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- A0.21 Street Level Composite Plan
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- A2.0 Lower Level Enlarged Demo and New Work Plans A2.1 Street Level Enlarged Demo and New Work Plans
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- A2.3 Composite Roof Plan
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### MECHANICAL

- M0.1 Mechanical Reference Information M2.1 Partial Street Level Plans - Demolition and New Work
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# Ferndale High School and Middle School Select Toilet **Room Renovation**

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E2.1 Lower Level and Street Level Enlarged Demo and New

Work Plans

Upper Level Enlarged Demo and New Work Plans and E2.2 Lighting Fixture Schedule

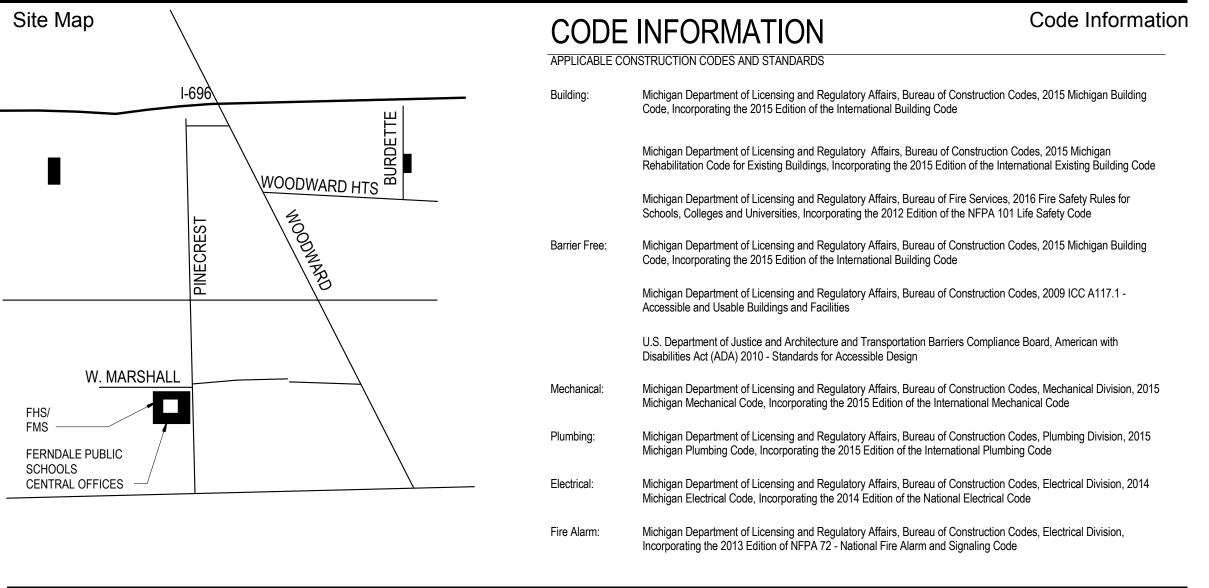
Partial One Line Diagram E5.1

E6.1 Panel Schedules

FHS/ FMS



# **Ferndale Public Schools** 871 Pinecrest Ferndale, Michigan



**Registration Seal** 

Signature Date Signature

Date

Signature

Date



INTEGRATED design SOLUTIONS architecture engineering interiors & technology 1441 west long lake, suite 200 troy, michigan 48098 5211 cascade road SE, suite 300 grand rapids, michigan 49546 248.823.2100 www.ids-troy.com

Issue Date

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50% Owner Review 11-16-2018 Quality Management Review 12-11-2018 Bids 01-04-2019

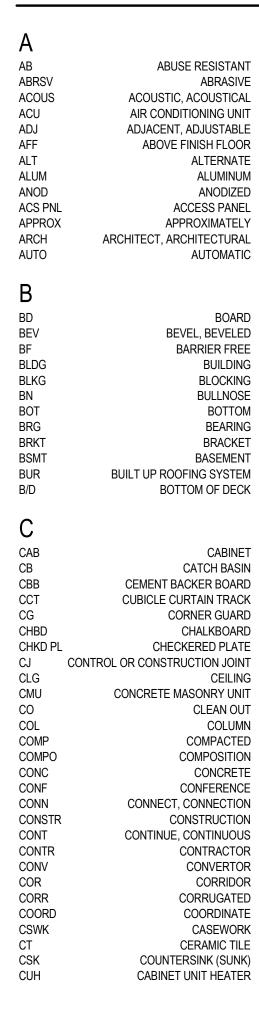
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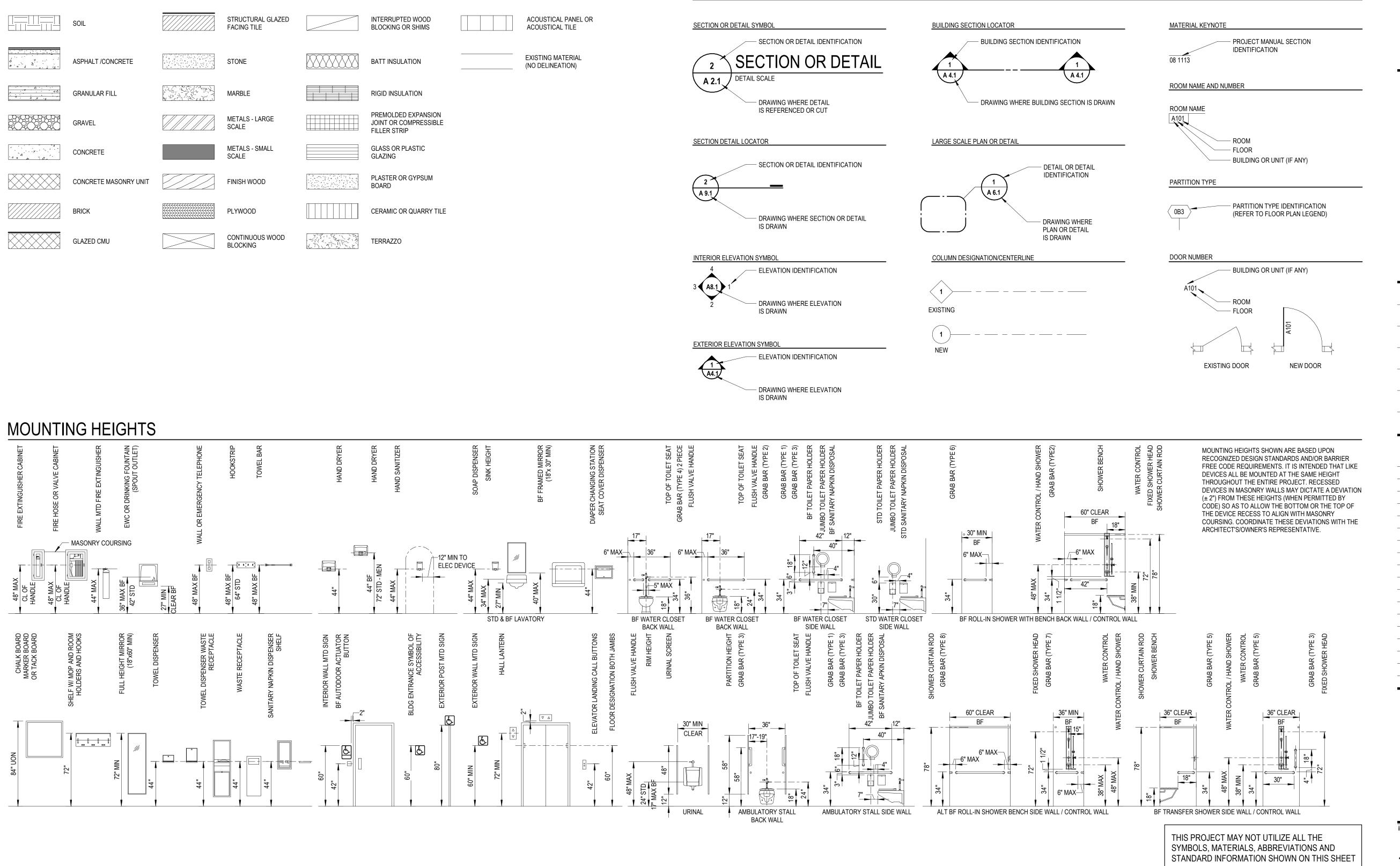
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# ABBREVIATIONS



# MATERIAL LEGEND

SOIL
ASPHALT /CONCF
GRANULAR FILL
GRAVEL
CONCRETE
CONCRETE MASO
BRICK
GLAZED CMU



D		F (CONT)		K	
D	DEPTH		FIRE HYDRANT	KD	KNOCK DOWN
DBL	DOUBLE	FH FHC	FIRE HOSE CABINET	KIT	KITCHEN
DWTR	DUMBWAITER	FHR	FIRE HOSE CABINET	NII	KIIGHEN
DT DR	DUTCH DOOR	FIN	FINISH, FINISHED		
DEMO	DEMOLISH, DEMOLITION	FLASH	FLASHING		
DEPR	DEPRESSED	FLR	FLOOR	L	LONG, LENGTH
DEPT	DEPARTMENT	FPRFG	FIREPROOFING	LAB	LABORATORY
DET	DETAIL	FR	FRAME	LAM	LAMINATE, LAMINATED
DF	DRINKING FOUNTAIN	FRP	FIBERGLASS REINFORCED PANEL	LAV	LAVATORY
DIA	DIAMETER	FT	FEET, FOOT	LBL	LABEL
DIAG	DIAGONAL	FTG	FOOTING	LBS	POUNDS
DIFF	DIFFUSER	FTR	FIN TUBE RADIATION	LF	LINEAR FOOT
DIM	DIMENSION	FVC	FIRE VALVE CABINET	LH	LEFT HAND
DIR	DIRECTORY	FWC	FABRIC WALL COVERING	LHR	LEFT HAND REVERSE
DEFS	DIRECT APPLIED EXT FINISH SYSTEM			LKR	LOCKER
DMPF	DAMPPROOFING SYSTEM	$\sim$		LLH	LONG LEG HORIZONTAL
DMT	DEMOUNTABLE	G		LLV	LONG LEG VERTICAL
DN	DOWN	GA	GAGE, GAUGE	LO	LOUVER OPENING
DR OPNG	DOOR OPENING	GALV	GALVANIZED	LP	LOW POINT
DR	DOOR		GLASS FIBER REINFORCED CONCRETE	LPRF	LIGHT PROOF
DWG	DRAWING	GRFG	GLASS FIBER REINFORCED GYPSUM	LT WT	LIGHT WEIGHT
DT	DRAIN TILE	GI	GAUCANIZED IRON		
DWL	DOWEL	GL	GLASS		
DWR	DOWEL	GR	GLASS	М	
DWR	DRAWER				
		GRG	GLASS REINFORCED GYPSUM	MAINT	MAINTENANCE
E		GRL	GRILLE	MATL	MATERIAL
		GYP BD	GYPSUM BOARD	MAX	MAXIMUM
EA	EACH			MCC	MULTI COLOR COATING
EF	EXHAUST FAN	Н		MDS	METAL DIVING STRIP
EIFS	EXTERIOR INSULATION FINISH SYSTEM			MECH	MECHANICAL
EJ	EXPANSION JOINT	Н	HIGH, HEIGHT	MET	METAL OR METALLIC
EL	ELEVATION	HB	HOSE BIBB	MT	METAL THRESHOLD
ELEC	ELECTRIC, ELECTRICAL	HC	HOLLOW CORE	MEZZ	MEZZANINE
ELEV	ELEVATOR	HDWD	HARDWOOD	MFR	MANUFACTURER
ENCL	ENCLOSURE	HDWE	HARDWARE	MH	MANHOLE
ENTR	ENTRANCE, ENTRY	HM	HOLLOW METAL	MIN	MINIMUM
EP	ELECTRICAL PANEL	HORIZ	HORIZONTAL, HORIZONTALLY	MISC	MISCELLANEOUS
EQ	EQUAL	HORIZB	HORIZONTAL BLINDS	MKBD	MARKERBOARD
EQUIP	EQUIPMENT	HP	HIGH POINT	MLDG	MOULDING
EW	EACH WAY	HR	HOUR	MO	MASONRY OPENING
EWC	ELECTRICAL WATER COOLER		10011	MRT	MARBLE THRESHOLD
EXIST	EXISTING			MTD	MOUNTED
EXP	EXPANDED, EXPANSION			MULL	MULLION
EXP BT	EXPANSION BOLT	חו	INSIDE DIAMETER	WOLL	MOLLION
		ID			
EXT	EXTERIOR	IE		Ν	
_		INCL	INCLUDE, INCLUDING		
F		INFO		NIC	NOT IN CONTRACT
		IN	INCH, INCHES	NO	NUMBER
FAC	FACTORY	INSUL	INSULATE, INSULATION	NOM	NONIMAL
FACP	FIRE ALARM CONTROL PANEL	IR	IMPACT RESISTANT	NRC	NOICE REDUCTION COEFFICIENT
FD	FLOOR DRAIN	INT	INTERIOR	NTS	NOT TO SCALE
FDC	FIRE DEPARTMENT CONNECTION				
FDTN	FOUNDATION	I			
FE	FIRE EXTINGUISHER	J			

JANITOR CLOSET

JOINT JOIST

**FINISH FLOOR** 

JC

JST

JT

FIRE EXTINGUISHER AND BRACKET

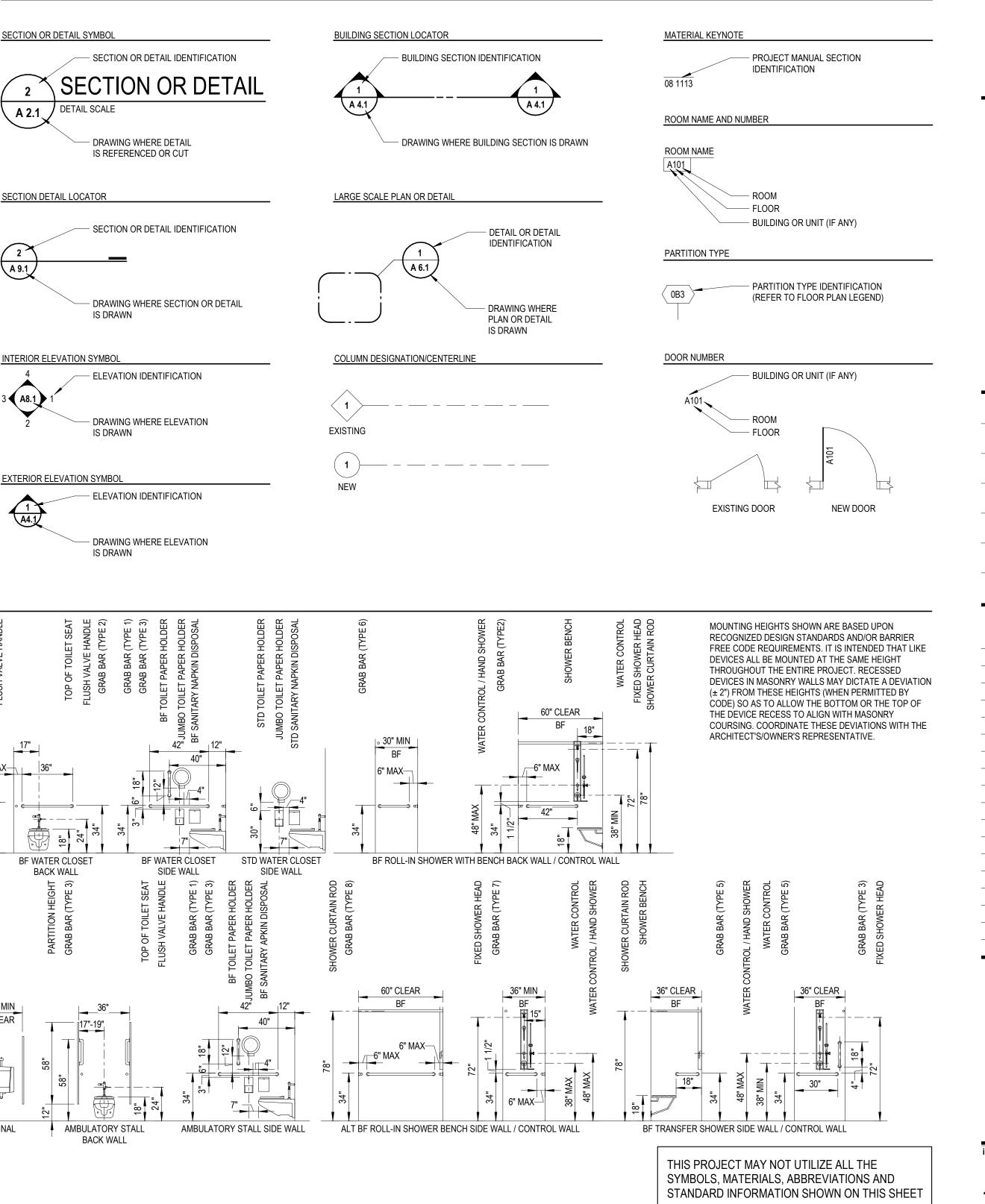
FIRE EXTINGUISHER CABINET

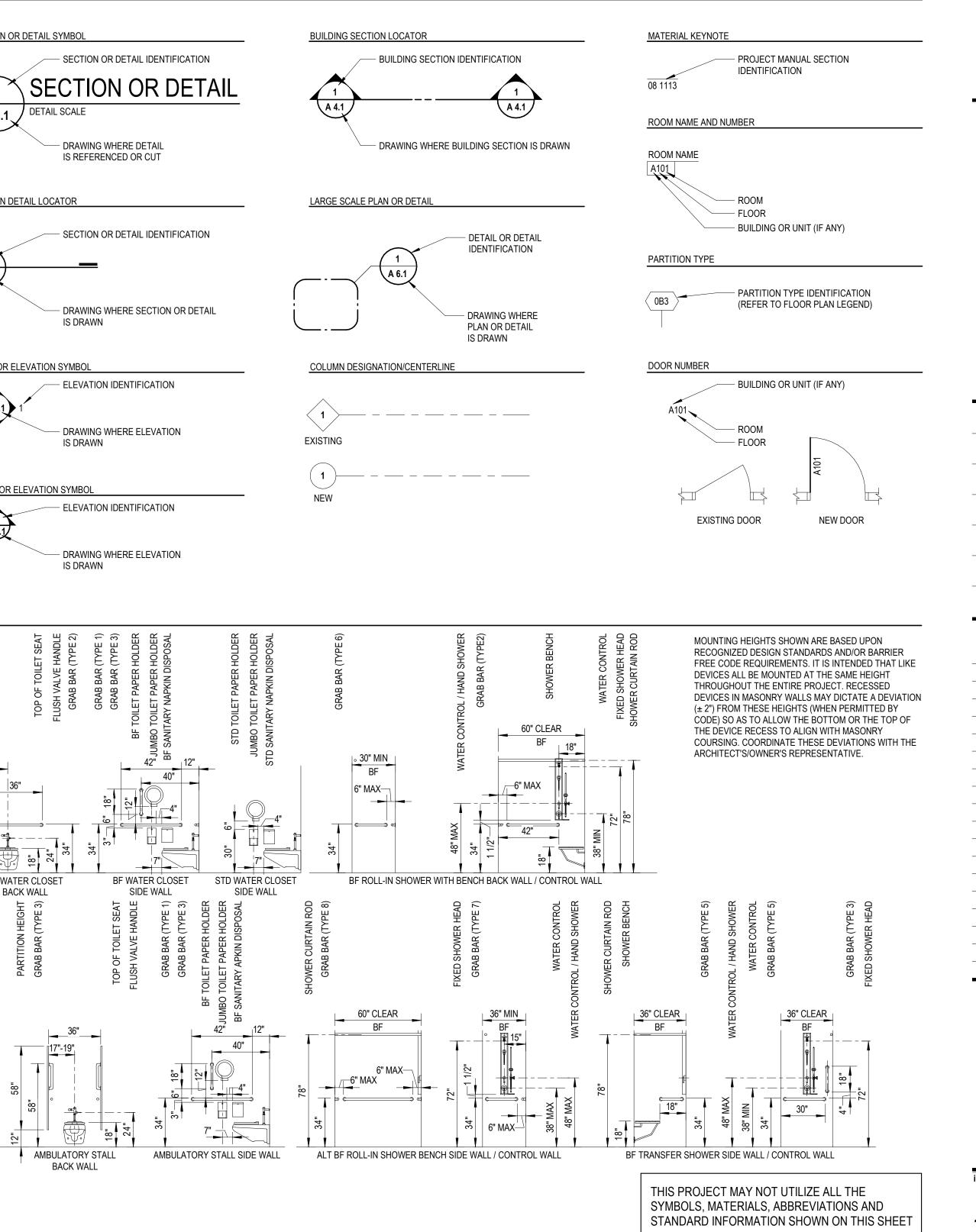
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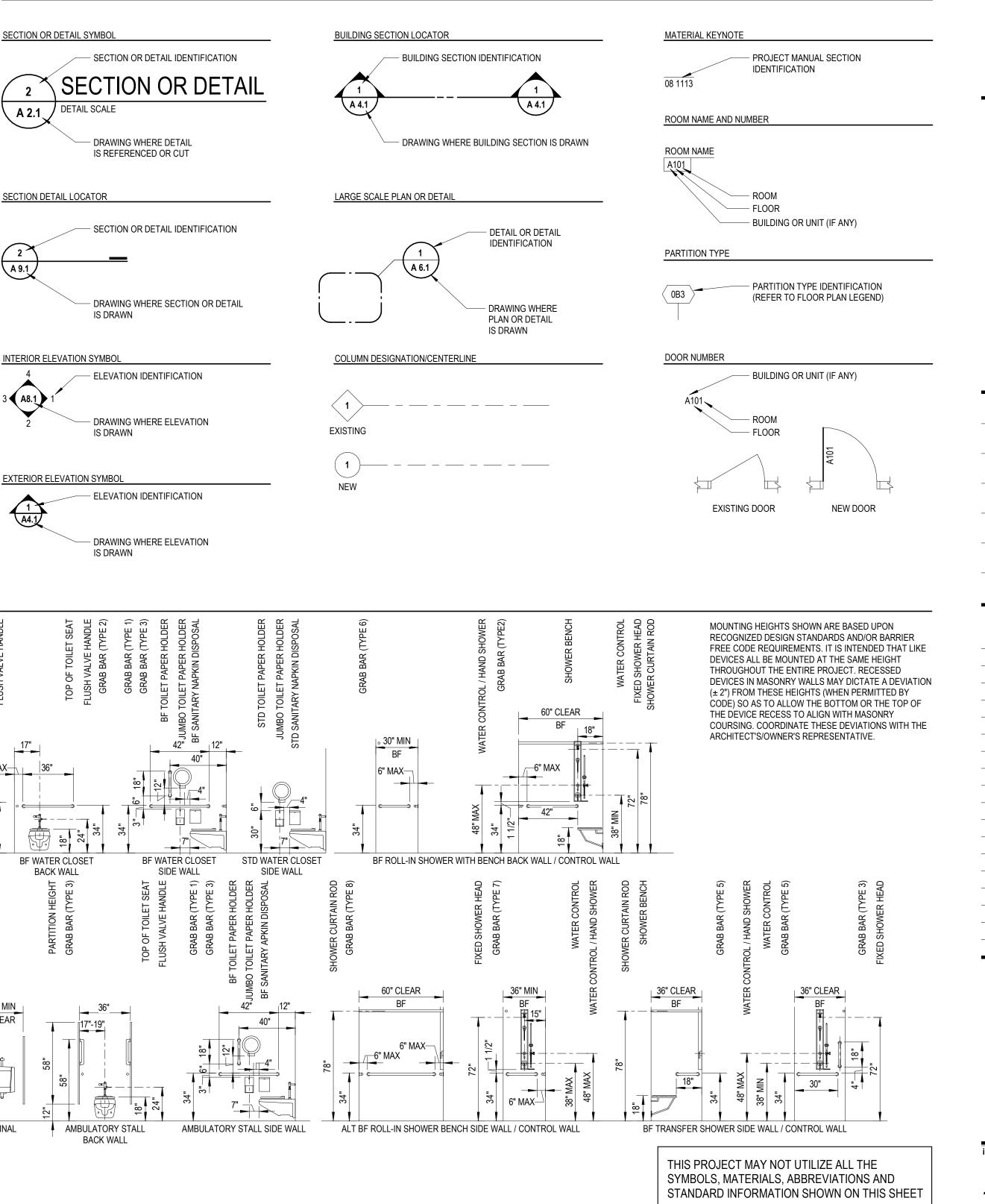
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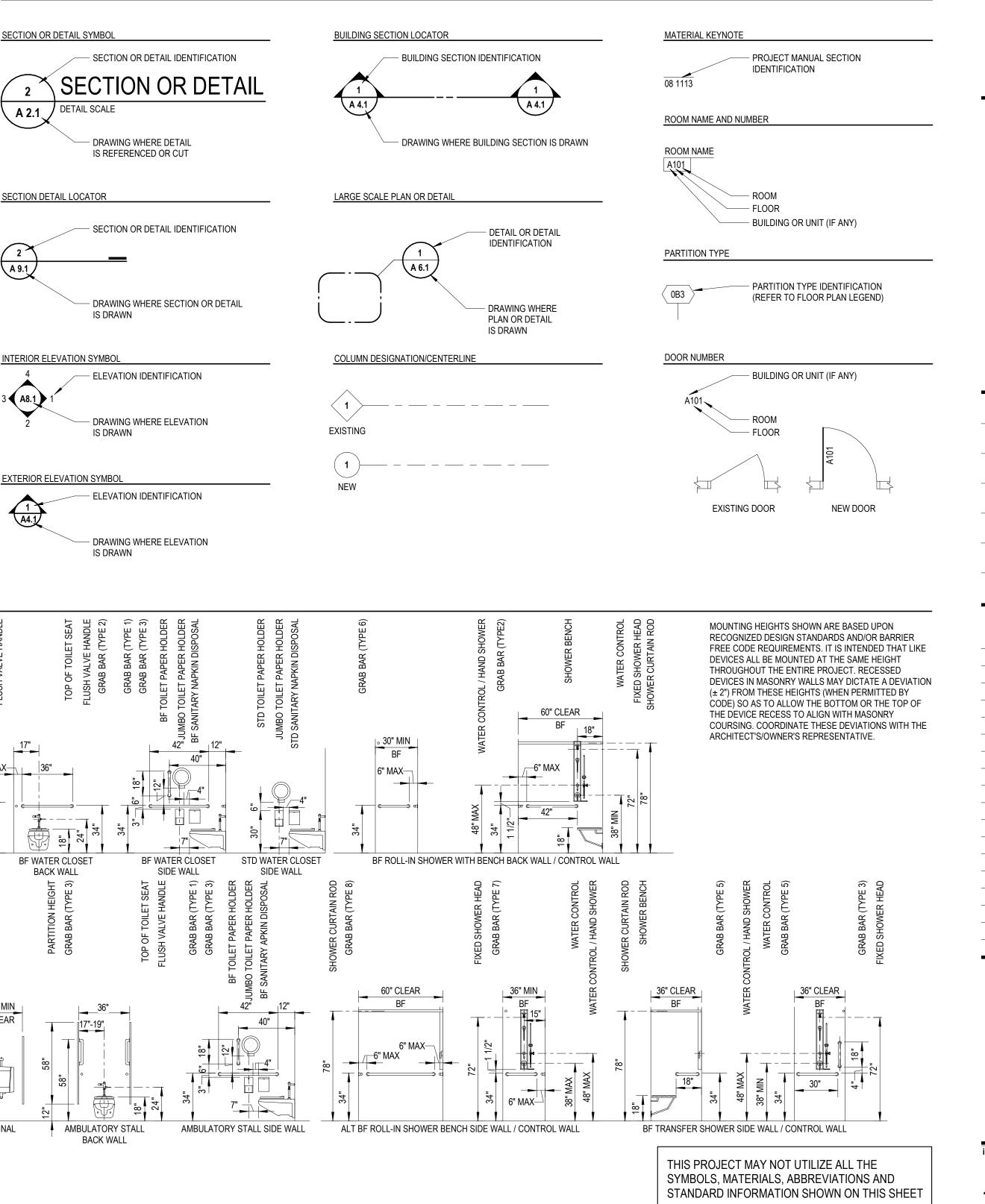
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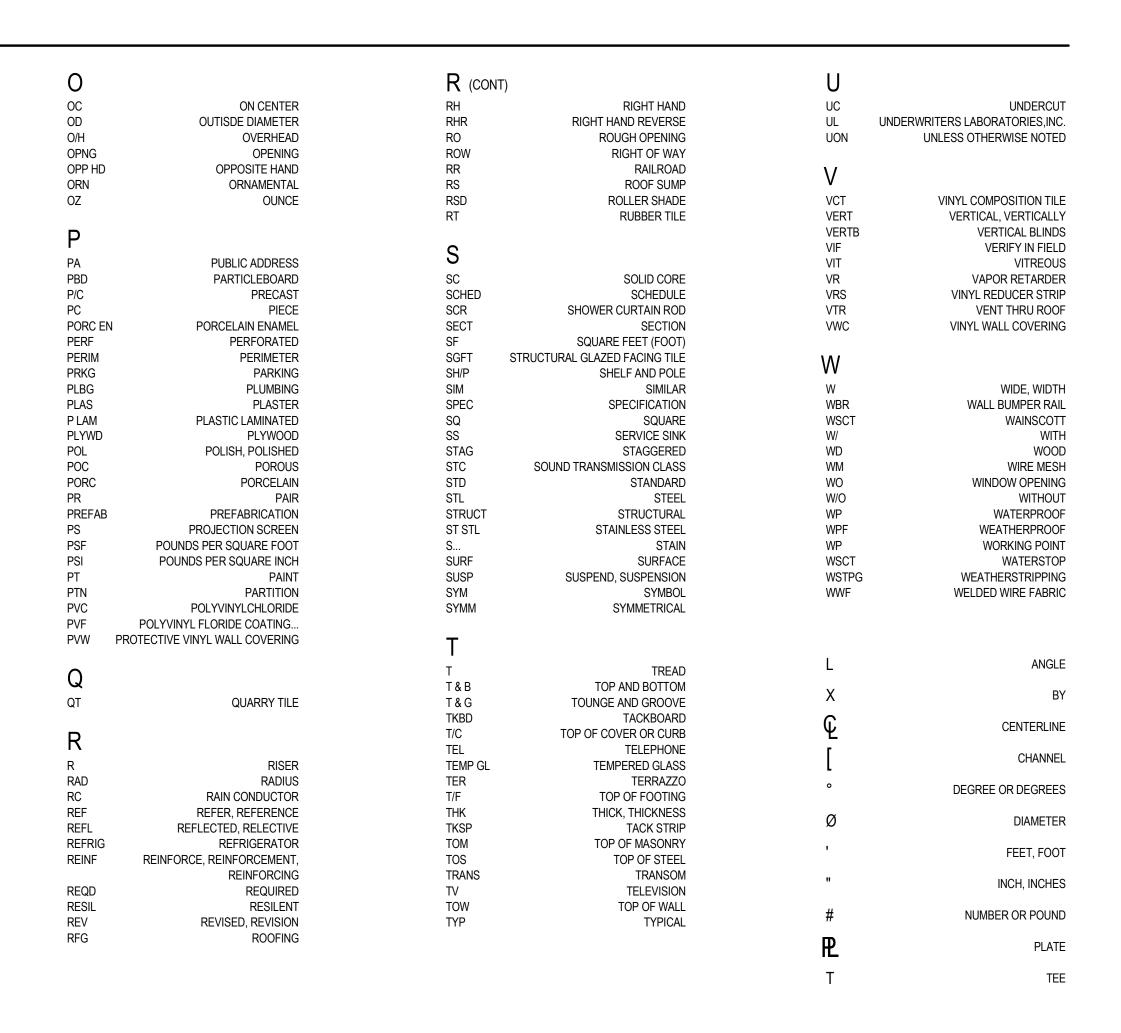
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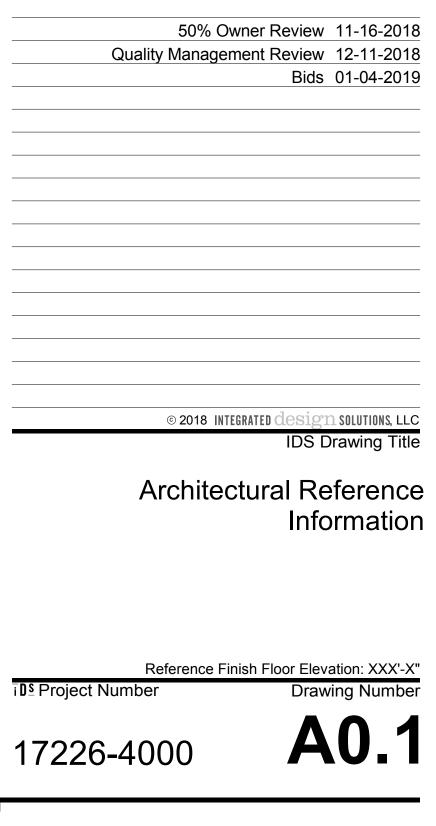












Issued for

Ferndale Public Schools 871 Pinecrest Ferndale, Michigan Key Plan

Project Administrator

Couture / Easthope

Project Architect / Engineer J. Couture

Project Designer

C. Azar

Drawn By

J. Couture

Q.M. Review B. Sundberg

Approved

As Noted

B. Sundberg Drawing Scale

Issue Date

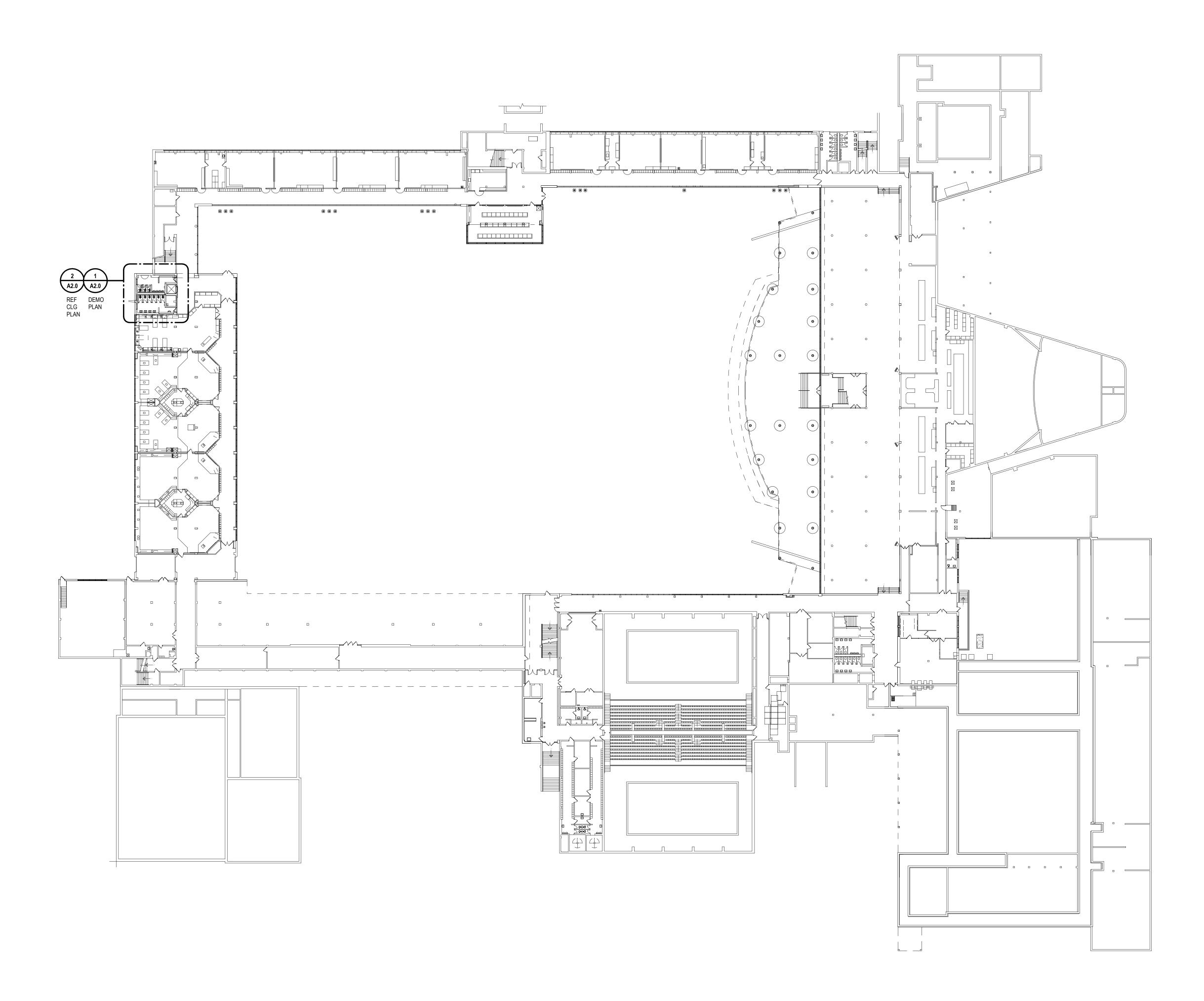
Ferndale High School and Middle School Select Toilet Room Renovation

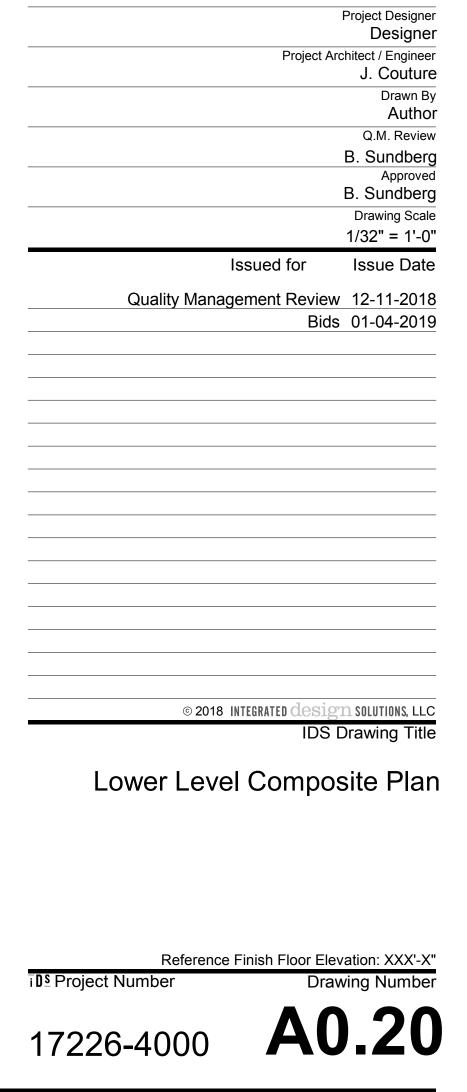
SCHOOLS

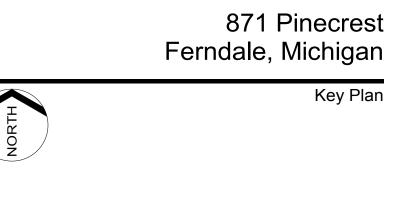
www.XXXXX.com Project Title FERNDALE











Ferndale High School and Middle School Select Toilet Room Renovation

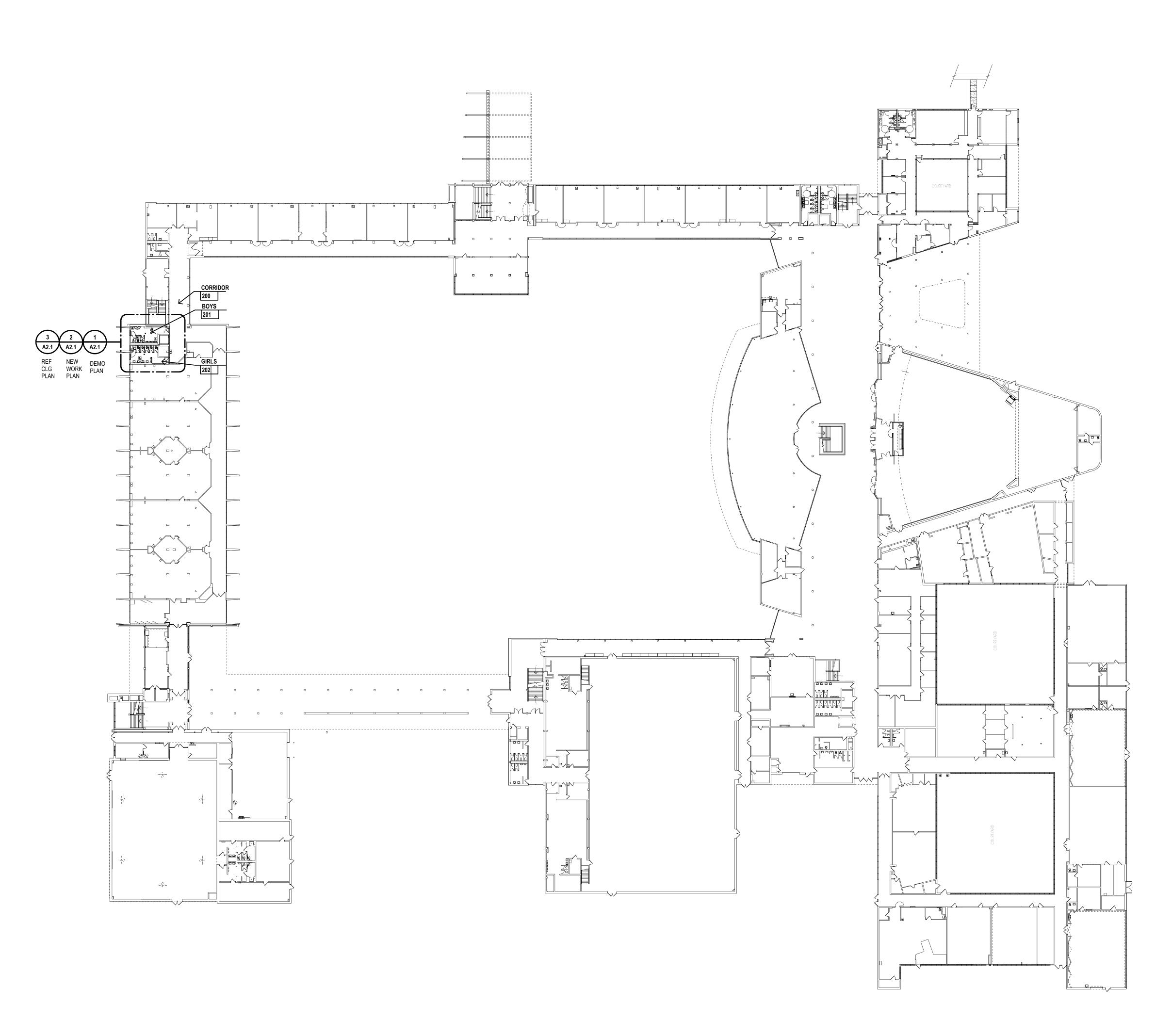
Ferndale Public Schools

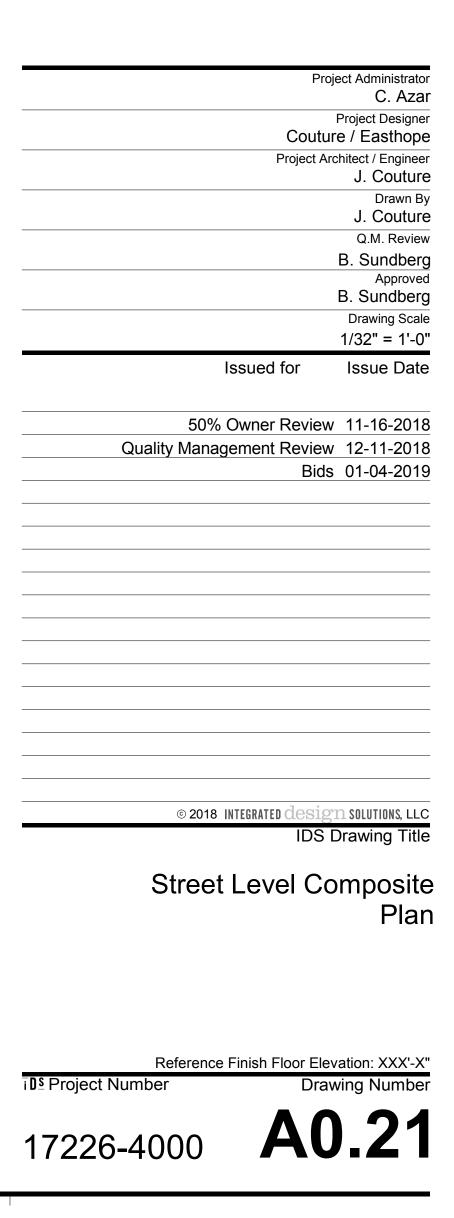
Project Administrator C. Azar

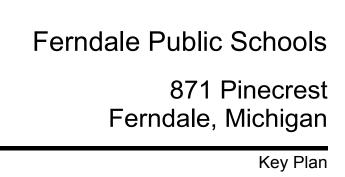
FERNDALE SCHOOLS

www.XXXXX.com Project Title









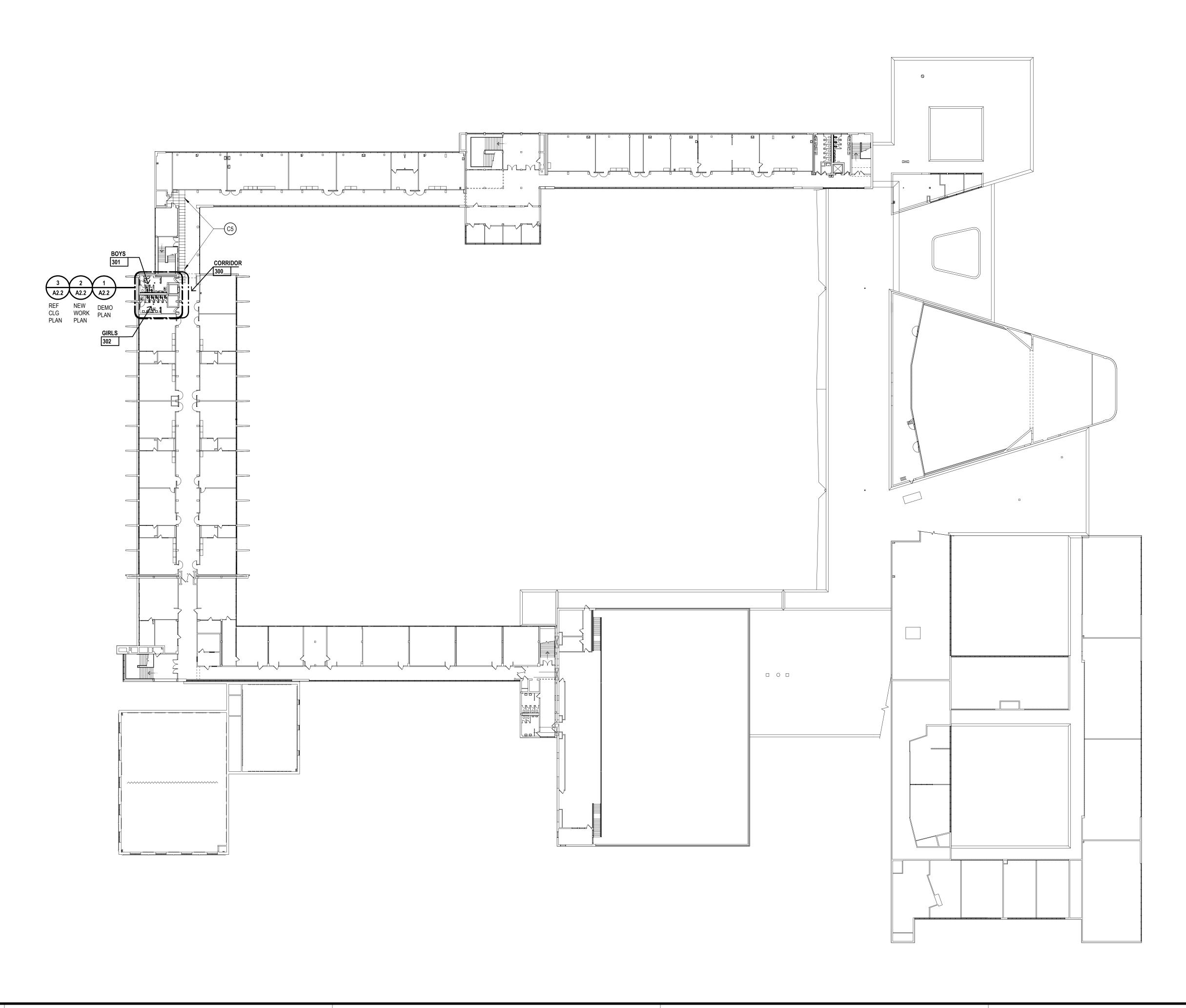
Ferndale High School and Middle School Select Toilet Room Renovation

FERNDALE SCHOOLS

Project Title

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# KEYNOTES

REFLECTED CEILING PLAN NOTE: NOT ALL NOTES MAY BE USED

- C1 09 2900 GYP BD CEILING ON METAL RUNNERS SUSPENDED FROM ABOVE
- C2 23 0000 RADIANT CEILING PANEL IN 09 2900 GYP BD CEILING REFER TO MECH
- C3 26 0000 RECESSED COVE LIGHT REFER TO ELEC AND DETAIL
- C4 08 1113 PROVIDE 18"x18" CEILING ACCESS PANELS TO ACOMMODATE NEW PLUMBING ABOVE. COORDINATE WITH MECH TRADES
- C5 REPLACE SALVAGED CEILING PANELS IN EXIST METAL GRID. SEE A0.22 FOR EXTENT
- C6 05 5000 LINE OF STEEL CHANNEL SUPPORT FOR TOILET PARTITIONS ABOVE CEILING. REFER TO DETAIL
   C7 23000 EXHAUST GRILL (EG-A) TO REPLACE EXISTING. CONNECT TO EXIST DUCT. REFER TO MECH

Project Administrator
C. Azar Project Designer
Couture / Easthope
Project Architect / Engineer
J. Couture
Drawn By J. Couture
Q.M. Review
B. Sundberg
Approved
B. Sundberg Drawing Scale
1/32" = 1'-0"
Issued for Issue Date
50% Owner Review 11-16-2018
Quality Management Review 12-11-2018
Bids 01-04-2019
© 2018 INTEGRATED design solutions, LLC
IDS Drawing Title
Upper Level Composite Plan
Reference Finish Floor Elevation: XXX'-X"
Project Number Drawing Number
7226_4000 <b>AO_22</b>
7226-4000 AU.LL

Ferndale Public Schools 871 Pinecrest Ferndale, Michigan Key Plan

Ferndale High School and Middle School Select Toilet Room Renovation

Project Title FERNDALE SCHOOLS

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# **GENERAL NOTES**

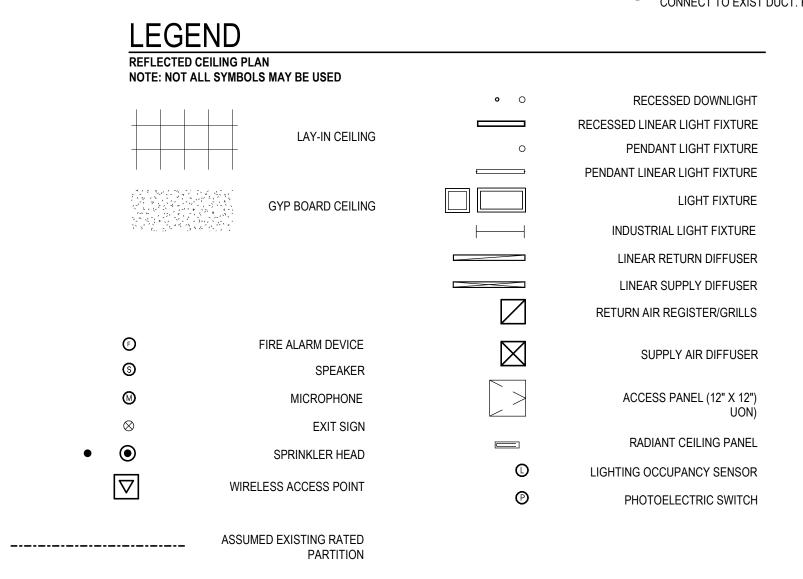
NEW WORK REFLECTED CEILING PLANS A. MATCH EXISTING CEILING HEIGHT U.N.O.

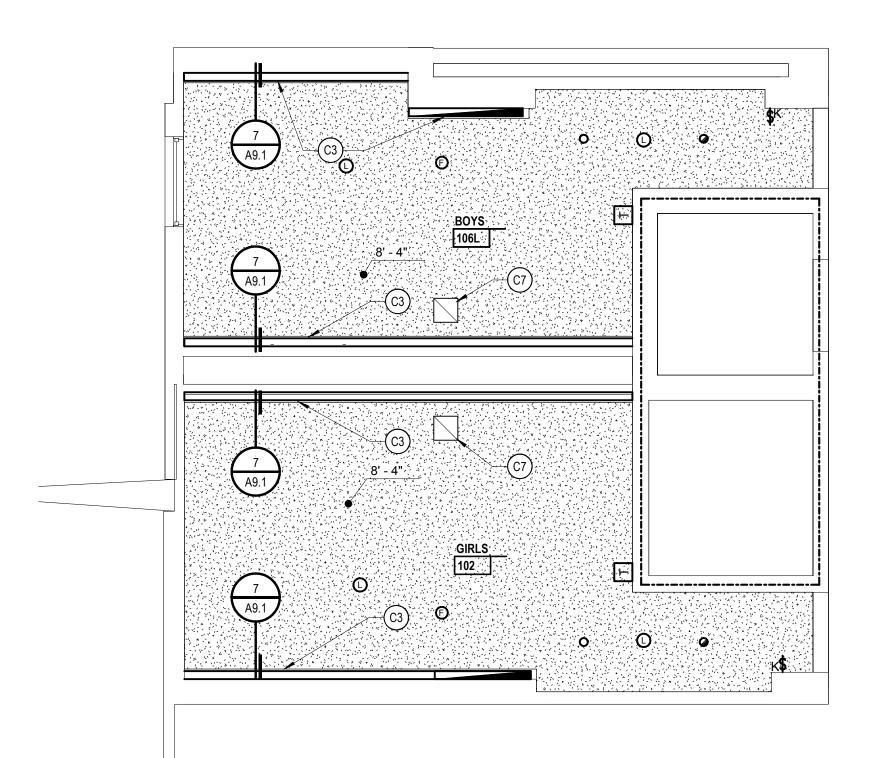
- B. ACOUSTICAL CEILING PANELS AND/OR TILES SHALL BE CENTERED WITHIN THE ROOM OR BORDER UNLESS OTHERWISE NOTED.
- C. REFER TO FLOOR PLANS FOR PARTITION TYPE DESIGNATION.
- D. COORDINATE CEILING SUSPENSION SYSTEMS WITH OTHER CEILING SPACE EQUIPMENT SUPPORTING DEVICES.
- E. UNLESS OTHERWISE NOTED LOCATION OF ITEMS SHOWN IN AREAS WITHOUT FINISH CEILINGS IS APPROXIMATE. COORDINATE EXACT LOCATION BETWEEN TRADES.
- F. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

# **KEYNOTES**

REFLECTED CEILING PLAN NOTE: NOT ALL NOTES MAY BE USED

- (C1) 09 2900 GYP BD CEILING ON METAL RUNNERS SUSPENDED FROM ABOVE
- C2 23 0000 RADIANT CEILING PANEL IN 09 2900 GYP BD CEILING - REFER TO MECH
- C3 26 0000 RECESSED COVE LIGHT REFER TO ELEC AND DETAIL
- C4 08 1113 PROVIDE 18"x18" CEILING ACCESS PANELS TO ACOMMODATE NEW PLUMBING ABOVE. COORDINATE WITH MECH TRADES
- C5 REPLACE SALVAGED CEILING PANELS IN EXIST METAL GRID. SEE A0.22 FOR EXTENT
- C6 05 5000 LINE OF STEEL CHANNEL SUPPORT FOR TOILET PARTITIONS ABOVE CEILING. REFER TO DETAIL
- C7 23000 EXHAUST GRILL (EG-A) TO REPLACE EXISTING. CONNECT TO EXIST DUCT. REFER TO MECH







### **GENERAL NOTES** DEMOLITION

- A. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
- B. CONTRACTOR SHALL PROVIDE TEMPORARY DUSTPROOF PARTITIONS WITH DOORS AT LOCATIONS INDICATED AND/OR AS REQUIRED TO ADEQUATELY SEPARATE OCCUPIED AREAS FROM CONSTRUCTION HAZARDS, NOISE AND/OR DUST. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL LOCATIONS WITH ARCHITECT'S/OWNER'S REPRESENTATIVE.
- C. CONTRACTOR SHALL PROVIDE DUST MATS AT ALL CONSTRUCTION AREA ENTRANCES AND EXIT LOCATIONS. COORDINATE ALL LOCATION'S WITH ARCHITECT'S/OWNER'S REPRESENTATIVES.
- D. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL MEANS OF EGRESS AND ALL FIRE PROTECTION FEATURES FOR PORTIONS OF THE BUILDING THAT REMAIN OCCUPIED DURING CONSTRUCTION.
- E. COORDINATE SCOPE AND EXTENT OF DEMOLITION WITH NEW WORK PLANS AND DETAILS. F. REFER TO MECHANICAL AND ELECTRICAL DEMOLITION FOR ADDITIONAL INFORMATION.

# LEGEND

### DEMOLITION PLAN NOTE: NOT ALL SYMBOLS MAY BE USED

EXISTING TO BE REMOVED \_ \_ \_ EXISTING TO REMAIN \_\_\_\_\_

EXISTING FLOOR/FINISH TO BE REMOVED

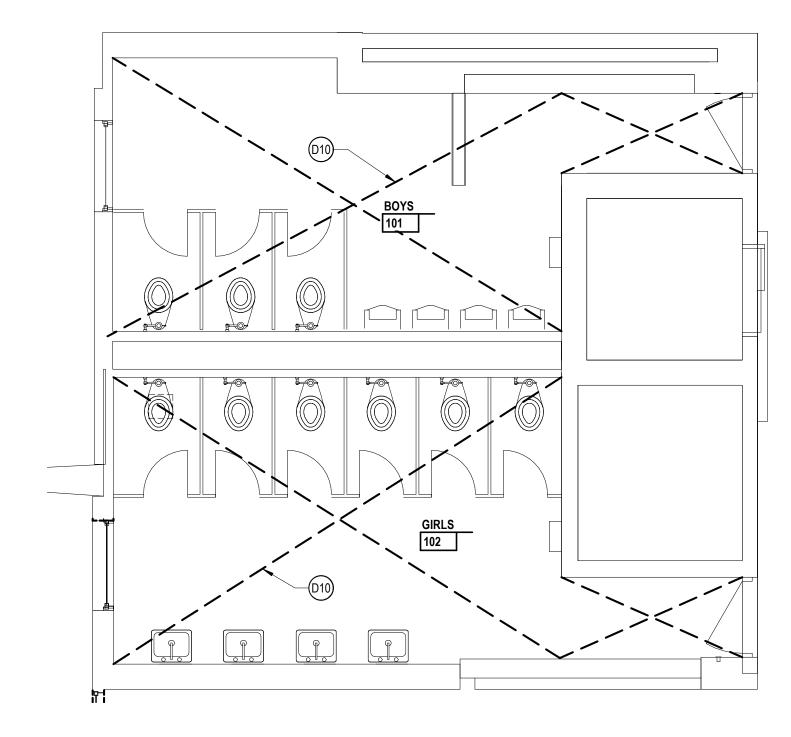
EXISTING CEILING

TO BE REMOVED

### KEYNOTES DEMOLITION

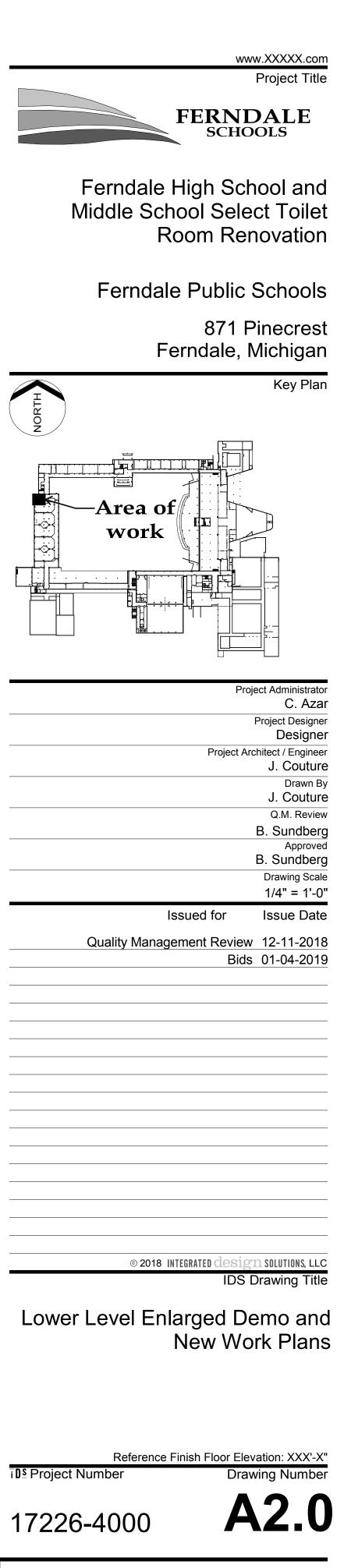
NOTE: NOT ALL NOTES MAY BE USED

- D1 REMOVE DOOR, FRAME, AND ACCESSORIES COMPLETE. (D2) REMOVE TOILET PARTITION AND ACCESSORIES D3 REMOVE STRUCTURAL GLAZED FACING TILE DWARF PARTITION (D4) REMOVE STRUCTURAL GLAZED FACING TILE MASONRY SHELF MASONRY SHELF D5 REMOVE FRP PANEL AND VINYL WINDOW IN EXISTING METAL STOREFRONT FRAME TO ACCOMMODATE NEW GLAZING. (D6) REMOVE MARBLE WINDOW STOOL (D7) REMOVE PLUMBING FIXTURES - REFER TO MECH (D8) REMOVE BASE CABINETS AND SINKS. REFER TO MECH (D9) REMOVE ELECTRIC HAND DRYER AND RETURN TO JVVNER (D10) REMOVE PLASTER CEILING COMPLETE D11) REMOVE PORTIONS OF LAY IN CEILING PANELS AND SALVAGE FOR RE-USE TO ACCOMODATE ELECTRICAL WORK. REFER TO SHEET A0.22 FOR EXTENT (D12) REMOVE WOOD WINDOW SILL
- D13 REMOVE PORTION OF MASONRY WALL REQUIRED TO ACCESS SANITARY PIPE, COORDINATE WITH ACCESS SANITARY PIPE. COORDINATE WITH MECHANICAL
- D14) REMOVE CONC THRESHOLD TO ACCOMODATE NEW. PROTECT EXIST RESILIENT FLOORING IN CORRIDOR D15 REMOVE STRUCTURAL GLAZED FACING TILE WALL
- COMPLETE

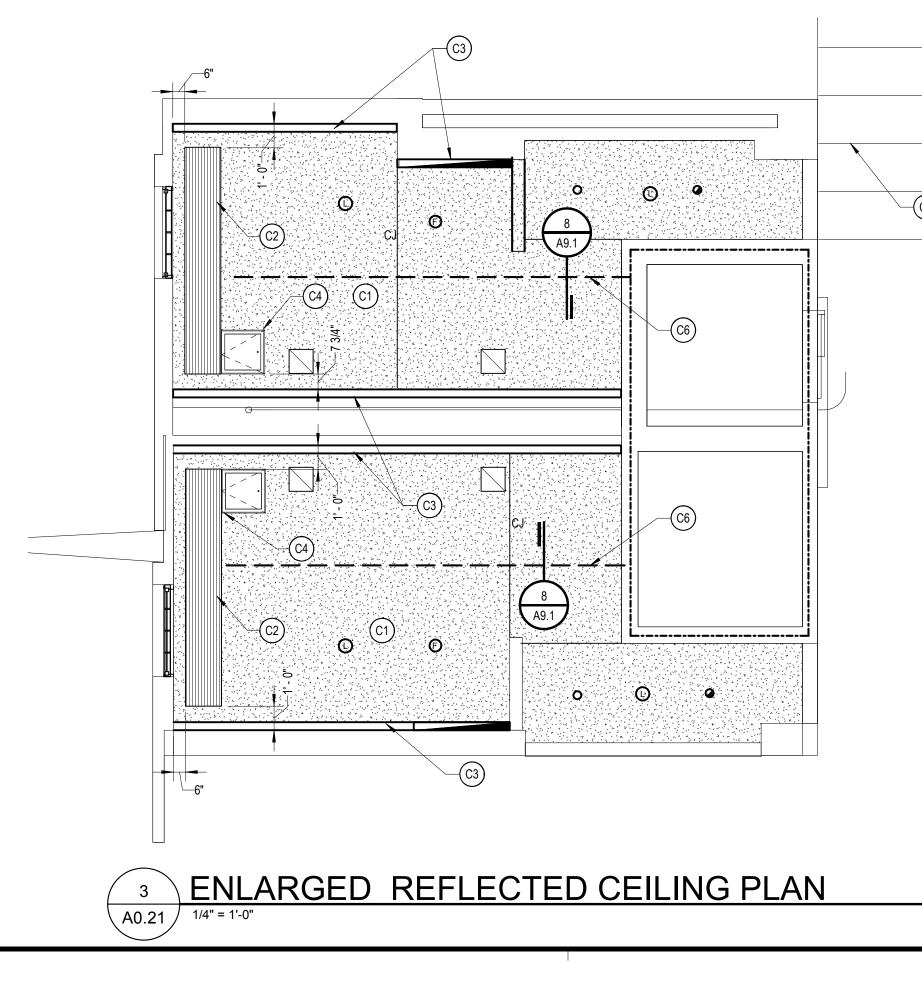


# 1 ENLARGED DEMOLITION PLAN A0.20 1/4" = 1'-0"





<u>GENERAL I</u>			_ <u>KEYNO</u>	
NEW WORK REFLECTED CE A. MATCH EXISTING CEILI			REFLECTED CEILIN NOTE: NOT ALL NO	
B. ACOUSTICAL CEILING F BORDER UNLESS OTHE	PANELS AND/OR TILES SHALL BE C RWISE NOTED.	ENTERED WITHIN THE ROOM OR		BD CEILING ON METAL RUNNERS FROM ABOVE
C. REFER TO FLOOR PLA	IS FOR PARTITION TYPE DESIGNA	TION.		IANT CEILING PANEL IN 09 2900 GY FER TO MECH
D. COORDINATE CEILING SUPPORTING DEVICES	SUSPENSION SYSTEMS WITH OTH	IER CEILING SPACE EQUIPMENT	$\frown$	ESSED COVE LIGHT - REFER TO E
	OTED LOCATION OF ITEMS SHOW ATE. COORDINATE EXACT LOCAT		(C4) 08 1113 PRO	VIDE 18"x18" CEILING ACCESS PAN TE NEW PLUMBING ABOVE. COOR TRADES
	OLOCATION OF ALL ACCESS DOOP OWN DO NOT NECESSARILY REPP		C5) REPLACE SA	LVAGED CEILING PANELS IN EXIS 0.22 FOR EXTENT
REQUIRED FOR ACCES	SIBILITT.			OF STEEL CHANNEL SUPPORT FO
			(C7) 23000 EXHAL	JST GRILL (EG-A) TO REPLACE EXI D EXIST DUCT. REFER TO MECH
LEGEN	)			
REFLECTED CEILING	G PLAN IBOLS MAY BE USED			
		• 0	RECESSED DOWNLIGHT	
	_ LAY-IN CEILING		RECESSED LINEAR LIGHT FIXTURE	
	_	0	PENDANT LIGHT FIXTURE	
ato succession and save			PENDANT LINEAR LIGHT FIXTURE	
	GYP BOARD CEILING		LIGHT FIXTURE	
가게 있는 방송에게 영화적 관람이 있		<u>├</u>	INDUSTRIAL LIGHT FIXTURE	
			LINEAR RETURN DIFFUSER	
			LINEAR SUPPLY DIFFUSER	
			RETURN AIR REGISTER/GRILLS	
6 6	FIRE ALARM DEVICE SPEAKER	$\boxtimes$	SUPPLY AIR DIFFUSER	
© Ø	MICROPHONE		ACCESS PANEL (12" X 12") UON)	
$\otimes$	EXIT SIGN			
• •	SPRINKLER HEAD		RADIANT CEILING PANEL	
	VIRELESS ACCESS POINT	O	LIGHTING OCCUPANCY SENSOR	
		P	PHOTOELECTRIC SWITCH	



### NOTES MAY BE USED

D FROM ABOVE DIANT CEILING PANEL IN 09 2900 GYP BD

REFER TO MECH CESSED COVE LIGHT - REFER TO ELEC AND

OVIDE 18"x18" CEILING ACCESS PANELS TO ATE NEW PLUMBING ABOVE. COORDINATE I TRADES SALVAGED CEILING PANELS IN EXIST METAL

A0.22 FOR EXTENT E OF STEEL CHANNEL SUPPORT FOR RTITIONS ABOVE CEILING. REFER TO DETAIL AUST GRILL (EG-A) TO REPLACE EXISTING.

### **GENERAL NOTES** NEW WORK FLOOR PLANS

A. REFER TO DRAWING AX.X FOR DOOR SCHEDULE AND COLORS.

- B. REFER TO DRAWING AX.X FOR FINISH SCHEDULE AND COLORS.
- C. PARTIAL WALL POCHEING IS SHOWN THROUGHOUT THIS PLAN AND THE TERMINATION OF SAME SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE IN WALL MATERIAL. VERIFY WALL MATERIALS WITH PARTITION TYPES AND SCHEDULES.
- D. PATCH AND/OR REPAIR ALL EXISTING FLOOR, WALL AND OR CEILING FINISHES AS REQUIRED TO MATCH EXISTING OR TO ACCEPT NEW FINISHES AS SCHEDULED AT ALL AREAS AFFECTED BY THE DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
- E. INFILL ALL OPENINGS IN EXISTING WALLS ABOVE CEILINGS THAT ARE THE RESULT OF MECHANICAL OR ELECTRICAL DEMOLITION. OPENINGS IN MASONRY WALLS SHALL BE FILLED WITH MASONRY OF SIMILAR TYPES AND THICKNESS AS EXISTING. OPENINGS IN OTHER TYPES OF WALL CONSTRUCTION SHALL MATCH EXISTING MATERIALS. FINISHES AND WALL THICKNESS. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE of Work.
- F. REFER TO SHEET A9.X FOR PARTITION TYPES
- G. ALL LOUVER DIMENSIONS ARE MARKED TO CENTERLINE. COORDINATE SIZE AND LOCATION WITH MECHANICAL.
- H. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL
- BASE. I. REFER TO LIFE SAFETY PLANS FOR PARTITION RATINGS.
- J. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

## LEGEND

### NEW WORK FLOOR PLAN NOTE: NOT ALL SYMBOLS MAY BE USED

	EXISTING CONSTRUCTION
	NEW CONSTRUCTION
<a>xox</a> >	PARTITION TYPE - REFER TO PARTITION DETAILS DRAWING A9.1
&	SHALL COMPLY WITH BARRIER FREE REQUIREMENTS

### LEGEND TOILET ACCESSORIES

### NOTE: NOT ALL SYMBOLS MAY BE USED

REFER TO SPECIFICATION SECTION 10 801 FOR ADDITIONAL INFORMATION ALL TOILET ACCESSORIES ARE CONTRACTOR FURNISHED AND OWNER INSTALLED UON (OF/OI): OWNER FURNISHED/OWNER INSTALLED (OF/CI): OWNER FURNISHED/CONTRACTOR INSTALLED

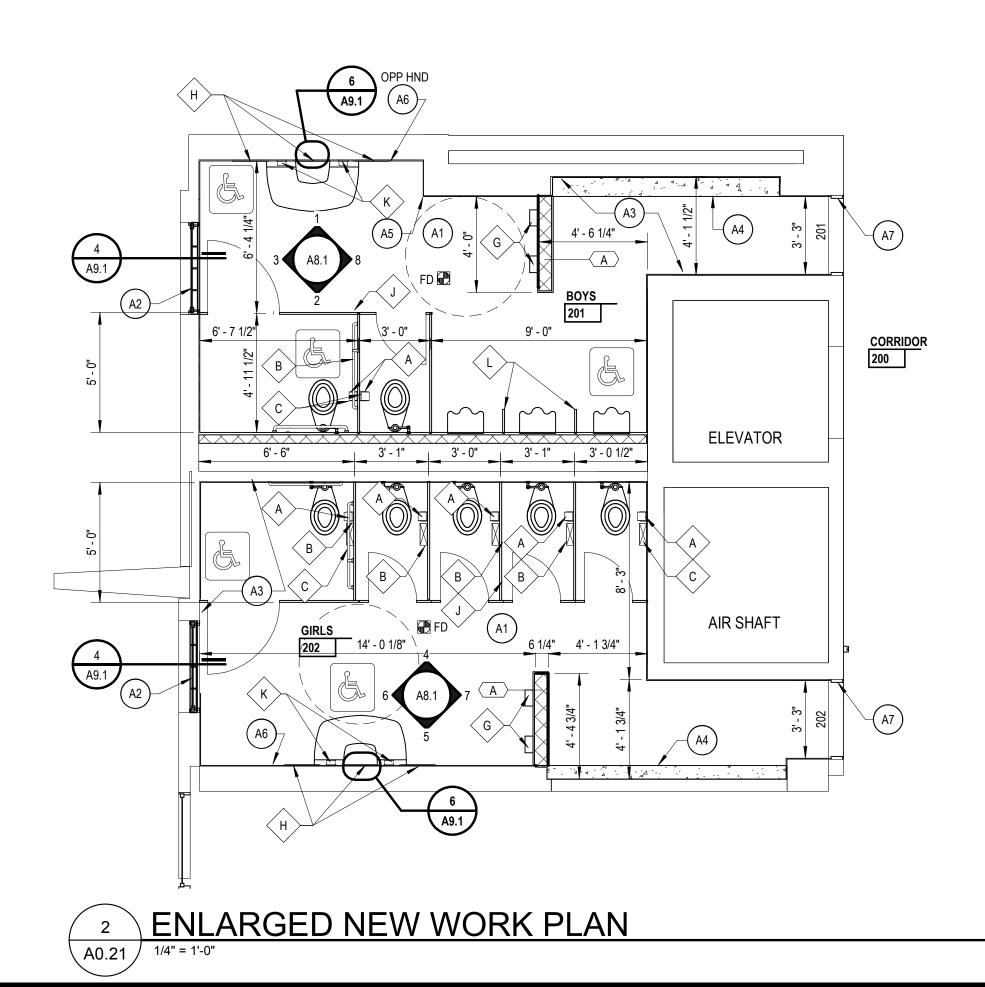
REFER TO DRAWING A0.1 FOR TYPICAL MOUNTING HEIGHTS  $\langle$  A  $\rangle$  10 2800 TOILET PAPER DISPENSOR (TYPICAL EACH

- STALL) (OF/CI) B > 10 2800 SANITARY NAPKIN DISPOSAL (TYPICAL
- EACH WOMAN'S STALL) (OF/CI) > 10 2800 SET OF 3 GRAB BAR TYPE 1 (42"), GRAB
- BAR TYPE 2 (36") AND GRAB BAR TYPE 3 (18" VERTICAL)
- D RECESSED SHOWER HEAD ASSEMBLY REFER TO MECH N/A
- F > 10 2800 PAPER TOWEL DISPENSOR OF/CI
- $\langle$  G  $\rangle$  10 2800 ELECTRIC HAND DRYER
- $(H > 08\ 8300\ MIRROR\ IN\ S.S.\ FRAME\ (SIZE\ AS\ NOTED\ ON)$ PLAN - WXH)
- J > 10 2113 FLOOR MTD TOILET COMPARTMENT
- $\langle$  K  $\rangle$  10 2800 SOAP DISPENSER OF/CI
- > 10 2113 URINAL SCREEN WITH CONTINUOUS ANGLE AT WALL AND FLOOR TO CEILING POST
- $\langle$  Q  $\rangle$  10 2800 SHOWER CURTAIN AND ROD N/A
- $\langle$  V  $\rangle$  10 2800 FOLDING SHOWER SEAT N/A

### KEYNOTES NEW WORK FLOOR PLAN

### NOTE: NOT ALL NOTES MAY BE USED

- (A1) SCARIFY EXISTING TERRAZZO FLOOR TO ACCEPT NEW THIN SET TILE
- (A2) 08 8000 FROSTED INSULATED GLASS INFILL IN EXIST WINDOW FRAME WITH SPANDREL INFILL ABOVE
- (A3) 09 3000 THIN SET CERAMIC TILE ON 1/4" TILE BACKER BOARD MECHANICALLY FASTENED TO EXIST STRUCTURAL FACING TILE (TYPICAL FOR ALL EXIST
- TOILET ROOM WALLS) (A4) 03 0130 CONCRETE INFILL AT REMOVED WALL TO BE FLUSH WITH EXIST TERRAZZO.
- (A5) SAWCUT VERTICAL JOINT IN CRACKED STRUCTURAL GLAZED FACING TILE. GROUT GAPS IN MASONRY SOLID. PROVIDE 07 9200 CERAMIC TILE SEALANT JOINT
- (A6) 09 3000 3/4" TILE BACKER BD ON THIS WALL ONLY (IN LIEU OF 1/4" THRUOUT REMAINDER OF TOILET ROOM). PROVIDE A 3/4" GAP FOR 23 000 LOW VOLTAGE POWER CONDUIT. COORDINATE WITH ELECTRICAL TRADES. REFER TO DETAIL 6/A9.1
- (A7) 08 1113 HM FRAME 'CASED OPENING". REFER TO FRAME TYPE C SHEET A/9.1



### GENERAL NOTES DEMOLITION

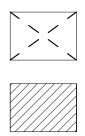
- A. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
- B. CONTRACTOR SHALL PROVIDE TEMPORARY DUSTPROOF PARTITIONS WITH DOORS AT LOCATIONS INDICATED AND/OR AS REQUIRED TO ADEQUATELY SEPARATE OCCUPIED AREAS FROM CONSTRUCTION HAZARDS, NOISE AND/OR DUST. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL LOCATIONS WITH ARCHITECT'S/OWNER'S REPRESENTATIVE.
- C. CONTRACTOR SHALL PROVIDE DUST MATS AT ALL CONSTRUCTION AREA ENTRANCES AND EXIT LOCATIONS. COORDINATE ALL LOCATION'S WITH ARCHITECT'S/OWNER'S REPRESENTATIVES.
- D. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL MEANS OF EGRESS AND ALL FIRE PROTECTION FEATURES FOR PORTIONS OF THE BUILDING THAT REMAIN OCCUPIED DURING CONSTRUCTION.
- E. COORDINATE SCOPE AND EXTENT OF DEMOLITION WITH NEW WORK PLANS AND DETAILS.
- F. REFER TO MECHANICAL AND ELECTRICAL DEMOLITION FOR ADDITIONAL INFORMATION.

### LEGEND DEMOLITION PLAN

NOTE: NOT ALL SYMBOLS MAY BE USED

EXISTING TO BE REMOVED EXISTING TO REMAIN

EXISTING CEILING



\_ \_ \_

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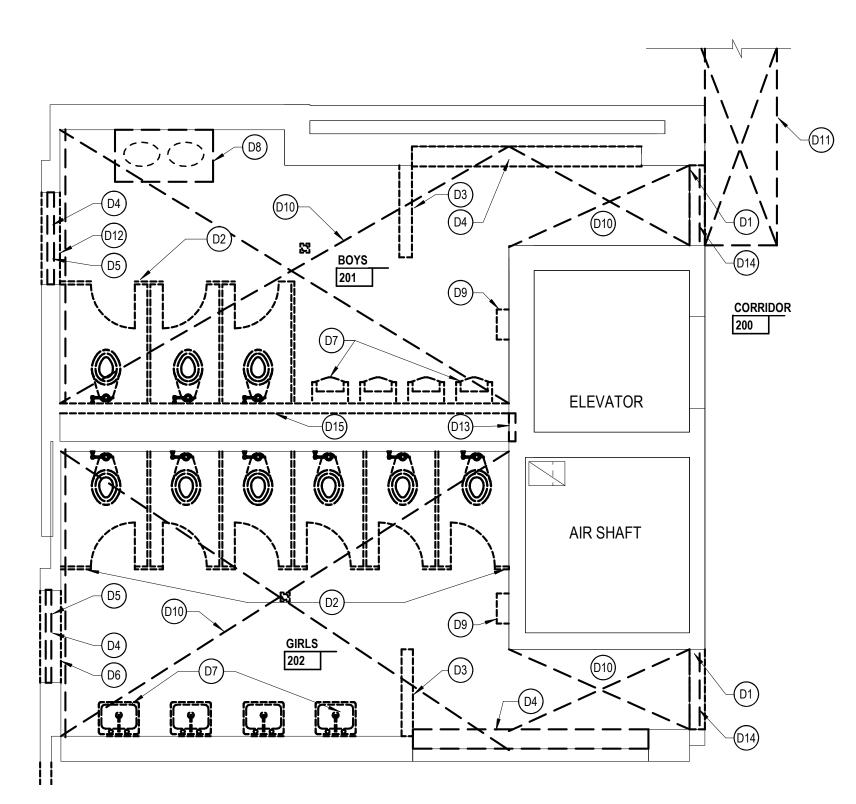
EXISTING FLOOR/FINISH

TO BE REMOVED

TO BE REMOVED

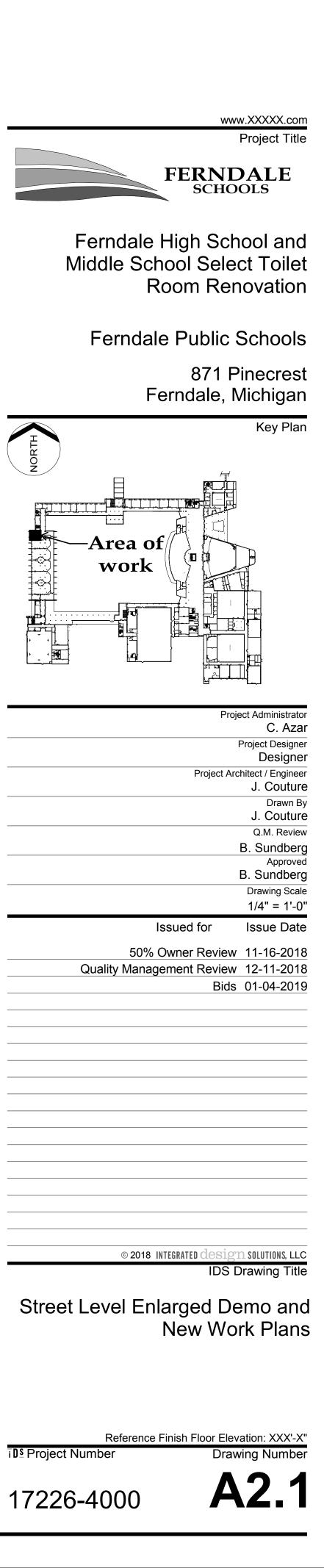
# **KEYNOTES**

- DEMOLITION NOTE: NOT ALL NOTES MAY BE USED
- (D1) REMOVE DOOR, FRAME, AND ACCESSORIES COMPLETE.
- (D2) REMOVE TOILET PARTITION AND ACCESSORIES
- (D3) REMOVE STRUCTURAL GLAZED FACING TILE DWARF
- PARTITION (D4) REMOVE STRUCTURAL GLAZED FACING TILE MASONRY SHELF
- D5 REMOVE FRP PANEL AND VINYL WINDOW IN EXISTING METAL STOREFRONT FRAME TO ACCOMMODATE NEW GLAZING.
- (D6) REMOVE MARBLE WINDOW STOOL
- (D7) REMOVE PLUMBING FIXTURES REFER TO MECH
- (D8) REMOVE BASE CABINETS AND SINKS. REFER TO MECH
- (D9) REMOVE ELECTRIC HAND DRYER AND RETURN TO ─ OWNER
- (D10) REMOVE PLASTER CEILING COMPLETE
- (D11) REMOVE PORTIONS OF LAY IN CEILING PANELS AND SALVAGE FOR RE-USE TO ACCOMODATE ELECTRICAL
- WORK. REFER TO SHEET A0.22 FOR EXTENT (D12) REMOVE WOOD WINDOW SILL
- (D13) REMOVE PORTION OF MASONRY WALL REQUIRED TO ACCESS SANITARY PIPE. COORDINATE WITH MECHANICAL
- (D14) REMOVE CONC THRESHOLD TO ACCOMODATE NEW. PROTECT EXIST RESILIENT FLOORING IN CORRIDOR
- (D15) REMOVE STRUCTURAL GLAZED FACING TILE WALL COMPLETE









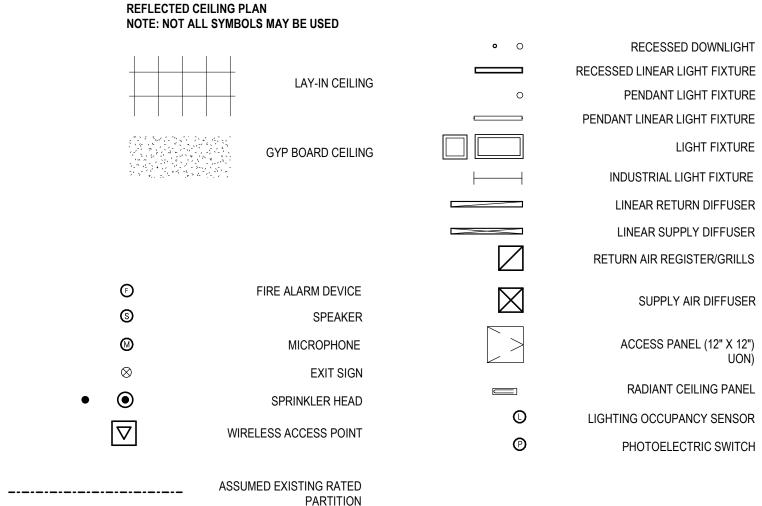
# GENERAL NOTES

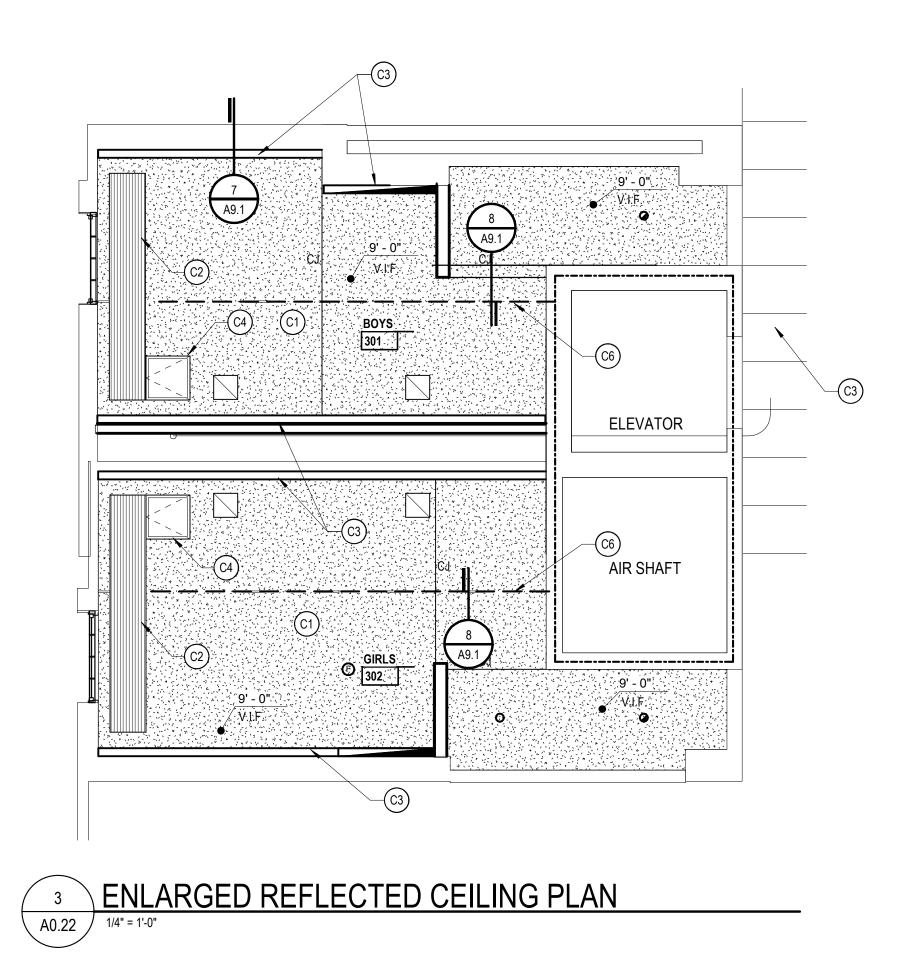
NEW WORK REFLECTED CEILING PLANS A. MATCH EXISTING CEILING HEIGHT U.N.O.

REQUIRED FOR ACCESSIBILITY.

- B. ACOUSTICAL CEILING PANELS AND/OR TILES SHALL BE CENTERED WITHIN THE ROOM OR BORDER UNLESS OTHERWISE NOTED.
- C. REFER TO FLOOR PLANS FOR PARTITION TYPE DESIGNATION.
- D. COORDINATE CEILING SUSPENSION SYSTEMS WITH OTHER CEILING SPACE EQUIPMENT SUPPORTING DEVICES.
- E. UNLESS OTHERWISE NOTED LOCATION OF ITEMS SHOWN IN AREAS WITHOUT FINISH CEILINGS IS APPROXIMATE. COORDINATE EXACT LOCATION BETWEEN TRADES.
- F. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS

# LEGEND





# KEYNOTES

REFLECTED CEILING PLAN NOTE: NOT ALL NOTES MAY BE USED

- (C1) 09 2900 GYP BD CEILING ON METAL RUNNERS SUSPENDED FROM ABOVE
- C2 23 0000 RADIANT CEILING PANEL IN 09 2900 GYP BD CEILING REFER TO MECH
- C3 26 0000 RECESSED COVE LIGHT REFER TO ELEC AND
- DETAIL (C4) 08 1113 PROVIDE 18"x18" CEILING ACCESS PANELS TO ACOMMODATE NEW PLUMBING ABOVE. COORDINATE
- WITH MECH TRADES (C5) REPLACE SALVAGED CEILING PANELS IN EXIST METAL GRID. SEE A0.22 FOR EXTENT
- (C6) 05 5000 LINE OF STEEL CHANNEL SUPPORT FOR
- TOILET PARTITIONS ABOVE CEILING. REFER TO DETAIL C7 23000 EXHAUST GRILL (EG-A) TO REPLACE EXISTING. CONNECT TO EXIST DUCT. REFER TO MECH

### LEGEND TOILET ACCESSORIES

### NOTE: NOT ALL SYMBOLS MAY BE USED REFER TO SPECIFICATION SECTION 10 801 FOR ADDITIONAL INFORMATION

- ALL TOILET ACCESSORIES ARE CONTRACTOR FURNISHED AND OWNER INSTALLED UON (OF/OI): OWNER FURNISHED/OWNER INSTALLED (OF/CI): OWNER FURNISHED/CONTRACTOR INSTALLED
- REFER TO DRAWING A0.1 FOR TYPICAL MOUNTING HEIGHTS A > 10 2800 TOILET PAPER DISPENSOR (TYPICAL EACH)
- STALL) (OF/CI) B > 10 2800 SANITARY NAPKIN DISPOSAL (TYPICAL
- EACH WOMAN'S STALL) (OF/CI) > 10 2800 SET OF 3 GRAB BAR TYPE 1 (42"), GRAB
- BAR TYPE 2 (36") AND GRAB BAR TYPE 3 (18" VERTICAL) D RECESSED SHOWER HEAD ASSEMBLY - REFER TO
- MECH N/A  $\langle$  F angle 10 2800 PAPER TOWEL DISPENSOR OF/CI
- G > 10 2800 ELECTRIC HAND DRYER
- $\langle$  H  $\rangle$  08 8300 MIRROR IN S.S. FRAME (SIZE AS NOTED ON PLAN - WXH)
- J > 10 2113 FLOOR MTD TOILET COMPARTMENT
- $\langle$  K angle 10 2800 SOAP DISPENSER OF/CI
- > 10 2113 URINAL SCREEN WITH CONTINUOUS ANGLE AT WALL AND FLOOR TO CEILING POST
- $\langle$  Q angle 10 2800 SHOWER CURTAIN AND ROD N/A
- < V > 10 2800 FOLDING SHOWER SEAT N/A

# KEYNOTES

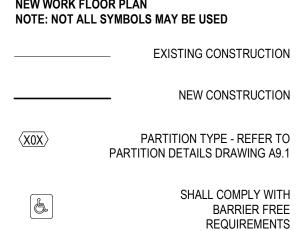
### NEW WORK FLOOR PLAN NOTE: NOT ALL NOTES MAY BE USED

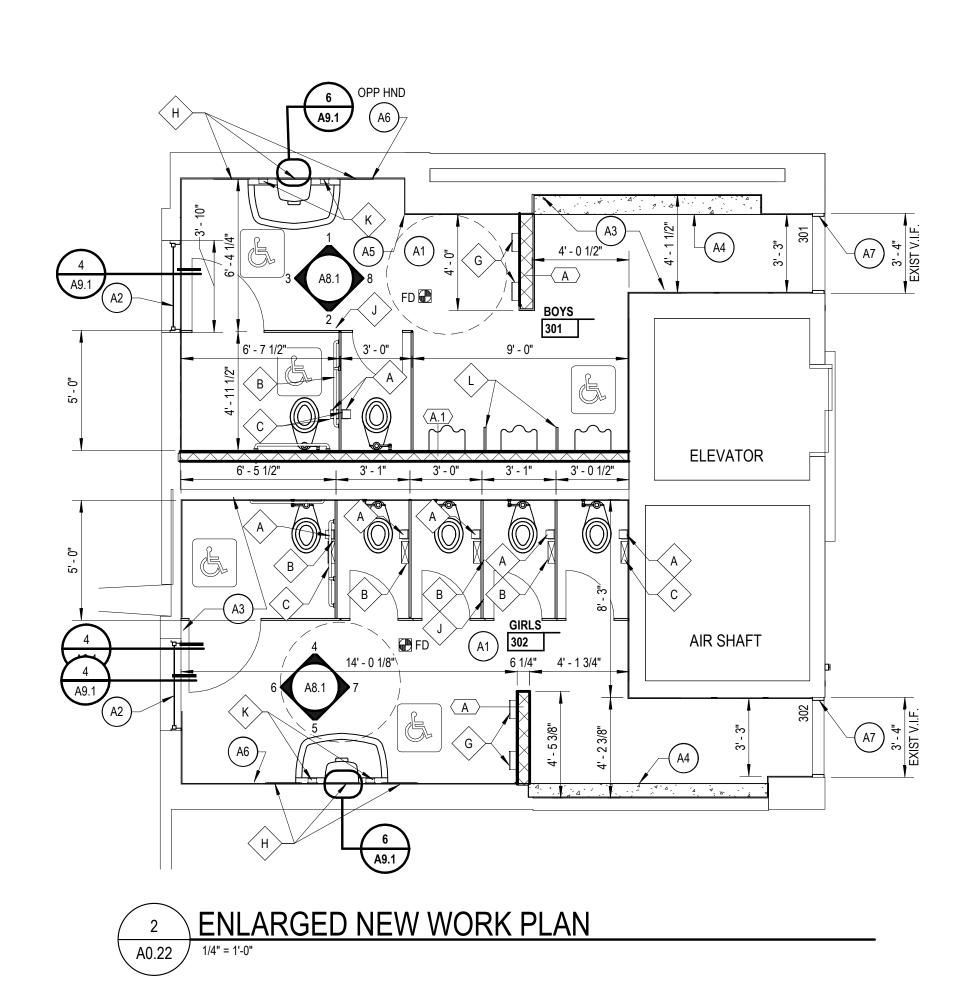
- (A1) SCARIFY EXISTING TERRAZZO FLOOR TO ACCEPT NEW THIN SET TILE
- (A2) 08 8000 FROSTED INSULATED GLASS INFILL IN EXIST WINDOW FRAME WITH SPANDREL INFILL ABOVE
- (A3) 09 3000 THIN SET CERAMIC TILE ON 1/4" TILE BACKER BOARD MECHANICALLY FASTENED TO EXIST STRUCTURAL FACING TILE (TYPICAL FOR ALL EXIST
- TOILET ROOM WALLS) (A4) 03 0130 CONCRETE INFILL AT REMOVED WALL TO BE - FLUSH WITH EXIST TERRAZZO.
- (A5) SAWCUT VERTICAL JOINT IN CRACKED STRUCTURAL GLAZED FACING TILE. GROUT GAPS IN MASONRY SOLID. PROVIDE 07 9200 CERAMIC TILE SEALANT JOINT
- (A6) 09 3000 3/4" TILE BACKER BD ON THIS WALL ONLY (IN LIEU OF 1/4" THRUOUT REMAINDER OF TOILET ROOM). PROVIDE A 3/4" GAP FOR 23 000 LOW VOLTAGE POWÉR CONDUIT. COORDINATE WITH ELECTRICAL TRADES. REFER TO DETAIL 6/A9.1
- (A7) 08 1113 HM FRAME 'CASED OPENING". REFER TO FRAME TYPE C SHEET A/9.1



- NEW WORK FLOOR PLANS A. REFER TO DRAWING AX.X FOR DOOR SCHEDULE AND COLORS.
- B. REFER TO DRAWING AX.X FOR FINISH SCHEDULE AND COLORS.
- PARTIAL WALL POCHEING IS SHOWN THROUGHOUT THIS PLAN AND THE TERMINATION OF SAME SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE IN WALL MATERIAL. VERIFY WALL MATERIALS WITH PARTITION TYPES AND SCHEDULES.
- D. PATCH AND/OR REPAIR ALL EXISTING FLOOR, WALL AND OR CEILING FINISHES AS REQUIRED TO MATCH EXISTING OR TO ACCEPT NEW FINISHES AS SCHEDULED AT ALL AREAS AFFECTED BY THE DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
- E. INFILL ALL OPENINGS IN EXISTING WALLS ABOVE CEILINGS THAT ARE THE RESULT OF MECHANICAL OR ELECTRICAL DEMOLITION. OPENINGS IN MASONRY WALLS SHALL BE FILLED WITH MASONRY OF SIMILAR TYPES AND THICKNESS AS EXISTING. OPENINGS IN OTHER TYPES OF WALL CONSTRUCTION SHALL MATCH EXISTING MATERIALS. FINISHES AND WALL THICKNESS. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SCOPE OF WORK.
- F. REFER TO SHEET A9.X FOR PARTITION TYPES
- G. ALL LOUVER DIMENSIONS ARE MARKED TO CENTERLINE. COORDINATE SIZE AND LOCATION WITH MECHANICAL.
- H. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE
- I. REFER TO LIFE SAFETY PLANS FOR PARTITION RATINGS.
- J. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

LEGEND				





# PLUMBING FIXTURE REQUIREMENTS

		Water	Closets	Lava	tories	Dr
		Male	Female	Male	Female	Fou
Lower Level		10	17	12.00	12.00	
Educational Occupancy	422 occupants	1 per 50	1 per 50	1 per 50	1 per 50	1 p
	· ·	4.22	4.22	4.22	4.22	
Total Occupancy	422 occupants					
Total Required Fixtures:		5	5	5	5	
		Water	Closets	Lava	tories	Dri
		Male	Female	Male	Female	Fou
Street Level		19	27	12.00	12.00	
Business Occupancy	30 occupants	1 per 25 for first	50 then 1 per 50	1 per 40 for first	80 then 1 per 80	1 p
		0.60	0.60	0.38	0.38	
		0.00	0.00	0.00	0.00	
Educational Occupancy	422 occupants	1 per 50	1 per 50	1 per 50	1 per 50	1 pe
		4.22	4.22	4.22	4.22	4
Total Occupancy	452 occupants					
Total Required Fixtures:		5	5	5	5	
		Water	Closets	Lava	tories	Dri
		Male	Female	Male	Female	Fou
Upper Level		11	17	12.00	12.00	
Business Occupancy	20 occupants		50 then 1 per 50		80 then 1 per 80	1 p
		0.40	0.40	0.25	0.25	C
		0.00	0.00	0.00	0.00	
Educational Occupancy	422 occupants	1 per 50	1 per 50	1 per 50	1 per 50	1 p
		4.22	4.22	4.22	4.22	4
Total Occupancy	442 occupants					

### **GENERAL NOTES** DEMOLITION

- A. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
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- C. CONTRACTOR SHALL PROVIDE DUST MATS AT ALL CONSTRUCTION AREA ENTRANCES AND EXIT LOCATIONS. COORDINATE ALL LOCATION'S WITH ARCHITECT'S/OWNER'S REPRESENTATIVES.
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# LEGEND

### DEMOLITION PLAN NOTE: NOT ALL SYMBOLS MAY BE USED

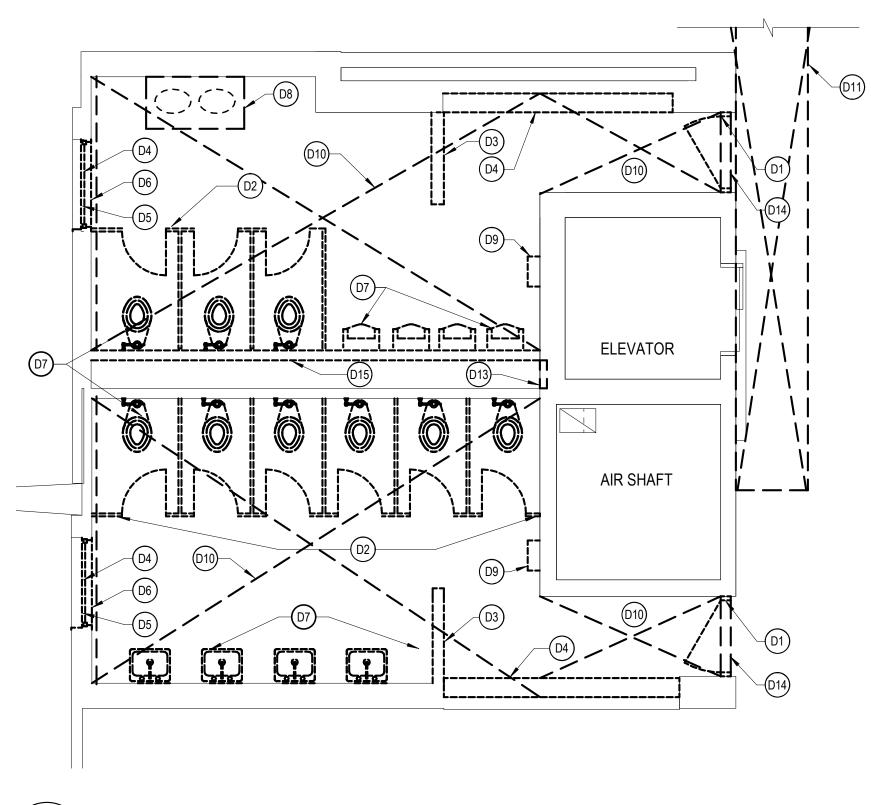
EXISTIN	IG TO	REM	AII
	sting Be Ri		

EXISTING TO BE REMOVED

### EXISTING FLOOR/FINISH TO BE REMOVED

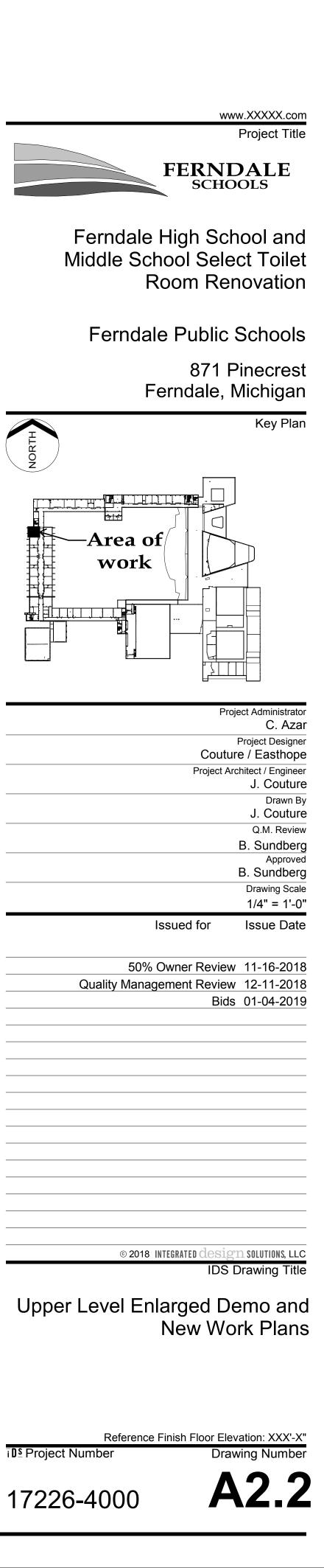
# **KEYNOTES**

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- (D2) REMOVE TOILET PARTITION AND ACCESSORIES
- (D3) REMOVE STRUCTURAL GLAZED FACING TILE DWARF
- PARTITION (D4) REMOVE STRUCTURAL GLAZED FACING TILE
- MASONRY SHELF (D5) REMOVE FRP PANEL AND VINYL WINDOW IN EXISTING METAL STOREFRONT FRAME TO ACCOMMODATE NEW
- GLAZING. (D6) REMOVE MARBLE WINDOW STOOL
- (D7) REMOVE PLUMBING FIXTURES REFER TO MECH (D8) REMOVE BASE CABINETS AND SINKS. REFER TO MECH
- (D9) REMOVE ELECTRIC HAND DRYER AND RETURN TO
- OWNER (D10) REMOVE PLASTER CEILING COMPLETE
- (D11) REMOVE PORTIONS OF LAY IN CEILING PANELS AND SALVAGE FOR RE-USE TO ACCOMODATE ELECTRICAL
- WORK. REFER TO SHEET A0.22 FOR EXTENT
- (D12) REMOVE WOOD WINDOW SILL
- (D13) REMOVE PORTION OF MASONRY WALL REQUIRED TO ACCESS SANITARY PIPE. COORDINATE WITH MECHANICAL
- (D14) REMOVE CONC THRESHOLD TO ACCOMODATE NEW. PROTECT EXIST RESILIENT FLOORING IN CORRIDOR
- (D15) REMOVE STRUCTURAL GLAZED FACING TILE WALL COMPLETE



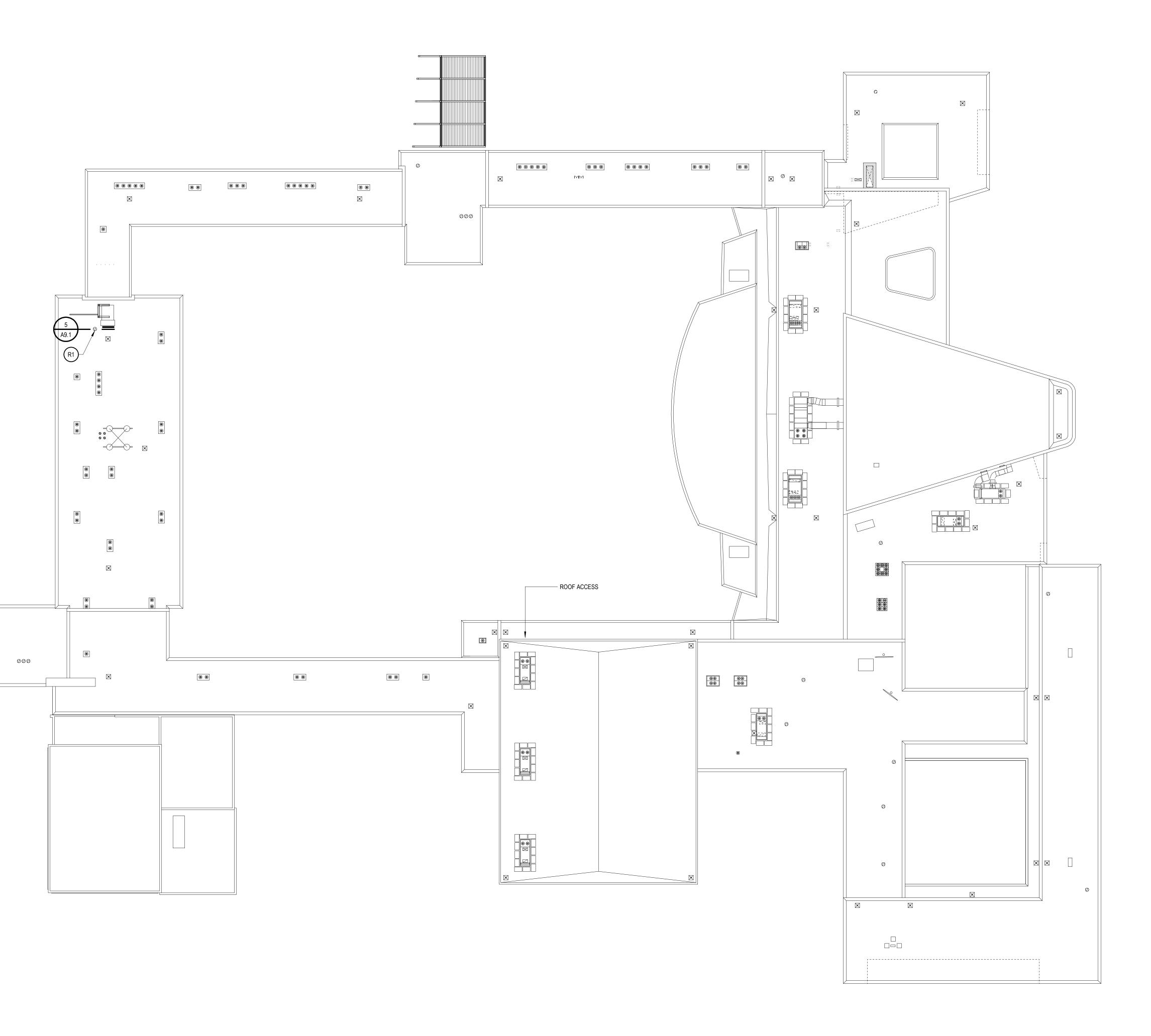
ENLARGED DEMOLITION PLAN 1/4" = 1'-0" A0.22 /





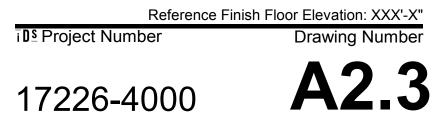
# **KEYNOTES** FINISH PLANS NOTE: NOT ALL NOTES MAY BE USED

R1 23 000 REPLACE EXISTING EXHAUST FAN. 07 5300 PATCH / REPAIR SINGLE PLY MEMBRANE ROOFING AS REQUIRED



### GENERAL NOTES ROOF PLANS

- A. REFER TO DRAWING A9.1 FOR TYPICAL ROOFING DETAILS.
- B. COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS WITH INFORMATION PROVIDED BY THE APPROPRIATE EQUIPMENT MANUFACTURER AND TRADE CONTRACTORS.
- C. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTS FOR ALL PIPES, CURBS, VENTS, DUCTS, CONDUITS, LIGHTNING PROTECTION, AND OTHER FEATURES EXTENDING THROUGH THE ROOF SURFACES WHICH REQUIRE FLASHING AND COORDINATE SIZE AND LOCATION OF SAME.



IDS Drawing Title  $\odot$  2018 integrated  ${
m de}$ Composite Roof Plan

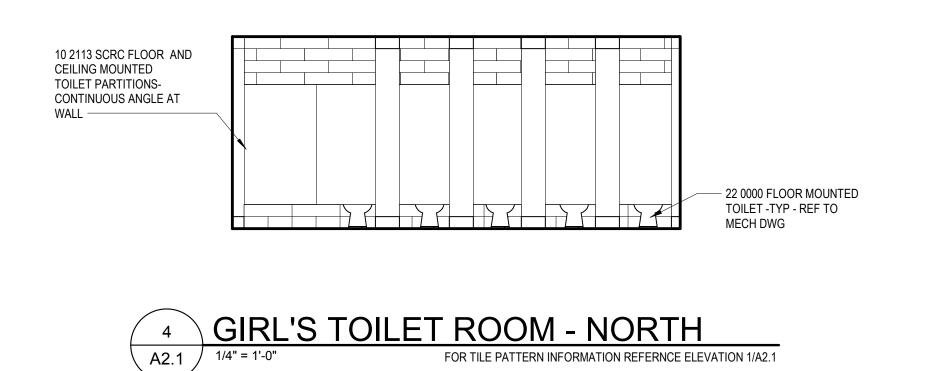
Project Administrator C. Azar Project Designer Designer Project Architect / Engineer J. Couture Drawn By J. Couture Q.M. Review B. Sundberg Approved B. Sundberg Drawing Scale 1/32" = 1'-0" Issued for Issue Date 50% Owner Review 11-16-2018 Quality Management Review 12-11-2018 Bids 01-04-2019

Ferndale Public Schools 871 Pinecrest Ferndale, Michigan Key Plan

Ferndale High School and Middle School Select Toilet Room Renovation

www.XXXXX.com Project Title FERNDALE SCHOOLS







- 10 2800 FRAMED

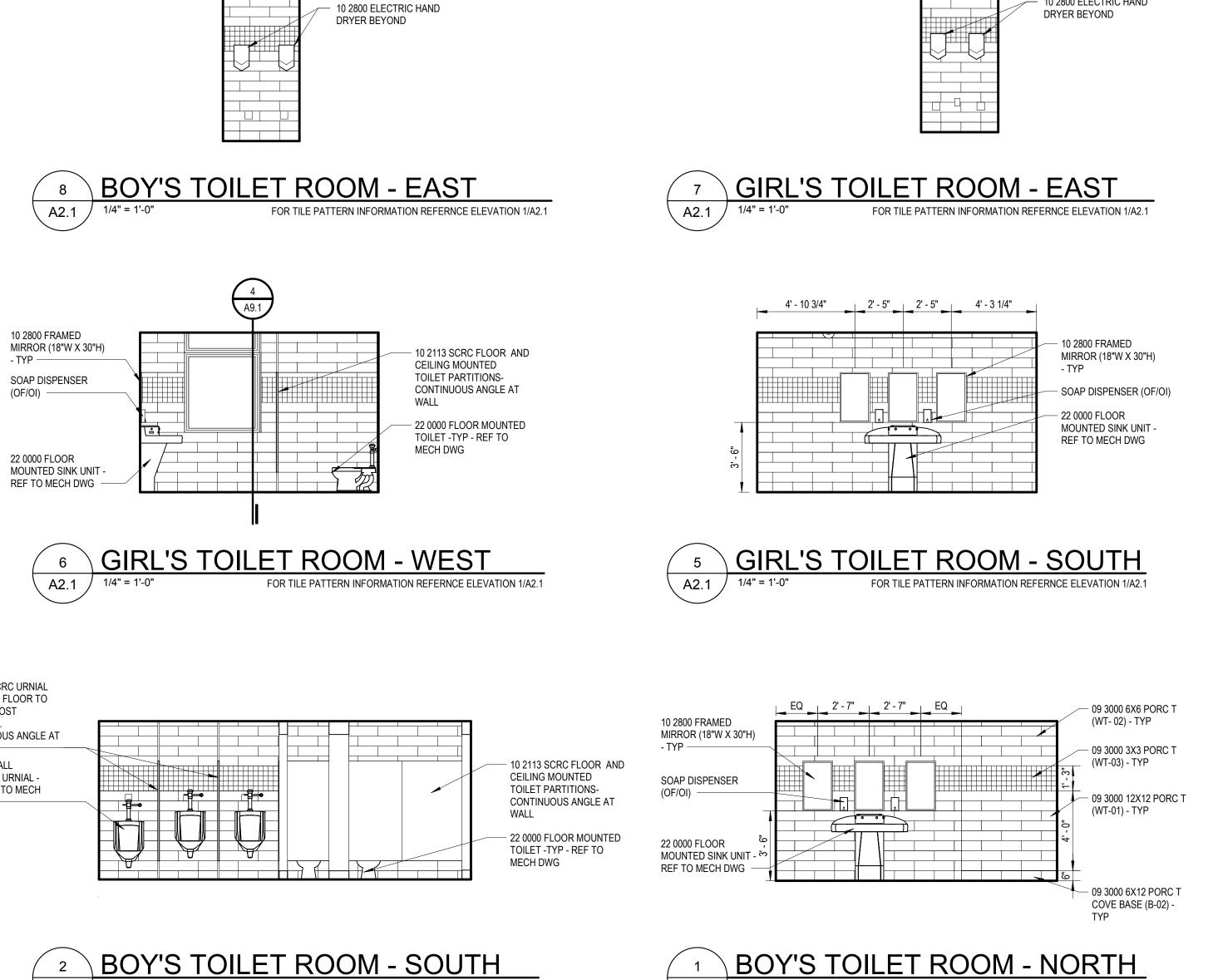
- TYP

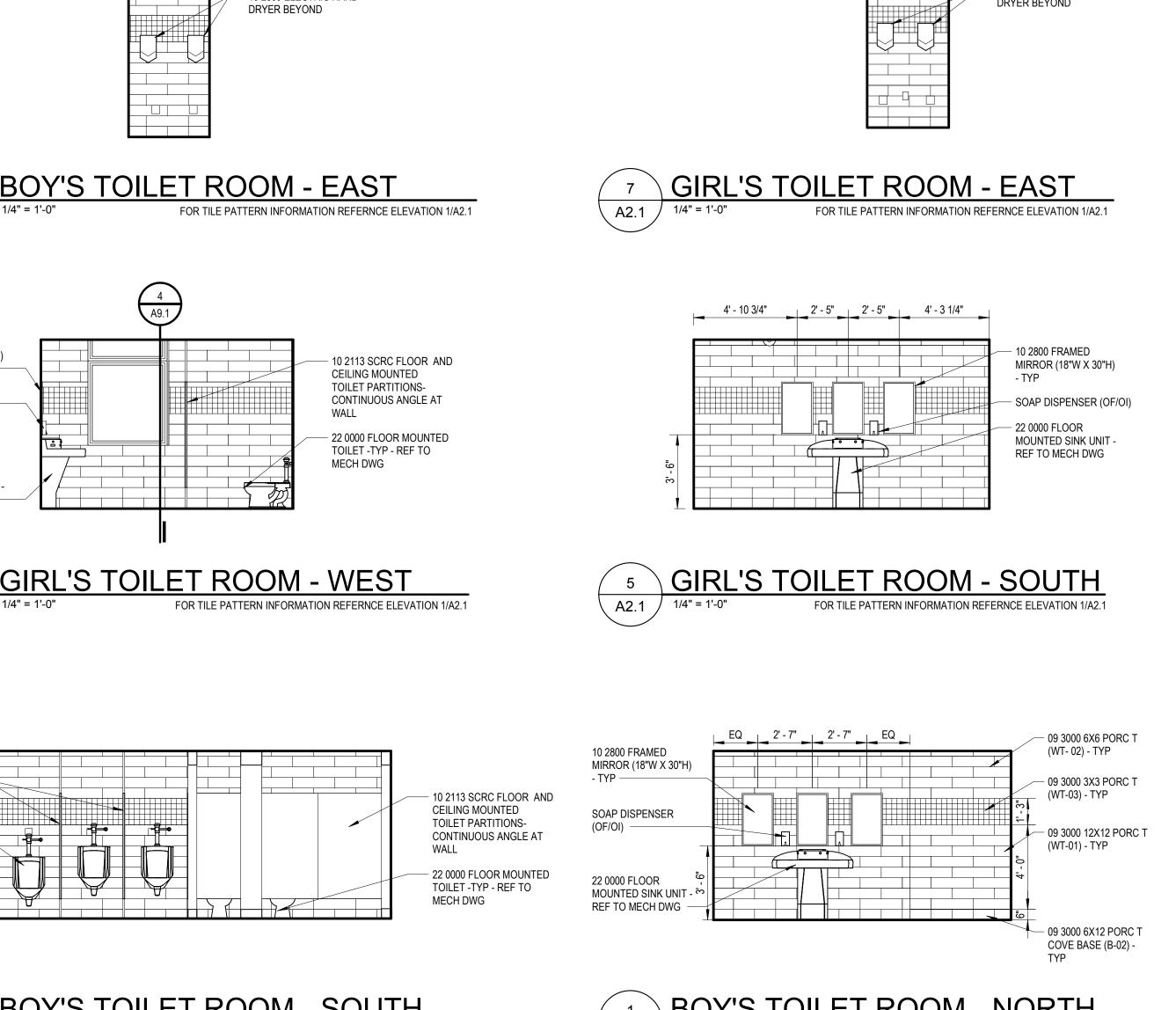
FOR TILE PATTERN INFORMATION REFERNCE ELEVATION 1/A2.1

MIRROR (18"W X 30"H)



10 2113 SCRC URNIAL SCREENS. FLOOR TO CEILING POST MOUNTED.	
CONTINUOUS ANGLE AT	
22 0000 WALL MOUNTED URNIAL - TYP - REF TO MECH DWG	





A2.1 1/4" = 1'-0"

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## LEGEND INTERIOR ELEVATIONS NOTE: NOT ALL SYMBOL

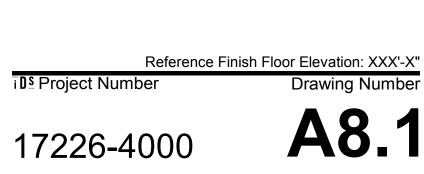
IOTE: NOT ALL SYMBOLS MAY BE USED						
XXXX	06 4023 CASEWORK/ MILLWORK TAG					
XXXX	10 1100 VISUAL DISPLAY SURFACE MK= MARKERBOARD, TK=TACKBOARD XXXX INDICATES BOARD SIZE					
XXXX	SPECIALTY EQUIPMENT BY OTHERS REFER TO FF&E OR TECHNOLOGY PACKAGES					
×x0x	PARTITION TYPE - REFER TO PARTITION DETAILS DRAWING AX.X					
(XX-XX)	ACCENT MATERIAL XX-XX, REFER TO COLOR CODES					

### GENERAL NOTES INTERIOR ELEVATIONS

- A. ALL DIMENSIONS ARE TO FACE OF GYP BOARD UNO.
- B. COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FIXTURES AND EQUIPMENT
- C. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.
- D. COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- E. FASTEN ALL TALL CASES TO THE ADJOINING WALL THROUGH THE BACK OR SIDE OF THE UNIT.
- F. ALL COUNTERTOPS INSTALLED ALONG A WALL OR EQUIPMENT ARE TO HAVE 4" BACKSPLASH AND SIDE SPASH UON.
- G. FINISH ALL EXPOSED ENDS AND BACKS OF FREESTANDING CASEWORK/ MILLWORK. H. PROVIDE LOCKS ON ALL CABINET DOORS AND DRAWERS UNO. ALL LOCKS SHOULD BE
- KEYED ALIKE BY ROOM, PROVIDE MASTER KEYING.
- I. REFER TO A9.1 ROOM FINISH SCHEDULE FOR COLORS AND FINISHES OF MATERIALS
- J. REFER TO PLANS, SECTIONS AND DETAILS FOR CASEWORK DEPTH. K. PROVIDE CABINET FILLERS AS NEEDED.
- L. FURNITURE AND SPECIALTY EQUIPMENT BY OTHERS SHOWN FOR REFERENCE ONLY
- M. FURNITURE SHOWN AT GRAYSCALE BY OWNER
- N. PROVIDE PARTITION REINFORCEMENT AT LOCATIONS OF WALL MOUNTED EQUIPMENT. REFER TO DETAIL X ON AX.X FOR TYPICAL REQUIREMENTS AT NEW CONSTRUCTION. CONDITIONS MAY VARY AT EXISTING PARTITIONS.

- 10 2800 ELECTRIC HAND

- O. NOT ALL SIGNS LOCATIONS ARE ELEVATED
- P. COORDINATE LOCATIONS OF ALL REQUIRED UTILITY CONNECTIONS AND OR REQUIREMENTS WITH THE TRADE PROVIDING THE SAME



 $\odot$  2018 integrated  ${
m d}$  $\operatorname{ign}$  solutions, LLC IDS Drawing Title Interior Elevations

Project Administrato
C. Aza
Project Designe
Couture / Easthop
Project Architect / Enginee
J. Coutur
Drawn B
T. Easthop
Q.M. Review
B. Sundber
Approve
B. Sundber
Drawing Scal
As Note
Issued for Issue Date
50% Owner Review 11-16-201
Quality Management Review 12-11-201
Bids 01-04-201

871 Pinecrest Ferndale, Michigan Key Plan

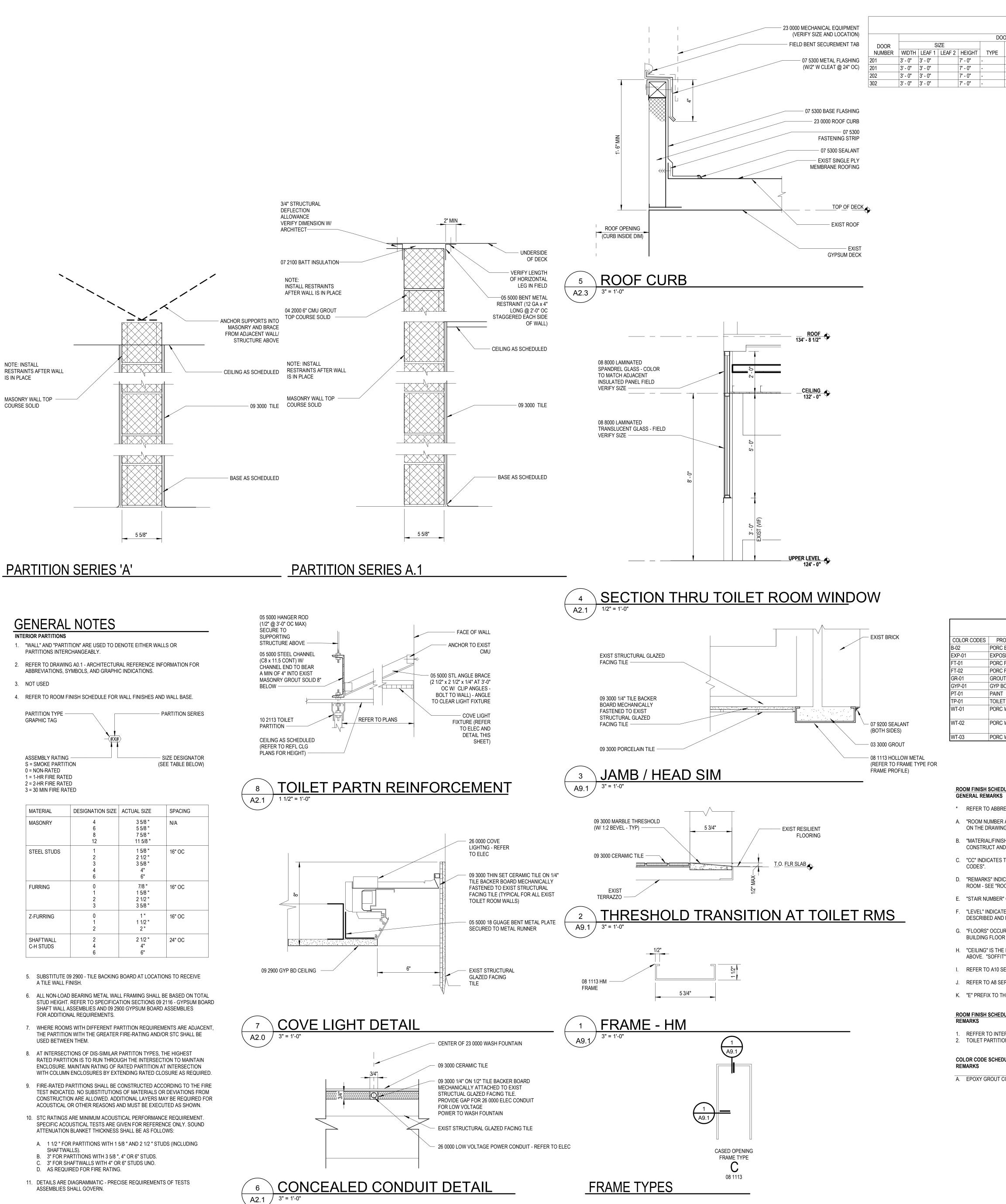
Ferndale High School and Middle School Select Toilet **Room Renovation** 

Ferndale Public Schools

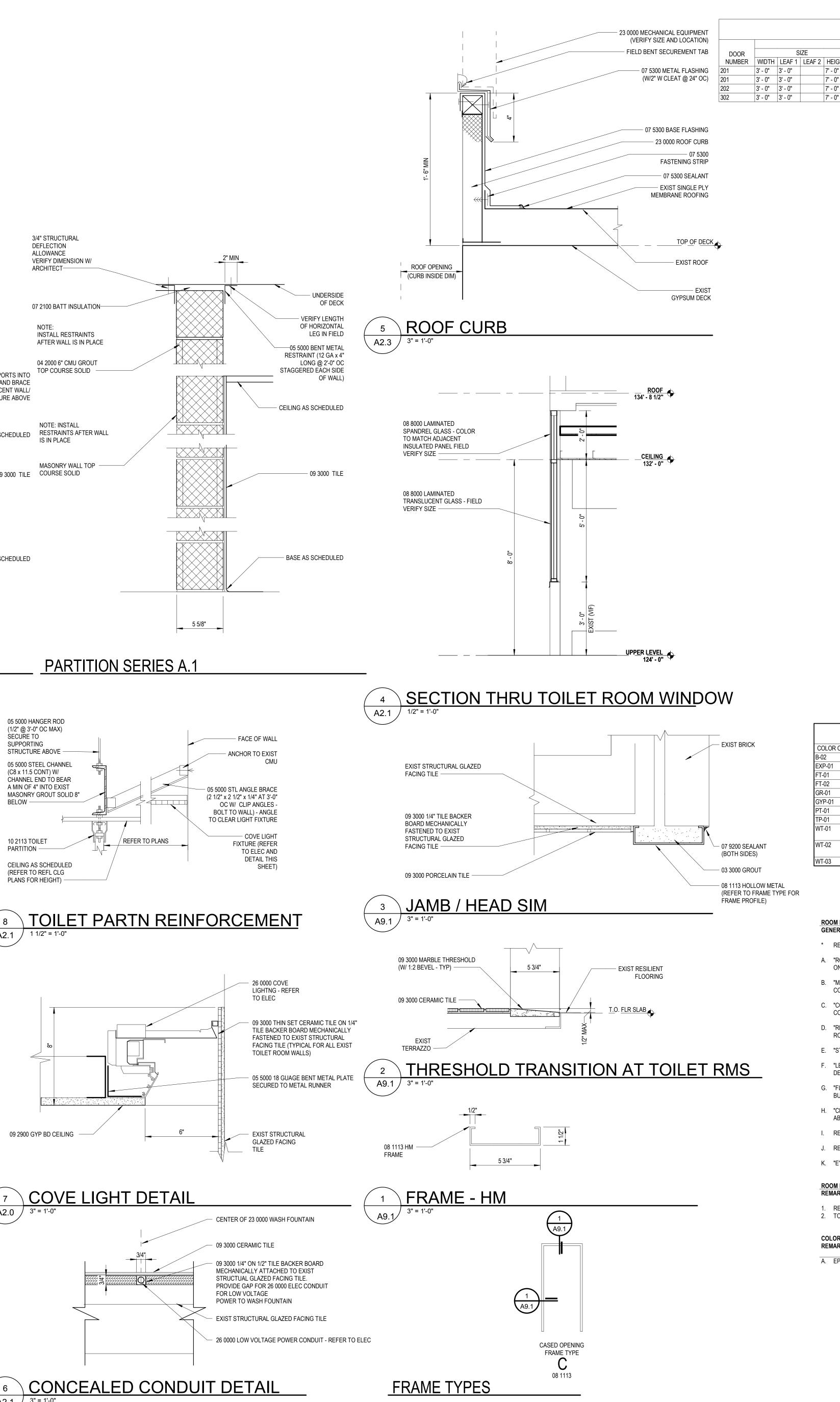
FERNDALE SCHOOLS

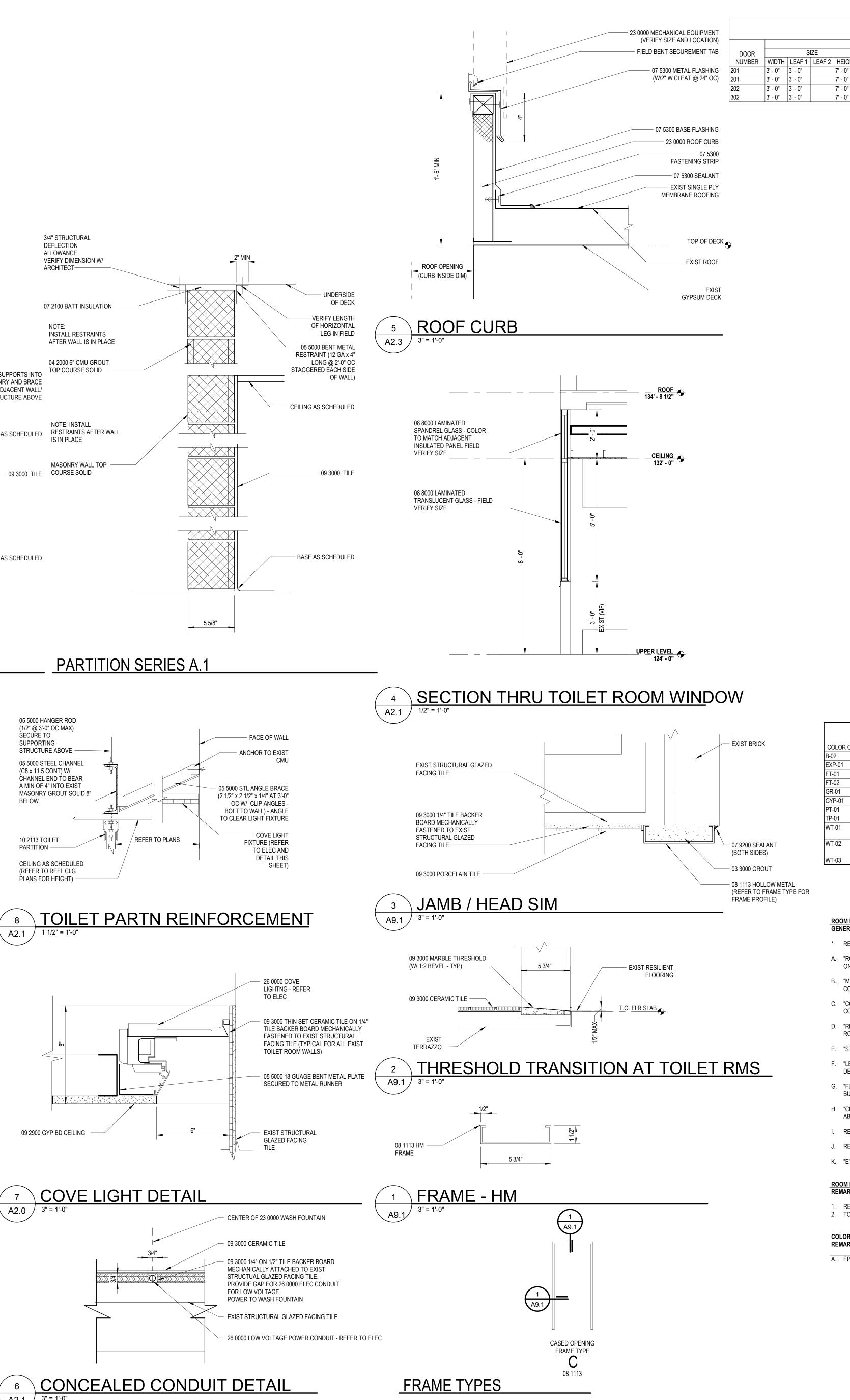
www.XXXXX.com Project Title

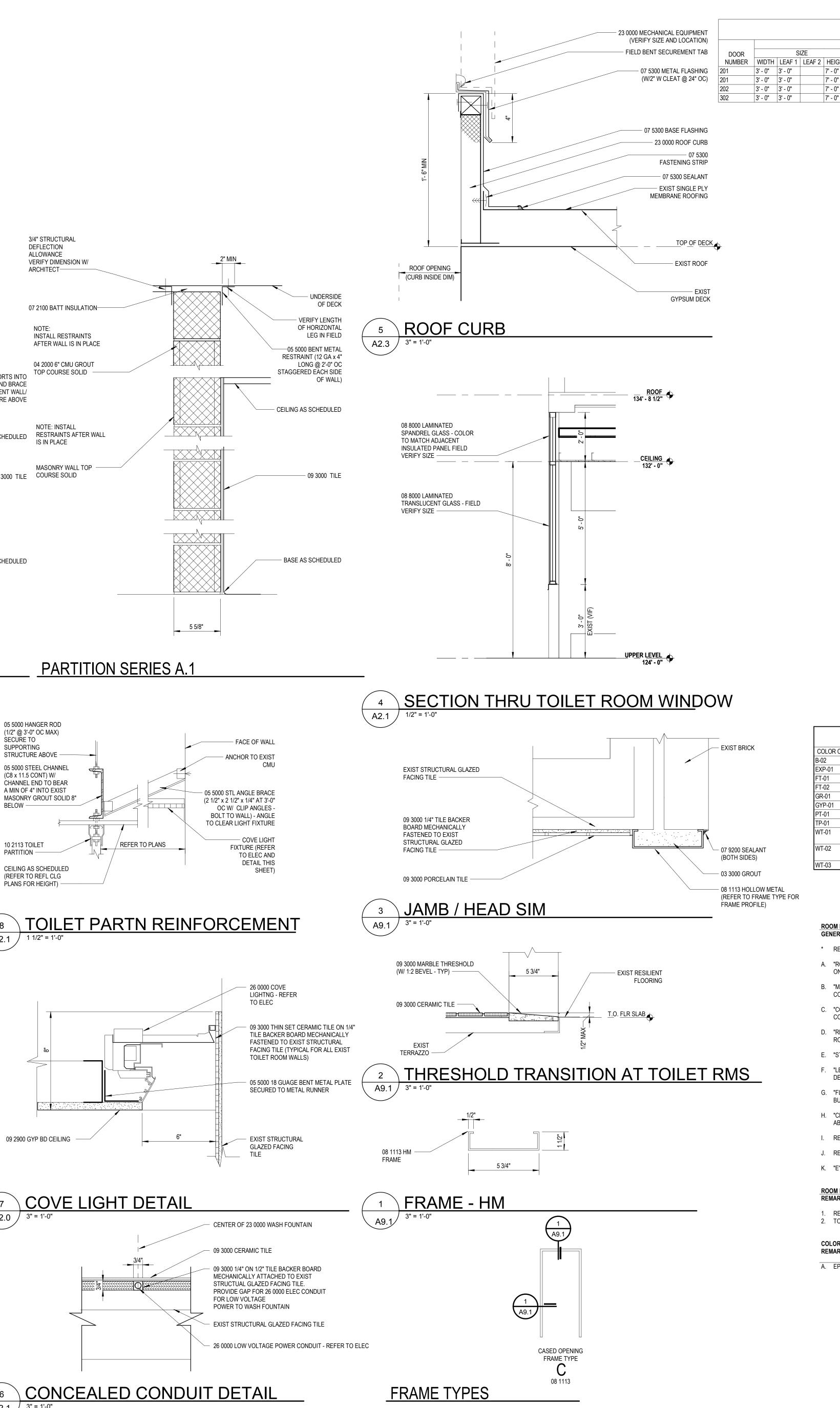


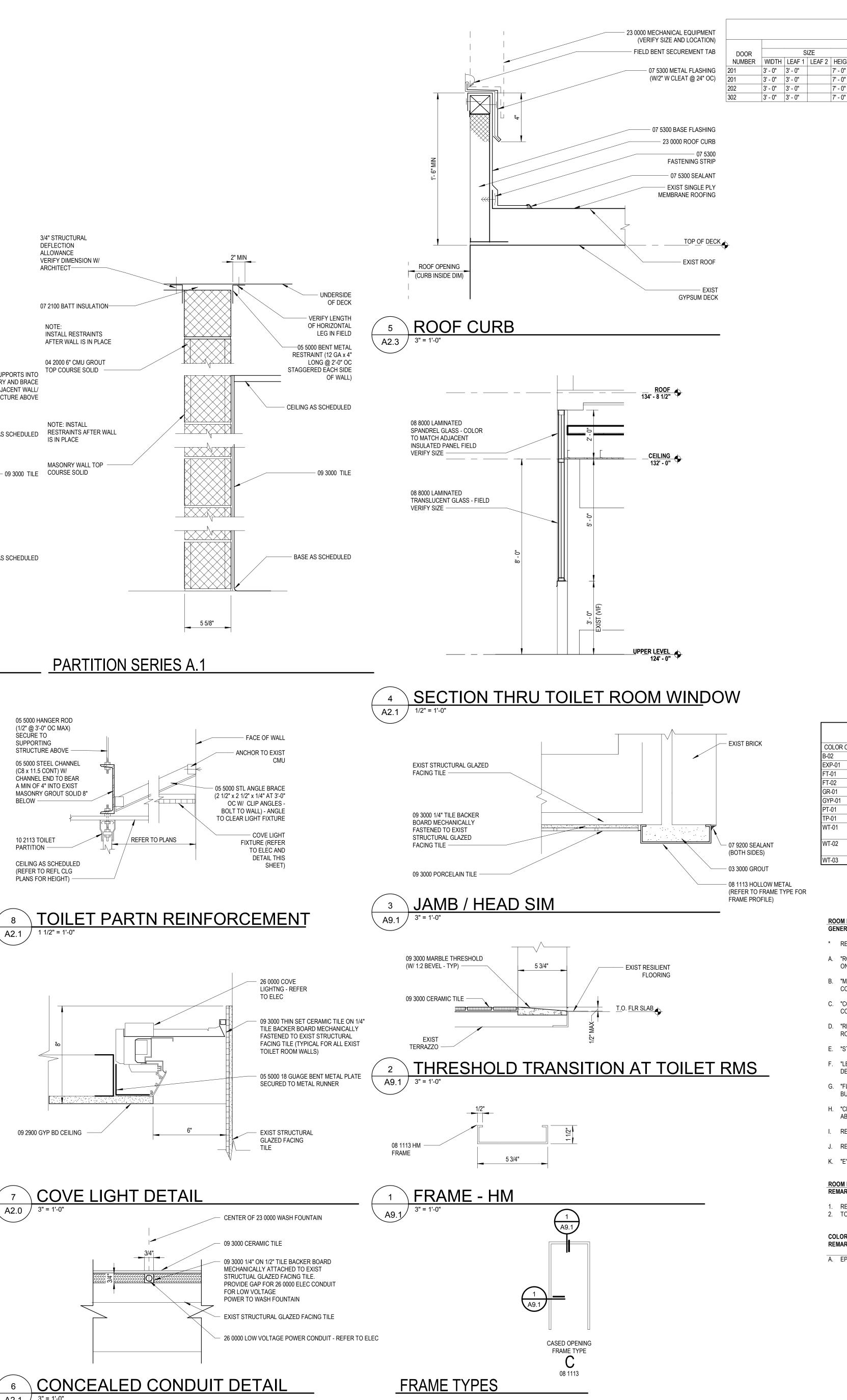


MATERIAL	DESIGNATION SIZE	ACTUAL SIZE	SPACING
MASONRY	4 6 8 12	3 5/8 " 5 5/8 " 7 5/8 " 11 5/8 "	N/A
STEEL STUDS	1 2 3 4 6	1 5/8 " 2 1/2 " 3 5/8 " 4" 6"	16" OC
FURRING	0 1 2 3	7/8 " 1 5/8 " 2 1/2 " 3 5/8 "	16" OC
Z-FURRING	0 1 2	1" 1 1/2 " 2 "	16" OC
SHAFTWALL C-H STUDS	2 4 6	2 1/2 " 4" 6"	24" OC









	SCHEDULE - DOOR												
					FRAME			DETAILS	_		DOOR		
										HAREWARE	ASSEMBLY	WALL	
RIAL	FINISH/ CC	FRGM	TYPE	MATERIAL	FINISH / CC	FRGM	HEAD	JAMB	SILL	SET	RATING	RATING	
	-		С	HM	PT-01		3/A9.1	3/A9.1	2/A9.1	-	-	-	1

### DOOR SCHEDULE **GENERAL REMARKS**

MATE

- A. REFER TO THE DRAWINGS FOR DOOR LOCATIONS AS APPLICABLE
- B. "DOOR NUMBER" CORRESPONDS TO THE DOOR NUMBER INDICATED ON THE DRAWINGS. NOTE: AT EXISTING WALL OPENINGS, FIELD VERIFY SIZE OF DOORS AND FRAMES.

HM

PT-01

- C. "DOOR SIZE" INDICATES THE NOMINAL WIDTH AND HEIGHT OF THE DOOR IN FEET AND INCHES. ANY SIZE PREFACED BY (2) DENOTES A PAIR OF DOORS FOLLOWED BY THE SIZE OF EACH LEAF. ALL DOORS ARE 1 3/4" THICK UNLESS OTHERWISE NOTED. D. "DOOR AND FRAME TYPE/MATL/FINISH" INDICATES THE CODES FOR TYPE (INDICATED
- ON THE DRAWINGS), MATERIAL AND FINISH. E. "CC" INDICATES THE COLOR CODE FOR FINISHES OF DOORS AND FRAMES, SEE
- "DOOR AND FRAME COLOR CODES."
- F. "DETAILS HEAD/JAMB/SILL" INDICATES THE DETAIL NUMBER INDICATED ON THE DRAWINGS.
- G. "HDW" INDICATES HARDWARE SET NUMBERS SPECIFIED IN SECTION 08 7100, FINISH
- H. "FIRE RATING" INDICATES THE FIRE RATING CLASSIFICATION FOR FIRE DOORS.
- I. "WALL RATING" INDICATES THE FIRE RESISTANCE RATING OF THE WALL CONTAINING THE DOOR.
- J. "FRGM" INDICATES FIRE-RATED GLAZING MARKINGS.
- K. "REMARKS" INDICATES ANY SPECIAL REQUIREMENTS FOR A DOOR AND FRAME SEE "DOOR SCHEDULE REMARKS."

### DOOR SCHEDUL

- 1. 90 DEGREE SWING . 100 DEGREE SWING . 110 DEGREE SWING
- 4. 180 DEGREE SWING 5. RH LEAF ACTIVE
- 6. LH LEAF ACTIVE 7. RHR LEAF ACTIVE
- 8. LHR LEAF ACTIVE 9. ASTRAGAL

10. REMOVABLE MULLION 11. REMOVE DOORS AND ADD CASED OPENING (FRAME TYPE C)

-	
	ANODIZED
-	COLOR CODES
-,	EXISTING
RP	FIBERGLASS REINFORCED PANE
AC	FACTORY
/180	A LABEL / 180 MINUTES
/90	B LABEL / 90 MINUTES
/60	B LABEL / 60 MINUTES
;/45	C LABEL / 45 MINUTES
)/90	D LABEL / 90 MINUTES (EXTERIOR
	E LABEL / 45 MINUTES (EXTERIOF
0	20 MINUTES
IM	HOLLOW METAL
IDW	HARDWARE
1ATL	MATERIAL
MA I	PLASTIC LAMINATE
T	PAINT

REMARKS

- POLYVINYL FLUORIDE COATING (KYNAR) STAIN
- STL STAINLESS STEEL ST STL STEEL WD

PVF

STN

WM

DOOR SCHEDULE

WOOD WIRE MESH

SCHEDULE - ROOM FINISH												
		FLOOR		BAS	SE .			WA	LL		CEILING	
ROOM	NAME	FLOOR MATERIAL/FINISH	Ν	S	E	W	N	S	E	W	CEILING MATERIAL/FINISH	REMARKS
101	BOYS	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	GYP-01	
102	GIRLS	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	GYP-01	
200	CORRIDOR	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	
201	BOYS	FT-01, FT-02	B-02	B-02	B-02	B-02	WT-01,02,03	WT-01,02,03	WT-01,02,03	WT-1,02,03	GYP-01	1, 2
202	GIRLS	FT-01, FT-02	B-02	B-02	B-02	B-02	WT-01,02,03	WT-01,02,03	WT-01,02,03	WT-1,02,03	GYP-01	1, 2
300	CORRIDOR	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	
301	BOYS	FT-01, FT-02	B-02	B-02	B-02	B-02	WT-01,02,03	WT-01,02,03	WT-01,02,03	WT-1,02,03	GYP-01	1, 2
302	GIRLS	FT-01, FT-02	B-02	B-02	B-02	B-02	WT-01,02,03	WT-01,02,03	WT-01,02,03	WT-1,02,03	GYP-01	1, 2

## SCHEDULE- COLOR CODES

CODES	PRODUCT/ MATERIAL	CON DOC NO.	MANUFACTURER	PRODUCT NAME	PRODUCT NUMBER	COLOR NAME/ NUMBER	FINISH	NOTES
	PORC BASE	09 3000	CROSSVILLE	COLOR BLOX	A1117	I SEE THE MOON	6"X12" COVE	A
	EXPOSED							
	PORC FLOOR TILE	09 3000	CROSSVILLE	COLOR BLOX	A1101	SAND BOX	6X6	A
	PORC FLOOR TILE	09 3000	CROSSVILLE	COLOR BLOX	A1117	I SEE THE MOON	6X6	A
	GROUT	09 3000	TEC	INCOLOR	934	934 DELOREAN GRAY		
	GYP BOARD CEILING	09 2900						
	PAINT	09 9100						MATCH EXISTING
	TOILET PARTITION	10 2113	BOBRICK PARTITIONS	SERRA SERIES		SC04 FOREST GREEN		
	PORC WALL TILE	09 3000	CROSSVILLE	COLOR BLOX	A1117	I SEE THE MOON	6x24, CUSTOM SIZE	A
	PORC WALL TILE	09 3000	CROSSVILLE	COLOR BLOX	A1101	SAND BOX	6x24, CUSTOM SIZE	A
	PORC WALL TILE	09 3000	CROSSVILLE	COLOR BLOX	A1104	ITS A BOY	3X3 MOSAICS	A

ROOM FINISH SCHEDULE

\* REFER TO ABBREVIATIONS LIST FOR MATERIAL CODE DESCRIPTIONS

A. "ROOM NUMBER AND ROOM NAME" CORRESPOND TO THE NUMBER AND NAMES INDICATED ON THE DRAWINGS.

### B. "MATERIAL/FINISH" INDICATE THE SPECIFIC MATERIALS AND FINISHES TO BE USED TO CONSTRUCT AND FINISH THE FLOORS, BASE, WALLS AND CEILINGS.

C. "CC" INDICATES THE COLOR CODE FOR EACH MATERIAL AND/OR FINISH, REFER TO "COLOR

D. "REMARKS" INDICATES ANY SPECIAL REQUIREMENTS FOR THE MATERIAL AND FINISH IN A ROOM - SEE "ROOM FINISH SCHEDULE REMARKS".

E. "STAIR NUMBER" CORRESPONDS TO THE NUMBERS INDICATED ON THE DRAWINGS.

F. "LEVEL" INDICATES THE BUILDING FLOOR LINE FROM WHICH MATERIALS AND FINISHES ARE DESCRIBED AND EXTENDS TO THE BUILDING FLOOR LINE ABOVE.

G. "FLOORS" OCCUR AT BUILDING FLOOR LINES AND "LANDINGS" OCCUR IN BETWEEN BUILDING FLOOR LINES.

### H. "CEILING" IS THE MATERIAL AND FINISH AT THE UNDERSIDE OF THE FLOOR OR ROOF ABOVE. "SOFFIT" IS THE MATERIAL AND FINISH AT THE UNDERSIDE OF THE STAIR RUN.

I. REFER TO A10 SERIES FOR FLOOR TILE PATTERNS AND MATERIALS.

J. REFER TO A8 SERIES INTERIOR ELEVATIONS FOR LIMITS AND LOCATIONS.

K. "E" PREFIX TO THE "PT" CODE REFER TO EPOXY PAINT MATERIAL (E PT-XX).

### **ROOM FINISH SCHEDULE**

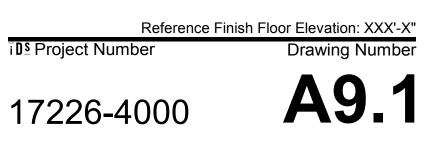
### 1. REFFER TO INTERIOR ELEVATIONS FOR TILE PATTERN DETAILS 2. TOILET PARTITION PANELS SHALL BE TP-01

### COLOR CODE SCHEDULE

A. EPOXY GROUT COLOR SHALL BE GR-01

### **ROOM FINISH SCHEDULE** ABBREVIATIONS

	ACOUSTICAL PANEL ACOUSTICAL TILE ACOUSTICAL WALL PANEL COLOR CODE CONCRETE MASONRY UNIT CERAMIC TILE CEMENT PLASTER CONCRETE DIRECT APPLIED EXTERIOR FINISH SYSTEM EXISTING FINISH EXTERIOR INSULATION FINISH SYSTEM EPOXY PAINTED EPOXY TERRAZZO ENTRY MAT SYSTEM EXPOSED CONSTRUCTION FABRIC WALL COVERING
GF CMU GL CMU GYP BD HD/SLR IR GYP BD LIMEST LIN MET LINO MCC MET PANEL P'LAM PAVER T PLAS POL CONC PORC T PT QT RT RESIN FLR RESIL SGFT SHT V	GROUND FACE CONCRETE MASONRY UNITGLAZED CONCRETE MASONRY UNITGYPSUM BOARDHARDENER/ SEALERIMPACT RESISTANT GYPSUM BOARDLIMESTONELINEAR METALLINOLEUMMULTI-COLORED COATINGMETAL PANELPLASTIC LAMINATEPAVER TILEPOLISHED CONCRETEPORCELAIN TILEPORCELAIN TILERUBBER TILERESINOUS FLOORINGRESILIENTSTRUCTURAL GLAZED FACING TILESHEET VINYL
SLD SURF SS STN TC TERR VCT VWC VEN PLAS WD	SOLID SURFACE MATERIAL STAINLESS STEEL STAIN TRAFFIC COATING TERRAZZO VINYL COMPOSITION TILE VINYL WALLCOVERING VENEER PLASTER WOOD



 $\odot$  2018 integrated  ${
m d}$ gen solutions, llc **IDS Drawing Title** Schedules and Details

T. Easthope Q.M. Review B. Sundberg Approved B. Sundberg Drawing Scale As Noted Issue Date Issued for 50% Owner Review 11-16-2018 Quality Management Review 12-11-2018 Bids 01-04-2019

Ferndale Public Schools 871 Pinecrest Ferndale, Michigan Key Plan

Project Administrator

Couture / Easthope

Project Architect / Engineer

Project Designer

J. Couture

Drawn By

C. Azar

Ferndale High School and Middle School Select Toilet **Room Renovation** 

FERNDALE SCHOOLS



INTEGRATED design SOLUTIONS

1441 west long lake, suite 200

5211 cascade road SE, suite 300

grand rapids, michigan 49546

troy, michigan 48098

248.823.2100

www.XXXXX.com

Project Title

www.ids-troy.com

architecture engineering interiors & technology

# LEGEND FINISH PLAN NOTE: NOT ALL SYMBOLS MAY BE USED

	09 3000 PORC FLOOR TILE FT-01
	09 3000 PORC FLOOR TILE FT-02
— <u>X</u> —	FLOOR MATERIAL TRANSITION TAG REFER TO A FOR TRANSITION/ SILL DETAILS
XX-XX	FLOOR COLOR CODE TAG- REFER TO ROOM FINISH SCHEDULE DRAWING A9.1

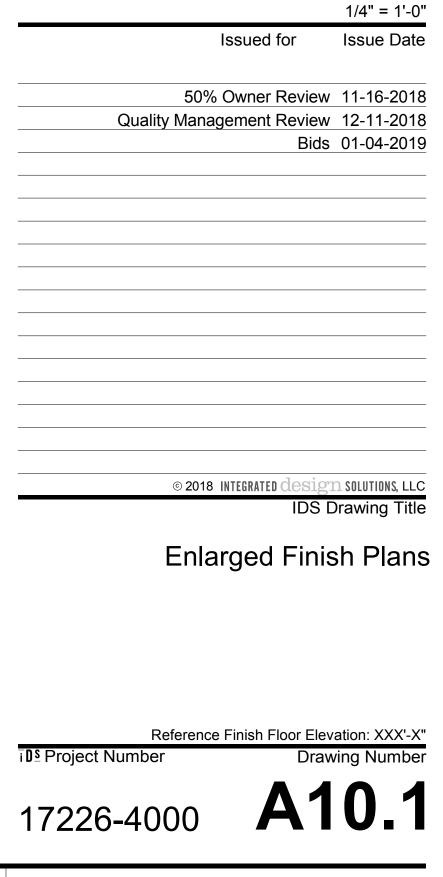
# 3 ENLARGED TOILET ROOM - FINISH PLAN

GIRLS PORCT (E) RESIL FT-01 

GENERAL NOTES

A. REFER TO ROOM FINSH SCHEDULE AND COLOR CODES FOR MORE INFORMATION.

/ (E) RESIL



871 Pinecrest Ferndale, Michigan Key Plan

Project Administrator C. Azar

Drawn By T.Easthope

Q.M. Review

B. Sundberg Approved B. Sundberg

Drawing Scale

Project Designer Couture / Easthope

Project Architect / Engineer J. Couture

Ferndale High School and Middle School Select Toilet Room Renovation

Ferndale Public Schools

FERNDALE SCHOOLS

www.XXXXX.com Project Title



	D	
	2	
AIR ADMITTANCE VALVE AIR COMPRESSOR	DB DDC	DRY BU
AIR CONDITIONING UNIT	DEG	DEGREE
AIR EXTRACTOR	D/N	DAY/NIGE DAY/NIGE
AIR FLOW TRANSMITTED	D&T	DRIP & TRA
AIR HANDLING UNIT AIR PRESSURE DROP		DRAIN TILE CONNECTIO
APPROXIMATELY ARCHITECTURAL	-	
AUTOMATIC SPRINKLER RISER	EA	EXHAUST A ENTERING AIR TEMPERATUR
	EDB	ENTERING DRY BUL
BUILDING AUTOMATION SYSTEM	EG	EXHAUST FA EXHAUST GRILL
BOILER BLOWDOWN BARRIER FREE	EHC EIH	ELECTRIC HEATING CO ELECTRIC INFRARED HEATE
BOILER FEEDWATER PUMP BRAKE HORSEPOWER	EJ EV	EXPANSION JOIN ELEVATIC
BACKFLOW PREVENTER	ELEC	ELECTRICA ENERGY MONITORING AND CONTOL SYSTE
	ENT	ENTERIN EXHAUST REGISTE
	ERC	ENERGY RECOVERY UN
CAPACITY COILING COIL	ESP	EMERGENCY SHOWE EXTERNAL STATIC PRESSUR
COLD DECK CUBIC FEET PER HOUR	EWB	EXPANSION TAN ENTERING WET BUL
CUBIC FEET PER MINUTE	EWC EWT	ELECTRIC WATER COOLE ENTERING WATER TEMPERATUR
CEILING	EXH (F)	EXHAUS EXISTIN
CONDENSATE	EXP	EXPANSIO
CONTINUATION	F	
CONTRACTOR CONVECTOR	F	FARENHE
CENTRAL PROCESSING UNIT CONDENSATE RETURN	FA F & BD	FACE ARE FACE AND BYPASS DAMPE
COOLING TOWER	FC	FLEXIBLE CONNECTIO FLOOR CLEANOL
CONTROL VALVE	FD	FLOOR DRAI FLOOR DRAI FIRE DEPARTMENT CONNECTIO
	100	
LS		
FIRE DAMPER	PRV	PRESSURE REDUCING STATIO
SMOKE DAMPER	RPBP	REDUCED PRESSURE BACKFLOW PREVENTE
SMOKE DAMPER AND FIRE DAMPER		EXPANSION COMPENSATOR/EXPANSION JOIN
VOLUME DAMPER WITH REMOTE OPERATOR		SPRING HANGE
MOTOR OPERATED DAMPER	<b></b> 00	FLOOR CLEANOU
FLEXIBLE DUCT		WALL CLEANOU
CARBON MONOXIDE SENSOR	$O_{\rm rel}$	MANHOL
HUMIDISTAT	<b>O</b>	FLOOR DRAI
THERMOSTAT	<b>mm</b> CB	CATCH BASI
		PENDANT SP HD (FLUSH MOUNTED TYPE
	×	·
FINNED TUBE RADIATION	,	SIAMESE CONNECTION
TERMINAL VOLUME BOX (W/O HEATING COIL)		PRESSURE INDICATO
TERMINAL VOLUME BOX (W/ HEATING COIL)	φ	TEMPERATURE INDICATO
FLEXIBLE PIPE CONNECTION	Ψ	THERMOMETE
ANGLE RELIEE VALVE		MANUAL AIR VEN
	Т	
ANGLED STOP CHECK VALVE		FLOW MEASURING DEVIC
BALANCE VALVE		FLOW ELEMENT (ORIFICE PLATE
BUTTERFLY VALVE (SEE SPECIFICATION FOR TYPE)	$\mathbf{\Theta}$	POINT OF NEW CONNECTION
BALL, GAS, GATE, GLOBE, PLUG VALVE	- <del>V/////</del> -	TO BE DEMOLISHED AND REMOVE
CHECK VALVE W/ ARROW INDICATING FLOW	$\frown$	OWNER EQUIPMENT IDENTIFICATION NUMBE
	— r —	FIRE LIN
LINEAR STOP CHECK VALVE	FL	FIRE PROTECTION WATER SUPPLY PIPING
MIXING VALVE		SPRINKLER PIPIN
PRESSURE REDUCING VALVE	—AV	ACID VENT PIPING
PRESSURE RELIEF VALVE	—CA	COMPRESSED AI
STDAINED		COMPRESSED AIR PIPIN
		PRESSURE INDICATE
UNION	C02	CARBON DIOXIDE GA
PIPE ANCHOR	—FOR—	FUEL OIL RETUR
PIPE GUIDE	—FOS—	FUEL OIL SUPPL
MASTER GAS SHUT-OFF VALVE	— NG —	NATURAL GAS PIPING
L LEGEND		МО
	<text></text>	ARE COMPRESSOR ARE COMPRESSOR ARE COMPRESSOR ARE COMPRESSOR ARE TRACTOR DN ARE RETRACTOR DN ARE PLANE ARE TRACTOR ARE TRANSMITTED DT ARE TRANSMITTED DT DT ARE TRANSMITTED DT DT ARE TRANSMITTED DT DT ARE TRANSMITTED DT DT ARE TRANSMITTED DT DT DT ARE TRANSMITTED DT DT DT DT ARE TRANSMITTED DT DT DT DT DT DT DT DT DT D

- ELEVATION NUMBER

DRAWING WHERE

ELEVATION IS DRAWN

\_\_\_\_\_ \_\_ \_\_\_ \_\_\_

3 **M**5,1

EXISTING

NEW

ROOM NAME

COLUMN CENTERLINE

ROOM NAME AND NUMBER

- ROOM

- FLOOR

— BUILDING OR UNIT (IF ANY)

### — DETAIL IDENTIFICATION DETAIL M2.1 DETAIL SCALE - DRAWING WHERE DETAIL IS REFERENCED OR CUT PLAN OR DETAIL ENLARGEMENT - PLAN OR DETAIL IDENTIFICATION M5.1 - DRAWING WHERE PLAN OR DETAILS IS DRAWN

- SECTION IDENTIFICATION \_\_\_\_\_ M5.1 - DRAWING WHERE PLAN OR

SECTION LOCATOR

DETAILS IS DRAWN

F CONT		L		Р	
FDAMP	FIRE DAMPER	LAV	LAVATORY	Р	PUMP
FH	FIRE HYDRANT	LBS/HR	POUNDS PER HOUR	PA	PIPE ANCHOR
FHC	FIRE HOSE CABINET	LL	LOW LIMIT	PAC	PACKAGED AIR CONDITIONING UNIT
FHV	FIRE HOSE VALVE	LP	LIGHTING PANEL	PCR	PUMPED CONDENSATE RETURN
FL	FIRE LINE	LP STM	LOW PRESSURE STEAM	PD	POMPED CONDENSATE RETORN PRESSURE DROP
FLA	FILL LOAD AMPS	LP STM	LOCKED ROTOR AMPS	PG	PIPE GUIDE
FMS	FLOW MEASUREMENT STATION	LKA LWT	LEAVING WATER TEMPERATURE	PLBG	PIPE GOIDE PLUMBING
FPM	FLOW MEASUREMENT STATION FEET PER MINUTE		LEAVING WATER TEMPERATURE	PSI	POUNDS PER SQUARE INCH - GAUGE
FT	FOOT/FEET	Μ		PRV	POUNDS PER SQUARE INCH - GAUGE PRESSURE REDUCING VALVE
F&T	FLOAT & THERMOSTATIC STEAM TRAP			PVC	POLYVINYL CHLORIDE PLASTIC
FTR	FINNED TUBE RADIATION				FULTVINTE CHLORIDE FLASTIC
FVC	FIRE VALVE CABINET	MA	MIXED AIR	R	
	FIRE VALVE CADINET	MAV	MANUAL AIR VENT		
G		MAX		D.	
		MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR	RA	RETURN AIR
<u>.</u> .		MCC	MOTOR CONTROL CENTER	RAD	RADIATOR
GA	GAGE/GAUGE	MECH	MECHANICAL	RCP	RADIANT CEILING PANEL
GALV	GALVANIZED	MFR	MANUFACTURER	RG	
GPM	GALLONS PER MINUTE	MGV	MASTER GAS VALVE	RH	RELATIVE HUMIDITY
GPH	GALLONS PER HOUR	MH	MAN HOLE	RF	RETURN FAN
GR	GRILLE	MIN		RM	
GV	GATE VALVE	MS	MOTOR STARTER	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
Н		MZ	MULTI-ZONE UNIT	RP	RADIANT PANEL
		Ν		RPM	REVOLUTIONS PER MINUTE
				RR	RETURN REGISTER
HUMD	HUMIDIFIER			RS	
HB	HOSE BIBB	NC	NORMALLY CLOSED	RTD	RESISTANCE TEMPERATURE DETECTOR
HD	HOT DECK	NCR	NOISE CRITERION	S	
НО	HUB OUTLET	NIC	NOT IN CONTRACT		
HOA	HAND-OFF-AUTO	NO	NORMALLY OPEN		
HP	HORSEPOWER	No.	NUMBER	SA	SUPPLY AIR
HP STM	HIGH PRESSURE STEAM	NTS	NOT TO SCALE	SAN	SANITARY
HV	HEATING AND VENTILATION UNIT	0		SAT	SATURATED
HVAC	HEATING, VENTILATION & AIR CONDITIONING			SC	STEAM COIL
HYD	HYDRANT			SD	SUPPLY DIFFUSER
I		OA	OUTSIDE AIR	SF	SUPPLY FAN
		OD	OUTSIDE DIAMETER	SH	SPRING HANGER
		OED	OPEN ENDED DUCT	SHT	SHEET
ID	INSIDE DIAMETER	OS&Y	OUTSIDE SCREW AND YOKE	SP	SUMP PUMP
IE	INVERT ELEVATION	OV	OUTLET VELOCITY	SPECS	SPECIFICATIONS
IW	INDIRECT WASTE			SP HD	SPRINKLER HEAD
				SPKR	SPRINKLER
				SS	SERVICE SINK
				SV	SOLENOID VALVE
				SWS	SAFE WASTE SINK

SP	STATIC PRESSURE SENSOR
	AREA SMOKE DETECTOR
FDD	DUCT SMOKE DETECTOR
F	FIRE STAT - DUCT MOUNTED
FZ	FREEZE STAT - DUCT MOUNTED
FM	FLOW METER
AQ -	AQUASTAT (STRAP ON)
AFS	AIR FLOW SENSOR
LPI	LOOP POWER INDICATOR
D/N	DAY/NIGHT MAIN AIR SWITCH
$\oslash$	MANOMETER
CR	CONTROL RELAY
CS	CURRENT SWITCH
DM	DAMPER MOTOR
<del>6666</del>	DAMPER (PARALLEL BLADE)
<del>89999</del>	DAMPER (OPPOSED BLADE)
	DAIVIFEIN (OFFOSED BLADE)
EP	ELECTRIC - PNEUMATIC RELAY
EP S/S	
	ELECTRIC - PNEUMATIC RELAY
s/s	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL)
S/S R	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL)
S/S R TT	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER
S/S R TT VC	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH MOTOR STARTER, W/ HOA SWITCH EXISTING MOTOR STARTER -
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH MOTOR STARTER, W/ HOA SWITCH EXISTING MOTOR STARTER - PROVIDE HOA SWITCH,
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH MOTOR STARTER, W/ HOA SWITCH EXISTING MOTOR STARTER - PROVIDE HOA SWITCH, MOTOR STARTER PROVIDE HOA SWITCH,
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH MOTOR STARTER, W/ HOA SWITCH EXISTING MOTOR STARTER - PROVIDE HOA SWITCH MOTOR STARTER PROVIDE HOA SWITCH MOTOR STARTER PROVIDE HOA SWITCH MOTOR STARTER PROVIDE HOA SWITCH
	ELECTRIC - PNEUMATIC RELAY START STOP (MOTOR CONTROL) RELAY (ELECTRICAL) TWIST TIMER VELOCITY CONTROLLER MOTOR DISCONNECT SWITCH MOTOR STARTER, W/O HOA SWITCH MOTOR STARTER, W/ HOA SWITCH EXISTING MOTOR STARTER PROVIDE HOA SWITCH MOTOR STARTER PROVIDE HOA SWITCH CANSFORMER AND CONTROL ROOM END SWITCH

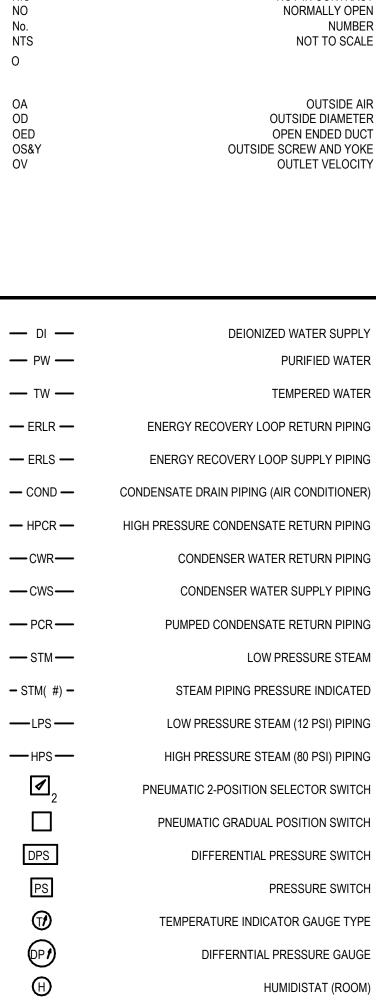
# GENERAL NOTES

- 2. COORDINATE ALL WORK WITH APPROPRIATE TRADES.

- 7. DUCT CONNECTED TO EQUIPMENT SHALL EQUAL EQUIPMENT CONNECTION SIZE UNLESS NOTED OTHERWISE.
- 8. MAXIMUM LENGTH ON FLEXIBLE DUCT SHALL BE 5'-0".
- 10. ALL HOT WATER FIN TUBE RADIATION COVERS SHALL RUN WALL TO WALL (OR COLUMN).

# **TEMPERATURE CONTROL GENERAL NOTES**

- 1. GENERAL NOTES SHALL BE APPLICABLE FOR ALL CONTROL DRAWINGS.
- OR TERMINATIONS AT ANY OTHER TERMINAL STRIP ARE ACCEPTABLE.
- MANUFACTURER'S RECOMMENDATION.
- CIRCUITS WITHIN NEAREST ELECTRIC POWER DISTRIBUTION PANEL. 7. WIRING SHALL BE INSTALLED IN RACEWAY.
- PROJECT.



TEMPERATURE SENSOR (RTD) DUCT

TEMPERATURE SENSOR (RTD) IMMERSION

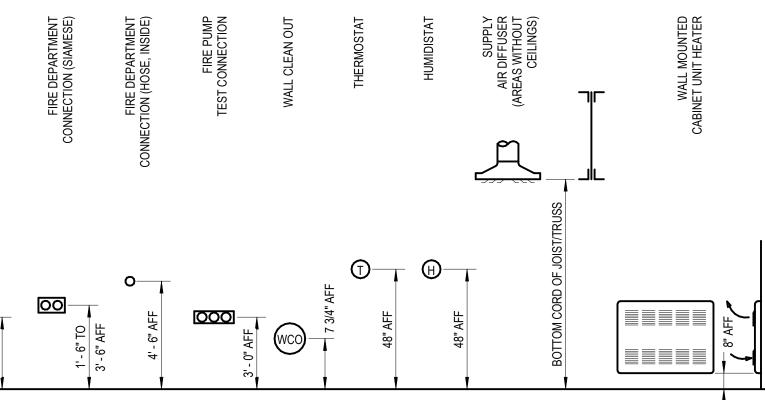
MOUNTED RIGID ELEMENT

TYPE ELEMENT

- ERLR -	ENERGY RECOVERY LOOP RETURN PIPING
- ERLS -	ENERGY RECOVERY LOOP SUPPLY PIPING
- COND -	CONDENSATE DRAIN PIPING (AIR CONDITIONER)
- HPCR -	HIGH PRESSURE CONDENSATE RETURN PIPING
— CWR—	CONDENSER WATER RETURN PIPING
— CWS—	CONDENSER WATER SUPPLY PIPING
- PCR-	PUMPED CONDENSATE RETURN PIPING
— STM —	LOW PRESSURE STEAM
- STM( #) -	STEAM PIPING PRESSURE INDICATED
-LPS -	LOW PRESSURE STEAM (12 PSI) PIPING
— HPS —	HIGH PRESSURE STEAM (80 PSI) PIPING
	PNEUMATIC 2-POSITION SELECTOR SWITCH
	PNEUMATIC GRADUAL POSITION SWITCH
DPS	DIFFERENTIAL PRESSURE SWITCH
PS	PRESSURE SWITCH
	TEMPERATURE INDICATOR GAUGE TYPE
DP /	DIFFERNTIAL PRESSURE GAUGE
(H)	HUMIDISTAT (ROOM)
	HUMIDITY HIGH LIMIT SENSOR (DDC)
Н	HUMIDITY SENSOR (DDC)
HT	HUMIDITY TRANSMITTER
	THERMOSTAT WITH GUARD
Т	TEMPERATURE SENSOR (RTU) - SPACE MOUNTED
	TEMPERATURE SENSOR (RTD) DUCT MOUNTED AVERAGING ELEMENT
	TEMPERATURE SENSOR (RTU) W/ SUNSHIELD

— G(EPS) —	NATURAL GAS PIPING (EMERGENCY POWER SUPPLY)
— NIT-OX —	NITROUS OXIDE PIPING
— OXY —	OXYGEN PIPING
<b></b>	VENT PIPING
— VAC —	VACUUM PIPING
— AW —	ACID WASTE
<u> </u>	SANITARY SEWER
— DT —	DRAIN TILE
PST	PUMPED STORM WATER
— RC —	RAIN CONDUCTOR
<u> </u>	STORM SEWER
•	DOMESTIC COLD WATER PIPING
CW	DOMESTIC COLD WATER PIPING
— HPCW —	HIGH PRESSURE COLD WATER
- PCWR -	PROCESS COOLING WATER RETURN
- PCWS -	PROCESS COOLING WATER SUPPLY
— CHWR —	CHILLED WATER RETURN PIPING
— CHWS —	CHILLED WATER SUPPLY PIPING
•••	DOMESTIC HOT WATER RETURN PIPING
••	DOMESTIC HOT WATER PIPING
—— HR ——	HEATING RETURN
— HS —	HEATING SUPPLY
— HW —	DOMESTIC HOT WATER PIPING
— HWR —	DOMESTIC HOT WATER RETURN PIPING
— HWHR —	HOT WATER HEATING RETURN PIPING
— HWHS —	HOT WATER HEATING SUPPLY PIPING
– HTHWR –	HIGH TEMPERATURE HOT WATER RETURN PIPING
– HTHWS –	HIGH TEMPERATURE HOT WATER SUPPLY PIPING
NPW	NON-POTABLE WATER PIPING
— DW —	DISTILLED WATER





	NOTATIO	ON METHODS
	SD-A 10" DIA 350 CFM	SUPPLY DIFFUSER, TYPE 'A', 10" NECK, 350 CFM
SYSTEM STATIC TOTALIZER STORM	SD-A 10" DIA 350 CFM	SUPPLY DIFFUSER (3-WAY)
STEAM	RR-A 350 CFM	RETURN OR EXHAUST REGISTER, TYPE 'A', 350 CFM
TEMPERATURE CONTROL	ER-A 350 CFM	EXHAUST REGISTER, TYPE 'A', 350 CFM
TRENCH DRAIN TURNING VANES TEMPERED WATER TYPICAL	SD-A 350 CFM	SIDEWALL SUPPLY REGISTER, TYPE 'A', 350 CFM
UNIT HEATER	SD-A SD-A J 350 CFM	SUPPLY AIR DIFFUSER, TYPE 'A' WITH FLEXIBLE DUCT CONNECTION (TWO WAY THROW)
DERWRITERS LABORATORY URINAL UNIT VENTILATOR	~ <b>•</b>	BELL MOUTH AIR INLET AREA SHALL BE EQUAL TO '2' TIMES DUCT AREA
VENT	AHU 1	AIR HANDLING UNIT No. 1
VARIABLE AIR VOLUME VOLUME DAMPER VIBRATION ISOLATOR VENT STACK	EF 1	EXHAUST FAN No. 1
VENT THROUGH ROOF		SUPPLY AIR BRANCH CONNECTION SPIN-IN FITTING WITH VOLUME DAMPER
WASTE WASTE AND VENT WET BULB WATER CLOSET WALL CLEANOUT	ST ST	RETURN AIR/EXHAUST AIR BRANCH CONNECTION WITH VOLUME DAMPER
WATER GAUGE NT (FREEZE PROTECTED) WASTE STACK		SOUNT TRAP (ATTENUATOR
	C	AL FINNED TUBE RADIATION BH TYPE 'A', 5'-0" ELEMENT, 5.7 TOTAL MBH
		CABINET UNIT HEATER, TYPE 'A
		CONVECTOR, TYPE 'A
MATIC SWITCHING RELAY	A-1	TERMINAL VARIABLE VOLUME BOX, TYPE 'A', SIZE '1
ER MOUNTED ON DEVICE /ITH POSITIVE FEEDBACK	<sup>−</sup> L <sup>′</sup> – <sup>−</sup> 0.6 GPM	(HEATING COIL, REFER TO EQUIPMENT SCHEDULES)
EMPERATURE CONTROL)	<b>L</b>	TERMINAL VARIABLE VOLUME BOX, TYPE 'B', SIZE '1 (NO HEATING COIL, REFER TO EQUIPMENT SCHEDULES)
PNEUMATIC LINE		DUAL DUCT CONSTANT VOLUME MIXING BOX
SWITCHED AIR LINE		(REFER TO EQUIPMENT SCHEDULES)
SOLENOID VALVE	HC-A	HEATING COIL, TYPE 'A (REFER TO EQUIPMENT SCHEDULES)
PRESSURE GAUGE	<i>ſ</i> <u></u> <i>ſſ</i>	POINT WHERE CHANGE IN DUCT SIZE OR PIPE PITCH TAKES PLACE
NEUMATIC CONTROLLED		
NEUMATIC CONTROLLED	<i>₅</i> <del>////</del> ↓ <i>ſ</i>	POINT WHERE DEMOLITION ENDS/POINT OF NEW CONSTRUCTION
WAY MOTORIZED VALVE		NEW MECHANICAL
VAY MOTORIZED VALVE		
TWO WAY GATE VALVE		EXISTING MECHANICAL

## MECHANICAL DRAWING INDEX

M0.1 M2.1	Mechanical Reference Information Partial Street Level Plans - Demolition and New Work
M2.2	Partial Upper Level Plans - Demolition and New Work
M4.1	Temperature Controls
M5.1	Schedules and Details

### UNIT UNDERWRITERS LABOR UNIT VENT UV VARIABLE AIR V VAV VOLUME [ VIBRATION ISC VENT VENT THROUGH VTR W&V WASTE AN WB WATER ( WC WCO WALL CL WATER ( WALL HYDRANT (FREEZE PROTE WASTE WG WH WS PS PNEUMATIC SWITCHING PILOT POSITIONER MOUNTED ON WITH POSITIVE FEE $\bigcirc$ MAIN AIR SUPPLY (TEMPERATURE CO PNEUMAT +--+ R SWITCHED A SOLENOID PRESSURE VALVE - TWO WAY PNEUMATIC CONTR VALVE - THREE WAY PNEUMATIC CONTR

CONT

SST

STM

ΤW

Т

TWO WAY MOTORIZED THREE WAY MOTORIZED TWO WAY GATE VALVE ANALOG INPUT (AO) ANALOG OUTPUT DI DIGITAL INPUT  $\bigcirc$ DIGITAL OUTPUT DPT DIFFERENTIAL PRESSURE TRANSMITTER MHL1234567 LOAD ANALYZER PT PRESSURE TRANSMITTER RECIEVER CONTROLLER ST STATUS L OCCUPANCY SENSOR - WALL MOUNTED ELECTRICAL LINE DESIGNATION ON WIRING -----DIAGRAMS (VOLTAGE AS NOTED)

VERIFY ALL CONDITIONS IN FIELD BEFORE START OF CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS.

3. COORDINATE ANY REQUIRED SHUTDOWN OF SERVICES OR EQUIPMENT WITH OWNER'S REPRESENTATIVE.

4. PROVIDE ALL MISC. STEEL AND ITEMS REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE, SHEET METAL AND EQUIPMENT.

5. COORDINATE FLOOR, WALL & ROOF PENETRATIONS ETC. WITH ARCHITECTURAL TRADES.

6. INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE IN AREA WITHOUT A CEILING UNLESS INDICATED OTHERWISE.

9. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT DIFFUSER LOCATIONS IN AREAS WITH A CEILING.

11. DO NOT RUN ANY PIPING OR DUCTWORK INTO AN ELECTRICAL ROOM THAT DOES NOT SERVE THAT ROOM.

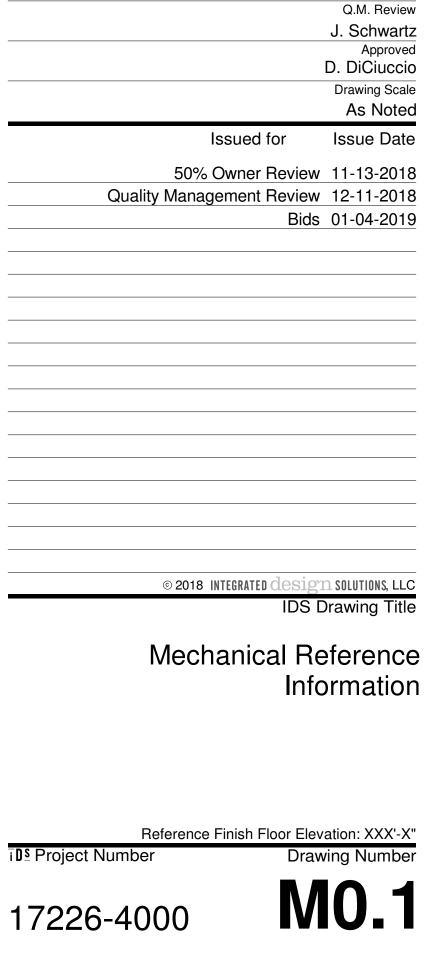
2. WIRING AND SYSTEM CONTROL VOLTAGES SHALL BE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.

3. DDC WIRING SHALL BE TERMINATED AT DDC SENSORS, RELAYS, TRANSDUCERS, SWITCHES, AND CONTROL PANELS. NO INTERMEDIATE STOPS

4. SPLICING OF WIRES FOR DPS AND ELECTRICAL MOTOR STARTER STATUS SHALL TAKE PLACE AT THE DPS, MOTOR STARTER, OR DDC PANEL. 5. IT IS THE TEMPERATURE CONTROL CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH EQUIPMENT SUPPLIERS SUCH AS CHILLERS, EVAPORATIVE CONDENSERS AND PACKAGED A/C UNITS FOR SPECIFIC WIRING REQUIREMENTS. ALL WIRING SHALL BE PER EQUIPMENT

6. ELECTRICAL POWER REQUIRED FOR CONTROLS SHALL BE PROVIDED BY TC CONTRACTOR UNLESS NOTED OTHERWISE FROM DESIGNATED

8. ELECTRICAL WORK SHALL CONFORM WITH THE MOST RECENT VERSION OF THE NATIONAL ELECTRICAL CODE AND SECTION 16000 OF THIS



THIS PROJECT MAY NOT UTILIZE ALL THE SYMBOLS, MATERIALS, ABBREVIATIONS AND STANDARD INFORMATION SHOWN ON THIS

SHEET.

Ferndale High School and Middle School Select Toilet Room and Classroom Renovation Ferndale Public Schools 871 Pinecrest Ferndale, Mi

INTEGRATED design SOLUTIONS architecture engineering interiors & technology 1441 west long lake, suite 200 troy, michigan 48098 5211 cascade road SE, suite 300 grand rapids, michigan 49546

248.823.2100

www.XXXXX.com

FERNDALE SCHOOLS

Project Title

Key Plan

**Project Administrator** 

Project Architect / Engineer

C. Azara

Project Designer

J. Bologna

J. Bologna

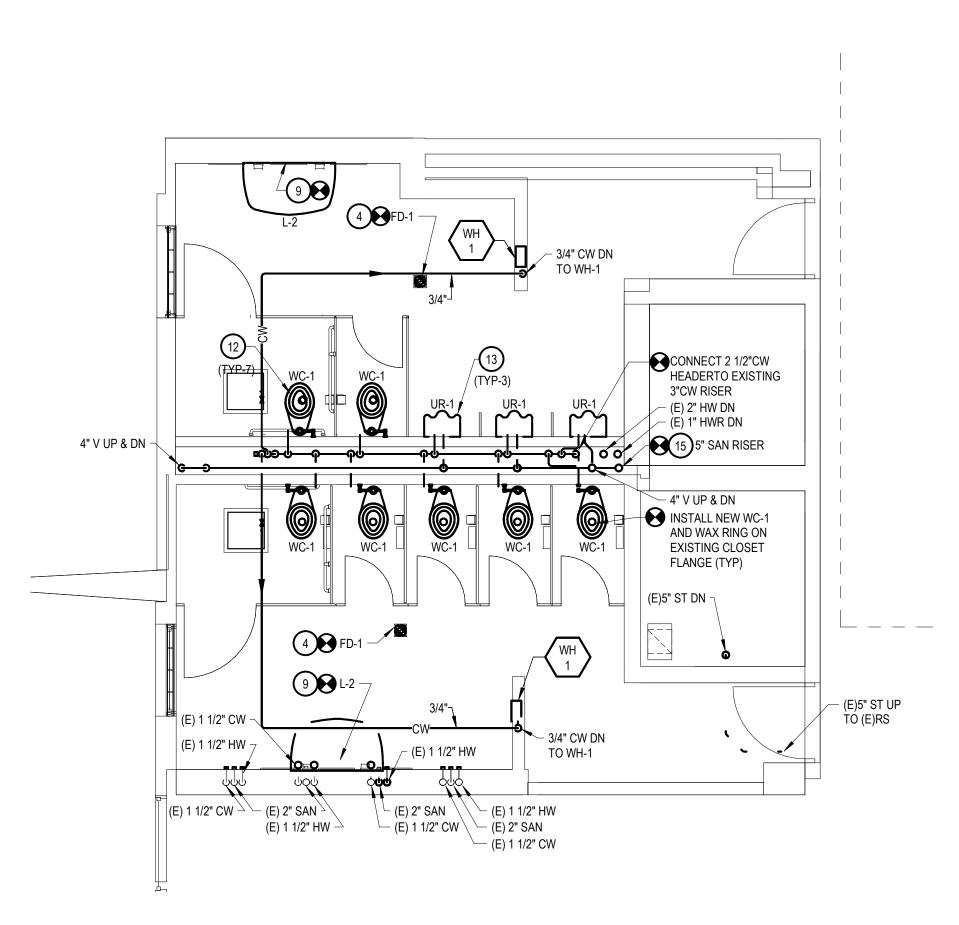
J. Bologna

Drawn By

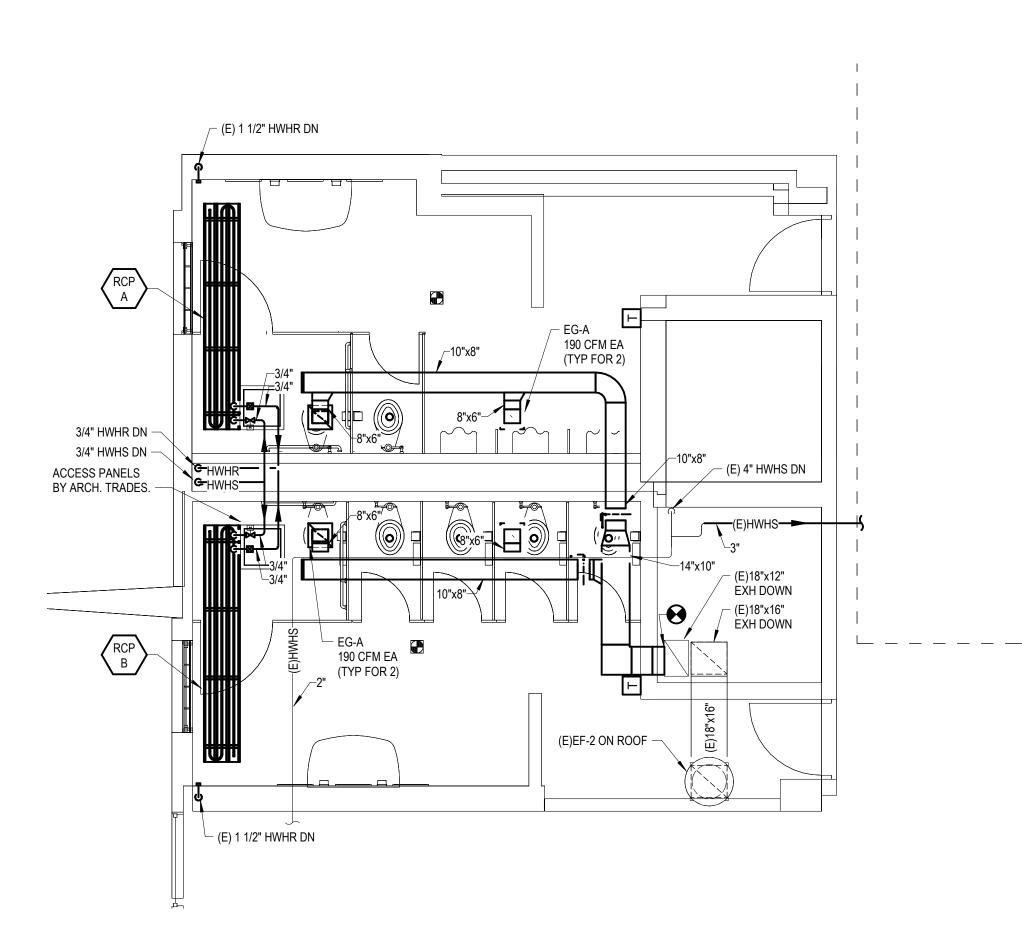
www.ids-troy.com

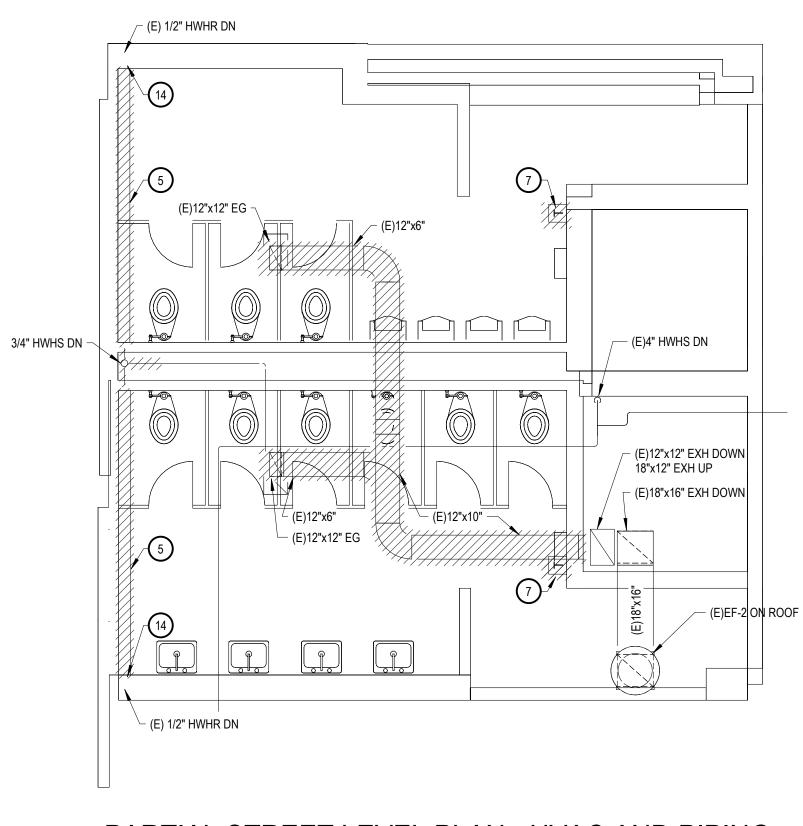


# PARTIAL STREET LEVEL PLAN - PLUMBING NEW WORK

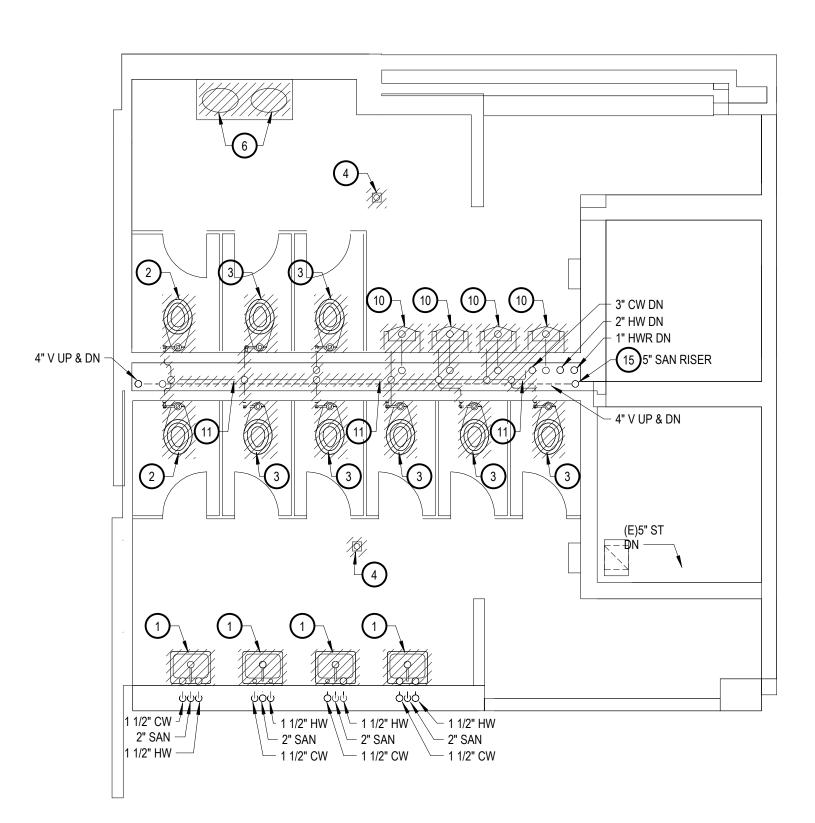








# PARTIAL STREET LEVEL PLAN - HVAC AND PIPING **DEMOLITION** 1/4" = 1'-0"



# PARTIAL STREET LEVEL PLAN - PLUMBING DEMOLITION

# **KEY NOTES**

- DISCONNECT AND REMOVE EXISTING LAV COMPLETELY. INCLUDING FAUCET, TAIL PIECE, P'TRAP SUPPLY STOPS AND SUPPLY TUBES. CAP
- HW, CW AND WASTE LINE FLUSH WITH WALL. DISCONNECT AND REMOVE EXISTING WC COMPLETELY. INCLUDING FLUSH VALVE, AND ALL RELATED TRIM. CAP CW FLUSH WITH WALL AND CAP WASTE LINE FLUSH WITH FLOOR.
- 3 DISCONNECT AND REMOVE EXISTING FLOOR MOUNTED WC COMPLETELY. INCLUDING FLUSH VALVE, AND ALL RELATED TRIM, INCLUDING WAX RING. THE EXISTING CW LINE SHALL BE REUSED TO ACCOMMODATE NEW WC AND FLUSH VALVE. REFER TO NEW WORK AND SPECIFICATIONS.
- (4) REMOVE EXISTING FLOOR DRAIN. NEW FD-1 SHALL BE SET IN SAME LOCATION. RECONNECT TO EXISTING WASTE LINE IN CEILING SPACE BELOW. REFER TO NEW WORK ON THIS SHEET. 5 DISCONNECT AND REMOVE EXISTING WALL MOUNTED FINNED TUBE RADIATION INCLUDING COVER STATES THE STATE
- RADIATION. INCLUDING COVER, FINNED TUBE, SUPPORT BRACKETS, PORTION OF HEATING PIPING, CONTROL VALVES, FITTINGS AND RELATED THERMOSTAT.
- 6 DISCONNECT AND REMOVE EXISTING SINKS COMPLETELY. INCLUDING FAUCET, TAIL PIECE, P'TRAP SUPPLY STOPS AND SUPPLY TUBES. REFER TO NEW WORK ON THIS SHEET.
- DISCONNECT AND REMOVE EXISTING WALL MOUNTED THERMOSTAT AND WALL SENSOR. CAP CONTROL WIRE AT SOURCE.
- 8 DISCONNECT AND REMOVE EXISTING ROOF MOUNTED EXHAUST FAN, ROOF CURB, PORTION OF EXHAUST DUCT AND SUPPORT STRUCTURE. 9 CONTRACTOR SHALL MODIFY EXISTING PLUMBING INCLUDING HW, CW AND WASTE LINE AS REQUIRED THROUGH WALL AND OR FLOOR TO
- AND WASTE LINE AS REQUIRED THROUGH WALL AND OR FLOOR TO ACCOMMODATE NEW L-2 . INSTALL NEW ISOLATION VALVES. 10 DISCONNECT AND REMOVE EXISTING URINAL COMPLETELY, INCLUDING
- FLUSH VALVE, ALL RELATED TRIM AND SUPPORTS. MODIFY EXISTING CW LINE AS REQUIRED ACCOMMODATE NEW URINAL AND FLUSH VALVE. CAP EXISTING UNUSED CW AND W LINE AT WALL. REFER TO NEW WORK AND SPECIFICATIONS.
- (1) REMOVE ALL EXISTING CW, WASTE & VENT PIPING INCLUDING ALL VALVES, FITTINGS, INSULATION, AND SUPPORTS. (EXISITNG VERTICAL
- RISERS TO REMAIN.) (12) CONNECT NEW 1 1/4" CW TO NEW FLUSH VALVES SERVING WC'S.
- (13) CONNECT NEW 1" CW TO NEW FLUSH VALVES SERVING UR'S.
- (14) CAP EXISTING 1/2" HWHR FLUSH WITH WALL.
- (15) CONTRACTOR SHALL REMOVE VERTICAL PORTION OF EXISTING 5" SANITARY RISER IN SHAFT BETWEEN STREET LEVEL AND UPPER LEVEL FLOOR PLANS AND REPLACE WITH NEW 5" IN SAME LOCATION.

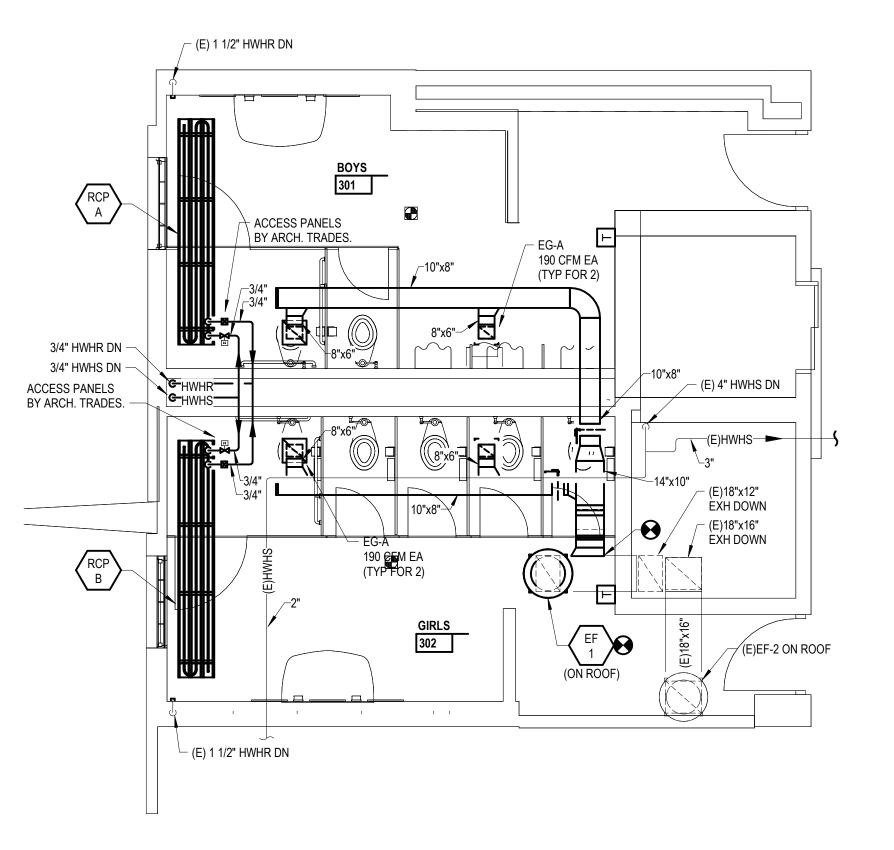
# GENERAL NOTE

LOWER LEVEL TOILET ROOMS SHEET METAL CONTRACTOR SHALL INSTALL NEW 12"x12" EXHAUST GRILLES IN LOWER LEVEL TOILET ROOMS. (1) EG-A LOCATED IN GIRLS 102 AND (1) EG-A LOCATED IN BOYS 101. CURRENTLY EXISTING EXHAUST GRILLES ARE MISSING. MAKE ANY MINOR SHEET METAL MODIFICATIONS AS NECESSARY TO ACCOMMODATE NEW GRILLE ONCE

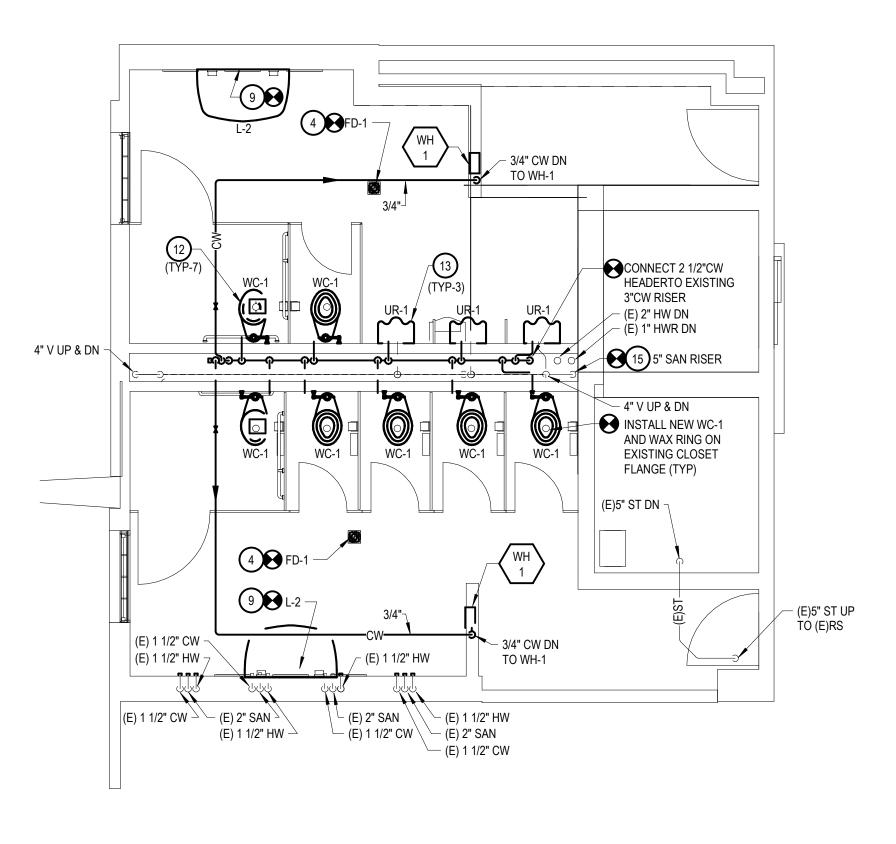
NEW GYPSUM CEILING IS INSTALLED. EXISTING CFM TO REMAIN. REFER TO DRAWING A2.0 FOR GRILLE LOCATION.



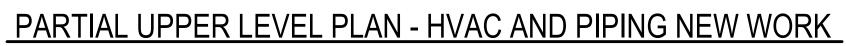
www.XXXXX.com Project Title FERNDALE SCHOOLS Ferndale High School and Middle School Select Toilet Room and Classroom Renovation Ferndale Public Schools 871 Pinecrest Ferndale, Mi Key Plan **Project Administrator** C. Azara Project Designer J. Bologna Project Architect / Engineer J. Bologna Drawn By J. Bologna Q.M. Review J. Schwartz Approved D. DiCiuccio Drawing Scale 1/4"=1'-0" Issue Date Issued for 50% Owner Review 11-13-2018 Quality Management Review 12-11-2018 Bids 01-04-2019  $\odot$  2017 integrated  ${
m d}$ gn solutions, LLC IDS Drawing Title Partial Street Level Plans -Demolition and New Work Reference Finish Floor Elevation: XXX'-X"berDrawing Number ī**D**<sup>s</sup> Project Number **M2.1** 

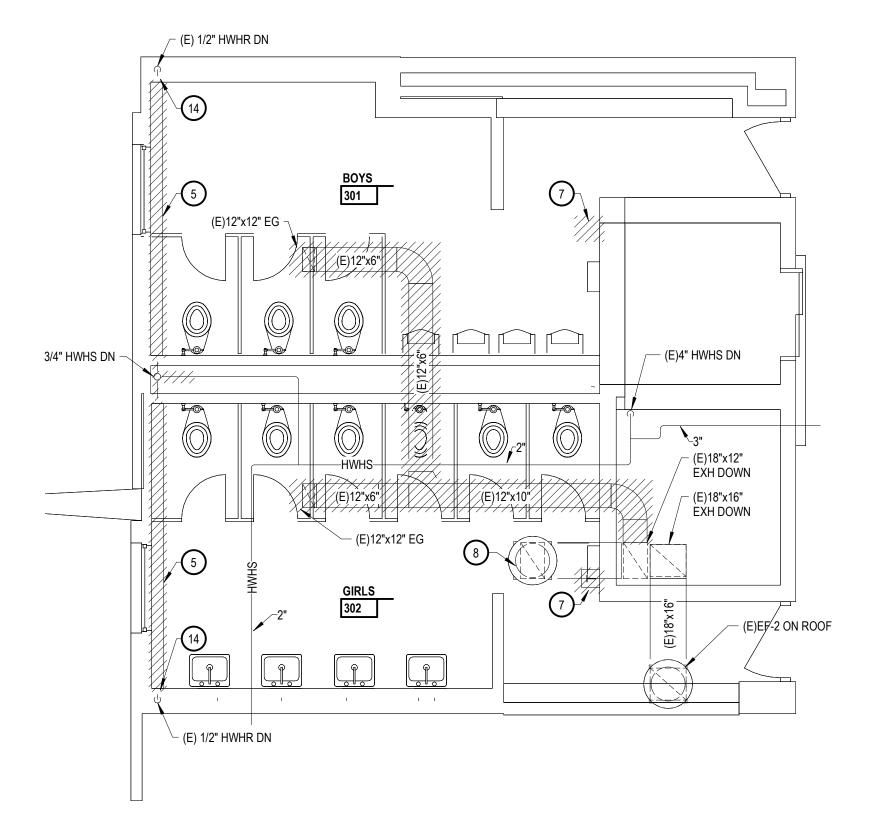


1/4" = 1'-0"

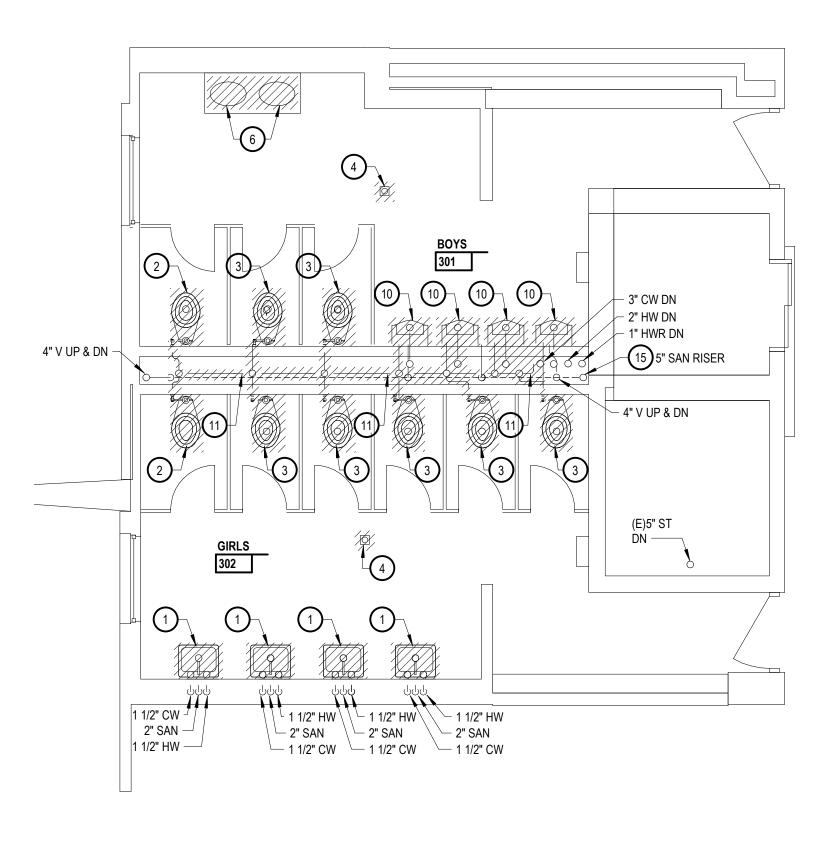


### PARTIAL UPPER LEVEL PLAN - PLUMBING NEW WORK 1/4" = 1'-0"









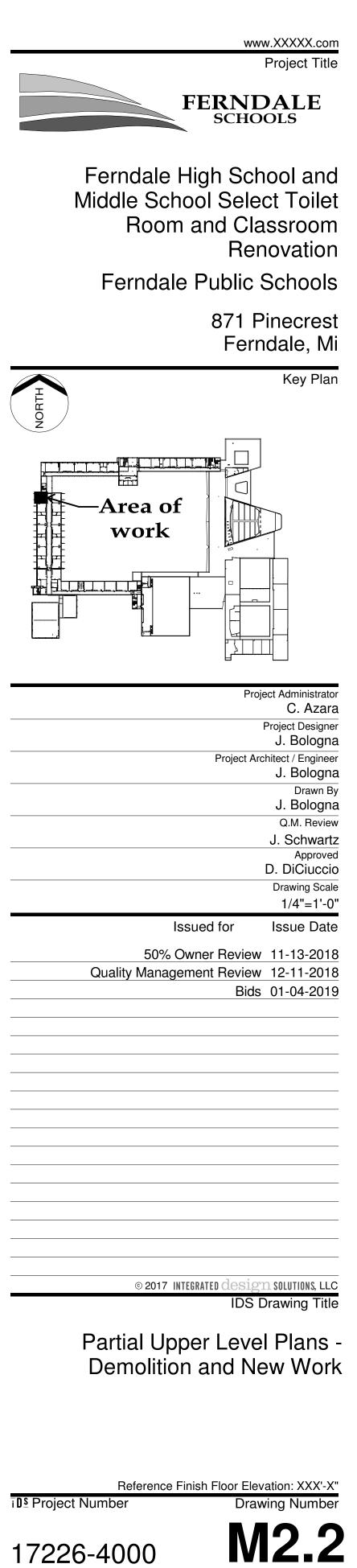
### PARTIAL UPPER LEVEL PLAN - PLUMBING DEMOLITION 1/4" = 1'-0"

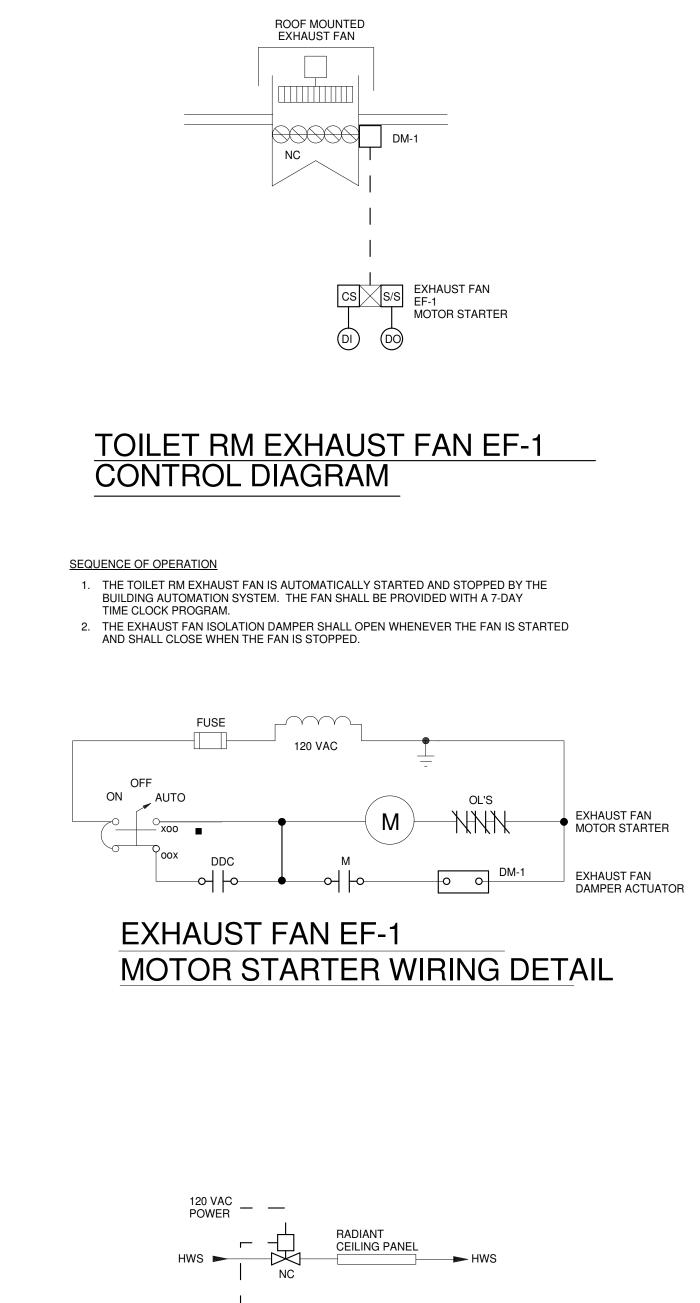
# PARTIAL UPPER LEVEL PLAN - HVAC AND PIPING DEMOLITION

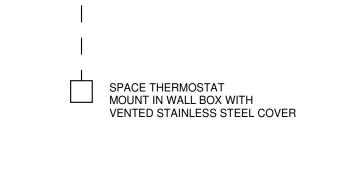
## KEY NOTES

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- (15) CONTRACTOR SHALL REMOVE VERTICAL PORTION OF EXISTING 5" SANITARY RISER IN SHAFT BETWEEN STREET LEVEL AND UPPER LEVEL FLOOR PLANS AND REPLACE WITH NEW 5" IN SAME LOCATION.









# RADIANT CEILING PANEL

SEQUENCE OF OPERATION: THE SPACE THERMOSTAT SHALL CYCLE THE RADIANT CEILING PANEL CONTROL VALVE TO MAINTAIN A MINIMUM SPACE TEMPERATURE.



Reference Finish Floor Elevation: XXX'-X"berDrawing Number M4.1

design solutions, LLC IDS Drawing Title  $\odot$  2017 integrated  ${
m de}$ Temperature Controls

\_\_\_\_\_

C. Azara Project Designer J. Bologna Project Architect / Engineer J. Bologna Drawn By A.West Q.M. Review J. Schwartz Approved D. DiCiuccio Drawing Scale As Noted Issue Date Issued for 50% Owner Review 11-13-2018 Quality Management Review 12-11-2018 Bids 01-04-2019

871 Pinecrest Ferndale, Mi

Ferndale High School and Middle School Select Toilet Room and Classroom Renovation Ferndale Public Schools

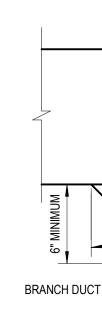
FERNDALE SCHOOLS

www.XXXXX.com Project Title

Key Plan

Project Administrator







**RIGID ELBOW** 



FAN SCHEDULE														
MARK	SERVICE	DESIGN AIRFLOW (CFM)	EXT. SP (IN.WC.)	FAN I TYPE	DATA DRIVE	RPM	MC RPM	DTOR DA	TA HP	ELEC VOLT	TRICAL I PH.	DATA FLA	"GREENHECK" MODEL No.	REMARKS
EF-1	TOILET ROOMS AND PORTION OF TUNNEL	2,600	1.00	CENTRIFUGAL ROOF EXHAUST	BELT	1,292	1,725	0.89	1	208	3	4.6	GB-161-10	THE CURRENT CONNECTED EXHAUST CFM IS 2,260 WITH ADDITIONAL CAPACITY FOR FUTURE TOILET ROOM RENOVATONS.

### NOTES:

1. DISCONNECT SWITCHES BY EQUIPMENT MANUFACTURER

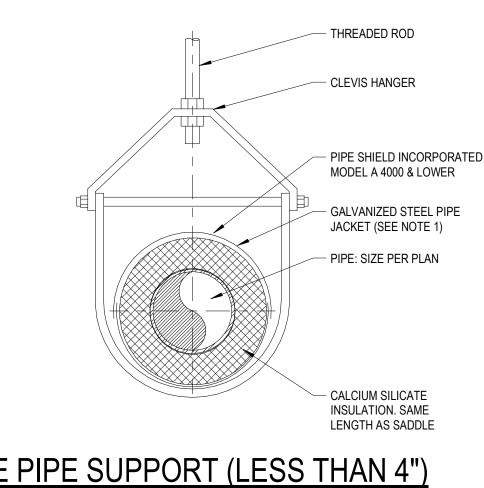
2. PROVIDE FANS WITH NEMA3R DISCONNECT SWITCH. 3. PROVIDE 16" HIGH ROOF CURB AND MOTORIZED BACKDRAFT DAMPER WITH 120VAC ACTUATOR.

	10				

	GRILLES, REGISTER AND DIFFUSER SCHEDULE								
M	IARK	CORE STYLE	BORDER FRAME TYPE	MODULE SIZE	FINISH	ACCESSORIES	CONSTRUCTION	"PRICE" MODEL NUMBER	REMARKS
E	G-A	12	LAY-IN / SURFACE	12" x 12"	WHITE	OPPOSED BLADE DAMPER	ALUMINUM	635 DAL	

NOTES:

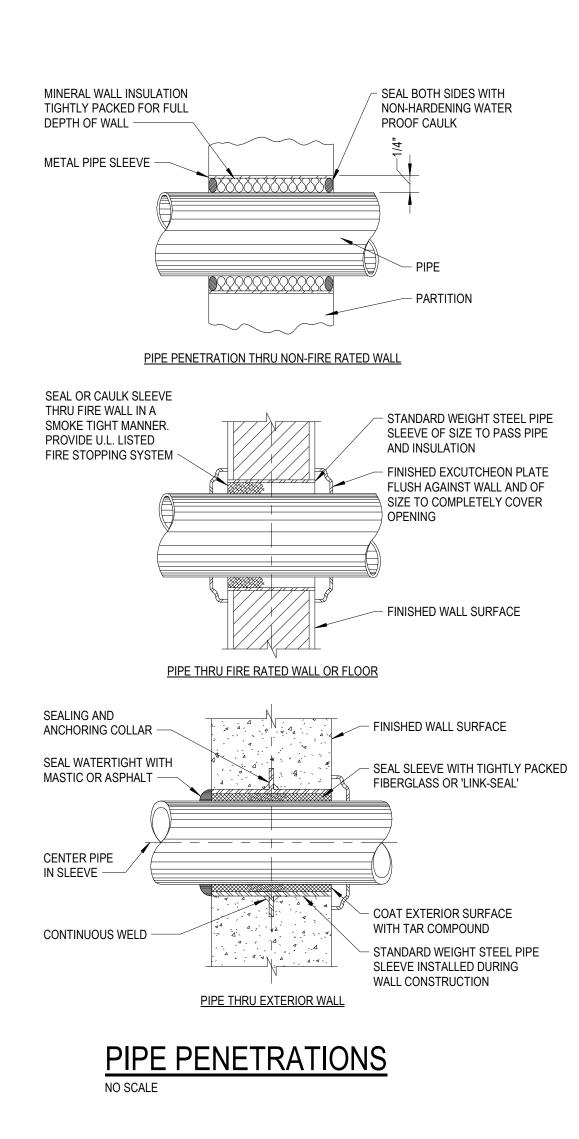
- 1. COORDINATE MOUNTING FRAMES WITH REFLECTED CEILING PLANS. 2. IN AREAS WITH NON-ACCESSIBLE CEILING (DRYWALL ETC.) THE VOLUME DAMPER IS TO BE LOCATED
- AT THE DIFFUSER OR REGISTER.

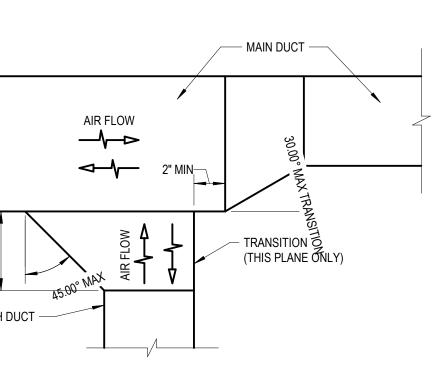


### SINGLE PIPE SUPPORT (LESS THAN 4") NO SCALE

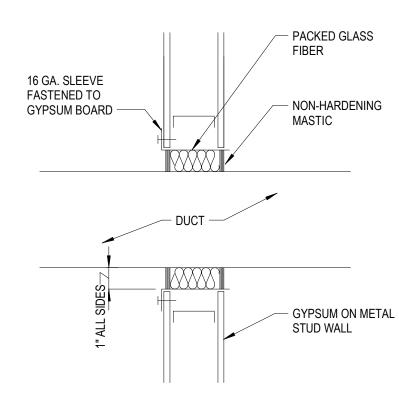
NOTES:

1. PROVIDE GALVANIZED SHEET METAL INSULATION JACKET AS FOLLOWS: LENGTH: 12" GAUGE: 18 PIPE SIZE: 2" TO 4"

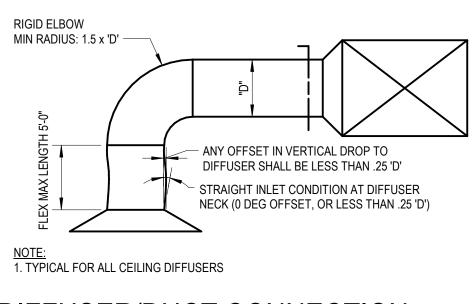




# TYPICAL LOW PRESSURE SUPPLY, RETURN, OR EXHAUST DUCT CONNECTION DETAIL







**DIFFUSER/DUCT CONNECTION RIGID ELBOW DETAIL** 

3. IN AREAS WITH ACCESSIBLE CEILING (LAY-IN TILE) THE VOLUME DAMPER IS TO BE LOCATED IN THE BRANCH DUCT TAKE-OFF.

	RADIANT CEILING PANEL SCHEDULE									
MARK	MARK SERVES PANEL OUTPUT WIDTH (BTU/HR-LIN (INCHES) FT)@170f LINERAL FEET PROVIDED GPM EWT (F) LWT (F) FINISH "PRICE" NO. REMARKS									
RCP-A	BOY'S TOILETS	18	303	10.5	0.5	180	160	WHITE	RPL	4-PASS
RCP-B	GIRL'S TOILETS	18	303	11	0.5	180	160	WHITE	RPL	4-PASS

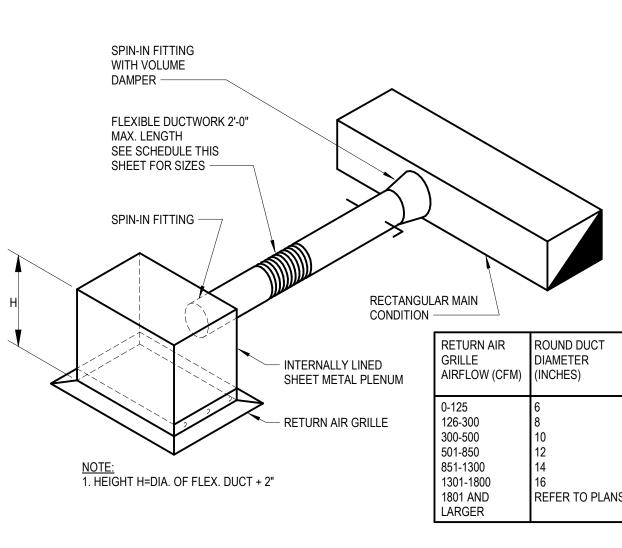
NOTES:

1. LENGTH INDICATED ARE APPROXIMATE AND SHALL BE CONFIRMED IN FIELD BY CONTRACTOR. PANELS

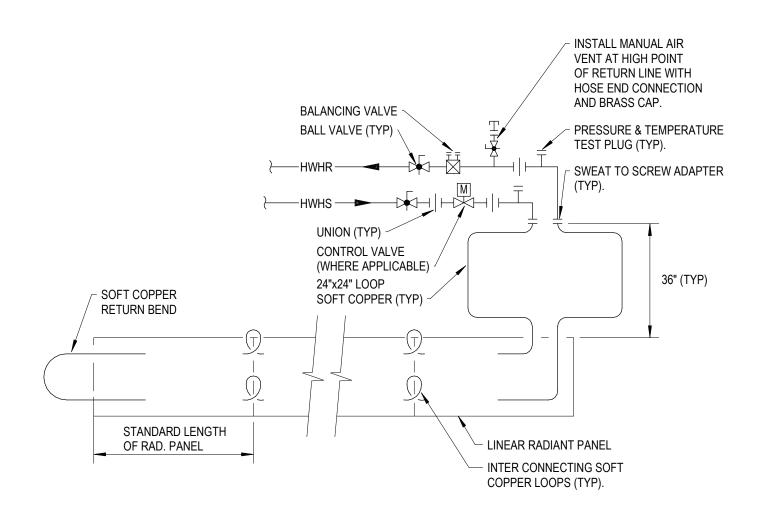
SHALL RUN WALL TO WALL. PROVIDE BLANK-OFF AT ENDS AND AT COLUMN OBSTRICTIONS.

2. MINIMUM 1" INSULATION BACKER.

3. ALL RUNOUT CONNECTIONS SHALL BE 1/2".



### RETURN & EXHAUST AIR GRILLE **BRANCH CONNECTION DETAIL** NO SCALE



LINEAR RADIANT CEILING PANEL PIPING DIAGRAM WITH 2-WAY CONTROL VALVE

(EVEN NUMBER OF PIPING PASSES) NOTE: 1. REFER TO FLOOR PLANS FOR LOCATIONS.



īDs Project Number

Drawing Number **M5.**1

© 2017 INTEGRATED d  ${
m gn}$  solutions, LLC IDS Drawing Title Schedules and Details

Reference Finish Floor Elevation: XXX'-X"

**Project Administrator** C. Azara Project Designer J. Bologna Project Architect / Engineer J. Bologna Drawn By J. Bologna Q.M. Review J. Schwartz Approved D. DiCiuccio Drawing Scale No Scale Issue Date Issued for 50% Owner Review 11-13-2018 Quality Management Review 12-11-2018 Bids 01-04-2019

Key Plan

871 Pinecrest Ferndale, Mi

Room and Classroom Renovation Ferndale Public Schools

Ferndale High School and Middle School Select Toilet

FERNDALE SCHOOLS

www.XXXXX.com Project Title



# ABBREVIATIONS

Α		D	
А	AMPERES	DA	DIGITALLY ADDRESSABLE
AC	ALTERNATING CIRCUIT	DC	DIRECT CURRENT
ACU	AIR CONDITIONING UNIT	DEMO	DEMOLITION
AF	AMPERE FRAME	DEMOD	DEMODULATOR
AFF	ABOVE FINISHED FLOOR	DEPT	DEPARTMENT
AHU	AIR HANDLING UNIT	DIA	DIAMETER
AIC	AMPERES INTERRUPTING CAPACITY	DISC	DISCONNECT
ALT	ALTERNATE	DN	DOWN
AP	AMPERE PLUG	DP	DISTRIBUTION PANELBOARE
ARCH	ARCHITECT / ARCHITECTURAL	DVD	DIGITAL VERSATILE DISC
AS	AMPERE SENSOR	DWG	DRAWING
AT	AMPERE TRIP	Biilo	Brownie
ATS	AUTOMATIC TRANSFER SWITCH	_	
AV	AUDIO / VIDEO	E	
AWG	AMERICAN WIRE GAUGE		
////0		EA	EACH
D		EC	ELECTRICAL CONTRACTOR
В		EDH	ELECTRIC DUCT HEATER
BLDG	BUILDING	EF	EXHAUST FAN
BOT	BOTTOM	ELEC	ELECTRICAL
BSMT	LOWER LEVEL	ELEV	ELEVATOR
-		EM	EMERGENC
С		EMCS	ENERGY MONITORING AND CONTROL SYSTEM
C		EMT	ELECTRIC METALLIC TUBINO
		EP	ELECTRIC PNEUMATIC SWITCH
		EPT	ELECTRIC POWER TRANSDUCER
CAB	CABINET	EQUIP	EQUIPMEN
CB	CIRCUIT BREAKER	ET	ETHERNET
CC	CARD CATALOG	EUH	
CCP	CLASSROOM CONTROL PANEL	EWC	ELECTRIC WATER COOLER
CCTV	CLOSED CIRCUIT TELEVISION	EWH	ELECTRIC WATER HEATER
CD	CANDELA	EXIST	EXISTING
CHBD	CHALKBOARD		
CKT	CIRCUIT	F	
CLG	CEILING	-	
COMP	COMPUTER	FA	FIRE ALARN
CPU	CENTRAL PROCESSING UNIT	FAAP	FIRE ALARM ANNUNCIATOR PANEL
CP	CONTROL PANEL	FACP	FIRE ALARM CONTROL PANE
ĊŢ	CABLE TRAY	FCU	FAN COIL UNI
CUH	CABINET UNIT HEATER	FLA	FULL LOAD AMPS
0011		FLR	FLOOF
		FT	FOOT / FEET
		FU	FUSE
		FVNR	FULL VOLTAGE NON REVERSING

# SYMBOLS

xx	LIGHTING FIXTURE RECESSED OR SURFACE MOUNTED, LETTERS INDICATE TYPE (TYP)	\$к
	LIGHTING FIXTURE RECESSED OR SURFACE MOUNTED	\$⊅ \$∟
XX,NL/EM	ON NIGHT LIGHT OR EMERGENCY CIRCUIT LETTERS INDICATE TYPE (TYP)	Ψ⊑ \$L2
0 0 XX	LIGHTING FIXTURE SUSPENDED MOUNTED, LETTERS INDICATE TYPE (TYP)	\$р
O XX,NL/EM	LIGHTING FIXTURE SUSPENDED MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT	\$т
	LETTERS INDICATE TYPE (TYP) STRIP LIGHTING FIXTURE LETTERS INDICATE TYPE (TYP)	\$a
XX.NL/EM	STRIP LIGHTING FIXTURE	\$3a (L)
~	LETTERS INDICATE TYPE (TYP)	ΗL
	LIGHTING FIXTURE - RECESSED WALL WASH LETTERS INDICATE TYPE (TYP)	LC
OR □ xx xx	LIGHTING FIXTURE - RECESSED OR PENDANT MTD LETTERS INDICATE TYPE (TYP)	
	LIGHTING FIXTURE - RECESSED OR PENDANT MTD ON NIGHT LIGHT OR EMERGENCY CIRCUIT	HPC
¤	LETTERS INDICATE TYPE (TYP) LIGHTING FIXTURE - SURFACE MOUNTED	PTD
XX	LETTERS INDICATE TYPE (TYP) LIGHTING FIXTURE - SURFACE MOUNTED	-← -⊕
×	ON NIGHT LIGHT OR EMERGENCY CIRCUIT LETTERS INDICATE TYPE (TYP)	€
	TRACK LIGHTING WITH INDICATED NUMBER OF FIXTURES - CEILING MOUNTED LETTERS INDICATE TYPE (TYP)	<b>⊕</b>
	TRACK LIGHTING WITH INDICATED NUMBER OF FIXTURES - WALL MOUNTED LETTERS INDICATE TYPE (TYP)	-⊕ -€°
$\mathcal{Q}_{xx}^{OR} = \mathcal{Q}_{xx}$	LIGHTING FIXTURE - WALL MOUNTED LETTERS INDICATE TYPE (TYP)	€G
	LIGHTING FIXTURE - WALL MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT LETTERS INDICATE TYPE (TYP)	= <del>•</del> s
□ <sub>xx</sub>	LIGHTING FIXTURE - UNDERCABINET MOUNTED LETTERS INDICATE TYPE (TYP)	-⇔s
XX,NL/EM	LIGHTING FIXTURE - UNDERCABINET MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT LETTERS INDICATE TYPE (TYP)	- <del></del> 16 
Å⊗Å	EXIT LIGHTING FIXTURE SINGLE OR DOUBLE FACE WITH DIRECTIONAL ARROWS - CEILING OR PENDANT MOUNTED, LETTERS INDICATE TYPE (TYP)	
$\vdash \bigotimes_{l}^{\mathbb{A}}$	EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS - WALL MOUNTED LETTERS INDICATE TYPE (TYP)	-⊕ SS SS
	SELF-CONTAINED EMERGENCY LIGHTING UNIT - CEILING MOUNTED LETTERS INDICATE TYPE (TYP)	-© <sub>D0</sub> -© <sub>D0</sub>
€} <sub>xx</sub>	SELF-CONTAINED EMERGENCY LIGHTING UNIT - WALL MOUNTED LETTERS INDICATE TYPE (TYP)	
	POLE MOUNTED LIGHTING FIXTURE QUANTITY OF LUMINARIES AS INDICATED LETTERS INDICATE TYPE (TYP)	
$\overset{xx}{\nleftrightarrow}  \overset{xx}{\nleftrightarrow}$	SITE LIGHTING FIXTURES - ADJUSTABLE FLOODS, LETTERS INDICATE TYPE (TYP)	- 11
\$	SINGLE POLE SWITCH	
\$2	DOUBLE POLE SWITCH	
\$3	THREE WAY SWITCH	
\$4	FOUR WAY SWITCH	

# SYMBOL LEGEND

ELEVATION SYMBOL

COLUMN CENTERLINE

ROOM NAME AND NUMBER

8 **4** E9.1 **)**  $\sim$ 

 $\langle 1 \rangle$ 

EXISTING

NEW

ROOM NAME

- ELEVATION NUMBER

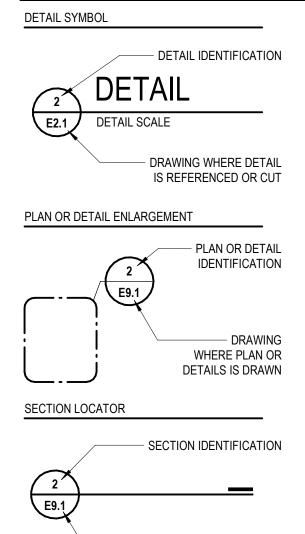
- DRAWING WHERE ELEVATION IS DRAWN

\_ \_\_\_ \_ \_ \_ \_ \_ \_

- ROOM

- FLOOR

- BUILDING OR UNIT (IF ANY)



- DRAWING WHERE PLAN OR

DETAIL IS DRAWN

ON/OFF SWITCH - WALL MOUNTED LIGHTING OCCUPANCY SENSOR WITH INTEGRAL DUAL LEVEL ON/OFF SWITCH - WALL MOUNTED SWITCH WITH PILOT LIGHT SWITCH WITH TIMER SINGLE POLE SWITCHES FOR DUAL LEVEL \$a\$b LIGHTING CONTROL THREE WAY SWITCHES FOR DUAL LEVEL \$3a \$3b LIGHTING CONTROL LIGHTING OCCUPANCY SENSOR - CEILING MOUNTED LIGHTING OCCUPANCY SENSOR - WALL MOUNTED LIGHTING CONTACTOR TIME SWITCH LIGHTING CONTROL PANEL PHOTOELECTRIC SWITCH - CEILING MOUNTED PHOTOELECTRIC SWITCH - WALL MOUNTED EMERGENCY POWER TRANSFER DEVICE SINGLE RECEPTACLE OUTLET DUPLEX RECEPTACLE OUTLET DUPLEX RECEPTACLE OUTLET FLUSH MOUNTED IN CEILING DUPLEX RECEPTACLE OUTLET FLOOR MOUNTED **₽** LETTERS INDICATE TYPE (TYP) DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER INTEGRAL GROUND FAULT PROTECTION DUPLEX RECEPTACLE OUTLET CONNECTED TO ⇒GFI UPSTREAM GROUND FAULT PROTECTION DEVICE DUPLEX RECEPTACLE OUTLET WITH INTEGRAL SURGE SUPPRESSION DUPLEX RECEPTACLE OUTLET CONNECTED TO ⇒ss UPSTREAM SURGE SUPPRESSION DEVICE DUPLEX RECEPTACLE OUTLET SPLIT WIRED DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND  $\rightarrow$ QUAD RECEPTACLE OUTLET QUAD RECEPTACLE OUTLET MOUNTED ABOVE COUNTER QUAD RECEPTACLE OUTLET WITH ONE (1) INTEGRAL SURGE SUPPRESSION TYPE RECEPTACLE AND ONE (1) SS SS SURGE SUPPRESSION PROTECTED RECEPTACLE SPECIAL OUTLET - SIZES AND TYPES DENOTED ON DRAWINGS DC POWER SYSTEM - SERVICE OUTLET -O<sub>DC/PS</sub> DC POWER SYSTEM - POWER SUPPLY POWER/COMMUNICATIONS POLE SPECIAL POWER CONNECTION CORD DROP POKE THROUGH ASSEMBLY

GA

GFI

HH

HID

HP

HV

IAC

ITS

LP

(Ys

(L)(s

S

LETTERS INDICATE TYPE (TYP)

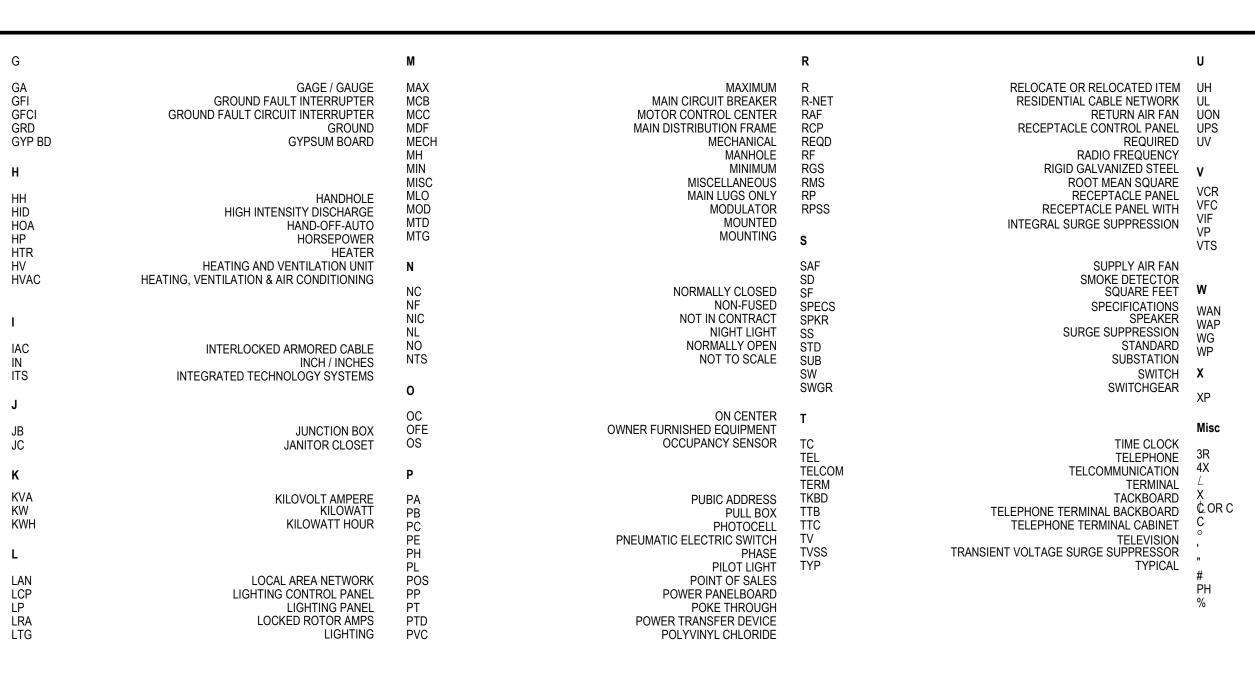
FULL VOLTAGE NON REVERSING

KEY OPERATED SWITCH

LIGHTING OCCUPANCY SENSOR WITH INTEGRAL

DIMMER SWITCH

COMMUNICATIONS OUTLET MOUNTED
$\forall$



N <sub>DS</sub>	DUTY STATION - NURSE CALL	К
E	EMERGENCY STATION - NURSE CALL	
N MS	MASTER STATION - NURSE CALL	
N PS	POWER SUPPLY - NURSE CALL	
N SS	STAFF STATION - NURSE CALL	
$\vdash \!$	DOME LIGHT WALL MOUNTED - NURSE CALL	
$\stackrel{-}{\nabla}_{c}$	DOME LIGHT CEILING MOUNTED - NURSE CALL	- International International Internationa International International I
$\vdash$	DOME LIGHT WITH CODE BLUE WALL MOUNTED - NURSE CALL	 ک ols
$\overline{\Phi}^{c}$	DOME LIGHT WITH CODE BLUE	ç ors
$\triangleleft_{A}$	CEILING MOUNTED - NURSE CALL COMMUNICATIONS OUTLET - WALL MOUNTED	-++
$\triangleleft_{A}^{TV}$		XXXNG
$\triangleleft^{W}$	TELEVISION OUTLET - WALL MOUNTED LETTER INDICATED FACEPLATE TYPE (TYP) TELEPHONE OUTLET - WALL MOUNTED	GFI
$\triangleleft$	COMMUNICATIONS OUTLET - WALL MOUNTED ABOVE	$\langle \longleftrightarrow \longleftrightarrow \rangle$
	COUNTER, LETTER INDICATES TYPE (TYP)	$\langle \overline{52} \rangle \rangle$
$\triangleleft_{\rm C/A}$	COMMUNICATIONS OUTLET - CEILING MOUNTED LETTER INDICATES FACEPLATE TYPE (TYP)	32 //
A 🗸	COMMUNICATIONS OUTLET - FLOOR MOUNTED LETTER INDICATES FACEPLATE TYPE (TYP)	GE
$\Phi \bigtriangledown$ .	COMBINATION POWER/COMMUNICATIONS OUTLET - FLOOR MOUNTED	L
A	LETTER INDICATES FACEPLATE TYPE (TYP)	<u> </u>
	CLASSROOM CONTROL PANEL CCP-XXX (XXX=CLASSROOM NUMBER) SSZ-ZZZ(PANEL AND CKT NUMBER)	<b>•</b>
	CEILING MOUNTED MONITOR	—G —
	CEILING MOUNTED MONITOR	Ũ
	WALL MOUNTED MONITOR	
•	PROJECTOR - SUSPENDED MOUNTED	
	PROJECTOR - RECESSED MOUNTED (MOTOR LIFT)	0
A	AMPERE METER	—
V	VOLT METER	
W	WATT METER	
M	METER	— Р —
PF	POWER FACTOR METER	—HP —
KWH	KILOWATT HOUR METER	—нс —
KW	KILOWATT METER	
AS	AMPERE SWITCH	
VS	VOLT SWITCH	

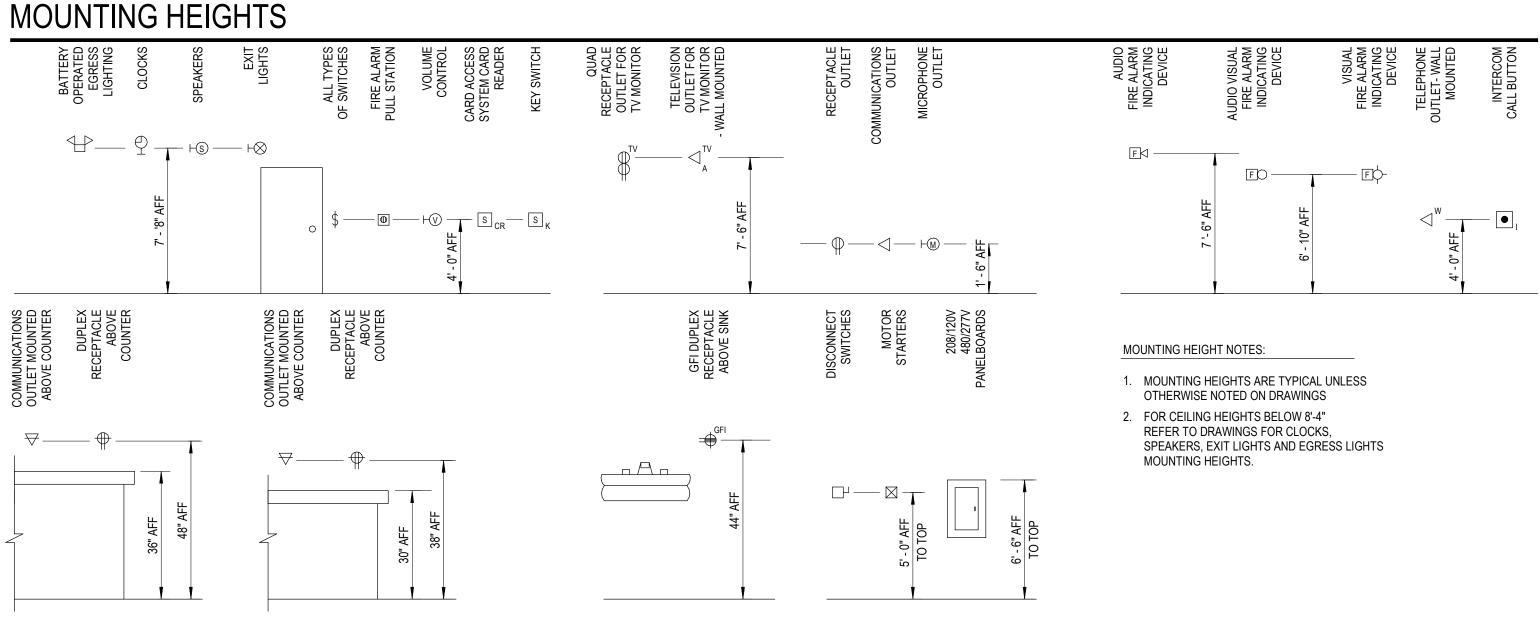
CEILING MOUNTED SPEAKER CLUSTER
WALL MOUNTED SPEAKER
MICROPHONE OUTLET - CEILING MOUNTED
MICROPHONE OUTLET - WALL MOUNTED
AUXILIARY OUTLET - WALL MOUNTED
VOLUME OUTLET - WALL MOUNTED
BELL - WALL MOUNTED
CHIME - WALL MOUNTED
HORN SPEAKER - WALL MOUNTED
HORN SPEAKER - CEILING MOUNTED
CARD READER - SECURITY SYSTEM
DOOR CONTACT - SECURITY SYSTEM
KEY SWITCH - SECURITY SYSTEM
MOTION DETECTOR - SECURITY SYSTEM
CLOSED CIRCUIT VIDEO CAMERA - SECURITY SYSTEM
FIRE ALARM PULL STATION
AUDIO/VISUAL FIRE ALARM INDICATING DEVICE - WALL MOUNTED
AUDIO/VISUAL FIRE ALARM INDICATING DEVICE - CEILING MOUNTED
VISUAL FIRE ALARM INDICATING DEVICE
- WALL MOUNTED VISUAL FIRE ALARM INDICATING DEVICE
- CEILING MOUNTED AUDIO FIRE ALARM INDICATING DEVICE
- WALL MOUNTED
AUDIO FIRE ALARM INDICATING DEVICE - CEILING MOUNTED
VISUAL EMERGENCY MASS NOTIFICATION INDICATING DEVICE - WALL MOUNTED
VISUAL EMERGENCY MASS NOTIFICATION
INDICATING DEVICE - CEILING MOUNTED
AREA SMOKE DETECTOR - WALL MOUNTED
AREA SMOKE DETECTOR - CEILING MOUNTED
TEMPERATURE DETECTOR DUCT SMOKE DETECTOR
MAGNETIC DOOR HOLDER/RELEASE
WAGNETIC DOOR HOLDER/RELEASE
TAMPER SWITCH
FIRE FIGHTER TELEPHONE JACK
FIRE SUPRESSION SYSTEM CONTROL PANEL
SINGLE BED STATION - NURSE CALL
DOUBLE BED STATION - NURSE CALL
BATHROOM STATION - NURSE CALL
BATHROOM STATION PULL CORD - NURSE CALL

CODE BLUE PUSHBUTTON - NURSE CALL

J	JUNCTION BOX - CEILING MOUNTED	
J	JUNCTION BOX - WALL MOUNTED	НS
	PUSHBUTTON STATION	M
● <sub>E</sub>	PUSHBUTTON STATION - EMERGENCY	$\vdash M$
	POWER SHUTDOWN	⊢A
	INTERCOM CALL BUTTON	ΗŴ
• IP	INTERCOM CALL BUTTON WITH PRIVACY	BO CO
000000	HORIZONTALLY MOUNTED MULTI-OUTLET RACEWAY	H⊲
	HORIZONTALLY MOUNTED MULTI-OUTLET RACEWAY WITH VERTICAL FEED	€
$\boxtimes$	VERTICALLY MOUNTED MULTI-OUTLET RACEWAY	SCR
	BUS DUCT	S <sub>C</sub>
XXXXXXXXXXXXXXXXXXX	EQUIPMENT MOUNTING BACKBOARD	s <sub>MD</sub>
	208/120V PANELBOARD	ССТУ
	480/277V PANELBOARD	F
	DISTRIBUTION OR POWER PANELBOARD	F
$\sim$	SINGLE PHASE MOTOR	(E) <sub>AV</sub>
	THREE PHASE MOTOR	1
$\boxtimes$	MAGNETIC MOTOR STARTER	Ē¢-
∑- <sup></sup> 30/30A	COMBINATION MAGNETIC MOTOR STARTER - SWITCH SIZE / FUSE SIZE	€ <sub>v</sub>
30/NF	DISCONNECT SWITCH-SWITCH SIZE/NONFUSIBLE	
∑⊢ 30/30A	DISCONNECT SWITCH-FUSIBLE -SWITCH SIZE/FUSE SIZE	€ <sub>a</sub> e¢-
СВ-130А	DISCONNECT SWITCH -CIRCUIT BREAKER SIZE	© <sub>v</sub>
VFC	EMERGENCY POWER TRANSFER DEVICE	FSD
×	MAGNETIC CONTACTOR	$(\mathbb{F})_{\mathrm{SD}}$
\$м	MANUAL MOTOR STARTER	© <sub>тр</sub>
$\square$	PACKAGED EQUIPMENT WITH INTEGRALLY MOUNTED PREWIRED CONTROL PANEL	F <sub>DD</sub>
*	FURNISHED AS INTEGRAL PART OF EQUIPMENT	FWF
T-1	TRANSFORMER	F <sub>ts</sub>
$\odot$	GROUND ROD	FACP
$\mathbf{X}$	LIGHTNING PROTECTION AIR TERMINAL	FSCP FAAP
	CEILING MOUNTED FAN	
$\bigcirc$	SINGLE FACED CLOCK - CEILING MOUNTED	N 2B
$\bigcirc \bigcirc$	DOUBLE FACED CLOCK - CEILING MOUNTED	N <sub>BB</sub>
Φ		

SINGLE FACED CLOCK - WALL MOUNTED DOUBLE FACED CLOCK - WALL MOUNTED COMBINATION SPEAKER/CLOCK PANEL - WALL MOUNTED COMBINATION SPEAKER/CLOCK PANEL

-CEILING MOUNTED CEILING MOUNTED SPEAKER



# ELECTRICAL DRAWING INDEX

Electrical Reference Information Lower Level Composite Plan

E0.2

E0.3

E0.4

E2.1

E2.2

E5.1

E6.1

Street Level Composite Plan

Upper Level Composite Plan

Lower Level and Street Level Enlarged Demo and New Work Plans Upper Level Enlarged Demo and New Work Plans and Lighting Fixture Schedule

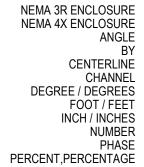
Partial One Line Diagram

Panel Schedules

Unit heater Underwriters Laboratories inc Unless otherwise noter Unit ventible power suppl Unit ventilator
VIDEO CASSETTE RECORDE VARIABLE FREQUENCY CONTROLLE VERIFY IN FIELI VAPOR PROO VIDEO TAPE STORAGI

WIDE AREA NETWORK WIRELESS ACCESS POINT WIRE GUARD WEATHERPROOF

EXPLOSION PROOF



К	KIRK KEY INTERLOCK
$\bigcirc \circ$	CIRCUIT BREAKER
00	DISCONNECT SWITCH
	FUSE
	TRANSFORMER
	TRANSFER SWITCH
L C OLS	THERMAL OVERLOAD
	CONTACTS
XXXNG	INDICATES WIRE SIZE AND CONDUIT SIZE
GFI	GROUND FAULT PROTECTION
$\langle \stackrel{\frown}{\longrightarrow} \rangle$	DRAWOUT CIRCUIT BREAKER
$\leftarrow 52 \rightarrow >$	AIR-MAG / VACUUM CIRCUIT BREAKER
G G E	ENGINE GENERATOR
<u>+</u>	SYSTEM OR EQUIPMENT GROUND
<b>•</b>	EXOTHERMIC WELD OR BRAZED CONNECTION
—G —	GROUND CABLE OR BUS
	CONDUIT CONCEALED IN WALLS OR IN CEILING SPACE OR EXPOSED IN UNFINISHED AREAS
	CONDUIT IN OR BELOW FLOOR SLAB OR BELOW GRADE
O	RACEWAY TURNED UP
•	RACEWAY TURNED DOWN
— <u>X</u> —	SEAL-OFF - CONDUIT SEAL
	CABLE TRAY
—Р —	UNDERFLOOR DUCT - POWER

UNDERFLOOR HEADER DUCT - POWER

UNDERFLOOR DUCT - COMMUNICATIONS

UNDERFLOOR HEADER DUCT - COMMUNICATIONS



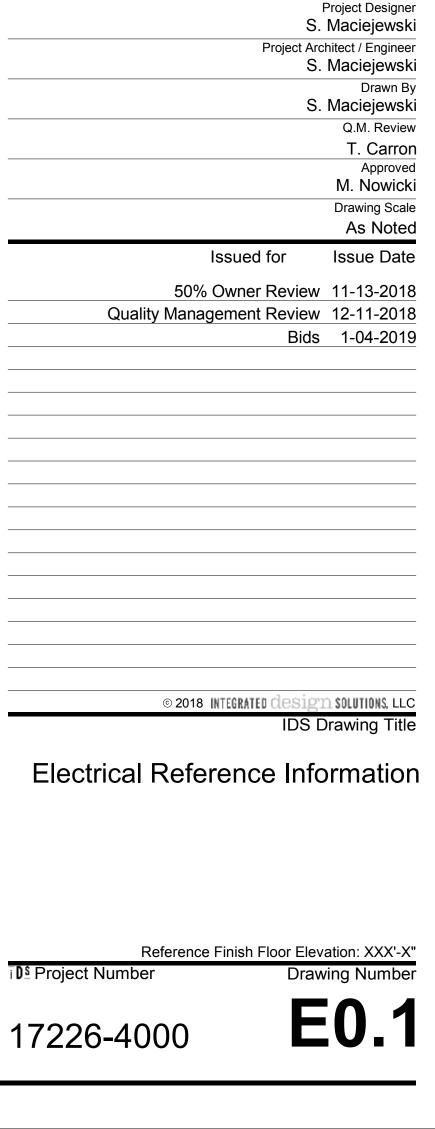
- 1. ITEMS DENOTED BY LIGHT LINE WEIGHT SHALL REMAIN.
- 2. ITEMS DENOTED BY HEAVY LINE WEIGHT ON DEMOLITION PLANS SHALL BE DISCONNECTED AND REMOVED.
- 3. ITEMS DENOTED WITH THE LETTER "R" SHALL BE RELOCATED. DISCONNECT, REMOVE WITH CARE AND STORE THESE ITEMS FOR REINSTALLATION AS INDICATED ON NEW WORK PLANS. 4. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND SUPERVISION
- REQUIRED TO COMPLETE ALL DEMOLITION OF EXISTING ELECTRICAL EQUIPMENT AS INDICATED. DISCONNECT, REMOVE AND RELOCATE ALL ITEMS AS REQUIRED TO FACILITATE THE NEW CONSTRUCTION. COORDINATE WITH ALL OTHER TRADES.
- 5. WHERE CONDUITS ARE ROUTED CONCEALED IN WALL CAVITIES FOR ELECTRICAL EQUIPMENT TO BE REMOVED, REMOVE ALL WIRING AND ABANDON THE CONDUIT IN PLACE.
- 6. WHERE REMOVAL OF CONDUIT AND WIRING AFFECTS THE OPERATION OF "UPSTREAM" AND "DOWNSTREAM" UTILIZATION EQUIPMENT WHICH WAS NOT INDICATED TO BE REMOVED, PROVIDE ADDITIONAL CONDUIT AND WIRING TO RESTORE THE "UPSTREAM" AND "DOWNSTREAM" UTILIZATION EQUIPMENT TO ITS NORMAL OPERATION.
- 7. FIRE ALARM SYSTEM TO BE UPGRADED AS SPECIFIED. REMOVE EXISTING DEVICES AS SHOWN. EXISTING CONDUIT, BACK BOXES, AND WIRING CAN BE REUSED IF THEY COMPLY WITH NEW WORK SPECIFICATIONS AND REQUIREMENTS OF FIRE ALARM SYSTEM. WHERE BACK BOXES, CONDUIT AND WIRE CANNOT BE REUSED, REMOVE ITEMS AND DISPOSE OF THEM.
- 8. WHERE FIXTURES, RECEPTACLES AND MECHANICAL EQUIPMENT ARE INDICATED TO BE REMOVED, THE EXISTING CONDUIT AND WIRE CAN BE REUSED IF IT COMPLIES WITH THE NEW WORK SPECIFICATIONS. WHERE IT CANNOT BE REUSED OR DOES NOT COMPLY WITH NEW WORK SPECIFICATIONS, REMOVE CONDUIT AND WIRE AND DISPOSE OF THEM.

### GENERAL NOTES PROJECT

- 1. ITEMS DENOTED BY LIGHT LINE WEIGHT SHALL REMAIN.
- 2. ITEMS DENOTED BY HEAVY LINE WEIGHT ON NEW WORK PLANS ARE NEW WORK.
- 3. PROVIDE A DEDICATED NEUTRAL CONDUCTOR WITHIN THE RACEWAY, ALONG WITH THE PHASE CONDUCTORS FOR ALL FEEDERS AND BRANCH CIRCUITS.
- 4. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITHIN THE RACEWAY, ALONG WITH THE PHASE CONDUCTORS FOR ALL FEEDERS AND BRANCH CIRCUITS.
- 5. ALL 120 VOLT, 20 AMPERE BRANCH CIRCUITS EXCEEDING 100'-0" IN LENGTH SHALL BE INSTALLED USING #10 AWG CONDUCTORS UNLESS OTHERWISE NOTED.
- 6. WHERE CONDUITS PENETRATE FIRE WALLS. THE WALLS SHALL BE SEALED TO EQUAL OR GREATER THAN THE ORIGINAL FIRE RATING OF THE WALL.
- METHODS USED BY THIS CONTRACTOR SHALL CONFORM TO NEC SECTION 110-3 (a AND b).

7. ALL WORK AND EQUIPMENT SHALL CONFORM TO NEC. THE MEANS AND

- 8. EXTEND AND REUSE EXISTING 120V BRANCH CIRCUITS. DO NOT LOAD CIRCUITS IN EXCESS OF 1400VA.
- 9. EXTEND AND REUSE EXISTING 277V BRANCH CIRCUITS. DO NOT LOAD CIRCUITS IN EXCESS OF 3000VA.



THIS PROJECT MAY NOT UTILIZE ALL THE SYMBOLS, MATERIALS, ABBREVIATIONS AND STANDARDS INFORMATION SHOWN ON THIS

SHEET

FERNDALE SCHOOLS Ferndale High School and Middle School Select Toilet Room and Classroom Renovation Ferndale Public Schools 871 Pinecrest Ferndale, Mi Key Plan

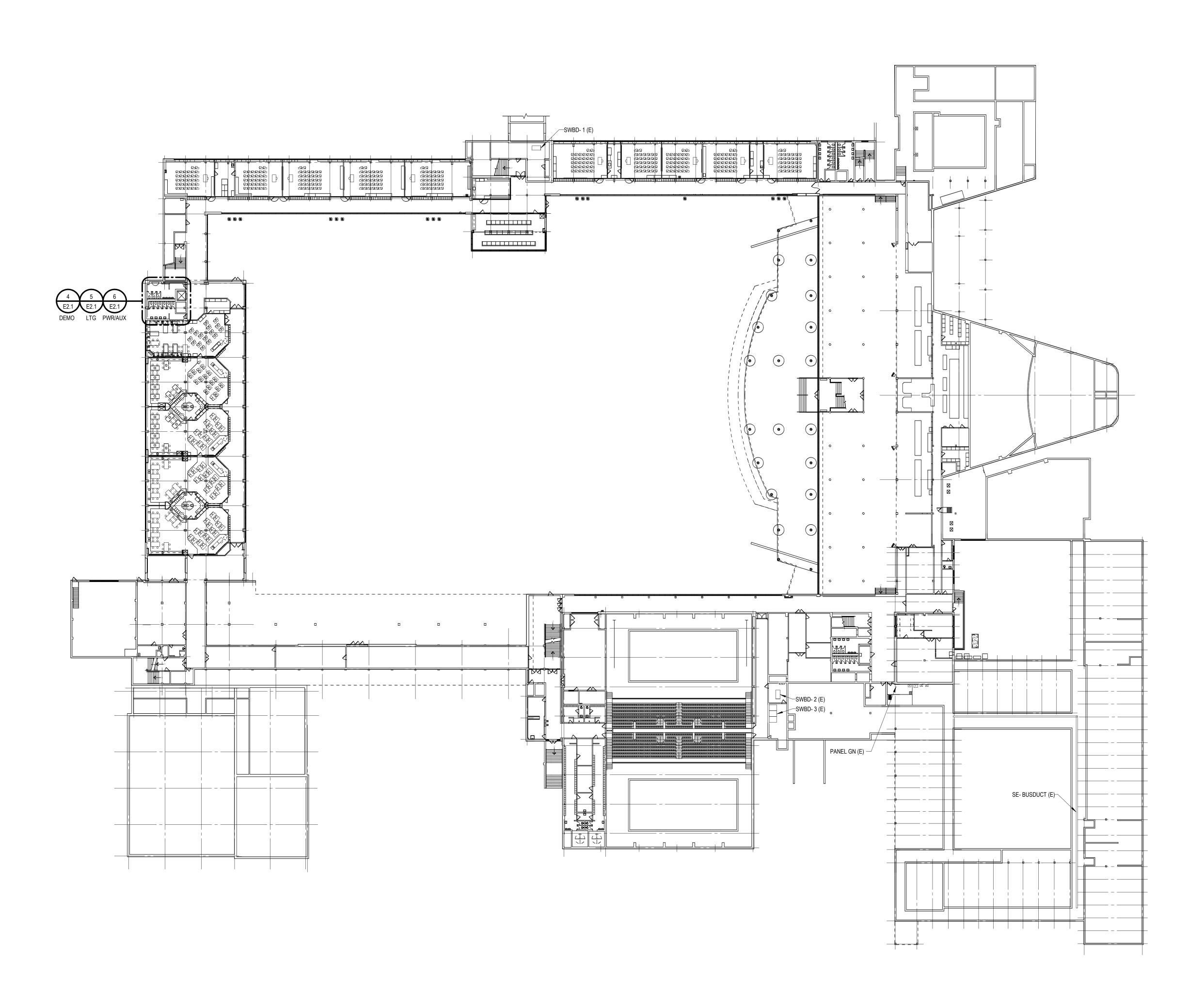
www.XXXXX.com

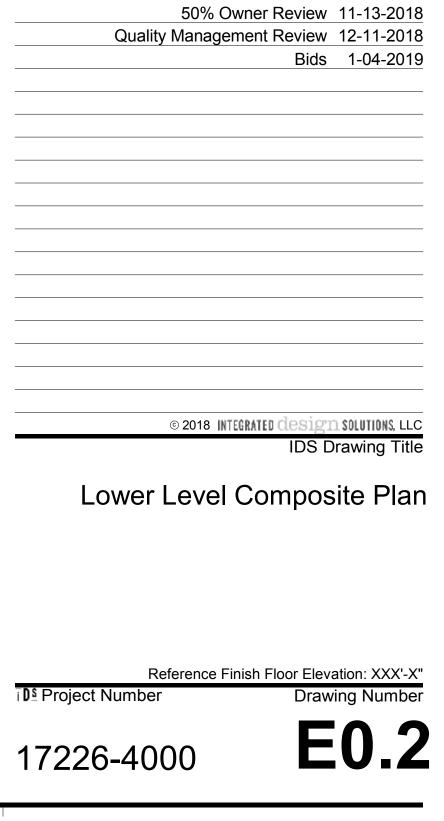
Project Title

Project Administrator

C. Azar









www.XXXXX.com

Project Title

Key Plan

Project Administrator

Project Designer

S. Maciejewski

Drawn By S. Maciejewski

Q.M. Review T. Carron

Drawing Scale 1/32" = 1'-0"

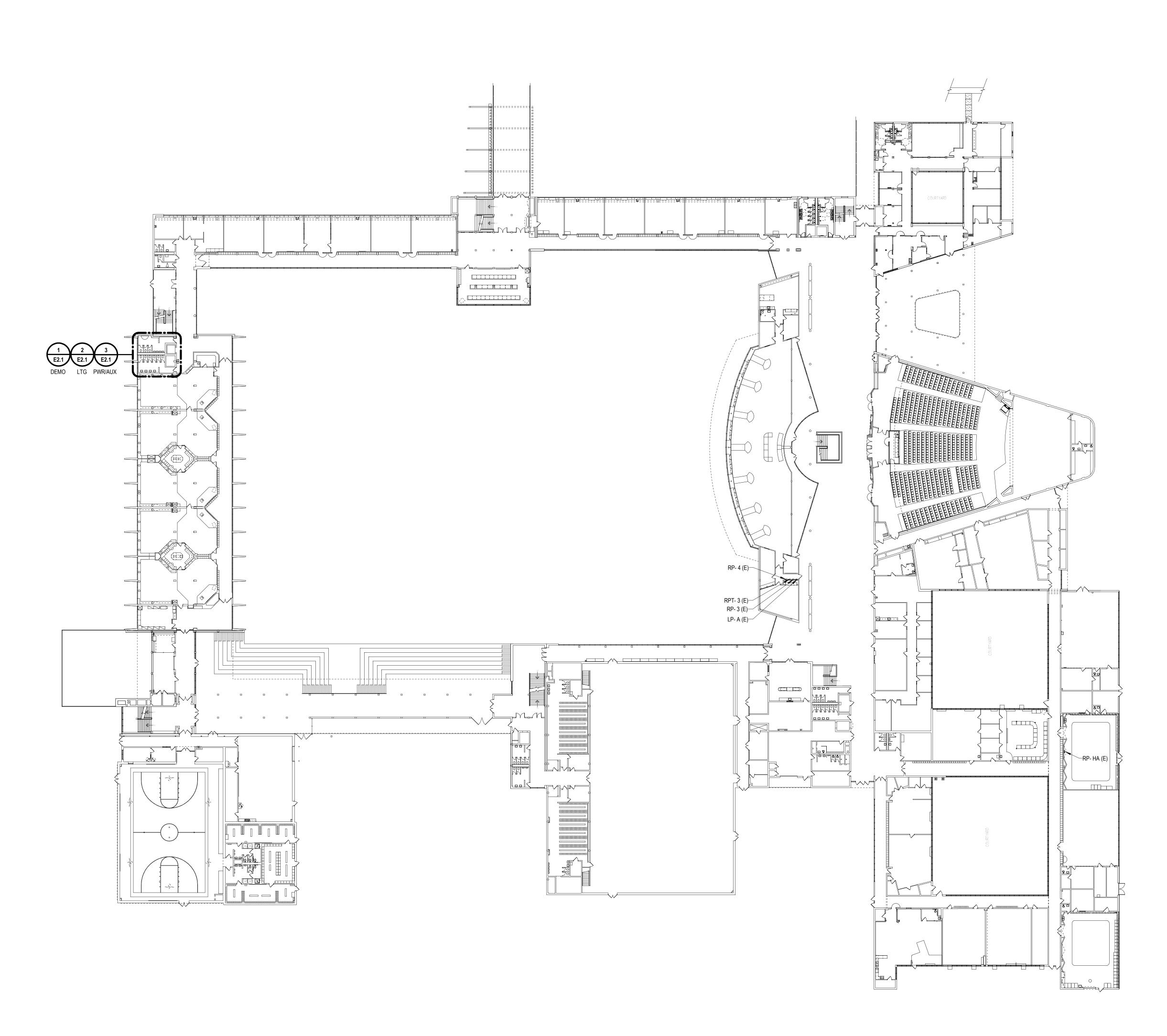
Approved M. Nowicki

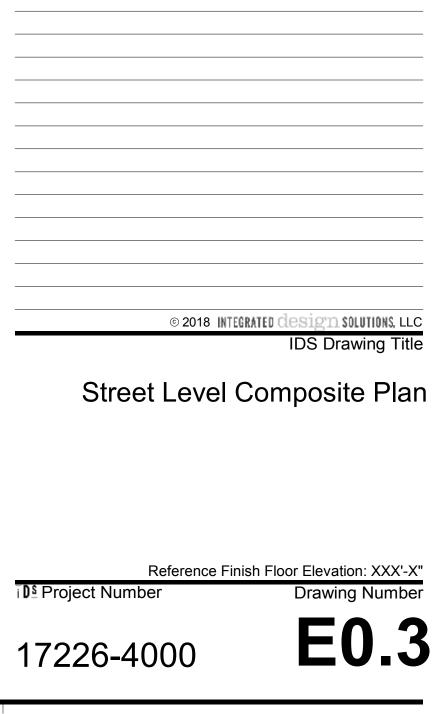
Project Architect / Engineer S. Maciejewski

Issued for Issue Date

C. Azar







Ferndale Public Schools 871 Pinecrest Ferndale, Mi

Key Plan

Project Administrator C. Azar

Project Designer S. Maciejewski

Q.M. Review

T. Carron Approved M. Nowicki

Drawing Scale

1/32" = 1'-0"

Bids 1-04-2019

Project Architect / Engineer S. Maciejewski Drawn By S. Maciejewski

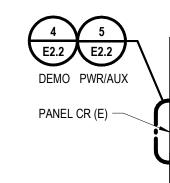
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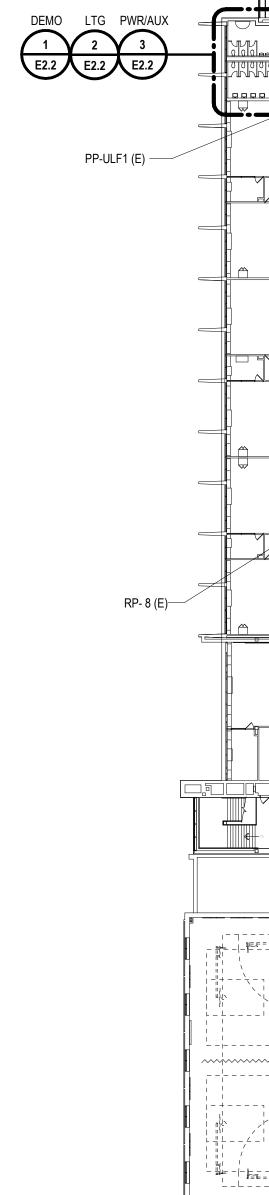
50% Owner Review 11-13-2018

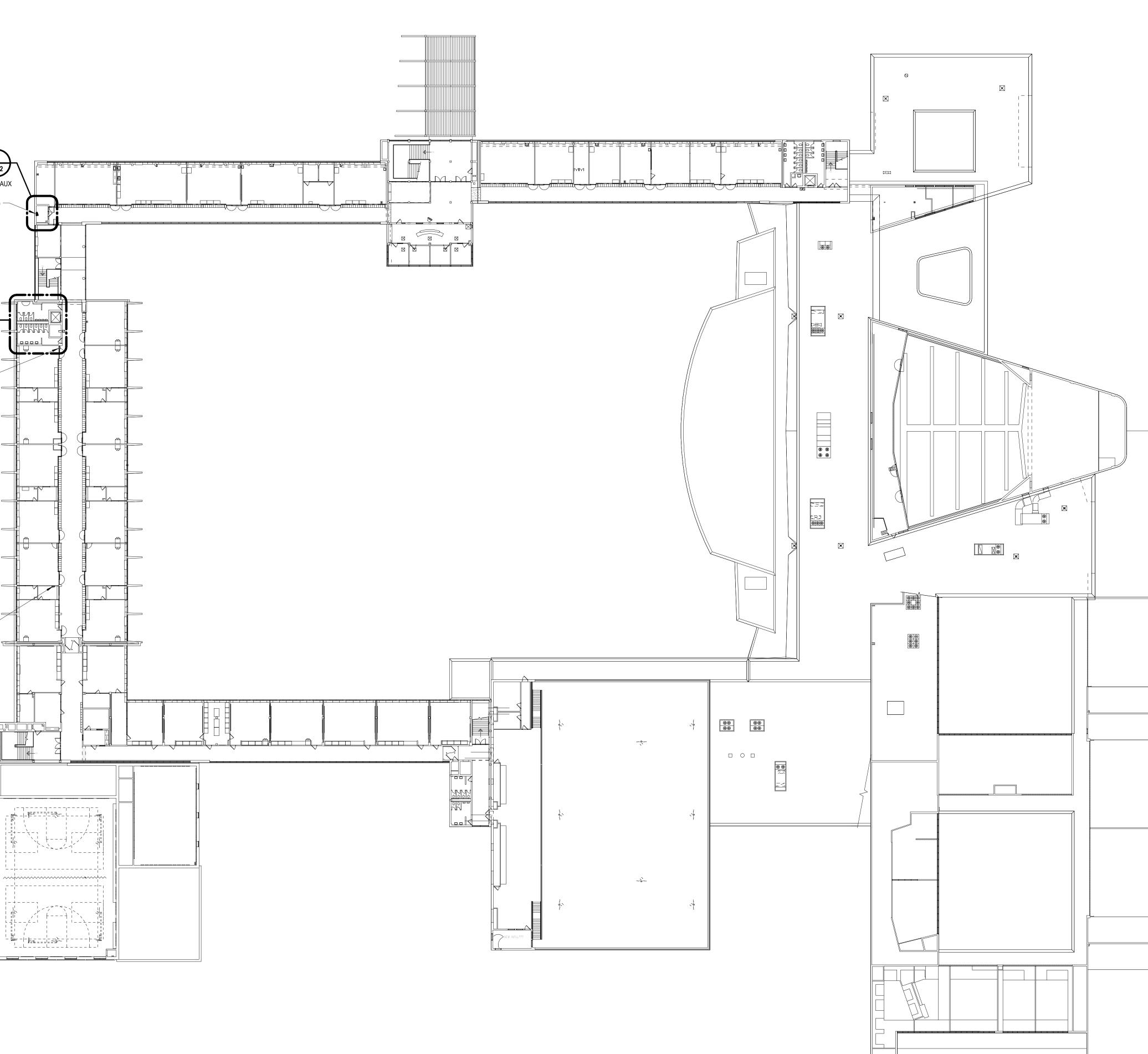
Quality Management Review 12-11-2018

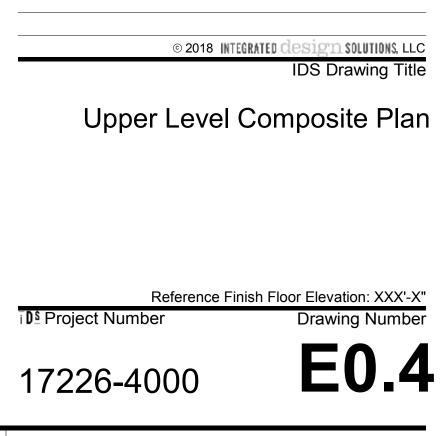
www.XXXXX.com Project Title FERNDALE SCHOOLS Ferndale High School and Middle School Select Toilet Room and Classroom Renovation









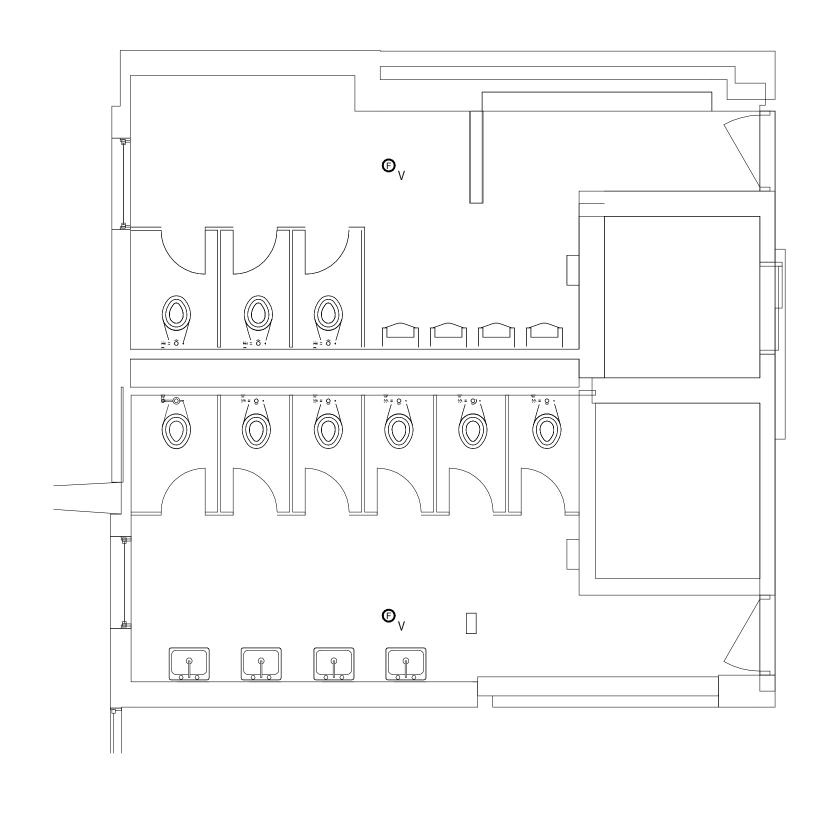


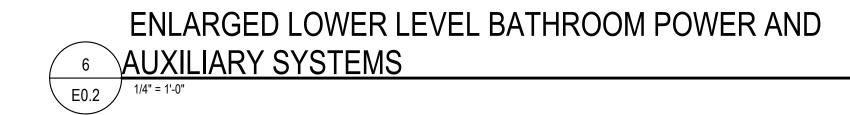
Project Administrator C. Azar
Project Designer S. Maciejewski
Project Architect / Engineer S. Maciejewski
Drawn By S. Maciejewski
Q.M. Review T. Carron
Approved M. Nowicki
Drawing Scale 1/32" = 1'-0"
Issued for Issue Date
Issued for Issue Date 50% Owner Review 11-13-2018 Quality Management Review 12-11-2018
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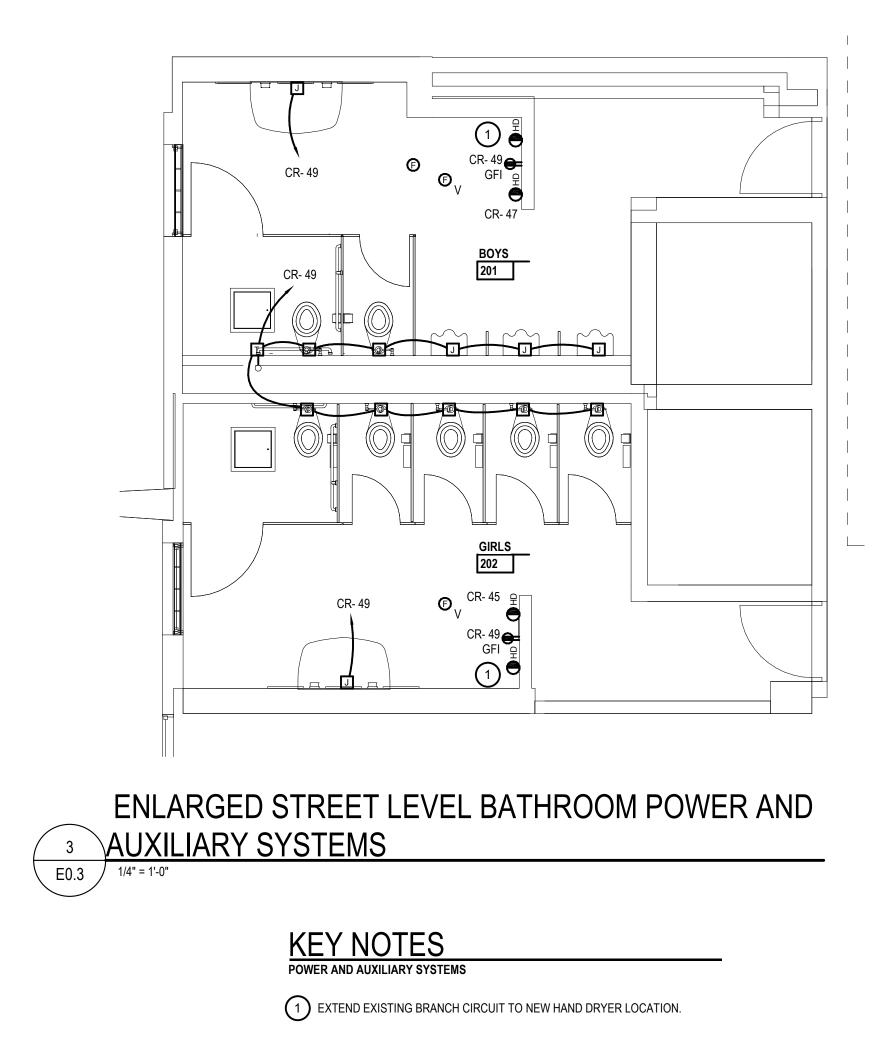
Ferndale High School and Middle School Select Toilet Room and Classroom Renovation Ferndale Public Schools 871 Pinecrest Ferndale, Mi Key Plan

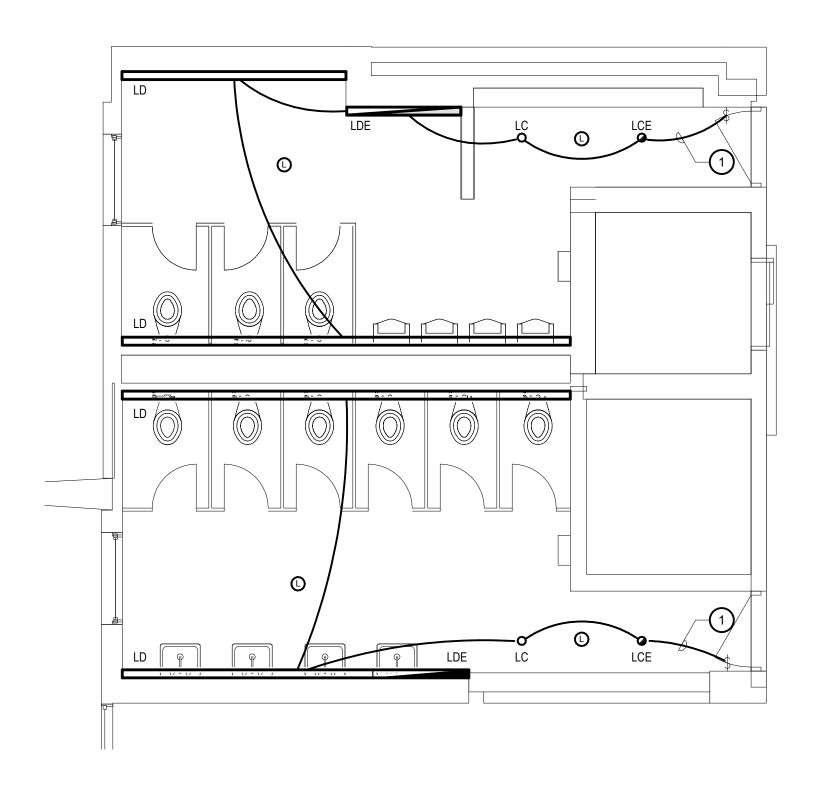
www.XXXXX.com Project Title FERNDALE SCHOOLS







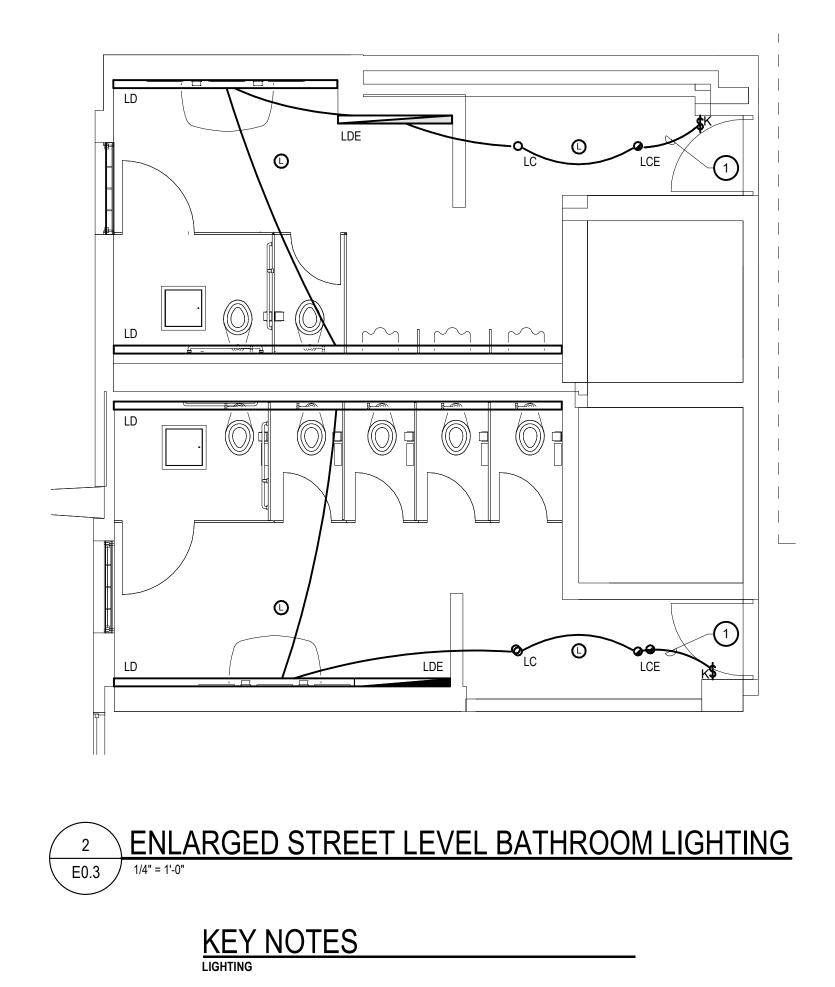






**KEY NOTES** LIGHTING

1 EXTEND AND REUSE EXISTING BRANCH CIRCUIT.



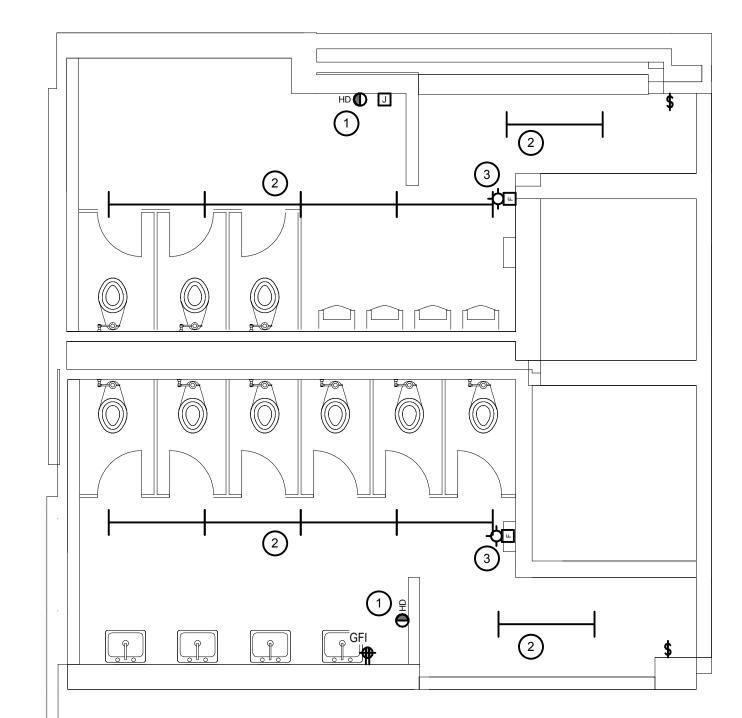
1 EXTEND AND REUSE EXISTING BRANCH CIRCUIT.

-**¢**⊡ 1 



### **KEY NOTES** DEMOLITION

- 1 REMOVE EXISTING LIGHTING. EXISTING CIRCUIT TO REMAIN FOR REUSE.
- 2 REMOVE EXISTING NOTIFICATION DEVICE. EXTEND WIRING TO NEW DEVICE ON CEILING. SEE PLAN 3 THIS SHEET FOR NEW LOCATION.

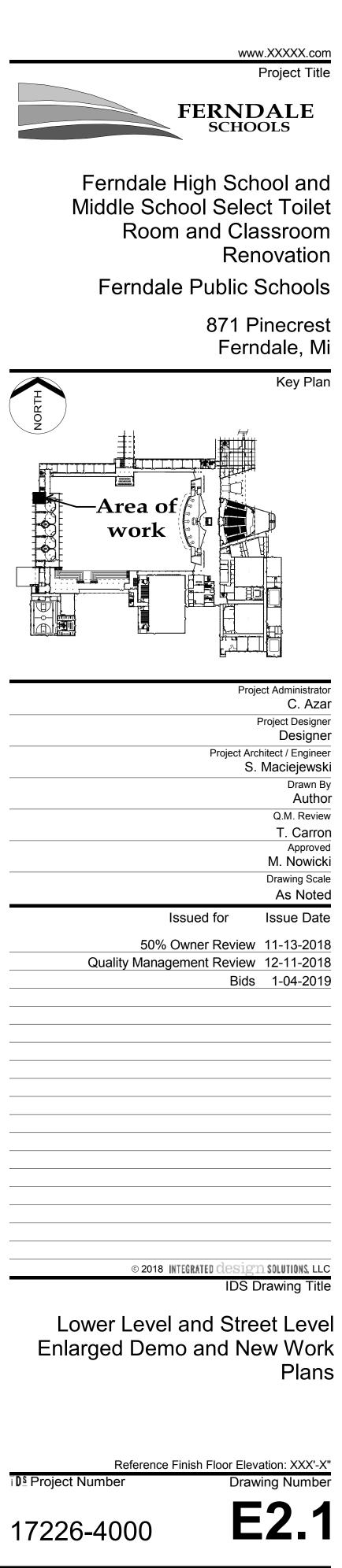


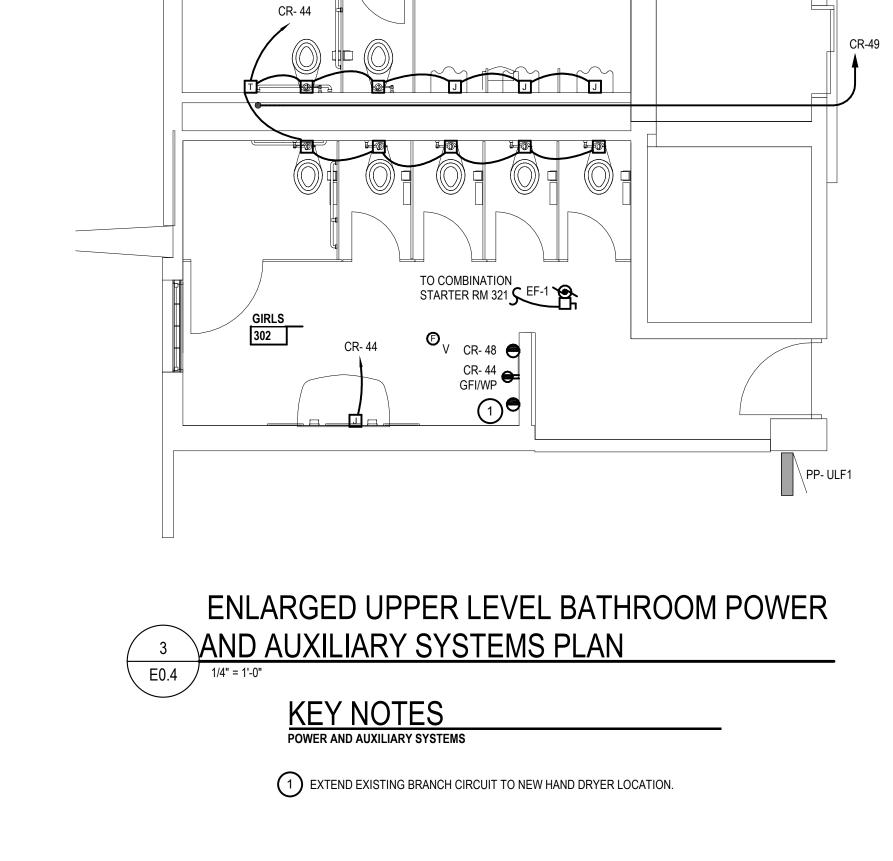
# 1 E0.3 ENLARGED STREET LEVEL BATHROOM DEMOLITION

### KEY NOTES DEMOLITION

- REMOVE DRYER AND HAND OVER TO OWNER. CIRCUIT TO REMAIN FOR NEW HAND DRYER IN NEW LOCATION. SEE ENLARGED PLAN 3 THIS SHEET FOR LOCATION.
- 2 REMOVE EXISTING LIGHTING. EXISTING CIRCUIT TO REMAIN FOR REUSE.
- REMOVE EXISTING NOTIFICATION DEVICE. EXTEND WIRING TO NEW DEVICE ON CEILING. SEE PLAN 3 THIS SHEET FOR NEW LOCATION.







CR- 44 GFI/WP

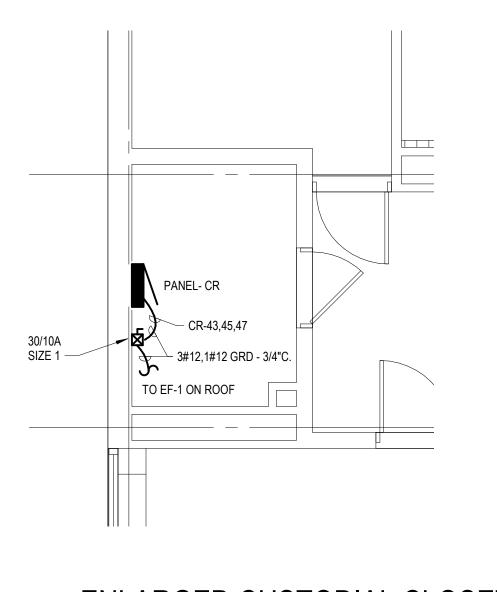
BOYS 301

CR- 46

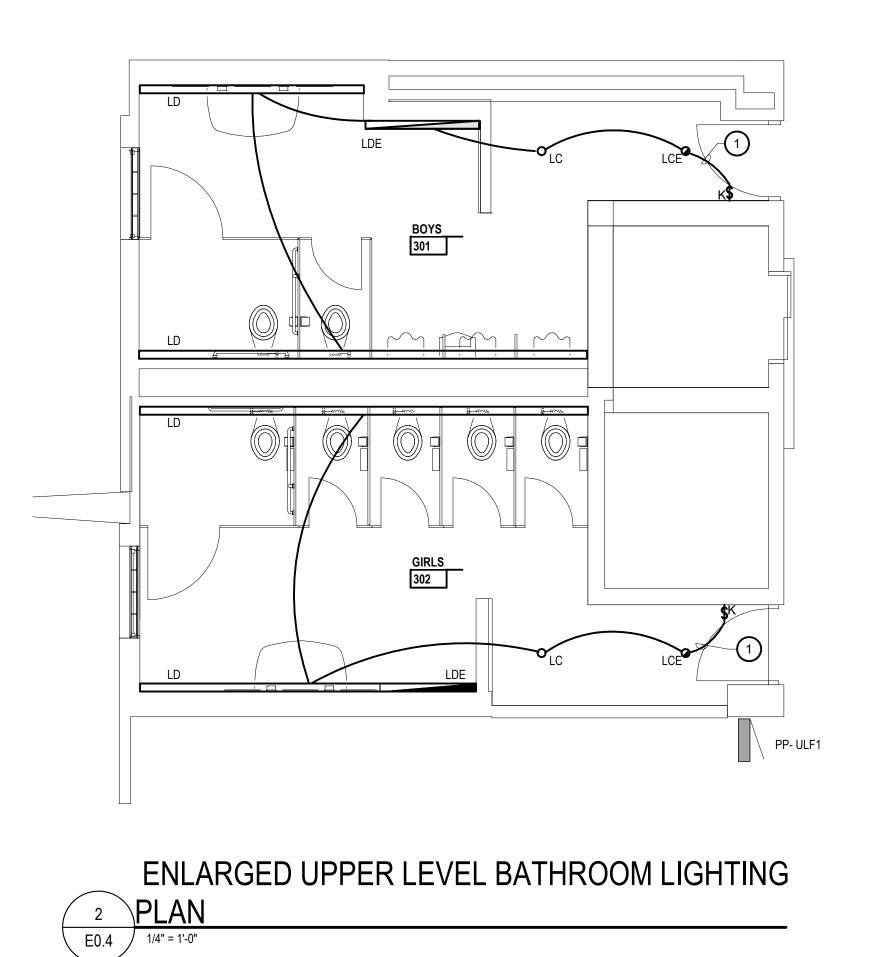
CR- 44

# LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	LAMPS	INPUT WATTS
LC	6" (NOMINAL) ROUND APERTURE, RECESSED LED DOWNLIGHT LUMINAIRE WITH: 2000 (NOMINAL) LUMENS; MATTE-DIFFUSE CLEAR REFLECTOR AND WHITE PAINTED FLANGE; MEDIUM WIDE BEAM DISTRIBUTION; LENS INTEGRAL TO LIGHT ENGINE: LEDS AND POWER SUPPLY SERVICEABLE FROM BELOW; 0-10V DIMMABLE ELECTRONIC POWER SUPPLY WIRED FOR NON-DIMMING, WITH OVERLOAD AND SHORT CIRCUIT PROTECTION; INTEGRAL DRIVER DISCONNECT; INTEGRALLY FUSED; 277 VOLT OPERATION.	GOTHAM EVO 6 SERIES OR MAXILUME HH6-LED SERIES OR PORTFOLIO LD6B SERIES OR VANTAGE A6VOPLED SERIES	4000°K LED LAMP PROVIDED WITH FIXTURE	11
LCE	SAME AS FIXTURE TYPE 'LC' EXCEPT: WITH EMERGENCY BATTERY PACK.	GOTHAM EVO 6 SERIES OR MAXILUME HH6-LED SERIES OR PORTFOLIO LD6B SERIES OR VANTAGE A6VOPLED SERIES	4000°K LED LAMP PROVIDED WITH FIXTURE	11
LD	6" WIDE, RECESSED LINEAR LED WALL WASH LIGHT FIXTURE WITH; 950 LUMENS PER FOOT; ONE PIECE STEEL HOUSING; WHITE POWDER COAT FINISH; LED MODULE AND DRIVER REPLACEABLE FROM BELOW; 0-10V DIMMABLE ELECTRONIC POWER SUPPLY, WIRED FOR NON-DIMMING, WITH OVERLOAD AND SHORT CIRCUIT PROTECTION; INTEGRAL DRIVER DISCONNECT; INTEGRALLY FUSED; UL LISTED; SUITABLE FOR DAMP LOCATION; 277 VOLT OPERATION. FIXTURE LENGTHS AS NOTED ON PLANS. PROVIDE EMERGENCY BATTERY PACKS AS INDICATED ON PLANS.	OR AXIS BEAM6 LED SERIES	4000°K LED LAMP PROVIDED WITH FIXTURE	42
LDE	SAME AS TYPE "LD" EXCEPT: WITH EMERGENCY BATTERY PACK.	FOCAL POINT FWSL SERIES OR AXIS BEAM6 LED SERIES OR CORONET CPM LED SERIES	4000°K LED LAMP PROVIDED WITH FIXTURE	42

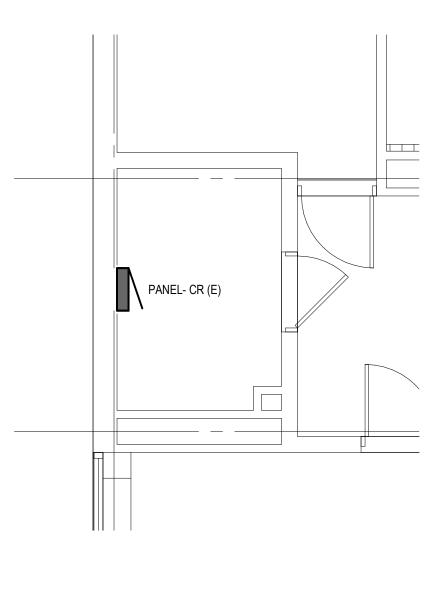


ENLARGED CUSTODIAL CLOSET 5 POWER AND AUXILIARY PLAN E0.4 1/4" = 1'-0"

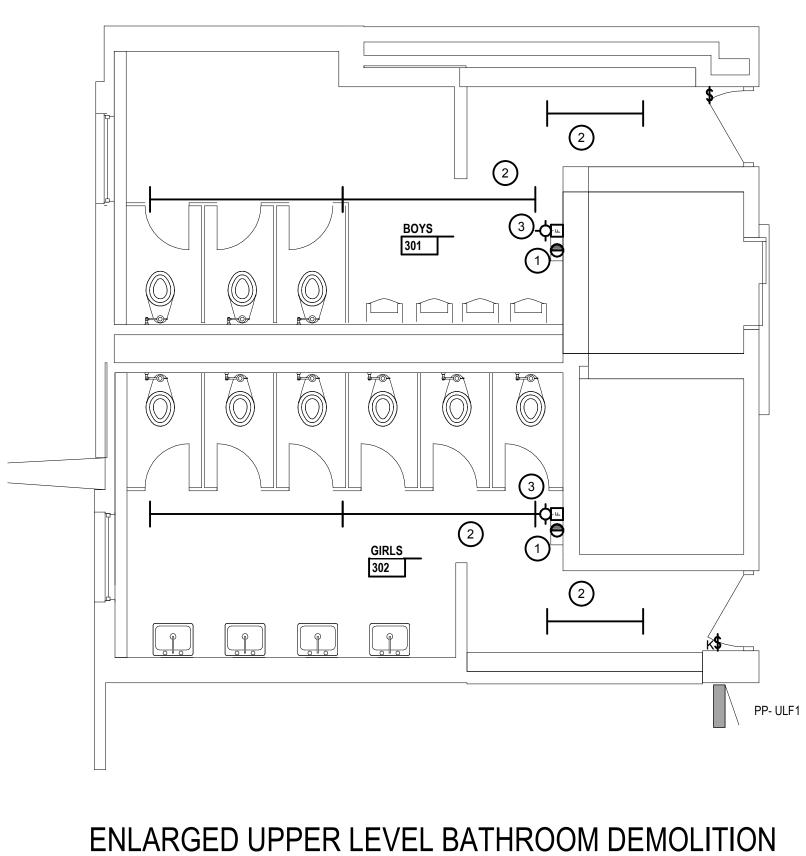


1 EXTEND AND REUSE EXISTING BRANCH CIRCUIT.

KEY NOTES







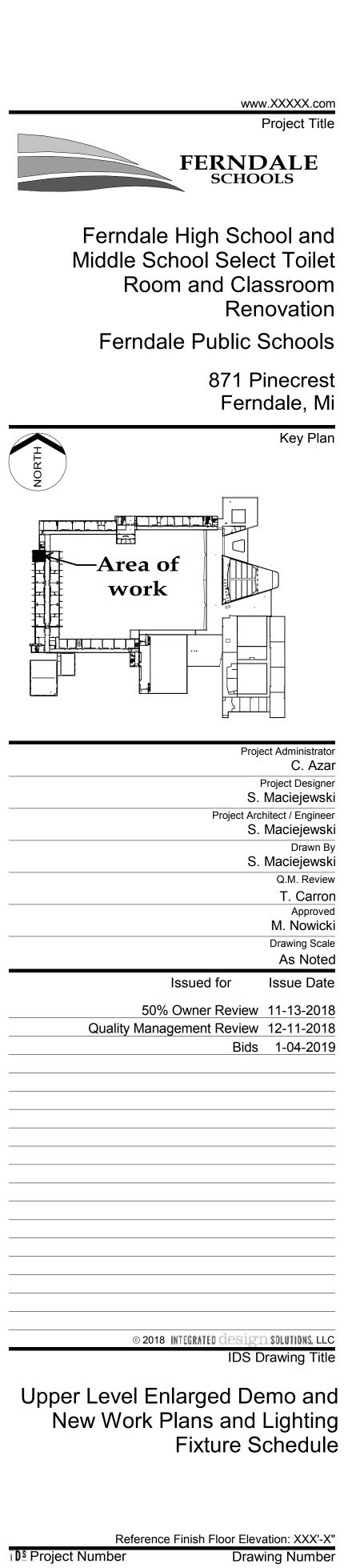
# 1 PLAN E0.4 1/4" = 1'-0"

### KEY NOTES DEMOLITION

- REMOVE DRYER AND HAND OVER TO OWNER. CIRCUIT TO REMAIN FOR NEW HAND DRYER IN NEW LOCATION. SEE ENLARGED PLAN 3 THIS SHEET FOR LOCATION.
- 2 REMOVE EXISTING LIGHTING. EXISTING CIRCUIT TO REMAIN FOR REUSE.
- REMOVE EXISTING NOTIFICATION DEVICE. EXTEND WIRING TO NEW DEVICE ON CEILING. SEE PLAN 3 THIS SHEET FOR NEW LOCATION.

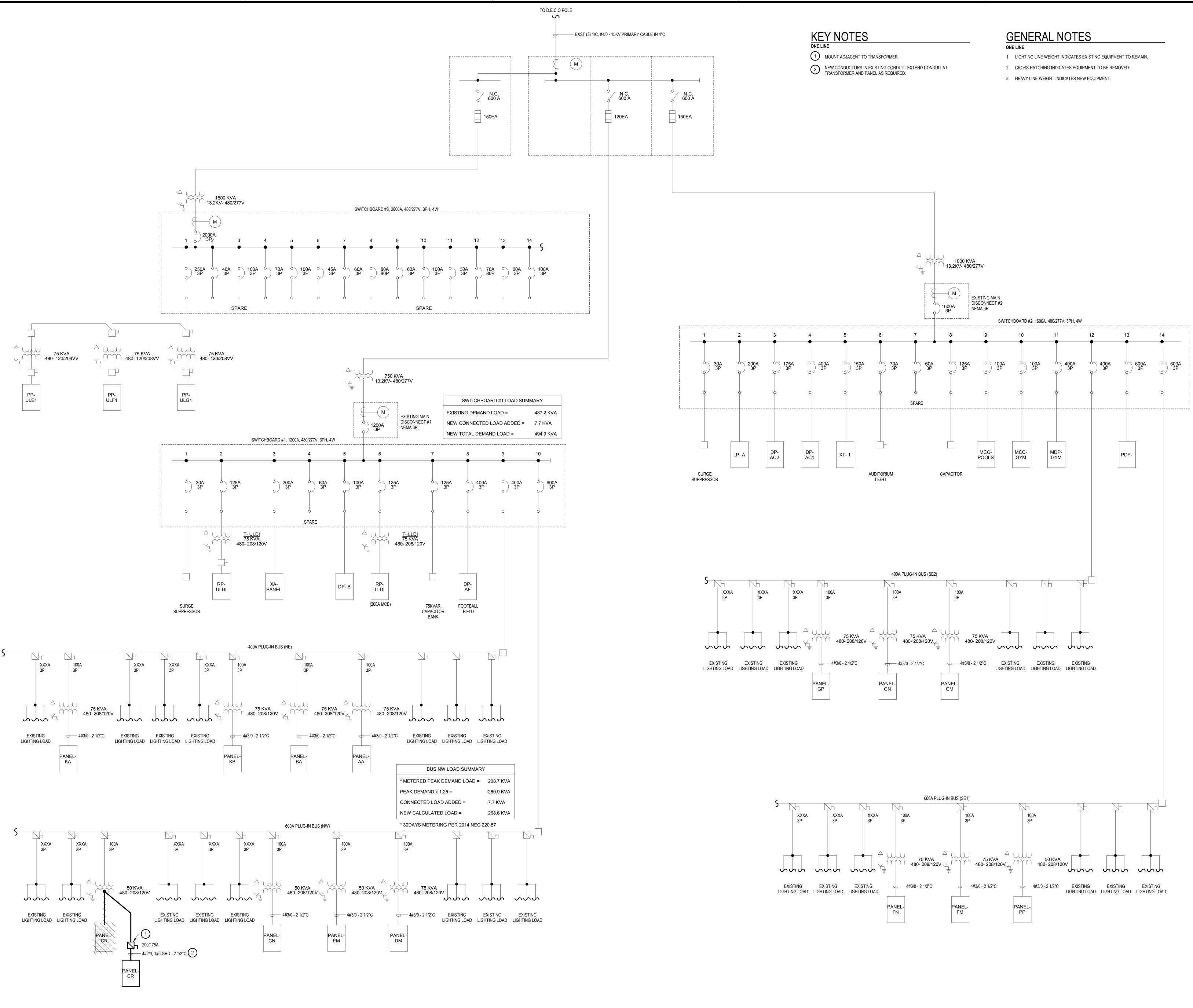


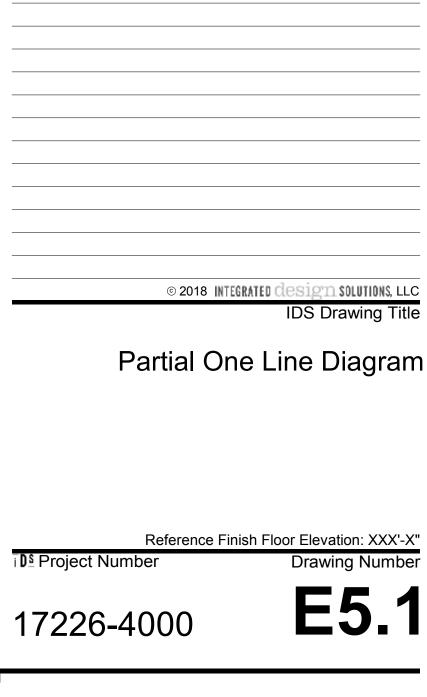
INTEGRATED  $\operatorname{design}$  SOLUTIONS architecture engineering interiors & technology 1441 west long lake, suite 200 troy, michigan 48098 5211 cascade road SE, suite 300 grand rapids, michigan 49546 248.823.2100 www.ids-troy.com





17226-4000





Proje	ect Administrator
	C. Azar
F	Project Designer
S.	Maciejewski
Project Arc	hitect / Engineer
S.	Maciejewski
	Drawn By
	E. Young
	Q.M. Review
	T. Carron
	Approved
	M. Nowicki
	Drawing Scale
	As Noted
Issued for	Issue Date
50% Owner Review	11-13-2018
Quality Management Review	12-11-2018
Bids	1-04-2019

Key Plan

Ferndale Public Schools 871 Pinecrest Ferndale, Mi

Ferndale High School and Middle School Select Toilet Room and Classroom Renovation

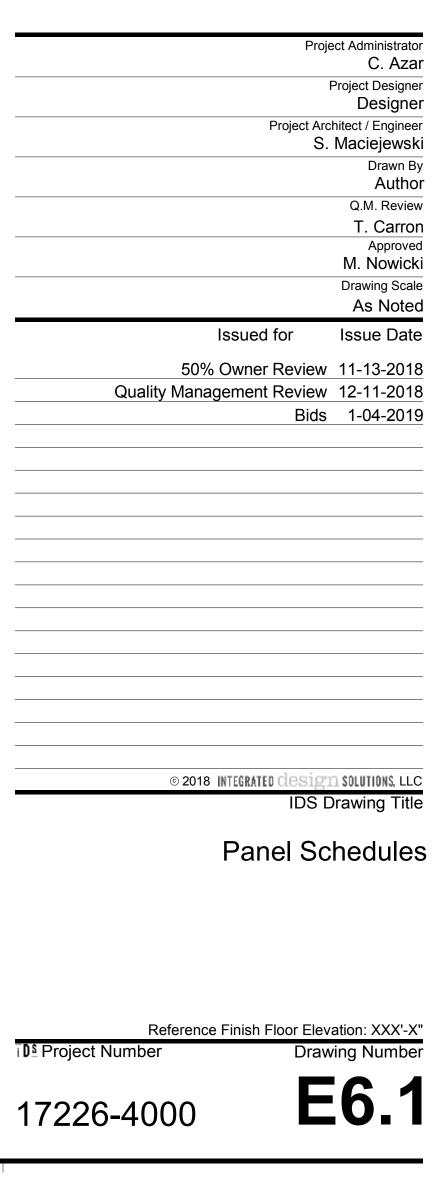
Project Title FERNDALE SCHOOLS

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200 AMPS MCB													
(	СКТ.	LOAD	СВ	4	٩	E	3	C	)	СВ	LOAD	CKT.	
	1	Plugs UI Conf., stairway hall	20	0	0					20	Plugs Foreign Lan. Ckt 2, Teachers Rm 312	2	
3 Plugs 312, 311, 310		20			0	0			20	Plugs 310, 309, 308	4		
	5	Plugs 308. 307, Lobby	20					0	0	20	Plugs UI Corridor	6	
7 Walker Duct Plugs Rms 312,311,310,309,308,307		20	0	0					20	Walker Duct	8		
9 Walker Duct 3 Plugs 2nd Floor at Stair		20			0	0			20	Walker Duct	10		
11 Walker Duct		20					0	0	20	Walker Duct	12		
	13	Walker Duct	20	0	0					20	Walker Duct	14	
	15	Copier in New Conf. Rm	20			0	0			20	Walker Duct	16	
	17	Copier in New Conf. Rm	20					0	0	20	Walker Duct	18	
	19	Computer 309 Wall Strip 309	20	0	0					20	Computer 309 Wall Strip 309	20	
	21	Walker Duct	20			0	0			20	#24 AC 211	22	
		Plugs SL Three Teachers Rm	20					0	0	20	Plugs 213, 212	24	
	25	Plugs 211, Comp	20	0	0					20	Plugs 210, 209, 208	26	
	27	Plugs 208, Corridor (SL)	20			0	0			20	Computer Plugs Rm 207	28	
		A.C Conference Office	20					0	0	20	Existing Load	30	
		Existing Load	20	0	0					20	Recept. Ramp	32	
		Existing Load	20			0	0			20	AC Attendance Office	34	
		Rm 211 Computer Ckt	20					0	0	20	#38 AC 212	36	
	37	Outside Gate AR	20	0	0					20	Rm 211 Computer Ckt	38	
	39					553	0			20	AC Records	40	
		EF-1	20					553	0	20	Rm 309 Computer	42	
	43			553	510					20	Sinks and Flush Valves Rm 301, 302	44	+
		Hand Dryer Rm 202	20			1100	1400			20	Hand Dryer Rm 301	46	
		Hand Dryer Rm 201	20					1100	1400	20	Hand Dryer Rm 302	48	
+		Sinks and Flush Valves Rm 201, 202	20	510	0					20	Spare	50	
		Spare	20			0	0				Space	52	
	53	Spare	20					0	0		Space	54	
		Devial lufamuetien				0	hala				Lead Olacsification Tatal Ocurre		
	Volts:	Panel Information			Note		bols		Delles	4	Load Classification Total Conne	ected Loa	a
		,	Note: All Symbols May Not Be Used Equipment 6659 VA										
	Moun	•	* PROVIDE LOCK ON ATTACHMENT Kitchen Equipment 0 VA										
		(RMS 22,000	# PROVIDE SWD RATED BREAKER Lighting 0 VA @ PROVIDE AFCI TYPE BREAKER Receptacle 1020 VA										
	Phase			@							Receptacle 1020 VA		
Wire: 4			+	PRC	OVIDE G	SFCI TY	PE BRI	EAKER					
1	Hertz	60											
PH						LOAD:				73 VA			
PH		HASE B CONNECTED LO/			LOAD:			30	53 VA				
PH		ASE C	CONN	ECTED	LOAD:			30	53 VA				
	т			CONNI	ECTED	LOAD:			76	79 VA			
TOTAL ES									79 VA				
TOTAL ES				IED DE	IVIAND	AIVIPS:	_		2	21.3 A			

PANELBOARD SCHEDULE PANEL - CR 200 AMPS MCB



Ferndale Public Schools 871 Pinecrest Ferndale, Mi

Key Plan

FERNDALE SCHOOLS Ferndale High School and Middle School Select Toilet Room and Classroom Renovation

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