAST	WEST	CEILING	REMARKS
INISHED FLO	OR				1				*
102	WEST CORR	EXIST	RB-1*	PT-1/PT-1* AND PT-1/PT-2	PT-1/PT-1* AND PT-1/PT-2	PT-1/PT-2	-	ACT-1	*BASE AT GLAZED MASONRY ONLY
103	EAST CORR	EXIST	-	PT-1/PT-2	PT-1/PT-2	PT-1/PT-2	PT-1/PT-2	ACT-1	
117	EAST ENTRY	EXIST	-	PT-1/PT-2	PT-1/PT-2	PT-1	PT-1	ACT-1	FRAMES AND DOORS IN ROOM TO BE P-1
118	WEST ENTRY	EXIST	-	-	-	-	-	ACT-1	EXISTING BRICK AND BASE TO REMAIN

NOTE: PAINT (P-3) ALL EXISTING INTERIOR PAINTED DOORS AND FRAMES (INCLUDING SIDELIGHTS) U.N.O.

#### FINISH HATCH LEGEND

NOT IN CONTRACT (N.I.C.)

#### FINISH SYMBOL LEGEND

GENERAL WALL FINISH SPLIT

XX# FLOOR FINISH XX# WALL BASE FINISH XX# WALL BASE ONLY

(X#) GENERAL WALL FINISH

#### **GENERAL NOTES**

EXCEED CODE REQUIREMENTS.

- A. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR PREPARING AND INSTALLING FINISHES.
- B. PROTECT ADJACENT WORK BY SUITABLY COVERING DURING WORK.
- C. REMOVE ADHESIVE OR PAINT SPOTS FROM FINISHED FLOORS, WALLS, GLASS OR OTHER SURFACES. FINISHES TO MEET OR
- D. INSTALL MATERIALS USING MANUFACTURER'S APPROVED ADHESIVES AND METHODS, U.O.N.
- E. FILL MINOR DRYWALL IRREGULARITIES WITH SPACKLING COMPOUND AND SAND TO A SMOOTH LEVEL SURFACE. EXERCISE CARE TO AVOID RAISING THE NAP OF PAPER
- F. DO NOT PERFORM PAINTING AND OTHER FINISHING WORK UNDER CONDITIONS UNSUITABLE FOR EXECUTION OF PAINTING WORK. AIR SHALL BE FREE FROM DUST AND DIRT TO PREVENT LODGING OF FOREIGN MATTER IN FRESH PAINT. FLOORS MUST BE BROOM CLEAN BEFORE PAINTING IS STARTED.
- G. EDGES OF PAINT ADJOINING OTHER COLORS OR MATERIALS TO BE SHARP AND CLEAN WITHOUT OVERLAP.
- H. EXAMINE SURFACES TO RECEIVE PAINT CAREFULLY FOR DEFECTS. DO NOT PROCEED WITH WORK UNTIL DEFECTS ARE CORRECTED.
- I. WHENEVER NECESSARY TO OBTAIN REQUIRED RESULTS, REFINISH AN ENTIRE WALL RATHER THAN SPOT FINISHING WHERE A PORTION OF THE FINISH HAS BEEN DAMAGED OR IS UNSATISFACTORY.
- J. PREPARE FLOOR SURFACES INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: A. PREPARE/PROPERLY REPAIR AND PATCH SUBFLOORS TO A SMOOTH AND LEVEL FINISH. B. FLASH PATCH AS REQUIRED, READY TO RECEIVE NEW FINISH.
- K. PROVIDE SELF LEVELING TROWELABLE UNDERLAYMENT WHERE REQUIRED TO OBTAIN FINISH MANUFACTURER'S REQUIRED SUBFLOOR CONDITION.
- L. FOLLOW THE CARPET AND RUG INSTITUTE METHODS OF INSTALLATION.
- M. INSTALL TILE PER THE TILE COUNCIL OF NORTH AMERICA'S INSTALLATION SPECIFICATIONS.
- N. PROVIDE THE REQUIRED TRANSITIONS BASED ON TYPES IDENTIFIED ON DRAWINGS AT EACH FINISH TRANSITION LOCATION
- O. CENTER FLOOR MATERIAL TRANSITIONS ON DOOR ABOVE.
- P. FINISHED FLOORS EXTEND INTO TOE SPACES, CLOSETS, DOOR
- Q. REFER TO REFLECTED CEILING PLANS FOR CEILING FINISHES.

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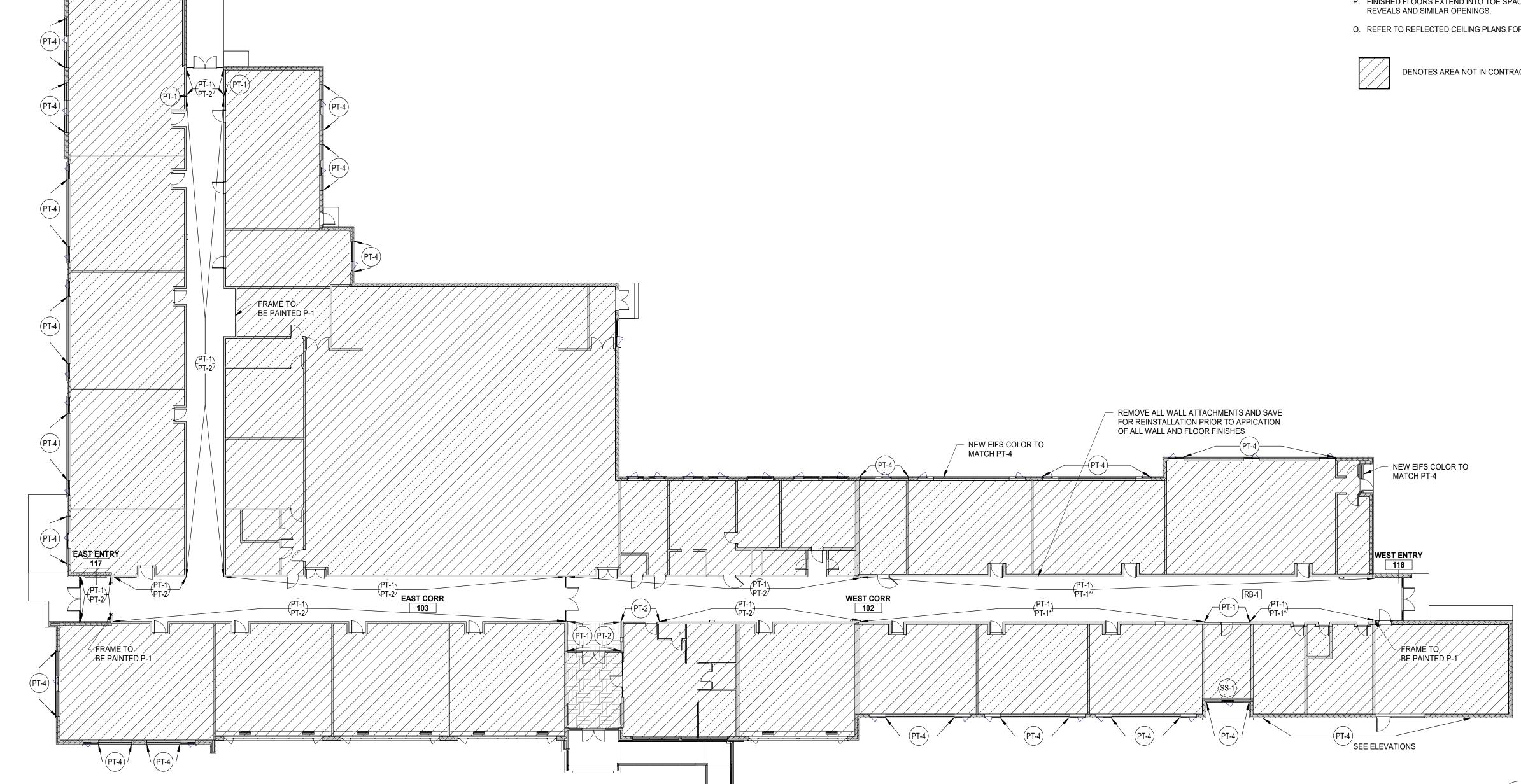
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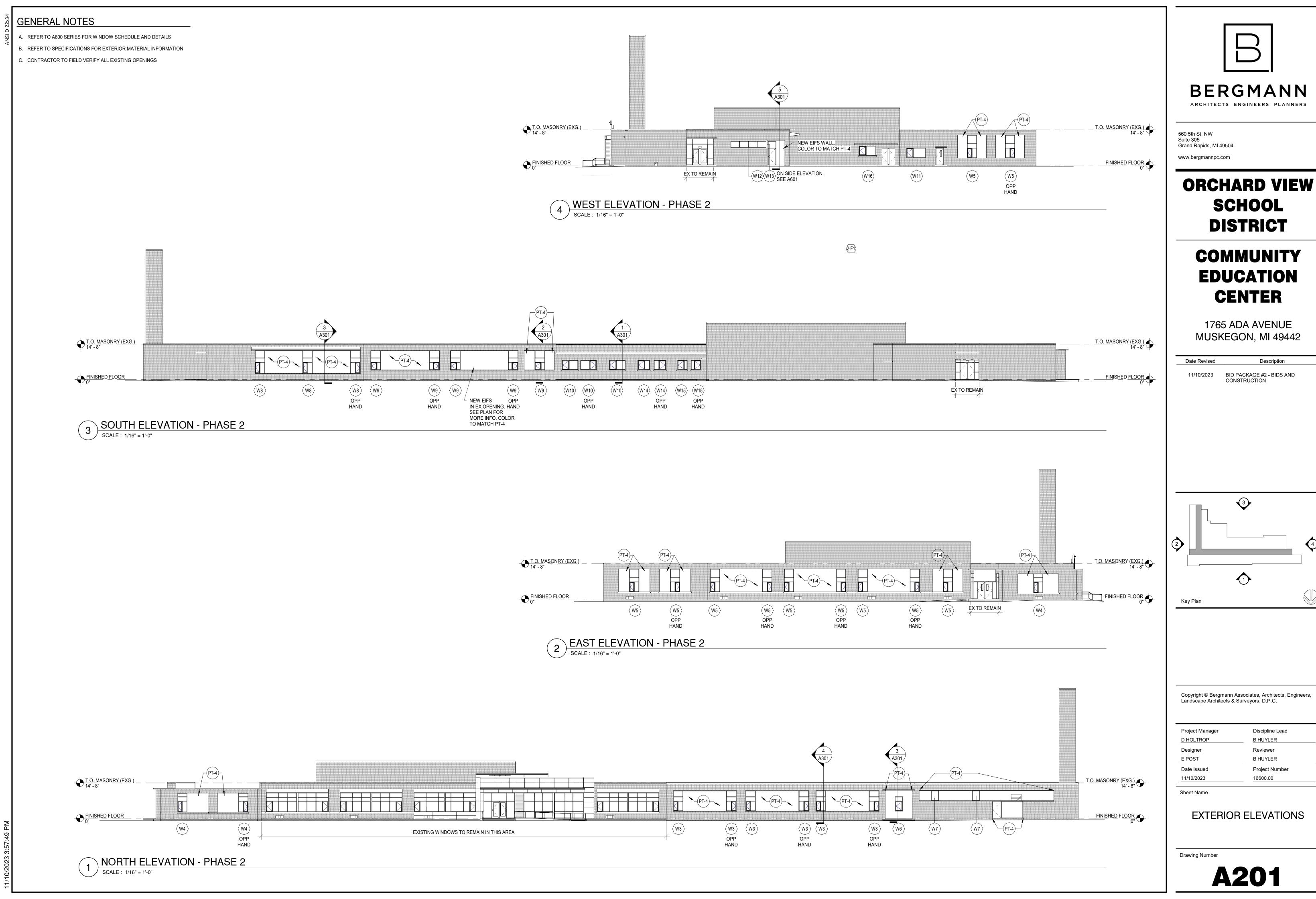
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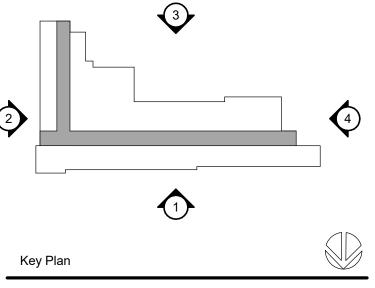
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FIRST FLOOR FINISH PLAN









EXISTING LINTEL ABOVE

EIFS OPENING

WINDOW OPENING

TRIM AROUND

EIFS SYSTEM).

**EXISTING METAL ANGLE** 

SAND SMOOTH, PRIME,

EIFS/OPENING TO REMAIN.

AND PAINT PER A141 (TOP

REFER TO DEMO PLANS

FOR REMOVAL OF EX EIFS AND WALL BACK-UP —

1" INSULATED SPANDREL

SEE WINDOW ELEVATIONS

TOP OF MULLION BELOW

IN FIELD AND NOTE ANY

DISCREPANCIES WITH

**INSULATED GLASS** 

INSULATED GLASS

**NEW SILL** 

FLASHING

WINDOW TYPES/SIZING.

**NEW ALUM STOREFRONT** 

WINDOW, DARK BRONZE

NEW WINDOW SYSTEM TO

BE INSTALLED FLUSH WITH

ADJACENT EXISTING EIFS -

EX WOOD TRIM AROUND

EIFS/OPNING TO REMAIN.

AND EIFS SYSTEM) -

SEALANT AROUND

**EXISTING MASONRY** 

WALL ASSEMBLY

OF OPENING) -

PERIMETER EDGE OF

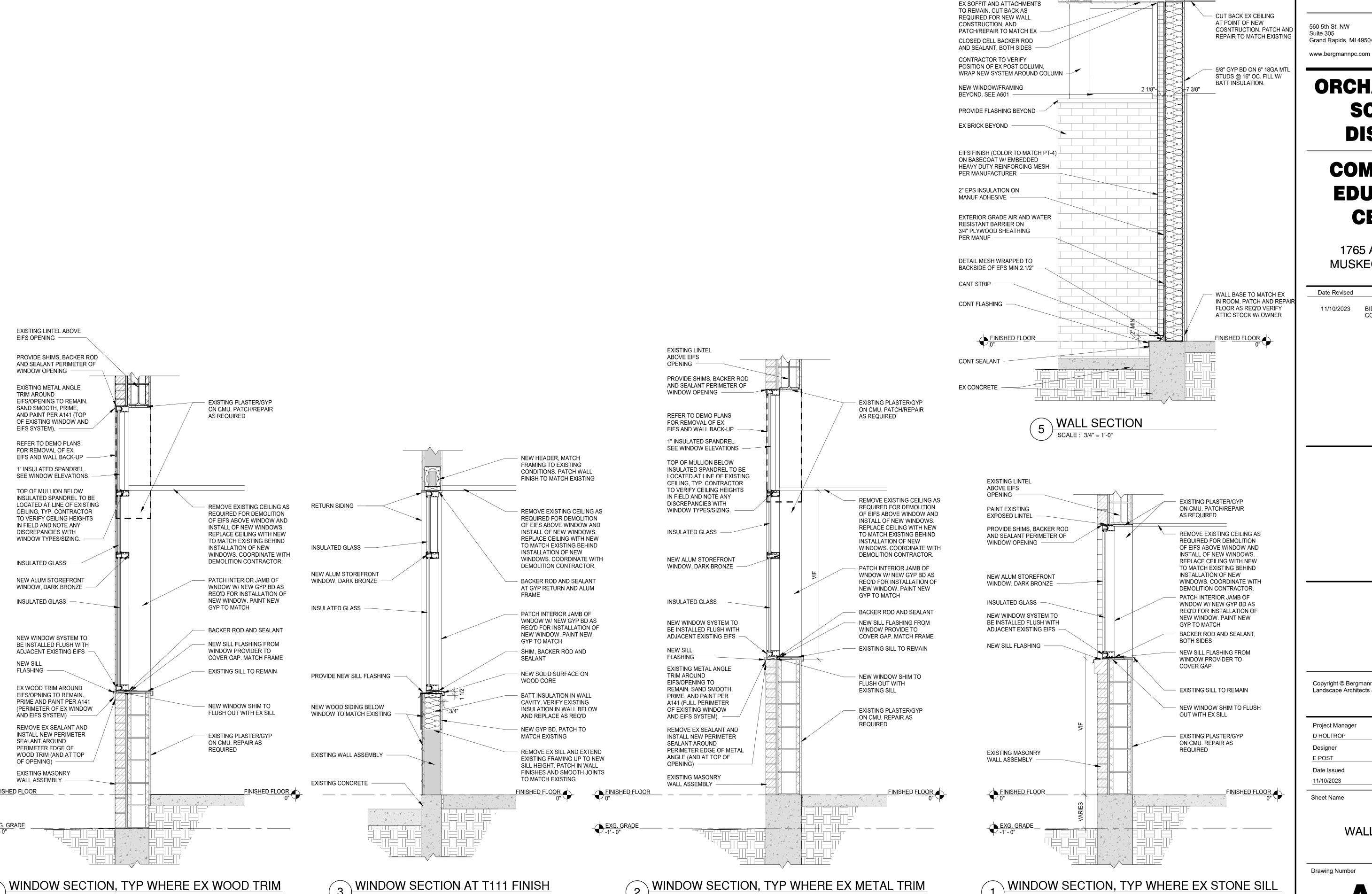
PRIME AND PAINT PER A141

REMOVE EX SEALANT AND

INSTALL NEW PERIMETER

WOOD TRIM (AND AT TOP

OF EXISTING WINDOW AND





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VERIFY SIZE AND LOCATION

OF EX LINTEL

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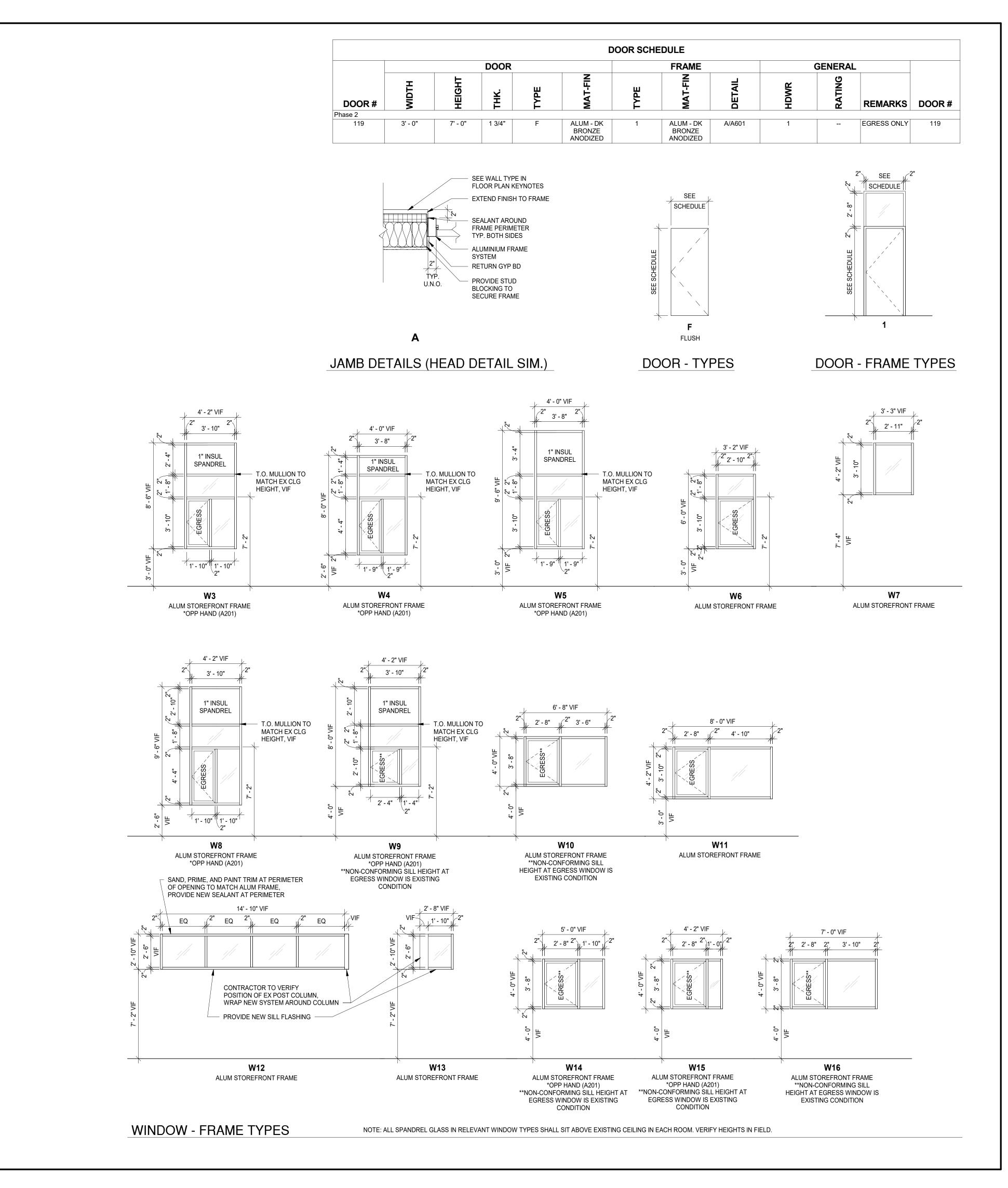
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WALL SECTIONS





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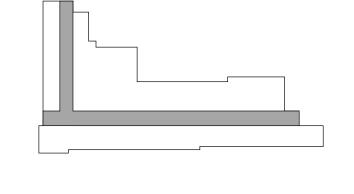
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SCHEDULES, DOOR AND WINDOW DETAILS

Drawing Number

		BAS	BUILDING AUTOMATION	DP DOUBLE POLE	G		ABBRE	VIATIONS KILOWATT	NF	NON-FUSED	(RE)	RELOCTATED EXISTING	TTC	TELEPHONE TERMINAL	REFERENCE SYMBOLS	MOUNTING HEIGHTS		$\overline{}$
#	INCHES NUMBER	BATT	SYSTEM BATTERY	DPR DAMPER DS SAFETY DISCONN	GA IECT GAL	GUAGE GALLON	KWH	KILOWATT HOUR	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH	RC RECPT	REMOTE CONTROL RECEPTACLE	TV	CABINET TELEVISION	EQUIPMENT IDENTITY (SEE MECH	(UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TO		
&	AND FEET	BFC	BOARD BELOW FINISHED CEILING	SWITCH DT DOUBLE THROW	GALV GC	/ GALVANIZED GENERAL CONTRACTOR	L LA	LIGHTING ARRESTOR	NIC NL	NOT IN CONTRACT NIGHT LIGHT - WIRE	REQD RM	REQUIRED ROOM	TVSS	TRANSIENT VOLT. SURGE SUPPRESSION	EQUIPMENT ABBREVIATION LIST).  EQUIPMENT NUMBER  SYSTEM NUMBER (IF APPLICABLE)	CENTERLINE OF BOXES).  CARD READER 42" AFF		,
1P @	1 POLE (2P, 3P, 4P ETC.) AT		BREAKER BUILDING	DWG DRAWING	GEN GFI	GENERATOR GROUND FAULT	LF LOC	LINEAR FOOR LOCATE OR LOCATION		AHEAD OF SWITCH/CONTROL	RMS RR	ROOT MEAN SQUARE REMOVE AND REPLACE	TVTC	TELEVISION TERMINAL CABINET	INDICATES PLAN & DETAIL NUMBER	CLOCK HANGER OULETS 42" AFF EXIT LIGHTS - FLOOR 8" AFF TO BOTTOM OF SIGN,		_
CL PL	CENTERLINE PLATE		BUILDING MANAGMENT SYSTEM	E (E) EXISTING TO REM	IAIN GFP	0.100.12.7.02.	LT LTG	LIGHT LIGHTING	No. NPF	NUMBER NORMAL POWER FACTOR	RSC RTU	RIGID STEEL CONDUIT ROOF TOP UNIT	TYP	TYPICAL	INDICATES DRAWING ON WHICH SECTION APPEARS	PROXIMITY 4" FROM FRONT EDGE OF SIGN TO DOOR FRAME.		_
Y Ø	WYE PHASE	BOC	BOTTOM OF CONCTRETE	(ER) EXISTING TO BE RELOCATED	GND,		LTNG LV	LIGHTNING LOW VOLTAGE	NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY	S		UC	UNDER COUNTER	INDICATES SECTION NUMBER	EXIT LIGHTS - WALL MOUNTED ABOVE DOORS (MAX. 96" AFF) FIRE ALARM HORN/STROBE 84" AFF	BERGM	A
Ø	DIAMETER DELTA	C CAB	CABINET	EC ELECTRICAL CONTRACTOR	GRS	(CONDUIT)	M	LOW VOLINGE	NTS	NOT TO SCALE	S/N s/s	SOLID NEUTRAL STOP/START	UE	UNDERGROUND ELECTRICAL	INDICATES DRAWING ON WHICH SECTION APPEARS	FIRE ALARM PULL STATION 44" AFF LIGHT SWITCHES 42" AFF	ARCHITECTS ENGINEE	RS
Δ	DELTA	CAT	CATALOG CABLE TELEVITION	EF EXHAUST FAN EGC EQUIPMENT GRO	GYP E UND	BD GYPSUM BOARD	M/C	MOMENTARY CONTACT	NW	NORMAL WEIGHT	3/3 SC	PUSHBUTTONS SURFACE CONDUIT	UG UGE	UNDERGROUND UNDERGROUND	INDICATES MATCH LINE	MOTOR STARTERS 72" MAX TO OPERATING HANDLE		
A	AMPERE	СВ	CIRCUIT BREAKER CLOSED CIRCUIT	CONDUCTOR ELEC ELECTRIC, ELECT	H RICAL HID	HIGH INTENSITY	MAG.S	MILLIAMPHERE MAGNETIC STARTER	O OC	ON CENTER	SD SEC	REMOTE CONTROL	UGT	ELECTRICAL UNDERGROUND		PANEL BOARDS (LIGHTING AND 72" MAX TO TOP CIRCUIT RECEPTACLE) BREAKER	560 5th St. NW	
ABC AC	ABOVE COUNTER ABOVE COUNTER		TELEVITION CIRCUIT	ELEV ELEVATOR EMERG EMERGENCY	HOA	DISCHARGE	MAX MC	MAXIMUM MECHANICAL	OCPD	OVERCURRENT PROTECTION DEVICE	SEC	SECONDARY SUPPLY FAN	UH	TELEPHONE UNIT HEATER	(#) KEYNOTE INDICATOR	RECEPTACLE - TYPICAL 18" AFF (U.O.N.) SAFETY SWITCHES 72" MAX TO OPERATING	Suite 305 Grand Rapids, MI 49504	
AC ACLG	ALTERNATING CURRENT ABOVE CEILING	CL	CURRENT LIMITING	EMS ENERGY MANAGE SYSTEM		SWITCH IZ HORIZONTAL	MCB	CONTRACTOR MAIN CIRCUIT BREAKER	OH OL	OVERHEAD OVERLOADS	SHT SIM	SHEET SIMILAR	UON	UNLESS OTHERWISE NOTED	# KEYNOTE INDICATOR - DEMOLITION	HANDLE  TELEPHONE - DATA OUTLET 18" AFF	www.bergmannpc.com	
AF AFC	AMPERE FRAME RATING ABOVE FINISH CEILING	CM	CEILING CEILING MOUNTED	EMT ELECTRICAL MET TUBING	ALLIC HP	HORSEPOWER HIGH POWER FACTOR	MCC	MOTOR CONTROL CENTER	P		SP SPD	SPARE SURGE PROTECTION	UTIL UV	UTILITY UNIT VENTILATOR OR		TELEPHONE - PAY STATION 48" AFF		
AFF AFG	ABOVE FINISH FLOOR ABOVE FINISH GRADE	CND	COMPRESSOR CONDUIT	EP ELECTRICAL PHE EPO EMERGENCY POV		HEIGHT	MDP	MAIN DISTRIBUTION PANEL	Р	POLE PUBLIC ADDRESS	SPEC	DEVICE SPECIFICATION		ULTRAVIOLET	REVISION CLOUD	TELEPHONE - WALL TYPE 48" AFF  NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ADA	ORCHARD	) 1
AFI	ARC FAULT CIRCUIT INTERRUPTER		COMBINATION CONNECTION	EQUIP EQUIPMENT	HTR	HEATING HEATER	MFR MFS	MANUFACTURER MAIN FUSED	PB PB	PUBLIC ADDRESS  PULL BOX OR PUSH  BUTTON	SPKR SQ. FT.	SPEAKER SQUARE FOOT	V V	VOLT		LOCATIONS. ALL DEVICES TO BE MOUNTED WITHIN A RANGE OF 34" TO BOTTOM OF DEVICE BACKBOX TO 48" AFF TO TOP OF DEVICE BACKBOX. PREFERRED		
AHJ	ATHORITY HAVING JURISDICTION		CONSTRUCTION CONTINUATION OR	ES END SWITCH ETR EXISTING TO REM		HIGH VOLTAGE  HEATING, VENTILATION	МН	DISCONNECT SWITCH MANHOLE	PC	PLUMBING CONTRACTOR	SR SS	SURFACE RACEWAY STAINLESS STEEL OR	V.I.F.	VERIFY IN FIELD VOLT-AMPERES		MOUNTING HEIGHT IS 48" AFF TO TOP OF DEVICE BACKBOX. CONTRACTOR TO MOUNT AT LOWER HEIGHT	SCHO	O
AHU	AIR HANDLING UNIT		CONTINUOUS CONTIINUOUS	EUH ELECTTRIC UNIT EWC ELECTTRIC WATE		AND AIR CONDITIONING HYDRONIC WATER PUMP	MIC MIN	MICROPHONE MINIMUM	PE PED	PHOTO ELECTRIC CELL PEDESTAL	99W	SAFETY SWITCH SELECTOR SWITCH	VDT	VIDEO DISPLAY TERMINAL		WITHIN THE LISTED RANGE TO OVERCOME ANY INTERFERENCES WHERE REQUIRED.	DISTR	10
AL/ALUM ALT	ALUMINUM ALTERNATE	CONV	CONVECTOR CIRCULATION PUMP OR	COOLER EWH ELECTTRIC WATE	HZ :R	HERTZ	MISC	MISCELLANEOUS MAIN LUGS ONLY	PF PH	POWER FACTOR PHASE	ST	SINGLE THROW STATION	VERT VFC	VERTICAL  VARIABLE FREQUENCY				
AM AMP	AMMETER AMPERE		CONTROL PANEL CATHODE-RAY TUBE	HEATER EXH EXHAUST	I IC	INTERRUPTER CAPACITY	MOA	MULTIOUTLET ASSEMBLY MAIN SWITCHBOARD	PIV PNL	POST INDICATING VALVE PANEL	STD	STANDARD	VFD	CONTROLLER VARAIBLE FREQUENCY		NOTE		
AMPL ANNUN	AMPLIFIER ANNUNCIATOR	СТ	CURRENT TRANSFORMER	EXP EXPLOSION PRO	DF IG	ISOLATED GROUND INTERMEDIATE METAL	ML M2RD	MOUNT	PP PR	POWER POLE PAIR	SURF SW	SURFACE MOUNTED SWITCH	VM	DRIVE VOLTMETER		NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED APPEAR	COMMU	N
APPROX AQ-STAT	APPROXIMATELY AQUASTAT		CENTER OR COUNTER COPPER	F FUSED	INC	CONDUIT INCANDESCENT	MT.C MTR	EMPTY CONDUIT MOTOR, MOTORIZED	PRI PROJ	PRIMARY PROJECTION	SWBD SWGR	SWITCHBOARD SWITCHGEAR	VOL	VOLUME		ONTHESE CONTRACT DRAWINGS. INDIVIDUAL DRAWINGS MAY HAVE SHEET LEGENDS FOR UNIQUE SYMBOLS AND FOR	EDUCA <sup>-</sup>	ГΙ
ARCH	ARCHITECT, ARCHITECTURAL	D		FA FIRE ALARM FACP FIRE ALARM CON	IR TROI	INFRARED	MTS	MANUAL TRANSFER SWITCH	PRV	POWER ROOF VENTILATOR	SYM SYS	SYMMETRICAL SYSTEM	W W	WATT OR WIRE		CONVENIENCE.		
AS AT	AMP SWITCH RATING AMP TRIP RATING	DCP	DIRECT CURRENT DOMESTIC WATER	PANEL FBO FURNISHED BY O	J		MV	MEDIUM VOLTAGE	PT	POTENTIAL TRANSFORMER	Т		W/ W/O	WITH WITHOUT			l CENT	EF
ATS	AUTOMATIC TRANSFER		CIRCULATING PUMB DIRECT DIGITAL	FCU FAN CONTROL UI	J-D()/	X, JB JUNCTION BOX	N (N)	NEW WORK	PVC	POLYVINYL CHLORIDE	T-STAT	THERMOSTAT	W/SF	WATTS PER SQUARE FOOT				
AUTO	AUTOMATIC		CONTROL PANEL DUAL ELEMENT	FIXT FIXTURE FLOUR FLOURESCENT	K k	KIPS	N N	NEUTRAL	PWR	(CONDUIT) POWER	TEL TEL/DATA	TELEPHONE TELEPHONE/DATA	WG	WIRE GUARD			1765 ADA A\	/FN
AUX AV	AUXILIARY AUDIO VISUAL	DEPT	DEPARTMENT DETAIL	FLR FLOOR FU FUSE	K-FT		N.C. N.O.	NORMALLY CLOSED NORMALLY OPEN	Q		TERM TL	TERMINAL TWIST LOCK	WH WP	WATER HEATER WEATHERPROOF			MUSKEGON, I	
AWG	AMERICAN WIRE GAUGE	DIA	DIAMETER	FUDS FUSED SAFETY DISCONNECT SW	ITCH <sub>kV</sub>	MILLS (MCM) KILOVOLT	NEC	NATIONAL ELECTRICAL CODE	QUAN	QUANTITY	TR TS	TAMPER RESISTANT TIME SWITCH	Χ				WIGGREGOIN	V.,
B B/	BOTTOM OF	DIST	DISCONNECT DISTRIBUTION	FVNR FULL VOLTAGE NON-REVERSING	KVA KVAR	KILOVOLT-AMPHERE	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	R (R)	REMOVE	ТТВ	TELEPHONE TERMINAL BOARD	XFMR XFR	TRANSFORMER TRANSFER			Date Revised [	Descrip
		DN	DOWN		NVAK	REACTIVE		AGGOCIATION									11/10/2023 BID PACKAGE	
								ELEC	CTRICAL	L SYMBOL LIST							CONSTRUCTIO	/N
GENERAL	LICUIT LINE WEIGHT INDICATES FY	VICTING ITEMS TO	POWER		POWER	<u>R</u>		POWER			SIGNAL			SITE	<u>GE</u>	NERAL NOTES:		
	LIGHT LINE WEIGHT INDICATES EX REMAIN OR PROVIDED BY OTHERS		P POWER F	POLE					NGLE RECEPT. OTED OTHERW	.120V,20A, NEMA 5-20R UNLESS /ISE	##	"DI" DOOR INTERLOO "DO" ELECTRIC DOOR	OPERATOR	l'Z' LETTE	RIOR WALL MOUNTED LIGHTING FIXTURE. ER INDICATES FIXTURE TYPE ON LIGHTING  1.	MINIMUM CIRCUIT BREAKER SIZE FOR CONDUITS SHOWN		
	HEAVY LINE WEIGHT INDICATES IT PROVIDED BY E.C.	TEMS TO BE	ILA ○ ■ LIGHTING	G ARRESTOR		0.5557/.000.00/.00/.5//5	(FD)		JPLEX RECEPT OTED OTHERW	T.120V,20A, NEMA 5-20R UNLESS		"EH" ELECTRIC HINGE "EL" ELECTRIC LATCH	4	⊢□2 FIXTUI CIRCU	RE SCHEDULE. NUMBER INDICATES BRANCH JIT.	ON PLANS IS 20A, 1 POLE FOR 120VAC UNLESS OTHERWISE NOTED/SHOWN ON PLANS		
	HEAVY DASHED LINE INDICATES IT REMOVED OR RELOCATED BY E.C		• LIGHTNIN	NG PROTECTION AIR TERMINAL		SAFETY DISC. SW. (NON-FUS	SED)	"W		ERPROOF TYPE WITH WEATHER -		"ES" ELECTRIC STRIK "MS" MOTION SENSOF	R FOR ACCESS C		Y SERVICE POLE 2.	MINIMUM BRANCH CIRCUIT WIRING SHALL BE #12 AWG. DERATE CONDUCTORS PER NEC FOR VOLTAGE DROP		
2a	LIGHT FIXTURE		□ LIGHTNIN	NG PROTECTION CONDUCTOR SPLI	CE L	3P		"G		WHILE IN USE COVER ID FAULT INTERRUPTER, 4-6mA		"PS" POWER SUPPLY "RE" REQUEST TO EX "R" RELAY		JUE" "UE" "UMVE	UNDERGROUND ELECTRIC E" UNDERGROUND MEDIUM VOLTAGE	AND CONDUIT FILL.		
2 LA	UPPER CASE LETTERS INDICATE REFER TO LUMINAIRE SCHEDULE LOWER CASE LETTERS INDICATE	E FOR DETAILS.	ıl—● GROUND	O ROD		SAFETY DISC. SW. (FUSED)		"A		COUNTER. 6" ABOVE COUNTER		"S" DOOR STATUS C		"UT"	ELECTRIC 3. UNDERGROUND TELEPHONE	PROVIDE GROUNDING PER NEC (ARTICLE 250).		
LAa, LA_LA	ARRANGEMENT. NUMBER INDICA CIRCUIT. "EM" OR SHADING INDIC	ATES BRANCH	⊕ GROUND	O ROD (PLAN VIEW)		° 25A □15A 3P		"U	IC" - UNDER			"DC" DOOR CONTACT "CR" CARD READER		"UCON "UTV"	UNDERGROUND CABLE TELEVISION	PROVIDE A SEPARATE NEUTRAL CONDUCTOR FROM PANELBOARD FOR EACH BRANCH CIRCUIT.		
EM  EM EM EM 2 a 2 a	EMERGENCY LIGHTING.	OATEO	● GROUND	CONNECTION - EXOTHERMIC WEL		VFC VARIABLE FREQUENCY CON	TPOLLED	"IC	F" - MOUNTE	NETRY, RECESSED RECEPTACLE ED WITHIN DRINKING FOUNTAIN ETRY. COORDINATE MOUNTING		"KP" KEYPAD "WAP" WIRELESS ACCE	SS POINT	"UFIBF	(CATV OR CCTV) R" UNDERGROUND FIBER OPTIC 5.	CONTRACTOR SHALL COORDINATE WORK WITH		
'X1' 'X1'	EXIT SIGN LIGHT - WALL, CEILING		• GROUND	D TEST WELL		VARIABLE FREQUENCT CON	INOLLER		HEIGHT	T IN FIELD USING APPROVED FACTURER CUT SHEETS		CCTV CAMERA F=FIXED, P=			AERIAL ELECTRIC LINE	ASSOCIATED TRADES.		
	MOUNTED. LETTERS INDICATE FI TYPE. REFER TO LUMINAIRE SCH	HEDULE FOR	GROUND	CONNECTION TO STEEL OR STRU	CTURE			"C		MOUNTED	F   F\$ \$	SPEAKER (WALL OR CEILING	6 MT.)	"OHT" "OHE"	0 1211112712 12221 110112	CONTRACTOR SHALL SEAL WITH AN APPROVED METHOD ALL ELECTRICAL PENETRATIONS THRU FIRE FLOOR/PROOF/RATED WALLS, FLOORS, CEILINGS OR		
	DETAILS. ARROWS INDICATE DIR INDICATES NUMBER OF FACES.	RECTION. SHADING		N BOX CEILING/WALL MOUNTED RNITURE POWER		BUS DUCT WITH PLUG UN DI	SCONNECT (FU	JSED) "U	ISB-C" - WITH US R" - TAMPER	JSB TYPE C R RESISTANT	<u>M</u> 1M1	NURSE CALL DOME LIGHT (4	LAMP)	FIRE ALARM  [####] CONTRO	OL UNIT (PANEL)	OTHER AREAS.		
'X1' 'X1'	EXIT SIGN LIGHT WITH EMERGEN LETTERS INDICATE FIXTURE TYP		"FD" - FUR	RNITURE DATA OR ACTUATOR		CONDUIT CONCEALED IN WA		EAD. "C	R" - CONTRO	OLLED RECEPTACLE	+🕁	NURSE CALL EMERG. STATIO		"AM	P" ÀMPLIFIER RACK 7.	CONTRACTOR SHALL PROVIDE FUSES SIZED PER MANUFACTURERS RECOMMENDATIONS FOR ALL		
1 1	LUMINAIRE SCHEDULE FOR DETA INDICATES NUMBER OF FACES.		"HD" - HAN	ND DRYER		SHALL CONTAIN 2 #12 & 1#12 3/4" CONDUIT UNLESS SPEC	G CONDUCTOR	- I TU SE	PLIT DUPLEX RE	ECEPT.	+ + + + + + + + + + + + + + + + + + + +	NURSE CALL CODE BLUE EM NURSE CALL DUTY STATION		"FA( "NA	CP" FIRE ALARM CONTROL PANEL	EQUIPMENT INSTALLED WITH FUSED STARTERS OR DISCONNECTS.		
	DOCK LIGHT		PULL BOX			REQUIRES A DIFFERENT SIZ	Ξ.	• Iso	OLATED GROU	JND RECEPT (DUPLEX)	+	NURSE CALL STAFF STATION			BOOSTER EXTENDER PANEL 8.	ALL EXTERIOR PVC CONDUIT SHALL TRANSITION TO RGS		
'T1' <u>\</u> 'T1'\	TRACK AND TRACK LIGHT			G GROUND BAR		CONDUIT SHOWN WITH SLAS		LL <u>'</u>		ERGENCY CKT (DUPLEX)	+�	NURSE CALL PATIENT PULL	STATION		ACE AND SUPERVISORY DEVICES	CONDUIT WITHIN 18" OF FOUNDATION WALL PRIOR TO PASSING THRU THAT WALL.		
1	EMEDOENCY LIGHT HEADS CINE			M GROUND BAR	<del>-                                      </del>	CONTAIN 1#12 CONDUCTOR 3/4" CONDUIT UNLESS THE C	ONDUCTOR SIZ	ZE AND Y UN	NLESS NOTED (		+\$	NURSE CALL SINGLE PATIENT			" DOOR HOLDER L" END OF LINE 9.	CONTRACTOR SHALL PROVIDE RACEWAY, WIRE, CABLE		
	EMERGENCY LIGHT HEADS - SING DOUBLE HEADS	OLE NEAD AND	PANEL 'X'	PANELBOARD / DISTRIBUTION F		CONDUIT SIZE ARE SHOWN A SLASH MARKS. SLASH MARK	INDICATORS A	RE:	UADRUPLEX RE RCUIT	ECEPTACLE ON EMERGENCY	+⇔~ NCM	NURSE CALL DUAL PATIENT NURSE CALL MASTER STATE			MANUAL PULL STATION  "FLOW DETECTOR "VALVE SUBEREISORY SWITCH	AND ASSOCIATED FITTINGS ALONG WITH COMPLETE CONNECTIONS REQUIRED FOR BRANCH CIRCUITS FROM DEVICES TO FINAL OVERCLIPPENT DEVICE AND LOCAL		
	EMERGENCY BATTERY LIGHTING OF LOCAL SWITCHING	G UNIT. WIRE AHEAD	100A MLO 208/120V 3Ø,4W	SWITCHBOARD. SURFACE MOU FLUSH MOUNTED		SHORT STRAIGHT=PHASE C STRAIGHT=NEUTRAL CONDL ENDED=SWITCH LEGS, LONG	ICTOR, SHORT	BENT	OOR RECEPT		NCC	NURSE CALL EQUIPMENT CA	ABINET		" VALVE SUPERFISORY SWITCH  RM INDICATION DEVICE	DEVICES TO FINAL OVERCURRENT DEVICE AND LOCAL CONTROL DEVICE(S) PER PROJECT SPECIFICATIONS.		
	LIGHT ON CORD REEL			J		DOT=GROUND CONDUCTOR		ய் FL   ம	LOOK KECEPT.	. (DUPLEX SHOWN)	NC ANNUN	VOLUME CONTROL	T ZINEE	"AIM"	ADDRESSABLE INPUT MODULE 10.  10.  11. ADDRESSABLE OUTPUT CONTROL MODULE	VERIFY EXACT LOCATION OF ELECTRICAL CONNECTION POINTS IN THE FIELD.		
	LIGHT SWITCH 20A, 120/277V					CONDUIT CONCEALED			ECEPT ON DRO	OP CORD (DUPLEX SHOWN)	(H)	HUMIDISTAT			HEAT DETECTION TYPE  "R/F" = COMBINATION RISE/FIXED 11.	CONDUIT SHALL BE CONCEALED WITHIN WALLS AND		
	" " SINGLE POLE "K" KEY OPERATION "3" 3-WAY OPERATION				_	CONDUIT EXPOSED			ECEPT ON COR	RD REEL (DUPLEX SHOWN)	(T)	THERMOSTAT TELEPHONE OUTLET BOX			TEMPERTURE "F" = FIXED TEMPERTURE	CEILINGS WHERE POSSIBLE. SOME CONDUIT SYSTEMS SHALL BE EXPOSED DUE TO THE CONSTRUCTION OF THE		
	"LVS" LOW VOLTAGE "WP" WEATHER PROOF		─ <del>«</del> 52 <del>»</del> MEDIUM \	VOLTAGE DRAWOUT CIRCUIT BREA	KER -S	SR— SURFACE RACEWAY			LOLI I ON COR	NELE (DUFLEA SHOWN)	•	TWO GANG JUNCTION BOX \ STUBBED TO 6" ABOVE NEAF			"R" = RATE OF RISE ONLY SMOKE DETECTOR/SENSOR	BUILDING. CONTRACTOR SHALL STRIVE TO CONSOLIDATE CONDUITS AND ARRANGE IN A GEOMETRICALLY ALIGNED		
	"4" 4-WAY OPERATION "a" SWITCHING ARRANGI	EMENT	DRAWOU	UT CIRCUIT BREAKER		CONDUIT TRANSITION UP			PECIAL RECEPT ATING AS INDIC	TACLE. NEMA CONFIGURATION AND		CEILING, NYLON BUSHING O ALL RACEWAYS. ALL CABLIN	N CONDUIT END	D, AND	"I" = IONIZATION "P" = PHOTOELECTRIC	FASHION TO HAVE A LOW IMPACT ON THE AESTHETICS OF THE SPACE. CONDUIT SHALL BE ROUTED FROM THE		
	"T" TIMER "P" PILOT LIGHT		— <b>«</b> »— DRAWOU	UT CIRCUIT BREAKER SPACE		CONDUIT TRANSITION DOWN	1					TESTING BY OTHERS.	,		"BR" = BEAM RECEIVER  "BT" = BEAM TRANSMITTER	CORRIDOR DIRECTLY INTO EACH ROOM, NOT ROUTED FROM ROOM TO ROOM. CONTRACTOR SHALL PROVIDE		
S##	"OS" DUAL TECHNOLOGY N		»XXA MOLDED	CASE CIRCUIT BREAKER		CONDUIT STUBBED OUT		P&S P∥	N & SLEEVE CO	ONNECTOR / RECEPTACLE	$\nabla$	DATA OUTLET BOX TWO GANG JUNCTION BOX \		JIT SMOKE (	SMOKE DETECTOR SINGLE STATION DETECTOR/SENSOR FOR DUCT	AND NOTIFY CONSULTANT FOR REVIEW OF THE INSTALLED CONDUIT LAYOUT EARLY IN THE PROJECT.	Copyright © Bergmann Associates, Landscape Architects & Surveyors,	
	OCCUPANCY SENSOF "D/OS" DUAL TECHNOLOGY N OCCUPANCY SENSOF	WALL SWITCH TYPE	3 74	ED CIRCUIT BREAKER	—	HT— HEAT TRACE WIRING		Ι Ψ ρι	ONNECTION TO	D EQUIPMENT PMENT SCHEDULE FOR DETAILS		STUBBED TO 6" ABOVE NEAI CEILING, NYLON BUSHING O ALL RACEWAYS. ALL CABLIN	N CONDUIT END	D, AND		CONDUIT INSTALLATION SHALL CONTINUE UPON CONSULTANT APPROVAL AND IS SUBJECT TO MODIFICATIONS AS THE CONSULTANT SEES FIT. EXPOSED		
	OCCUPANCY SENSOR DIMMING "OS1" DUAL RELAY WALL SV		T XXX ? TRANSFO			HOMERUN TO PANEL BOARD PANEL NAME. ARROWS INDICA	CATE NUMBER	ICATE	QUIPMENT PLU			TESTING BY OTHERS.	·	\times CD	ATION HORN/VISIBLE	CONDUITS SHALL BE PAINTED TO MATCH SURROUNDING CONDITIONS. REFER TO CONSTRUCTION COORDINATION		
	OCCUPANCY SENSOF "OS2" INFRARED WALL SWI	R				LPB - 2,4 CIRCUITS. NUMBERS INDICA DESIGNATIONS IN PANEL.	IE CIRCUIT	7	ULTIPLE SERVI		▼	COMBINATION TELE/DATA O TWO GANG JUNCTION BOX \	WITH 1 " CONDUI	IIT CD"	CANDELA RATING/SETTING	REQUIREMENTS IN THE PROJECT SPECIFICATIONS.		cipline ROBINS
	OCCUPANCY SENSOF "D" 0-10V WALL SWITCH [	R DIMMER	GENERAT					имп	I II TIDI E SERV"	ICE EL RIOLITI ET		STUBBED TO 6" ABOVE NEAF CEILING, NYLON BUSHING O ALL RACEWAYS. ALL CABLIN	N CONDUIT END	D, AND LOC D	CD CANDELA KATING/SETTING	REFER TO LIFE SAFETY AND ARCHITECTURAL PLANS FOR FIRE RATING REQUIREMENTS. BACKBOXES IN THESE		viewer
	"VS" WALL SWITCH TYPE \" "D/VS" WALL SWITCH TYPE \"	VACANCY SENSOR VACANCY SENSOR	SF-1 MOTOR					ω		ICE FLR OUTLET		TESTING BY OTHERS.	·	F H HORN OF	"C" = CEILING MOUNT	AREAS SHALL HAVE A 1 HR MINIMUM UL LISTED FIRE RATING.		ROBINS
	WITH 0-10V DIMMING "D/S" WALL POD WITH PRE		S <sup>M</sup> OVERLOA	. MOTOR STARTER WITH THERMAL DAD				мі	ULTIOUTLET AS	SSEMBLY / PLUGMOLD		TELEVISION OUTLET CEILING		JNT 🔻	R ONLY - WALL MOUNT	PROVIDE LIGHTING CONTROLS INCLUDING DEVICE ITSELF,		oject Nu
	0-10V DIMMING		MAG. MO	OTOR STARTER OR CONTACTOR				<u> </u>	MERGENCY OF	F PUSH BUTTON	<u> </u>	MULTIPLE SERVICE FLR OUT MULTIOUTLET ASSEMBLY	LEI	"C" C	CEILING MOUNT	CONDUIT, CONDUCTORS, 0-10V WIRING, POWER PACKS, SLAVE PACKS, CONNECTORS, AND OTHER ACCESSORIES		600.00
os	OCCUPANCY SENSOR - CEILING I "A" - 1000 SQ. FT. COVERAGE	<u>.</u>		MOTOR STARTER (NON-FUSED)							99	CLOCK (WALL MOUNT)			ALARM INDICATING AND TEST SWITCH	FOR A COMPLETE AND OPERATIONAL SYSTEM.	Sheet Name	
	"B" - 2000 SQ. FT. COVERAGE "C" - HALLWAY TYPE		COMB. M	MOTOR STARTER (FUSED)								UNDERFLOOR RACEWAY SY		CATION TRI REMOTE	INDICATOR 14.	RECEPTACLES AND TELECOMMUNICATION BOXES SHALL NOT LOCATED BACK-TO-BACK ON WALL. PROVIDE A MINIMUM OF 6" OF SEPARATION BETWEEN BOXES.		
 	"W"- WALL MOUNTED	NINTER	$\Theta_{O}^{O}$ (L)								FS	CABLE TRAY. "FS" INDICATES	5 FIKE STOP LOC	· · · · · · · · · · · · · · · · · · ·	VISIBLE ONLY (STROBE) WALL / CEILING CD - CANDELA RATING / SETTING	WIN THE OWN OF OUR OLD ANATHON DETWEEN DUKES.	LEGENI	D
[VS]	VACANCY SENSOR - CEILING MO "A" - 1000 SQ. FT. COVERAGE "B" - 2000 SQ. FT. COVERAGE	<u>.</u>		ATION STARTER WITH RESET BUTTO PERATED ACTUATOR, AND INDICATO							SITE	CONDUIT SLEEVE		l <u>-</u>	VISIBLE ONLY (STROBE) EMERGENCY WALL /			
	"B" - 2000 SQ. FT. COVERAGE "W"- WALL MOUNTED	-	#SIZE LIGHT	NOTONTON, AND INDICATE							<u>'LA'</u> ■-□	POLE WITH STANCHION MOU LETTERS INDICATED FIXTUR		XTURE.	CEILING CD - CANDELA RATING / SETTING			
##	"PP" - POWER PACK "PC" - PHOTOCELL FOR LIGHT	ING CONTROL									_2	FIXTURE SCHEDULE. NUMBE CIRCUIT.		RANCH   🔯 COMBINA	ATION SPEAKER / VISIBLE APPLIANCE EILILNG MOUNT		Drawing Number	
	"RC" - ROOM CONTROLLER "TC" - TIME CLOCK										2	BOLLARD LIGHTING FIXTURE		ATE CO2 CARBON	DIOXIDE DETECTOR			17
(LS) <sub>A</sub>	$_{\!$	NOTED									Z	FIXTURE TYPE ON LIGHTING NUMBER INDICATES BRANCI		DULE.	MONOXIDE DETECTOR			,
			1					I .										

**ABBREVIATIONS** 

IANN ERS PLANNERS

REFERENCE SYMBOLS

**MOUNTING HEIGHTS** 

VIEW

## INITY TION ER

VENUE MI 49442

#2 -BIDS AND ON

**DIVISION 26** 

**ELECTRICAL SPECIFICATIONS** 

<u>DESCRIPTION OF WORK</u>
WORK SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE

- FOLLOWING: WIRING METHODS.
- DEVICES.
- LIGHTING.

MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF MBC, NEC, MIOSHA, NFPA, U.L., NEMA, A.D.A., AND RESPECTIVE PUBLICATIONS AND OTHER REQUIREMENTS SPECIFIED BELOW. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER.

CODES AND ORDINANCES
COMPLY WITH ALL CODES AND ORDINANCES. BIDDERS SHALL INFORM THEMSELVES OF CODE REQUIREMENTS.

PERMITS, INSPECTION FEES, AND CODES
THE CONTRACTOR SHALL OBTAIN AND PAY ALL PERMIT AND INSPECTION FEES. FINAL INSPECTION CERTIFICATES BY THE LOCAL ELECTRICAL INSPECTOR AND FIRE MARSHAL SHALL BE OBTAINED BY THE CONTRACTOR AND TURNED OVER IN DUPLICATE TO THE OWNER.

SUBMISSIONS
SUBMIT PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, AND DESCRIPTIVE LITERATURE ON ALL MATERIALS AND EQUIPMENT. MAKE SUBMITTALS WITHIN THIRTY (30) DAYS AFTER THE SIGNING OF THE CONTRACT. SHIPMENT SHALL NOT BE RELEASED UNTIL DRAWINGS AND LITERATURE HAVE BEEN FINALLY APPROVED.

AS-BUILTS - OPERATION & MAINTENANCE MANUALS PROVIDE FOR EACH SYSTEM AND EQUIPMENT AS SPECIFIED FOR USE BY

OPERATION AND MAINTENANCE PERSONNEL. THE OPERATING INSTRUCTIONS SHALL INCLUDE: WIRING DIAGRAMS, CONTROL DIAGRAMS, AND CONTROL

- SEQUENCE FOR EACH SYSTEM AND ITEM OF EQUIPMENT. START-UP, PROPER ADJUSTMENT, OPERATING, LUBRICATION,
- AND SHUTDOWN PROCEDURES.
- SAFETY PRECAUTIONS
- THE PROCEDURE IN THE EVENT OF EQUIPMENT FAILURE OTHER ITEMS OF INSTRUCTION AS RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM OR ITEM OF EQUIPMENT.

<u>IDENTIFICATION OF SYSTEMS</u>

OPERATING INSTRUCTIONS: PRINT OR ENGRAVE INSTRUCTIONS AND FRAME UNDER GLASS OR APPROVED LAMINATED PLASTIC. POST INSTRUCTIONS IN VIEW OF EQUIPMENT. PROVIDE WEATHER RESISTANT MATERIALS FOR EXTERIOR APPLICATIONS.

EQUIPMENT: PROVIDE NAMEPLATE FOR ALL EQUIPMENT IT SHALL BE A SELF-ADHESIVE, ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABEL. PROVIDE ADHESIVE BACK, WITH WHITE LETTERS ON A DARK GRAY BACKGROUND. MINIMUM LETTER HEIGHT SHALL BE 3/8-INCH.

WARNING SIGNS: PROVIDE A SELF-ADHESIVE WARNING LABEL THAT IS FACTORY PRINTED, MULTI-COLOR, PRESSURE SENSITIVE, ADHESIVE LABEL. COMPLY WITH N.E.C. 70 AND 29 CFR 1910.145. LABELS FOR MULTIPLE POWER SOURCES SHALL READ: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES". LABELS FOR ALL OTHER EQUIPMENT REQUIRING WORKSPACE CLEARANCES SHALL READ: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36-

CONTRACTOR SHALL PROVIDE IDENTIFICATION ON ALL DEVICES. PROVIDE WHITE LABEL WITH BLACK LETTERING AND LOCATE ON DEVICE UNDER PLATE. CONTRACTOR SHALL IDENTIFY DEVICE WITH PANEL AND CIRCUIT NUMBER FEEDING DEVICE.

PROVIDE GUARANTEE FOR ALL LABOR AND MATERIALS FOR ONE (1) YEAR AFTER OWNER'S WRITTEN ACCEPTANCE OF THE PROJECT.

EXAMINE THE SITE AND ALL THE DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS WORK. LOCATE ESSENTIALLY AS SHOWN ON THE DRAWINGS, BUT IN EXACT LAYOUT DETERMINED ON THE JOB, TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO ALL PARTS WILL BE INSTALLED IN PROPER RELATIONSHIP. PRECISE LOCATION OF PARTS TO COORDINATE WITH OTHER WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

<u>DEMOLITION</u>
CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIAL AS INDICATED ON THE DEMOLITION PLAN. ALL REMOVED AND UNUSED LIGHTS AND EQUIPMENT SHALL BE TURNED OVER TO THE OWNER: ALL OTHER ITEMS SHALL BE REMOVED FROM THE SITE. EXISTING CONDUIT HOMERUNS MAY BE REUSED WHENEVER POSSIBLE. CONTRACTOR SHALL PATCH EXISTING WALL AND CEILING OPENINGS IN FINISHED AREAS UPON REMOVAL OF ELECTRICAL EQUIPMENT. CONTRACTOR SHALL ALSO PROTECT ALL EXISTING ELECTRICAL EQUIPMENT TO REMAIN DURING CONSTRUCTION PERIOD.

**CUTTING AND PATCHING** 

ALL NECESSARY CUTTING OF THE BUILDING CONSTRUCTION FOR THE NEW INSTALLATION OF THE WORK SHALL BE FURNISHED BY THE CONTRACTOR. NO STRUCTURAL MEMBERS OF THE BUILDING SHALL BE CUT WITHOUT PRIOR APPROVAL OF THE ARCHITECT. ALL NECESSARY PATCHING OF THESE SURFACES TO BE FURNISHED BY THIS CONTRACTOR.

ALL WIRING SHALL STRANDED COPPER AND INSTALLED IN CONDUIT, TUBING, OR SURFACE METALLIC RACEWAY. CONDUCTORS SHALL BE CONTINUOUS BETWEEN OUTLETS OF JUNCTION BOXES WITH SPLICES MADE ONLY WITHIN SUCH BOXES. SOLDERLESS PRESSURE-TYPE CONNECTORS PROPERLY INSULATED SHALL BE USED FOR ALL JOINTS. NO WIRE SMALLER THAN #12 MAY BE USED UNLESS SPECIFICALLY SPECIFIED UNDER DESCRIPTIONS OF SPECIAL SYSTEMS. ALL INDIVIDUAL BRANCH CIRCUITS AND SINGLE POLE BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS. EACH NEUTRAL SHALL BE IDENTIFIED AT ALL JUNCTION BOXES AND TERMINALS SAME AS ITS CORRESPONDING BRANCH CIRCUIT NUMBE

ALL CONDUIT SHALL BE 3/4-INCH MINIMUM UNLESS NOTED OTHERWISE. WIRING METHODS: INTERIOR EXPOSED/CONCEALED UNDER 2-INCHES: EMT, CONNECTIONS TO VIBRATING EQUIPMENT: LFMC. ALL CONDUIT AND WIRE IN FINISHED AREAS SHALL BE CONCEALED IN THE CONSTRUCTION WHERE PRACTICABLE. ALL RACEWAYS SHALL BE ROUTED WITHIN STRUCTURAL STEEL AND FURRED SPACES UTILIZING FACTORY MADE ELBOWS AS GOOD PRACTICE AND WORKMANSHIP ALLOWS. INSTALL SLEEVES THROUGH STRUCTURAL CONCRETE OR WHERE PENETRATING STRUCTURAL FLOOR DECKS. KEEP RACEWAYS AT LEAST 6-INCHES FROM PARALLEL RUNS OF FLUES, STEAM AND HOT WATER PIPING. INSTALL HORIZONTAL CONDUIT RUNS ABOVE WATER AND STEAM PIPING. INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS.

A STANDARD GALVANIZED OUTLET BOX, COMPLETE WITH PLASTER RING.

IF NECESSARY, SHALL BE INSTALLED FOR EACH AND EVERY FIXTURE AND OUTLET SHOWN. EACH OUTLET SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING CONSTRUCTION (INDEPENDENT OF THE RACEWAY SYSTEM). CEILING OUTLET BOXES SHALL BE 4-INCH OCTAGON, 1-1/2-INCH DEEP, WITH FIXTURE HICKEY, AND SUPPORTED TO WITHSTAND 80

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**EQUIPMENT GROUNDING CONDUCTOR** INSTALL EQUIPMENT GROUNDING CONDUCTOR IN RACEWAYS WITH CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS.

<u>LIGHTING FIXTURES</u>
ALL LIGHTING FIXTURES AND COMPONENTS THEREOF SHALL BE U.L. AND E.T.L. APPROVED.

POLE, THREE-WAY TWO POSITION DEVICES RATED AT 20A. WALL PLATES ALL DEVICE PLATES SHALL BE NON-CONDUCTIVE, THERMOPLASTIC,

SWITCHES SHALL BE SPECIFICATION GRADE TOGGLE TYPE, SINGLE-

COLOR TO MATCH DEVICES, AND MEET FEDERAL SPECIFICATION WP455-SUPPORTS AND HANGERS

PROVIDE AND INSTALL NECESSARY STEEL BRACKETS, RODS, CLAMPS, ETC., FOR SUPPORT OF ALL WORK UNDER THIS CONTRACT.

<u>LIGHTING CONTROL</u>
PROVIDE AUTOMATIC LIGHTING CONTROL AS SHOWN ON DRAWING.

END OF DIVISION 26

BERGMANN ARCHITECTS ENGINEERS PLANNERS

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ORCHARD VIEW **SCHOOL DISTRICT** 

COMMUNITY **EDUCATION** CENTER

1765 ADA AVENUE MUSKEGON, MI 49442

Date Revised Description 11/10/2023 BID PACKAGE #2 -BIDS AND CONSTRUCTION

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Project Manager Discipline Lead D HOLTROP A ROBINSON Designer Reviewer A ROBINSON Date Issued Project Number 11/10/2023 16600.00

Sheet Name

**SPECIFICATIONS** 

AEM AEM ⊮ <u>E. PANEL C</u> E.KITCHEN PANEL AEM E. PANEL D \_\_\_\_A AEM  $\Box$ A AEM E. MDPB E.COMPUTER PANEL 1 A E. PANEL M E. PANEL A E. BOILER 2 E. BOILER 1/ E. MDP FIRST FLOOR LIGHTING PLAN SCALE: 1/16" = 1'-0"

#### LIGHTING GENERAL NOTES:

A. PROVIDE ROOM CONTROLLERS AND OTHER NECESSARY DEVICES FOR COMMUNICATION TO LIGHTING CONTROL PANEL FOR TIME OF DAY CONTROL IN CONJUCTION WITH INTEGRAL OCCUPANCY SENSORS.

#### LIGHTING KEYNOTES#

1. REUSE EXISTING LIGHTING CIRCUIT SERVING SPACE.



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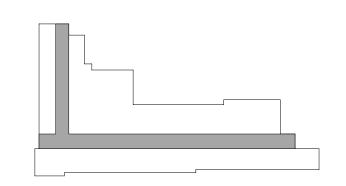
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ORCHARD VIEW SCHOOL DISTRICT

## COMMUNITY EDUCATION CENTER

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_	Date Revised	Description	
	11/10/2023	BID PACKAGE #2 -BIDS AND CONSTRUCTION	



Key Plan

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Project Manager	Discipline Lead
D HOLTROP	A ROBINSON
Designer	Reviewer
J BOIK	A ROBINSON
Date Issued	Project Number
11/10/2023	16600.00

Sheet Name

LIGHTING PLAN

Drawing Number

E201

- SEQUENCE OF OPERATION:

  1. LIGHTING CONTROL INTENTION IS TO USE LIGHT FIXTURES WITH INTEGRATED CONTROLS AND ASSOCIATED LOW VOLTAGE SWITCHES, UNLESS NOTED OTHERWISE WITH ROOM CONTROLLERS. DEVIATION FROM THIS SOLUTION SHALL MEET CONTROL INTENTIONS AND COORDINATED WITH ELECTRICAL CONTRACTOR FOR ADDITIONAL WIRING AND INSTALLATION.
- 2. ALL SWITCHES WITH "LV#" ARE LOW VOLTAGE WIRED CONTROL STATIONS. PROVIDE ON/OFF BUTTONS, PRE-PROGRAMMED
- SCENES. NETWORK ROOM CONTROLLER AND INTREGRATED CONTROLS TO SYSTEM FOR TIME OF DAY FEATURES 3. EXISTING WAVELINX CONTROLS (LITEKEEPER LK4 PANEL, WAC2 AREA CONTROLLERS, GREENGATE ROOM CONTROLLERS). OTHER MANUFACTURERS ARE ACCEPTABLE IF ABLE TO PROVIDE TIME OF DAY CONTROL VIA ROOM CONTROLLER OR OTHER PANELS/DEVICES.

#### 3. LV4: CORRIDORS/VESTIBULE:

- A. LIGHTING COME ON AUTOMATICALLY AT 50% DURING NORMAL OCCUPIED TIMES. B. OCCUPANCY SENSOR SHALL DIM LIGHTS TO 100% UPON AREA OCCUPANCY
- C. OCCUPANCY SENSOR SHALL DIM LIGHTS TO 50% UPON 30 MINUTES OF NO AREA OCCUPANCY D. NETWORK TO SYSTEM FOR TIME OF DAY. SYSTEM SHALL TURN LIGHTING OFF DURING NON-OCCUPIED TIMES. E. LOCAL OVERRIDE STATIONS SHALL INCLUDE BUTTONS (LABEL: PROGRAMMING):
- a. ON: LUMINAIRES 100%. b. OFF: LUMINAIRES ALL OFF

LUMINAIRE SCHEDULE							
TYPE	LAMP	MANUFACTURER	MODEL NUMBER	BALLAST/DRIVER	MOUNTING	INPUT WATTAGE	DESCRIPTION NOTE
A		METALUX	24CZ2-40-UNV-L835-CD1-SWPD1		RECESED GRID CEILING	29W	
	4000 LUMEN,	COLUMBIA	LCAT-24-40-HL-G-ED-U-NXES	0-10V			2x4 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR
	3500K, LED	LITHONIA	2BLT4-40L-ADSMT-EZ1-LP835-N100-NESPDT7ADCX				ZAT INOT EIGH TROUBE INTEGRAL GOOD ANOT GENOOR
		DAYBRITE	2EVO-G-43L-835-4-D-UNV-DIM-SWZG2				
		METALUX	24CZ2-40-UNV-L835-EL7W-CD1-SWPD1		RECESED GRID CEILING	29W	
AEM	4000 LUMEN,	COLUMBIA	LCAT-24-40-HL-G-ED-U-NXES-ELL14	0-10V			2x4 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND 7W EMERGENCY BATTERY.
ALW	3500K, LED	LITHONIA	2BLT4-40L ADSM- EZ1-LP835-N100-NESPDT7ADCX EL7L				224 THOTTER. THOUSE INTEGRAL GOOD AND GENOOR AND TWEEKINGENOT BATTERT.
		DAYBRITE	2EVO-G-43L-835-4-D-UNV-DIM-EMLED-SWZG2				
В	3100 LUMEN, 3500K, LED	METALUX	22CZ2-32HE-UNV-L835-SWPD1-SWPD1-CD1		RECESSED CEILING GRID	23.5W	
		COLUMBIA	LCAT-22-35-ML-G-ED-U-NXES	0-10V			2x2 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR
		LITHONIA	2BLT2-33L-ADSMT-EZ1-LP835-N100-NESPDT7ADCX				EXE THE FEMALE SECTION OF SERVICE SECTION OF SECTION OF SERVICE SECTION OF
		DAYBRITE	2EVO-G-45L-835-2-D-UNV-DIM-SWZG2				
		METALUX	22CZ2-32HE-UNV-L835-EL7W-CD1-SWPD1		RECESSED CEILING GRID	23.5W	
BEM	3100 LUMEN,	COLUMBIA	LCAT-22-35-ML-G-ED-U-NXES-ELL14	0-10V			2x2 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND 7W EMERGENCY BATTERY.
DEIVI	3500K, LED	LITHONIA	2BLT2-33L-ADSMT-EZ1-LP835-N100-NESPDT7ADCX-EL7L				ZAZ MONTEK. TROVIDE INTEGINE GOGGIANOT GENGGRAND AV EMERGENOT BATTERY.
		DAYBRITE	2EVO-G-45L-835-2-D-UNV-DIM-EMLED-SWZG2				
		EVENLITE	CHY-AB-CN				
x	LED	LITHONIA	LESG-ELN		UNIVERSAL	1W	DIE CAST ALUMINUM, BLACK HOUSING WITH BRUSHED ALUMINUM FACE, AND GREEN
^	LED	SURE-LITES	CX7G				LETTERS.
		COMPASS	CCESGE				



560 5th St. NW Suite 305 Grand Rapids, MI 49504

www.bergmannpc.com

ORCHARD VIEW SCHOOL DISTRICT

COMMUNITY **EDUCATION** CENTER

1765 ADA AVENUE MUSKEGON, MI 49442

Date Revised Description BID PACKAGE #2 -BIDS AND 11/10/2023 CONSTRUCTION

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Project Manager Discipline Lead A ROBINSON Designer Reviewer A ROBINSON Date Issued Project Number 11/10/2023 16600.00

Sheet Name

SCHEDULES

## NSI D 25x34

#### **GENERAL NOTES:**

- A. ANY EXISTING CONDITIONS INDICATED ARE BASED ON INFORMATION PROVIDED BY OTHERS AND POSSIBLE LIMITED FIELD VERIFICATION. THE CONTRACTOR SHALL ADJUST FOR THE ACTUAL FIELD CONDITIONS AT NO EXPENSE TO THE OWNER.
- B. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, REVIEW EXISTING CONDITIONS AGAINST THE PLANS, AND FAMILIARIZE THEMSELF WITH THE WORK PRIOR TO BIDDING AND START OF THE WORK.
- C. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING EQUIPMENT, DEVICES, AND LUMINAIRES AS INDICATED AND/OR AS REQUIRED TO ALLOW FOR INSTALLATION AND CONSTRUCTION OF THE NEW WORK. REMOVE ALL EQUIPMENT, DEVICES, LUMINAIRES, CONDUITS, SUPPORTS, HANGERS, ECT. THAT ARE NOT SHOWN AND ARE REQUIRED TO BE REMOVED IN ORDER TO COMPLETE THE NEW WORK.
- D. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL DEVICES IN WALLS BEING REMOVED. REMOVE BOXES, CONDUITS, AND WIRE TO SOURCE OR FIRST JUNCTION BOX TO MAINTAIN EXISTING DEVICES ON SAME CIRUIT.
- E. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AS REQUIRED TO PROVIDE POWER TO REMAINING EQUIPMENT, DEVICES, AND LUMINAIRES THAT ARE NOT BEING REMOVED.

#### KEYNOTES#

- 1. NO WORK IN SPACE UNLESS OTHERWISE NOTED
- 2. CONTRACTOR SHALL DISCONNECT AND REMOVE LIGHT FIXTURES IN SPACE. REFER TO NEW LIGHTING PLANS. REMOVE LUMINAIRE WHIP TO FIRST JUNCTION BOX. FEEDER CONDUIT AND WIRE MAY REMAIN FOR NEW WORK. REMOVE LIGHTING CONTROL SWITCHES. BOX AND WIRING TO REMAIN FOR NEW SWITCHES.



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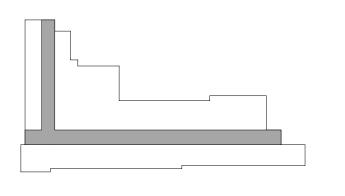
# ORCHARD VIEW SCHOOL DISTRICT

## COMMUNITY EDUCATION CENTER

MUSKEGON, MI 49442

1765 ADA AVENUE

_	Date Revised	Description				
	11/10/2023	BID PACKAGE #2 -BIDS AND CONSTRUCTION				



Key Plan

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Project Manager	Discipline Lead
D HOLTROP	A ROBINSON
Designer	Reviewer
J BOIK	A ROBINSON
Date Issued	Project Number
11/10/2023	16600.00

Sheet Name

ELECTRICAL DEMOLITION PLAN

Drawing Number

ED101

