

REFLECTED CEILING PLAN

Scale: 1/8" = 1'-0"

PENDANT LIGHT

REFLECTED CEILING PLAN - DEMOLITION

ALL CEILING MOUNTED DEVICES TO REMAIN UNLESS NOTED

REFER TO ARCHITECTURAL RCP / HVAC / ELECTRICAL / PLUMBING

DRAWINGS FOR RELOCATION AND/OR NEW DEVICE(S) LOCATIONS

- 1. SEE HVAC AND ELECTRICAL DRAWINGS FOR TYPE, SIZE AND ADDITIONAL INFORMATION ON CEILING MOUNTED DEVICES.
- 2. ALL NEW DIFFUSERS AND LIGHTS TO BE CENTERED IN THE PANEL UNLESS NOTED OTHERWISE.

3. GENERAL, HVAC AND ELECTRICAL CONTRACTORS / SUBCONTRACTORS TO COORDINATE LOCATION OF DIFFUSERS / LIGHTS AND DEVICES.

REFLECTED CEILING NOTES

FIXTURES

EXISTING RECESSED DOWNLIGHT FIXTURE

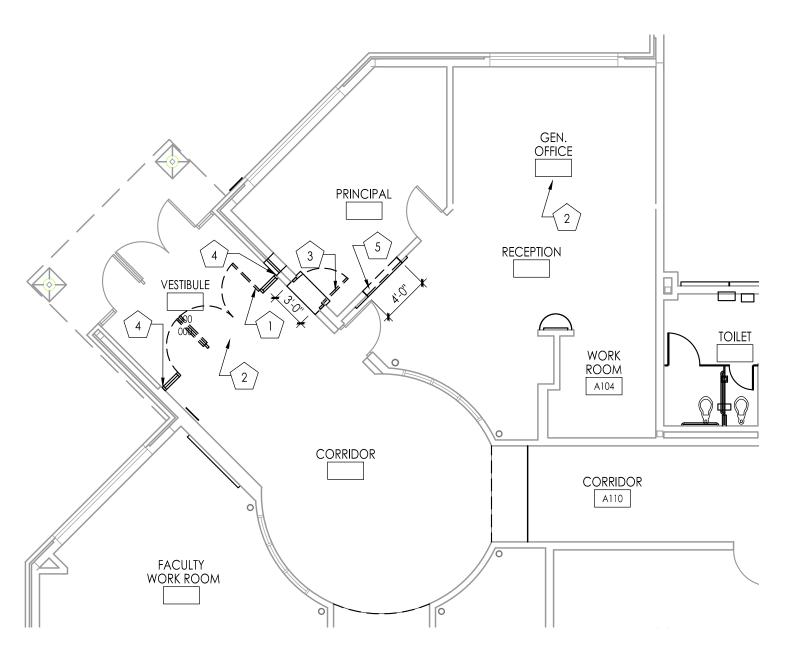
REFLECTED CEILING PLAN LEGEND

EXISTING ACOUSTICAL CEILING BOARD TO REMAIN EXISTING CAMERA (C) NEW CAMERA EXISTING DETECTOR NEW DETECTOR EXISTING SPEAKER (SP) NEW SPEAKER EXISTING SPRINKLER NEW SPRINKLER EXISTING EXIT SIGN NEW EXIT SIGN EXISTING MOTION SENSOR (MS) NEW MOTION SENSOR (WF) NEW WIFI HUB 2'x2' EXISTING CEILING - MOUNTED **FIXTURES**

DOWNLIGHT FIXTURE RETURN / EXHAUST DIFFUSER new Supply diffuser

ACB #1 -2' X 4' ACOUSTICAL CEILING BOARD -

SEE FINISH SCHEDULE FOR LOCATION & TYPE



DEMOLITION PLAN

DEMOLITION CONSTRUCTION NOTES

THE OWNER HAS THE RIGHT OF FIRST REFUSAL FOR ALL EQUIPMENT AND FIXTURES (CABINETS, SHELVING, PLUMBING FIXTURES, ETC.) REMOVED UNDER CONTRACT. IF THE OWNER DOES NOT EXERCISE THIS RIGHT FOR AN INDIVIDUAL PIECE OF EQUIPMENT, THE CONTRACTOR SHALL REMOVE SAID EQUIPMENT FROM THE SITE.

IN ALL LOCATIONS OF RENOVATION / CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL ITEMS (INCLUDING MURALS) FROM CONSTRUCTION DUST AND DEBRIS AS WELL AS DAMAGE. ALL ITEMS DAMAGED BY THE RENOVATION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

IN ALL LOCATIONS OF RENOVATION / CONSTRUCTION CAREFULLY REMOVE EXISTING PLAQUES / EXHIBITION BOARDS / PICTURES AND TURN OVER TO OWNER. PATCH AND REPAIR ALL DAMAGE FROM REMOVAL TO MATCH EXISTING WALL AND FINISHES & RESTORE TO SMOOTH, FLUSH SURFACE.

WHERE APPLICABLE BRACE AND SHORE UP ANY EXISTING CONSTRUCTION TO REMAIN. REMOVE EXISTING CONSTRUCTION TO LIMITS OF WORK DESCRIBED BY ARCHITECTURAL PLANS & ASSOCIATED HVAC / ELECTRICAL / PLUMBING PLANS. PREPARE FOR POSITIVE CONNECTION OF ALL NEW CONSTRUCTION TO EXISTING CONDITIONS.

- REMOVE EXISTING INDICATED STOREFRONT DOORS & FRAMES, SIDELIGHTS, TRANSOMS, SADDLES & HARDWARE (CLOSERS, STOPS, BUMPERS ETC.) IN THEIR ENTIRETY. CONTRACTORS SHALL TAKE ALL NECESSARY STEPS TO ENSURE BUILDING SECURITY. CONTRACTOR IS TO PROTECT ALL FINISHES ADJACENT TO DEMOLITION WORK. PATCH AND REPAIR ALL DAMAGE CAUSED BY DEMOLITION TO MATCH EXISTING ADJACENT FINISHES, INCLUDING TERRAZZO, BRICK, TILE, BASE, PAINT ETC.
- AT INDICATED AREA, REMOVE AND STORE EXISTING CEILING PANELS, SUSPENSION GRID AND APPLIANCES TO ACCOMMODATE RENOVATION. AFTER RENOVATION IS COMPLETE, MODIFY EXISTING SUSPENSION GRID TO FIT NEW LENGTHS. RE-INSTALL (WITH NEW HANGAR WIRE TO EXISTING STRUCTURE) ALL PANELS, GRID AND APPLIANCES IN DESIGNATED SEE REFLECTED CEILING PLAN AND/OR PLUMBING / HVAC / ELECTRICAL DRAWINGS. REPLACE ALL DAMAGED OR DETERIORATED CEILING PANELS AND SUSPENSION GRID WITH NEW TO MATCH EXISTING. SEE PLUMBING / HVAC / ELECTRICAL DRAWINGS FOR ADDITIONAL WORK REQUIRED. ALL PLUMBING HVAC / ELECTRICAL WORK, INCLUDING DEMOLITION, PATCHING AND REPAIR, BY RESPECTIVE
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 ight)$ remove existing door and frame assembly in it's entirety existing lintels to remain. INFILL OPENING TO EXTENT SHOWN IN DETAIL AND AS REQUIRED FOR NEW INSTALLATIONS AND
- (4) AT LOCATIONS WHERE NEW DOOR FRAME MEETS EXISTING WALL OR FLOOR, CAREFULLY AND NEATLY REMOVE THE EXISTING WALL BASE AND FLOOR FINISH TO ALLOW FOR POSITIVE CONNECTION OF DOOR FRAME CONSTRUCTION DIRECTLY TO THE EXISTING FLOOR AND WALL SUBSTRATES (TILE / TERRAZZO / CONCRETE / BRICK / CMU / ETC.). CLEAN AND PREPARE EXPOSED EXISTING CONSTRUCTION CAUSED BY RENOVATION TO MATCH EXISTING ADJACENT FINISH. FINISH ALL NEWLY EXPOSED SURFACES TO MATCH EXISTING ADJACENT CONDITIONS.
- BRACE AND SHORE UP EXISTING ADJACENT WALL CONSTRUCTION TO REMAIN. SAWCUT AND REMOVE EXISTING WALL TO WIDTH INDICATED ON DEMOLITION PLAN AND TO HEIGHT INDICATED ON ELEVATIONS ABOVE EXISTING FLOOR. SEE FLOOR PLAN. PATCH AND REPAIR ALL DAMAGE CAUSED BY REMOVAL TO MATCH EXG. ADJACENT FINISH. INFILL OPENING WITH NEW FRAME, MASONRY CONSTRUCTION AND LINTEL OF THICKNESS TO MATCH EXISTING WALL.

KEY PLAN

JOSEPH C. SHANER ELEMENTARY SCHOOL ROOM FINISH SCHEDULE BASE WAINSCOT WALL FINISH ROOM NAME FLOOR REMARKS

GENERAL FINISH NOTES ROOM FINISH SCHEDULE NOTES ROOM FINISH ABBREVIATIONS

n/a

A. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON MATERIALS / MANUFACTURER /

ETR

ETR / RUB

ETR / RUB

PERFORMANCE AND WARRANTY INFORMATION. B. WITHIN THE EXISTING BUILDINGS, AT ALL AREAS OF NEW CONSTRUCTION ADJACENT TO EXISTING, NEW CONSTRUCTION SHALL BE FINISHED TO MATCH EXISTING ADJACENT

SECURE VESTIBULE

PRINCIPAL'S OFFICE

SCHEDULE BUT ARE STILL REQUIRED IN THE ROOM.

CONSTRUCTION NOTES:

NEW JOINT COVER

1. AT LOCATION OF ALUMINUM FRAME REMOVAL CLEAN PATCH AND REPAIR ANY AREAS OF DAMAGED MASONRY TO MATCH

2. ELECTRICAL CONTRACTOR TO PROVIDE (2) JUNCTION BOXES

ABOVE CEILING AT RELOCATED FRAME.

EXISTING. PREPARE MASONRY JOINT AS REQUIRED TO RECEIVE

CONSTRUCTION, INCLUDING BRICK, TILE, PLASTER, BASE, ETC. C. AT ALL AREAS OF EXISTING SURFACES BEING PAINTED, THE GENERAL CONSTRUCTION WORK CONTRACTOR SHALL REMOVE PRIOR TO PAINTING AND RE-INSTALL AFTER PAINTING ALL ELECTRICAL DEVICE (SWITCHES, OUTLETS, ETC.) COVER PLATES.

D. MATERIALS LISTED ON THE FINISH SCHEDULE REFER TO THE MAJORITY OF WALLS, FLOOR

AND CEILING OF ROOMS SCHEDULED, REFER TO PLANS, DETAILS, INTERIOR ELEVATIONS,

SECTIONS, CEILING PLANS, AND NOTES FOR THOSE MATERIALS NOT INDICATED ON THE

1. REMOVE, MODIFY AND REINSTALL EXISTING ACOUSTIC TILE CEILING AS REQUIRED FOR

NORTH SOUTH FAST

ETR

- ACB -ACOUSTICAL CEILING BOARD
- CEM -CARPET ENTRY MAT CMU -CONCRETE MASONRY UNIT
- EP -EPOXY PAINTED etr -existing to remain
- GYP -GYPSUM BOARD PNT -PAINTED

FINISH SCHEDULE NOTE #

FINISH SCHEDULE NOTE # 1

ETR

ETR

- RUB -RUBBER BASE
- VCT -VINYL COMPOSITION TILE n/a -NOT APPLICABLE

ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER **MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

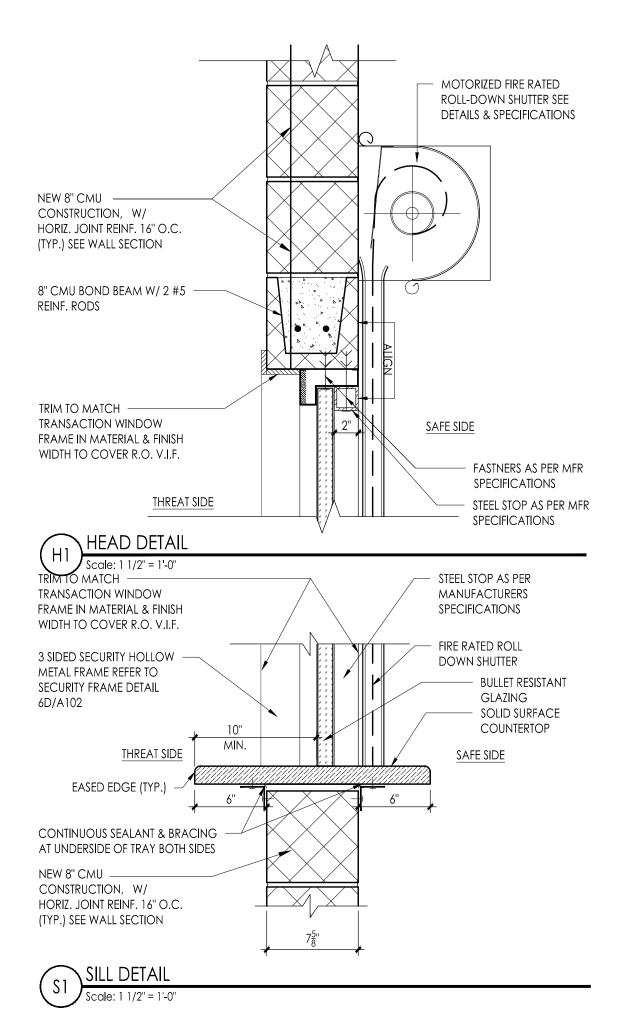
Project Location 5801 3rd ST MAYS LANDING, NJ 08330

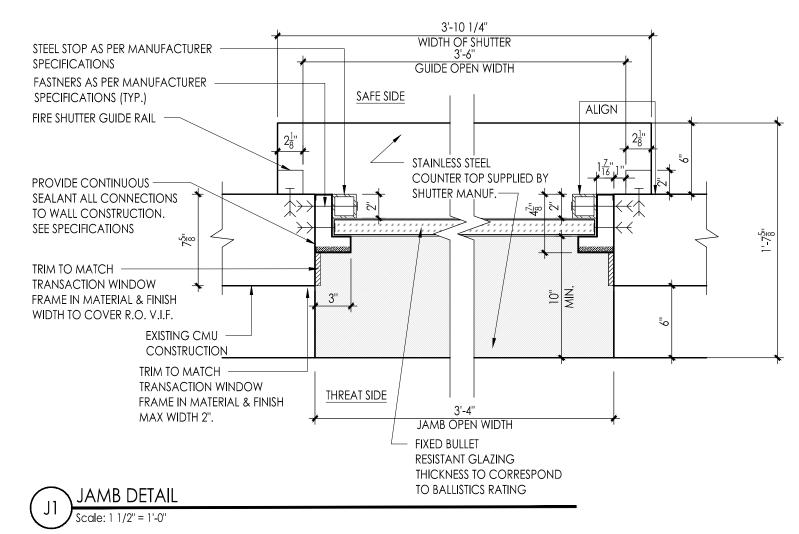
Project Number 4937B Project Date 02.15.2019 Checked By Drawn By dsb

SECURITY VESTIBULE

1/4" = 1' - 0"

No. Date Description





DOOR / WINDOW SCHEDULE JOSEPH C. SHANER ELEMENTARY SCHOOL DOOR / WINDOW SILL / SADDLE / RATING HARD WARE SIGN REMARKS LOCATION HRESHOLD TYPE HEAD JAMB GLASS SECURITY ENTRY DOOR @ VESTIBULE (2) 3'-0" x 6'-8" DOOR / WINDOW NOTE # 2, 3 SECURITY ENTRY DOOR @ VESTIBULE (1) 3'-0" x 6'-8" DOOR / WINDOW NOTE # 1, 4 FRP SECURITY TRANSATION WINDOW @ VES (1) 3'-4" x 3'-10" DOOR / WINDOW NOTE # BORROWED LITE @ RECEPTION (1) 3'-0" x 7'-0" DOOR / WINDOW NOTE # PRINCIPAL'S OFFICE (1) 3'-0" x 7'-0" DOOR / WINDOW NOTE # PACKAGE PASSER @ SECURE VESTIBULE (1) 18" x 16" x 19" DOOR / WINDOW NOTE

GENERAL DOOR / WINDOW NOTES

- 1. SEE DOOR ELEVATION TYPES, HEAD / JAMB / MULLION / SILL / SADDLE DETAILS AND
- SIGNAGE TYPES / DETAILS ON DRAWING A001. 2. SEE FRAME ELEVATION TYPES ON THIS DRAWING. 3. ALL DOORS ARE 1 [" THICK UNLESS OTHERWISE NOTED.

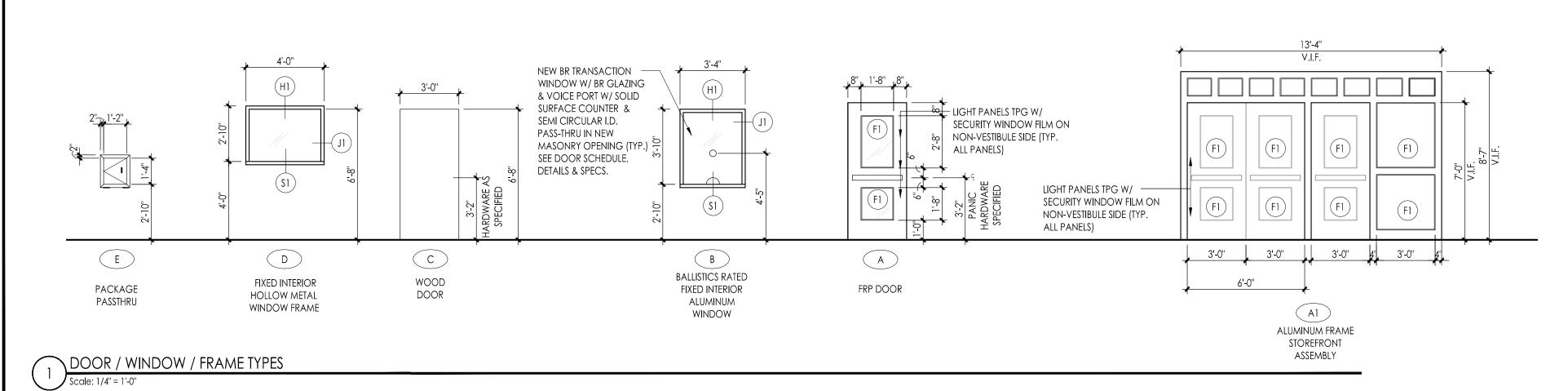
DOOR / WINDOW SCHEDULE NOTES

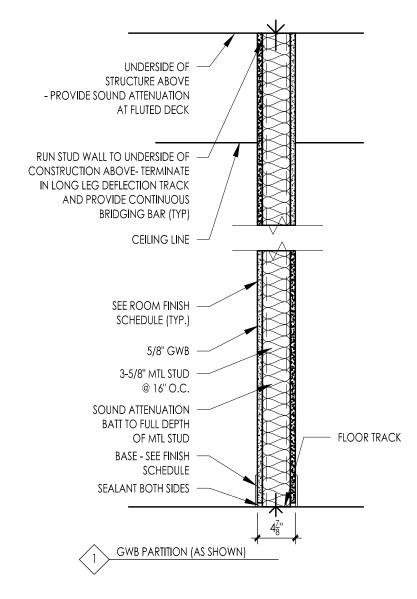
NEW DOOR TO MATCH EXISTING

- ELECTRONIC LOCK WITH REMOTE LATCH RELEASE ON LHR LEAF SEE SPECIFICATIONS PROXIMITY READER BY OWNER
- AL -ALUMINUM BR - BALLISTIC RATED EXISTING DOORS TO BE RELOCATED PROVIDE NEW LOCKABLE PANIC HARDWARE BRG - BALLISTIC RATED GLAZING
 - ETR EXISTING TO REMAIN ETR-F - EXISTING TO REMAIN / W/ APPLIED SECURITY FILM
 - ETR-VIF- EXISTING TO REMAIN / VERIFY IN FIELD FRP - FIBERGLASS RIENFORCED POLYESTER
 - HM HOLLOW METAL MTL -METAL
 - PTD -PAINTED SHM - SECURITY HOLLOW METAL
 - SC -SOLID CORE TPG-F - TEMPERED PLATE GLASS W/ SECURITY WINDOW FILM

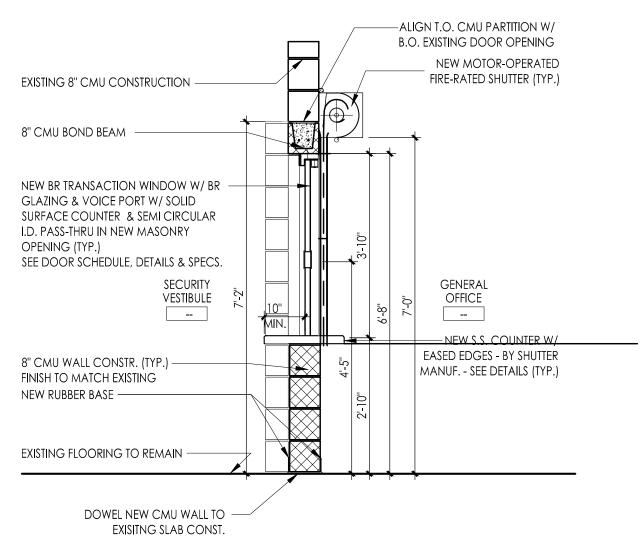
DOOR / WINDOW ABBREVIATIONS

WD -WOOD n/a -NOT APPLICABLE



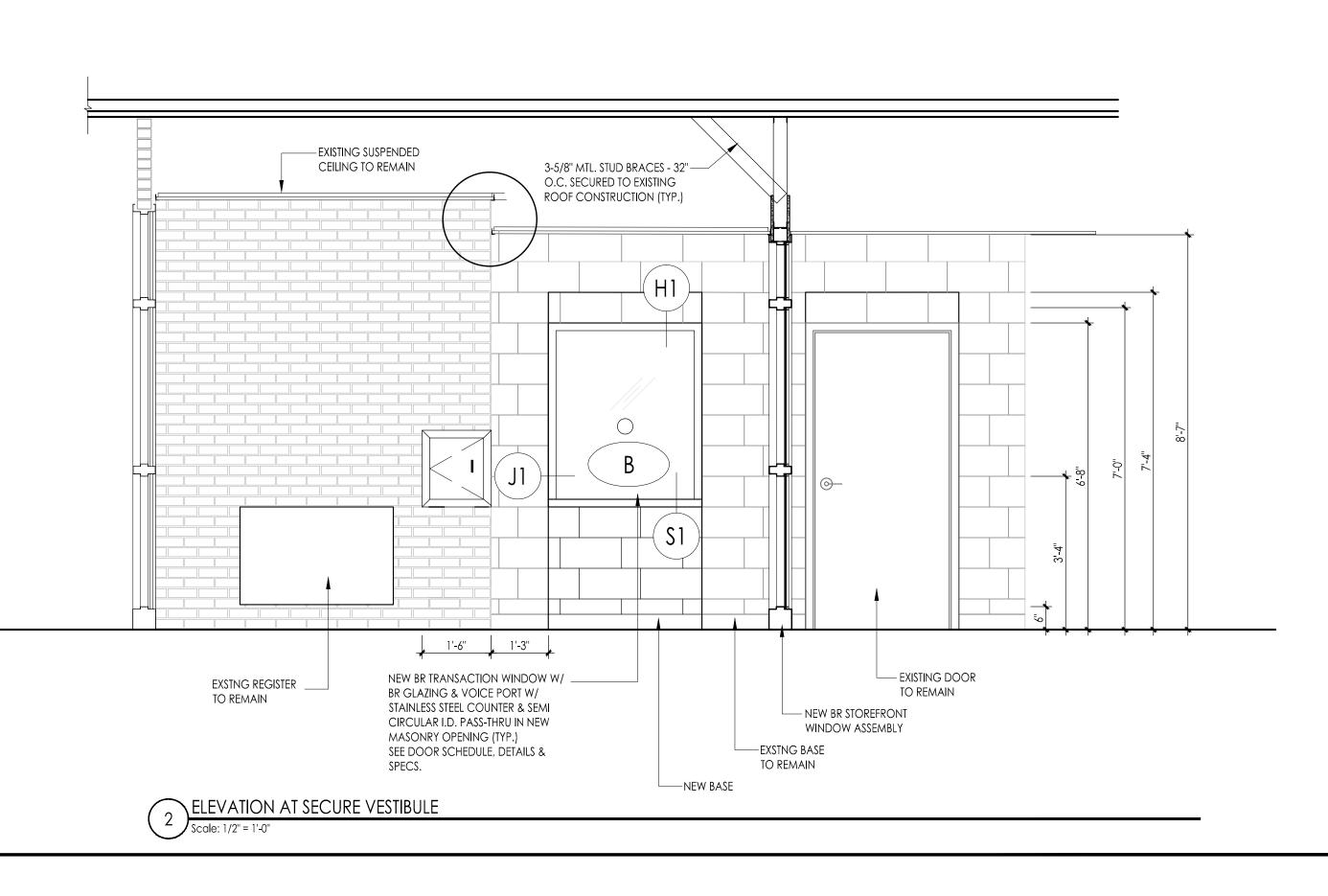






WALL SECTION AT TRANSACTION WINDOW

Scale: 1/2" = 1'-0"



ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER **MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By Drawn By dsb

SECURITY VESTIBULE

1/4" = 1' - 0"

No. Date Description

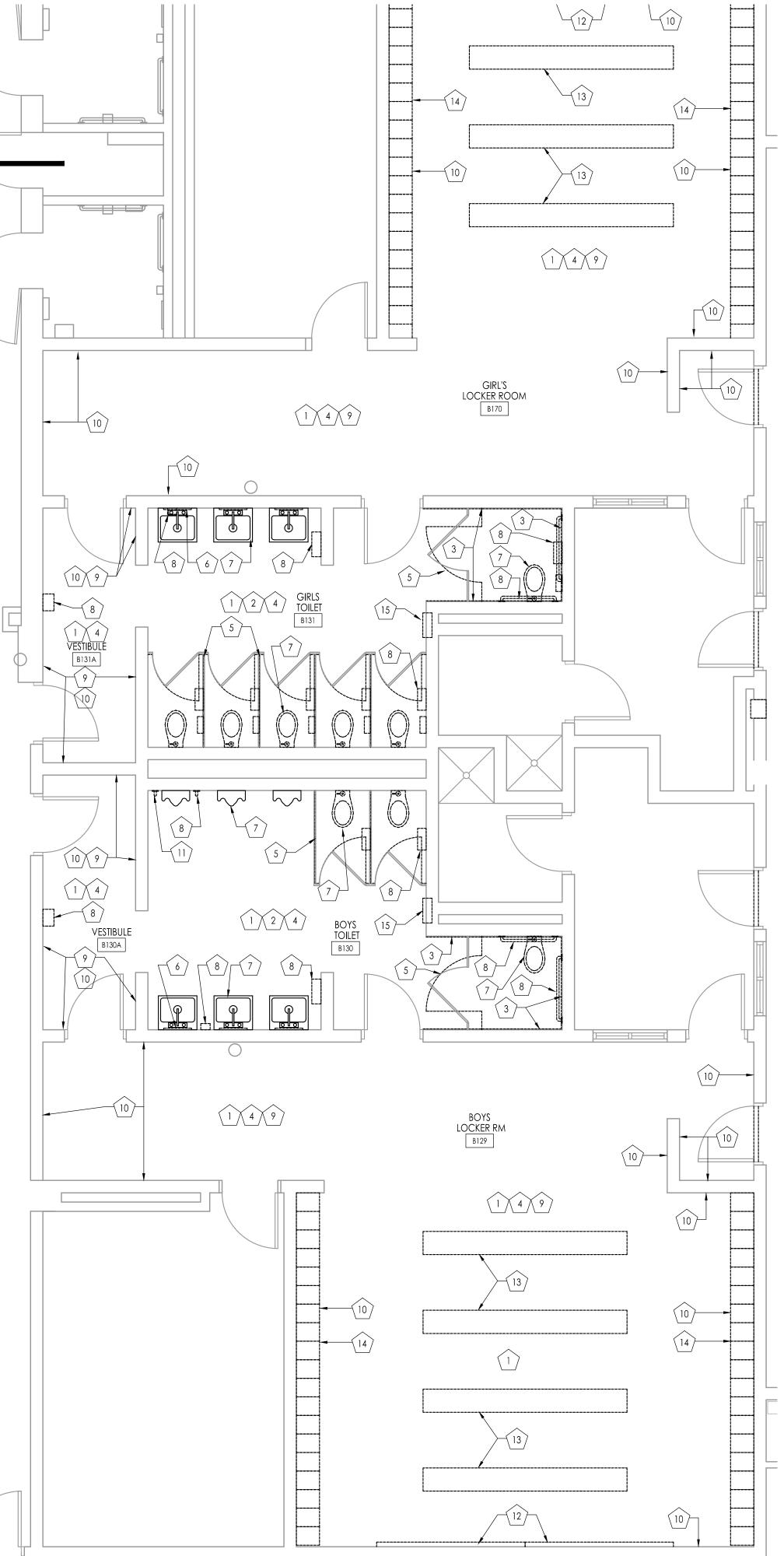
GENERAL DEMOLITION NOTES:

- A. ALL CONTRACTORS ARE ADVISED TO VISIT THE SITE AND VERIFY ALL AREAS AND CONDITIONS PRIOR TO SUBMITTING THEIR BIDS. THE CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND/OR OMISSIONS IN WRITING AT LEAST SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. FAILURE TO SO NOTIFY THE ARCHITECT INDICATES THAT ANY ADDITIONAL COSTS ASSOCIATED WITH THE DISCREPANCIES AND / OR OMISSIONS ARE INCLUDED IN THE CONTRACTOR'S BID AND THAT NO CHANGE TO THE CONTRACT AMOUNT WILL BE MADE AFTER THE RECEIPT OF BIDS OR THE AWARD OF CONTRACTS.
- B. ALL PLUMBING, MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. <u>ALL EQUIPMENT, DEVICES, FIXTURES, ETC.</u> SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. <u>NOTE:</u> THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED.
- C. UNLESS NOTED OTHERWISE ALL DEMOLITION MATERIAL SHALL BE REMOVED OFF SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- D. THERE ARE SOME SPECIFIC ITEMS DESIGNATED BY THE ARCHITECT FOR SALVAGE. THESE ITEMS ARE INTENDED FOR REUSE IN THE NEW WORK. THE CONTRACTOR MUST TAKE CARE IN THE REMOVAL AND STORAGE OF THESE ITEMS UNTIL THEY ARE NEEDED IN THE NEW CONSTRUCTION.
- E. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT PORTIONS OF THE EXISTING CONSTRUCTION WHICH ARE ADJACENT TO AREAS TO BE DEMOLISHED. MAKE ALL CUTS AS NEATLY AS POSSIBLE. REFER TO FLOOR PLAN DRAWINGS FOR FINISHING OF THESE AREAS.
- F. IF NOT OTHERWISE NOTED OR DETAILED, ALL SURFACES LEFT ROUGH OR UNFINISHED BY DEMOLITION AND WHICH ARE EXPOSED TO VIEW, SHALL BE PATCHED TO MATCH ADJACENT SURFACES AND FINISHED TO PROVIDE A UNIFORM APPEARANCE WITH REGARD TO SIZE, SHAPE, COLOR, TEXTURE AND MATERIAL.
- G. THE CONTRACTOR SHALL PROVIDE A PHYSICAL BARRIER TO CONTAIN DUST AND DIRT AROUND THE DEMOLITION AREA AND SHALL MAKE EVERY EFFORT TO KEEP THE DEMOLITION SITE AND SURROUNDING AREAS AS CLEAN AS POSSIBLE. ALL TEMPORARY PARTITIONS SHALL BE 1 HOUR RATED CONSTRUCTION AND INCLUDE A DOOR.
- H. NO DEMOLITION SHALL BEGIN UNTIL PROPER PROTECTION IS IN PLACE AND APPROVED BY ARCHITECT & OWNER TO ENSURE THE SAFETY OF THE PUBLIC, THE BUILDING OCCUPANTS, CONSTRUCTION WORKERS AND TO CONTAIN DUST AND DIRT WITHIN THE AREA OF DEMOLITION.
- I. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING THE REMOVAL AND DISPOSAL OF ALL MATERIALS & EQUIPMENT.
- J. THE CONTRACTORS SHALL TAKE INTO ACCOUNT THEIR METHODS OF CONSTRUCTION FOR THE NEW WORK AND INCLUDE IN THEIR BID THE COST OF ADDITIONAL DEMOLITION WORK NECESSARY TO FACILITATE THE CONSTRUCTION.
- K. THE DEMOLITION WORK SHOWN ON THIS PLAN IS INTENDED TO BE A GENERAL OVERVIEW OF MAJOR DEMOLITION WORK REQUIRED. IT IS NOT A COMPLETE AND EXCLUSIVE REPRESENTATION OF ALL DEMOLITION WORK NEEDED FOR EXECUTION OF THE PROJECT. WHEN PREPARING THEIR BIDS, CONTRACTORS MUST REFER TO THE FULL SET OF CONSTRUCTION DOCUMENTS FOR VARIOUS MISCELLANEOUS ITEMS WHICH MUST BE REMOVED AND/OR RELOCATED AS PART OF THE WORK.
- L. ALL PRIME CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN CUTTING AND PATCHING SEE SPECIFICATION.

DEMOLITION / CONSTRTUCTION NOTES (TOILET RENOVATIONS):

- 1. EXISTING CERAMIC TILE FLOOR FINISH TO REMAIN. INSTALL NEW TILE FLOOR FINISH OVER EXISTING TILE. PREPARE EXISTING FLOOR TILE PER NEW TILE MANUFACTURE RECOMMENDATION FOR INSTALLATION OVER EXISTING TILE.
- 2. EXISTING CERAMIC WALL TILE TO REMAIN ON ALL WALLS EXCEPT THOSE NOTED TO HAVE EXISTING TILE REMOVED. INSTALL NEW TILE WALL FINISH OVER EXISTING TILE. PREPARE EXISTING WALL TILE PER NEW TILE MANUFACTURE RECOMMENDATION FOR INSTALLATION OVER EXISTING TILE.
- 3. EXISTING CERAMIC WALL TILE TO BE REMOVED IN IT'S ENTIRETY. PREPARE EXISTING WALL TO ACCEPT NEW TILE WALL FINISH. INSTALL NEW TILE WALL FINISH FULL LENGTH AND HEIGHT OF WALL.
- 4. PAINT EXISTING GYPSUM BOARD CEILING IN IT'S ENTIRETY. PRIOR TO PAINTING, PROTECT ANY CEILING MOUNTED DEVICES AND REPAIR ANY CRACKS, GOUGES, HOLES, ETC. TO A FLUSH CONDITION. ALL EXISTING LIGHTING FIXTURES TO REMAIN. PAINT ALL CEILING MOUNTED SUPPLY, RETURN AND EXHAUST AIR DIFFUSERS IN THEIR ENTIRETY.
- 5. REMOVE ALL EXISTING TOILET PARTITIONS, MOUNTING BRACKETS ETC. IN THIER ENTIRETY. INVENTORY AND RECORD WHERE ALL PIECES WERE REMOVED FOR FUTURE INSTALLATION. SAFELY STORE ALL PARTITIONS AND RELATED MOUNTING BRACKETS. ALL TOILET PARTITIOINS ARE TO BE RE-INSTALLED IN SAME LOCATIONS THEY WERE REMOVED. ALL GRAB BARS, TOILET TISSUE, NAPKIN DISPENSERS ETC. THAT ARE ATTACHED TO PARTITIONS ARE TO BE RE-INSTALLED BACK ONTO PARTITION IN SAME LOCATION IF REMOVED DURING DEMOLITION.
- 6. REMOVE ALL WALL MOUNTED MIRRORS IN THEIR ENTIRETY. SAFEFLY STORE DURING CONSTRUCTION. DOCUMENT HEIGHT ABOVE FINISHED FLOOR ALL MIRRORS WERE MOUNTED. RE-INSTALL MIRRORS OVER SINKS AT SAME HEIGHTS AS PREVIOUSLY INSTALLED. ALL MIRRORS TO BE CENTERED OVER NEW SINKS.
- 7. REFER TO PLUMBING DRAWINGS FOR DEMOLITION AND NEW WORK NOTES.
- 8. ALL WALL MOUNTED TOILET ACCESSORIES INCLUDING BUT NOT LIMITED TO, SOAP DISPENSERS, ELECTRIC HAND DRYERS, PAPER TOWEL DISPENSERS, NAPKIN DISPENSERS AND GRAB BARS ARE TO BE REMOVED AND SAFELY STORED DURING CONSTRUCTION. RE-INSTALL IN SAME LOCATIONS AND HEIGHTS AS PREVIOUSLY INSTALLED. SOAP DISPENSERS WILL NOT BE RE-USED.
- 9. EXISTING CMU WALL FINISH TO REMAIN PAINT.
- 10. REMOVE EXISTING 4" HIGH CERAMIC TILE WALL BASE IN IT'S ENTIRETY. PATCH AND PREPARE EXISTING CMU WALL AS NECCESSARY FOR INSTALLATION ON NEW TILE BASE.
- 11. REMOVE EXISTING VERTICALLY MOUNTED GRAB BAR AND HAND OVER TO OWNER.
- 12. REMOVE EXISTING CHALK BOARDS IN THEIR ENTIRETY. DOCUMENT EXISTING MOUNTING HEIGHT PRIOR TO REMOVAL. RE-INSTALL BOARDS IN SAME LOCATION AND HEIGHT ON WALL AFTER NEW TILE IS INSTALLED.
- 13. REMOVE EXISTING BENCHES AND SAFETLY STORE. PRIOR TO REMOVAL DOCUMENT LOCATION OF EACH BENCH AND RE-INSTALL AFTER FLOOR TILE INSTALLATION IN SAME LOCATION. PRIOR TO INSTALLATION PAINT METAL SUPPORT BASES OF EACH BENCH.
- 14. REMOVE EXISTING METAL LOCKERS IN THEIR ENTIRETY. CONCRETE BASE TO REMAIN. INSTALL NEW METAL LOCKERS WITH SLOPED TOPS IN SAME LOCATION AS LOCKERS REMOVED. REFER TO LOCKER SCHEDULE AND SPECIFICATIONS FOR TYPES.
- 15. REMOVE EXISTING RECESSED PAPER TOWEL DISPENSER/DISPOSAL. INFILL OPENING WITH \$" MOISTURE/MOLD RESISTANT GYP. BD OVER 3 \$" METAL STUDS. ALIGN FACE OF GYP. BD. WITH FACE OF EXISTING CERAMIC TILE.

ALL PLUMBING, MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. <u>ALL EQUIPMENT, DEVICES, FIXTURES, ETC.</u> SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. <u>NOTE:</u> THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED DURING CONSTRUCTION. ALL DEVICES ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.



DEMOLITION PLAN - BOY'S TOILET B130, GIRL'S TOILET B131, TOILET 133, TOILET 134 Scale: 1/4" = 1'-0"

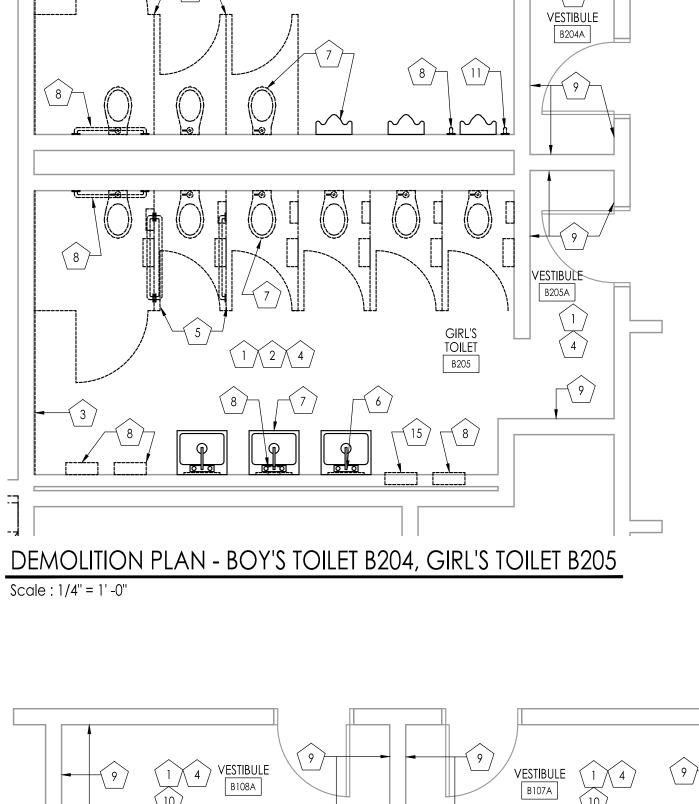
CONSTRUCTION KEY LEGEND

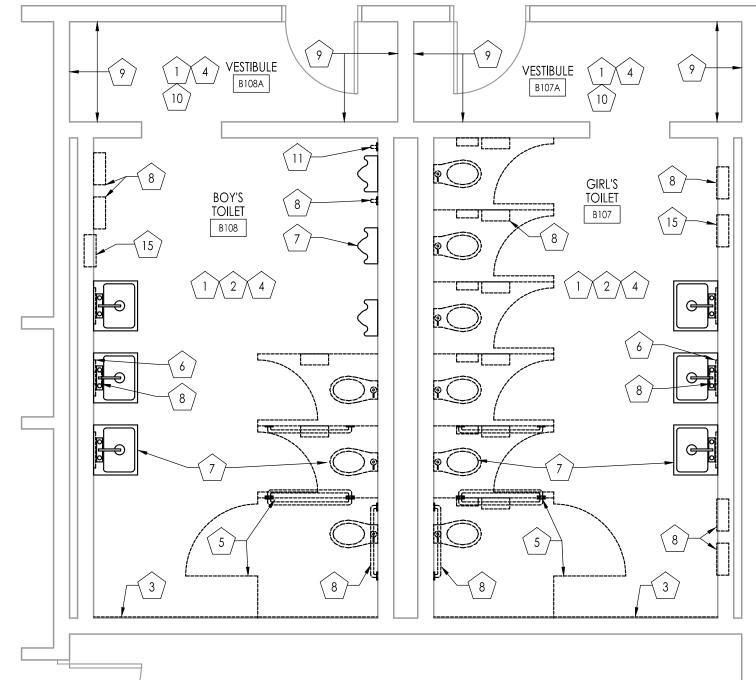
RENOVATION
RENOVATION ARE DESIGNED UNDER THE NEW JERSEY

REHABILITATION SUB-CODE.

APPLICABLE CODES:
THIS PROJECT WAS DESIGNED UNDER THE FOLLOWING CODES:

CONSTRUCTION CODE (RENOVATION) BUILDING SUBCODE BARRIER-FREE SUBCODE PLUMBING SUBCODE MECHANICAL SUBCODE ELECTRICAL SUBCODE FUEL GAS SUBCODE ENERGY CONSERVATION SUBCODE
BUILDING CODE 2015 - NJ EDITION
N.J.A.C. 5:23-7 AND ICC-ANSI A117.1-2009
NATIONAL STANDARD PLUMBING SUBCODE 2015
INTERNATIONAL MECHANICAL CODE 2015
NATIONAL ELECTRICAL CODE 2014
INTERNATIONAL FUEL GAS CODE 2015
ASHRAE 90.1 2013

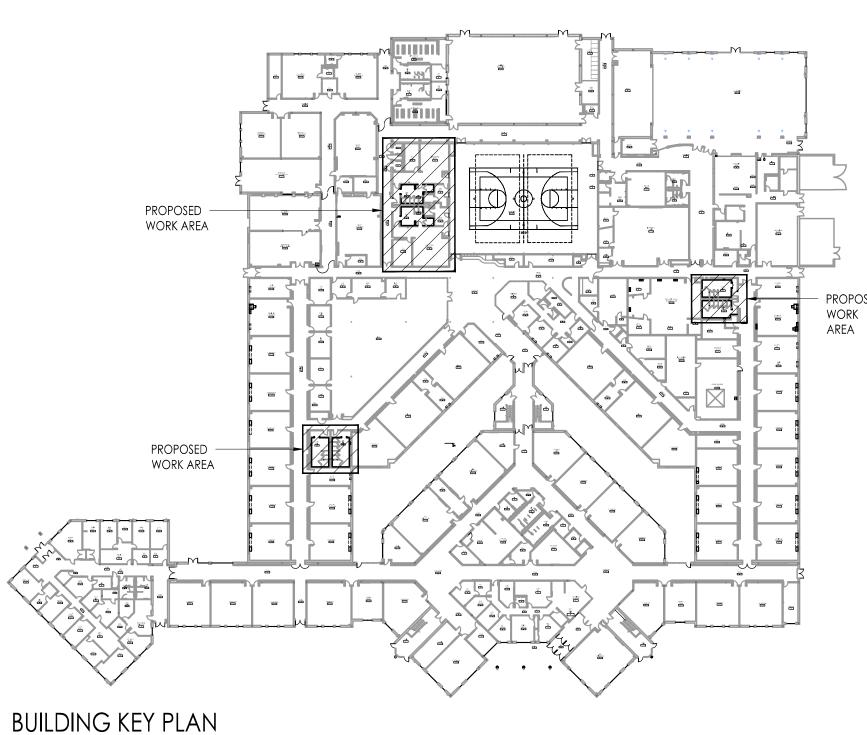




DEMOLITION PLAN - GIRL'S TOILET B107, BOY'S TOILET B108

Scale: 1/4" = 1'-0"

Scale: NOT TO SCALE



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Project Name

ALTERATIONS AND
RENOVATIONS TO
WILLIAM DAVIES
MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR
MAYS LANDING,
NJ 08330

Project Number

4937C

Project Date

02.15.2019

Checked By

JJV

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Scale

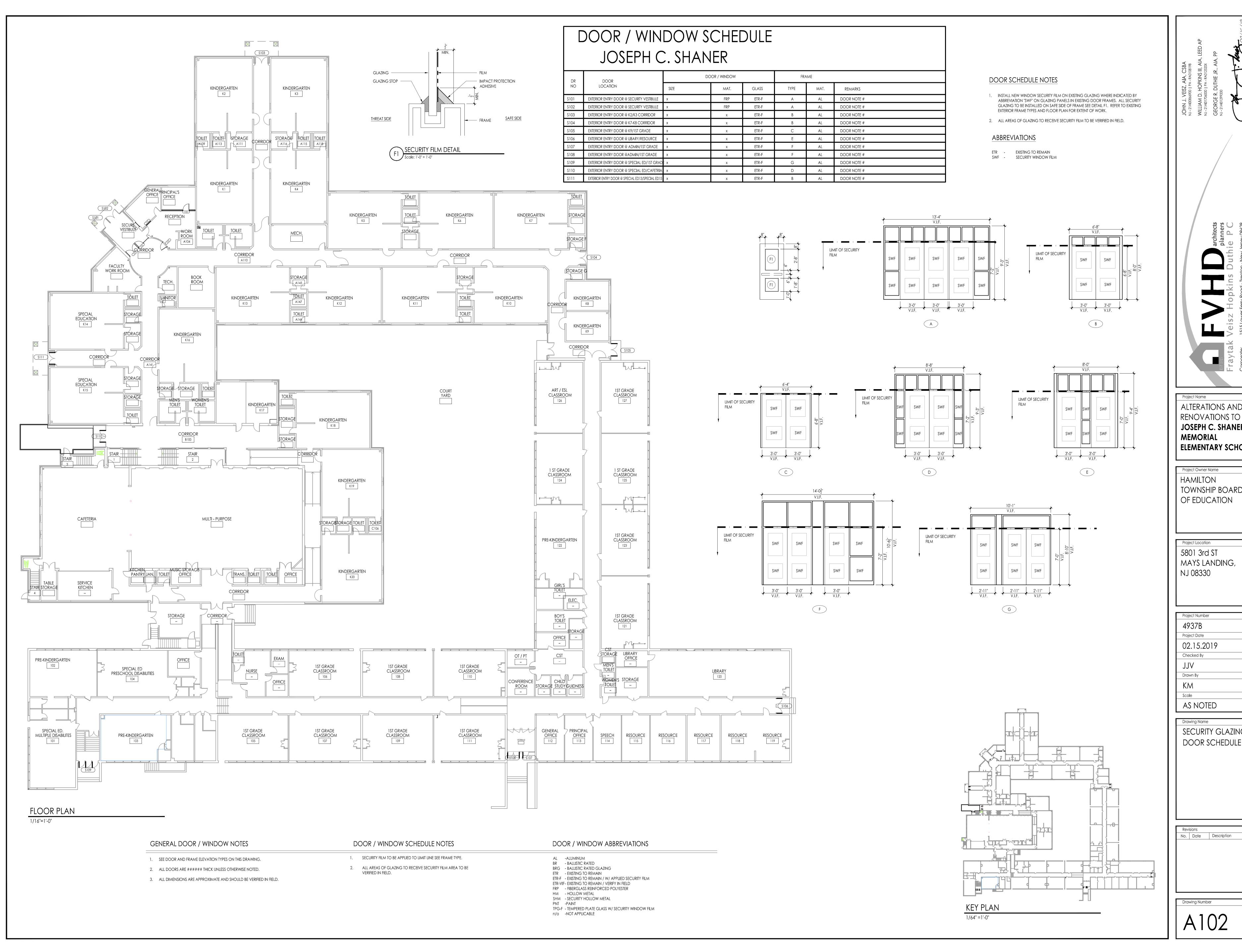
TOILET DEMOLITION
PLANS

AS NOTED

Revisions
No. Date Description

Drawing Number

A 1 0 1



JOSEPH C. SHANER **MEMORIAL ELEMENTARY SCHOOL** Project Owner Name HAMILTON

ALTERATIONS AND

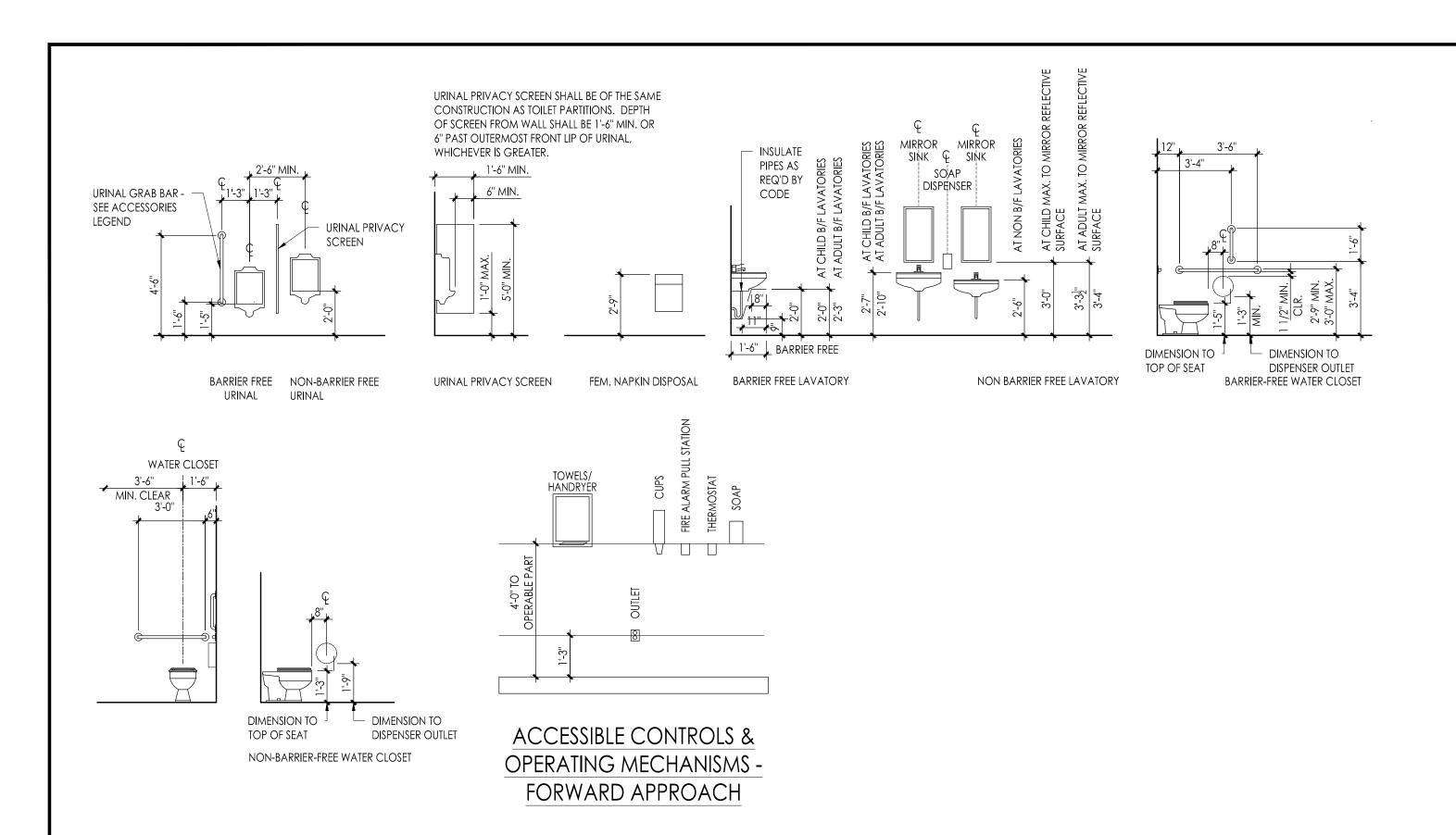
TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

02.15.2019 Checked By Drawn By ΚM

AS NOTED SECURITY GLAZING DOOR SCHEDULE

No. Date Description



ROOM FINISH SCHEDULE											
	ROOM NAME		BAS	ξΕ	WAINS	COT	VA/ALL FINICLI	CEILII	NG	NOTES	
NUMBER		FLOOR	MAT.	HT.	MAT.	HT.	WALL FINISH	MAT.	HT.		
B107	GIRL'S TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B107A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B108	BOY'S TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B108A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B129	BOYS LOCKER RM	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B130	BOYS TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B130A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B131	GIRLS TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B131A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINIHS SCHEDULE NOTE 1	
B170	GIRL'S LOCKER ROOM	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B204	BOY'S TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDUEL NOTE 1	
B204A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B205	GIRL'S TOILET	PT	PT				PT	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
B205A	VESTIBULE	PT	PT				CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDULE NOTE 1	
E109	GYMNASIUM	SYN	RUB	4''			CEP	ETR-P	ETR	SEE ROOM FINISH SCHEDUEL NOTE 1	

ROOM FINISH SCHEDULE NOTES

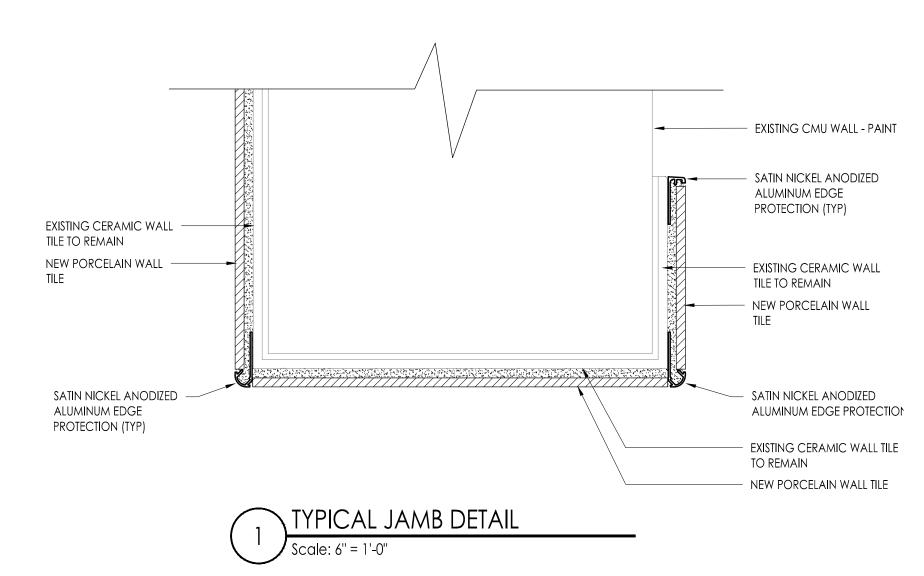
1. REFER TO DEMOLITION/CONSTRUCTION NOTES ON A 101 FOR ADDITONAL INFORMATION

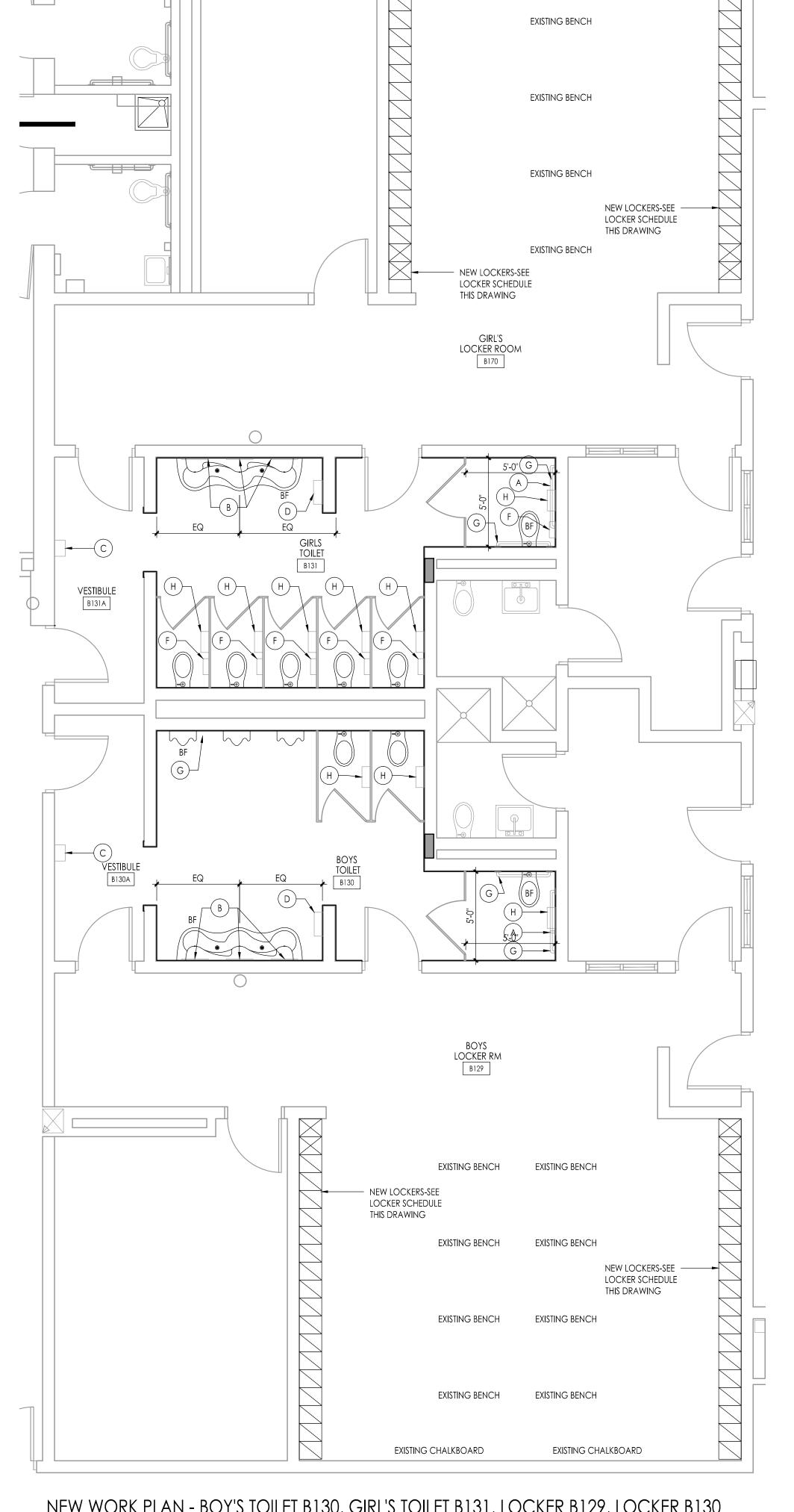
ROOM FINISH SCHEDULE ABBREVIATIONS

CEP - EXISTING CMU EPOXY PAINT

ETR - EXISTING TO REMAIN ETR-P - EXISTING GYPSUM BOARD TO REMAIN - PAINT
PT - PORCELAIN TILE
RUB - RUBBER BASE

SYN - SYNTHETIC SPORTS FLOORING





EXISTING CHALKBOARD



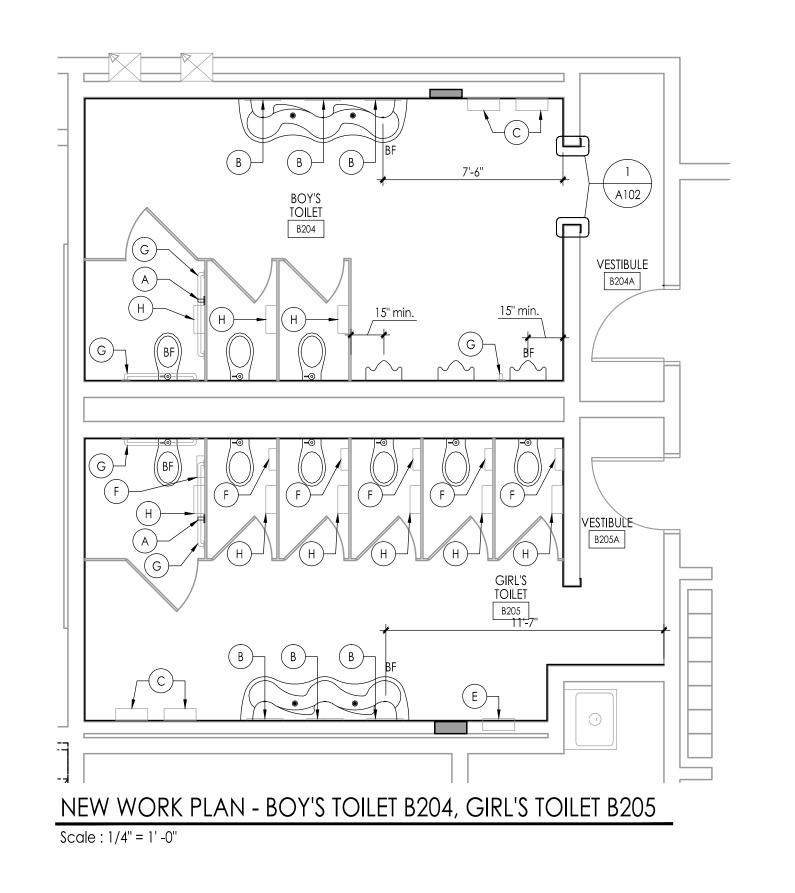
LOCKER SCHEDULE

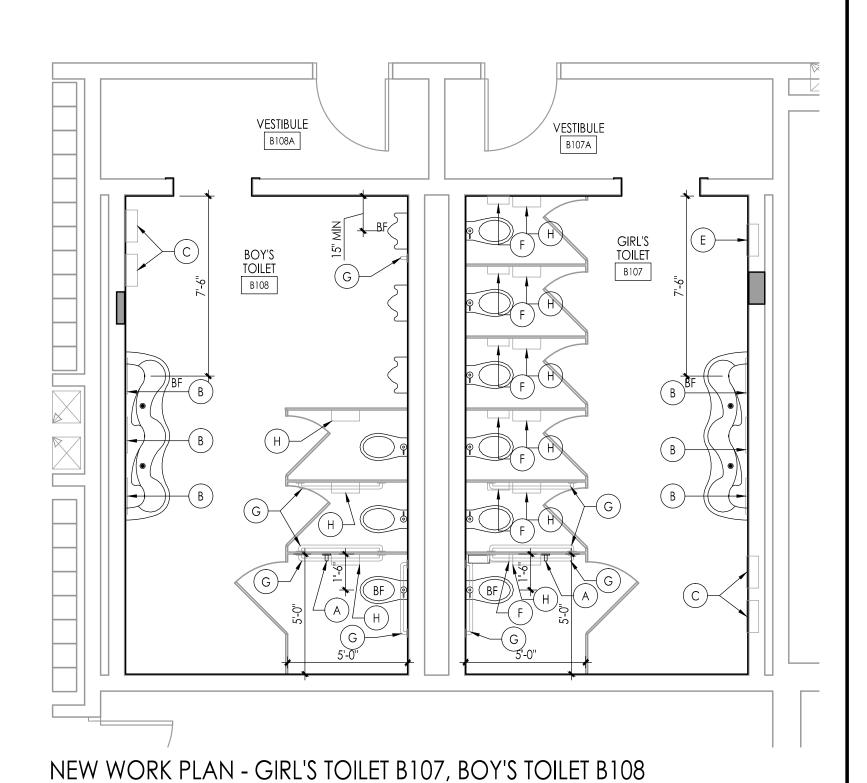
LOCKER TYPE 'A'
12" W. x 15" D. x 30" H. (2 HIGH)

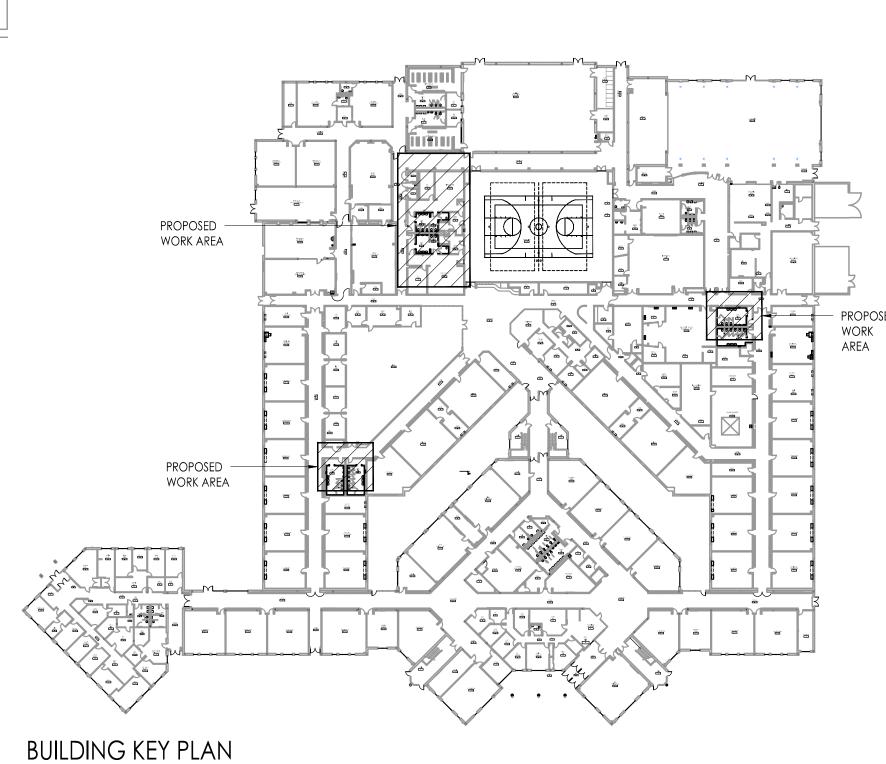
LOCKER TYPE 'B' (BARRIER FREE)
12" W. x 15" D. x 30" H. (2 HIGH)

		TOILET ROO	m accesso	RIES	X	
				SIZE		
NO.	CAT. NO.	DESCRIPTION	W	Н	D	REMARKS
Α	800-001-18"	GRAB BAR	18"			SAFETY-GRIP FINISH, MOUNT VERTICAL
В		MIRROR				RE-USE EXISTING
С		HAND DRYER				RE-USE EXISTING
D		PAPER TOWEL DISPENSER				RE-USE EXISTING
Е		FEMININE NAPKIN DISPENSER				RE-USE EXISTING
F		FEMININE NAPKIN DISPOSAL				RE-USE EXISTING
G		GRAB BAR				RE-USE EXISTING
Н		TOILET TISSUE DISPENSER	-			RE-USE EXISTING

ALL CATALOG NUMBERS REFER TO BRADLEY WASHROOM ACCESSORIES UNLESS NOTED OTHERWISE. REFER TO FIXTURE MOUNTING HEIGHT CHART ON THIS DRAWING







Scale: 1/4" = 1'-0"

Scale: NOT TO SCALE

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

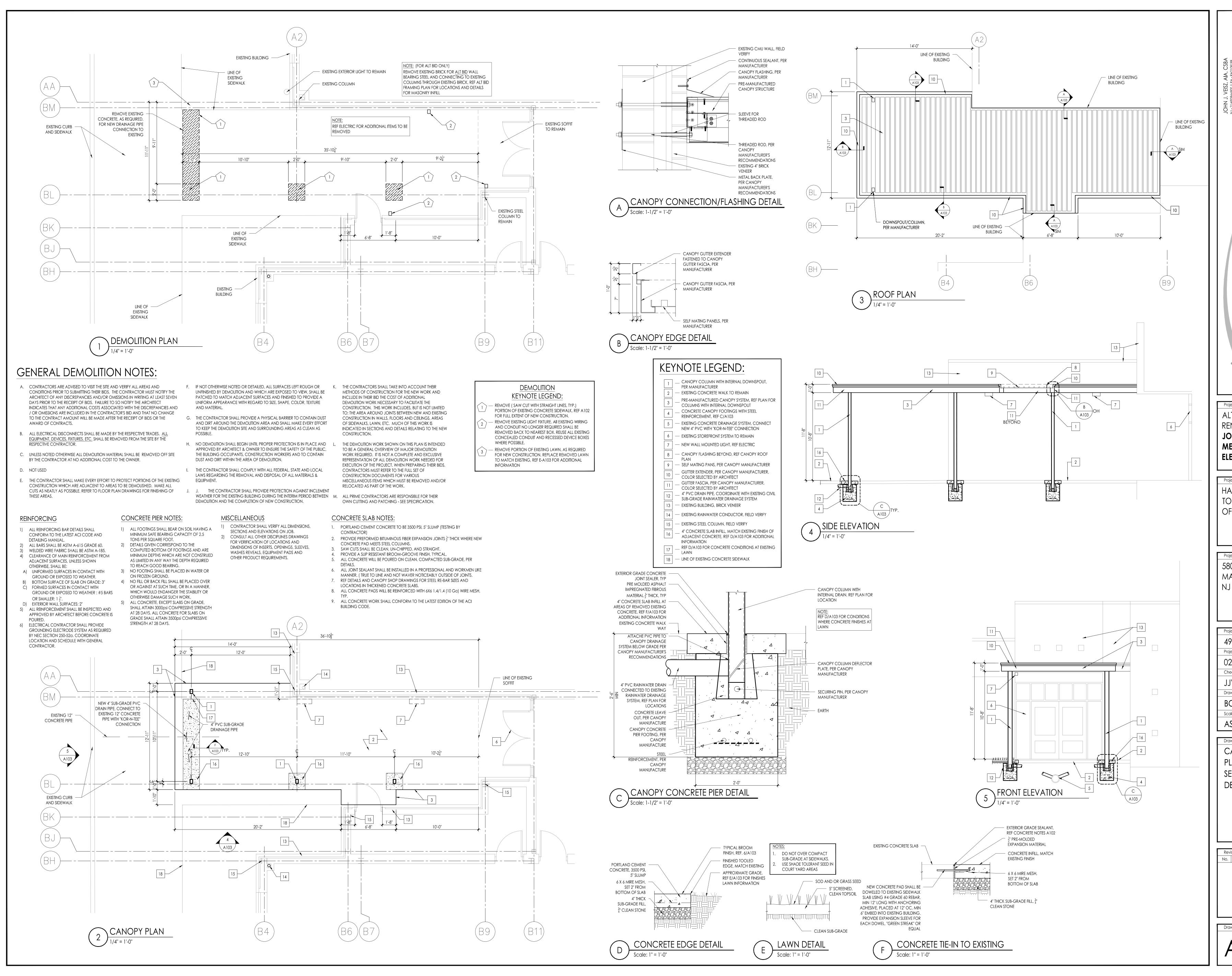
Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

Project Number 4937C Project Date 02.15.2019 Checked By Drawn By JMK Scale

Drawing Name TOILET AND LOCKER **ROOM NEW WORK PLANS**

AS NOTED

No. Date Description



ALTERATIONS AND RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

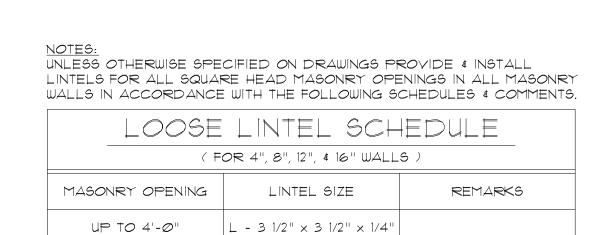
Project Location 5801 3rd ST MAYS LANDING,

NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By Drawn By Scale AS NOTED

Drawing Name CANOPY PLANS SECTIONS AND **DETAILS**

No. Date Description



L - 5" × 3 1/2" × 5/16"

L - 6" × 3 1/2" × 5/16"

W 8 x 18 + ₱

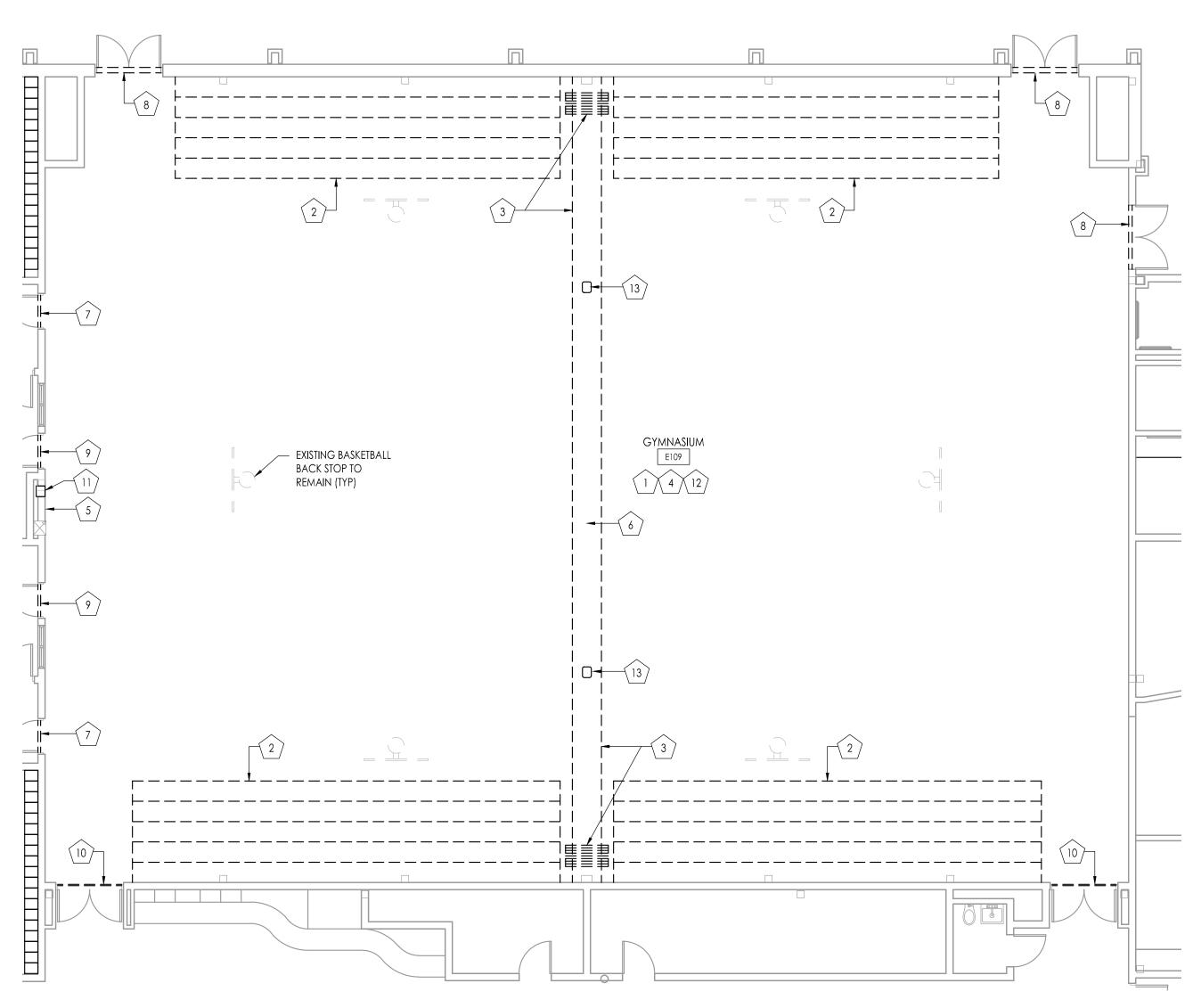
4'-1" TO 6'-0"

6'-1" TO 8'-0"

0∨ER 8'-Ø"

LOOSE LINTEL SCHEDULE								
	(FOR 6" WALLS)							
MASONRY OPENING	LINTEL SIZE	REMARKS						
2'-0" TO 6'-0"	WT 7 × 11							
6'-1" TO 8'-0"	WT 8 x 13							

- PROVIDE ONE (1) ANGLE FOR EACH 4" OF MASONRY WIDTH. . BEAR LINTELS 6" MINIMUM EACH SIDE OF OPENING.
- 3. ALL LINTELS IN EXTERIOR WALLS TO BE GALVANIZED. 4. WHERE OPENINGS LOCATED NEXT TO COLUMNS OR BEAMS, ATTACH TO STRUCTURAL STEEL, CONNECTION NOT TO
- PROTRUDE INTO OPENING. 5. CONSULT ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS FOR OPENING SIZE & LOCATION.



NEW WORK PLAN - GYMNASIUM E109

| EXISTING RETRACTABLE

BASKET BALL BACKSTOP

NOTE: ALL GAME LINES TO

EXISTING F.E. CABINE

- EXISTING DRINKING

FOUNTAIN TO REMAIN

RELOCATED

DRAWINGS

EXISTING STEEL COLUMNS -TO REMAIN - NOTCH NEW

BLEACHERS AROUND

COLUMNS (TYP)

Scale: 1/8" = 1'-0"

CARLISLE FULLY ADHERED EPDM ROOF SYSTEM

20 YEAR WARRANTY

NOVEMBER 7, 2005

THOMAS COMPANY, INC.

PHONE - 609-344-5846

114 NORTH BRIGHTON AVENUE ATLANTIC CITY, NJ 08401

EXISTING ROOFING SYSTEM NOTE:

EXISTING ROOFING SYSTEM WARRANTY:

WILLIAM DAVIES MIDDLE SCHOOL

MANUFACTURER:

ROOFING SYSTEM

DATE OF WARRANTY

INSTALLATION CONTRACTOR

ALL WORK PERFORMED AS PART OF THIS PROJECT THAT IMPACTS

OR MODIFIES THE EXISTING ROOFING SYSTEM IN ANY FORM SHALL

MANUFACTURER SUCH THAT THE EXISTING ROOF WARRANTY IN

BE PERFORMED IN A MANNER APPROVED BY THE ROOFING

PLACE AT THE TIME OF THE WORK SHALL NOT BE VOIDED.

NEW BOTTLE FILL DRINKING FOUNTAIN-REFER TO PLUMBING

BE 2" WIDE. GAME LINE COLORS TO BE SELECTED

BY ARCHITECT

DEMOLITION / NEW CONSTRUCTION NOTES (GYMNASIUM RENOVATIONS): 🖄

FROM EXISTING STRUCTURE ABOVE. BOTTOM OF CURTAIN

STANTIONS (TYP)

STANTIONS (TYP)

ELECTRICAL FLOOR BOXES

MIN. 22'-0" A.F.F.

1. EXISTING GYM FLOOR AND WALL BASE TO BE REMOVED BY OTHERS. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR PREPARING EXISTING CONCRETE SLAB TO MANUFACTURERS REQUIREMENTS PER THE SPECIFIED NEW FLOOR FINISH.

SEATING CAPACITY 229

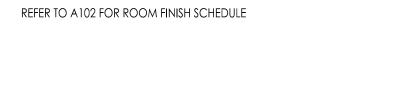
NEW MANUALLY OPERATED WOOD BLEACHERS-

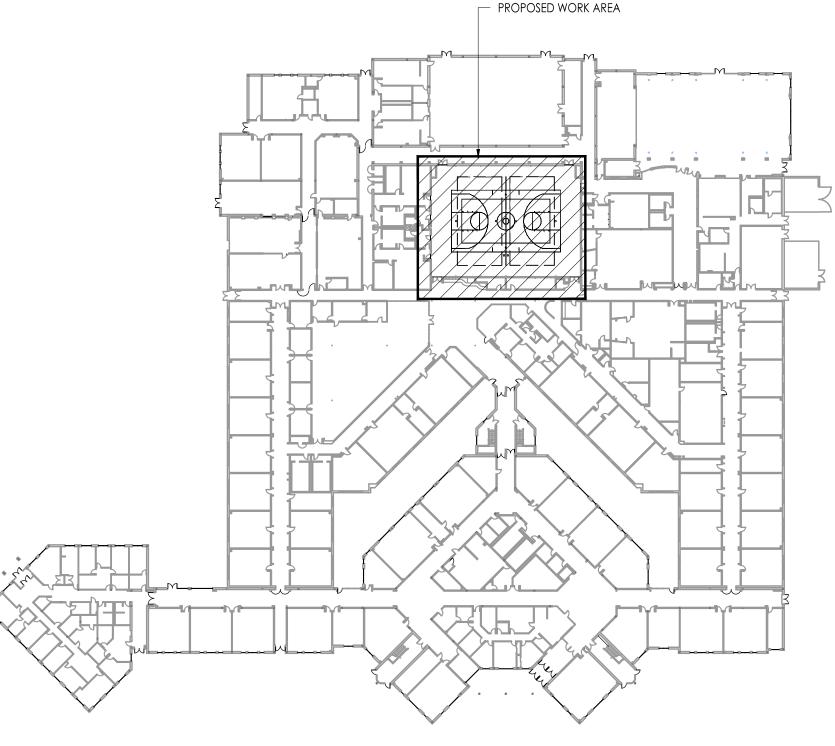
- 2. EXISTING MANUALLY OPERATED WOOD BLEACHERS TO BE REMOVED IN THEIR ENTIRETY. PATCH ALL OPENINGS LEFT IN CMU WALL AFTER REMOVAL. INSTALL NEW MANUALLY OPERATED WOOD BLEACHERS. SEE NEW WORK PLAN FOR NEW BLEACHER LAYOUT.
- 3. EXISTING ELECTRICALLY OPERATED FOLDING PARTITION TO BE REMOVED IN IT'S ENTIRETY INCLUDING ALL TRACKS AND SUPPORTING HANGERS. REMOVE EXISTING SOFFIT AND FACIA THAT SURROUNDS Support track in it's entirety. Steel Support Structure to remain, refer to electrical drawings for additional information.
- 4. REMOVE EXISTING RUBBER BASE IN IT'S ENTIRETY. ALL WALLS IN GYMNASIUM TO BE PAINTED FULL HEIGHT BY GENERAL CONTRACTOR. PROVIDE PROTECTION FROM PAINT ON ALL WALL MOUNTED ITEMS PRIOR TO PAINTING. ALL STEEL JOISTS, BRIDGING, BEAMS AND UNDERSIDE OF METAL DECKING TO BE PAINTED BY GENERAL CONTRACTOR. ALL NEW DUCTWORK TO BE PAINTED BY MECHANICAL CONTRACTOR. REFER TO PHOTOGRAPHS ON DRAWING A 104 FOR ADDITIONAL SCOPE OF PAINTING. INSTALL NEW 4" HIGH RUBBER BASE ON ALL WALLS
- 5. NEW IN-WALL WATER BOTTLE FILLING STATION. CUT OPENING IN EXISTING MASONRY TO THE APPROPRIATE WIDTH AND HEIGHT TO ACCOMMODATE FILLING STATION. INSTALL APPROPRIATE SIZE STEEL LINTEL OVER NEW OPENING. INSTALL AT REQUIRED ADA HEIGHT. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 6. INSTALL NEW ELECTRICALLY OPERATED DROP CURTAIN CENTERED IN GYMNASIUM. SUPPORT DROP CURTAIN FROM EXISTING STEEL STRUCTURE USED TO SUPPORT REMOVED FOLDING PARTITION. SEE
- ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 7. REMOVE EXISTING MARBLE SADDLE IN IT'S ENTIRETY. INSTALL NEW MARBLE ADA SADDLE TO CONFORM TO ALL BARRIER FREE REQUIREMENTS.
- 8. REMOVE EXISTING ALUMINUM DOOR SADDLE IN IT'S ENTIRETY. INSTALL NEW ALUMINUM ADA SADDLE TO MATCH EXISTING. SADDLE TO CONFORM TO ALL BARRIER FREE REQUIREMENTS.
- 9. REMOVED EXISTING WOOD DOOR SADDLE IN IT'S ENTIRETY. INSTALL NEW ALUMINUM ADA DOOR SADDLE TO CONFORM TO ALL BARRIER FREE REQUIREMENTS.
- 10. REMOVE EXISTING RUBBER THRESHOLD IN IT'S ENTIRETY. IN STALL NEW RUBBER ADA THRESHOLD TO MATCH EXISTING TO CONFORM TO ALL BARRIER FREE REQUIREMENTS.
- 11. REMOVE EXISTING RECESSED FIRE EXTINGUISHER CABINET. SAWCUT OPENING IN WALL ADJACENT TO NEW WATER BOTTLE FILLER TO ACCOMMODATE REINSTALLATION OF EXISTING FIRE EXTINGUISHER CABINET AT SAME HEIGHT AS PREVIOUSLY INSTALLED IN WALL. INSTALL APPROPRIATE SIZE STEEL LINTEL OVER NEW OPENING.
- 12. REMOVE EXISTING STRUCTURAL CROSS BRIDGING BETWEEN JOISTS THAT ARE IN CONFLICT WITH NEW DUCTWORK TO BE INSTALLED. ADD NEW STRUCTURAL CROSS BRIDGING IN BAYS WHERE EXISTING DUCTWORK IS TO BE REMOVED. ALL NEW BRIDGING TO BE 2" x 2" x $\frac{1}{8}$ " SECURED TO TOP AND BOTTOM OF STEEL JOISTS.
- 13. REMOVE EXISTING VOLLEYBALL STANITIONS IN THEIR ENTIRETY. PATCH EXISTING HOLE WITH NEW CONCRTET FLUSH WITH EXISTING CONCRETE. CORE DRILL NEW HOLE TO INSTALL NEW VOLLEY BALL
- ALL PLUMBING, MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. ALL EQUIPMENT, DEVICES, FIXTURES, ETC. SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. NOTE: THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED DURING CONSTRUCTION. ALL DEVICES ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.

REFER TO A 101 FOR GENERAL DEMOLITION NOTES

NEW MANUALLY OPERATED WOOD BLEACHERS-

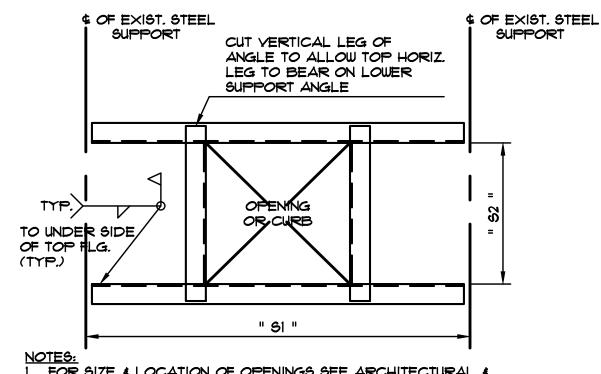
SEATING CAPACITY 218





Scale: NOT TO SCALE

DEMOLITION PLAN - GYMNASIUM E109

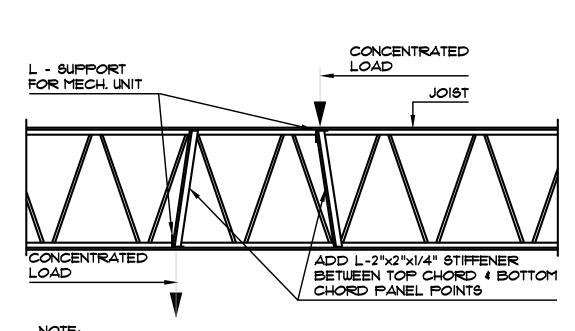


NOTES:

1. FOR SIZE & LOCATION OF OPENINGS SEE ARCHITECTURAL &

- MECHANICAL DRAWINGS. 2. STEEL CONTRACTOR SHALL VERIFY ALL OPENINGS AND EXACT LOCATIONS WITH THE TRADE CONTRACTOR REQUIRING SAID
- OPENINGS PRIOR TO FABRICATION & ERECTION OF STEEL FRAMES. 3. PROVIDE STEEL FRAMES AS SHOWN AROUND ALL REQUIRED OPENINGS LARGER THAN 8" AT ROOF.
- 4. PROVIDE STEEL ANGLES ON ALL SIDES OF OPENINGS UNLESS BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE:
- FOR "61" OR "62" \leq 6'-6" L-4"×4"×5/16" FOR "61" OR "62" > 6'-6" L-6"x6"x3/8" 5. PROVIDE STEEL ANGLES ON ALL SIDES OF MECH'L CURBS UNLESS
- BEAM IS SHOWN ON PLAN. ANGLE SIZES TO BE L-6"x6"x3/8". 6. FOR SIZE & LOCATION OF MECH'L UNITS, SEE ARCH'L & MECH'L DWGS.

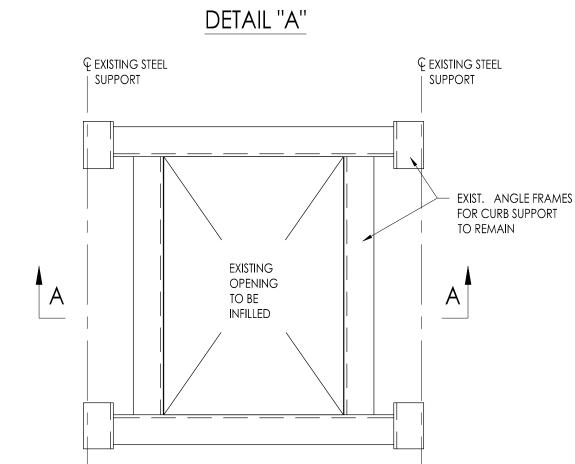
TYPICAL OPNG. DETAIL @ EXIST'G. ROOF # UNDER MECH'L CURB



NOTE: SUPPORTING LOAD AT CONDENSERS, MECHANICAL UNITS AND ALL CONCENTRATED LOADS GREATER THAN 300 lbs.

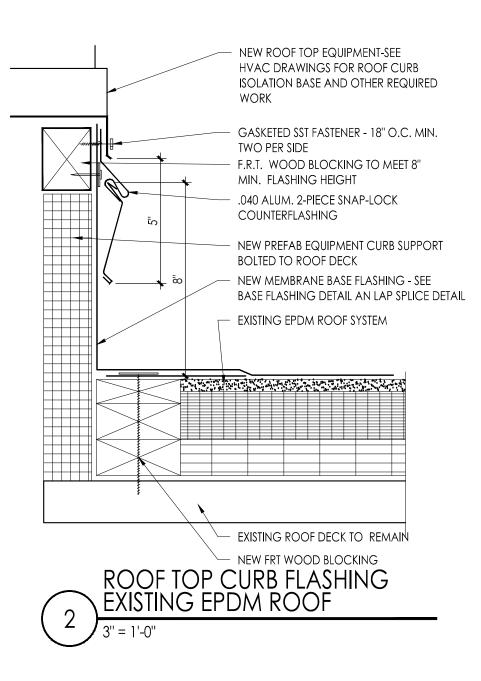
OMIT IF LOAD IS WITHIN 3" OF A PANEL POINT. TYPICAL DETAIL OF REINF'D. JOIST

EXIST. ROOF DECK REMOVE EXISTING CURB $\frac{1}{2}$ " - 20 GA. METAL ROOF DECK. ELEV. TO MATCH EXIST

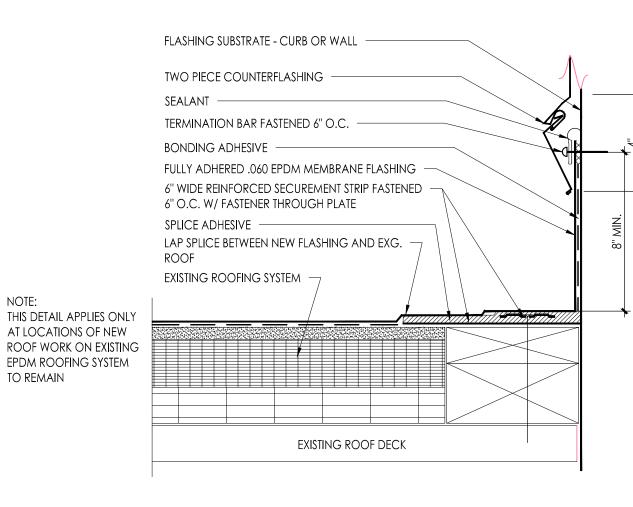


1. PROVIDE $1\frac{1}{2}$ - 20 Ga. Type "B" (WIDE RIB) METAL ROOF DECK (GALV.) INFILL + INSULATION TO MATCH EXIST. ROOF ELEV. @ EXISTING OPENING. PROVIDE MINIMUM 2" BEARING FOR NEW DECK. 2. PROVIDE TEK SCREW FASTENERS @ EACH DECK FLUTE. 3. IF EXISTING CONDITIONS DIFFER FROM THOSE ON PLAN, CONTACT ARCH. OR ENGINEER.

STEEL DECK INFILL DETAIL



PRIOR TO SEAM TAPE INSTALLATION PRIME SPLICE AREAS 2. OVERLAP ENDS OF CUT PIECES A MINIMUM OF 1" 3. LAP SEALANT IS TO COVER THE EDGE OF SEAM TAPE EXISTING EPDM ROOFING SYSTEM EXISTING INSULATION -3" SEAM TAPE 6" COVER STRIP - $1\frac{1}{2}$ " APPROX. EXISTING ROOF DECK TO REMAIN



BUILDING KEY PLAN

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

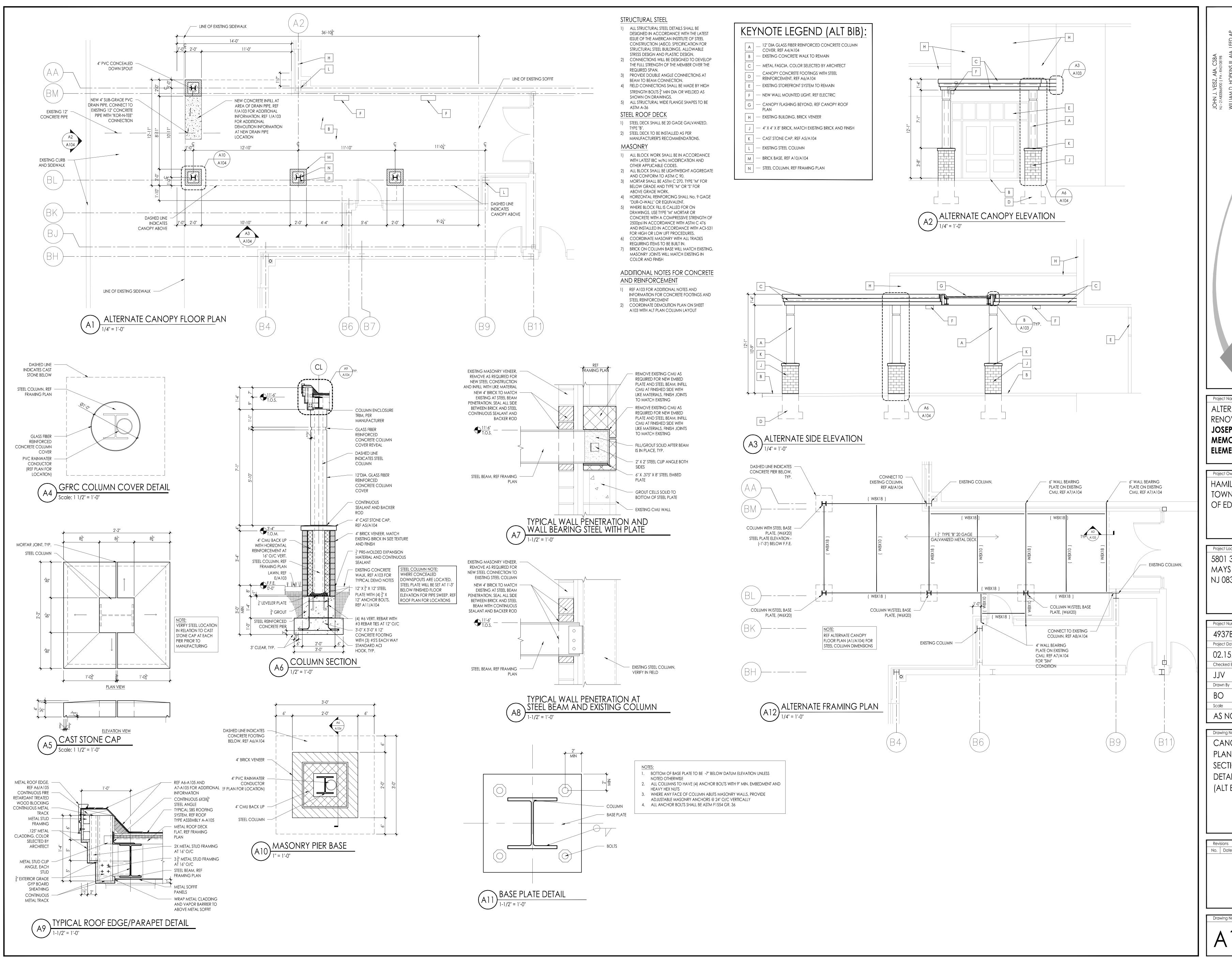
Project Number 4937C Project Date 02.15.2019 Checked By Drawn By

Scale

AS NOTED

Drawing Name GYMNASIUM DEMOLITION PLAN, NEW WORK PLAN, DETAILS

No. Date Description



ALTERATIONS AND RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location

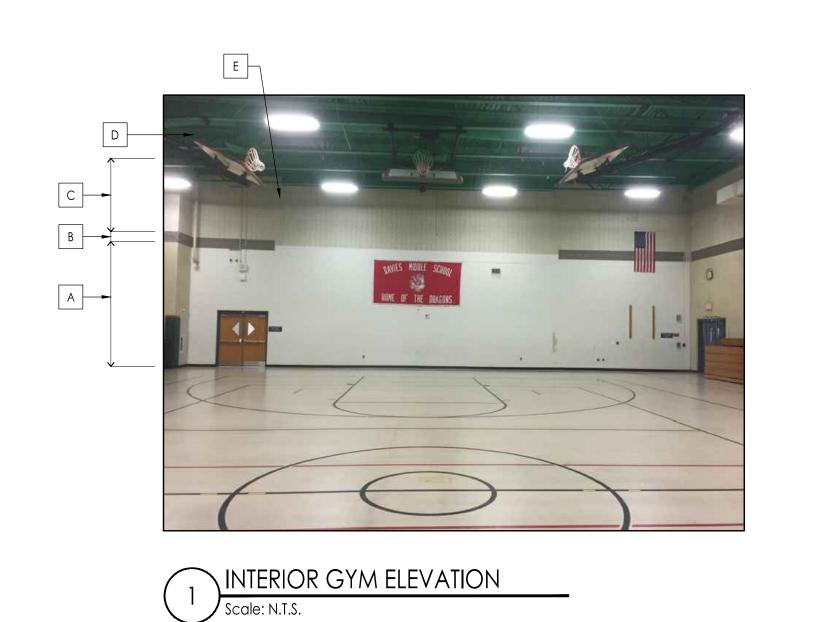
5801 3rd ST MAYS LANDING, NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By

Scale AS NOTED

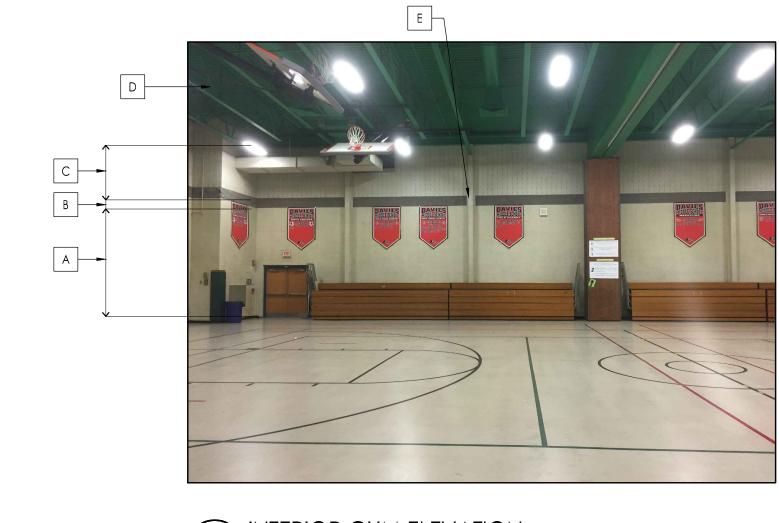
Drawing Name CANOPY PLANS SECTIONS AND DETAILS (ALT BID)

No. Date Description









A COLOR #1 - EXISTING CMU WALL

E COLOR #5 - COLUMN COVERS OR FACE OF STEEL COLUMNS NOTE: ALL NEW DUCTWORK TO BE PAINTED BY MECHANICAL CONTRACTOR - COLOR DETERMINED BY ARCHITECT

PAINTING SCHEDULE:

B COLOR #2 - EXISING ARCHITECTURAL CMU - PAINT C COLOR #3 - EXISTING SOUND BLOCK

D COLOR #4 - EXISTING METAL DECK, BEAMS, AND JOISTS

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

Project Number

4937C Project Date 02.15.2019

Checked By Drawn By JMK

AS NOTED

Drawing Name INTERIOR GYM ELEVATONS

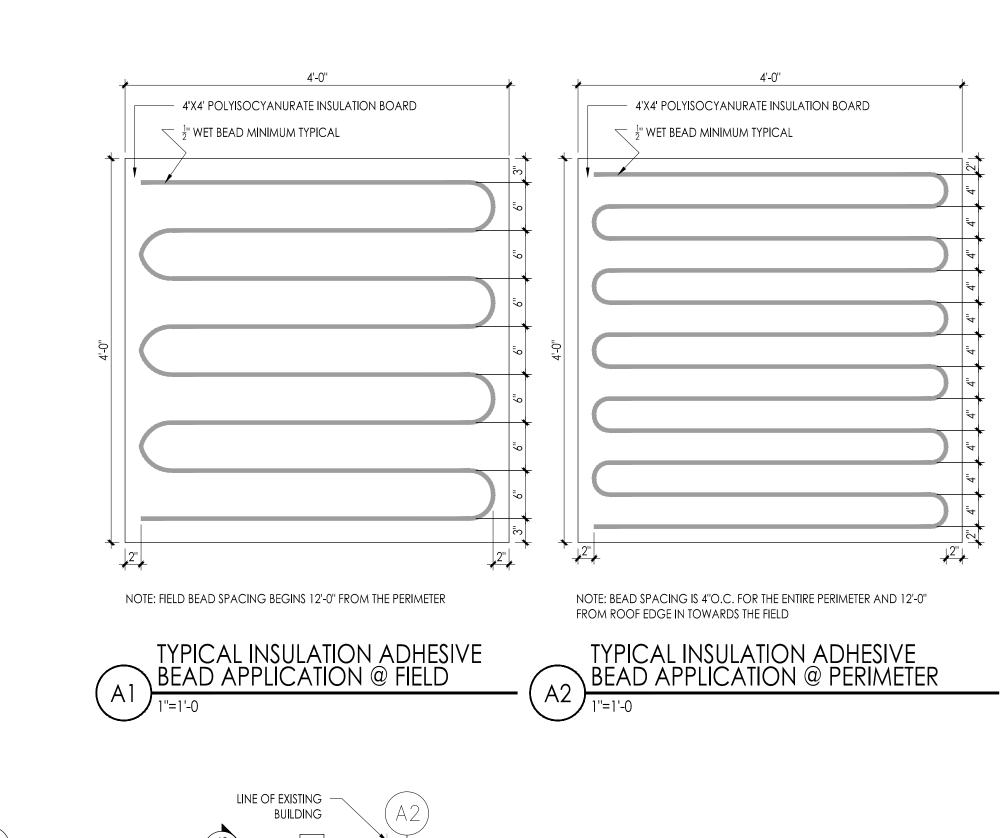
Revisions
No. Date Description

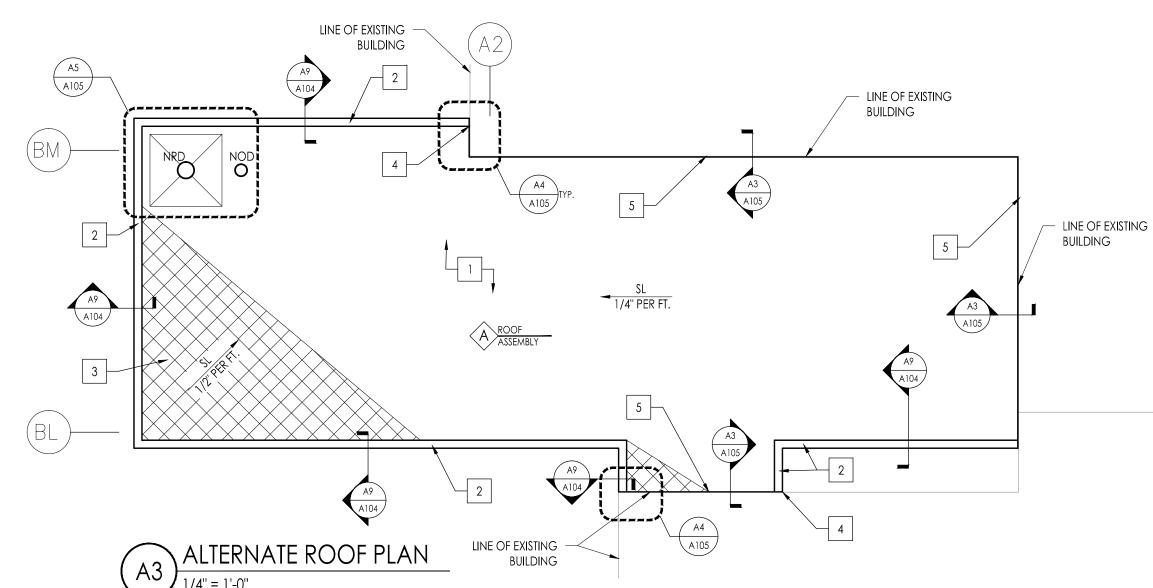












SBS GRANULE SURFACED 2 PLY MEMBRANE ROOFING SYSTEM SET IN SBS ADHESIVE AS PER MANUFACTURERS RECOMMENDATIONS ½"x4'x4' THERMAL BARRIER BOARD ADHERED IN INSULATION ADHESIVE MEETING FACTORY MUTUAL REQUIREMENTS FOR A MINIMUM OF I-90. OFFSET JOINTS FROM PRECEDING INSULATION LAYER A MIN. OF 6" 4'x4' TAPERED HIGH-THERMAL POLYISOCYANURATE INSULATION $\frac{1}{4}$ " PER FOOT SLOPE ADHERED IN INSULATION ADHESIVE MEETING FACTORY MUTUAL REQUIREMENTS FOR A MINIMUM OF I-90. OFFSET JOINTS FROM PRECEDING INSULATION LAYER A MIN. OF 6" - 2.5"x4'x4' HIGH-THERMAL FLAT POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO ROOF DECK. FASTENING AND INSULATION PATTERN MUST MEET OR EXCEED FACTORY MUTUAL REQUIREMENTS FOR A MIN. OF I-90 STAGGER ALL JOINTS A MINIMUM OF 6" STEEL ROOF DECK FLAT, REF STEEL DECK NOTES

CANOPY ROOF

GENERAL CONSTRUCTION AND DEMOLITION NOTES:

A. PROVIDE ROOFING MATERIALS THAT COMPLY WITH A CLASS "A" SYSTEM.

F. DO NOT SCALE THE DRAWINGS.

O. NOT USED

- B. ALL WORK PERTAINING TO THESE DRAWINGS SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND WITH ALL AGENCIES HAVING JURISDICTION. C. INSTALL WATER DIVERTING CRICKETS AS SHOWN ON PLAN.
- D. FRT WOOD BLOCKING SHOWN ON DRAWINGS IS DIAGRAMMATIC. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING CONSTRUCTION IN THICKNESS AND HEIGHT TO MATCH THICKNESS OF INSULATION AND/OR TAPERED INSTALLATION AS RECOMMENDED BY ROOFING MANUFACTURER AND TO MAINTAIN A CONSTANT ROOF EDGE ELEVATION IN A HORIZONTAL PLANE UNLESS NOTED OTHERWISE. E. ALL CONDITIONS MEETING THE ROOF SURFACE PERPENDICULAR MUST HAVE A MINIMUM 8" FLASHING HEIGHT.
- G. ALL LOW SLOPED ROOF AREAS ARE $\frac{1}{4}$ " PER FOOT IN THE FIELD AND $\frac{1}{2}$ " PER FOOT AT THE CRICKETS. SLOPE OF CRICKET IS PERPENDICULAR TO CRICKET VALLEY LINE. H. THE ROOFING CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL GOOD ROOFING PRACTICES INCLUDING THOSE
- SET FORTH BY THE ROOFING MATERIALS' MANUFACTURER, THE SMACNA SHEET METAL MANUAL, FACTORY MUTUAL, UNDERWRITERS LABORATORIES, AND THE NRCA'S ROOFING AND WATERPROOFING MANUAL. NOT USED
- 2. INSTALL ENVELOPE EDGES TO ELIMINATE THE POTENTIAL FOR BITUMEN AND ADHESIVE DRIPPAGE INTO THE BUILDING 3. ALL WOOD BLOCKING TO BE FRT, (FIRE RETARDANT LUMBER). K. CONTRACTOR SHALL AT ALL TIMES HAVE A FULL SET OF DRAWINGS AND SPECIFICATIONS ON ROOF TOP WHILE
- L. CONTRACTOR RESPONSIBLE TO RECTIFY ANY PONDING WATER ON FINISHED ROOF SURFACE THAT REMAINS AFTER
- 48 HOURS AT NO ADDITIONAL COST .
- M. DETAILS NOTED TYPICAL "TYP" IMPLY ALL SUCH CONDITIONS BE TREATED SIMILARLY.

J. 1. PRIME ALL SURFACES WHICH ARE TO RECEIVE BITUMINOUS ROOFING.

- P. UNDER NO CIRCUMSTANCES SHALL TORCH BASE FLASHING BE DIRECTLY APPLIED TO A COMBUSTIBLE SURFACE. PROVIDE A THERMAL BARRIER BOARD, OR SBS BASE PLY AS A BASE FOR ALL TORCH APPLICATIONS TYPICAL. Q. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM HIS DEMOLITION CAREFULLY CAUSING NO DAMAGE TO EXISTING MATERIALS. ANY EXISTING FINISHES OR CONSTRUCTION DAMAGED BY THE ROOFING CONTRACTOR WILL BE HIS RESPONSIBILITY TO REPAIR TO THE SATISFACTION OF THE ARCHITECT AT NO ADDITIONAL COST TO OWNER. PRIOR TO THE COMMENCEMENT OF WORK, ARCHITECT & ROOFING CONTRACTOR WILL INSPECT PROJECT AND NOTE EXISTING DAMAGES TO FINISHES OR CONSTRUCTION.
- R. NOT USED S. THE ROOFING CONTRACTOR SHALL COORDINATE ALL DUMPSTER STAGING AND TRUCK ROUTES WITH THE GC. THE ROOFING CONTRACTOR SHALL PROTECT ALL EXISTING PAVED AND PLANTED AREAS. THE GC SHALL REPAIR ANY PAVED OR PLANTED AREAS TO THE SATISFACTION OF THE OWNER. THE REPAIRS ARE TO INCLUDE, BUT ARE NOT LIMITED TO, REPAVING OF ASPHALT DRIVEWAYS AND PARKING LOTS, REGRADING AND SEEDING OF LAWN AND PLAYGROUND AREAS AND REPLACING DAMAGED PLANTS, SHRUBS, ETC. ALL REPAIRS AND RESTORATIONS SHALL BE DONE AT NO ADDITIONAL COST IN THE CONTRACT PRICE.

T. ALL TAGGED DETAILS ARE TYPICAL FOR THE ITEM OR SYSTEM INDICATED. THE SCOPE OF WORK INDICATED AS PART OF THE

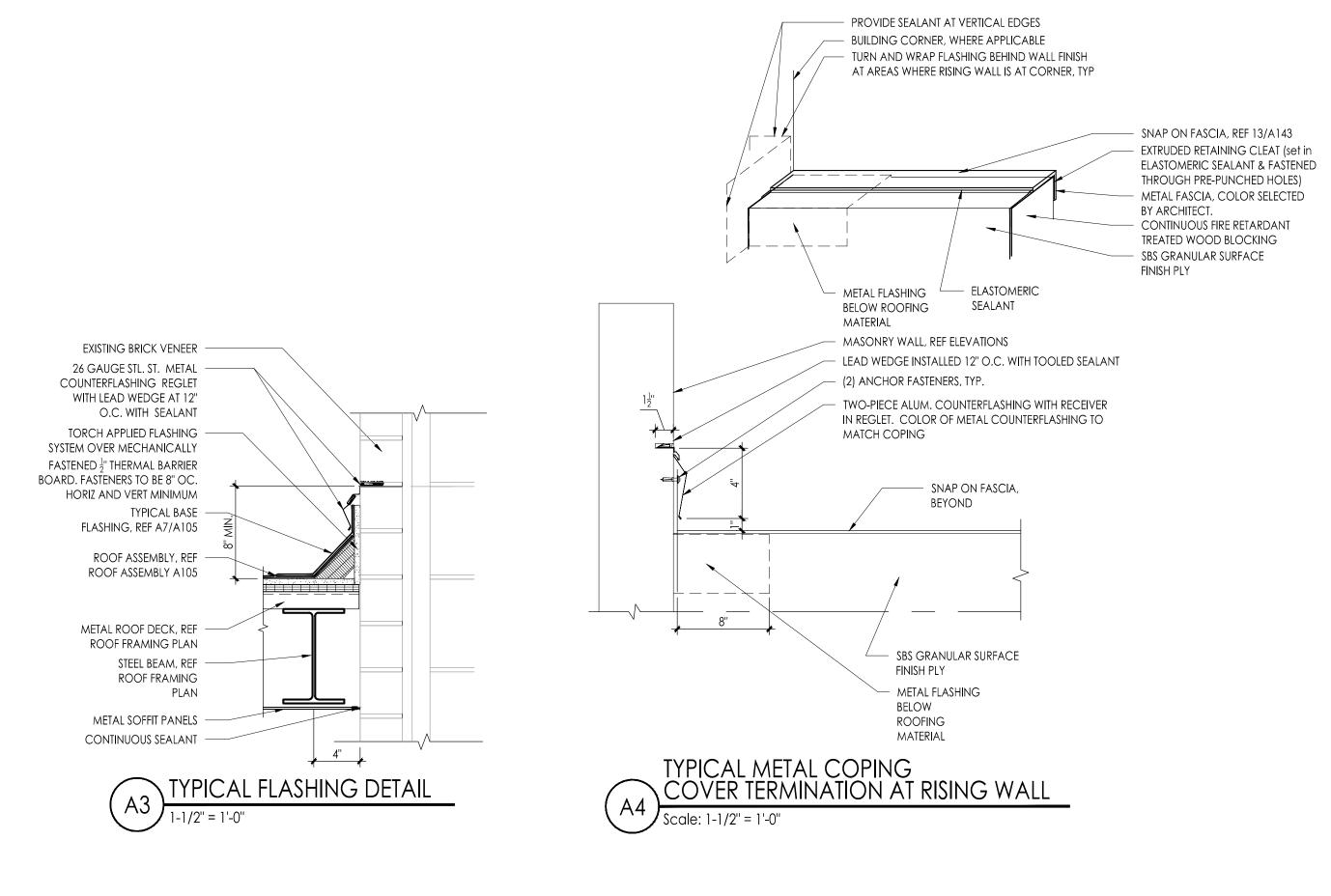
- TAG OR DETAIL MARK SHALL APPLY TO ALL OTHER SIMILAR SYMBOLS OR ITEMS. U. THE EXG BUILDING IS OCCUPIED. THE ROOFING CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS
- AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF ALL PERSONS AT THE PROJECT SITE. V. FOR PURPOSES OF THIS PROJECT, REMOVE SHALL MEAN REMOVE AND DISPOSE OF SAME OFF SITE IN AN APPROVED AND LEGAL MANNER.
- W. THE TERM 'TYP' FOLLOWING A NOTE, TAG, OR DETAIL FLAG INDICATED THAT ALL LIKE, SIMILAR, OR INDICATED ITEMS SHALL BE PROVIDED WITH THE SPECIFIED DETAIL, NOTE, OR SPECIFICATION.
- X. REFERENCE DETAILS A1/A105 AND A2/A105 FOR TYPICAL ADHESIVE BEAD DETAILS FOR THE FIELD AND EDGE OF ROOF

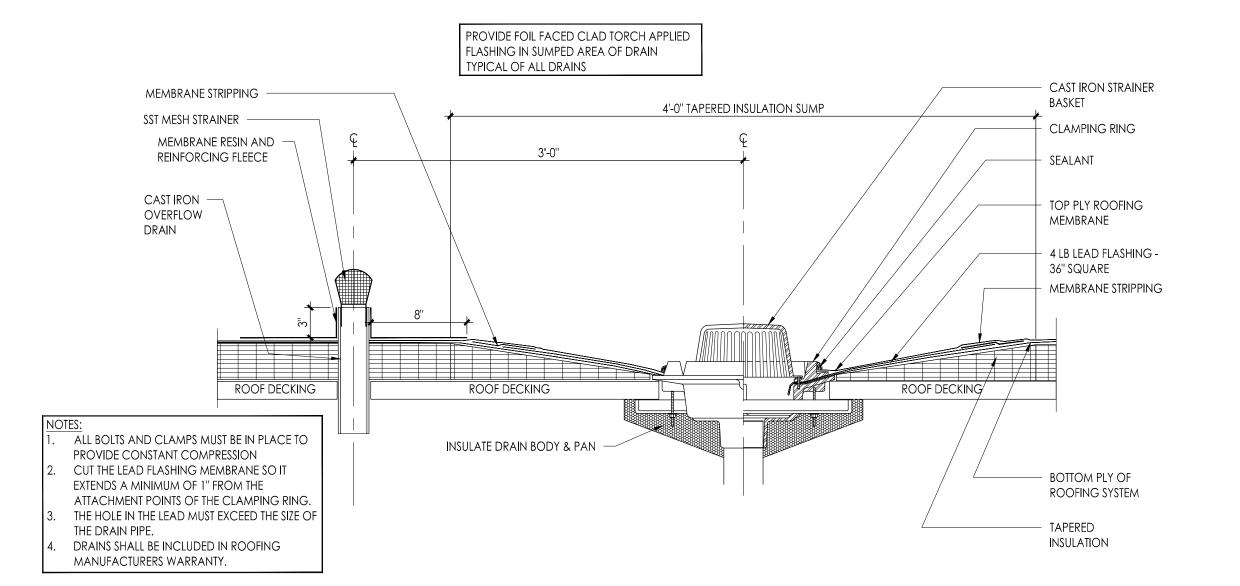
ROOF SYMBOLS FLASHING DETAIL AND DRAWING CONSTRUCTION NOTE FOR SBS DIRECTION OF ROOF SLOPE 1" PER FOOT SLOPED TAPERED INSULATION CRICKETS

ROOF ASSEMBLY TYPE

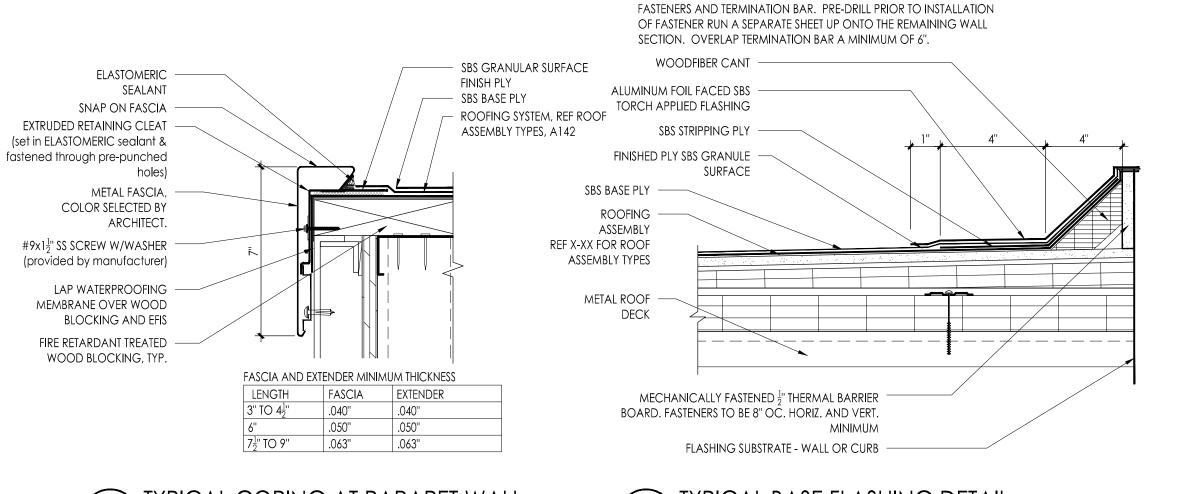
CONSTRUCTION/DEMOLITION NOTES - SBS

- INSTALL ROOF PER ASSEMBLY NOTED ON PLAN AND SPECIFICATIONS. INSTALL WATER DIVERTING SADDLES/CRICKETS WHERE SHOWN ON PLANS WITH TAPERED INSULATION MINIMUM 1\2" PER FOOT SLOPE - SLOPE IS PERPENDICULAR TO SADDLE/CRICKET VALLEY LINE. DO NOT WALK OR RUN EQUIPMENT UPON NEWLY APPLIED ROOFING PLIES UNTIL THE ADHESIVE HAS SET UP TO ELIMINATE THE POTENTIAL FOR VOIDS.
- INSTALL METAL EDGE SYSTEM, COLOR SELECTED BY ARCHITECT. INSTALL NEW WOOD BLOCKING, AS INDICATED IN ROOF EDGE DETAIL. EXTEND SMOOTH BASE PLY OF ROOF SYSTEM DOWN THE FACE OF WOOD AND OVER TOP OF FASCIA BOARD METAL. INSTALL WATER CANT DAM AND STRIP WITH SMOOTH BASE PLY. INSTALL BASE FLASHING SYSTEM FROM THE ROOF UP AND OVER WATER CANT DAM. INSTALL METAL FASCIA AND EXTENDER SO THAT THE OUTSIDE VERTICAL LEG OF THE PERIMETER METAL FLASHINGS EXTEND DOWN PAST THE TOP EDGE OF THE TOP OF METAL CLADDING BY 1". METAL EDGE SYSTEM MUST BE INCLUDED IN MANUFACTURER'S WARRANTY.
- 3 2 PER FOOT SLOPED TAPERED INSULATION CRICKET
- TERMINATION OF METAL COPING AT RISING WALL, REF A4/A105 FOR "SIM" CONDITION
- 5 EXISTING RISING WALL













WHERE BASE FLASHING IS HIGHER THAN 24", TERMINATE SHEET WITH

RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL** Project Owner Name HAMILTON TOWNSHIP BOARD

ALTERATIONS AND

Project Location 5801 3rd ST MAYS LANDING,

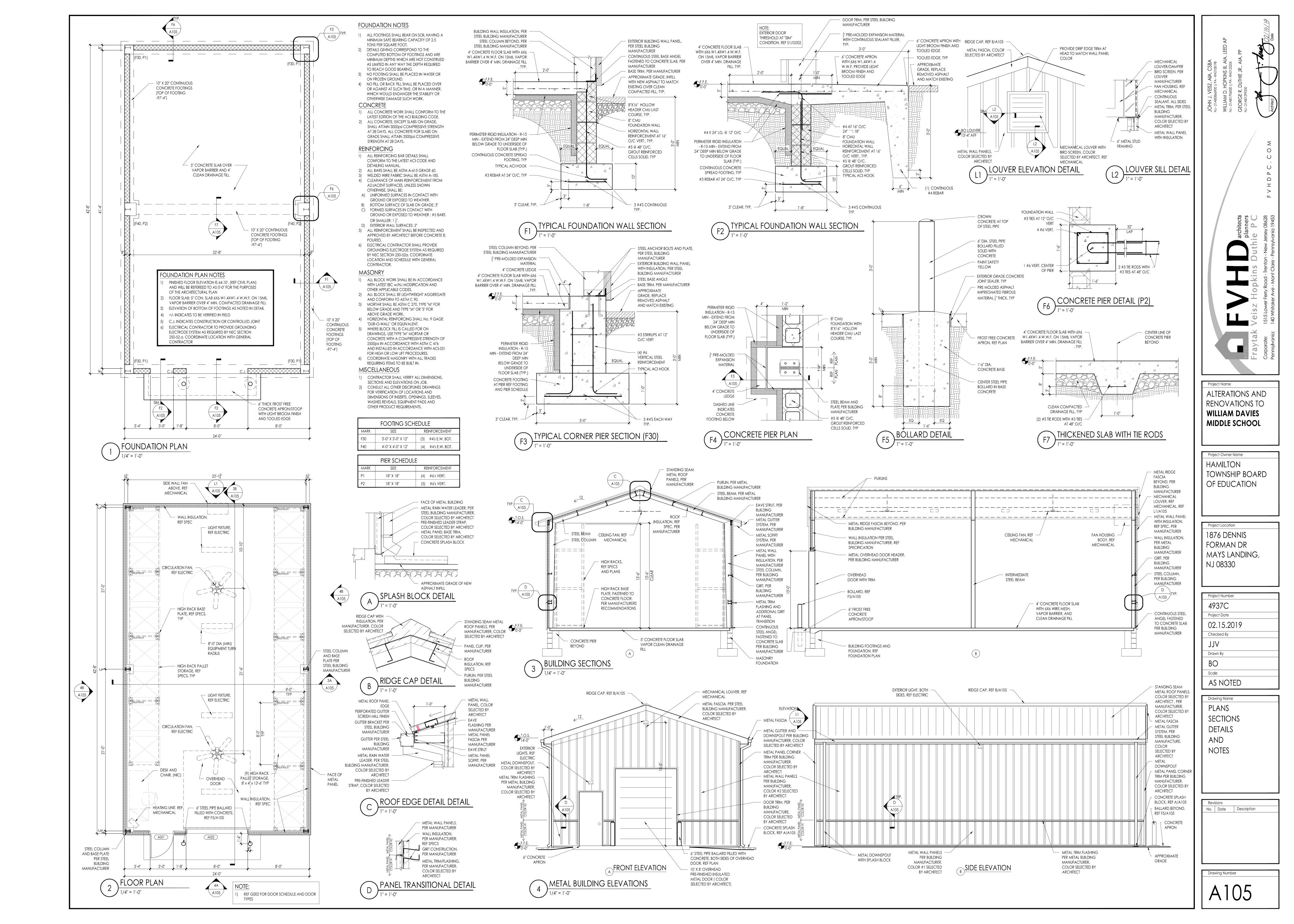
NJ 08330

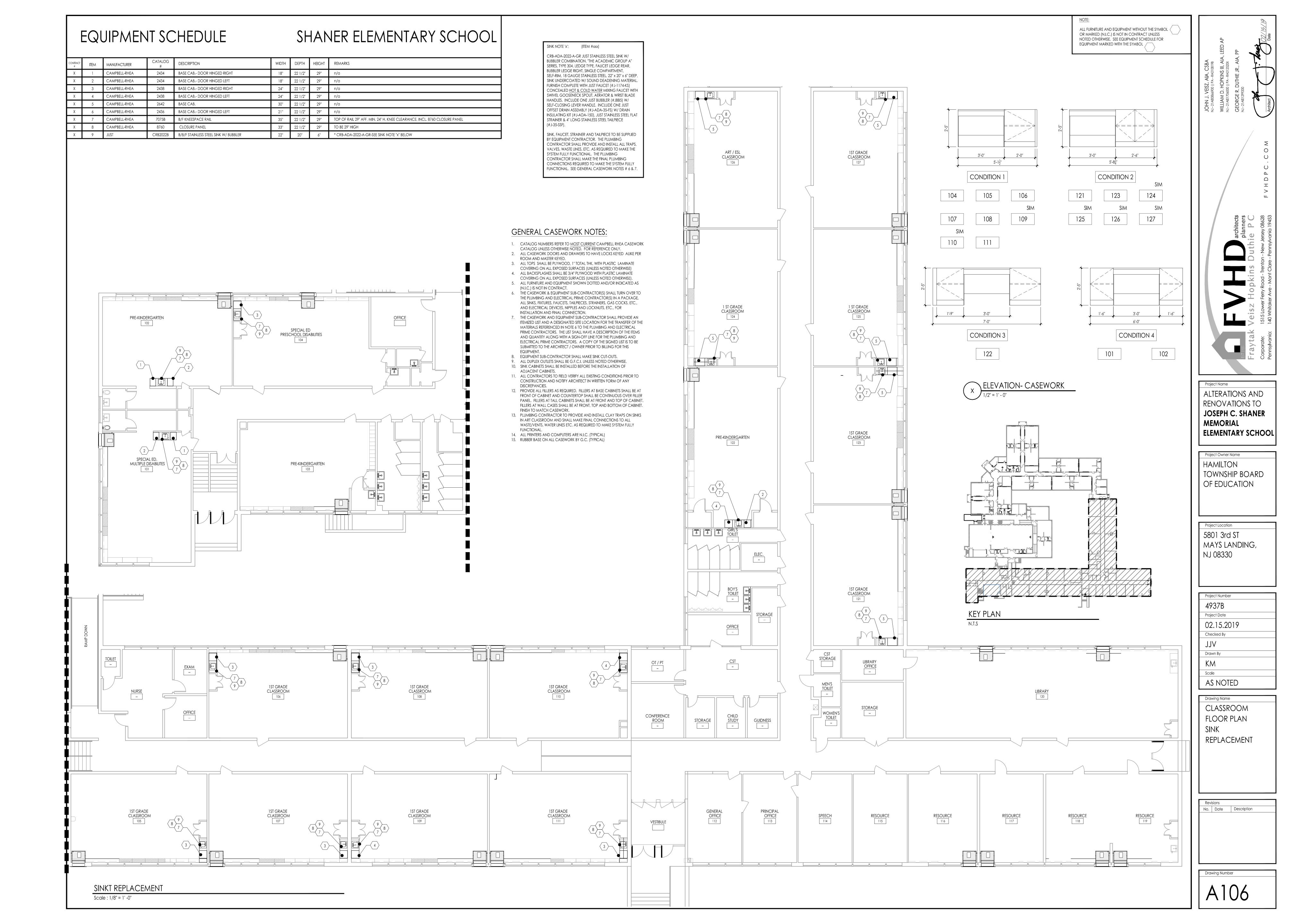
OF EDUCATION

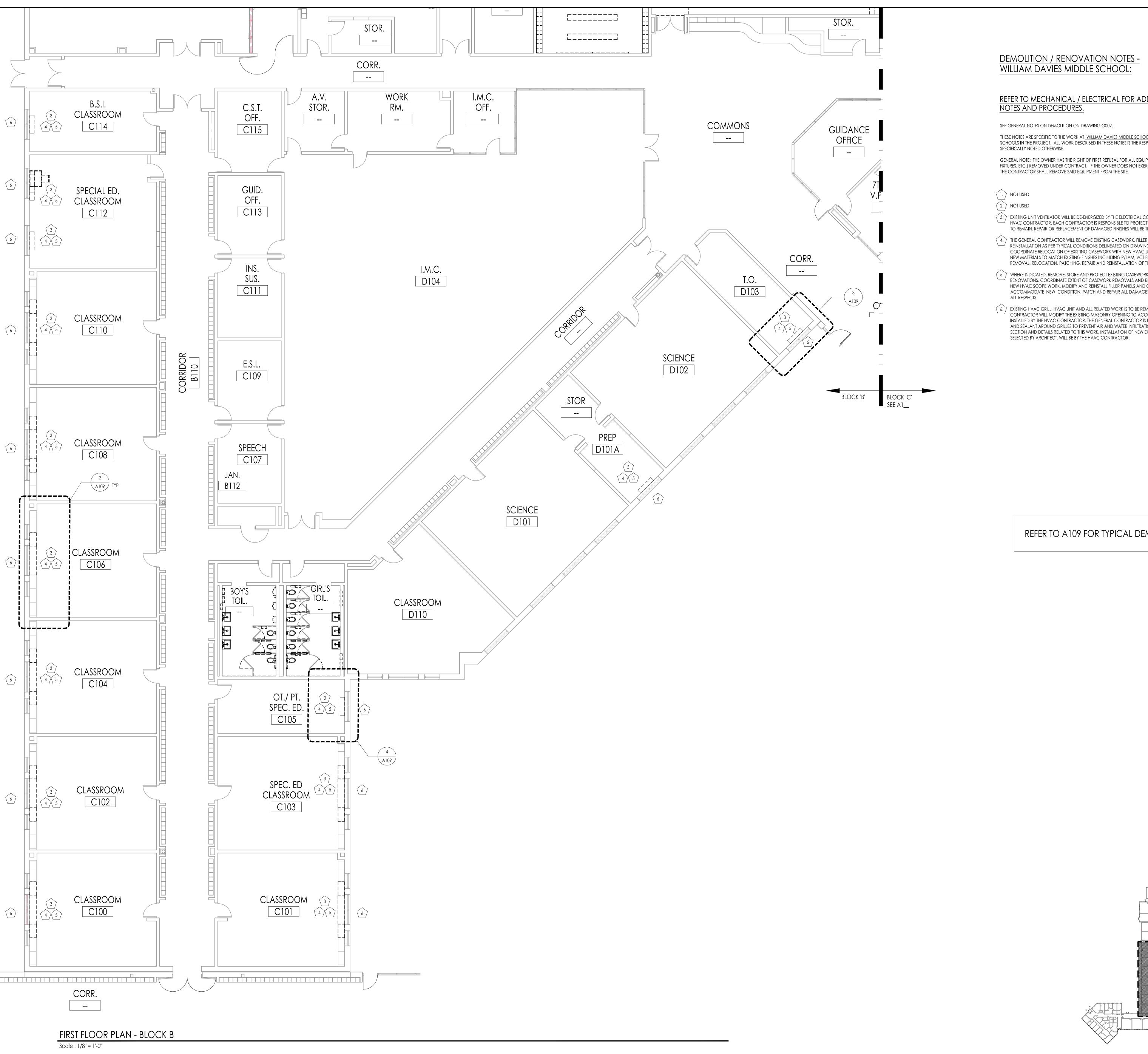
Project Number 4937B Project Date 02.15.2019 Checked By Drawn By Scale AS NOTED

> Drawing Name ALTERNATE CANOPY **ROOF PLAN** NOTES AND DETAILS

No. Date Description







REFER TO MECHANICAL / ELECTRICAL FOR ADDITIONAL DEMO / CONSTRUCTION NOTES AND PROCEDURES.

THESE NOTES ARE SPECIFIC TO THE WORK AT WILLIAM DAVIES MIDDLE SCHOOL AND SHALL NOT BE APPLIED TO WORK AT OTHER SCHOOLS IN THE PROJECT. ALL WORK DESCRIBED IN THESE NOTES IS THE RESPONSIBILITY OF THE GENERAL PRIME CONTRACTOR UNLESS

GENERAL NOTE: THE OWNER HAS THE RIGHT OF FIRST REFUSAL FOR ALL EQUIPMENT AND FIXTURES (CABINETS, SHELVING, PLUMBING FIXTURES, ETC.) REMOVED UNDER CONTRACT. IF THE OWNER DOES NOT EXERCISE THIS RIGHT FOR AN INDIVIDUAL PIECE OF EQUIPMENT,

- (3.) EXISTING UNIT VENTILATOR WILL BE DE-ENERGIZED BY THE ELECTRICAL CONTRACTOR, DISCONNECTED AND REMOVED BY THE HVAC CONTRACTOR. EACH CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING ADJACENT CONSTRUCTION AND FINISHES TO REMAIN. REPAIR OR REPLACEMENT OF DAMAGED FINISHES WILL BE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR.
- THE GENERAL CONTRACTOR WILL REMOVE EXISTING CASEWORK, FILLER PANELS AND COMPONENTS, STORE AND PROTECT FOR REINSTALLATION AS PER TYPICAL CONDITIONS DELINEATED ON DRAWINGS TO ACCOMMODATE HVAC EQUIPMENT RENOVATIONS. COORDINATE RELOCATION OF EXISTING CASEWORK WITH NEW HVAC UNIT; ALL EXPOSED SURFACES ARE TO BE FINISHED WITH NEW MATERIALS TO MATCH EXISTING FINISHES INCLUDING P/LAM, VCT FLOOR AND PAINT. ALL WORK INCLUDING SELECTIVE REMOVAL, RELOCATION, PATCHING, REPAIR AND REINSTALLATION OF THE CASEWORK IS BY THE GENERAL CONTRACTOR.
- (5.) Where Indicated, remove, store and protect existing casework top , casework and fillers to accommodate RENOVATIONS. COORDINATE EXTENT OF CASEWORK REMOVALS AND RELOCATIONS / REINSTALLATIONS WITH REQUIREMENTS OF NEW HVAC SCOPE WORK, MODIFY AND REINSTALL FILLER PANELS AND COUNTER TOPS FILLER INCLUDING NEW END PANELS TO ACCOMMODATE NEW CONDITION. PATCH AND REPAIR ALL DAMAGES BY REMOVAL AND INSTALLATION TO MATCH EXISTING IN
- 6. EXISTING HVAC GRILL, HVAC UNIT AND ALL RELATED WORK IS TO BE REMOVED BY THE HVAC CONTRACTOR. THE GENERAL CONTRACTOR WILL MODIFY THE EXISTING MASONRY OPENING TO ACCOMMODATE THE NEW LINTELS AND GRILL THAT IS TO BE INSTALLED BY THE HVAC CONTRACTOR. THE GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE INSULATION, BACKER RODS AND SEALANT AROUND GRILLES TO PREVENT AIR AND WATER INFILTRATION-TYPICAL.REFER TO DRAWING A 107 FOR TYPICAL SECTION AND DETAILS RELATED TO THIS WORK. INSTALLATION OF NEW EXTERIOR GRILL AND PERIMETER SEALANT IN COLOR

REFER TO A 109 FOR TYPICAL DEMOLITION FLOOR PLANS

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

> Project Number 4937C 02.15.2019 Checked By

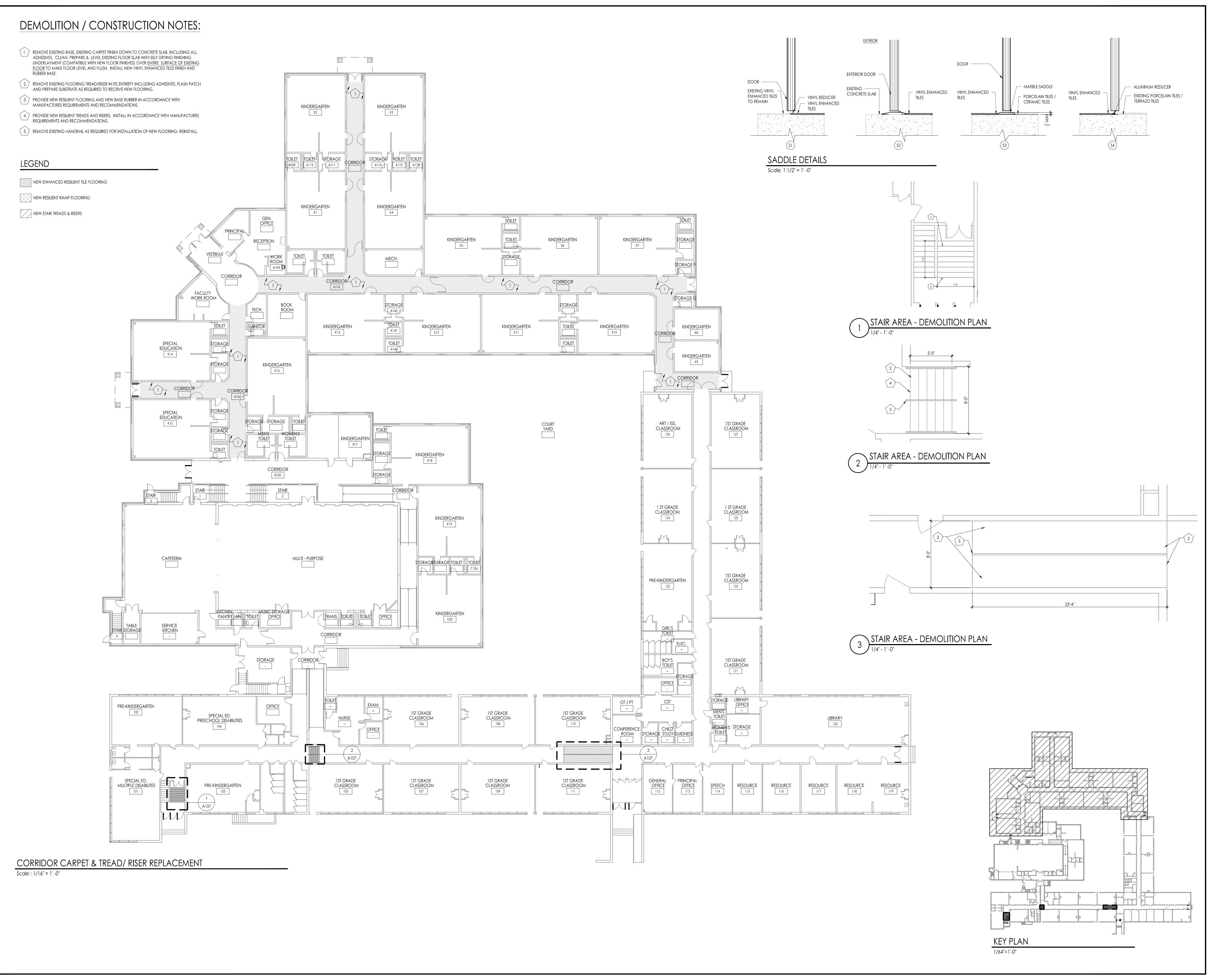
AS NOTED

Drawn By

PARTIAL FIRST FLOOR HVAC DEMOLITION PLAN

BLOCK B

No. Date Description



JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

ALTERATIONS AND

RENOVATIONS TO

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

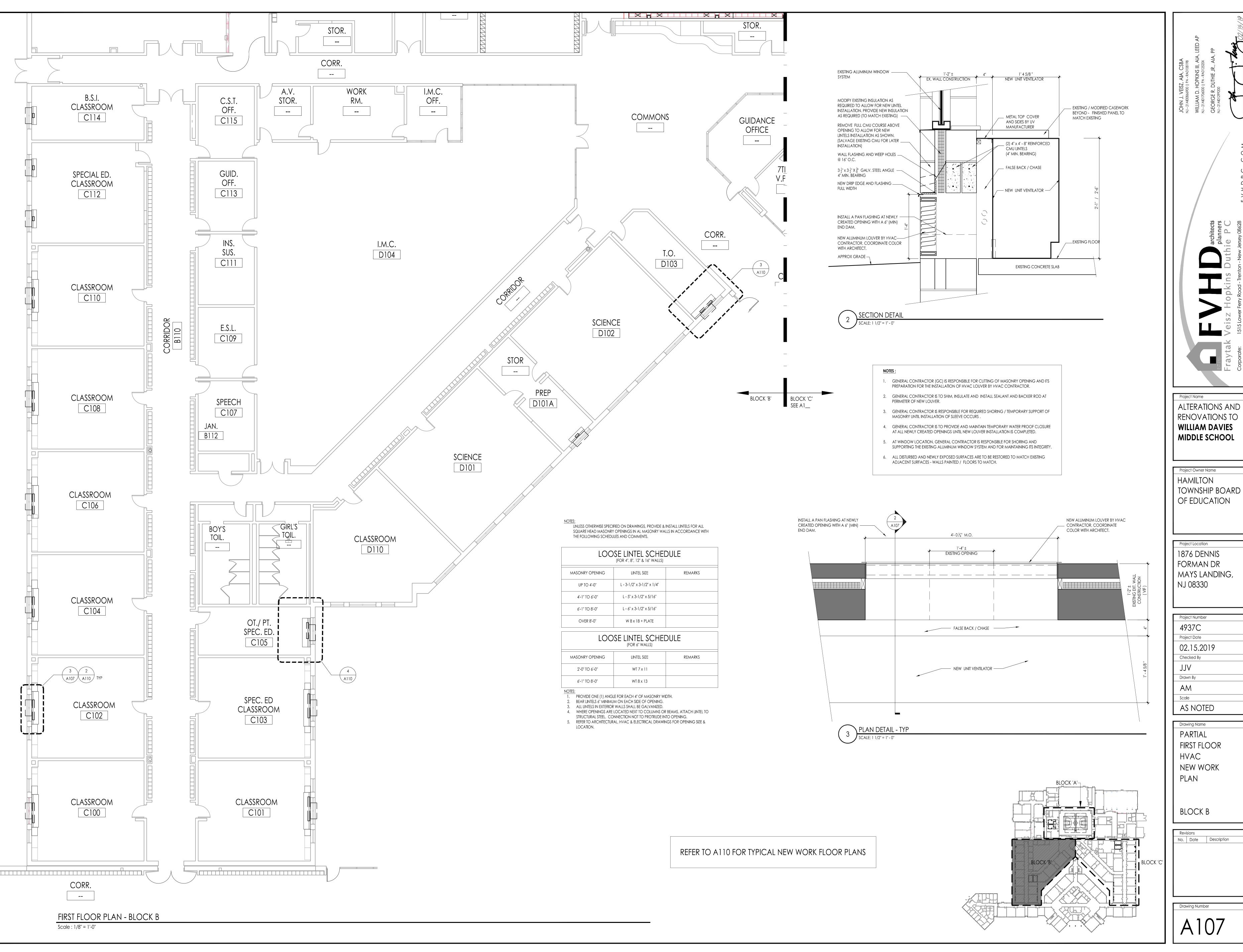
5801 3rd ST MAYS LANDING, NJ 08330

Project Number 4937B 02.15.2019

Drawn By AS NOTED

CORRIDOR CARPET & TREAD / RISER REPLACEMNT

No. Date Description



Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

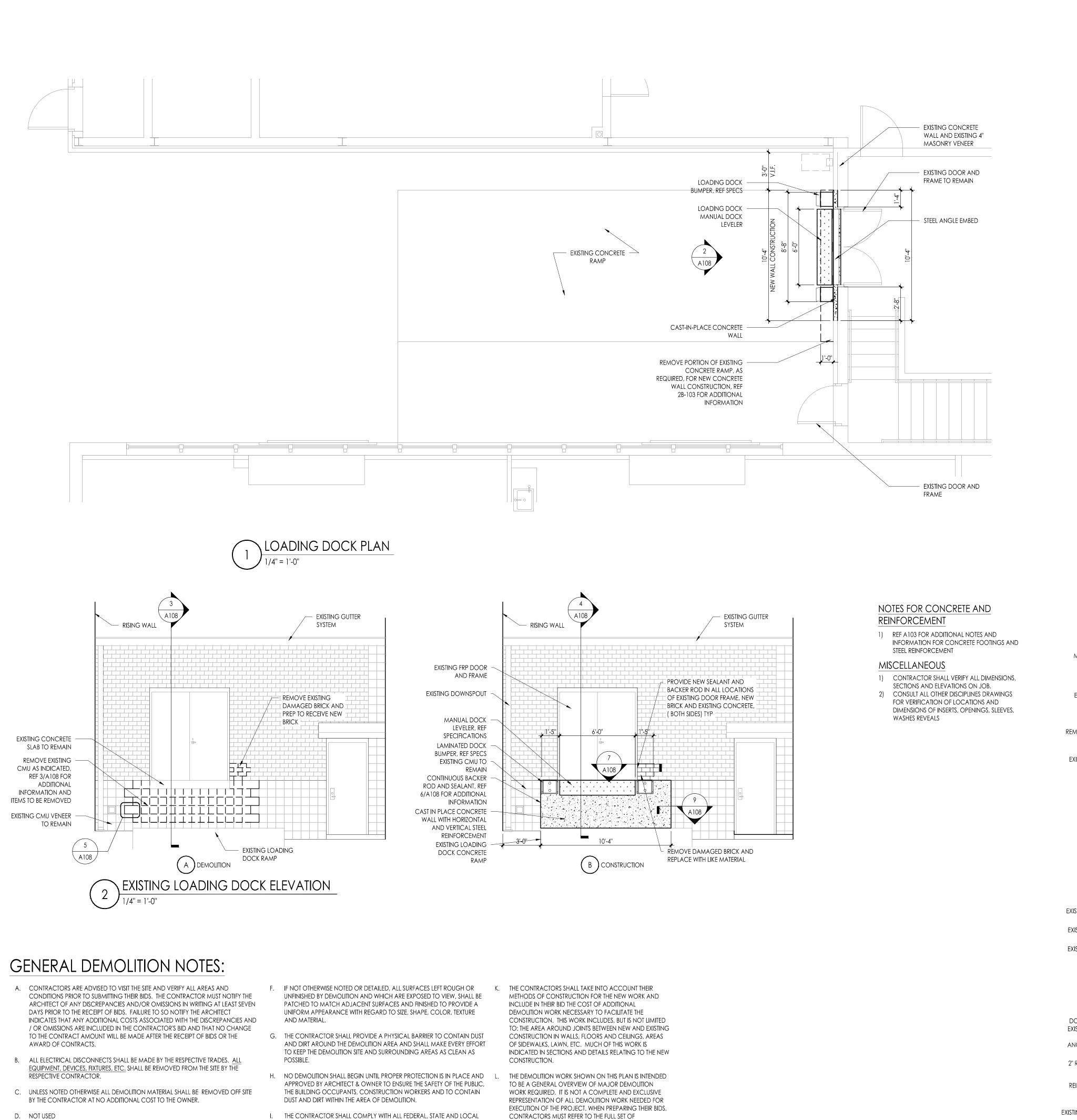
Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

Project Number 4937C Project Date 02.15.2019 Checked By Drawn By

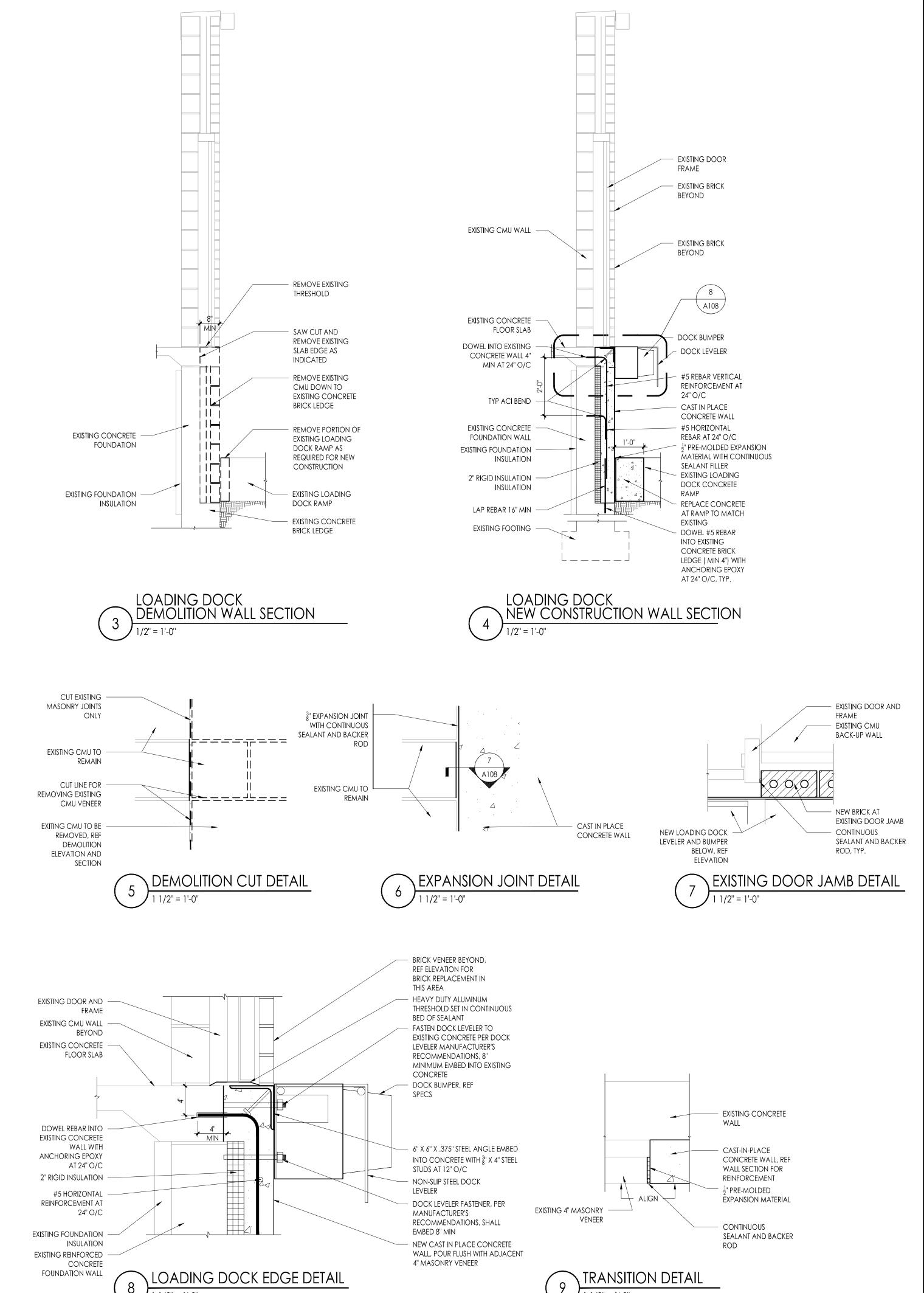
Drawing Name PARTIAL FIRST FLOOR HVAC NEW WORK

BLOCK B

No. Date Description



- E. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT PORTIONS OF THE EXISTING CONSTRUCTION WHICH ARE ADJACENT TO AREAS TO BE DEMOLISHED. MAKE ALL CUTS AS NEATLY AS POSSIBLE. REFER TO FLOOR PLAN DRAWINGS FOR FINISHING OF THESE AREAS.
- LAWS REGARDING THE REMOVAL AND DISPOSAL OF ALL MATERIALS &
 - J. J. THE CONTRACTOR SHALL PROVIDE PROTECTION AGAINST INCLEMENT WEATHER FOR THE EXISTING BUILDING DURING THE INTERIM PERIOD BETWEEN M. ALL PRIME CONTRACTORS ARE RESPONSIBLE FOR THEIR DEMOLITION AND THE COMPLETION OF NEW CONSTRUCTION.
- CONTRACTORS MUST REFER TO THE FULL SET OF CONSTRUCTION DOCUMENTS FOR VARIOUS MISCELLANEOUS ITEMS WHICH MUST BE REMOVED AND/OR RELOCATED AS PART OF THE WORK.
 - OWN CUTTING AND PATCHING SEE SPECIFICATION.



ALTERATIONS AND RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By Drawn By Scale AS NOTED

Drawing Name LOADING DOCK LEVELER SECTIONS **ELEVATIONS** AND DETAILS

No. Date Description



Scale: 1/8" = 1'-0"

EXISTING CEILING MOUNTED WIFI HUB TO REMAIN

EXISTING CEILING MOUNTED EXIT SIGN TO REMAIN

Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

ALTERATIONS AND

RENOVATIONS TO

WILLIAM DAVIES

MIDDLE SCHOOL

Project Owner Name

OF EDUCATION

TOWNSHIP BOARD

HAMILTON

Project Number

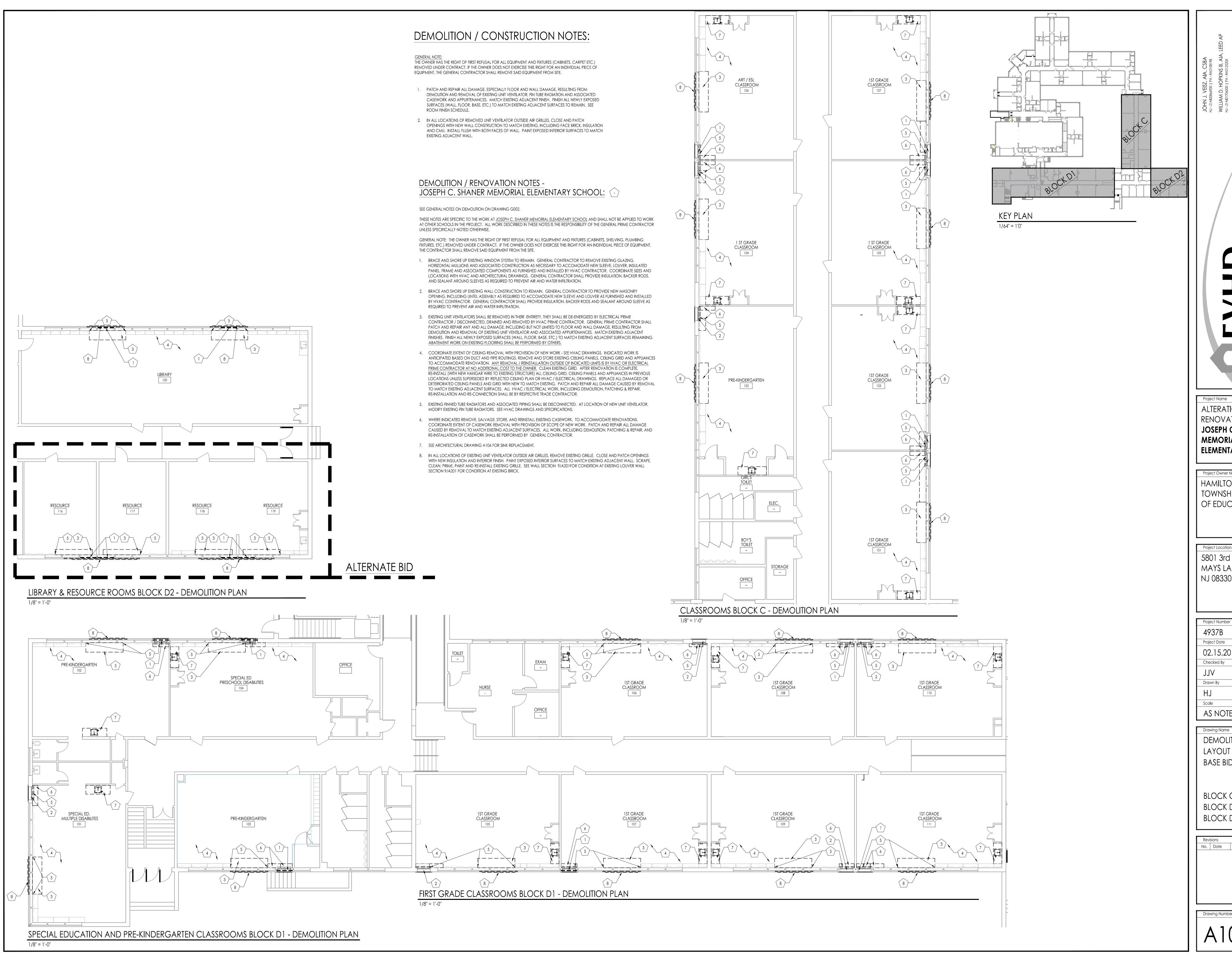
Project Date 02.15.2019 Checked By Drawn By

AS NOTED

Drawing Name PARTIAL FIRST FLOOR REFLECTED CEILING PLAN

BLOCK B

No. Date Description



ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER **MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

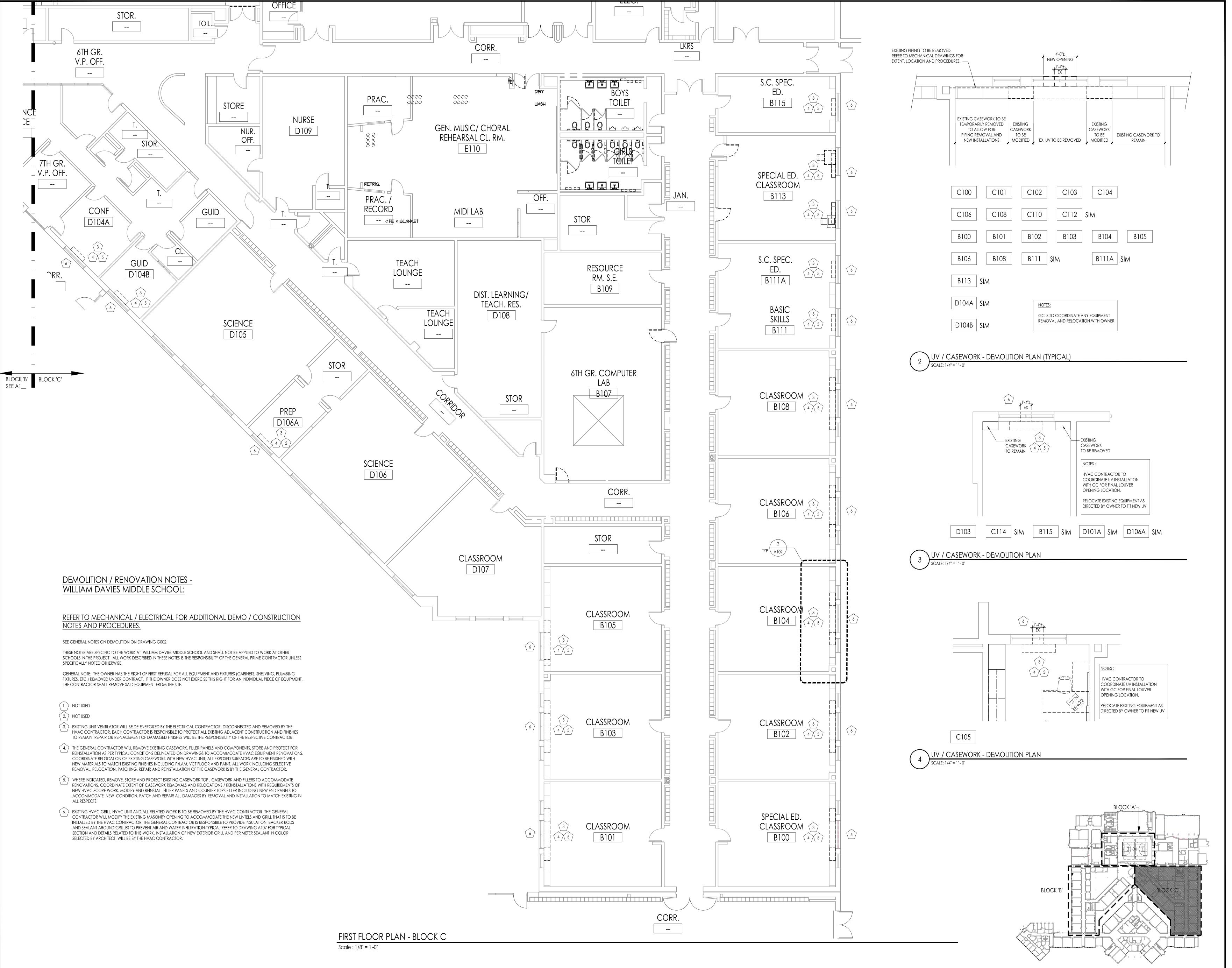
Project Number Project Date 02.15.2019 Checked By

AS NOTED

DEMOLITION PLAN LAYOUT & NOTES **BASE BID**

BLOCK C BLOCK D1 BLOCK D2

No. Date Description



JOHN J. VEISZ, AIA, CSBA
NJ-21A100866900 | PA-RA010819B
WILLIAM D. HOPKINS III, AIA, LEED AP
NJ-21A101706000 | PA-RA012520X
GEORGE R. DUTHIE JR., AIA, PP
NJ-21A101299200

architects
planners

ytak Veisz Hopkins Duthie P C

orate: 1515 Lower Ferry Road - Trenton - New Jersey 08628

F V H
sylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR
MAYS LANDING,
NJ 08330

Project Number

4937C

Project Date

02.15.2019

Checked By

JJV

Scale
AS NOTED

Drawing Name

Drawn By

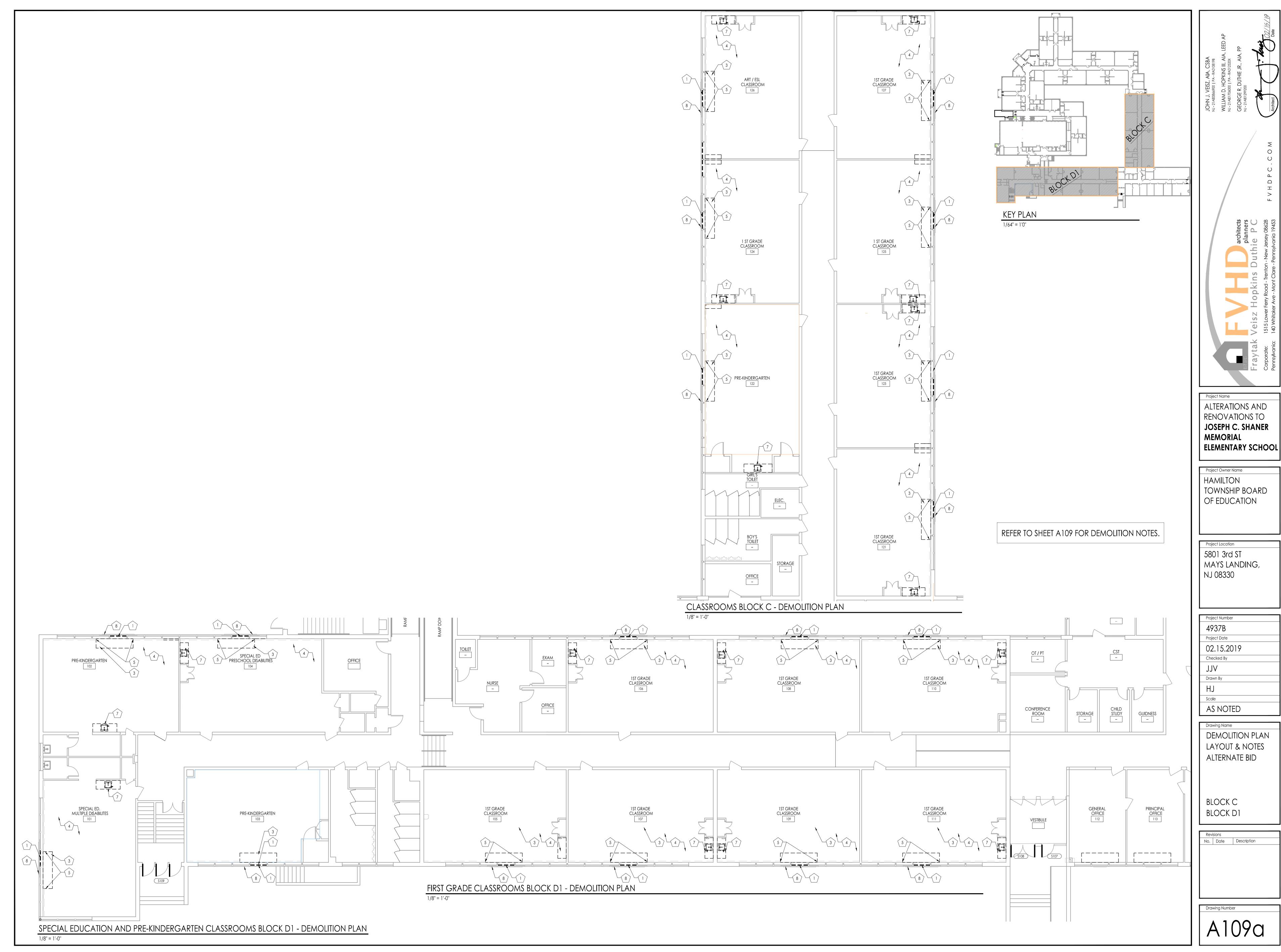
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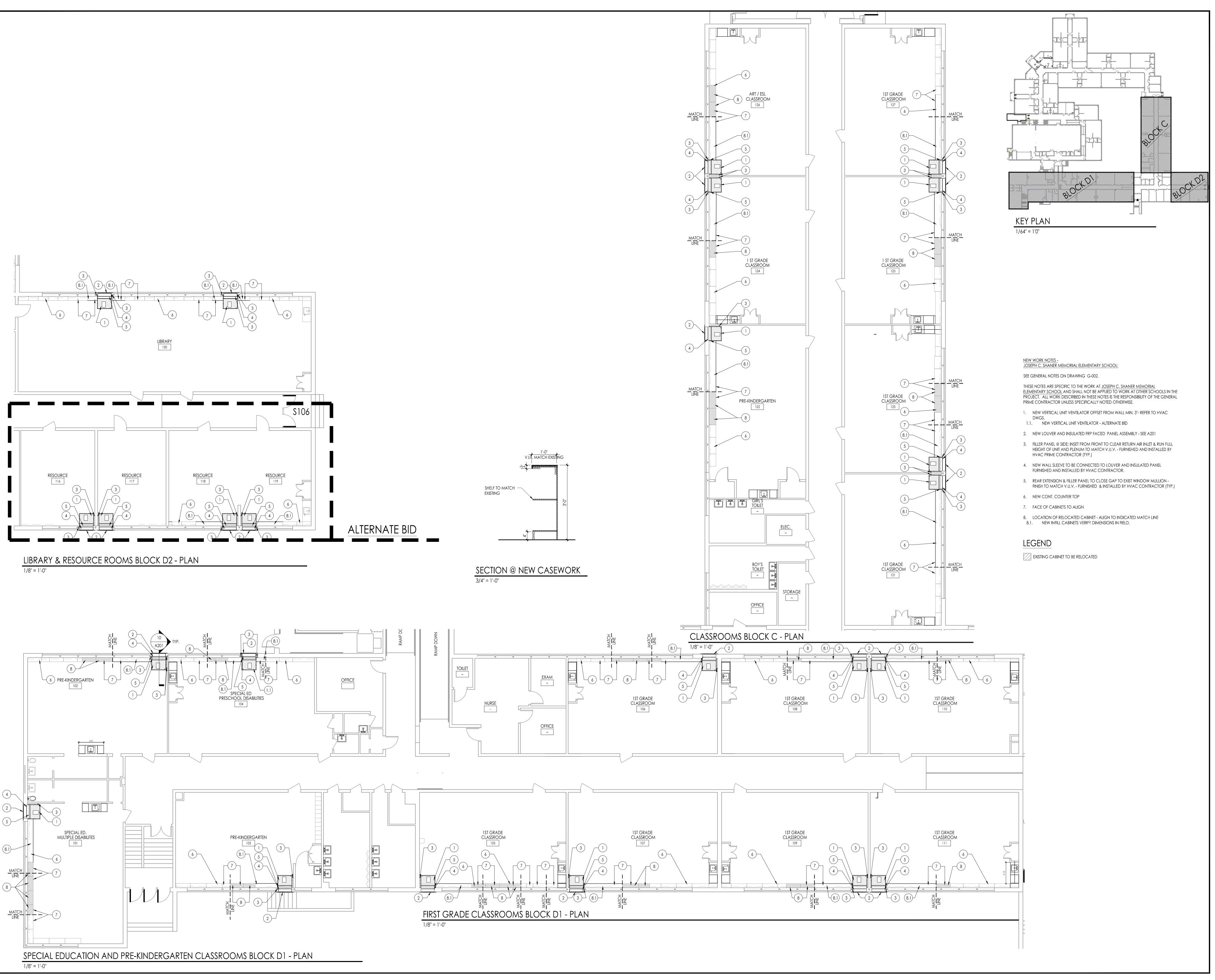
PARTIAL
FIRST FLOOR
HVAC
DEMOLITION
PLAN

BLOCK C

Revisions

No. Date Description





JOHN J. VEISZ, AIA, CSBA

NJ-21AI00866900 | PA-RA010819B

WILLIAM D. HOPKINS III, AIA, LEED AP

NJ-21AI01706000 | PA-RA012520X

GEORGE R. DUTHIE JR., AIA, PP

NJ-21AI01299200

ak Veisz Hopkins Duthie P C

1515 Lower Ferry Road - Trenton - New Jersey 08628

F V H D P or id: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

Project Name

ALTERATIONS AND
RENOVATIONS TO
JOSEPH C. SHANER
MEMORIAL
ELEMENTARY SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location
5801 3rd ST
MAYS LANDING,
NJ 08330

Project Number

4937B

Project Date

02.15.2019

Checked By

JJV

Drawn By

HJ

AS NOTED

Drawing Name

FLOOR PLAN

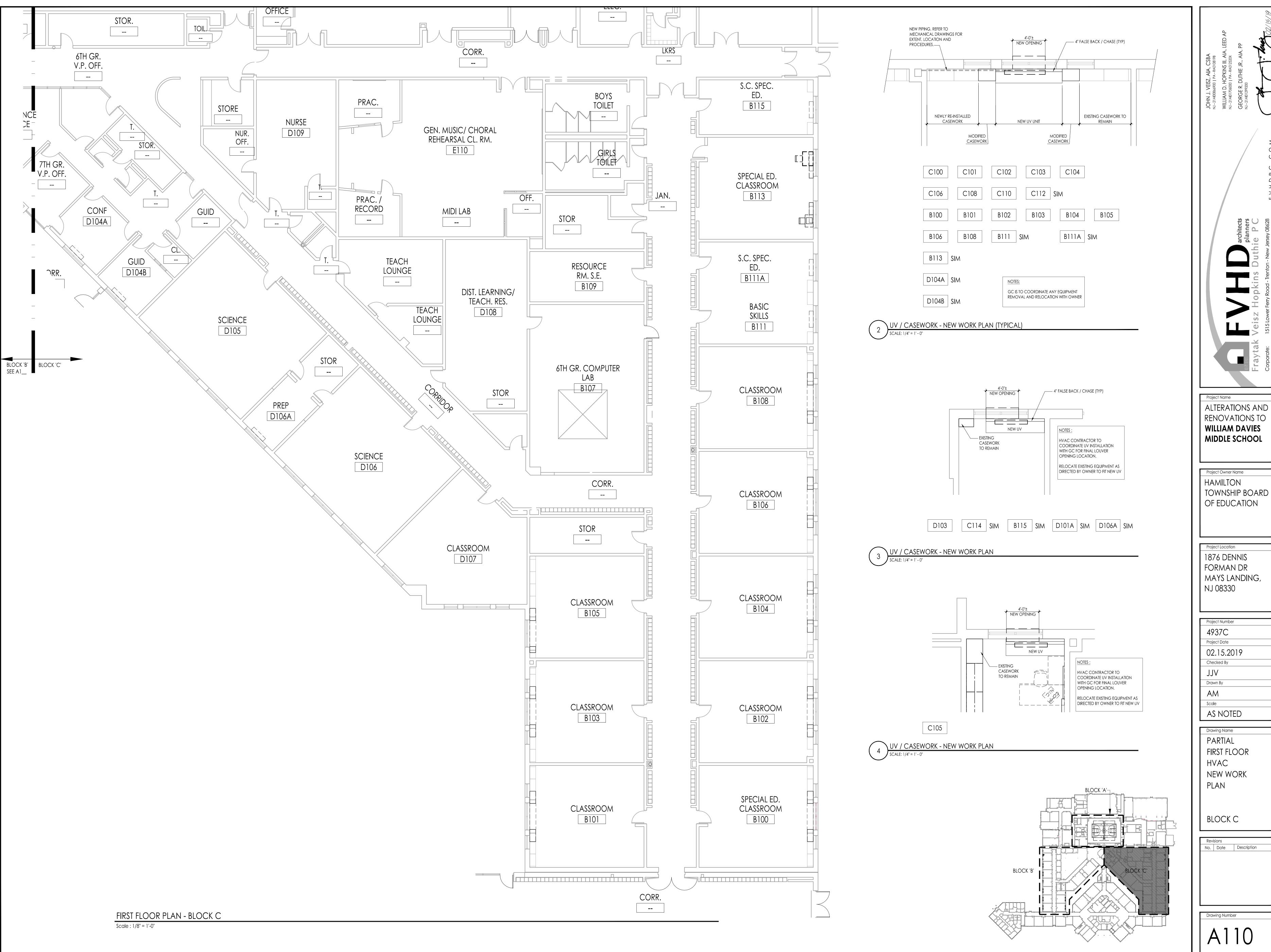
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FLOOR PLAN LAYOUT & NOTES BASE BID

BLOCK C BLOCK D2 BLOCK D2

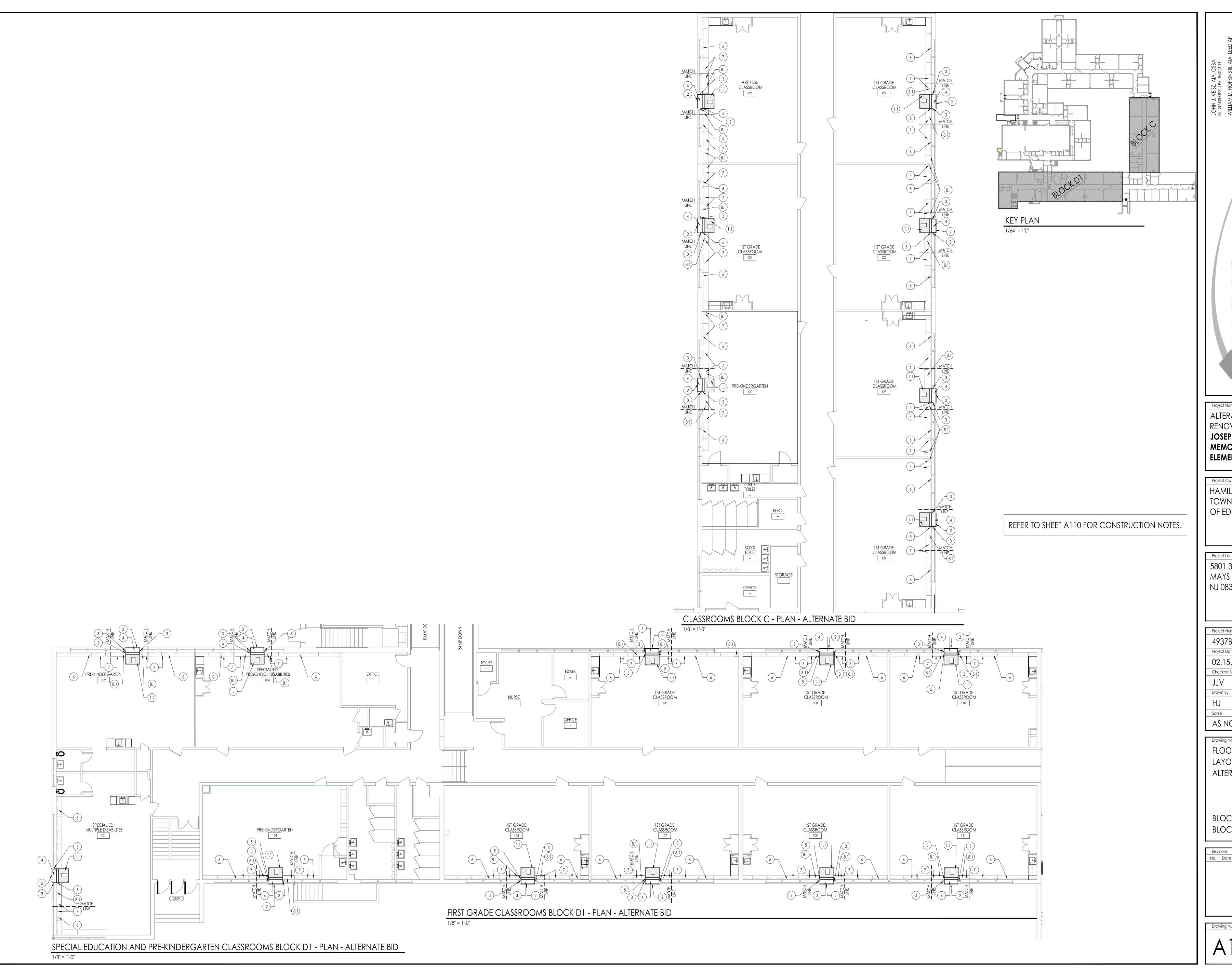
Revisions

No. Date Description



BLOCK C

Revisions
No. Date Description



ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL | ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By

AS NOTED

FLOOR PLAN LAYOUT & NOTES ALTERNATE BID

BLOCK C BLOCK D1

No. Date Description

A110a



JOHN J. VEISZ, AIA, CSBA
NJ-21AI00866900 I PA-RA0108198
WILLIAM D. HOPKINS III, AIA, LEED AP
NJ-21AI01706000 I PA-RA012520X
GEORGE R. DUTHIE JR., AIA, PP
NJ-21AI01299200

The planners planners planners list Veisz Hopkins Duthie P C list lower Ferry Road - Trenton - New Jersey 08628 F V H D P C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR
MAYS LANDING,
NJ 08330

Project Number

4937C

Project Date

02.15.2019

Checked By

JJV

Drawn By

KM

Scale

PARTIAL
FIRST FLOOR
REFLECTED
CEILING PLAN

AS NOTED

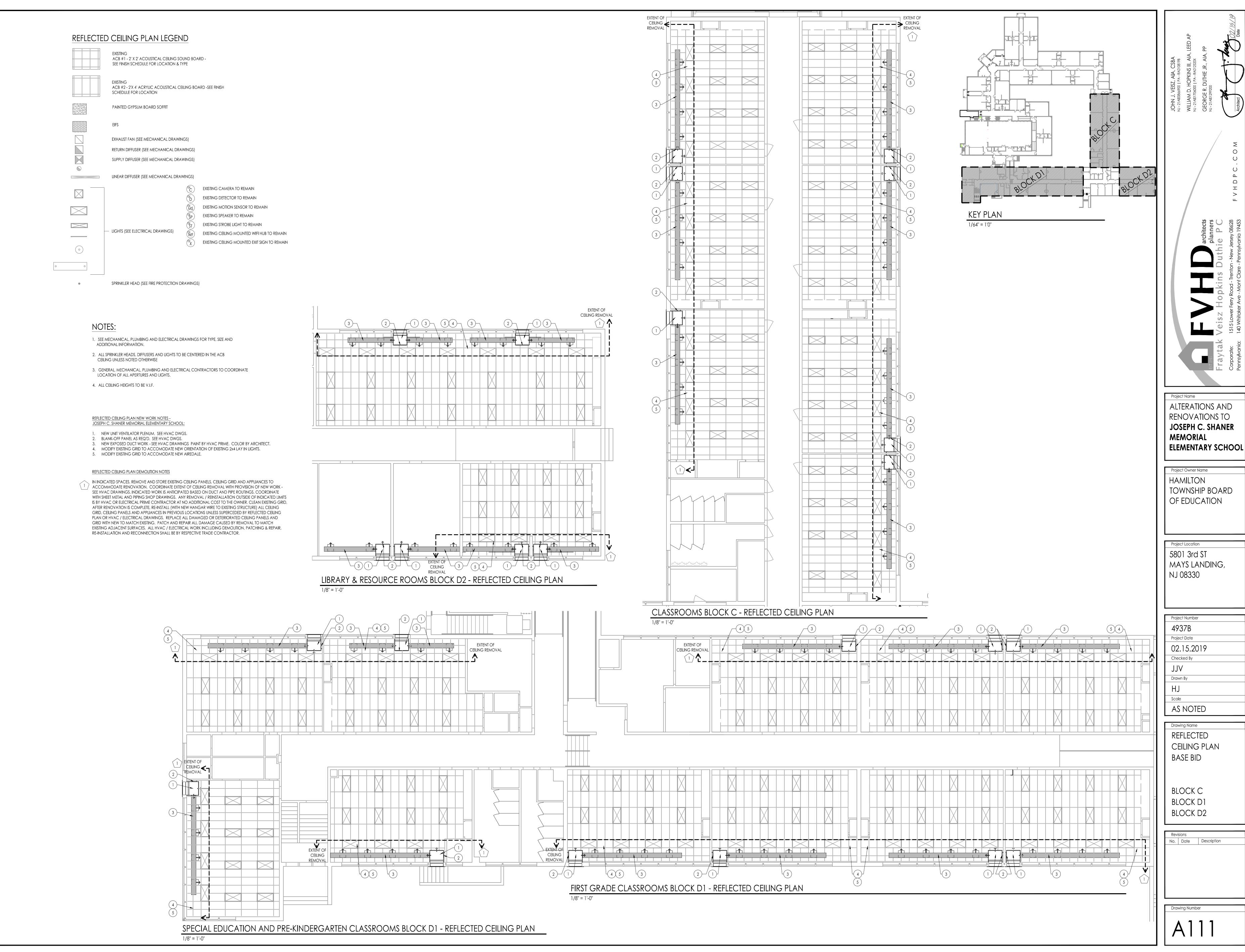
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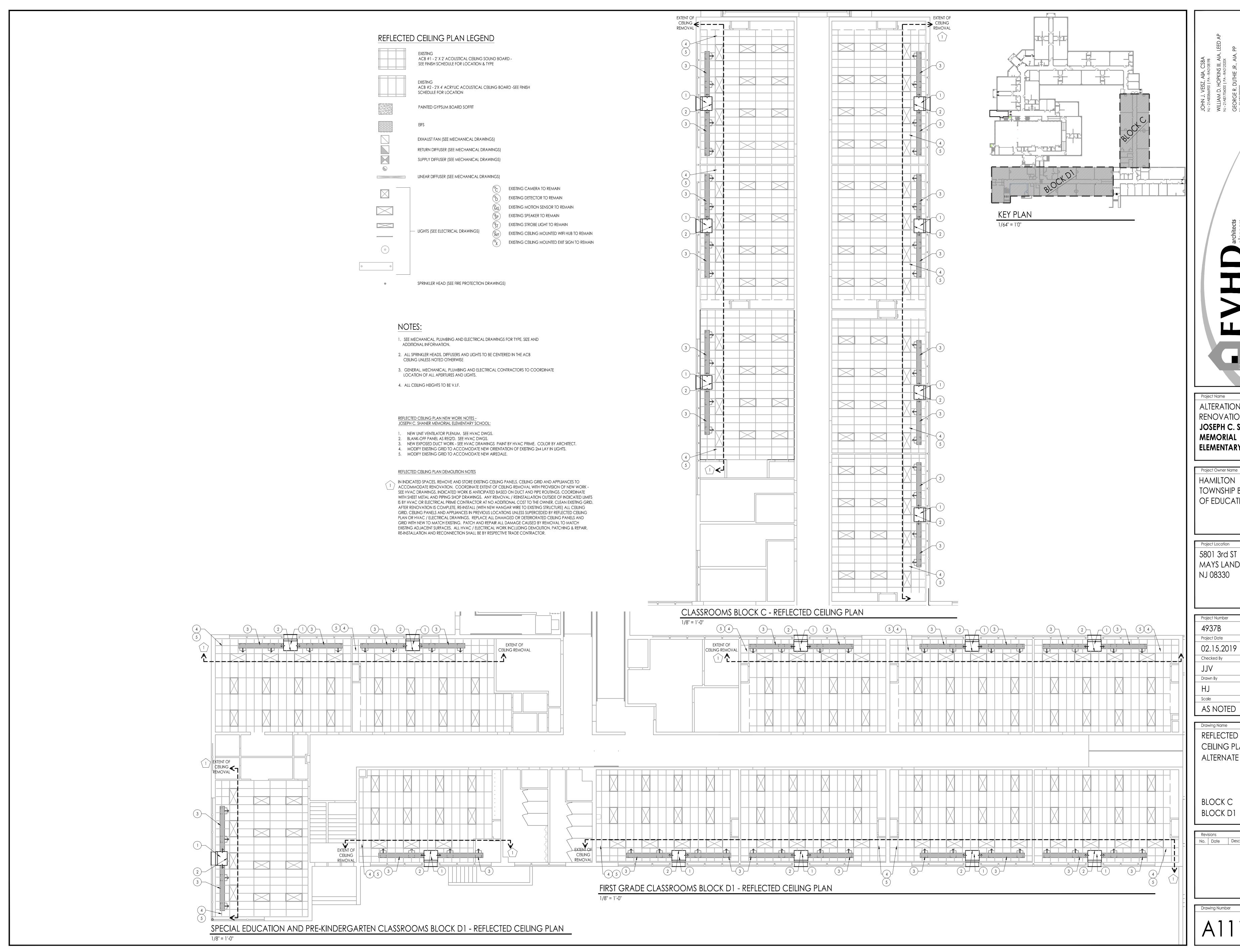
Revisions

No. Date Description

Drawing Number

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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

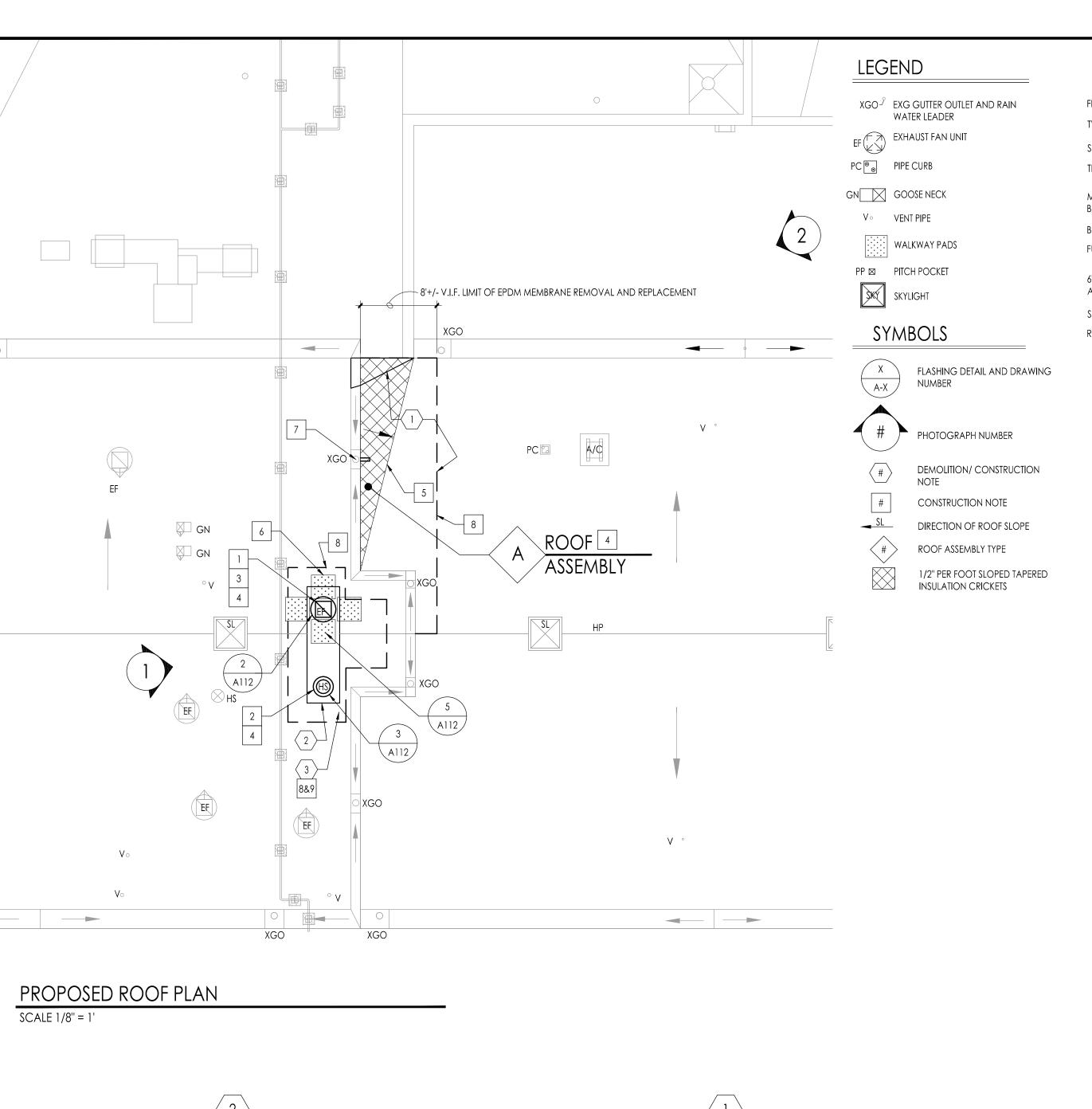
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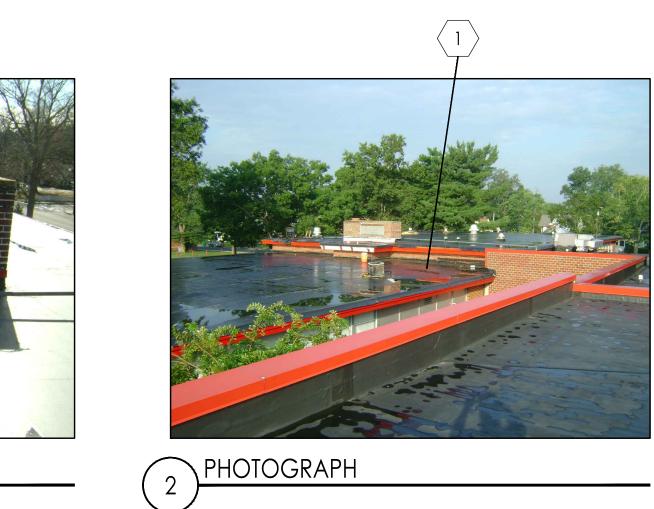
02.15.2019

CEILING PLAN ALTERNATE BID

BLOCK C

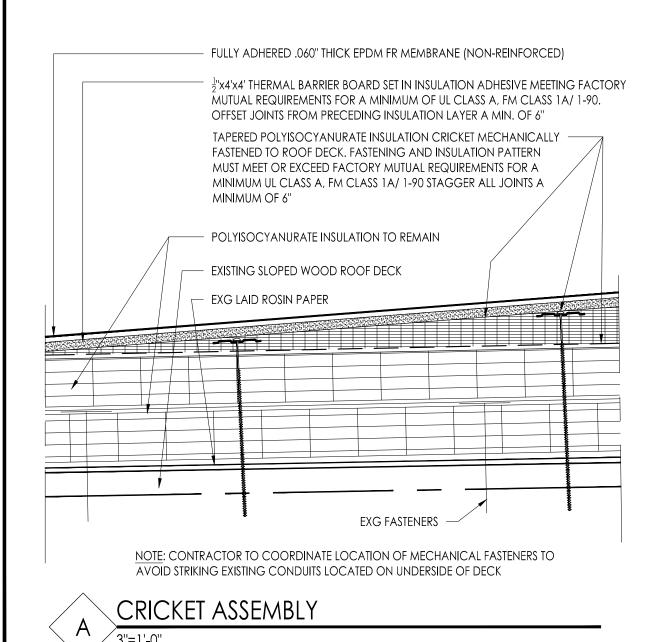
No. Date Description

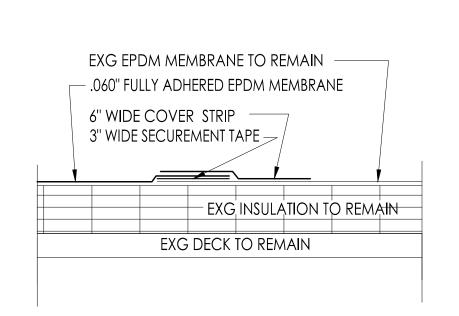




NOTE: FOR INSULATION ADHESIVE BEAD SPACING SEE DETAIL 6 THIS SHEET

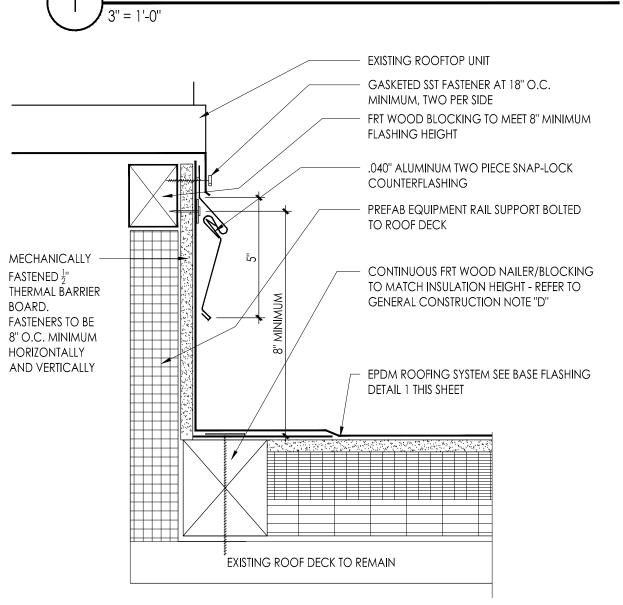
PHOTOGRAPH



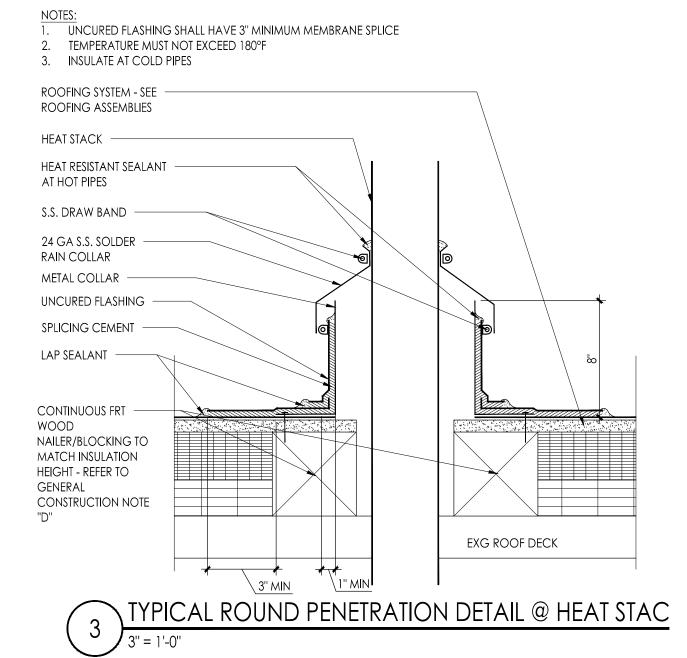


TYPICAL SPLICE OF NEW ROOF MEMBRANE INTO YEXG ROOF MEMBRANE

FLASHING SUBSTRATE - WALL OR CURB TWO PIECE METAL COUNTERFLASHING SEALANT ---TERMINATION BAR FASTENED AT 6" O.C. MECHANICALLY FASTENED $\frac{1}{2}$ " THERMAL BARRIER BOARD BONDING ADHESIVE -FULLY ADHERE .060" EPDM MEMBRANE 6" WIDE REINFORCES SECUREMENT STRIP FASTENED — AT 6" O.C. W/ FASTENER THROUGH PLATE SPLICE ADHESIVE ROOFING SYSTEM EXISTING ROOF DECK TO REMAIN TYPICAL BASE FLASHING DETAII







WALKWAYS MUST NOT IMPEDE THE FREE FLOW OF WATER TO THE DRAINAGE POINTS 30" X 30" WALKWAY PADS SET IN SPLICING CEMENT W/ 3" MAX. SPACING - EPDM MEMBRANE



GENERAL DEMOLITION NOTES:

- A. THE ROOFING CONTRACTOR SHALL VERIFY THE EXACT LOCATION, DIMENSION, CONDITION AND QUANTITY OF ALL ROOFTOP EQUIPMENT AND APPURTENANCES WHICH INCLUDES, BUT ARE NOT LIMITED TO: EXHAUST FANS, VENT PIPES, DRAINS, HATCHES, FLUE PIPES, HOT STACKS, HVAC EQUIPMENT, CURBS, BASE FLASHING AND OTHER PENETRATIONS AND WORK ASSOCIATED WITH THIS ROOF PROJECT. INCORPORATE SAME IN THE ROOF INSULATION SHOP DRAWING SUBMITTAL.
- B. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM DEMOLITION CAREFULLY CAUSING NO DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. ANY DAMAGES MUST BE REPAIRED AND OR REPLACED BY THE ROOFING CONTRACTOR TO THE OWNER'S AND ARCHITECTS SATISFACTION AND AT NO ADDITIONAL COST TO THE CONTRACT PRICE. PRIOR TO THE COMMENCEMENT OF WORK, THE ROOFING CONTRACTOR IS RESPONSIBLE TO INSPECT AND PHOTOGRAPH EXISTING CONDITIONS WHICH COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM DEMOLITION AND
- C. FOR PURPOSES OF THIS PROJECT, REMOVE SHALL MEAN REMOVE AND DISPOSE OF SAME OFF SITE IN AN APPROVED AND LEGAL MANNER
- D. DETAILS REFERENCED IN THE PHOTOGRAPHS AND ON THESE DRAWINGS ARE TYPICAL. PHOTOGRAPHS ARE INTENDED TO SHOW TYPICAL EXISTING CONDITIONS AND ARE NOT INTENDED TO LIMIT SCOPE. THE ROOFING CONTRACTOR SHALL VERIFY THE TOTAL NUMBER AND EXACT LOCATION OF CONDITIONS IN THE FIELD AND PERFORM WORK IN ACCORDANCE WITH THE DETAILS REFERENCED AND/OR THOSE WHICH ARE SIMILAR.
- E. THE ROOFING CONTRACTOR SHALL COORDINATE ALL DUMPSTER STAGING AND TRUCK ROUTES WITH THE OWNER. THE ROOFING CONTRACTOR SHALL PROTECT ALL EXISTING PAVED AND PLANTED AREAS. THE ROOFING CONTRACTOR SHALL REPAIR ANY PAVED OR PLANTED AREAS TO THE SATISFACTION OF THE OWNER. THE REPAIRS ARE TO INCLUDE, BUT ARE NOT LIMITED TO, REPAVING OF ASPHALT DRIVEWAYS AND PARKING LOTS, REGRADING AND SEEDING OF LAWN AND PLAYGROUND AREAS AND REPLACING DAMAGED PLANTS, SHRUBS, ETC. ALL REPAIRS AND RESTORATIONS SHALL BE DONE AT NO ADDITIONAL COST TO THE CONTRACT PRICE.
- F. THE BUILDING IS OCCUPIED. THE ROOFING CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF ALL PERSONS AT THE PROJECT SITE.

DEMOLITION NOTES:

- REMOVE EXISTING CRICKET AND ROOFING MEMBRANE IN THIS AREA.
- DEMOLISH AND REMOVE EXISTING CHIMNEY BY GENERAL CONTRACTOR. ROOFING CONTRACTOR TO PROVIDE AND MAINTAIN WATERTIGHT CONDITION AFTER CHIMNEY IS REMOVED.
- \langle 3 \rangle remove existing roof in its entirety to the top of the existing roof deck which is to remain.

GENERAL CONSTRUCTION NOTES

- A. PROVIDE ROOFING MATERIALS THAT COMPLY WITH A CLASS "A" SYSTEM.
- B. NEW IMPOSED DEAD LOAD IS EQUAL TO OR LESS THAN EXISTING DEAD LOAD.
- C. ALL LOW SLOPED ROOF AREAS ARE MINIMUM OF $\frac{1}{4}$ " PER FOOT IN THE FIELD AND $\frac{1}{2}$ " PER FOOT AT THE CRICKETS. SLOPE OF CRICKET IS PERPENDICULAR TO CRICKET
- D. FRT WOOD BLOCKING SHOWN ON DRAWINGS IS DIAGRAMMATIC. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING CONSTRUCTION IN THICKNESS AND HEIGHT TO MATCH THICKNESS OF ROOF ASSEMBLY.
- E. THE ROOFING CONTRACTOR IS RESPONSIBLE FOR FLASHING ALL ROOF TOP PENETRATIONS, UNITS, AND CURBS ON THE ROOFS TO A WATERTIGHT CONDITION TO BE INCLUDED IN THE MANUFACTURER'S WARRANTY. REVIEW ALL DRAWINGS INCLUDED IN THIS SET FOR ROOFTOP PENETRATIONS. ALL ROOF TOP PENETRATIONS,
- UNITS, AND CURBS SHALL BE A MINIMUM OF 8" ABOVE THE ROOF SYSTE.M. F. HIGH POINTS INDICATED ON DRAWINGS ARE SHOWN FOR GUIDANCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR FINAL TAPERED INSULATION DESIGN. ANY REQUIRED ADJUSTMENTS MADE BY THE CONTRACTOR TO THE INDICATED DESIGN GUIDELINES ARE AT NO ADDITIONAL COST TO THE OWNER.
- G. UNLESS NOTED OTHERWISE ALL ROOFING, ACCESSORIES, MATERIALS, ETC. SHALL BE CONSIDERED NEW.
- H. CONTRACTOR SHALL MAKE NECESSARY TIE-INS AND ALTERATIONS TO EXISTING ROOF IN ACCORDANCE WITH ORIGINAL ROOF MANUFACTURERS REQUIREMENTS, SO AS TO MAINTAIN ORIGINAL WARRANTY ON EXISTING ROOF.
- I. CONTRACTOR SHALL AT ALL TIMES HAVE A FULL SET OF DRAWINGS AND SPECIFICATIONS ON ROOF TOP WHILE WORK IS IN PROGRESS
- J. CONTRACTOR IS RESPONSIBLE TO RECTIFY ANY PONDING WATER ON FINISHED ROOF SURFACE THAT REMAINS AFTER 48 HOURS AT NO ADDITIONAL COST.

CONSTRUCTION NOTES - EPDM

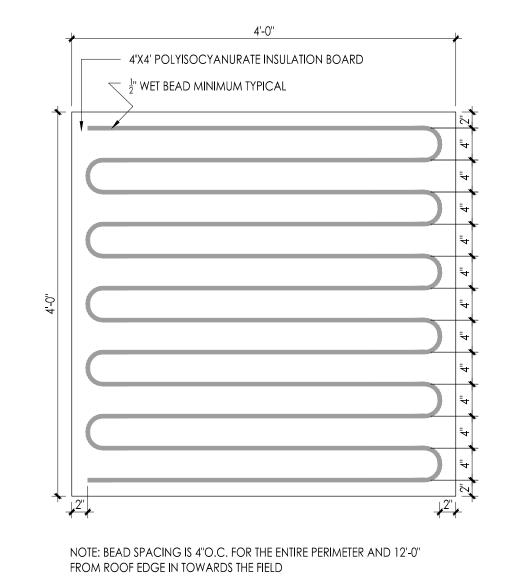
- ROOFTOP EQUIPMENT: RAISE CURBS ON FRT WOOD BLOCKING TO ACHIEVE THE MINIMUM 8" FLASHING HEIGHT REQUIRED. APPLY EPDM ROOFING MEMBRANE UP CURB USING SECUREMENT STRIP AT BASE OF CURB AND FASTEN ALONG TOP EDGE. INSTALL TWO-PIECE COUNTERFLASHING UP UNDER THE ROOFTOP UNIT'S COUNTERFLASHING WITH CONTINUOUS CORNERS SEE DETAIL 2 THIS SHEET.
- HEAT STACKS: INSTALL ROOF ANGLE FLANGE AND MEMBRANE FLASHING ON THE TOP SURFACE OF THE NEW ROOFING MEMBRANE SYSTEM. COVER TOP OF ROOF
 ANGLE FLANGE WITH LIMBRELLA SECURED IN PLACE WITH A STRAP CLAMP AND HEAT RESISTANT SEALANT SEE DETAIL 3 THIS SHEET. ANGLE FLANGE WITH UMBRELLA SECURED IN PLACE WITH A STRAP CLAMP AND HEAT RESISTANT SEALANT - SEE DETAIL 3 THIS SHEET.
- ALL CONDITIONS MEETING THE ROOFING PERPENDICULAR: INSTALL INSULATION AND SECUREMENT STRIP FASTERILD TO ROOF DEGLET THE BOOF OF THE SECUREMENT STRIP WITH EPDM MEMBRANE UP VERTICAL SURFACE. ADHERE MEMBRANE TO INSULATION AND VERTICAL SURFACE WITH BONDING ADHESIVE AND TO THE SECUREMENT STRIP WITH THE TOP EDGE OF THE MEMBRANE SECURE MEMBRANE ALONG THE TOP EDGE EPDM ALL CONDITIONS MEETING THE ROOFING PERPENDICULAR: INSTALL INSULATION AND SECUREMENT STRIP FASTENED TO ROOF DECK AT THE BASE OF THE WALL. RUN SPLICE ADHESIVE. APPLY WATERBLOCK BEHIND MEMBRANE JUST BELOW THE TOP EDGE OF THE MEMBRANE. SECURE MEMBRANE ALONG THE TOP EDGE EPDM THROUGH TERMINATION BAR 6" O.C. AND APPLY SEALANT. COVER ALL TERMINATION BARS WITH TWO-PIECE METAL COUNTERFLASHING SEE DETAIL 1 THIS SHEET.
- EXG ROOFS TO REMAIN ARE UNDER WARRANTY, INSTALLATION OF ROOFTOP EQUIPMENT IN THESE AREAS SHALL BE DONE IN ACCORDANCE WITH THE ROOFING MANUFACTURES REQUIREMENTS TO MAINTAIN SAID WARRANTY, TYPICAL.
- CONSTRUCT 1/2" PER SLOPE CRICKET W/ POLYISOCYANURATE INSULATION AND 1/2" THICK THERMAL BARRIER BOARD. FASTEN POLYISOCYANURATE INSULATION THROUGH EXISTING ROOF SYSTEM INTO WOOD DECK. THERMAL BARRIER BOARD SHALL BE ADHEARED TO POLYISOCYANURATE INSULATION - SEE ASSEMBLY "A" THIS SHEET.
- WALKWAY PADS INSTALL AROUND ALL ROOFTOP UNITS, AND ROOFTOP EQUIPMENT. MODIFY WALKWAYS AS REQUIRED SO THAT THE PAD DOES NOT IMPEDE THE FREE FLOW OF WATER TO THE DRAINAGE POINTS. SEE DETAIL 5 THIS SHEET.
- 7 EXG DOWNSPOUT SHORTEN AND MODIFY EXG DOWNSPOUT TO ACCOMMODATE INCREASED HEIGHT OF NEW CRICKET BELOW DOWNSPOUT. IF DOWNSPOUT CANNOT BE MODIFIED REPLACE W/ NEW TO MATCH EXG IN ALL RESPECTS AT NO ADDITIONAL COST TO OWNER.
- 8 NEW MEMBRANE TIE-IN INSTALL NEW EPDM MEMBRANE FLASHING AND SPLICE TO EPDM EXISTING MEMBRANE. TIE-IN AS PER MANUFACTURER'S REQUIREMENTS TO MAINTAIN EXG WARRANTY SEE DETAIL 4 THIS SHEET.
- 9 INSTALL ROOF INSULATION AND THERMAL BARRIER BOARD TO MATCH ADJACENT SLOPE, THICKNESS, R-VALUE AND SLOPE. INSTALL FULLY-ADHERED .060" EPDM MEMBRANE IN BONDING ADHESIVE. DO NOT WALK OR RUN EQUIPMENT UPON NEWLY APPLIED ROOFING PLIES UNTIL THE ADHESIVE HAS SET UP TO ELIMINATE THE

STAGING NOTES:

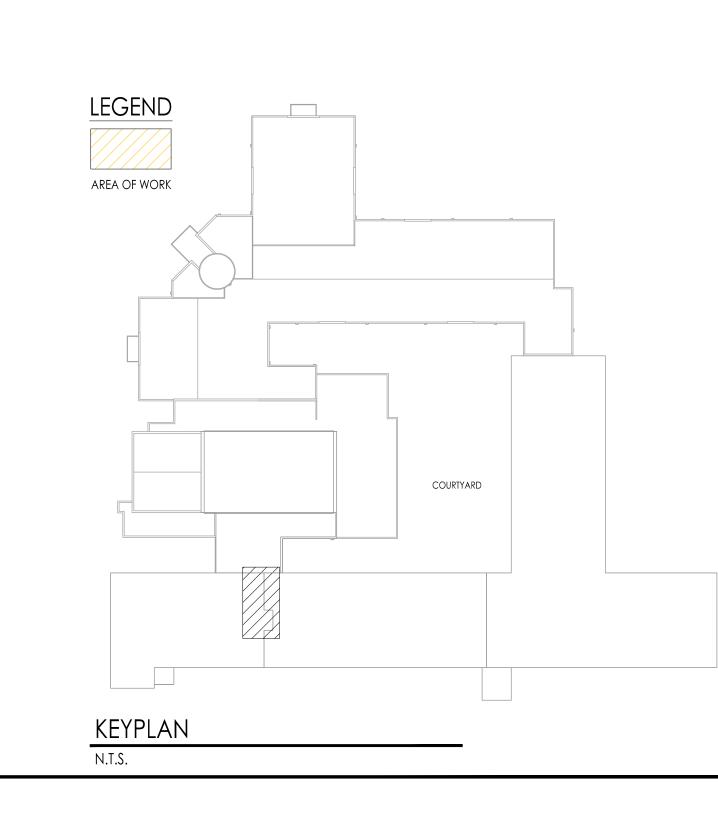
- 1. ROOF ACCESS THROUGH THE BUILDING IS NOT PERMITTED.
- 2. TEMPORARY TOILETS SHALL BE PROVIDED BY THE CONTRACTOR AND PLACEMENT COORDINATED WITH OWNER.

POTENTIAL FOR VOIDS. INSTALL NEW FLASHING AND METAL COUNTERFLASHING AT HEAT STACK AND ROOF CURB.

- 3. CONSTRUCTION SAFETY FENCING SHALL BE INSTALLED AROUND ALL STAGING AREAS.
- 4. THE CONTRACTOR IS TO CONTACT THE LOCAL MUNICIPALITY AND CONFIRM WORKING HOURS AND COMPLY WITH ALL NOISE ORDINANCE REQUIREMENTS. 5. PARKING, OF CONSTRUCTION VEHICLES, DUMPSTERS, AND EQUIPMENT IS NOT PERMITTED ON THE STREETS.
- 6. DUMPSTERS MUST BE EMPTIED AT THE END OF EACH WORK DAY.
- 7. NO ENTRANCES, EXITS OR DRIVEWAYS SHALL BE BLOCKED AT ANY TIME.
- 8. ALL STAGING AREAS MUST BE APPROVED IN ADVANCE BY THE OWNER. THE ROOFING CONTRACTOR MUST SUBMIT A STAGING PLAN AND HAVE THE PLAN APPROVED BY THE OWNER. IF CHANGES TO THE STAGING PLAN MUST BE MADE DURING THE PROJECT, THE ROOFING CONTRACTOR MUST RESUBMIT A REVISED PLAN TO THE OWNER AND OBTAIN WRITTEN APPROVAL
- 9. THE CONTRACTOR IS NOT PERMITTED TO USE THE ROOFS THAT ARE NOT IN CONTRACT IN ANY CAPACITY.
- 10. ALL LAWN AND PAVED AREAS DAMAGED OR DISTURBED IN ANY WAY SHALL BE CLEANED AND RESTORED TO PRE-CONSTRUCTION CONDITION AT THE CONCLUSION OF THE WORK.
- 11. NO STAGING IS PERMITTED ON THE SIDEWALKS.







ALTERATIONS AND RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

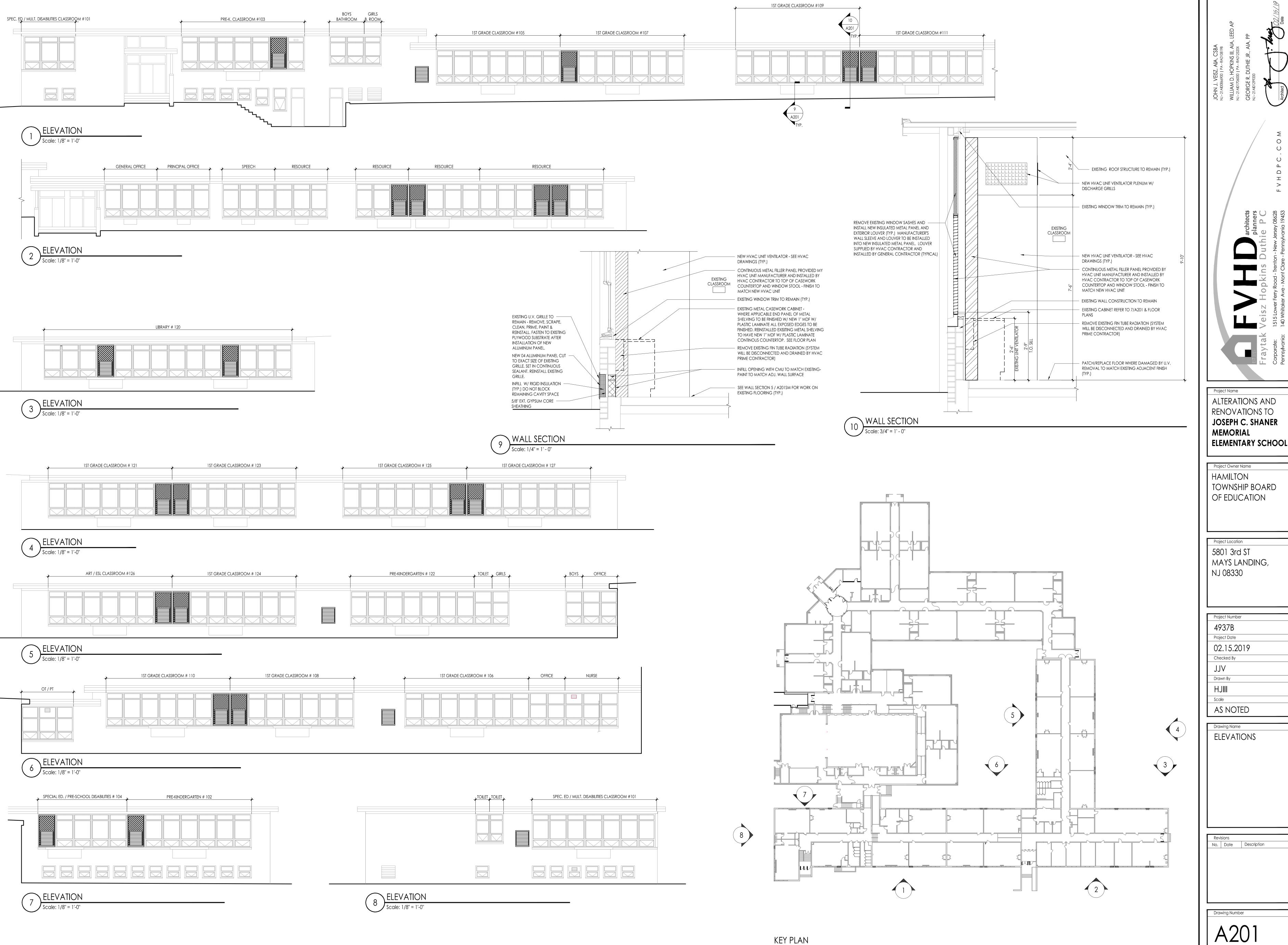
Project Number 4937B Project Date 02.15.2019

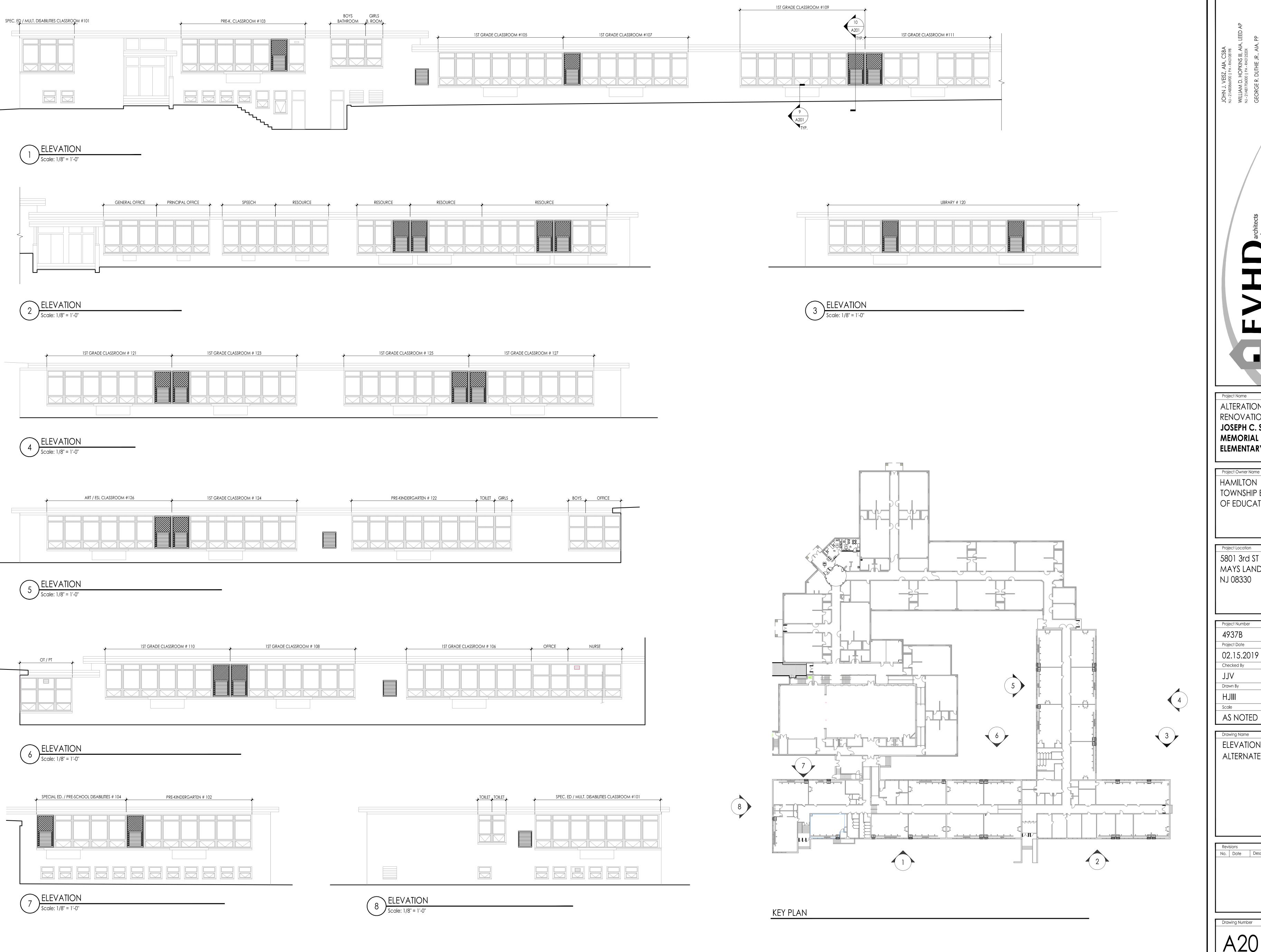
Checked By Drawn By

AS NOTED

Drawing Name PARTIAL ROOF PLAN, NOTES AND ROOFING DETAILS

No. Date Description





ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL | ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING, NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By Drawn By

ELEVATIONS ALTERNATE BID

No. Date Description

ADDITION / ALTERATIONS AND RENOVATIONS TO

JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

5801 3RD ST, MAYS LANDING, NJ 08330

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd, MAYS LANDING, NJ 08330



GILLAN & HARTMANN, INC

MEP ENGINEERS | MONT CLARE - PA

Addition / Alterations / Renovations at Joesph C. Shaner Memorial Elementary School FVHD 4937B - NJ DOE No. 1940-060-18-1000

DRAWING INDEX								
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Estimated Properties

Fraytak Veisz Hopkins Duthie P C

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628

Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C.

Project Name

ALTERATIONS AND
RENOVATIONS TO
JOSEPH C. SHANER
MEMORIAL
ELEMENTARY SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location
5801 3rd ST
MAYS LANDING,
NJ 08330

Project Number

4937B

Project Date

02.15.2019

Checked By

JJV

Drawn By

dsb

Scale

AS NOTED

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No. Date Description

ALTERATION AND RENOVATION TO

WILLIAM DAVIES MIDDLE SCHOOL

1876 DENNIS FORMAN DR., MAYS LANDING, NJ 08330

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd, MAYS LANDING, NJ 08330



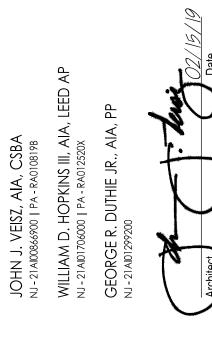
GILLAN & HARTMANN, INC

MEP ENGINEERS | MONT CLARE - PA

Addition / Alterations / Renovations at William Davies Middle School FVHD 4937A - NJ DOE No. 1940-120-18-1000

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A100 A101 A102 A103 A104 A105 A106 A107	SECURITY GLAZING & DOOR SCHEDULE TOILET DEMOLITION PLANS TOILET AND LOCKER ROOM NEW WORK PLANS GYMNASIUM DEMOLITION PLAN, NEW WORK PLAN, DETAILS INTERIOR GYM ELEVATIONS OUT BUILDING PLANS, SECTIONS, AND DETAILS / NOTES HVAC PARTIAL FIRST FLOOR DEMOLITION PLAN BLOCK B HVAC PARTIAL FIRST FLOOR PLAN - NEW WORK BLOCK B HVAC PARTIAL FIRST FLOOR REFLECTED CEILING PLAN BLOCK B

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E221	ROOF PLAN: ELECTRICAL NEW WORK
E500	ELECTRICAL DETAILS
E600	ELECTRICAL PANEL SCHEDULES



Fraytak Veisz Hopkins Duthie PC

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628

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FVHDPC.C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
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DRAWINGS INDEX

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No. Date Description

ELECTRICAL SYMBOL LEGEND: EXISTING TO REMAIN NEW OR REMOVAL. REFER TO PLANS & ADDITIONAL INFORMATION ON THE SYMBOL LEGEND SOUND SYSTEM EQUIPMENT GYMNASIUM SOUND SYSTEM LOUDSPEAKER. ARROW POINTS TO AREA OF FOCUS. COORDINATE THE EXACT LOCATION AND SPEAKER AIMING WITH THE OWNER PRIOR TO GYMNASIUM SOUND SYSTEM WIRED FIN ANTENNA, MOUNTED IN GYMNASIUM CEILING GYMNASIUM SOUND SYSTEM, FLOOR MOUNTED EQUIPMENT CABINET GYMNASIUM SOUND SYSTEM EQUIPMENT, WALL MOUNTED **POWER** DISCONNECT SWITCH, NUMBERS INDICATE AMPERAGE/# OF POLES; 30A/3P, UNO MOTOR STARTER PROVIDED BY OTHERS MOTOR RATED 20 AMP SNAP DISCONNECT SWITCH WITH MOTOR OVERLOAD 20A EXTERIOR WEATHERPROOF GFI TYPE DUPLEX CONVENIENCE RECEPTACLE WITH COVER TO MAINTAIN WEATHERPROOF CONNECTION FOR ATTACHMENT PLUG IN ACCORDANCE WITH NEC 20A GFI TYPE DUPLEX CONVENIENCE RECEPTACLE EXISTING ELECTRIC WATER COOLER RECEPTACLE DUPLEX RECEPTACLE WITH (1) XLR MICROPHONE JACK, FLOOR MOUNTED WITH LOCKABLE COVER PLATE EXISTING ELECTRICAL POWER PANELBOARD NEW ELECTRICAL POWER PANELBOARD CIRCUIT BREAKER JUNCTION BOX ELECTRIC WATER HEATER **LIGHTING** 1'x4' FULLY ENCLOSED INDUSTRIAL FIXTURE, CHAIN MOUNT TYPE AS INDICATED BY LETTER ON PLAN AND IN LIGHT FIXTURE SCHEDULE 8"x1'-2" EXTERIOR SURFACE WALL PACK WITH FACTORY INSTALLED PHOTOCELL TYPE AS INDICATED BY LETTER ON PLAN AND IN LIGHT FIXTURE SCHEDULE 1'x4' FULLY ENCLOSED INDUSTRIAL FIXTURE, CHAIN MOUNT WITH 10W EMERGENCY BATTERY PACK

FIRE ALARM SYSTEM

DUCT MOUNTED SMOKE DETECTOR

EMERGENCY POWER CIRCUIT

CARBON MONOXIDE DETECTOR WIRED TO THE BUILDING FIRE ALARM SYSTEM

MISCELLANEOUS

HOME RUN — SEE PANEL SCHEDULE FOR REQUIREMENTS. PROVIDE 2#12+1#12G IN 3/4"C TO THE INDICATED PANELBOARD BREAKER UNLESS NOTED OTHERWISE

BATHROOM VANITY LIGHTS TO BE REMOVED AND REINSTALLED TO ACCOMMODATE RE-TILING OF

EXIT LIGHT; LETTER INDICATES TYPE AS DESCRIBED IN THE LIGHT FIXTURE SCHEDULE;

WALL MOUNTED. PROVIDE NUMBER OF FACES AND DIRECTION CHEVRONS SHOWN ON

ELECTRICAL AND ARCHITECTURAL DRAWINGS AND AS REQUIRED FOR PATH OF EGRESS.

CONNECTED TO THE UNSWITCHED, CONTINUOUSLY POWERED PORTION OF THE INDICATED

BATHROOM WALLS. COORDINATE REMOVAL AND REINSTALLATION WITH THE GENERAL CONTRACTOR

BRANCH CIRCUIT RUN CONCEALED IN CEILINGS AND WALLS - 2#12+1#12G IN 3/4"C UNO

SEE CONTINUATION OF BRANCH CIRCUIT - 2#12+1#12G IN 3/4"C UNO

NEW WORK NOTE DESIGNATION REMOVAL WORK NOTE DESIGNATION

NUMBER X PLAN, SECTION, OR DETAIL SHEET NUMBER - X - X SCALE: 1/4" = 1'-0"



NORTH ARROW

GENERAL ELECTRICAL NOTES

PATCHING OF CONCRETE AND MACADAM SURFACES.

(GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS)

- 1. COORDINATE THE LOCATIONS OF EQUIPMENT AND ROUTING OF ELECTRICAL WIRING WITH THE TRADE DRAWINGS AND INSTALLING CONTRACTOR FOR THE MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO
- 2. PROVIDE MINIMUM 2#10AWG+1#12AWG WIRING FOR ALL 20A BRANCH CIRCUITS LONGER THAN 100 FEET.
- 3. ALL EQUIPMENT IDENTIFICATION LABELS AND ALL FINAL ELECTRICAL PANEL SCHEDULES (FOR NEW AND EXISTING PANELS USED ON THIS PROJECT) ARE TO BE UPDATED AND CONFORM TO THE OWNER'S ROOM NUMBERS AND ROOM NAMES. COORDINATE WITH THE OWNER AND ARCHITECT TO CONFIRM ACTUAL ROOM NUMBERS AND NAMES PRIOR TO THE START OF WORK.
- 4. ALL WORK MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE 2014 EDITION.
- 5. REMOVE AND REPLACE EXISTING CEILING TILES AND CEILING MOUNTED EQUIPMENT AS REQUIRED FOR ALL ELECTRICAL WORK.
- 6. PERFORM ALL CUTTING, PATCHING, AND PAINTING NECESSARY TO PERFORM WORK. MATCH EXISTING MATERIALS, FINISHES, FIRE RATINGS, PAINT COLORS, ETC. IN ALL AREAS OF PATCHING.
- 7. FOR EXTERIOR SITE WORK SHOWN ON THE ELECTRICAL DRAWINGS PROVIDE TRENCHING, BACKFILLING, SHORING, SHEETING, DE-WATERING, AND LAWN RESTORATION AS REQUIRED. PROVIDE CUTTING AND
- 8. THE EXISTING ROOF IS UNDER WARRANTY. THE EXISTING ROOF WARRANTY SHALL BE MAINTAINED. SEE ARCHITECTURAL DRAWINGS FOR ROOF DETAIL REQUIREMENTS AND ASSIGNMENTS OF RESPONSIBILITY FOR
- 9. FOR ELECTRICAL POWER BRANCH CIRCUITS EXTENDING TO EQUIPMENT ABOVE THE ROOF LEVEL UTILIZE

THE EQUIPMENT CURBS AND BRANCH CIRCUIT WIRING RUBBER BOOTS PROVIDED BY THE HVAC

PROJECT AND THE NEW HVAC TAG NUMBERS AND APPLICABLE ROOM NUMBERS.

- CONTRACTOR FOR BRANCH CIRCUIT WIRING ACCESS TO ROOFTOP OUTLETS AND EQUIPMENT. 10. FOR ALL NEW AND EXISTING PANELBOARDS USED ON THIS PROJECT PROVIDE A NEW TYPED PANELBOARD SCHEDULE THAT INCLUDES THE SAME INFORMATION FOR CIRCUITS NOT CHANGED ON THIS
- 11. PROVIDE PIPE SLEEVES FOR INSTALLATION OF RACEWAYS AND CABLES THROUGH FIRE RATED WALLS AND CEILING SLABS. ALL CORRIDOR WALL AND CEILING SLABS SHALL BE ASSUMED TO BE 1 1/2 HOUR. FOR ALL PENETRATIONS PROVIDE FIRE STOPPING USING A UL APPROVED ASSEMBLY FOR THE RESPECTIVE WALL OR SLAB CONSTRUCTION. REFER TO THE ARCHITECTURAL DOCUMENTS FOR WALL FIRE
- 12. PROVIDE FIRE PROOFING AT WALL PENETRATIONS.

CIRCUIT WIRING AS REQUIRED.

- 13. COORDINATE CONSTRUCTION OF ALL ELECTRICAL WORK WITH THE ARCHITECTURAL, HVAC, AND PLUMBING WORK SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- 14. ELECTRICAL CONDUITS AND DEVICE LAYOUTS ARE SCHEMATIC IN NATURE. PROVIDE OFFSETS AND FITTINGS AS REQUIRED TO ACCOMMODATE FIELD CONDITIONS AND ALL TRADE WORK BY OTHERS.
- 15. ALL WORK SHALL COMPLY WITH THE STANDARDS OF THE AMERICAN INSURANCE ASSOCIATION, INDUSTRIAL RISK INSURANCE UNDERWRITERS (IRI), FACTORY MUTUAL (FW), OR THE APPLICABLE RATING BUREAU, THE NATIONAL ELECTRICAL CODE (NEC), AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL BUILDING CODES AND THE REQUIREMENTS OF THE PUBLIC UTILITY COMPANIES SERVING THE SITE.
- 16. ENSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE APPLICABLE CONSTRUCTION CODE. AND ALL OTHER FEDERAL, STATE, AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS, OBSERVE THE MORE STRINGENT OF REQUIREMENTS.
- 17. FOR ALL HVAC EQUIPMENT BRANCH CIRCUITS INCLUDED IN THE REMOVAL AND NEW WORK PROCESS OF THIS PROJECT, VERIFY THAT THE CIRCUITS ACTUALLY FEED THE DEVICES LISTED ON THE PANEL SCHEDULE PRIOR TO REMOVING EQUIPMENT FROM THOSE BRANCH CIRCUITS.
- 18. ALL NEW ELECTRICAL WIRING DEVICES AND BACKBOXES IN NEW CONCRETE MASONRY UNIT (CMU) AND STUD WALL CONSTRUCTION ARE TO BE RECESSED (FLUSH MOUNTED) UNLESS NOTED OTHERWISE.
- 19. PROVIDE SURFACE MOUNTED RACEWAYS (WIREMOLD OR APPROVED EQUAL THAT IS PAINTED TO MATCH THE EXISTING WALL FINISH) FOR ALL NEW DEVICES SHOWN IN FINISHED AREAS OF EXISTING CONSTRUCTION. CONCEAL ALL BRANCH CIRCUIT WIRING IN CEILING CAVITY ABOVE LAY-IN CEILINGS.

GENERAL ELECTRICAL REMOVAL NOTES:

- 1. UNLESS NOTED OTHERWISE, DEVICES INDICATED WITH SOLID LINES ON THE REMOVAL DRAWINGS INDICATES A DEVICE THAT IS REQUIRED TO BE DISCONNECTED AND REMOVED. FOR DEVICES INDICATED TO BE REMOVED AND NOT REINSTALLED, REMOVE ALI ASSOCIATED SAFETY SWITCHES, ELECTRICAL BOXES, RACEWAYS AND WIRING BACK TO THE POWER SOURCE. WHERE AN EXISTING BRANCH CIRCUIT PROVIDES POWER TO MULTIPLE DEVICES INCLUDING SOME REQUIRED TO REMAIN IN PLACE, MAINTAIN BRANCH CIRCUIT POWER TO THE DEVICES THAT ARE REQUIRED TO REMAIN; INTERCEPT AND EXTEND BRANCH
- 2. PROVIDE ALL WORK AND COSTS ASSOCIATED WITH THE DISCONNECTION, REMOVAL, RELOCATION, AND DISPOSAL OF THE ELECTRICAL EQUIPMENT THAT IS REQUIRED TO BE
- 3. THE OWNER RETAINS THE FIRST RIGHT TO KEEP ANY REMOVED EQUIPMENT. REVIEW THE DISPOSITION OF ALL EQUIPMENT WITH OWNER PRIOR TO REMOVAL. ALL EQUIPMENT AND OR MATERIAL BEING REMOVED IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE RETAINED, DISPOSED OF, AND REMOVED FROM THE SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES.
- 4. QUANTITY OF HVAC EQUIPMENT SHOWN ON THE REMOVAL DRAWINGS IS INDICATIVE OF EXISTING QUANTITY AND LOCATION. REFER TO THE HVAC REMOVAL DRAWINGS FOR QUANTITIES AND LOCATIONS OF HVAC EQUIPMENT TO BE DEMOLISHED. VERIFY ACTUAL QUANTITIES OF ASSOCIATED ELECTRICAL EQUIPMENT TO BE REMOVED, SUCH AS DISCONNECT SWITCHES AND MOTOR STARTERS, AND INCLUDE IN BID.
- 5. PERFORM ALL REQUIRED PATCHING AND PAINTING AFTER DEMOLITION AS REQUIRED TO RESTORE SURFACES TO MATCH SURROUNDING SURFACE FINISHES.
- 6. TAG ALL EQUIPMENT AND DEVICES BEING REMOVED AND REINSTALLED WITH THE ROOM NUMBER AND LOCATION FROM WHICH IT IS BEING REMOVED TO ENSURE THAT IT IS REINSTALLED IN THE SAME ROOM AND LOCATION.
- 7. THE OWNER WILL REMOVE AND REINSTALL ALL MOVABLE EQUIPMENT AND FLOOR MOUNTED SHELVING UNO. REMOVE, STORE AND REINSTALL EXISTING BUILT-IN EQUIPMENT AS REQUIRED TO PERFORM THE WORK, UNLESS NOTED OTHERWISE.
- 8. GENERAL ELECTRICAL REMOVAL NOTES APPLY TO ALL ELECTRICAL REMOVAL DRAWINGS AND
- 9. FOR EXISTING BRANCH CIRCUITS THAT ARE ENTIRELY REMOVED, CLEARLY MARK THE

EXISTING PANELBOARD SCHEDULE FOR THAT BRANCH CIRCUIT AS "SPARE."

LIGHTING FIXTURE SCHEDULE FIXTURE TYPE REMARKS FLUOR INCAN LED MOUNTING YPE MANUFACTURER MODEL # FEM-L48-8000LM-IMACD-MD-MVOLT-40K-GZ10-80CRI FULLY ENCLOSED & GASKETED INDUSTRIAL A LITHONIA MOUNT MOUNTING CHAINS (PAIR) EXTERIOR MEDIUM TRAPEZOID WALL PACK B H.E. WILLIAMS WPTZ-L38/750-PC-UNV FOR MOUNTING HEIGHT REFER TO ARCHITECTURAL FULLY ENCLOSED & GASKETED INDUSTRIAL WITH EMERGENCY BATTERY PACK FEM-L48-8000LM-IMACD-MD-MVOLT-40K-GZ10-80CRI-BSL520 C LITHONIA MOUNT MOUNTING CHAINS (PAIR) EXIT/WET/CP-SF-R-WHT-EM-PC2-D-120V MOUNT EXIT SIGN FOR WET LOCATIONS ABOVE DOOR

ABBREVIATIONS:

ABOVE FINISHED FLOOR AIR HANDLING UNIT CIRCULATION FAN AMPERAGE INTERRUPTING CAPACITY AUTOMATIC TEMPERATURE CONTROL CONDENSATE PUMP CONDENSING UNIT CABINET UNIT HEATER

NATIONAL ELECTRICAL CODE 2014 EDITION ROOFTOP UNIT

HVAC CONTRACTOR

UNLESS NOTED OTHERWISE UNIT HEATER

EXHAUST FAN

GRAVITY VENT

UNIT VENTILATOR WEATHER PROOF

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

B. PROVIDE CARBON MONOXIDE DETECTORS (WIRED TO THE EXISTING FIRE ALARM SYSTEM) IN THE GYMNASIUM AND AUDITORIUM AT THE LOCATIONS SHOWN ON THE DRAWINGS. THE CARBON MONOXIDE DETECTORS SHALL PROVIDE AN ALARM SIGNAL FROM THE FIRE ALARM SYSTEM WHEN ACTIVATED.

THE EXISTING FIRE ALARM SYSTEM AT THE WILLIAM DAVIES MIDDLE SCHOOL IS A FULLY

ADDRESSABLE NOTIFIER NFS-3030 SYSTEM SERVICED BY CARTER BROTHERS FIRE & LIFE

SAFETY (CONTACT TELEPHONE NUMBER: 1-800-873-3392) FOR SYSTEM INFORMATION. THE

2. COORDINATE WITH THE FIRE ALARM SYSTEM MANUFACTURER AND VENDORS TO PROVIDE THE INDICATED TO THE EXISTING FIRE ALARM SYSTEM AND ALL REQUIRED POWER SUPPLIES, WIRING, EQUIPMENT, LABOR, PROGRAMMING, AND MATERIALS FOR A FULLY FUNCTIONAL FIRE ALARM SYSTEM AND INCLUDE ALL COSTS IN THE BID. THE NEW FIRE ALARM DEVICES SHALL BE FULLY COMPATIBLE WITH THE EXISTING SYSTEM. SEE SYMBOL LEGEND AND SPECIFICATION 284621 FOR ADDITIONAL FIRE ALARM SYSTEM REQUIREMENTS.

ADDITIONAL GENERAL NOTES FOR THE FIRE ALARM SYSTEM MODIFICATIONS

SCOPE OF THE FIRE ALARM SYSTEM INCLUDES. BUT IS NOT LIMITED TO:

- TESTING AS REQUIRED BY NFPA 72 AND THE PROJECT SPECIFICATIONS.
- NEW DEVICES INSTALLED IN OCCUPIED SPACES BELOW CEILINGS.
- 9. PROVIDE TEMPORARY SUPPORT AND PROTECTION OF EXISTING CEILING MOUNTED FIRE ALARM SYSTEM SMOKE DETECTORS, HEAT DETECTORS, NOTIFICATION DEVICES, AND WIRING WHERE CEILINGS ARE REMOVED. MAINTAIN THE FIRE ALARM SYSTEM'S CONTINUITY OF SERVICE

A. REMOVAL OF DUCT MOUNTED SMOKE DETECTORS AT THE LOCATIONS SHOWN ON THE Project Location

1876 DENNIS

UPON COMPLETION OF THE MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEMS, PROVIDE

PROVIDE SURFACE MOUNTED RACEWAYS PAINTED TO MATCH THE EXISTING WALLS FOR ALL

THROUGHOUT THE ENTIRE PROJECT.

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION



02/15/2019 **ISSUED FOR BID**

ENGINEER

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MICHAEL S. GILLAN, PE NO. 24GE04470000

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Name

FORMAN DR, MAYS LANDING, NJ 08330

Project Number Proiect Date 02.15.2019

Checked By DRH

AS NOTED

Drawing Name ELECTRICAL

GENERAL NOTES. **ABBREVIATIONS**

DAVIES M.S.

No. Date Description

ELECTRICAL SYMBOL LEGEND:

ELECTRICAL EQUIPMENT SHOWN WITH DASHED LINES INDICATES EXISTING EQUIPMENT TO REMAIN. LIGHTNING PROTECTION SYSTEM CONDUCTORS SHOWN WITH DASHED LINES INDICATES CONDUCTORS EXTENDED UNDERGROUND. EQUIPMENT SHOWN WITH SOLID LINES ON NEW WORK DRAWINGS INDICATES NEW EQUIPMENT. EQUIPMENT SHOWN ON REMOVAL DRAWINGS WITH SOLID LINES INDICATES EQUIPMENT TO BE REMOVED. REFER TO GENERAL REMOVAL NOTES FOR REQUIREMENTS.

HATCHED LINES SHOWN ON ELECTRICAL SINGLE LINE DIAGRAM INDICATES EXISTING WIRING AND

EQUIPMENT TO BE REMOVED, SEE GENERAL DEMOLITION NOTES ON DRAWING E-XXX

POWER

Wb □ DISCONNECT SWITCH. NUMBERS INDICATE AMPERAGE/# OF POLES; 30A/3P, UNO WP = AMPS/#POLES EXTERIOR WEATHERPROOF WHERE SHOWN

MOTOR RATED 20 AMP SNAP DISCONNECT SWITCH WITH MOTOR OVERLOAD

20A DUPLEX CONVENIENCE OUTLET, MOUNT 18" AFF, UNO

20A EXTERIOR WEATHERPROOF GFI TYPE DUPLEX CONVENIENCE RECEPTACLE WITH COVER TO MAINTAIN WEATHERPROOF CONNECTION FOR ATTACHMENT PLUG IN ACCORDANCE WITH NEC 406.9(B)

20A DUPLEX CONVENIENCE OUTLET, MOUNT 18" AFF, UNO

EXISTING ELECTRICAL POWER PANELBOARD

NEW ELECTRICAL POWER PANELBOARD

CIRCUIT BREAKER

JUNCTION BOX

AUTOMATIC TRANSFER SWITCH

GENERATOR EMERGENCY STOP SWITCH, MOUNT 46" AFF

FIRE ALARM SYSTEM

SURFACE MOUNTED (48" AFF) ADDRESSABLE FIRE ALARM MANUAL PULL STATION WITH FITTED BACKBOX OF SAME COLOR AS THE DEVICE (FITTED TO MATCH DEVICE OUTLINE). PROVIDE ALARM LIFT COVER" IN CLASSROOM AND CORRIDOR DEVICE LOCATIONS. PROVIDE SURFACE MOUNTED WIREMOLD RACEWAY FOR WIRING PAINTED TO MATCH EXISTING WALL SURFACE FROM THE DEVICE UP TO ABOVE THE DROPPED CEILING. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PATCH AND PAINT THE EXISTING WALL TO MATCH THE EXISTING WALL FINISH (COVERPLATES ARE NOT ACCEPTABLE). WG = PROVIDE WIRE GUARD WHERE INDICATED

FIRE ALARM SYSTEM ADDRESSABLE SMOKE DETECTOR FLUSH MOUNTED IN THE DROPPED CEILING WITH AN ADDITIONAL HEAT DETECTOR SURFACE MOUNTED IN A DEVICE BOX ON THE STRUCTURAL CEILING ABOVE AS SHOWN ON DETAIL 1/E500. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PROVIDE A COVERPLATE PAINTED TO MATCH THE CEILING

FIRE ALARM SYSTEM ADDRESSABLE HEAT DETECTOR FLUSH MOUNTED IN THE DROPPED CEILING WITH AN ADDITIONAL HEAT DETECTOR SURFACE MOUNTED IN A DEVICE BOX ON THE STRUCTURAL CEILING ABOVE AS SHOWN ON DETAIL 1/E500. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PROVIDE A COVERPLATE PAINTED TO MATCH THE CEILING FINISH.

S S_{wg} FIRE ALARM SYSTEM ADDRESSABLE SMOKE DETECTOR FLUSH RECESS MOUNT IN THE DROPPED CEILING OR SURFACE MOUNTED WITH A JUNCTION BOX AS REQUIRED. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PROVIDE A COVERPLATE PAINTED TO MATCH THE CEILING FINISH. WG = PROVIDE WIRE GUARD WHERE INDICATED

FIRE ALARM SYSTEM ADDRESSABLE HEAT DETECTOR FLUSH RECESS MOUNT IN THE DROPPED CEILING OR SURFACE MOUNTED WITH A JUNCTION BOX AS REQUIRED. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PROVIDE A COVERPLATE PAINTED TO MATCH THE CEILING FINISH.

FIRE ALARM SYSTEM HEAT DETECTOR LOCATED WITHIN THE CRAWL SPACE BELOW THE FIRST FLOOR LEVEL. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED, REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE.

 \mathbb{O}^{m} CARBON MONOXIDE DETECTOR WIRED TO THE BUILDING FIRE ALARM SYSTEM

> FIRE ALARM INDICATING COMBINATION AUDIO (CAPABLE OF DELIVERING VOICE OR HORN AUDIO ALARMS) AND ADA COMPLIANT STROBE DEVICE. PROVIDE DEVICES FLUSH MOUNTED IN THE EXISTING DROPPED CEILING UNLESS INDICATED OTHERWISE. PROVIDE MINIMUM CANDELA RATING AS INDICATED. FOR WALL MOUNTED UNITS PROVIDE FITTED (FITTED = COLOR AND DIMENSIONS MATCHING THE DEVICE) BACKBOX WITH WIREMOLD RACEWAY EXTENDING FROM THE DEVICE UP TO ABOVE THE CEILING. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED, REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE AND PATCH AND PAINT THE WALL TO MATCH THE EXISTING WALL FINISH. WG = PROVIDE WIRE GUARD WHERE INDICATED. WP = EXTERIOR WEATHERPROOF WHERE INDICATED.

FIRE ALARM VISUAL INDICATING STROBE DEVICE FLUSH MOUNTED IN THE EXISTING DROPPED CEILING UNLESS INDICATED OTHERWISE WITH ADA COMPLIANT CANDELA RATING AS INDICATED. FOR WALL MOUNTED UNITS PROVIDE FITTED (WITH COLOR AND DIMENSIONS MATCHING THE DEVICE) BACKBOX WITH WIREMOLD RACEWAY EXTENDING FROM THE DEVICE UP TO ABOVE THE CEILING. WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE. PATCH AND PAINT THE WALL TO MATCH THE EXISTING WALL FINISH. WG = PROVIDE WIRE GUARD WHERE INDICATED.

FACP FIRE ALARM CONTROL PANEL NEW AND EXISTING

ANN NEW FIRE ALARM ADDRESSABLE REMOTE ANNUNCIATOR

FIRE ALARM SPRINKLER WATER FLOW SWITCH ADDRESSABLE INTERFACE DEVICE WITH WIRING AS REQUIRED BY THE MANUFACTURER TO THE FLOW SWITCH CONTACTS. PROVIDE REMOTE INDICATING STATION. PROVIDE NEW ALARM INDICATING STATIONS ADJACENT TO THE SWITCH AND LABELED TO INDICATE THE TYPE OF DEVICE, WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED. REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE SOURCE.

FIRE ALARM SPRINKLER WATER VALVE TAMPER SWITCH ADDRESSABLE INTERFACE DEVICE WITH WIRING AS REQUIRED BY THE MANUFACTURER TO THE TAMPER SWITCH CONTACTS. PROVIDE REMOTE INDICATING STATION. PROVIDE NEW ALARM INDICATING STATIONS ADJACENT TO THE SWITCH AND LABELED TO INDICATE THE TYPE OF DEVICE, WHERE EXISTING DEVICES ARE INDICATED TO BE REMOVED, REMOVE EXISTING DEVICE AND WIRING AND RACEWAY BACK TO THE

AID FIRE ALARM SYSTEM ADDRESSABLE INTERFACE DEVICE

NEW ADDRESSABLE RELAY.

FIRE ALARM DUCT MOUNTED SMOKE DETECTOR WITH REMOTE TEST AND ALARM INDICATING STATION. INVESTIGATE TO CONFIRM THAT THE TWO EXISTING DUCT MOUNTED SMOKE DETECTORS LOCATED IN THE DUCTWORK FOR THE AIR HANDLING UNITS AHU-8 AND AHU-9 IN THE MULTI-PURPOSE ROOM ARE A PART OF THE EXISTING "ZONED" SYSTEM. INCLUDE PROVISIONS TO REMOVE THE TWO EXISTING "ZONED/NON-ADDRESSABLE" DUCT DETECTORS AND REPLACE WITH NEW FULLY ADDRESSABLE DUCT MOUNTED SMOKE DETECTORS WITH ALL REQUIRED ACCESSORIES FOR FULLY FUNCTIONAL DUCT MOUNTED SMOKE DETECTORS. PROVIDE A LOCAL TEST AND ALARM INDICATING STATION (INSTALLED 42"AFF IN THE MULTI-PURPOSE ROOM WITH A WIRE GUARD). LABEL THE TEST AND ALARM INDICATING STATION TO IDENTIFY THE ASSOCIATED HVAC UNIT. INVESTIGATE TO CONFIRM THAT FOR EACH DETECTOR THERE IS AN EXISTING ADDRESSABLE FIRE ALARM RELAY WITH CONTROL CONTACTS TO SHUT DOWN THE AIR HANDLING UNIT WHEN THE DETECTOR IS IN ALARM AND INCLUDE PROVISIONS TO PROVIDE THE ADDRESSABLE RELAYS AND ASSOCIATED WIRING. INTERCEPT AND EXTEND THE EXISTING CONTROL WIRING (TO SHUT DOWN THE HVAC UNITS UPON DETECTION OF SMOKE) TO THE

ADDITIONAL GENERAL NOTES FOR THE FIRE ALARM SYSTEM MODIFICATIONS

THE EXISTING FIRE ALARM SYSTEM AT THE SHANER ELEMENTARY SCHOOL IS A COMBINATION "ZONED/ NON-ADDRESSABLE SYSTEM AND FULLY ADDRESSABLE SYSTEM WITH A SIMPLEX 4020 MAIN FIRE ALARM CONTROL PANEL. THE FIRE ALARM SYSTEM IS SERVICED BY JOHNSON CONTROLS/SIMPLEX (CONTACT MR. SHAMUS RYAN TELEPHONE NUMBER 1-609-921-8521 OR SIMPLEX AT 1-215-347-6500) FOR SYSTEM INFORMATION. THE SCOPE OF THE FIRE ALARM SYSTEM INCLUDES, BUT IS NOT LIMITED TO:

A. REPLACE THE EXISTING "ZONED/NON-ADDRESSABLE" FIRE ALARM SYSTEM DEVICES IN THE EXISTING ZONES 1 THROUGH 12 (INCLUDING THE FIRST FLOOR, BASEMENT, AND CRAWL SPACE LOCATIONS WITH FULLY ADDRESSABLE DEVICES.

B. PROVIDE A NEW MAIN FIRE ALARM CONTROL PANEL THAT WILL WORK IN CONJUNCTION WITH THE EXISTING MAIN FIRE ALARM CONTROL PANEL.

REMOVE THE EXISTING FIRE ALARM REMOTE ANNUNCIATOR AND PROVIDE A NEW FIRE ALARM REMOTE ANNUNCIATOR TO WORK WITH THE NEW CONTROL PANEL.

PROVIDE CARBON MONOXIDE DETECTORS (WIRED TO THE EXISTING FIRE ALARM SYSTEM) AT THE LOCATIONS SHOWN ON THE DRAWINGS. THE CARBON MONOXIDE DETECTORS SHALL PRÓVIDE THE ALARM AND TROUBLE INDICATIONS AS REQUIRED BY CODE.

2. COORDINATE WITH THE FIRE ALARM SYSTEM MANUFACTURER AND VENDORS TO MODIFY THE SYSTEM AS REQUIRED BY THE DRAWINGS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE ALL WIRING. EQUIPMENT, LABOR, PROGRAMMING, AND MATERIALS TO REMOVE, ADD, OR CHANGE THE SYSTEMS AS SHOWN ON THE DRAWINGS AND INCLUDE THESE COSTS IN THE BID. ALL NEW FIRE ALARM DEVICES SHALL BE FULLY COMPATIBLE WITH THE EXISTING SYSTEMS. SEE SYMBOL LEGEND AND SPECIFICATIONS 284621 AND 284622 FOR ADDITIONAL FIRE ALARM SYSTEM REQUIREMENTS.

FOR ALL DEVICES AND WIRING IN OCCUPIED SPACES PROVIDE SURFACE MOUNTED RACEWAYS PAINTED TO MATCH THE EXISTING WALLS FOR ALL NEW DEVICES INSTALLED IN OCCUPIED SPACES BELOW CEILINGS.

4. PROVIDE TEMPORARY SUPPORT AND PROTECTION OF EXISTING CEILING MOUNTED FIRE ALARM SYSTEM SMOKE DETECTORS, HEAT DETECTORS, NOTIFICATION DEVICES, AND WIRING WHERE CEILINGS ARE REMOVED. MAINTAIN THE FIRE ALARM SYSTEM'S CONTINUITY OF SERVICE THROUGHOUT THE ENTIRE PROJECT.

5. FOR ALL NEW FIRE ALARM CONTROL/NAC/POWER SUPPLY/SYSTEM PANELS THAT ARE REQUIRED FOR THE VENDOR'S FINAL DESIGN, PROVIDE ÁDDITIÓNAL SMOKE DETECTOR AND WIRING LOCATED ABOVE THE PANEL AS REQUIRED BY THE CODE.

6. UPON COMPLETION OF THE MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM, THE SYSTEM SHALL PASS A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA-72 AND THE AUTHORITY HAVING JURISDICTION.

LIGHTING

EXTERIOR SURFACE WALL PACK

SURFACE MOUNT PHOTOCELL

SOUND SYSTEM EQUIPMENT

GYMNASIUM SOUND SYSTEM LOUDSPEAKER WITH ALL REQUIRED MOUNTING HARDWARE AND MOUNTING DEVICES/EQUIPMENT AS REQUIRED BY THE LOUDSPEAKER MANUFACTURER FOR A FULLY FUNCTIONING LOUDSPEAKER INSTALLATION, PROVIDE ALL REQUIRED SPEAKER WIRING AS REQUIRED BY THE LOUDSPEAKER MANUFACTURER FROM THE LOUDSPEAKER TO THE SOUND SYSTEM MIXER AND AMPLIFIER EQUIPMENT CABINET LOCATION SHOWN ON THE DRAWING. COORDINATE THE EXACT LOCATION AND SPEAKER AIMING WITH THE OWNER PRIOR TO ROUGH-IN AND INSTALLATION. FOR SPEAKERS INDICATED TO BE REMOVED, REMOVE SPEAKER, SPEAKER MOUNTING HARDWARE, AND WIRING FROM THE SPEAKER BACK TO THE EXISTING SOUND SYSTEM MIXER/AMPLIFIER CABINET LOCATION.

MISCELLANEOUS

HOME RUN - 2#12+1#12G IN 3/4"C UNO CONNECT TO EXISTING SPARE 20A CIRCUIT BREAKER AS INDICATED UNO

BRANCH CIRCUIT RUN CONCEALED IN CEILINGS AND WALLS - 2#12+1#12G IN 3/4"C UNO

SEE CONTINUATION OF BRANCH CIRCUIT - 2#12+1#12G IN 3/4"C UNO

NEW WORK NOTE DESIGNATION REMOVAL WORK NOTE DESIGNATION

DATA JACK

PLAN, SECTION, OR DETAIL

SECTION OR DETAIL



NORTH ARROW

GENERAL ELECTRICAL NOTES

ABBREVIATIONS:

ABOVE FINISHED FLOOR

AMPERAGE INTERRUPTING CAPACITY

AUTOMATIC TEMPERATURE CONTROL

AIR HANDLING UNIT

CONDENSATE PUMP

CIRCULATION FAN

CONDENSING UNIT

CUH

CABINET UNIT HEATER

DUCTLESS SPLIT UNIT

EXHAUST FAN

FAN COIL UNIT

GRAVITY VENT

ROOFTOP UNIT

UNIT HEATER

UNIT VENTILATOR

WEATHER PROOF

VARIABLE AIR UNIT

HVAC CONTRACTOR

PUBLIC ADDRESS SYSTEM

UNLESS NOTED OTHERWISE

DEDICATED OUTDOOR AIR UNIT DUCTLESS CONDENSING UNIT

ENERGY RECOVERY UNIT VENTILATOR

NATIONAL ELECTRICAL CODE 2014 EDITION

(GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS)

- 1. COORDINATE THE LOCATIONS OF EQUIPMENT AND ROUTING OF ELECTRICAL WIRING WITH THE TRADE DRAWINGS AND INSTALLING CONTRACTOR FOR THE MECHANICAL AND PLUMBING EQUIPMENT PRIOR TO
- 2. PROVIDE MINIMUM 2#10AWG+1#12AWG WIRING FOR ALL 20A BRANCH CIRCUITS LONGER THAN 100 FEET.
- 3. ALL EQUIPMENT IDENTIFICATION LABELS AND ALL FINAL ELECTRICAL PANEL SCHEDULES (FOR NEW AND EXISTING PANELS USED ON THIS PROJECT) ARE TO BE UPDATED AND CONFORM TO THE OWNER'S ROOM NUMBERS AND ROOM NAMES. COORDINATE WITH THE OWNER AND ARCHITECT TO CONFIRM ACTUAL ROOM NUMBERS AND NAMES PRIOR TO THE START OF WORK.
- 4. ALL WORK MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE 2014 EDITION.
- 5. REMOVE AND REPLACE EXISTING CEILING TILES AND CEILING MOUNTED EQUIPMENT AS REQUIRED FOR ALL ELECTRICAL WORK.
- 6. PERFORM ALL CUTTING, PATCHING, AND PAINTING NECESSARY TO PERFORM WORK. MATCH EXISTING MATERIALS, FINISHES, FIRE RATINGS, PAINT COLORS, ETC. IN ALL AREAS OF PATCHING.
- 7. FOR EXTERIOR SITE WORK SHOWN ON THE ELECTRICAL DRAWINGS PROVIDE TRENCHING, BACKFILLING, SHORING, SHEETING, DE-WATERING, AND LAWN RESTORATION AS REQUIRED. PROVIDE CUTTING AND
- 8. THE EXISTING ROOF IS UNDER WARRANTY. THE EXISTING ROOF WARRANTY SHALL BE MAINTAINED. SEE ARCHITECTURAL DRAWINGS FOR ROOF DETAIL REQUIREMENTS AND ASSIGNMENTS OF RESPONSIBILITY FOR
- ROOFING AND FLASHING WORK. 9. FOR ELECTRICAL POWER BRANCH CIRCUITS EXTENDING TO EQUIPMENT ABOVE THE ROOF LEVEL UTILIZE THE EQUIPMENT CURBS AND BRANCH CIRCUIT WIRING RUBBER BOOTS PROVIDED BY THE HVAC
- CONTRACTOR FOR BRANCH CIRCUIT WIRING ACCESS TO ROOFTOP OUTLETS AND EQUIPMENT. 10. FOR ALL NEW AND EXISTING PANELBOARDS USED ON THIS PROJECT PROVIDE A NEW TYPED PANELBOARD SCHEDULE THAT INCLUDES THE SAME INFORMATION FOR CIRCUITS NOT CHANGED ON THIS

PROJECT AND THE NEW HVAC TAG NUMBERS AND APPLICABLE ROOM NUMBERS.

- 11. PROVIDE PIPE SLEEVES FOR INSTALLATION OF RACEWAYS AND CABLES THROUGH FIRE RATED WALLS AND CEILING SLABS. ALL CORRIDOR WALL AND CEILING SLABS SHALL BE ASSUMED TO BE 1 1/2 HOUR. FOR ALL PENETRATIONS PROVIDE FIRE STOPPING USING A UL APPROVED ASSEMBLY FOR THE RESPECTIVE WALL OR SLAB CONSTRUCTION. REFER TO THE ARCHITECTURAL DOCUMENTS FOR WALL FIRE
- 12. PROVIDE FIRE PROOFING AT WALL PENETRATIONS.

PATCHING OF CONCRETE AND MACADAM SURFACES.

- 13. COORDINATE CONSTRUCTION OF ALL ELECTRICAL WORK WITH THE ARCHITECTURAL, HVAC, AND PLUMBING WORK SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- 14. ELECTRICAL CONDUITS AND DEVICE LAYOUTS ARE SCHEMATIC IN NATURE. PROVIDE OFFSETS AND FITTINGS AS REQUIRED TO ACCOMMODATE FIELD CONDITIONS AND ALL TRADE WORK BY OTHERS.
- 15. ALL WORK SHALL COMPLY WITH THE STANDARDS OF THE AMERICAN INSURANCE ASSOCIATION. INDUSTRIAL RISK INSURANCE UNDERWRITERS (IRI), FACTORY MUTUAL (FW), OR THE APPLICABLE RATING BUREAU, THE NATIONAL ELECTRICAL CODE (NEC), AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL BUILDING CODES AND THE REQUIREMENTS OF THE PUBLIC UTILITY COMPANIES SERVING THE SITE.
- 16. ENSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE APPLICABLE CONSTRUCTION CODE. AND ALL OTHER FEDERAL, STATE, AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS, OBSERVE THE MORE STRINGENT OF REQUIREMENTS.

LIGHTING			RE	SC	HE	DU	LE	
TYPE	MANUFACTURER	MODEL #		FIXTURE TYPE FLUOR INCAN LED		MOUNTING	REMARKS	
A	H.E. WILLIAMS	VWP-H-L60-TFT-(COLOR SPECIFIED BY ARCHITECT)-CGL-DIM-UNIV	68			×	SURFACE	EXTERIOR SURFACE WALL PACK COLOR TO BE SPECIFIED BY ARCHITECT

GENERAL ELECTRICAL REMOVAL NOTES:

1. UNLESS NOTED OTHERWISE, DEVICES INDICATED WITH SOLID LINES ON THE REMOVAL DRAWINGS INDICATES A DEVICE THAT IS REQUIRED TO BE DISCONNECTED AND REMOVED. FOR DEVICES INDICATED TO BE REMOVED AND NOT REINSTALLED, REMOVE ALL ASSOCIATED SAFETY SWITCHES, ELECTRICAL BOXES, RACEWAYS AND WIRING BACK TO THE POWER SOURCE. WHERE AN EXISTING BRANCH CIRCUIT PROVIDES POWER TO MULTIPLE DEVICES INCLUDING SOME REQUIRED TO REMAIN IN PLACE, MAINTAIN BRANCH CIRCUIT POWER TO THE DEVICES THAT ARE REQUIRED TO REMAIN; INTERCEPT AND EXTEND BRANCH CIRCUIT WIRING AS REQUIRED.

2. PROVIDE ALL WORK AND COSTS ASSOCIATED WITH THE DISCONNECTION, REMOVAL, RELOCATION, AND DISPOSAL OF THE ELECTRICAL EQUIPMENT THAT IS REQUIRED TO BE DEMOLISHED.

3. THE OWNER RETAINS THE FIRST RIGHT TO KEEP ANY REMOVED EQUIPMENT. REVIEW THE DISPOSITION OF ALL EQUIPMENT WITH OWNER PRIOR TO REMOVAL. ALL EQUIPMENT AND OR MATERIAL BEING REMOVED IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE RETAINED, DISPOSED OF, AND REMOVED FROM THE SITE IN ACCORDANCE WITH LOCAL. STATE, AND FEDERAL GUIDELINES.

4. QUANTITY OF HVAC EQUIPMENT SHOWN ON THE REMOVAL DRAWINGS IS INDICATIVE OF EXISTING QUANTITY AND LOCATION. REFER TO THE HVAC REMOVAL DRAWINGS FOR QUANTITIES AND LOCATIONS OF HVAC EQUIPMENT TO BE DEMOLISHED. VERIFY ACTUAL QUANTITIES OF ASSOCIATED ELECTRICAL EQUIPMENT TO BE REMOVED, SUCH AS DISCONNECT SWITCHES AND MOTOR STARTERS, AND INCLUDE IN BID.

5. PERFORM ALL REQUIRED PATCHING AND PAINTING AFTER DEMOLITION AS REQUIRED TO RESTORE SURFACES TO MATCH SURROUNDING SURFACE FINISHES.

6. TAG ALL EQUIPMENT AND DEVICES BEING REMOVED AND REINSTALLED WITH THE ROOM NUMBER AND LOCATION FROM WHICH IT IS BEING REMOVED TO ENSURE THAT IT IS REINSTALLED IN THE SAME ROOM AND LOCATION.

7. THE OWNER WILL REMOVE AND REINSTALL ALL MOVABLE EQUIPMENT AND FLOOR MOUNTED SHELVING UNO. REMOVE, STORE AND REINSTALL EXISTING BUILT-IN EQUIPMENT AS REQUIRED TO PERFORM THE WORK, UNLESS NOTED OTHERWISE.

8. GENERAL ELECTRICAL REMOVAL NOTES APPLY TO ALL ELECTRICAL REMOVAL DRAWINGS AND DETAILS.

02/15/2019

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9. FOR EXISTING BRANCH CIRCUITS THAT ARE ENTIRELY REMOVED. CLEARLY MARK THE EXISTING PANELBOARD SCHEDULE FOR THAT BRANCH CIRCUIT AS "SPARE."

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED A ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION



ENGINEER DATE NO. 24GE04470000 MICHAEL S. GILLAN, PE © 2018 GILLAN & HARTMANN Inc.

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Project Name ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL **ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS LANDING, NJ 08330

Project Number Project Date

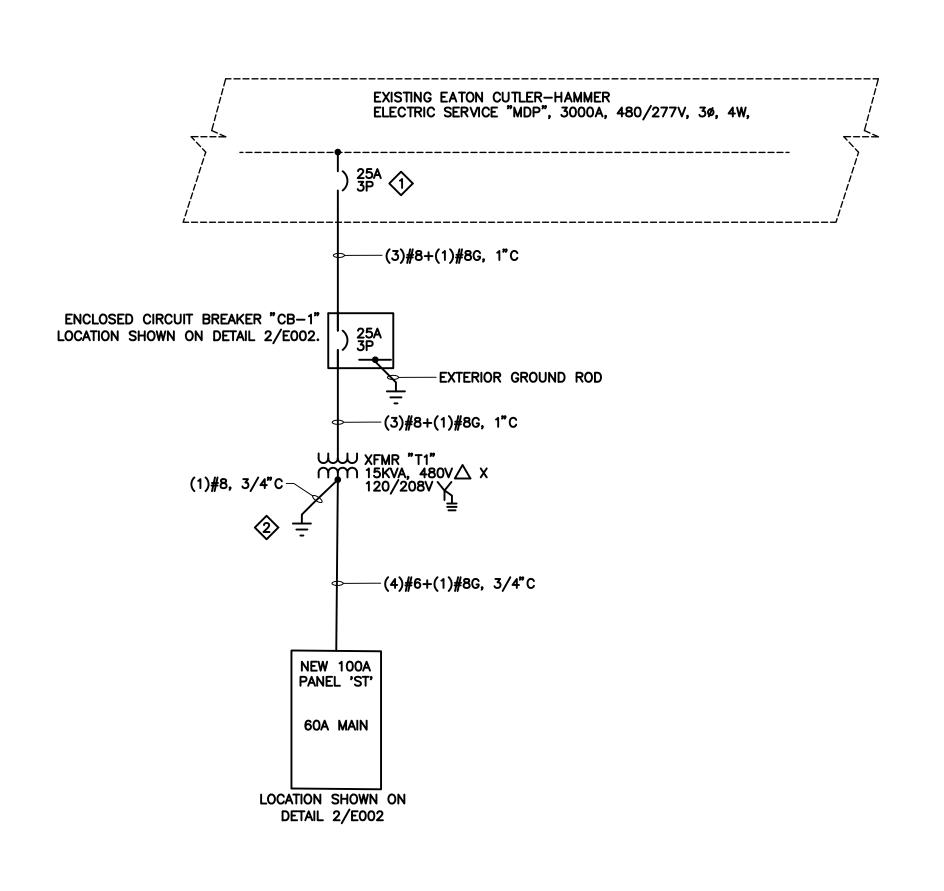
02.15.2019 Checked By

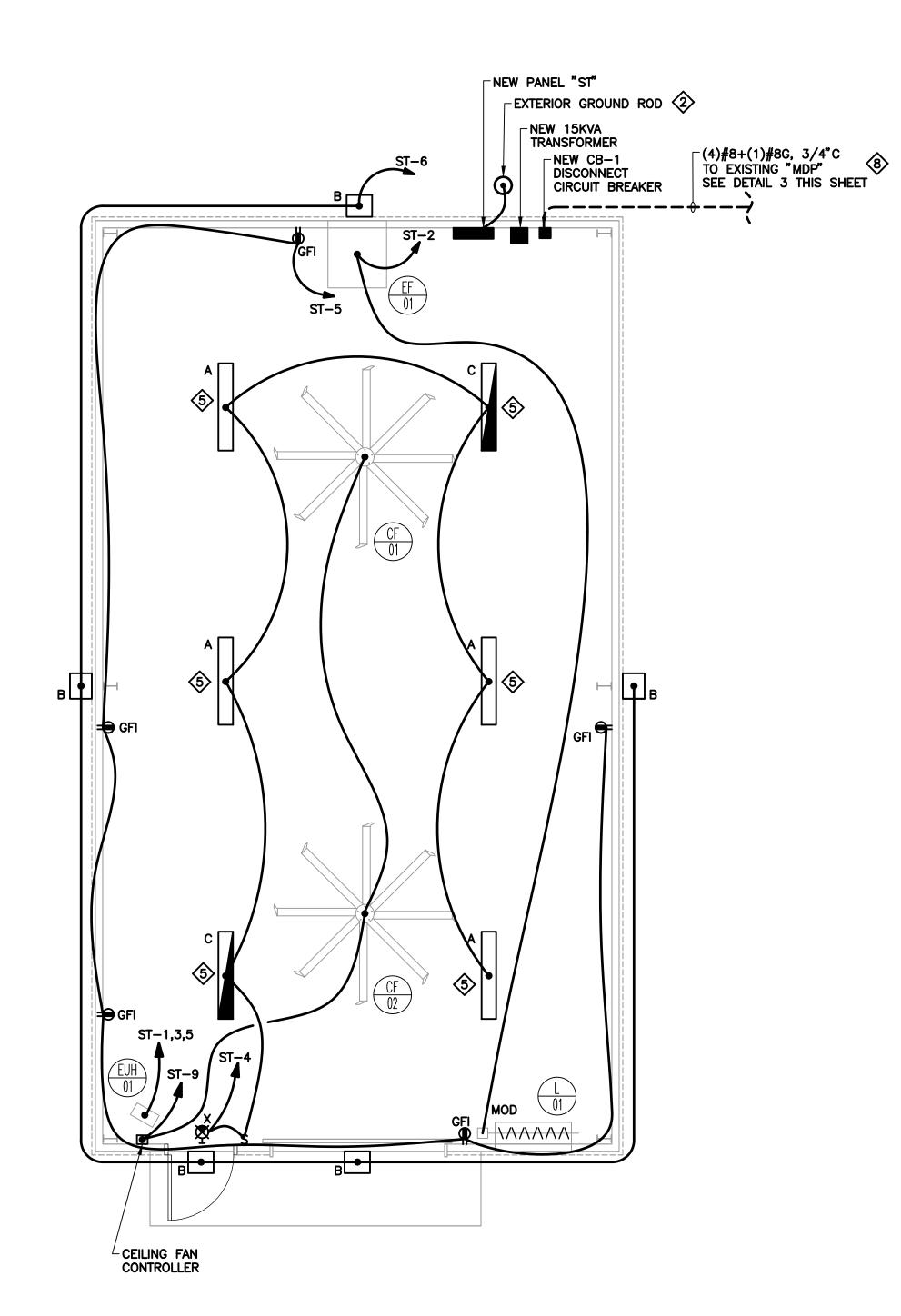
NMR / JTM

AS NOTED Drawing Name **ELECTRICAL**

GENERAL NOTES, LEGENDS & **ABBREVIATIONS**

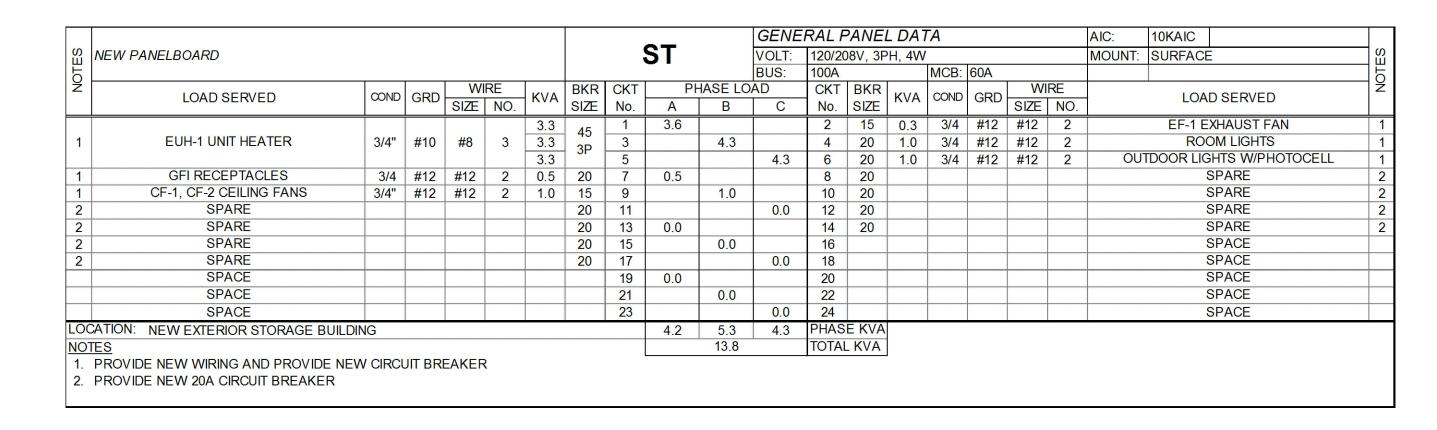
SHANER E.S. No. Date Description

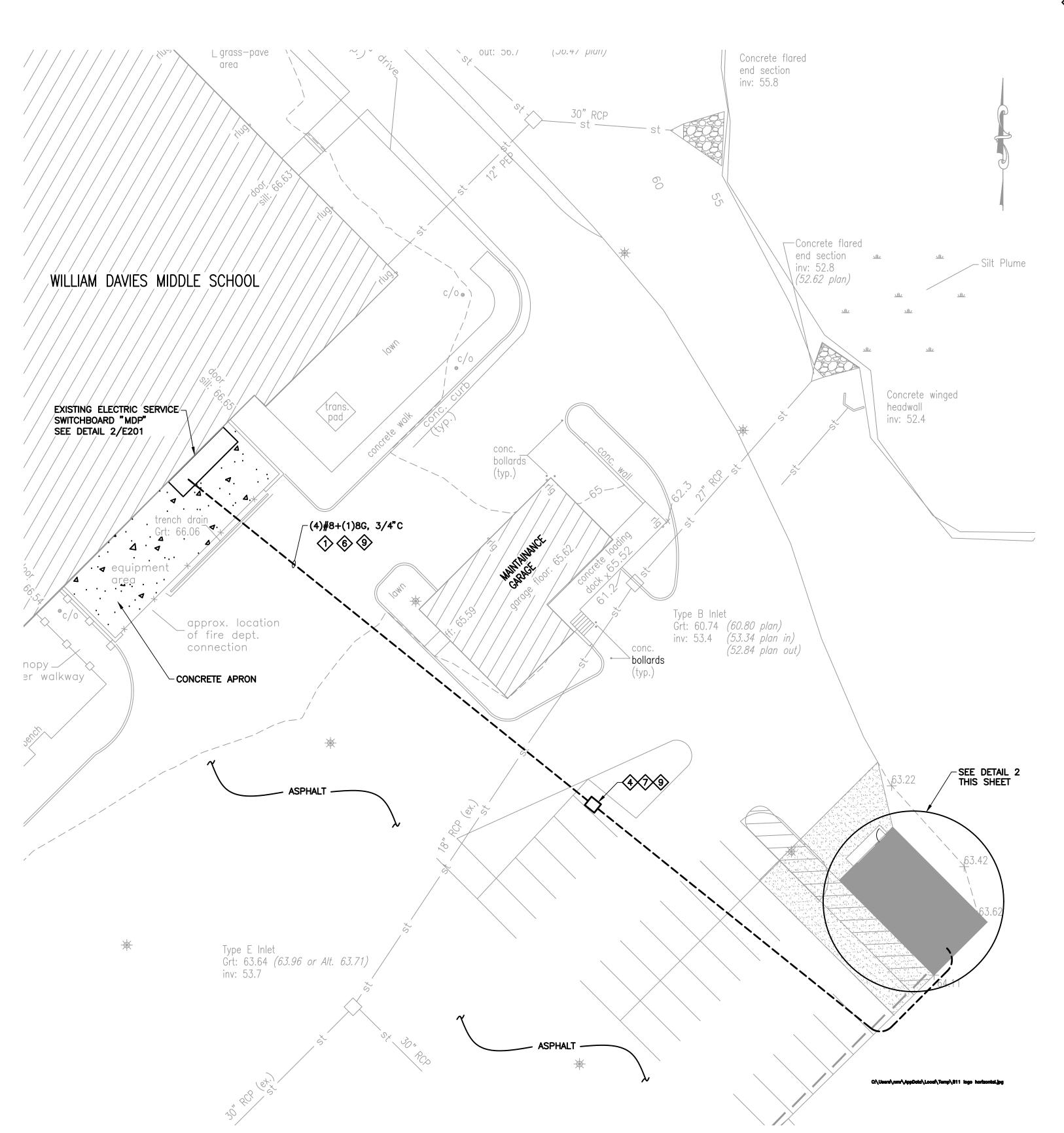




NEW STORAGE BUILDING

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





3 ELECTRICAL SITE PLAN E002 SCALE: 1" = 20'-0"

NEW WORK NOTES:

- PROVIDE A 25 AMP, 3-POLE CIRCUIT BREAKER IN THE EXISTING "MDP" TO FEED PANEL "ST." PROVIDE (4)#8+(1)#8G FROM THE BREAKER IN "MDP" IN A MINIMUM 1" SCHEDULE 40 PVC CONDUIT AT A MINIMUM DEPTH OF 30" BELOW FINISHED GRADE, ENCASED IN A MINIMUM OF 4" OF CONCRETE ON ALL SIDES, WITH A YELLOW PLASTIC WARNING TAPE INSTALLED ABOVE THE CONDUIT AT A DEPTH OF 12" BELOW FINISHED GRADE. TRANSITION TO ELECTRICAL METALLIC TUBING ABOVE FINISHED GRADE TO FEED PANEL "ST." PROVIDE ALL REQUIRED TRENCHING, BACKFILLING, CUTTING AND PATCHING OF MACADAM AND CONCRETE SURFACES.
- PROVIDE GROUND ROD BURIED IN THE EARTH. PROVIDE (1)#8 GREEN INSULATED GROUNDING ELECTRODE CONDUCTOR BONDED TO THE PANEL GROUND BUS AND TO THE GROUND ROD.
- PROVIDE (2)#12,(1)#12G,3/4" CONDUIT FROM THE PANEL BREAKER TO THE THERMOSTAT (THERMOSTAT CONTROLLING THE EXHAUST FAN) AND EXTENDED TO THE 120V MOTOR OPERATED DAMPER TO OPEN THE DAMPER WHEN THE EXHAUST FAN
- AASHTO-HS-20 4'x4'x4' BOTTOMLESS PRECAST CONCRETE HEAVY TRAFFIC RATED PULL BOX MOUNTED LEVEL ON 12" GRAVEL, FLUSH IN GRADE WITH CAST IRON LID. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF THE MACADAM PARKING LOT AS REQUIRED.
- 5 CHAIN HANG THE FIXTURES 12 FEET ABOVE FINISHED FLOOR.
- 6 CUT AND PATCH BITUMINOUS/ASPHALT WALKWAY AND THE CONCRETE PAD AREAS AS REQUIRED TO RUN FEEDER, SEE 4/E500 FOR BITUMINOUS/ASPHALT PATCHING
- NEW UNDERGROUND NORMAL POWER ELECTRICAL FEEDER.
- NEW NORMAL POWER ELECTRICAL FEEDER IN CONDUIT UP WALL. REFER TO DETAIL 2/E500.
- © CALL AND COORDINATE WITH "NEW JERSEY ONE CALL" PHONE NUMBER 811 AND PERFORM ADDITIONAL UNDERGROUND LOCATING ALONG THE PATH OF THE NEW UNDERGROUND FEEDER TO LOCATE EXISTING UNDERGROUND UTILITIES OWNED BY THE UTILITY COMPANY AND THE OWNER.

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

4937C 02.15.2019

AS NOTED

Drawing Name **ELECTRICAL** SINGLE LINE

DIAGRAM AND SITE PLAN

DAVIES M.S.

No. Date Description

ONLY. Gillan & Hartmann, Inc.

MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS 610-935-0101 FAX: 610-935-7520 215-238-9510 609-347-1593 302-654-5959 215-238-9510 609-347-1395 502-654 5555 www.gillan-hartmann.com : ghmail@gillan-hartmann.com G&H Project No. 2018-205

REFERENCE DIMENSION

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PROVIDED FOR REFERENCE/VERIFICATION

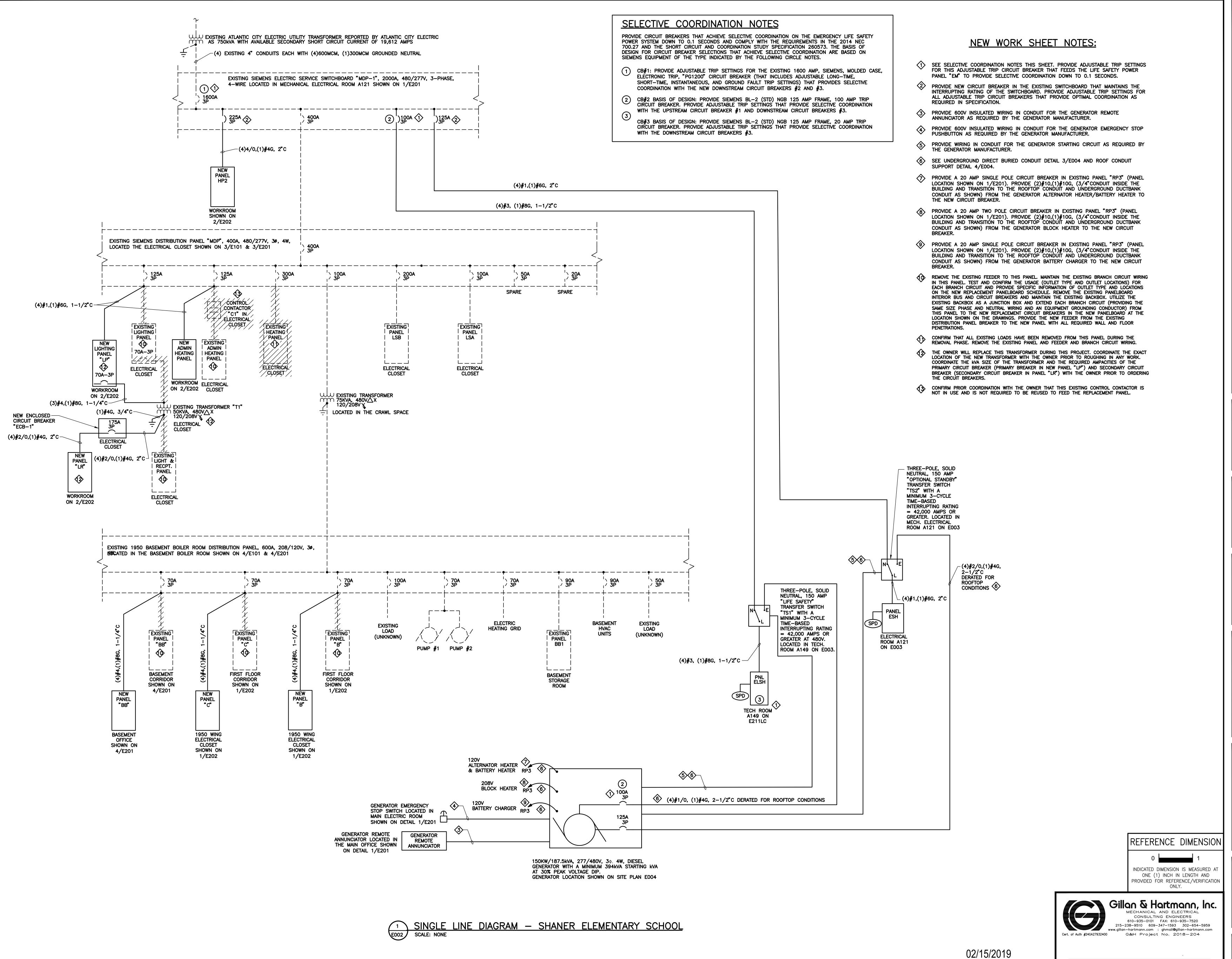
NO. 24GE04470000

ENGINEER MICHAEL S. GILLAN, PE

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Project Name **ALTERATIONS AND** RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS

LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By DRH Drawn Bv

AS NOTED

Drawing Name **ELECTRICAL** SINGLE LINE DIAGRAM

SHANER E.S.

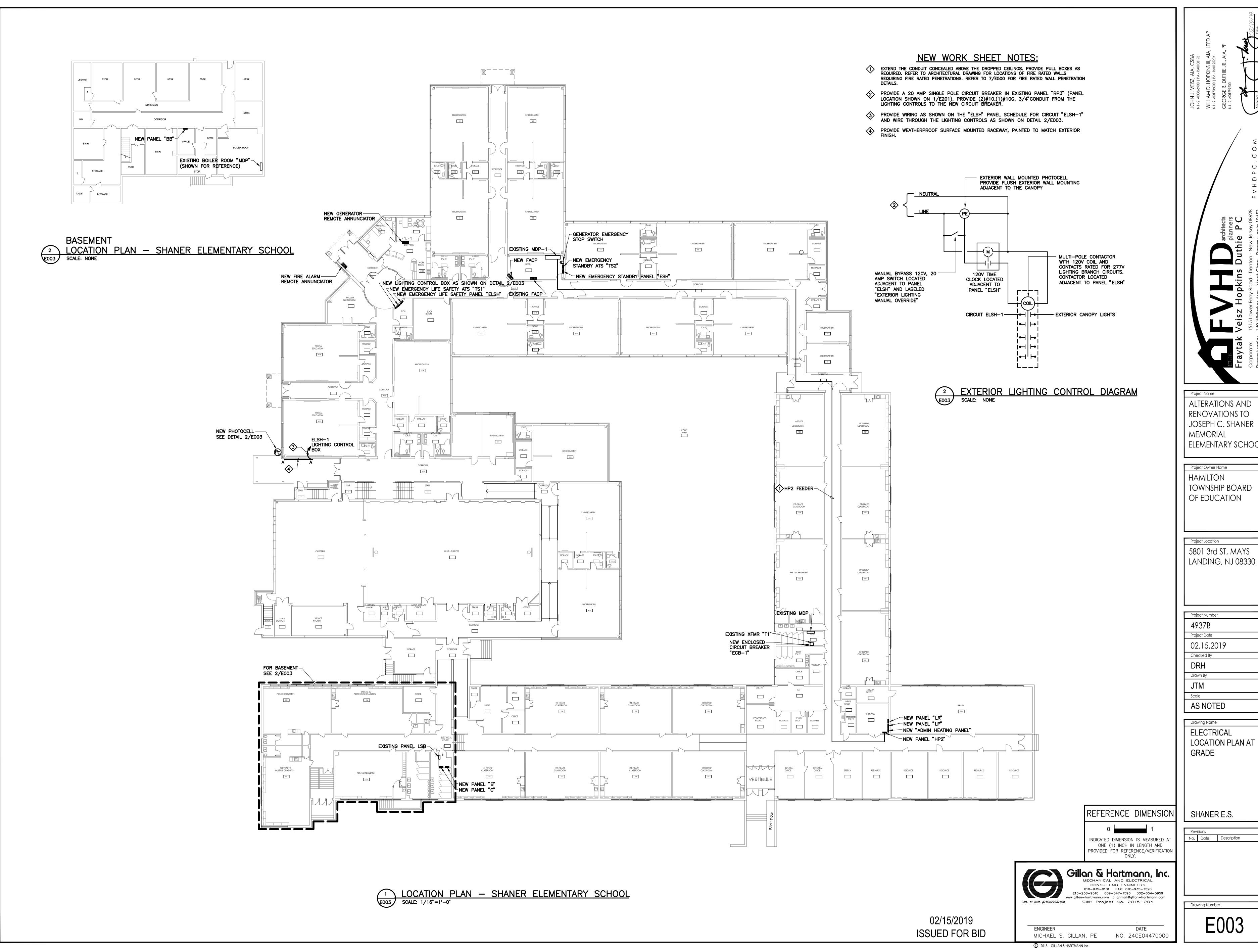
No. Date Description

Drawing Number E002

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS

02.15.2019

AS NOTED

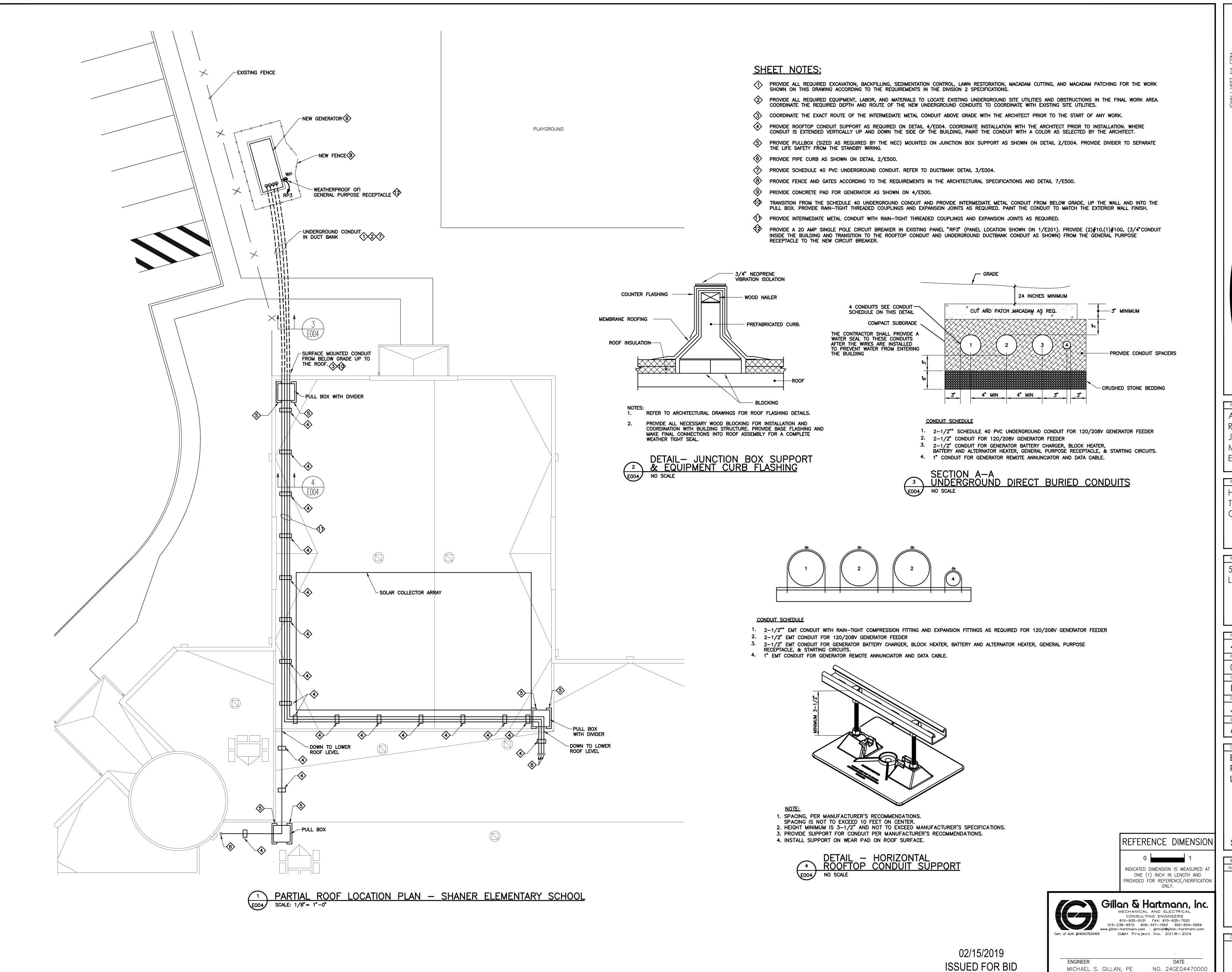
ELECTRICAL LOCATION PLAN AT GRADE

SHANER E.S.

No. Date Description

Drawing Number

E003



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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name **HAMILTON** TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

Project Number

4937B Project Date 02.15.2019

Checked By DRH

AS NOTED

Drawing Name **ELECTRICAL**

PARTIAL ROOF **LOCATION PLAN**

SHANER E.S.

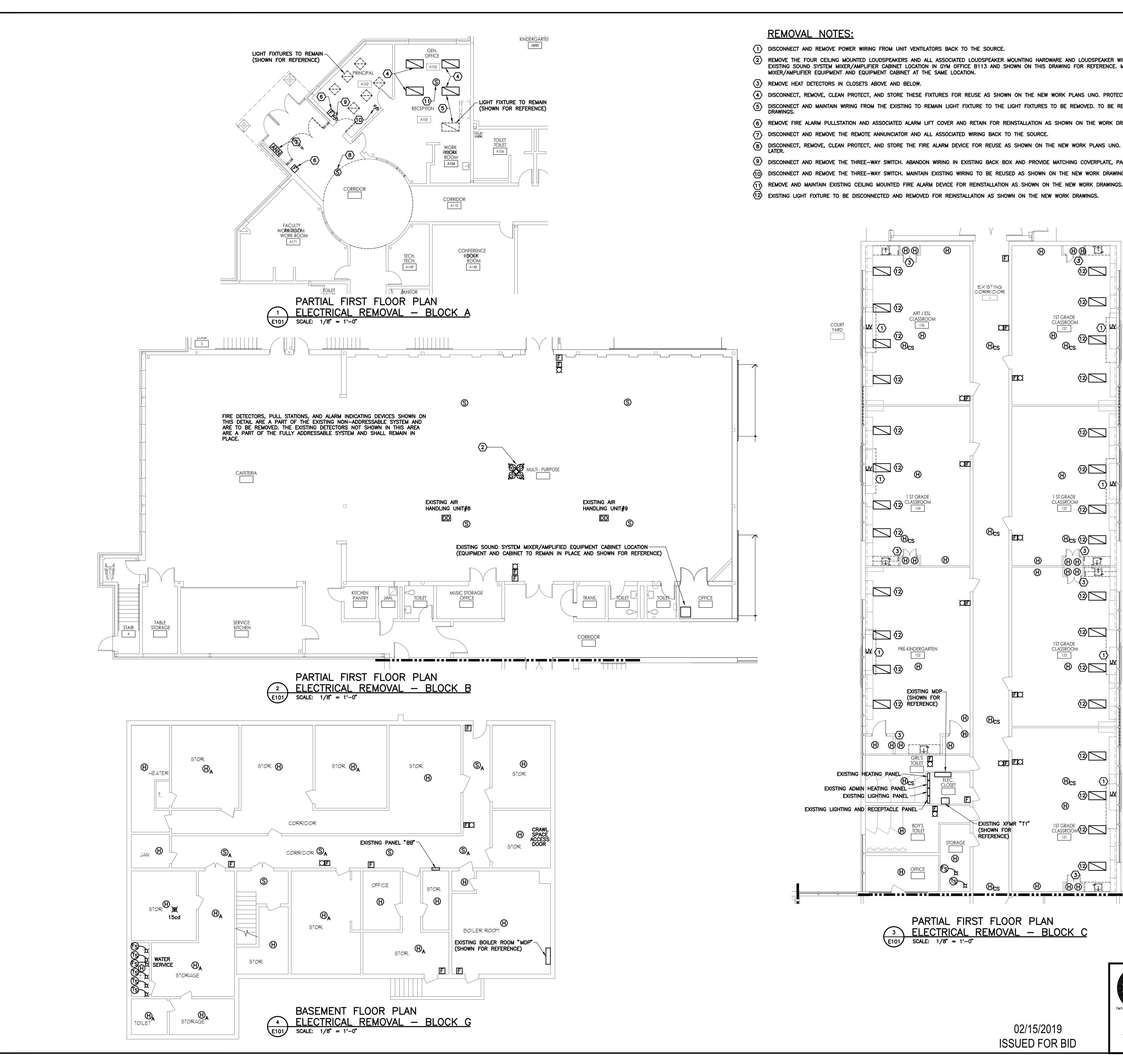
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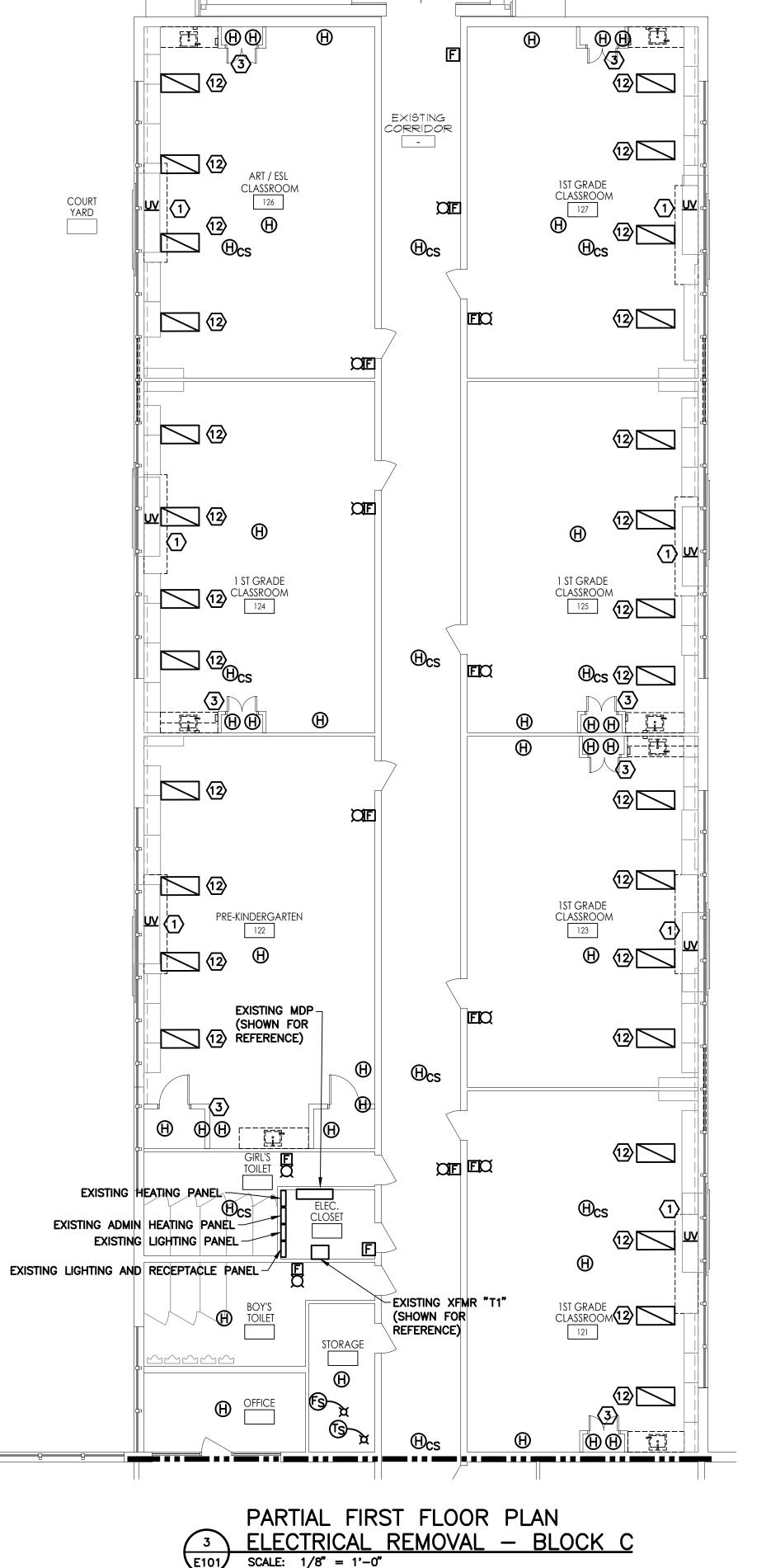
NO. 24GE04470000

MICHAEL S. GILLAN, PE

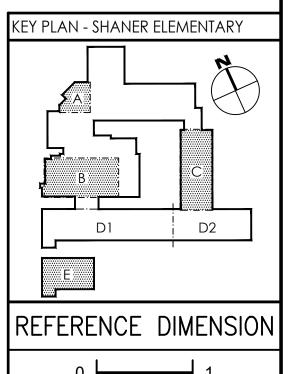
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- 1 DISCONNECT AND REMOVE POWER WIRING FROM UNIT VENTILATORS BACK TO THE SOURCE.
- REMOVE THE FOUR CEILING MOUNTED LOUDSPEAKERS AND ALL ASSOCIATED LOUDSPEAKER MOUNTING HARDWARE AND LOUDSPEAKER WIRING FROM THE LOUDSPEAKERS BACK TO THE EXISTING SOUND SYSTEM MIXER/AMPLIFIER CABINET LOCATION IN GYM OFFICE B113 AND SHOWN ON THIS DRAWING FOR REFERENCE. MAINTAIN THE EXISTING SOUND SYSTEM MIXER/AMPLIFIER EQUIPMENT AND EQUIPMENT CABINET AT THE SAME LOCATION.
- (3) REMOVE HEAT DETECTORS IN CLOSETS ABOVE AND BELOW.
- 4 DISCONNECT, REMOVE, CLEAN PROTECT, AND STORE THESE FIXTURES FOR REUSE AS SHOWN ON THE NEW WORK PLANS UNO. PROTECT EXISTING WIRING TO BE REWIRED LATER.
- (6) REMOVE FIRE ALARM PULLSTATION AND ASSOCIATED ALARM LIFT COVER AND RETAIN FOR REINSTALLATION AS SHOWN ON THE WORK DRAWINGS.
- 7 DISCONNECT AND REMOVE THE REMOTE ANNUNCIATOR AND ALL ASSOCIATED WIRING BACK TO THE SOURCE.
- DISCONNECT AND REMOVE THE THREE-WAY SWITCH. ABANDON WIRING IN EXISTING BACK BOX AND PROVIDE MATCHING COVERPLATE, PAINTED TO MATCH THE EXISTING WALL FINISH.
- (10) DISCONNECT AND REMOVE THE THREE-WAY SWITCH. MAINTAIN EXISTING WIRING TO BE REUSED AS SHOWN ON THE NEW WORK DRAWINGS.
- $\langle 12
 angle$ existing light fixture to be disconnected and removed for reinstallation as shown on the New Work drawings.



3 ELECTRICAL REMOVAL — BLOCK C
E101 SCALE: 1/8" = 1'-0"



INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.



02/15/2019 ISSUED FOR BID

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

4937B 02.15.2019

DRH NMR / JTM

AS NOTED

PARTIAL **BASEMENT & FIRST** FLOOR PLANS: ELECTRICAL REMOVALS -BLOCKS A, B, C, & E

SHANER E.S.

Revisions No. Date Description

REMOVAL NOTES:

MEN'S TOIL.
B245

CORRIDOR B127

P.E. STOR B128

GIRL'S LOCKER RM B136

BOY'S LOCKER RM BI29

HY DD

5

CORRIDOR BIGØ

STORAGE BI72

PARTIAL FIRST FLOOR PLAN

| This is a second of the second

DD HV

STORAGE BIT3

- DISCONNECT BRANCH CIRCUIT WIRING FROM EXISTING HVAC UNITS BACK TO THE SOURCE AND RE-LABEL EXISTING BREAKERS AS SPARE IF APPLICABLE.
- 2 REMOVE AND REINSTALL WALL MOUNTED BATHROOM VANITY LIGHT FIXTURES.
- REMOVE THE EXISTING RECEPTACLE FOR THE ELECTRIC WATER COOLER, DISCONNECT AND MAINTAIN THE EXISTING BRANCH CIRCUIT WIRING FOR NEW ELECTRIC WATER COOLER, VERIFY WHICH CIRCUIT BREAKER IN PANEL "RC" FEEDS THE EXISTING RECEPTACLE AND REPLACE IT WITH A NEW GFI BREAKER.
- DISCONNECT THE EXISTING GYMNASIUM DIVIDER WALL MOTOR BRANCH CIRCUIT WIRING AND ASSOCIATED SWITCHES BACK TO THE SOURCE.
- DISCONNECT THE EXISTING GYMNASIUM FLOOR BOX AND BRANCH CIRCUIT WIRING BACK TO THE SOURCE.



ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

02.15.2019 DRH

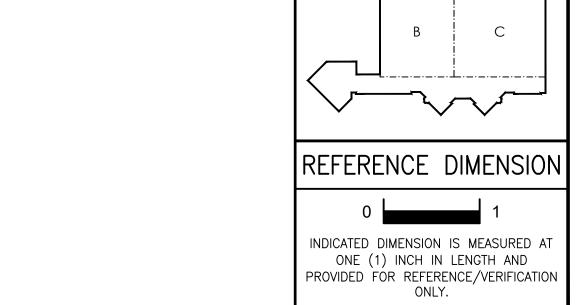
AS NOTED

PARTIAL FIRST FLOOR PLAN: ELECTRICAL REMOVALS -**BLOCK A**

DAVIES M.S.

No. Date Description

Drawing Number



KEY PLAN - DAVIES MIDDLE SCHOOL



ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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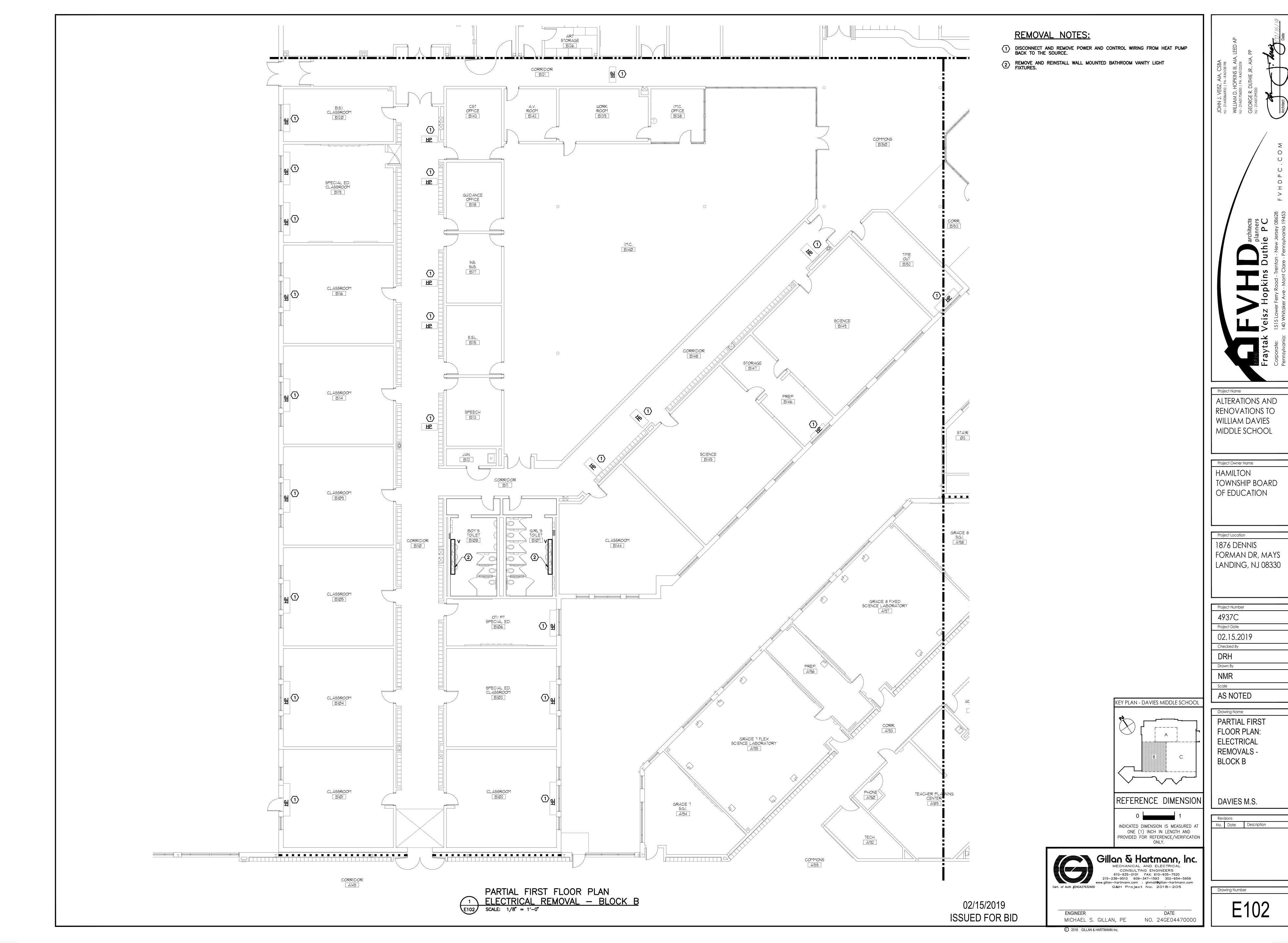
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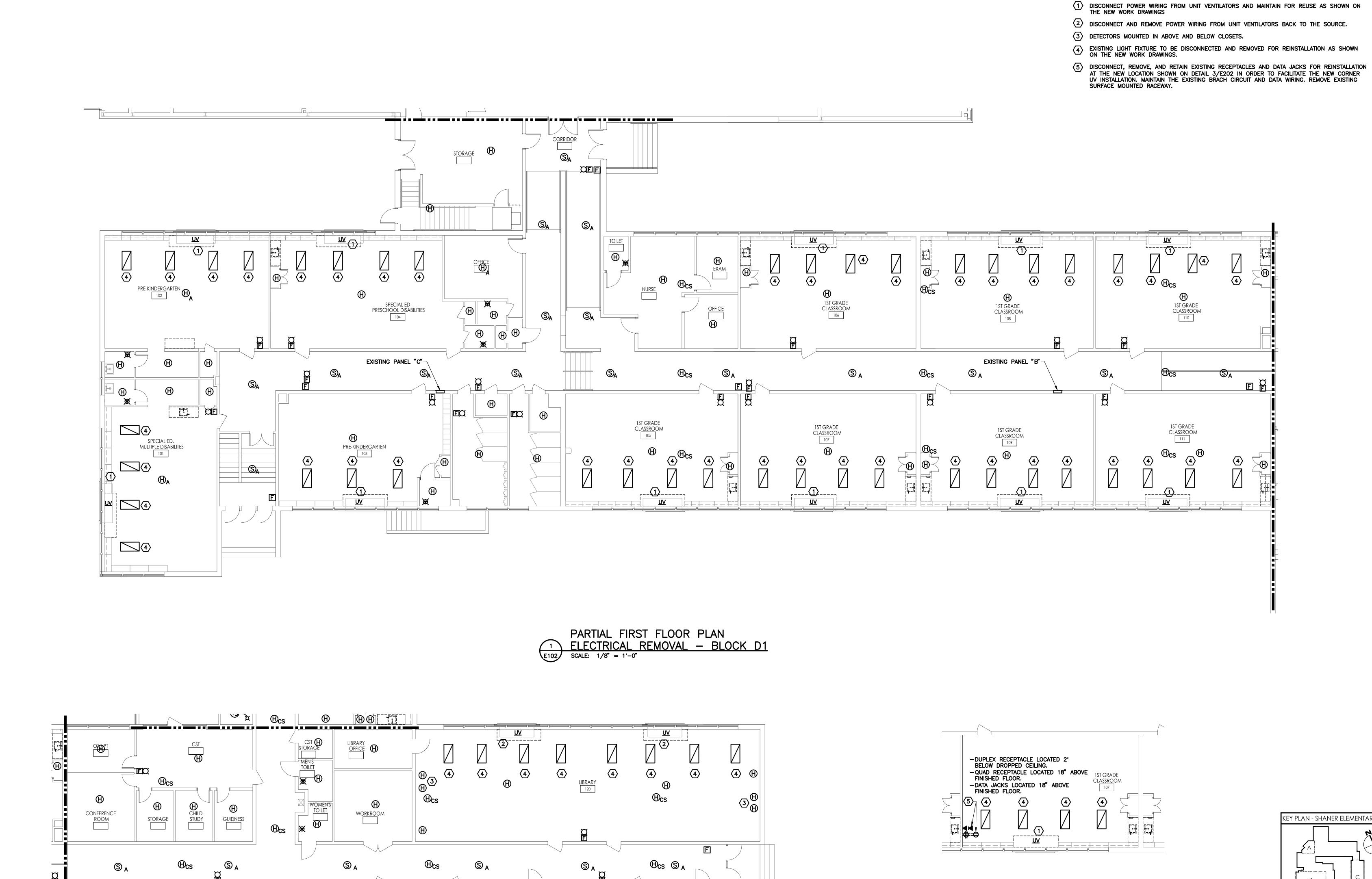
ELECT.
RM.
BITT

PRACTICE BITI

STORAGE B176

OFFICE BI75





RESOURCE

 Θ_{CS}

4

PRINCIPAL
OFFICE
113

HCs

SPEECH 114

OFFICE

H_{cs}

RESOURCE 115

PARTIAL FIRST FLOOR PLAN

2 ELECTRICAL REMOVAL — BLOCK D2

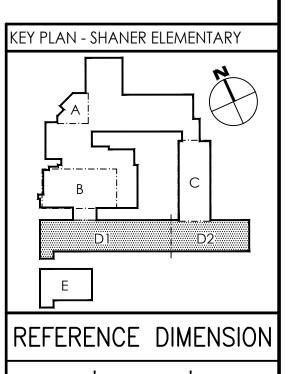
SCALE: 1/8" = 1'-0"

(4) (H)

PARTIAL FIRST FLOOR PLAN ELECTRICAL REMOVAL - CORNER UV INSTALLATION SCALE: 1/8" = 1'-0"

NOTES:

1. THIS PLAN IS TYPICAL FOR CORNER UNIT VENTILATOR INSTALLATIONS. REFER TO THE ARCHITECTURAL DOCUMENTS FOR UNIT VENTILATOR LOCATION. 2. REFER TO REMOVAL FLOOR PLANS FOR FIRE ALARM REMOVAL/REPLACEMENT WORK.



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215-238-9510 609-347-1593 302-654-5959 www.gillan—hartmann.com : ghmail@gillan—hartmann.com G&H Project No. 2018-204

02/15/2019 ISSUED FOR BID

REMOVAL NOTES:

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ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

Drawing Number E102

nners P C

ALTERATIONS AND

RENOVATIONS TO

MEMORIAL

Project Owner Name

HAMILTON

JOSEPH C. SHANER

ELEMENTARY SCHOOL

TOWNSHIP BOARD

5801 3rd ST, MAYS

LANDING, NJ 08330

4937B

DRH

02.15.2019

NMR / JTM

AS NOTED

PARTIAL FIRST

FLOOR PLAN:

ELECTRICAL

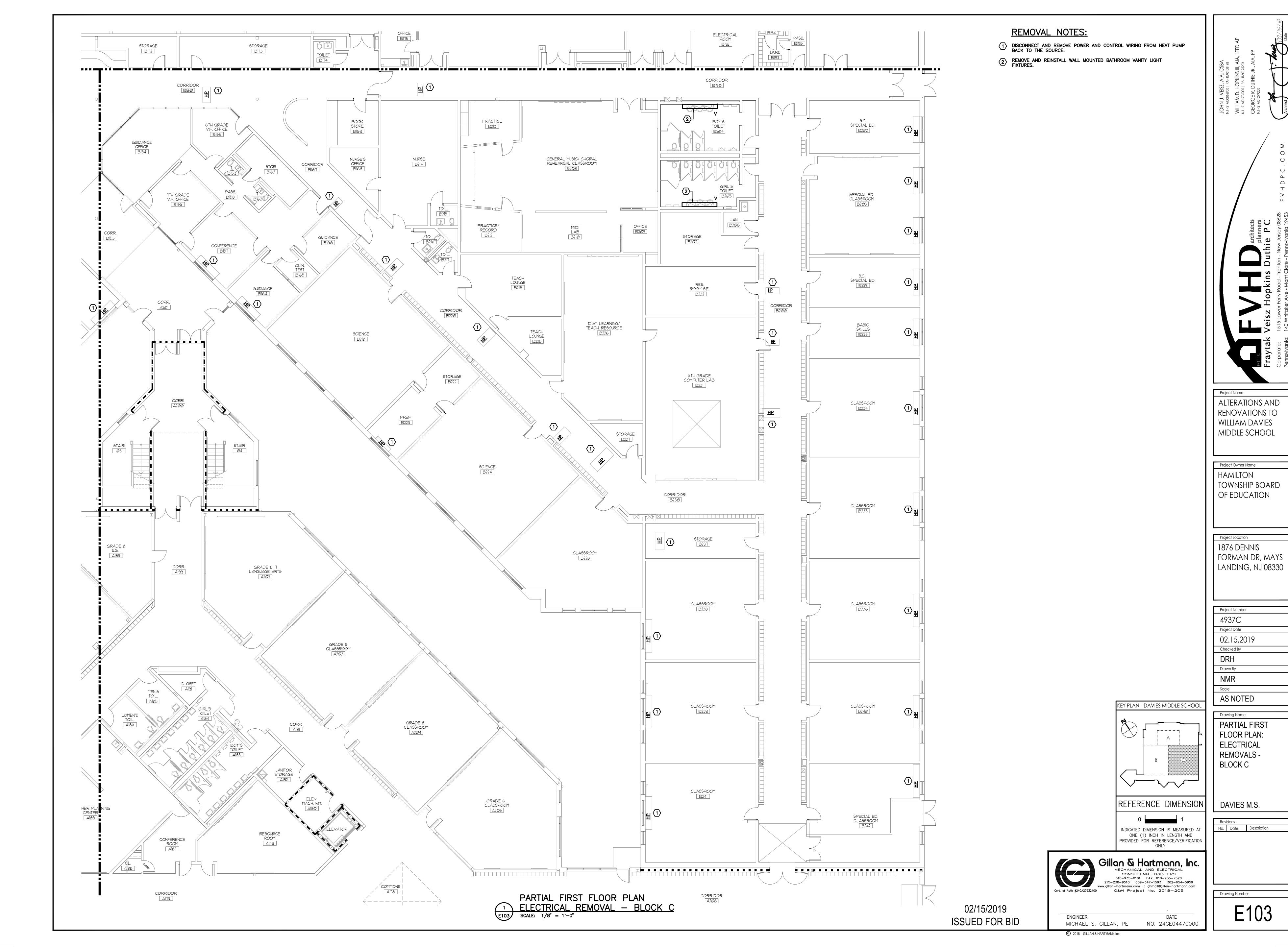
REMOVALS -

SHANER E.S.

No. Date Description

BLOCKS D1 & D2

OF EDUCATION



PEMOVAL NOTES:

SOLAR PANELS TO BE REMOVED AND REINSTALLED TO FACILITATE NEW RTU INSTALLATION. COORDINATE EXTENT OF SOLAR PANEL REMOVAL/REINSTALL WITH THE HVAC CONTRACTOR.

Estate

Fraytak Veisz Hopkins Duthie P C

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628

Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C . C O M

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR, MAYS
LANDING, NJ 08330

Project Number

4937C

Project Date

02.15.2019

Checked By

DRH

NMR Scale AS NOTED

ROOF PLAN:
ELECTRICAL
PEMOVALS

REMOVALS

DAVIES M.S.

Revisions
No. Date Description

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Drawing Number

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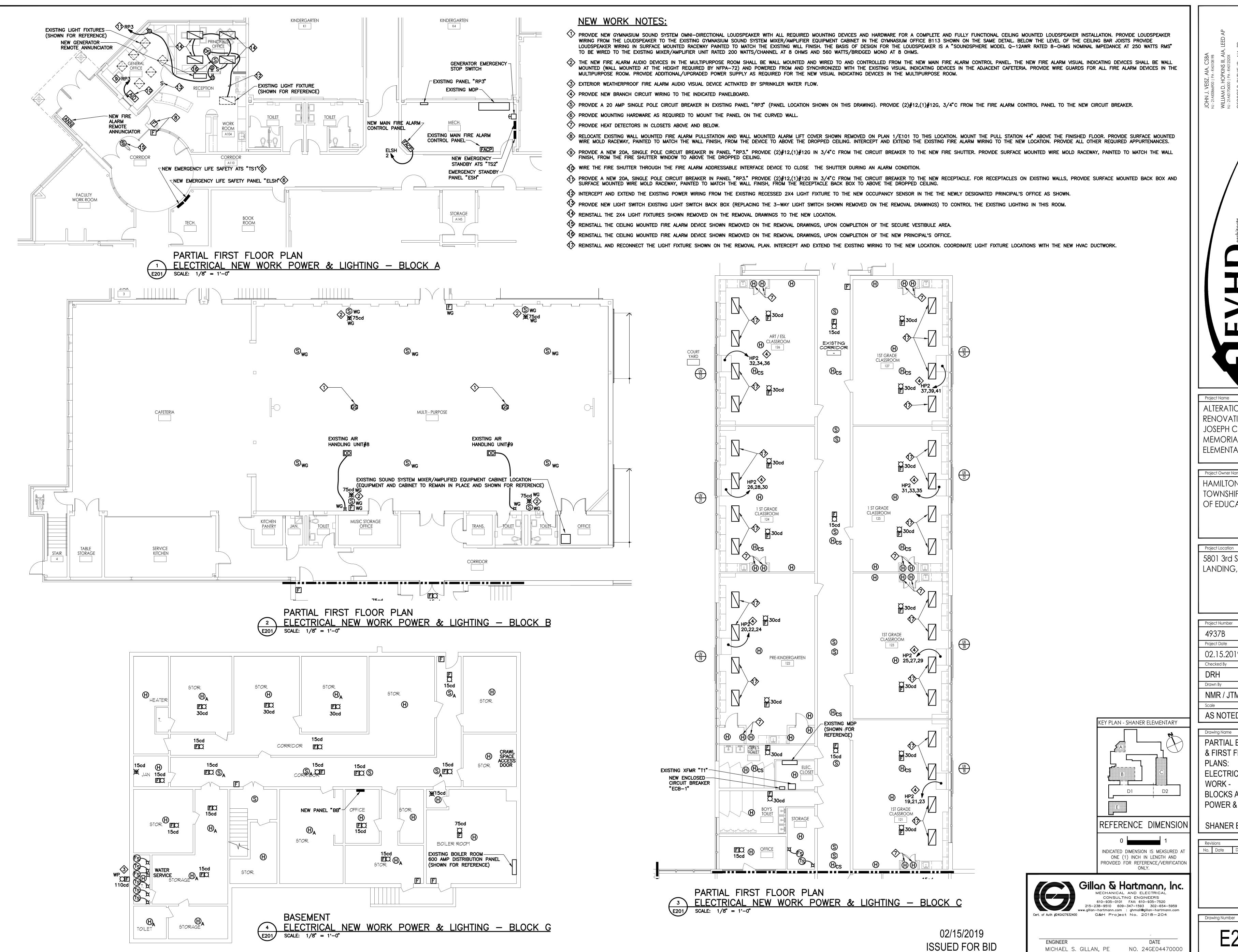
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Cert. of Auth #24GA27932400 G&H Project No. 2018-205

ENGINEER DATE
MICHAEL S. GILLAN, PE NO. 24GE04470000

REFERENCE DIMENSION

MICHAEL S. GILLAN, PE



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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS

LANDING, NJ 08330

02.15.2019

DRH

NMR / JTM AS NOTED

PARTIAL BASEMENT & FIRST FLOOR PLANS: **ELECTRICAL NEW** WORK -

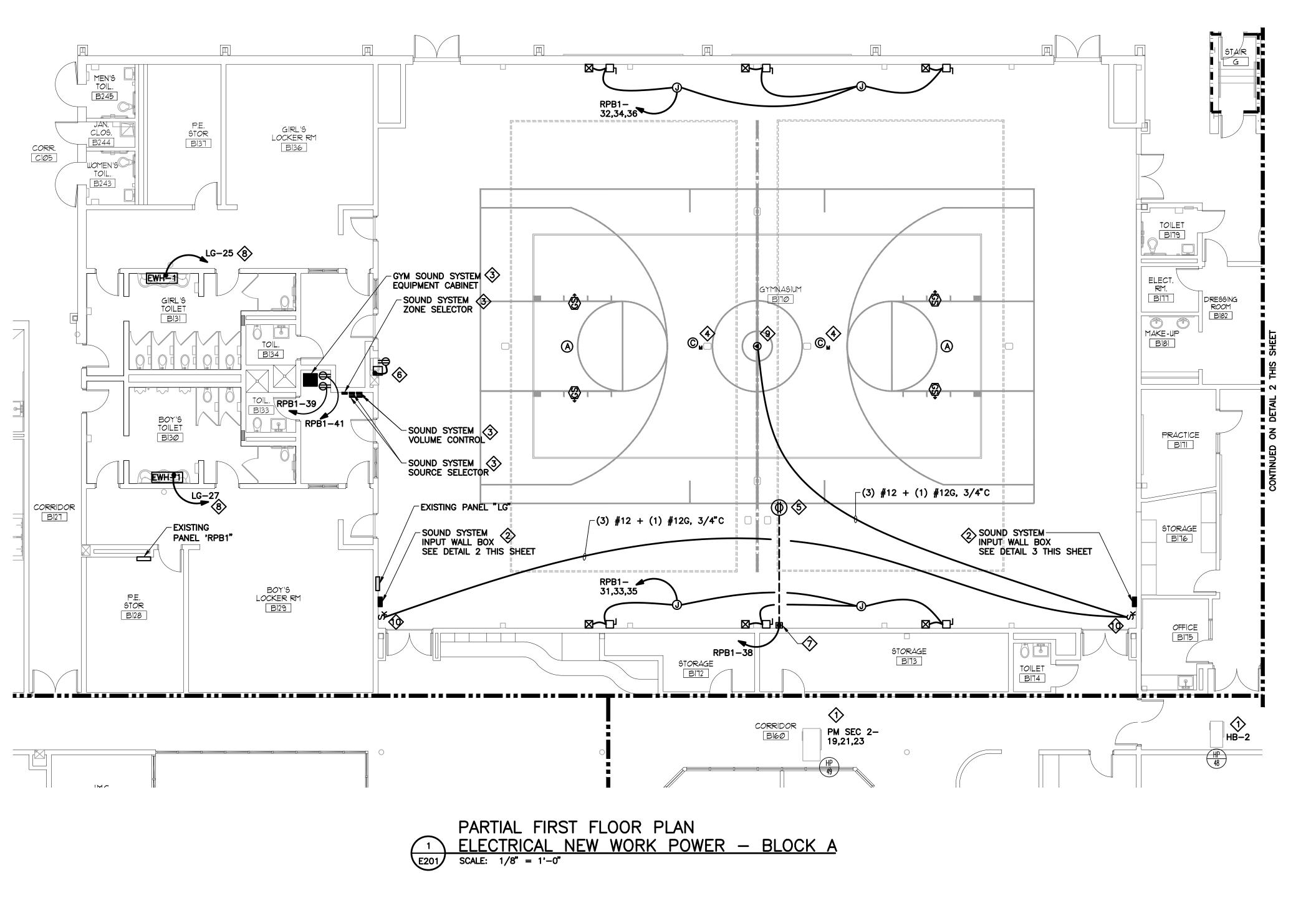
BLOCKS A, B, C, & E -POWER & SYSTEMS

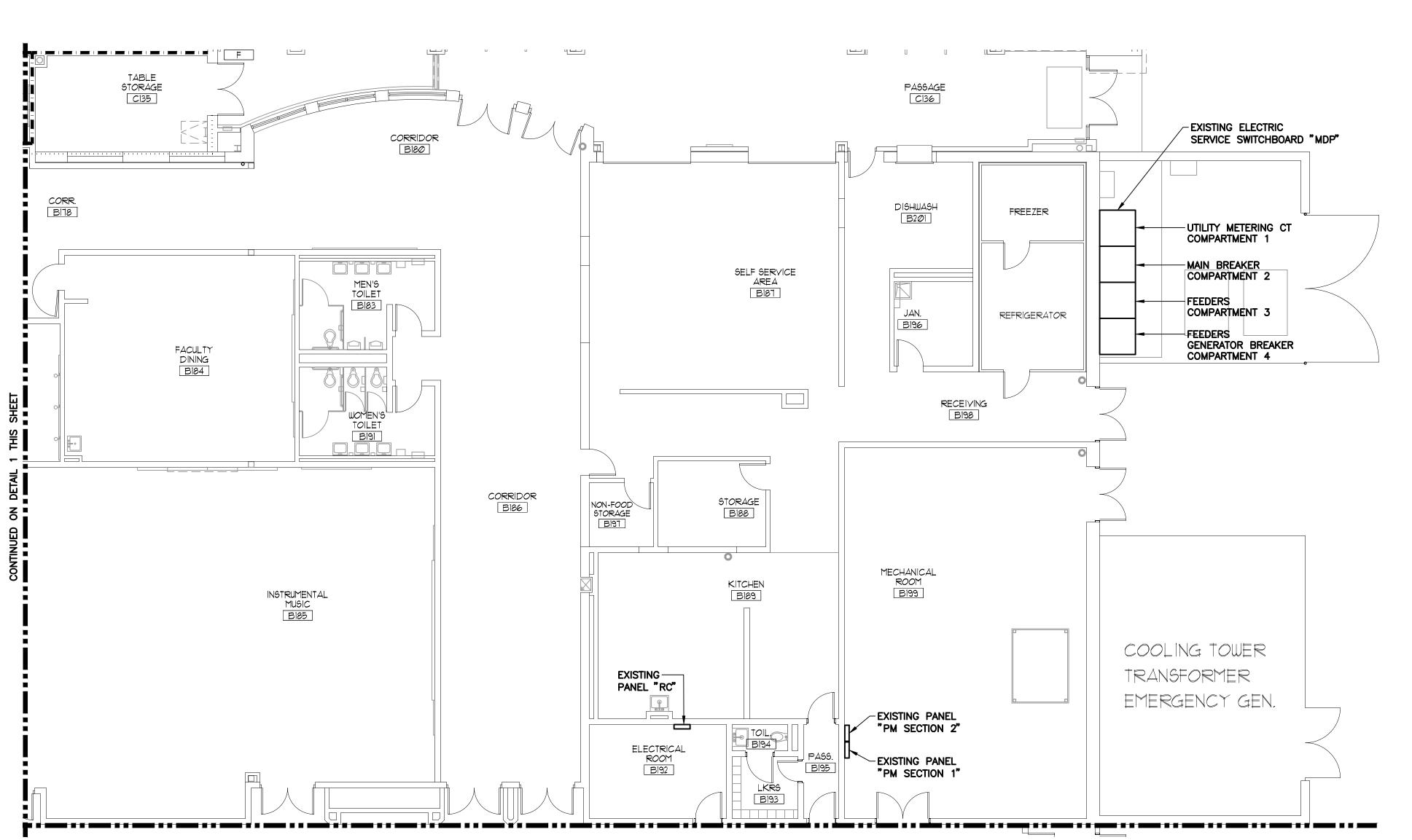
SHANER E.S.

No. Date Description

E201

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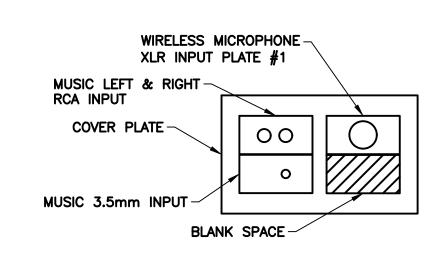
PARTIAL FIRST FLOOR PLAN

ELECTRICAL NEW WORK POWER — BLOCK A

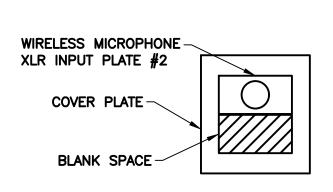
SCALE: 1/8" = 1'-0"

NEW WORK NOTES:

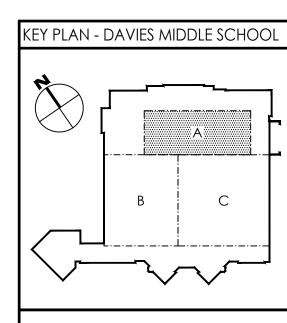
- INTERCEPT AND EXTEND THE EXISTING BRANCH CIRCUIT WIRING RETAINED DURING DEMOLITION TO THE NEW HVAC UNIT. EXISTING PANEL AND CIRCUIT NUMBERS SHOWN FOR REFERENCE.
- FOR NEW DEVICES BELOW CEILINGS IN OCCUPIED SPACES USED FOR ATHLETIC ACTIVITIES (SUCH AS GYMNASIUMS) THAT ARE REQUIRED TO BE INSTALLED ON EXISTING WALLS, PROVIDE WIRING IN CONDUIT PAINTED TO MATCH THE WALL AND PROVIDE FITTED BACKBOXES (FITTED - COLOR AND SIZE MATCHED TO THE DIMENSIONS OF THE SOUND SYSTEM DEVICE. NON-FITTED BACKBOXES ARE NOT PERMITTED. PROVIDE WIRE PROTECTIVE ENCLOSURE OVER THE WALL MOUNTED DEVICE FOR PROTECTION. CONSULT WITH GYMNASIUM SOUND SYSTEM CONTRACTOR AND OWNER FOR EXACT LOCATION OF SOUND SYSTEM INPUTS PRIOR TO INSTALLATION.
- 3 SEE DETAIL 1/E500.
- PROVIDE CARBON MONOXIDE DETECTOR SURFACE MOUNTED ON THE GYMNASIUM CEILING.
- PROVIDE A RECESS FLUSH FLOOR MOUNTED OUTLET BOX SUITABLE FOR THE EXISTING FLOOR CONSTRUCTION WITH A BRASS COVERPLATE WITH SCREW-IN/OUT ACCESS COVERS TO ACCESS OUTLETS OF ONE DUPLEX RECEPTACLE AND ONE XLR MICROPHONE OUTLET PROVIDED WITH THE GYMNASIUM SOUND SYSTEM. COORDINATE THE EXACT LOCATION WITH THE OWNER AND ARCHITECT PRIOR TO INSTALLATION.
- PROVIDE NEW RECEPTACLE FOR THE NEW ELECTRIC WATER COOLER EWC-1. INTERCEPT AND EXTEND BRANCH CIRCUIT WIRING, PRIOR TO INSTALLATION, VERIFY WHICH 20A CIRCUIT BREAKER IN PANEL "RC" FEEDS THE EXISTING RECEPTACLE AND REPLACE IT WITH A NEW 20A GFI BREAKER. COORDINATE EXACT LOCATION OF THE EWC-1 RECEPTACLE WITH THE HVAC CONTRACTOR.
- 7> PROVIDE A TWO CHANNEL METAL WALL-SURFACE MOUNTED RACEWAY (WIREMOLD OR EQUAL, PAINTED TO MATCH THE EXISTING WALL FINISH) EXTENDING FROM THE CEILING DOWN TO THE SEPARATE FLOOR CONDUITS FOR POWER AND FOR THE SOUND SYSTEM MICROPHONE
- 8 COORDINATE THE EXACT LOCATION WITH THE PLUMBING CONTRACTOR PRIOR TO INSTALLATION.
- GENERAL CONTRACTOR TO PROVIDE NEW TWIST LOCK RECEPTACLE FOR THE DIVIDER CURTAIN TWIST LOCK PLUG, COORDINATE MOUNTING AND EXACT LOCATION WITH THE GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR TO INSTALL NEW BRANCH CIRCUIT WIRING TO THE INDICATED PANELBOARD.
- GENERAL CONTRACTOR TO PROVIDE (2) KEY SWITCHES FOR THE DIVIDER CURTAIN. INSTALLATION AND WIRING OF THE SWITCHES BY ELECTRICAL CONTRACTOR. COORDINATE MOUNTING AND EXACT LOCATIONS WITH THE GENERAL CONTRACTOR.



2 SOUND SYSTEM INPUT DETAIL E201 SCALE: NONE



3 SOUND SYSTEM INPUT DETAIL
E201 SCALE: NONE



REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

NO. 24GE04470000



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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number 4937C 02.15.2019 DRH

AS NOTED

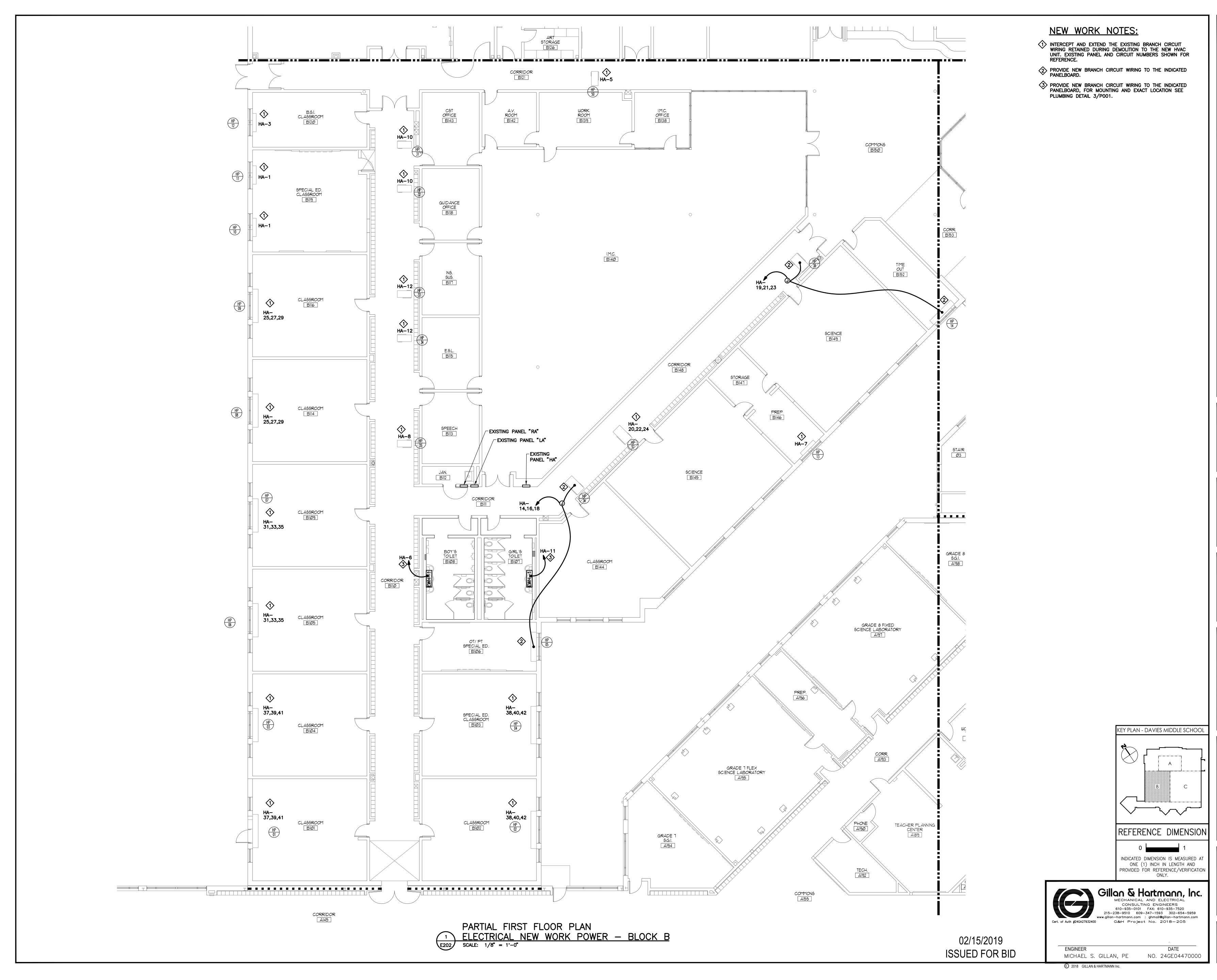
PARTIAL FIRST FLOOR PLAN: **ELECTRICAL NEW** BLOCK A - POWER AND SYSTEMS

DAVIES M.S.

No. Date Description

Drawing Number

E201



JOHN J. VEISZ, AIA, CSBA
NJ-21AI00866900 | PA-RA0108198
WILLIAM D. HOPKINS III, AIA, LEED AI
NJ-21AI01706000 | PA-RA012520X
GEORGE R. DUTHIE JR., AIA, PP
NJ-21AI01299200

sz Hopkins Duthie P C.

ower Ferry Road - Trenton - New Jersey 08628

hitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C . C C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR, MAYS
LANDING, NJ 08330

Project Number
4937C
Project Date
02.15.2019

DRH
Drawn By
NMR

Scale
AS NOTED

PARTIAL FIRST
FLOOR PLAN:
ELECTRICAL NEW
WORK
BLOCK B - POWER

DAV//EQ.M.C

AND SYSTEMS

DAVIES M.S.

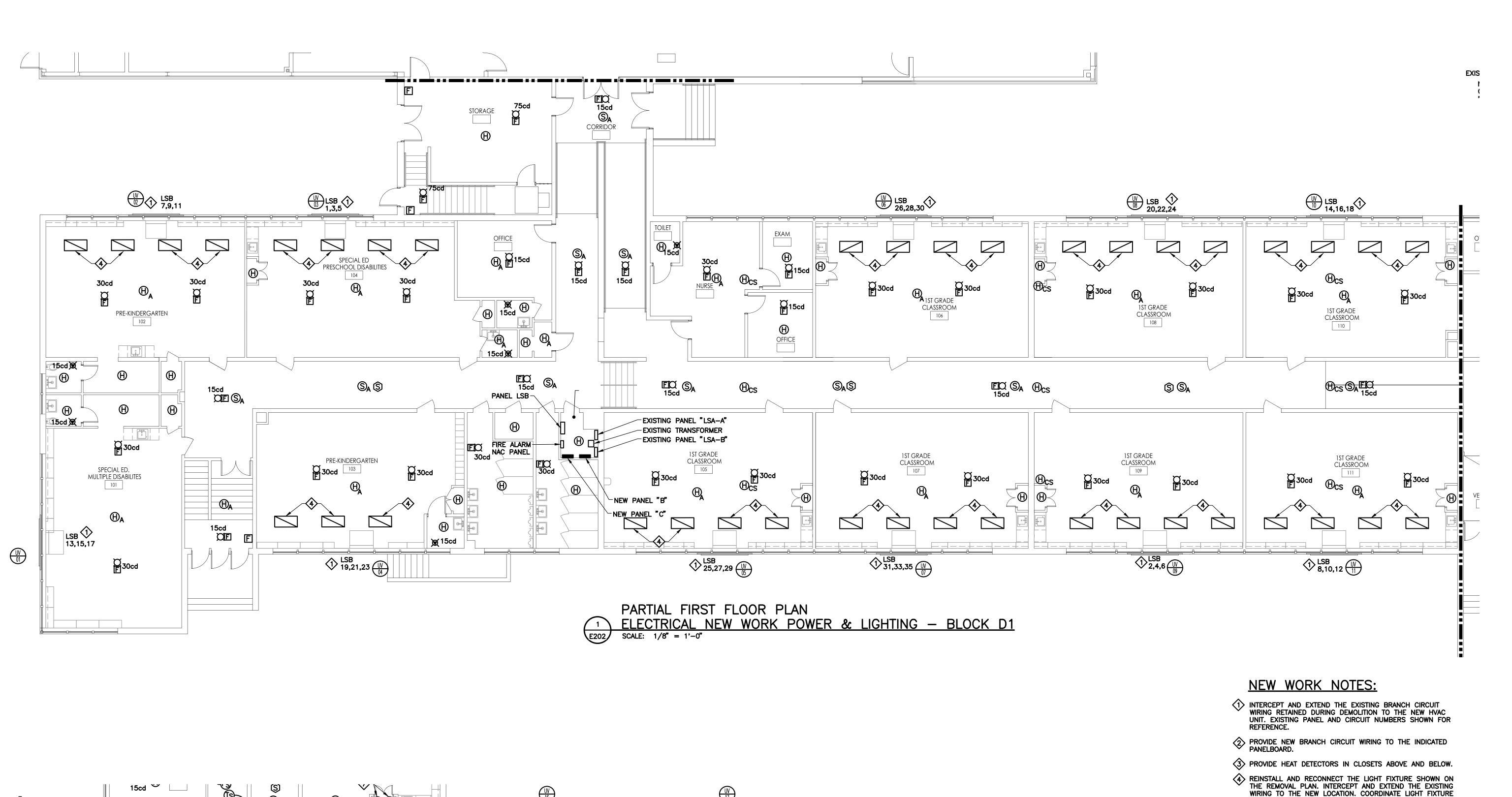
Revisions

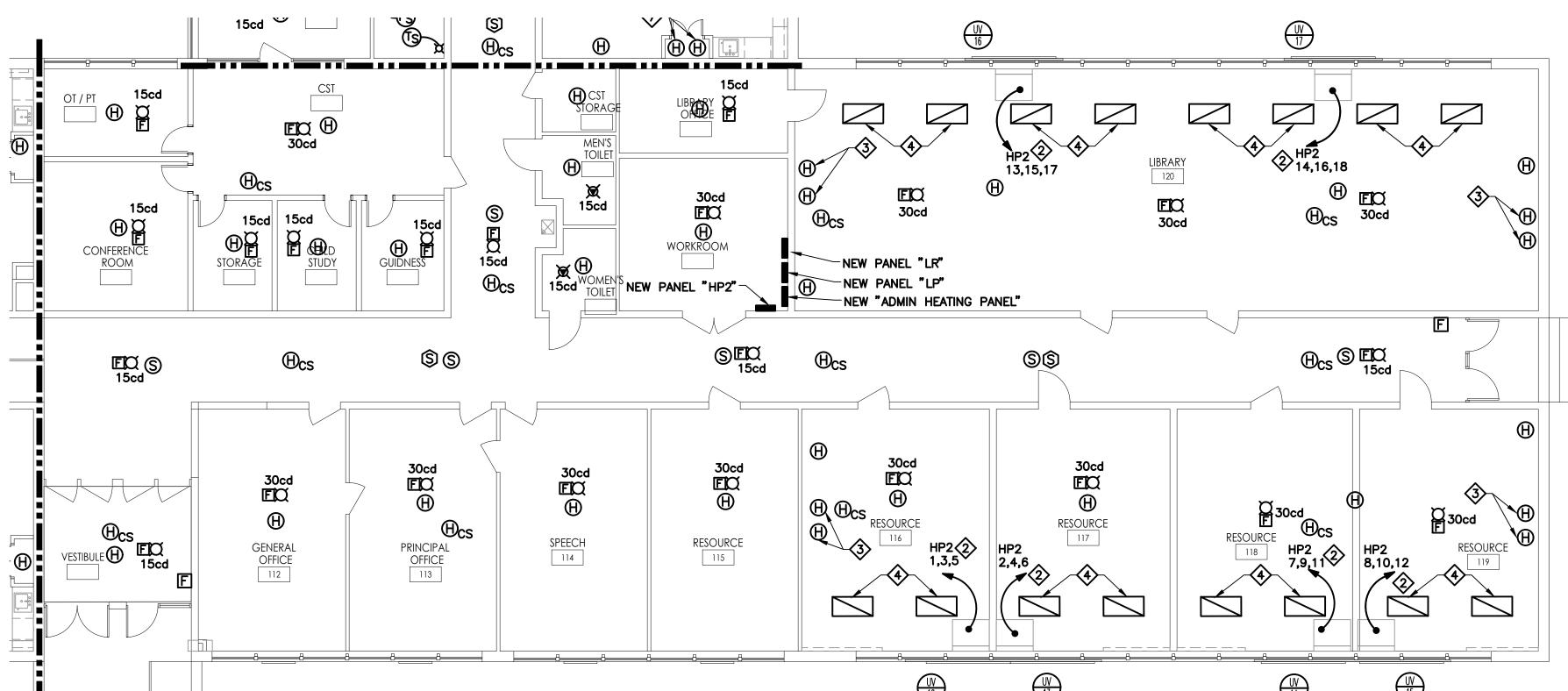
Revisions

No. Date Description

Prawing Number

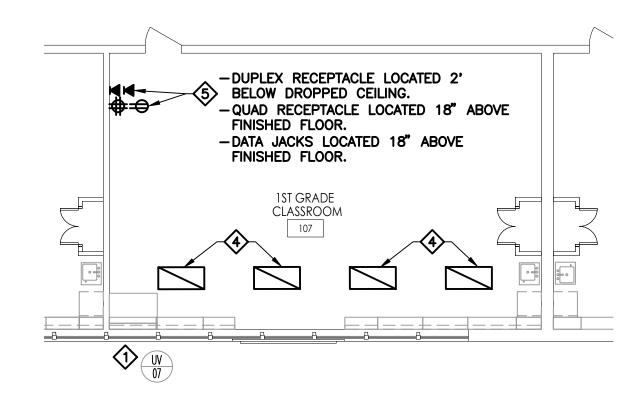
E202





PARTIAL FIRST FLOOR PLAN 2 ELECTRICAL NEW WORK POWER & LIGHTING - BLOCK D2

- REINSTALL AND RECONNECT THE LIGHT FIXTURE SHOWN ON THE REMOVAL PLAN. INTERCEPT AND EXTEND THE EXISTING WIRING TO THE NEW LOCATION. COORDINATE LIGHT FIXTURE LOCATIONS WITH THE NEW HVAC DUCTWORK.
- FELOCATE THE EXISTING OUTLETS SHOWN REMOVED ON DETAIL 3/E102 TO THIS NEW TEACHING STATION LOCATION INDICATED. PROVIDE NEW RECEPTACLES TO REPLACE INDICATED. PROVIDE NEW RECEPTACLES TO REPLACE EXISTING RECEPTACLES REMOVED ON DETAIL 3/E102. INTERCEPT AND EXTEND THE EXISTING BRANCH CIRCUIT WIRING. RELOCATE THE EXISTING DATA CABLE. PROVIDE NEW DATA JACKS AND PUNCH—DOWN THE EXISTING DATA CABLES TO THE NEW JACKS. PROVIDE NEW TWO—CHANNEL (POWER & DATA) SURFACE MOUNTED/WIREMOLD RACEWAY FROM 18" ABOVE THE FINISHED FLOOR TO ABOVE THE DROPPED CEILING.



PARTIAL FIRST FLOOR PLAN ELECTRICAL NEW WORK - CORNER UV INSTALLATION E202

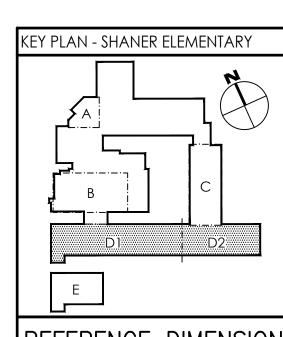
SCALE: 1/8" = 1'-0"

NOTES:

1. THIS PLAN IS TYPICAL FOR CORNER UNIT VENTILATOR INSTALLATIONS. REFER TO THE ARCHITECTURAL DOCUMENTS FOR UNIT VENTILATOR AND TEACHING STATION LOCATIONS.

2. REFER TO, 3/E201, 1/E202, & 2/E202 FOR PANEL BRANCH CIRCUIT DESIGNATIONS.

3. REFER TO NEW WORK FLOOR PLANS FOR FIRE ALARM REPLACEMENT WORK.



REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND

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E202

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RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL Project Owner Name

ALTERATIONS AND

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

Project Number 4937B

Project Date 02.15.2019 Checked By DRH

NMR / JTM

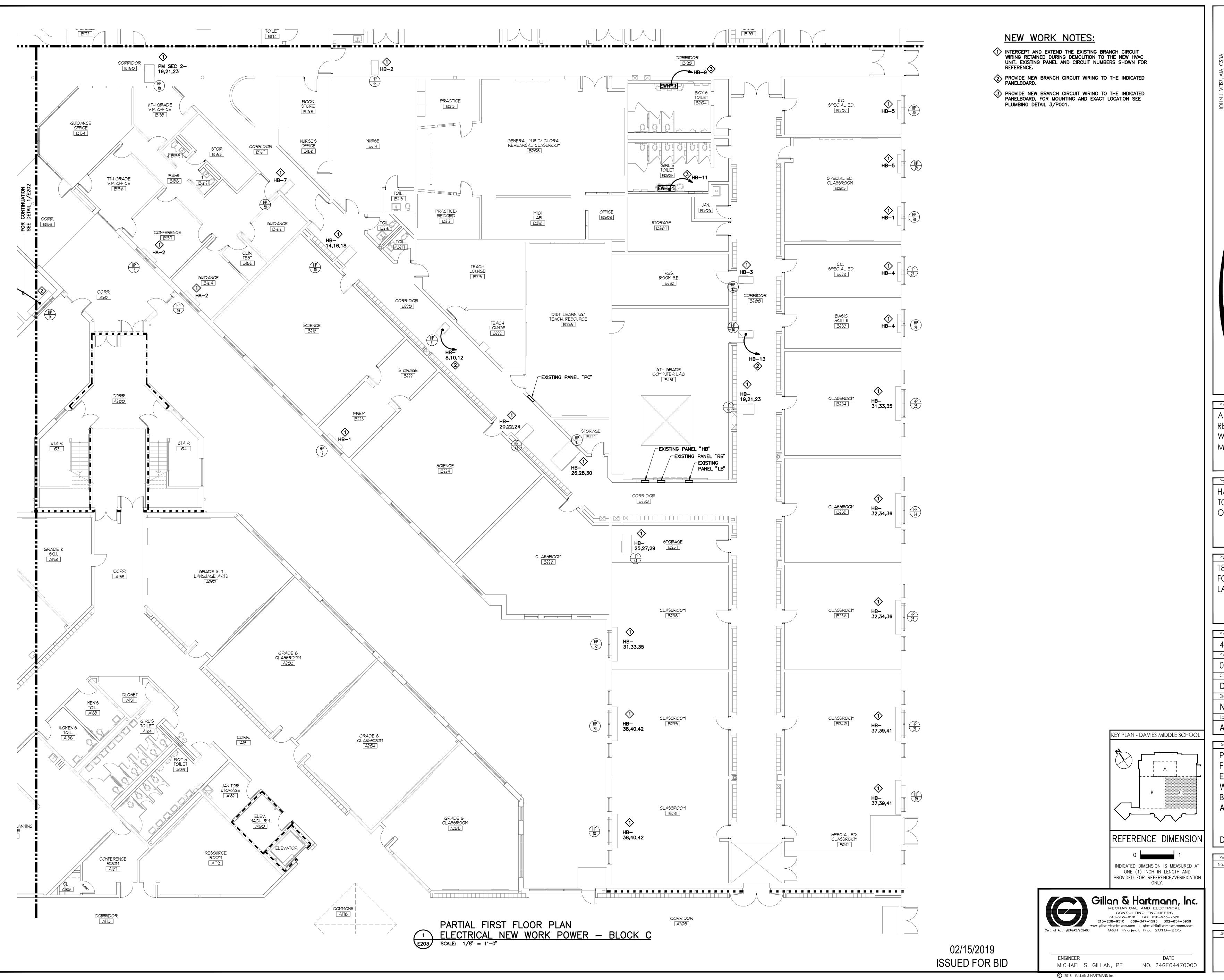
AS NOTED

PARTIAL FIRST FLOOR PLANS: **ELECTRICAL NEW** BLOCKS D1 & D2 -

SHANER E.S.

POWER & SYSTEMS

No. Date Description



nners P C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number 02.15.2019

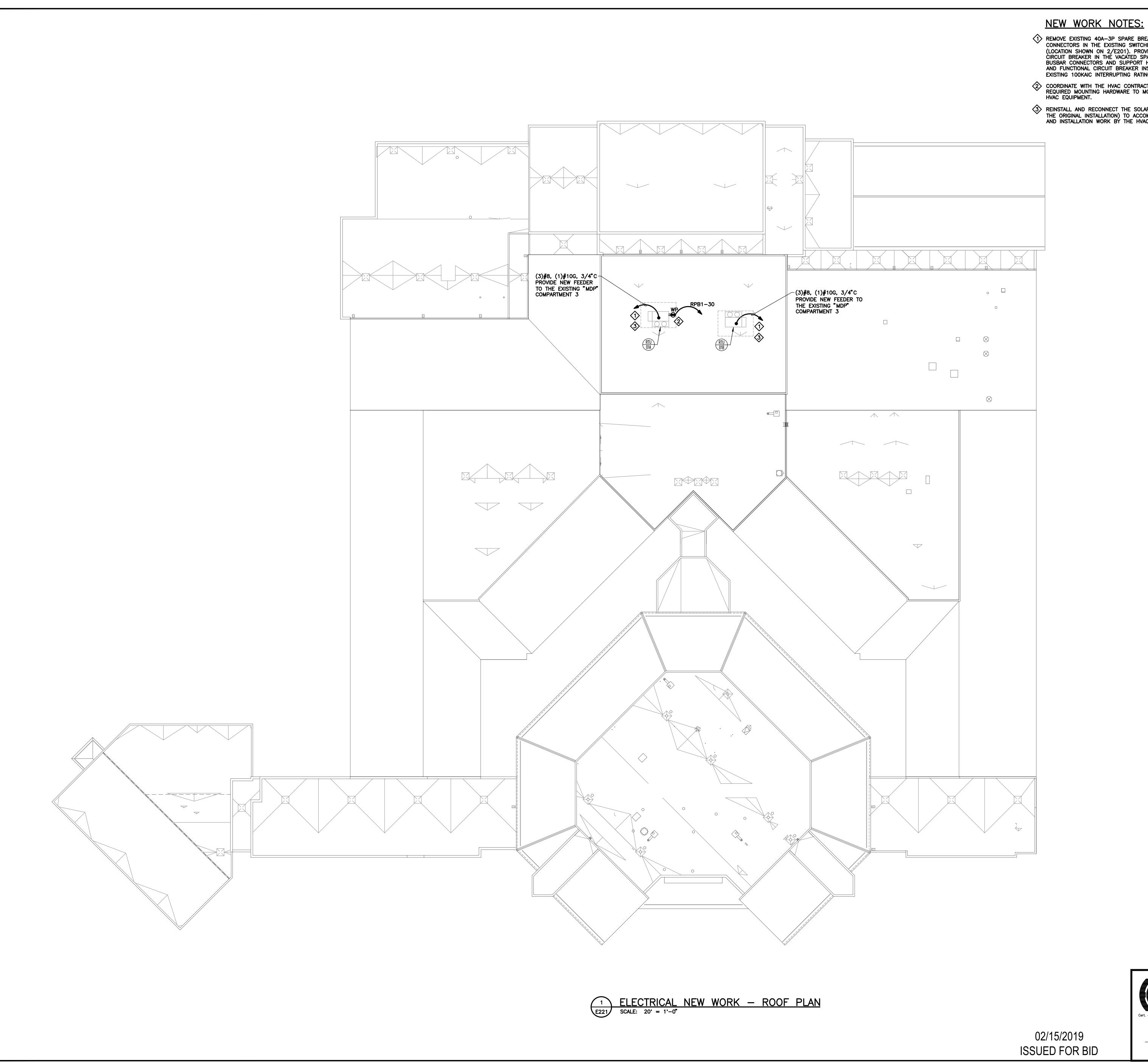
DRH

AS NOTED

PARTIAL FIRST FLOOR PLAN: ELECTRICAL NEW WORK BLOCK C - POWER AND SYSTEMS

DAVIES M.S.

No. Date Description



- REMOVE EXISTING 40A-3P SPARE BREAKER AND ASSOCIATED BUSBAR CONNECTORS IN THE EXISTING SWITCHBOARD "MDP" COMPARTMENT 3 (LOCATION SHOWN ON 2/E201). PROVIDE A NEW 50A-3-POLE CIRCUIT BREAKER IN THE VACATED SPACE WITH ALL REQUIRED BUSBAR CONNECTORS AND SUPPORT HARDWARE FOR A COMPLETE AND FUNCTIONAL CIRCUIT BREAKER INSTALLATION THAT MAINTAINS THE EXISTING 100KAIC INTERRUPTING RATING OF SWITCHBOARD "MDP."
- COORDINATE WITH THE HVAC CONTRACTOR AND PROVIDE ALL REQUIRED MOUNTING HARDWARE TO MOUNT THE RECEPTACLE TO THE HVAC EQUIPMENT.
- REINSTALL AND RECONNECT THE SOLAR PANELS REMOVED (TO MATCH THE ORIGINAL INSTALLATION) TO ACCOMMODATE THE RTU REMOVAL AND INSTALLATION WORK BY THE HVAC CONTRACTOR.

nners P C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 DRH

AS NOTED

ROOF PLAN:

ELECTRICAL NEW

DAVIES M.S.

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY. No. Date Description

Drawing Number

NO. 24GE04470000

ENGINEER

MICHAEL S. GILLAN, PE

Gillan & Hartmann, Inc.

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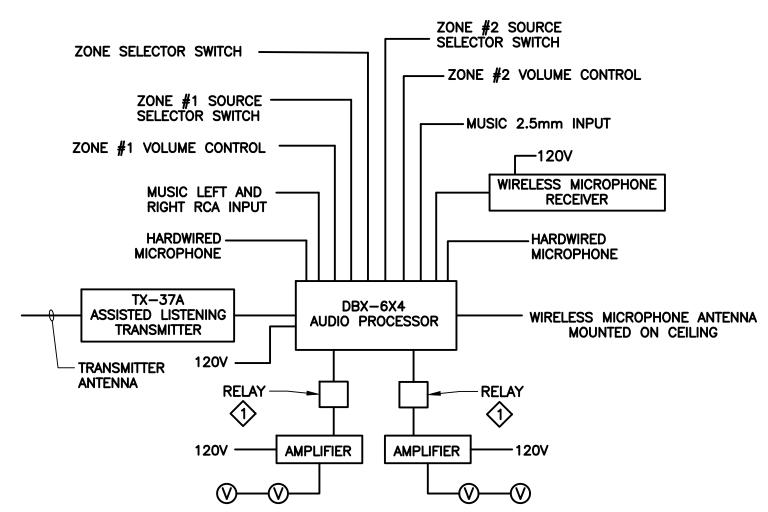
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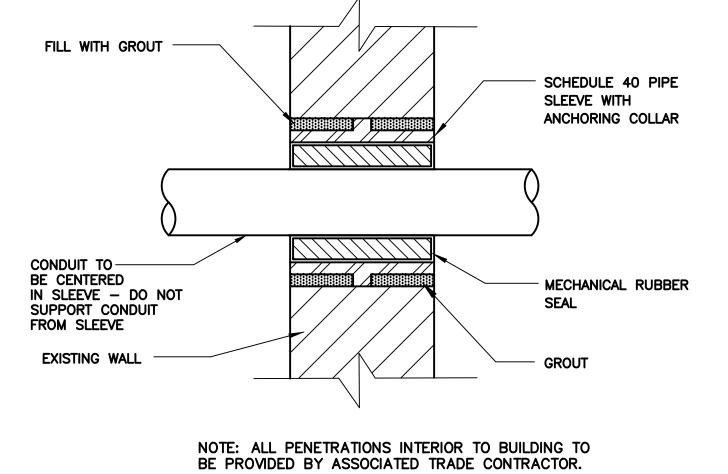
REFERENCE DIMENSION

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SHEET NOTES:

PRIORITY OVERRIDE RELAY WIRED IN THE SPEAKER AMPLIFIER CIRCUIT BY OTHERS.

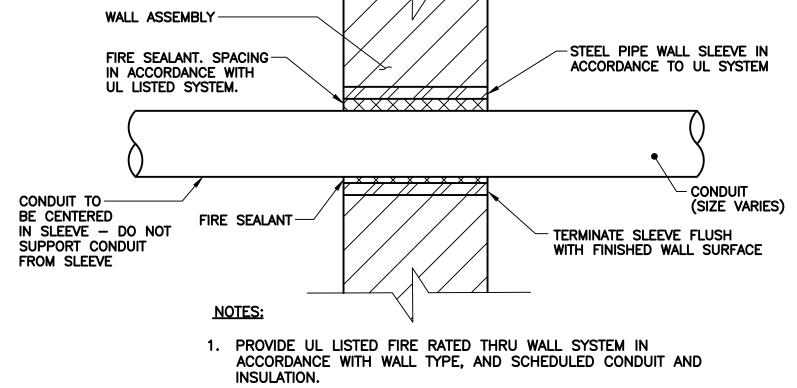




DETAIL - CONDUIT THRU EXTERIOR WALL

SOURCE

DETAIL - CONDUIT THRU EXTERIOR WALL

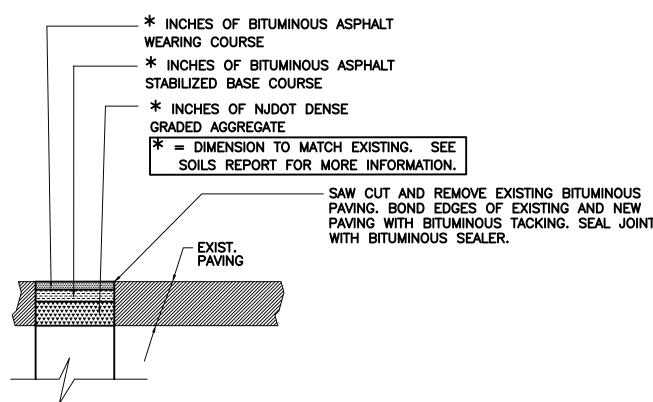


2. ALL PENETRATIONS INTERIOR TO BUILDING TO BE PROVIDED BY ASSOCIATED TRADE CONTRACTOR.

3. FOR NON-FIRE RATED WALL ASSEMBLIES: UTILIZE STANDARD CAULK IN LIEU OF FIRE CAULK. 3 DETAIL - TYPICAL CONDUIT THRU WALL
E500 NO SCALE

GYMNASIUM SOUND SYSTEM RISER DIAGRAM

E500 SCALE: NONE



4 BITUMINOUS/ASPHALT PATCHING DETAIL
E500 NO SCALE

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

planners e P C

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By DRH

AS NOTED

Drawing Name ELECTRICAL

DETAILS

DAVIES M.S.

No. Date Description

Drawing Number E500

ENGINEER MICHAEL S. GILLAN, PE

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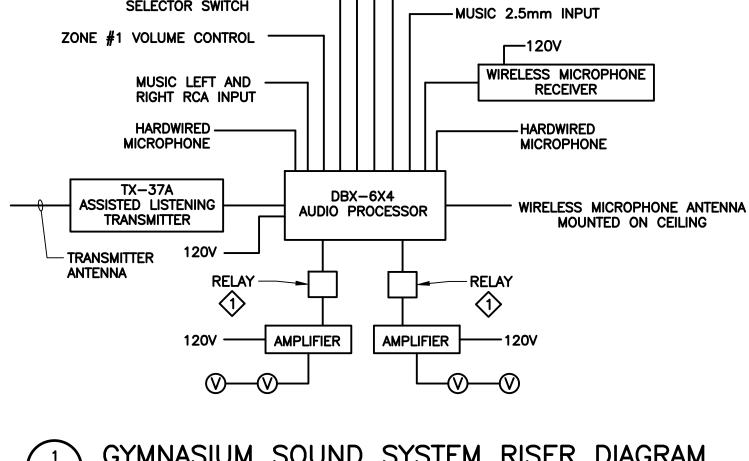
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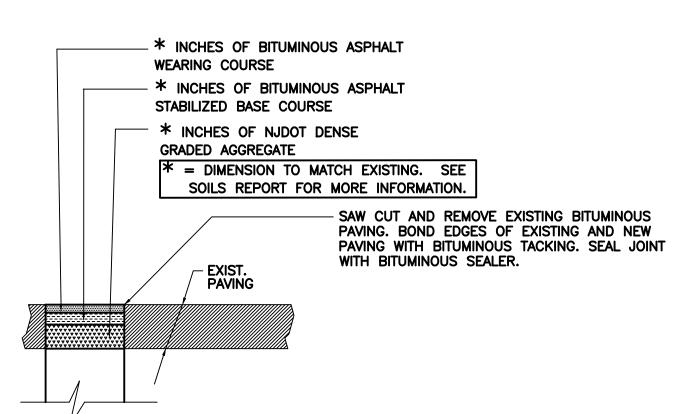
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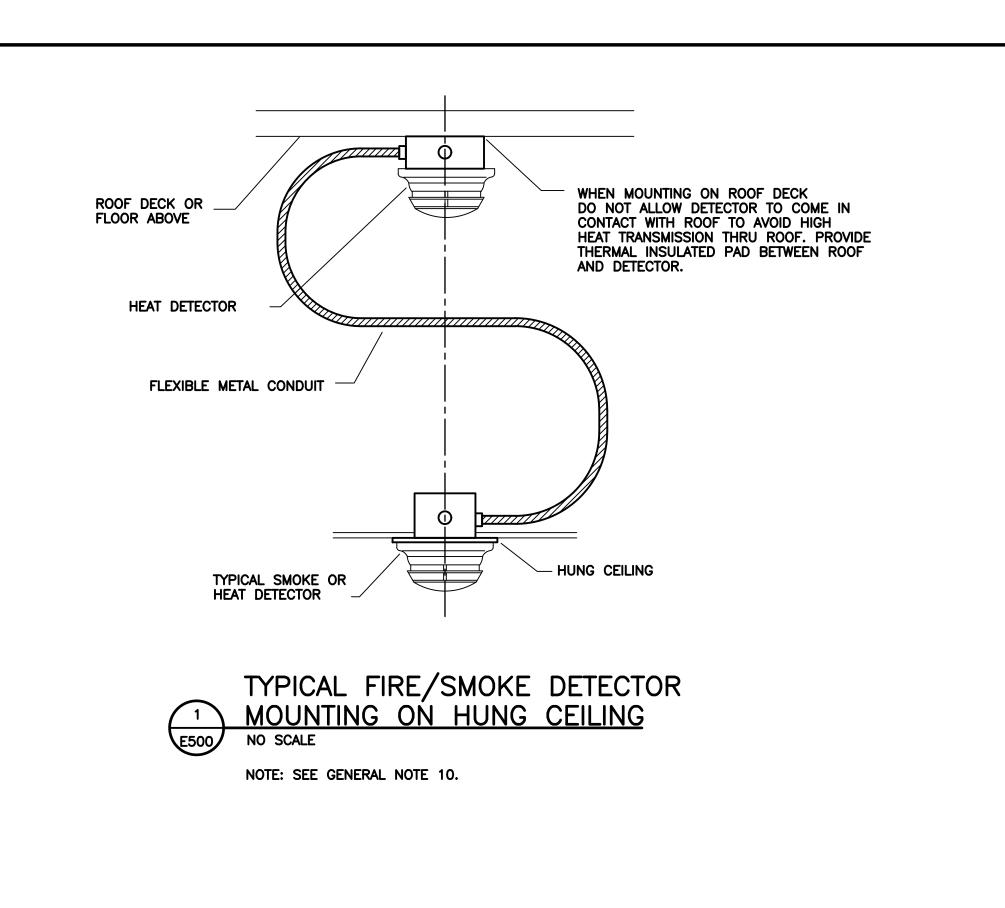
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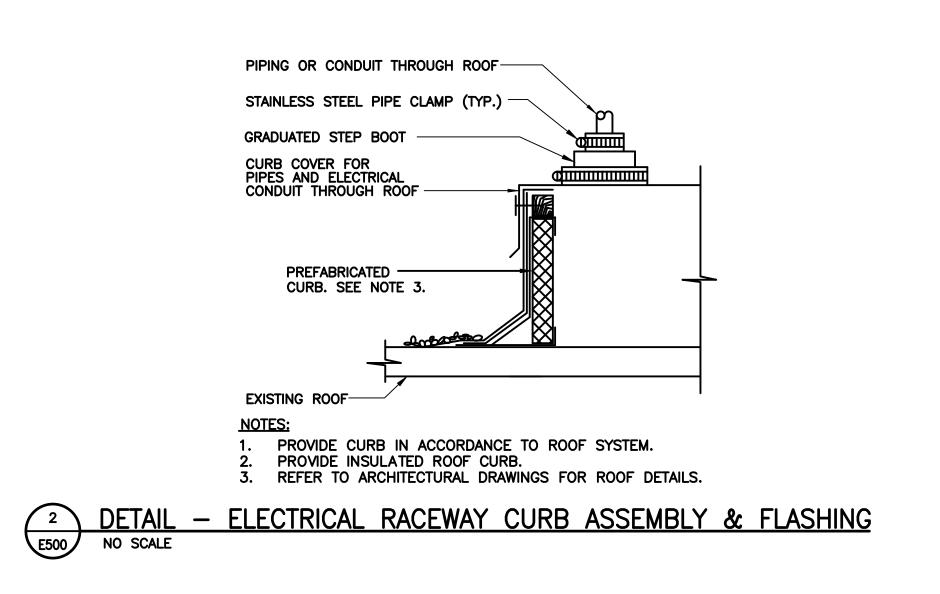
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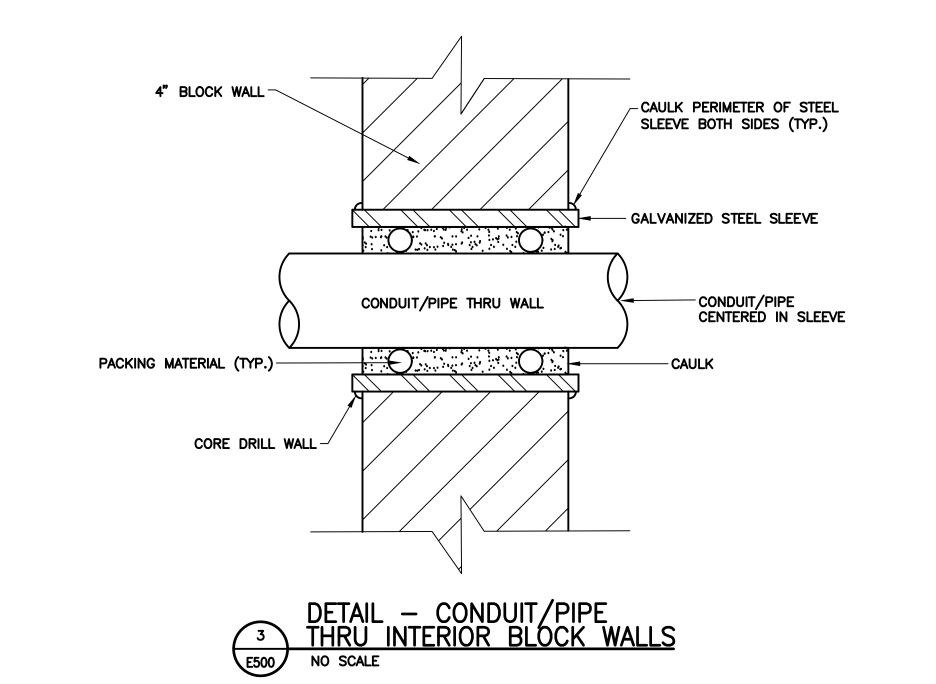
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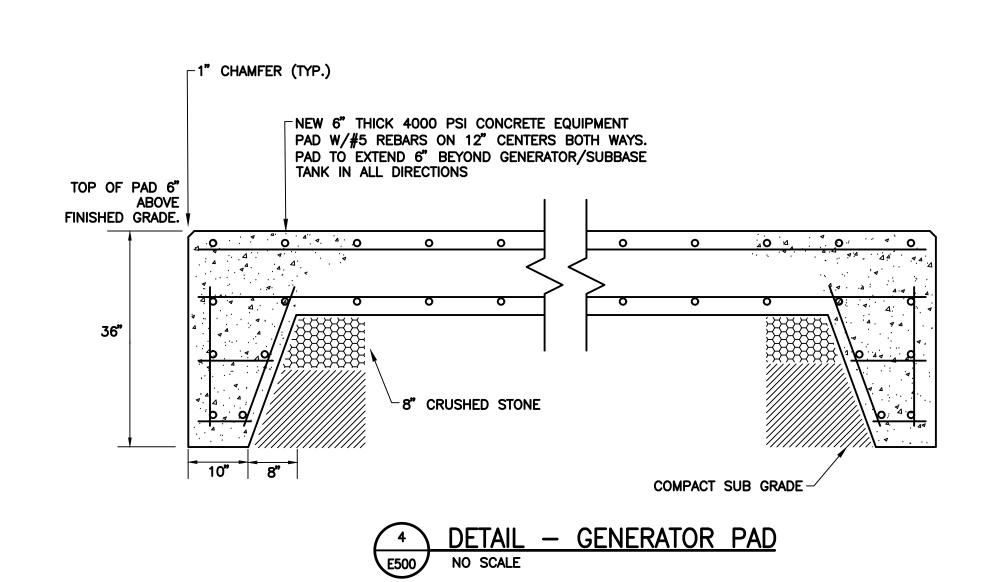


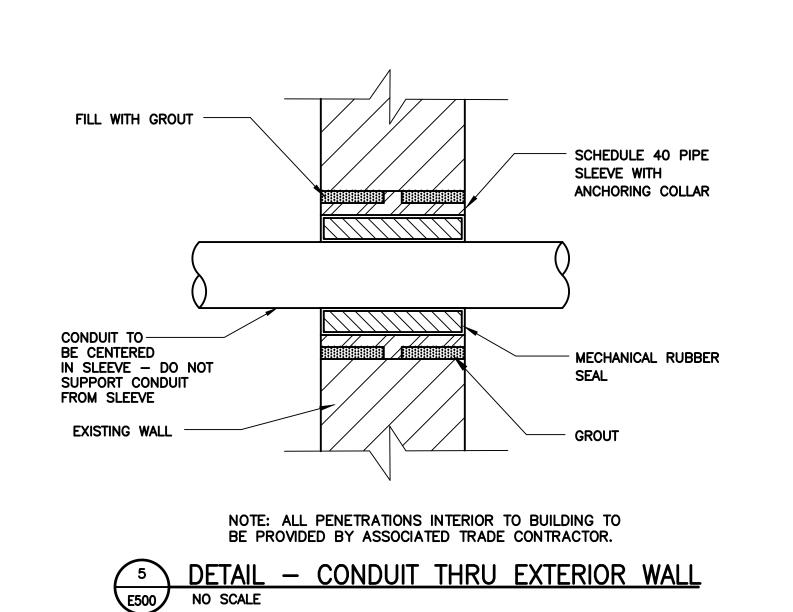


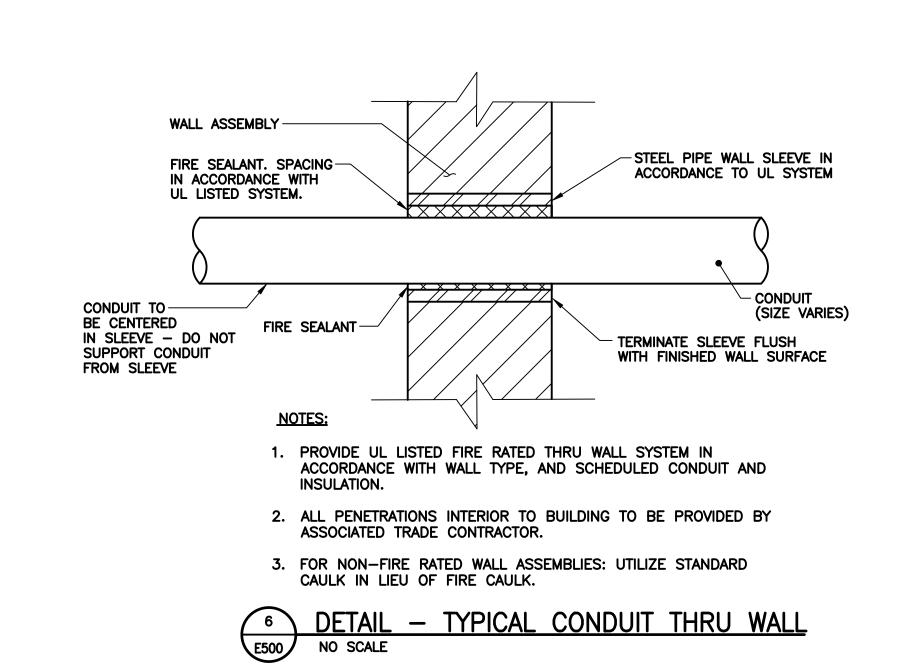






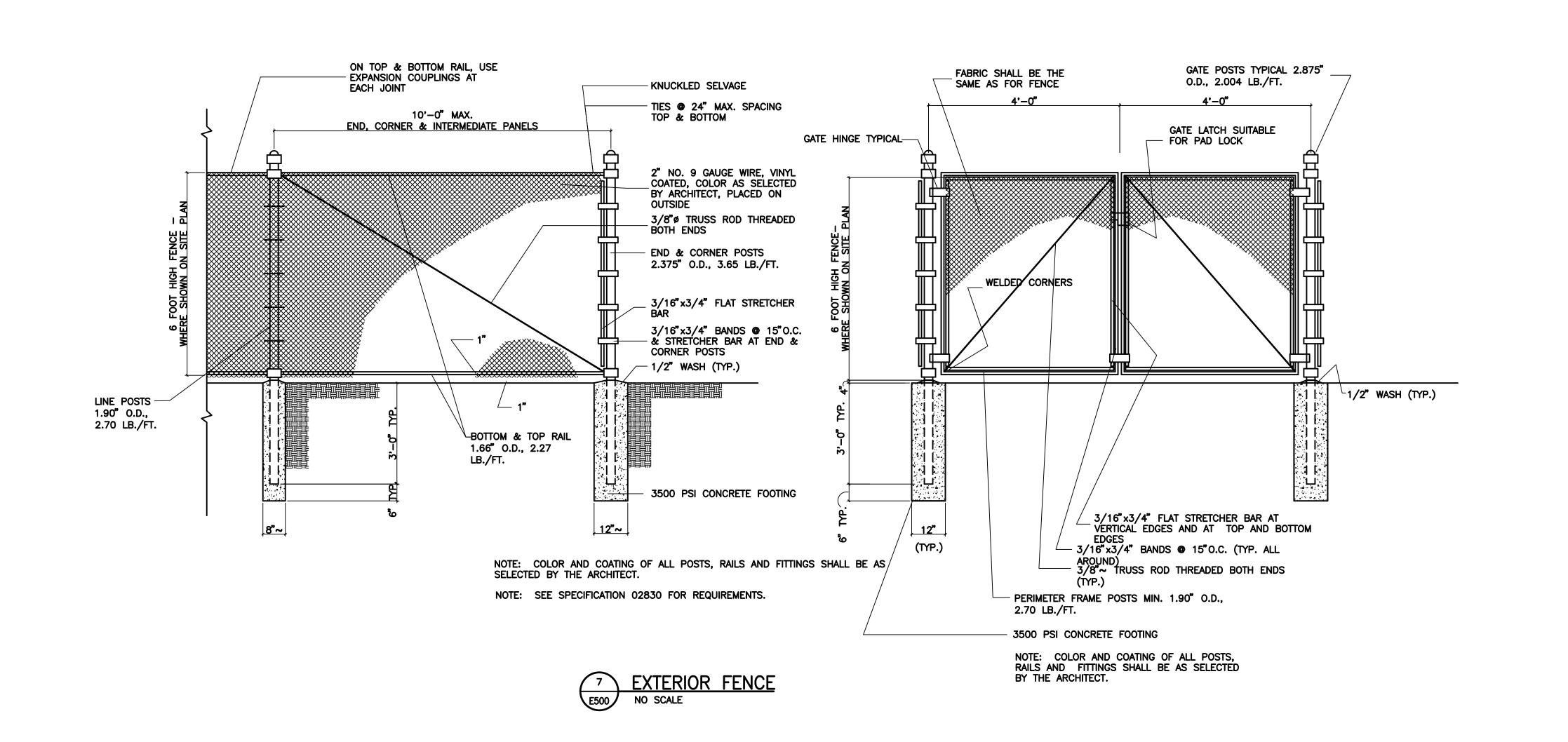






02/15/2019

ISSUED FOR BID



REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.



ENGINEER MICHAEL S. GILLAN, PE

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E500

Drawing Number

planners e P C

ALTERATIONS AND

JOSEPH C. SHANER

ELEMENTARY SCHOOL

TOWNSHIP BOARD

5801 3rd ST, MAYS

LANDING, NJ 08330

OF EDUCATION

RENOVATIONS TO

MEMORIAL

Project Owner Name

HAMILTON

Project Location

Project Number

02.15.2019

NMR / JTM

AS NOTED

Drawing Name

DETAILS

ELECTRICAL

SHANER E.S.

No. Date Description

4937B

Project Date

Checked By

DRH

											GENE	RALF	PANEL	L DAT	^T A				AIC:	14KAIC		
TES	NEW PANEL - SHANER ELEMENTARY	/					AD	MIN	HEA.	TING	VOLT:		277V, 3	3PH, 4V	٧				MOUNT:	SURFACE		NOTES
NOT											BUS:	225A		_		MAIN						_ t
Ž	LOAD SERVED	COND	GRD		RE	KVA	BKR	CKT	Pł	HASE LO		CKT	BKR	KVΔ	COND	GRD	WI			LOAD SERVE	-D	Ž
	LO/ (D CET (V E D		OND	SIZE	NO.	IXV/X	SIZE	No.	Α	В	С	No.	SIZE	IXV/X		OIND	SIZE	NO.				\perp
1	EXISTING LOAD	3/4"	#12	#10	2	2.0	30	1	4.0			2	30	2.0	3/4"	#12	#10	2		EXISTING LO	AD	
	SPARE						30	3		2.0		4	30	2.0	3/4"	#12	#10	2		EXISTING LO	AD	•
1	EXISTING LOAD	3/4"	#12	#10	2	2.0	30	5			2.0	6	30							SPARE		
	SPARE						30	7	2.0			8	30	2.0	3/4"	#12	#10	2		EXISTING LO	AD	1
	SPARE						20	9		0.0		10	30							SPARE		
	SPARE						30	11			2.0	12	30	2.0	3/4"	#12	#10	2		EXISTING LO	AD	1
							30		2.0				60	2.0								
	SPARE						3P	13		2.0		14	3P	2.0	1"	#10	#4	3		EXISTING LO	AD	1
							31				2.0		JI	2.0								
						2.0	30		4.0				30	2.0								
1	EXISTING LOAD	3/4"	#12	#10	3	2.0	3P	15		4.0		16	3P	2.0	3/4"	#12	#10	3		EXISTING LO	AD	1
						2.0					4.0			2.0								
	SPARE						20	17	0.0			18	20							SPARE		
	SPARE						20	19		0.0		20	20							SPARE		
	SPARE						20	21			0.0	22	20							SPARE		
LOC	CATION: WORKROOM								12.0	8.0	10.0		E KVA	ļ								
NO	<u>TES</u>									30.0		TOTA	L KVA									
1.	EXTEND EXISTING BRANCH CIRCUIT E	XTEND	ED FR	OM EX	ISTING	ADMI	N HEAT	ING PA	NEL (NO	DW USE	O AS A J	UNCTIC	N BOX	().								
2.																						

											GENE	RALF	PANE	L DAT	ΓA				AIC:	10KAIC	
S	NEW PANEL - SHANER ELEMENTAR	RY							В		VOLT:	480Y/	277V, 3	BPH, 4\	N				MOUNT:	SURFACE	U. LI
IF											BUS:	100A				MAIN	70A				
2	LOAD SERVED	COND	GRD	SIZE	RE NO.	KVA	BKR SIZE	CKT No.	Pl A	HASE LO	AD C	CKT No.	BKR SIZE	KVA	COND	GRD	SIZE	RE NO.		LOAD SERVE	D
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	1	2.0			2	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	3		2.0		4	20	1.0	3/4"	#12	#12	2		EXISTING LOA	
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	5			2.0	6	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	7	2.0			8	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	9		2.0		10	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	11			2.0	12	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	13	2.0			14	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
	SPARE					0.0	20	15		1.0		16	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	17	6.0		2.0	18	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	19	1.0			20	20							SPARE	
1		0/4	#12	#1 2		1.0	20	21		2.0		22	20	1.0	3/4"	#12	#12	2		EXISTING LOA	\D 1
	SPARE						20	23			0.0	24	20							SPARE	
	SPARE						20	25	0.0			26	20							SPARE	
	SPACE							27		0.0		28								SPACE	
	SPACE							29			0.0	30								SPACE	
LOC	CATION: 1950 ELECTRICAL CLOSET								13.0	7.0	6.0	PHAS	E KVA								
NO	<u>res</u>									26.0		TOTAI	L KVA								
1. 2.	EXTEND EXISTING BRANCH CIRCUIT	FROM E	XISTING	G COR	RIDOR	PANE	LB (NO	OW US	ED AS A	JUNCTIO	ON BOX).										

											GENE	RALI	PANE	LDAT	ΓΑ				AIC:	10KAIC		
ES	NEW PANEL - SHANER ELEMENTAR	RY							BB		VOLT:	208Y/	120V, 3	BPH, 4\	Ν				MOUNT:	SURFACE		S
NOT									p 10		BUS:	100A				MAIN						
ž	LOAD SERVED	COND	GRD		IRE	KVA	BKR	CKT	PI	HASE LO	AD	CKT	BKR	Κ \/Δ	COND	GRD	WI	IRE		LOADS	SERVED	Ž
	LOAD OLIVED	COND	OND	SIZE	NO.	IXVA	SIZE	No.	Α	В	С	No.	SIZE	IVVA	00110	OILD	SIZE	NO.		LOAD	DEITVED	
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	1	2.0			2	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	3		2.0		4	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	5			2.0	6	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	7	2.0			8	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	9		2.0		10	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	11			2.0	12	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	13	2.0			14	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	15		2.0		16	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	17			2.0	18	20	1.0	3/4"	#12	#12	2		EVICTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	19	2.0			20	2P	1.0	3/4	#12	#12			LAISTIN	IG LOAD	<u>'</u>
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	21		2.0		22	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	23			2.0	24	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	25	2.0			26	30	1.0	3/4"	#12	#10	2		EYISTIN	IG LOAD	4
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	27		2.0		28	2P	1.0	3/4	#12	#10			LAIGTIN	IG LOAD	_
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	29			2.0	30	20	1.0	3/4"	#12	#12	2		EXISTIN	IG LOAD	1
LO	CATION: BASEMENT STORAGE								10.0	10.0	10.0	PHAS	E KVA									
NO.	<u>TES</u>									30.0		TOTA	L KVA									
1.	EXTEND EXISTING BRANCH CIRCUIT	FROM E	XISTIN	G BAS	EMEN.	T COR	RIDOR	PANEL	B (NOV	/ USED A	S A JUN	CTION	BOX).	•								
2.																						

-, -									_		GENE	RAL F	PANEL	L DAT	ΓΑ				AIC:	10KAIC	
ES	NEW PANEL - SHANER ELEMENTARY	,							C		VOLT:	480Y/	277V, 3	3PH, 4\	N				MOUNT:	SURFACE	0
NOT											BUS:	100A				MAIN					
ž	LOAD SERVED	COND	GRD		RE	KVA	BKR	CKT	PH	IASE LO	٩D	CKT	BKR	KVA	COND	GRD		RE		LOAD SERVED	7
	LOAD SERVED	COND	GIND	SIZE	NO.	IXVA	SIZE	No.	Α	В	С	No.	SIZE	IXVA	COND	GIND	SIZE	NO.		LOAD SLIVED	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	1	4.0			2	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	3		4.0		4	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	15	5			4.0	6	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	7	4.0			8	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	9		4.0		10	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	11			4.0	12	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	13	4.0			14	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	15	15		4.0		16	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	17			4.0	18	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	19	4.0			20	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	21		4.0		22	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
	SPARE						20	23			0.0	24	20							SPARE	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	25	4.0			26	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	27		4.0		28	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	2.0	20	29			4.0	30	20	2.0	3/4"	#12	#12	2		EXISTING LOAD	
LOC	CATION: 1950 ELECTRICAL CLOSET	•	•	•		•	•		20.0	20.0	16.0	PHAS	E KVA						•		
NO	<u>TES</u>									56.0		TOTAL	L KVA								
1.	EXTEND EXISTING BRANCH CIRCUIT F	ROM E	XISTIN	G COR	RIDOR	PANE	LC (NO	ow us	ED AS A	JUNCTIC	N BOX).										

											GENE	RALF	PANEL	L DAT	^T A				AIC:	10KAIC	
	NEW PANEL - SHANER ELEMENTAR	RY						E	_SH		VOLT:		277V, 3	BPH, 4V	V				MOUNT:	SURFACE	
2											BUS:	200A				MAIN					
Ž	LOAD SERVED	COND	GRD		RE	KVA	BKR	CKT	Pł	HASE LC	AD	CKT	BKR	KVA	COND	GRD		RE		LOAD SERVED	
			0,10	SIZE	NO.		SIZE	No.	Α	В	С	No.	SIZE			0,10	SIZE	NO.		20/18 02/11/28	
	EXTERIOR CANOPY LIGHTS	3/4"	#12	#12	2	0.1	20	1	1.3			2	20	1.2	3/4"	#12	#12	2	MAIN FI	RE ALARM CONTR	OL PANEL
	SPARE						20	3		0.0		4	20							SPARE	
	SPARE						20	5			0.0	6	20							SPARE	
	SPARE						20	7	0.0			8	20							SPARE	
	SPARE						20	9		0.0		10	20							SPARE	
	SPARE						20	11			0.0	12	20							SPARE	
	SPACE						20	13	0.0			14	20							SPACE	
	SPACE						20	15		0.0		16	20							SPACE	
	SPACE						20	17			0.0	18	20							SPACE	
	SPACE						20	19	0.0			20	20							SPACE	
	SPACE						20	21		0.0		22	20							SPACE	
	SPACE						20	23			0.0	24	20							SPACE	
	SPACE						20	25	0.0			26	20							SPACE	
	SPACE						20	27		0.0		28	20							SPACE	,
	SPACE						20	29			0.0	30	20							SPACE	
OC	ATION: TECH ROOM A149			•					1.3	0.0	0.0	PHAS	E KVA						•		
TC	<u>ES</u>									1.3		TOTA	L KVA								
												•		•							
2.																					

EW PANEL - SHANER ELEMEN	TARY							SH		VOLT:	480Y/	277V, 3	3PH, 4\	V				MOUNT:	SURFACE	
										BUS:	200A	,	,		MAIN	125A				
LOAD SERVED	SIZE NO.							PI A	HASE LO	AD C	CKT No.	BKR SIZE	KVA	COND	GRD	SIZE	RE NO.		LOAD SERVED	-
SPARE			I I	110.		SIZE 20	No.	0.0			2	20				O IZE	110.		SPARE	_
SPARE						20	3		0.0		4	20				•		•	SPARE	***************************************
SPARE						20	5			0.0	6	20				•			SPARE	
SPACE							7	0.0			8								SPACE	
SPACE							9		0.0		10					•			SPACE	***************************************
SPACE							11	•		0.0	12	•			***************************************	•		-	SPACE	
SPACE							13	0.0			14								SPACE	
SPACE							15		0.0		16								SPACE	
SPACE							17			0.0	18								SPACE	
SPACE							19	0.0			20								SPACE	
SPACE							21		0.0		22								SPACE	
SPACE							23			0.0	24								SPACE	
SPACE							25	0.0			26								SPACE	
SPACE							27	***************************************	0.0		28								SPACE	
SPACE							29			0.0	30								SPACE	
TION: ELECTRICAL ROOM A12	!1	•					•	0.0	0.0	0.0	PHAS	E KVA		•						
<u> </u>									0.0		TOTA	L KVA								

							_			GENE	RAL F	PANE	L DAT	ΓΑ				AIC: 14K	AIC		
NOTES	NEW PANEL - SHANER ELEMENTA	RY					ŀ	IP2		VOLT:	000	277V, 3	3PH, 4\					MOUNT: SU	RFACE		NOTES
O										BUS:	225A				MAIN			***************************************			
Z	LOAD SERVED	COND	GRD		IRE	KVA BKR			ASE LO		CKT	BKR	KVA	COND	GRD		RE	L L	OAD SE	RVED	Z
				SIZE	NO.	SIZE	No.	A	В	С	No.	SIZE				SIZE	NO.				
	10/40	0/4	"40	"40		2.5	1	5.0			2	15	2.5	074	"40	"40			LINZ	10	
	UV-12	3/4"	#12	#12	3	2.5 2.5 3P	5		5.0	5.0	6	3P	2.5 2.5	3/4"	#12	#12	3		UV-	13	
						2.5	7	5.0		3.0	8		2.5	•							
	UV-14	3/4"	#12	#12	3	25 15	9	J. U	5.0		10	15	2.5	3/4"	#12	#12	3		UV-	15	
		0,1		,,,_		2.5 3P	11		0.0	5.0	12	3P	2.5		,,,,_	" 12	•				
					•	2.1	13	6.2			14	15	3.1	•	· · · · · · · · · · · · · · · · · · ·						
	UV-16	3/4"	#12	#12	3	3.1 15 3.1 3P	15		6.2		16	15 3P	3.1	3/4"	#12	#12	3		UV-	17	
				•		3.1	17			6.2	18	JF	3.1								
			******	11.75		3.7	19	7.4			20	20	3.7		22.182.2						
	UV-18	3/4"	#12	#12	3	3./ 3D	21		7.4		22	3P	3.7	3/4"	#12	#12	3		UV-	19	
						3.7	23	7,		7.4	24		3.7								
	UV-20	3/4"	#12	#12	۰	3.7 20	25	7.4	7.4		26 28	20	3.7	3/4"	#12	#12	2		UV-2	01	
	07-20	3/4	#12	#12	3	3.7 3P	27 29		7.4	7.4	30	3P	3.7 3.7	3/4	#12	#12	3		UV-2	21	
						37	31	7.4		7	32		3.7	•							
	UV-22	3/4"	#12	#12	3	3 7 20	33		7.4		34	20	3.7	3/4"	#12	#12	3		UV-2	23	
			1100			3.7 3P	35			7.4	36	3P	3.7		10.1						
				•		3.1	37	3.1			38	20		•					SPAI		
	UV-24	3/4"	#12	#12	3	3.1 _{3D}	39		3.1		40	20							SPAI		
						3.1	41			3.1	42	20							SPAI	RE	
	CATION: WORKROOM							41.6	41.6	41.6		E KVA									
NO	<u>)TES</u>								124.7		IOIAI	_ KVA									
1. 2.																					
۷.																					

									_		GENE	RALF	PANEL	L DAT	ΓΑ				AIC:	14KAIC		
S	NEW PANEL - SHANER ELEMENTA	IRY							LP		VOLT:	480Y/	277V, 3	BPH, 4\	Ν				MOUNT:	SURFAC	Ė	S
9											BUS:	225A				MAIN	125A					
ž	LOAD SERVED	COND	GRD	WI	RE	KVA	BKR	CKT	PH	HASE LO	AD	CKT	BKR	KVA	COND	CPD	WII	RE		LOAD	SERVED	ž
	LOAD SERVED	COND	GRD	SIZE	NO.	NVA	SIZE	No.	Α	В	С	No.	SIZE	NVA	WIND	GKD	SIZE	NO.		LOAD	SERVED	
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	1	2.0			2	20	1.0	3/4"	#12	#12	2		EXISTIN	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	3		2.0	·	4	20	1.0	3/4"	#12	#12	2		EXISTIN	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	5			2.0	6	20	1.0	3/4"	#12	#12	2		EXISTIN	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	7	2.0			8	20	1.0	3/4"	#12	#12	2		EXISTIN	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	9		2.0		10	20	1.0	3/4"	#12	#12	2		EXISTIN	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	11			1.0	12	20							SP	ARE	
•••••	SPARE						20	13	8.0			14	70	8.0								1
	SPARE						20	15		8.0		16	70 3P	8.0	1"	#8	#4	3		EXISTIN	NG LOAD	1
	SPARE						20	17			8.0	18	3P	8.0								1
	SPACE							19	0.0			20								SP	ACE	
***************************************	SPACE							21		0.0		22								SP	ACE	
	SPACE							23			0.0	24								SP	ACE	
	SPACE							25	0.0			26								SP	ACE	
	SPACE							27		0.0		28								SP	ACE	
	SPACE							29			0.0	30								SP	ACE	
00	ATION: WORKROOM	•							12.0	12.0	11.0	PHAS	E KVA						•			•
10	ES									35.0		TOTAL	_ KVA									

											GENE	RALF	PANEL	L DAT	TA				AIC:	10KAIC		
) N	IEW PANEL - SHANER ELEMENTAI	7Y							LR		VOLT:	208Y/	120V, 3	BPH, 4\	N				MOUNT:	SURFAC	Ė	S
-											BUS:	225A				MAIN	175A					§
	LOAD SERVED	COND	GRD	SIZE	RE NO.	KVA	BKR SIZE	CKT No.	A PI	HASE LO B	AD C	CKT No.	BKR SIZE	KVA	COND	GRD	WI SIZE			LOAD	SERVED	Ž
1	EXISTING LOAD	3/4"	#12	#10	2	1.0	30	1	2.0	7.10		2	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	3		2.0		4	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	5		•	2.0	6	20	1.0	3/4"	#12	#12	2	***************************************	EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	7	2.0			8	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	9		2.0		10	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
	SPARE					0.0	20	11			1.0	12	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	13	2.0	***************************************		14	20	1.0	3/4"	#12	#12	2		EXISTI	ng Load	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	15		2.0		16	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	17			2.0	18	30	1.0	3/4"	#12	#10	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	19	2.0			20	20	1.0	3/4"	#12	#12	2		EXISTI	ng Load	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	21		2.0		22	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	23			2.0	24	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	
'	EXISTING LOAD	3/4	#12	#12	2	1.0	2P	25	2.0			26	20	1.0	3/4"	#12	#12	2		EXISTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	27				28	20	1.0	3/4"	#12	#12	2		EVICTI	NG LOAD	1
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	29		***************************************		30	2P	1.0	3/4	#12	#12	2		EVIOLI	NG LOAD	'
,	EXISTING LOAD	3/4"	#10	#6	2	2.0	50	31				32	20	1.0	3/4"	#12	#12	2		EVICTI	NG LOAD	1
'	EXISTING LOAD	3/4	#10	#0	-	2.0	2P	33				34	2P	1.0	3/4	#12	#12	2		ENSTI	NG LOAD	<u>'</u>
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	35				36	50	2.0	3/4"	#10	#6	2		EVICTI	NG LOAD	
1	EXISTING LOAD	3/4"	#12	#12	2	1.0	20	37				38	2P	2.0	3/4	#10	#6	2		EVISTI	NG LUAD	'
1	EXISTING LOAD	3/4"	#10	#6	2	2.0 2.0	50 2P	39 41		2.0	2.0	40 42	20 2P							SF	ARE	
OCA	TION: WORKROOM		ļ	ļ	l	2.0	ZI.	71	10.0	10.0	9.0	PHAS			ļ							
OTE									10.0	29.0	3.0	TOTAL										
	<u>೨</u> XTEND EXISTING BRANCH CIRCUIT	FDOME	VIOTINI	a Heli	TINC A	ND DE	CEDT	ACLE			D 4 C 4											

									^		GENE	RAL F	PANEL	L DAT	Γ <u>A</u>				AIC:	14KAIC		
S E	EXISTING PANEL - SHANER ELEMEN	ITARY						L	SB		VOLT:	480Y/2	277V, 3	8PH, 4V					MOUNT:	SURFAC	<u> </u>	ES
NOTES											BUS:	225A				MAIN	LUGS					<u></u> — Ь
Z	LOAD SERVED	COND	GRD		IRE	KVA	BKR	CKT		IASE LO		CKT	BKR	KVA	COND	GRD	WI			LOAD	SERVED	Z
	20/15 02/11/25		0,10	SIZE	NO.	1007	SIZE	No.	Α	В	С	No.	SIZE	1007		0,10	SIZE	NO.				
						3.1	15	1	6.8			2	20	3.7								
2	UV-03 RM 104	3/4"	#12	#12	3	3.1	3P	3		6.8		4	3P	3.7	3/4"	#12	#12	3		UV-09	RM 109	1
						3.1		5			6.8	6		3.7								
400						3.1	15	7	6.8			8	20	3.7		000 Br. 4-0	200					
2	UV-02 RM 102	3/4"	#12	#12	3	3.1	3P	9		6.8		10	3P	3.7	3/4"	#12	#12	3		UV-11	RM 111	1
						3.1		11			6.8	12		3.7								
	LDV 04 FM 404	0.44				3.7	20	13	6.8			14	15	3.1				_		107.40	DM 440	
1	UV-01 RM 101	3/4"	#12	#12	3	3.7	3P	15		6.8		16	3P	3.1	3/4"	#12	#12	3		07-10	RM 110	2
						3.7		17			6.8	18	4 =	3.1		***************************************			····			
,	LIV 04 DM 403	0/4"	//40	1140	2	3.7	20	19	6.8			20	15 2D	3.1	0/4"	1140	"40	۾ ا		111/ 00	DM400	
1	UV-04 RM 103	3/4"	#12	#12	3	3.7 3.7	3P	21		6.8	60	22	3P	3.1	3/4"	#12	#12	3		07-00	RM108	2
							20	23	6.8		6.8	24	15	3.1								
4	UV-05 RM 105	3/4"	#12	#12	3	3.7 3.7	20 3P	25 27	0.0	6.8		26 28	15 3P	3.1 3.1	3/4"	#12	#12	3		11// 06	RM 106	2
!	0V-03 NVI 103	3/4	#12	#12	3	3.7	35	29		0.0	6.8	30	36	3.1	3/4	#12	#12	3		07-00	TAVI 100	2
						3.7	20	31	3.7		0.0	32	20	J. I								
1	UV-07 RM 107	3/4"	#12	#12	3	3.7	3P	33	5.7	3.7		34	3P		3/4"	#12	#12	3	E	(ISTING L	DAD / SPARE	
'	OV 07 1441 101	3/4	#12	#12	5	3.7	31	35		5.7	3.7	36	OI .		3/4	#12	#12	5		WOTH TO EX	OND TOTALL	
	EXISTING LOAD					0.1	20A	37	0.0		0.7	38	20A							EXISTIN	IG LOAD	
	EXISTING LOAD			***************************************			20A	39	<u> </u>	0.0		40	20A			***************************************			*************************************		IG LOAD	
	EXISTING LOAD			•			20A	41			0.0	42	20A						***************************************		IG LOAD	
OC	ATION: 1950 ELECTRICAL ROOM					l			37.8	37.8	37.8	PHAS				1						
TO	<u>ES</u>									113.4	£	TOTAL	_ KVA									
1.	 REPLACEMENT HVAC DEVICE FED F	ROM EX	XISTING	G CIRC	UIT BR	EAKE	R WITH	EXIST	NG BRAN	NCH CIR	CUIT WIR	ING MO	DDIFIE	D AS IN	NDICAT	ED ON	THE D	DRAWI	NGS.			
2	REMOVE EXISTING CIRCUIT BREAKE	R. PRO	/IDE N	EW CII	RCUIT	BREAK	KER. U	TILIZE I	EXISTING	BRANCH	H CIRCUI	T WIRIN	NG FOR	RNEW	LOAD							



ALTERATIONS AND JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS LANDING, NJ 08330

Project Number 4937B Project Date 02.15.2019 Checked By DRH

AS NOTED

Drawing Name ELECTRICAL PANEL SCHEDULES

SHANER E.S.

No. Date Description

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

Drawing Number E600

02/15/2019 ISSUED FOR BID Gillan & Hartmann, Inc.

MECHANICAL AND ELECTRICAL

CONSULTING ENGINEERS

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Cert. of Auth #24GA27932400 G&H Project No. 2018-204

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000 © 2018 GILLAN & HARTMANN Inc.

REFERENCE DIMENSION

							_			GENE	RALF	PANE	L DA	TA				AIC:	14KAIC		
EXISTING PANELBOARD AT DAVIES MIDDL	E SCHO	OL						A H		VOLT:	480/27	77V, 3P	H, 4W	/				MOUNT:	FLUSH		U. L. C. V.
										BUS:	225A				MAIN	LUGS (ONLY				
LOAD SERVED	COND	GRD	SIZE	RE NO.	KVA	BKR SIZE		PI A	HASE LO	AD C	CKT No.	BKR SIZE	KVA	COND	GRD	SIZE	RE No.		LC	DAD SERVED	Ž
HP-10, HP-11 9 LEARN. RES. B119			#12	2	2.6	20	1	5.2			2	20	2.6	***************************************		#12	2	HP-15,	HP-16 CO	NF. B157 & SECURITY B16	4
HP-5 LEARN. RES. ROOM B120		_	#12	2	1.3	20	3		4.3		4	20	3.0					EXISTING	G ELEC. B.	ASE HTR. SEC./WATING B	154 1
HP-50 CORRIDOR B121			#12	2	3.0	20	5	·····		13.0	6	60	10.0	3/4"	#8	#6	2		EWH-1 BC	YS BATHROOM B108	2,
HP-13 PREP. ROOM B146			#12	2	4.1	20	7	5.4		•	8	20	1.3			#12	2		HP-35	CORRIDOR B110	
EXISTING EUH VESTIBULE					4.0	20	9		7.2	•	10	20	3.2			#12	2		HP-31, HF	P-32 CORRIDOR B110	1
EWH-1 GIRLS BATHROOM B108	3/4"	#8	#6	2	10.0	60	11	***************************************		13.2	12	20	3.2			#12	2		HP-33, HF	P-34 CORRIDOR B110	1
EXISTING HP CORRIDOR B121					3.0	20	13	5.3			14	25	2.3								
EXISTING BOYS BATH DRYER B108					1.0	20	15	•	3.3	•	16	25 3P	2.3	3/4"	#10	#10	3		ļ	HP-5, HP-36	2
EXISTING GIRLS BATH DRYER B107					1.0	20	17			3.3	18	JP	2.3		***************************************				CORRIDO	R B148 & BASIC B106	NAME OF THE PERSON NAME OF THE P
					2.3	25	19	3.6			20	20	1.3								
HP-14, HP-38	3/4"	#10	#10	3	2.3	3P	21		3.6		22	3P	1.3		***************************************	#12	3			HP-37	1
CORRIDOR B148 & BASIC B152			***************************************		2.3	JF	23	***************************************		3.6	24	JF	1.3		***************************************				CC	ORRIDOR B148	***************************************
					2.7	20	25	7.7			26	30	5.0								
HP-8, HP-9			#12	3	2.7	3P	27		7.7		28	3P	5.0		***************************************				EXISTING	ELECTRIC HEAT COIL	***************************************
CLASS ROOM B105, B109			***************************************		2.7	JF	29			7.7	30] JF	5.0		***************************************				SCIE	NCE ROOM B145	***************************************
					2.7	30	31	7.7			32	30	5.0								***************************************
HP-6, HP-7			#12	3	2.7	3P	33		7.7		34	3P	5.0							ELECTRIC HEAT COIL	***************************************
CLASS ROOM B105, B109					2.7	31	35			7.7	36	J 31	5.0						SCIE	NCE ROOM B149	
			****		2.7	30	37	5.4			38	30	2.7								
HP-1, HP-3			#12	3	2.7	3P	39		5.4		40	3P	2.7		***************************************	#12	3			HP-2, HP-4	-
CLASS ROOM B101, B104			***************************************		2.7	Ji	41			5.4	42		2.7	***************************************	***************************************				CLASS	ROOM B102, B103	***************************************
CATION: FIRST FLOOR, CORRIDOR B111								40.3	39.2	53.9		E KVA									
<u>TES</u>									133.4		TOTAI	L KVA									
UTILIZE EXISTING BRANCH CIRCUIT WIRING	AND EXIS	STING	CIRCUI					CUIT BR													

3. PROVIDE 60A BREAKER WITH LOCKABLE DEVICE KIT

										_	GENE	RAL F	PANE	L DA7	ΓΑ				AIC:	14KAIC	
ES	EXISTING PANELBOARD AT DAVIES MIDDLE	SCHO	OL				F	Mc	SEC	2	VOLT:	480/27	77V, 3F	H, 4W					MOUNT:	SURFACE	NOTES
NOT											BUS:	400A				MAIN	LUGS				
Ž	LOAD SERVED	COND	GRD	SIZE	RE NO.	KVA	BKR SIZE	CKT No.	A PH	HASE LO B	AD C	CKT No.	BKR SIZE	KVA	COND	GRD		IRE NO.	-	LOAD SERVED	Ž
_				OIZL	NO.	3.3		1	5.4	В	 	2		2.1			OIZL	NO.			
	EXISTING COOLING TOWER PAN HTR LOAD			***************************************		3.3	20	3		5.4		4	20	2.1						EXISTING CIRC PUMP LOAD	
		***************************************		***************************************	***************************************	3.3	3P	5			5.4	6	3P	2.1							***************************************
							20	7	7.3			8	60	7.3							***************************************
	EXISTING MUSIC LOAD			***************************************			3P	9		7.3		10	3P	7.3						EXISTING CIRC PUMP LOAD	AAAAAAAA
							1	11	····		7.3	12	ļ	7.3							
	EXISTING COOLING TOWER FAN LOAD			***************************************		9.0	70	13	24.0	04.0	•	14	70	15.0					EVICT	INC 45KVA TRANSCORMER LOAD	***************************************
	EXISTING COOLING TOWER FAIN LOAD			***************************************		9.0	3P	15 17		24.0	24.0	16 18	3P	15.0 15.0					EVIOL	ING 45KVA TRANSFORMER LOAD	***************************************
						1.3		19	18.7		24.0	20		17.4							
1	HP-49			#12	3	1.3	20	21	10.7	18.7		22	90	17.4						EXISTING HP-25 LOAD	***************************************
Ċ	CORRIDOR B160	***************************************		***************************************		1.3	3P	23			18.7	24	3P	17.4						ROOFTOP	***************************************
						4.2	30	25	21.6			26	100	17.4							
	EXISTING HP-27 LOAD	***************************************		***************************************		4.2	3P	27		21.6		28	3P	17.4						EXISTING HP-20 LOAD	***************************************
				***************************************		4.2	JF	29			21.6	30		17.4						ROOFTOP	
***************************************	CATION: FIRST FLOOR, MECHANICAL ROOM	B199							77.0	77.0	77.0	PHAS									
	<u>TES</u>									231.1		TOTAL	_ KVA								
	UTILIZE EXISTING BRANCH CIRCUIT WIRING A	ND EX	ISTING	CIRCU	IT BRE	AKER															
2.	NOT USED																				

								_	201					L DATA				AIC:	10KAIC		
ш	EXISTING PANELBOARD AT DAVIES MIDDLE S	SCHOO	DL					RI	PB1		VOLT:		8V, 3P	PH, 4W				MOUNT:	SURFACE		╛
9											BUS:	225A			MAII	I LUGS					╛
Z	LOAD SERVED	COND	GRD	WI		$I \times V \Delta I$	BKR	-	111 111	IASE LO	- Walter	CKT	BKR	KVA CON	D GRI)	VIRE		LOAD S	ERVED	
				SIZE	NO.		SIZE	No.	Α	В	С	No.	SIZE			SIZE	NO.				
	EXISTING LIGHTS						20	1	0.0			2	20							B106,122-23,125	
	EXISTING LIGHTS						20	3		0.0		4	20							CEPT. B122	
	EXISTING LIGHTS						20	5			0.0	6	20							EPT. B122, 125	
	EXISTING LIGHTS						20	7	0.0			8	20					1		CEPT. B122	
	EXISTING RECEPT. B122,123,125						20	9		0.0		10	20					1		T. B120, 122, 125	
	EXISTING RECEPT. B122,124,125		***************************************				20	11			0.0	12	20							B105, 109, 114,116	
	EXIST. RECEPTS B122,125-26,128,A243,245						20	13	0.0			14	20					1		. B106, 144-45, 149	
	EXIST. RECEPTS. B125, 137, A244						20	15		0.0		16	20					E	XISTING RE	CEPT. B122	
	EXIST. RECEPT. B119						20	17			0.0	18	20					EXI		EPT. B101-104	
	EXIST. RECEPT. B119						20	19	0.0			20	20							G LIGHTS	
	EXISTING RECEPT. B106						20	21		0.0		22	20					EXSIT	ING LIGHTS	S DISPLAY CASE	
	EXISTING RECEPT. B106						20	23			0.0	24	20					EXISTIN	IG RECPT.	GYM OFFICE SIDE	
	EXISTING RECEPT. GIRLS LOCKER RM.						20	25	0.0			26	20					E	XISTING SC	OREBOARD	
	EXISTING RECEPT. BOYS LOCKER RM.		***************************************				20	27		0.0		28	20						EXISTIN	G LOAD	
	EXISITNG LOAD						20	29			1.0	30	20	1.0 3/4	" #12	#12	2	R	OOFTOP R	ECEPTACLE	
						3.2	15	31	6.4			32	15	3.2							T
2	MOTORIZED BLEACHERS	3/4"	#12	#12	3	3.2	3P	33		6.4		34	3P	3.2 3/4	" #12	#12	3	M	OTORIZED	BLEACHERS	***************************************
			***************************************			3.2	JF	35			6.4	36	JF.	3.2				***************************************			
2	MOTORIZED DIVIDER CURTAIN	3/4"	#12	#12	2	1.1	15	37	2.1			38	20	1.0 3/4"	#12	#12	2	GYMN	ASIUM FLO	OR RECEPTACLE	
2	RECEPT. GYM SOUND SYSTEM EQUIP. CAB.	3/4"	#12	#12	2	1.0	20	39		1.0		40							SPA	/CE	
2	RECEPT. GYM SOUND SYSTEM EQUIP. CAB.	3/4"	#12	#12	2	1.0	20	41			1.0	42							SPA	ACE .	
_OC	ATION: FIRST FLOOR, P.E. STORGE ROOM B	128							8.5	7.4	8.4	PHAS	E KVA								
TOV	<u>ES</u>									24.3		TOTAL	. KVA	1							
1.	UTILIZE EXISTING BRANCH CIRCUIT WIRING AN	D EXIS	STING (CIRCUIT	BREA	KER		_						5							
2.	PROVIDE NEW WIRING AND PROVIDE NEW CII	RCUIT	BREAL	KER																	



											GENE	RALF	PANEL	L DAT	A				AIC: 14KAIC	
11 1	EXISTING PANELBOARD AT DAVIES MIDDLE	SCHOO	OL						НВ		VOLT:	480/27	7V, 3P	H, 4W					MOUNT: FLUSH	
											BUS:	225A				MAIN				
ž	LOAD SERVED	COND	GRD	SIZE		KVA	BKR SIZE	CKT No.	Pl A	HASE LO	AD C	CKT No.	BKR SIZE	KVA	COND	GRD	SIZE		LOAD SERVED	
1	HP-17, HP-28 PREP RM. B223 & LEARN. B203	***************************************		#12	2	2.6	20	1	5.6			2	20	3.0			#12	2	HP-48 CORRIDOR B190	
1	HP-47 CORRIDOR B200			#12	2	2.9	20	3		5.5	***************************************	4	20	2.6			#12	2	HP-26, HP-27 LEARN RES. B229, BASIC B23	3
1	HP-29, HP-30 LEARN RES. B203			#12	2	1.3	20	5			5.3	6	20	4.0					EXISTING EUH VESTIBULE	
1	HP-39 CORRIDOR B167			#12	2	1.6	20	7	2.4	•		8	20	0.8						
2,3	EWH-1 BOYS BATHROOM B204	3/4"	#8	#6	2	10.0	60	9		10.8		10	3P	8.0	3/4"	#12	#12	3	HP-41	
,3	EWH-1 GIRLS BATHROOM B205	3/4"	#8	#6	2	10.0	60	11			10.8	12	JF	8.0					CORRIDOR B220	
2	HP-46 CORRIDOR B200	3/4"	#12	#12	2	2.9	20	13	4.2			14	20	1.3						
	SPACE							15		1.3		16	3P	1.3			#12	3	HP-40	
	SPACE							17			1.3	18	OI -	1.3					CORRIDOR B220	
***************************************						1.3	20	19	3.7			20	20	2.4						
1	HP-45			#12	3	1.3	3P	21		3.7		22	3P	2.4			#12	3	HP-42	
	CORRIDOR B200					1.3	<u> </u>	23			3.7	24	<u> </u>	2.4					CORRIDOR B230	
		***************************************				1.3	20	25	3.7			26	20	2.4		****		_		
1	HP-44			#12	3	1.3	3P	27		3.7		28	3P	2.4		#12	#12	3	HP-43	
4	STORAGE B237					1.3		29			3.7	30		2.4					CORRIDOR B230	
.	LID OO LID OF				_	2.7	30	31	5.4			32	30	2.7			"40	_	LID 00 LID 04	
1	HP-22, HP-25			#12	3	2.7	3P	33		5.4		34	3P	2.7			#12	3	HP-23, HP-24	
_	CLASS ROOMS. B234, B238					2.7		35			5.4	36		2.7					CLASS ROOMS B235, B236	
	LID 40 LID 94	***************************************		440	•	2.7	30	37	5.4	— A		38	30	2.7			440	2	LID 49 LID 20	
	HP-19, HP-21			#12	3	2.7	3P	39		5.4	5.4	40	3P	2.7 2.7			#12	3	HP-18, HP-20	
<u> </u>	CLASS ROOMS. B240, B242			***************************************		2.7		41	00.4	05.0		42	Ε IΔ /Δ	2.1			***************************************		CLASS ROOMS B239, B241	
	ATION: FIRST FLOOR, CORIDOR B230								30.4	35.8	35.6	PHAS								
	<u>'ES</u> UTILIZE EXISTING BRANCH CIRCUIT WIRING AN	ID EVAC	TIMO:			ALCED				101.7		TOTAL	NVA							

PROVIDE NEW WIRING AND PROVIDE NEW CIRCUIT BREAKER
 PROVIDE 60A BREAKER WITH LOCKABLE DEVICE KIT

	KISTING PANELBOARD AT DAVIES MIDDLE	SCHO	OL								VOLT: 480/277V, 3PH, 4W						MOUNT:	FLU	ISH	
<u> </u>			1	1 10/	IDE	1	DICE	OVT	DI	BUS: 100A PHASE LOAD CKT BKR					MAIN	LUGS ONLY WIRE				!
-	LOAD SERVED		GRD		WIRE NO.	KVA	BKR SIZE	I —	A B		С			KVA COND	GRD	SIZE NO.		LOAD SERVED		'
	EXISTING LIGHTS ARTS					2.8	20	1	4.4			2	20	1.6			***************************************	E	EXISTING GYM LIGHTS	
	EXISTING LIGHTS MUSIC ROOM					1.5	20	3		3.1		4	20	1.6				E	EXISTING GYM LIGHTS	
	EXISTNG LIGHTS CADD-ST SHOP OFF					1.3	20	5			2.9	6	20	1.6				E	EXISTING GYM LIGHTS	
	EXISTING LIGHTS ART ROOM					1.8	20	7	2.8		***************************************	8	20	1.0				EXIS1	TING LIGHTS MUSIC ROOM	
	EXISITNG LOAD			İ		1.6	20	9		3.4		10	20	1.8				EXIST	TING LIGHTS CLASS ROOM	
	EXISITNG LOAD					1.6	20	11			3.4	12	20	1.8				EXIST	TING LIGHTS STAGE ROOM	
	EXISITNG LOAD					1.2	20	13	4.6			14	20	3.4				EXIS1	TNG BOYS LOCKER ROOM	
	EXISITNG LOAD					3.0		15		4.8		16	20	1.8				EXI	STING LIGHS ART ROOM	
	EXISITNG LOAD					3.0		17		······································	6.4	18	20	3.4				EXIST	ING GIRLS LOCKER ROOM	
				<u> </u>		0.2	00	19	3.2			20	20	3.0					EXISTING LOAD	
	EXISTING FC UNIT #1 & #2					0.2	20	21		3.2		22	20	3.0					EXISITNG LOAD	
						0.2	3P	23			3.2	24	20	3.0					EXISITNG LOAD	
4	EWH-1 GIRLS BATHROOM B131	3/4"	#8	#6	2	10.0	60	25	10.0		•	26	00							
4	EWH-1 BOYS BATHROOM B130	3/4"	#8	#6	2	10.0	60	27		10.0		28	20			***************************************	***************************************		SPARE	***************************************
3	SPACE							29		•	0.0	30	3P				***************************************			
							00	31	0.0		•	32	00							
	SPARE					··········	20	33		0.0	***************************************	34	20			000000000000000000000000000000000000000			SPARE	***************************************
				***************************************			3P	35			0.0	36	3P			***************************************				**************************************
						1.0	00	37	2.0		***************************************	38	00	1.0	İ					
	EXISTING HV1 ART ROOM					1.0	20	39		2.0	***************************************	40	20	1.0			EXISTING HV1 W	STING HV1 WOOD SHOP	-	
***************************************						1.0	3P	41			2.0	42	3P	1.0		**************************************	***************************************			
CA	TON: FIRST FLOOR, GYMNASIUM B170		3	8	*		8		27.0	26.5	17.8	PHAS	E KVA			3				
OTES										71.3		TOTAL	LKVA	•						
	- TILIZE EXISTING BRANCH CIRCUIT WIRING A	ND EXIS	STING	CIRCUI	T BRE	AKER		L				1		4						

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By DRH

NONE

Drawing Name ELECTRICAL SCHEDULES

DAVIES M.S.

No. Date Description

Drawing Number

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

Gilan & Hartmann, Inc.

MECHANICAL AND ELECTRICAL

CONSULTING ENGINEERS

610-935-0101 FAX: 610-935-7520

215-238-9510 609-347-1593 302-654-5959

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Cert. of Auth #24GA27932400 G&H Project No. 2018-205

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

02/15/2019 ISSUED FOR BID

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E600

ABBREVIATIONS AACB Tread Acrylic acoustical ceiling board Fire alarm North A/C AB Face brick Not in contract Top of bank Air conditioning Anchor bolt Fire brick Number Terra cotta ACBNOM Acoustical ceiling board Floor drain Nominal Telephone AD T&G TG. NRC Noise reduction coefficient Fire extinguisher Tongue and groove Area drain ADJ Adjacent Fire extinguisher cabinet Not to scale Top of grate ADJT **TGR** Adjustable Flared end section Top of grade AFF Above finished floor Finish floor Thick AGG OA OC THR TKS Finished floor elevation Threshold Aggregate Overall On center Tackstrip Fiberglass Aluminum TLT, TOIL Toilet Alternating Outside diameter ALT. BID OH TOC Top of curb Alternate bid Fixture Overhead FLG FLR TOM ANC Anchor, Anchorage Flashing Opaque Top of masonry TOP ANOD Floor Anodized Opening Top of plank FND TOS Foundation Opposite Top of steel Access panel TPD APX Approximate Frame Toilet paper dispenser TPG ARCH FRP Architect Fiberglass reinforced polyester Tempered plate glass TPTN PAR Toilet partition Parallel Fire proof PBD Fire retardant Particleboard Television TYP Typical Bottom of bank Floor sink Plumbing contractor Board Precast concrete Terrazzo FTG **Bituminous** Footing Perimeter FUR Barrier Free Furring Plate glass BLDG UC Undercut Building Parking BLK Block Plate Underwriter's laboratory GA GB GC GCMU BLKG UNO Blocking Gauge Plastic Iaminate Unless noted otherwise Bench mark Grab bar Plaster Urinal Bottom General contractor Panel Bearina Glazed concrete masonry unit Paint (ed) GD GEP GF VAT Brick Vinyl asbestos tile Grade, grading Gypsum wall board epoxy painted Bronze Precast Terrazzo Tile Vapor barrier VCT Precast Resilient Terrazzo Tile Ground face Vinyl composition tile Both sides GL GLB GP BUR Built up roof Glass, Glazing VERT Vertical Pounds per square foot PSI **VEST** Vestibule Glass block Pounds per square inch VIF Gypsum wall board painted Paper towel dispenser Verify In Field CAB Cabinet VIN Vinyl Gypsum drywall Partition GR CB PTR VNR Catch basin Paper towel receptor Veneer Grade CEM PLAS GRD.F.BLK PVC VTR Cement plaster Ground face block Vent thru roof Polyvinyl chloride GSFT GST GT PVMT CMU epoxy painted Glazed structural facing tile Pavement CFL CHT PWD Counter flashing Glazed structural tile Plywood Ceiling height Grout West G۷ With Galvanized Cast iron Without Quarry tile Control joint Gravel QTY Gypsum Wall Board WB Wood base Centerline / closet Quantity CLG CLR CMU Water closet WD Clear Hose bib Wood HD Concrete masonry unit Head Riser Window COL CONC HDW WG Hardware Return air Wire glass RAD HM WH Concrete Hollow metal Radius Wall hung COND Condition Rubber tile WIN Horizontal Window CONST WM Construction Highpoint Reinforced concrete pipe Wire mesh CONT Waterproofing / Work point Continuous Roof drain Hour CONTR HTR WPT Contractor Reinforce (d), (ing) Work point Heater COOL WR Cooling Heating & ventilation contractor Reference (s) Water repellent CP CMU Painted Reflected Waterstop CPR **WSCT** Copper Register Wainscot CPT WTW Wall to wall Carpet Inside diameter Remove CRS WWF Course Required Welded wire fabric Calcium silicate masonry unit Insulate (d), (ion) Resilient Cast stone Return Interior Roofing Ceramic tile CTP Roof hatch Clear tempered plate glass CTR Right hand Counter Clear wire plate Room Janitor's closet Rough opening Joint Right of way Drain (s) Rubber, base DBL Double KCPL Radon vent Keene's cement plaster KIT Drinking fountain Kitchen Rain water conductor DIM KPL Dimension Kickplate DIAM Diameter DK Deck DMB SBS SEC Dry marker board Styrene butadiene styrene Length DN LAB Down Laboratory Security Door Laminate (d) Solid core LAV Downspout Lavitory Schedule LDR Dumbwaiter Leader Structural clay tile Lineal foot/Linear feet Storm drain Left-hand Safety glass East Security hollow metal Liveload Each Location Sheathing Exibition Board Low point Similar Electrical contractor Skylight Lintel Exhaust fan Lightweight Sleeve LWC EIFS Exterior insulated finish system Sealant Lightweight concrete EJ, EXP J Expansion joint Slab on grade Soundproof Elevation MAS SPAC'G Electrical Masonry Spacing ELEV MAT Material Specification Elevator **EMER** MAXSPF, BLK Split face block Maximum Emergency ENC MC Enclosure Mechanical contractor Speaker

GENERAL CONSTRUCTION NOTES:

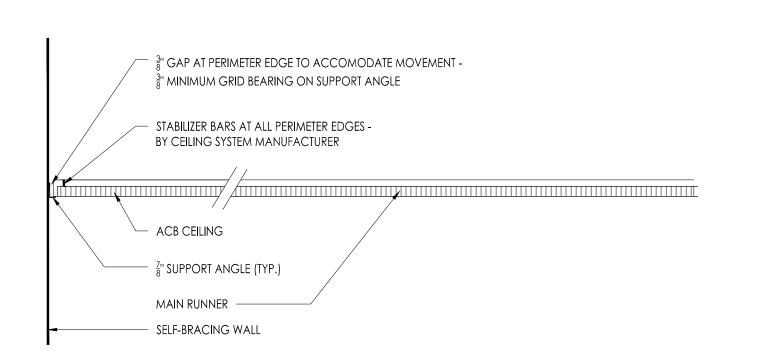
THESE NOTES SHALL APPLY TO ALL WORK THROUGHOUT THE PROJECT.

- A. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL REQUIRED SAFETY PROTECTION DURING CONSTRUCTION.
- B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A SUFFICIENT WORK FORCE TO MEET COMPLETION DATES AS OUTLINED IN THE SPECIFICATIONS. NO EXCEPTIONS WILL BE ALLOWED.
- C. DO NOT SCALE THE DRAWINGS.
- D. DETAILS NOTED "TYPICAL" IMPLY ALL SUCH CONDITIONS BE TREATED SIMILARLY
- E. ALL WORK PERTAINING TO THESE DRAWINGS SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND IN AGREEMENT WITH ALL AGENCIES HAVING JURISDICTION.
- F. THE CONTRACTOR IS RESPONSIBLE TO SECURE ALL PERMITS, TO OBTAIN APPROVALS AS REQUIRED AND COORDINATE INSPECTION WITH LOCAL BUILDING INSPECTOR. ALL PERMIT AND APPLICATION FEES WILL BE PAID BY THE OWNER AND DELIVERED BY THE CONTRACTOR.
- G. DRAWINGS AND SPECIFICATIONS COMPLEMENT EACH OTHER. WORK NOT SHOWN ON DRAWING BUT CALLED FOR IN THE SPECIFICATIONS IS STILL REQUIRED, AND ALL WORK NOT CALLED FOR IN SPECIFICATIONS, BUT CALLED OUT OR SHOWN IN DRAWINGS IS STILL REQUIRED.
- H. UNLESS OTHERWISE NOTED AND UNLESS FACTORY FINISHED, ALL EXPOSED SURFACES OF CMU, CONCRETE, PLASTER, WOOD, GYPSUM BOARD, HOLLOW METAL, HARDWOODS, MISC. METALS ETC., ARE TO RECEIVE PRIME AND FINISH COATS OF PAINT OR CLEAR FINISH AS SPECIFIED AND IN COLORS AS SELECTED BY ARCHITECT. EXCLUDED FROM THIS IS BRICK.
- THE OWNER WILL REMOVE AND RE-INSTALL ALL MOVEABLE EQUIPMENT. EACH CONTRACTOR IS RESPONSIBLE TO REMOVE, STORE AND RE-INSTALL EXISTING BUILT-IN EQUIPMENT REQUIRED TO PERFORM THEIR WORK UNLESS NOTED

GENERAL NOTES ON DEMOLITION:

THESE NOTES SHALL APPLY TO ALL DEMOLITION WORK THROUGHOUT THE PROJECT

- A. ALL CONTRACTORS ARE ADVISED TO VISIT THE SITE AND VERIFY ALL AREAS AND CONDITIONS PRIOR TO SUBMITTING THEIR BIDS. THE CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND/OR OMISSIONS IN WRITING AT LEAST SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. FAILURE TO SO NOTIFY THE ARCHITECT INDICATES THAT ANY ADDITIONAL COSTS ASSOCIATED WITH THE DISCREPANCIES AND / OR OMISSIONS ARE INCLUDED IN THE CONTRACTOR'S BID AND THAT NO CHANGE TO THE CONTRACT AMOUNT WILL BE MADE AFTER THE RECEIPT OF BIDS OR THE AWARD OF CONTRACTS.
- ALL PLUMBING, MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. ALL EQUIPMENT, DEVICES, FIXTURES, ETC. SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. NOTE: THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED UNTIL NEW DEVICES ARE READY FOR SWITCHOVER.
- C. UNLESS NOTED OTHERWISE ALL DEMOLITION MATERIAL SHALL BE REMOVED OFF SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- D. THERE ARE SOME SPECIFIC ITEMS DESIGNATED BY THE ARCHITECT FOR SALVAGE. THESE ITEMS ARE INTENDED FOR REUSE IN THE NEW CONSTRUCTION. THE CONTRACTOR MUST TAKE CARE IN THE REMOVAL AND STORAGE OF THESE ITEMS UNTIL THEY ARE NEEDED IN THE NEW CONSTRUCTION.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT PORTIONS OF THE EXISTING CONSTRUCTION WHICH ARE ADJACENT TO AREAS TO BE DEMOLISHED. MAKE ALL CUTS AS NEATLY AS POSSIBLE. REFER TO FLOOR PLAN DRAWINGS FOR FINISHING OF THESE AREAS.
- IF NOT OTHERWISE NOTED OR DETAILED. ALL SURFACES LEFT ROUGH OR UNFINISHED BY DEMOLITION AND WHICH ARE EXPOSED TO VIEW, SHALL BE PATCHED TO MATCH ADJACENT SURFACES AND FINISHED TO PROVIDE A UNIFORM APPEARANCE WITH REGARD TO SIZE, SHAPE, COLOR, TEXTURE AND MATERIAL.
- G. THE CONTRACTOR SHALL PROVIDE A PHYSICAL BARRIER TO CONTAIN DUST AND DIRT AROUND THE DEMOLITION AREA AND SHALL MAKE EVERY EFFORT TO KEEP THE DEMOLITION SITE AND SURROUNDING AREAS AS CLEAN AS POSSIBLE. ALL TEMPORARY PARTITIONS SHALL BE 1 HOUR RATED CONSTRUCTION AND INCLUDE A DOOR.
- NO DEMOLITION SHALL BEGIN UNTIL PROPER PROTECTION IS IN PLACE AND APPROVED BY ARCHITECT & OWNER TO ENSURE THE SAFETY OF THE PUBLIC, THE BUILDING OCCUPANTS, CONSTRUCTION WORKERS AND TO CONTAIN DUST AND DIRT WITHIN THE AREA OF DEMOLITION.
- I. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING THE REMOVAL AND DISPOSAL OF ALL MATERIALS & EQUIPMENT.
- J. THE CONTRACTOR SHALL PROVIDE PROTECTION AGAINST INCLEMENT WEATHER FOR THE EXISTING BUILDING DURING THE INTERIM PERIOD BETWEEN DEMOLITION AND THE COMPLETION OF NEW CONSTRUCTION.
- K. THE CONTRACTORS SHALL TAKE INTO ACCOUNT THEIR METHODS OF CONSTRUCTION FOR THE NEW WORK AND INCLUDE IN THEIR BID THE COST OF ADDITIONAL DEMOLITION WORK NECESSARY TO FACILITATE THE CONSTRUCTION. THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE AREA AROUND JOINTS BETWEEN NEW AND EXISTING CONSTRUCTION IN WALLS, FLOORS AND CEILINGS, AREAS OF SIDEWALK AND PAVING, ETC. MUCH OF THIS WORK IS INDICATED IN SECTIONS AND DETAILS RELATING TO THE NEW CONSTRUCTION.
- THE DEMOLITION WORK SHOWN ON THIS PLAN IS INTENDED TO BE A GENERAL OVERVIEW OF MAJOR DEMOLITION WORK REQUIRED. IT IS NOT A COMPLETE AND EXCLUSIVE REPRESENTATION OF ALL DEMOLITION WORK NEEDED FOR EXECUTION OF THE PROJECT. WHEN PREPARING THEIR BIDS, CONTRACTORS MUST REFER TO THE FULL SET OF CONSTRUCTION DOCUMENTS FOR VARIOUS MISCELLANEOUS ITEMS WHICH MUST BE REMOVED AND/OR RELOCATED AS PART OF THE
- M. ALL PRIME CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN CUTTING AND PATCHING SEE SPECIFICATION.
- N. IN ROOMS WHERE EXISTING FLOOR FINISH AND BASE ARE INDICATED TO BE REMOVED, IF ASBESTOS TILE IS ENCOUNTERED STOP REMOVAL AND NOTIFY OWNER IMMEDIATELY. ASBESTOS TILE SHALL BE REMOVED DOWN TO THE EXISTING CONCRETE SLAB AND THE SURFACE PREPARED FOR NEW FINISH BY OTHERS PRIOR TO CONTINUING WITH RENOVATION WORK. AFTER ASBESTOS ABATEMENT, THE CONTRACTOR SHALL CLEAN SLAB TO REMOVE ADHESIVES AND INFILL WITH SELF-DRYING FINISHING UNDERLAYMENT (COMPATIBLE WITH NEW FLOOR FINISHES) OVER ENTIRE SURFACE OF EXISTING FLOOR TO MAKE FLOOR LEVEL AND FLUSH. APPLY NEW FINISH AND BASE AS INDICATED.





SYMBOL LIST

Entrance

Edge of paving

Ethylene propylene diene monomers MFR

Epoxy paint

Equipment

Epoxy Resinous Flooring

Existing To Remain - Refinished

- ELEVATION NUMBER INTERIOR ELEVATION DRAWING NUMBER

Existing To Remain

Electric water cooler

Epoxy Terrazzo

Expansion bolt

Existina

Exterior

Exposed

ENTR

EOP

EQP

ETR

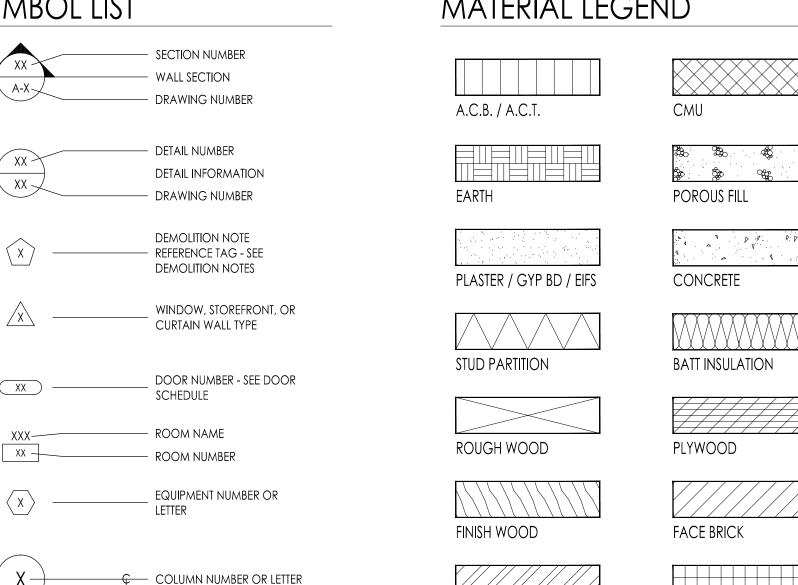
ETR-R

EWC

EXB

EXG

EXP



MECH

MED

MIN

MISC

MOV

MTD

MTFR

MULL

MR

Mechanical

Manufacturer

Miscellaneous

Mop receptor

Metal furring

METAL / STEEL

CSMU / DOLOMITIC LIMESTONE

Masonry opening

Marble threshold

Membrane

Movable

Mounted

Mullion

Medium

Manhole

Minimum

Metal

MATERIAL LEGEND

Square

Standard

Structural

Synthetic

System

Suspended

Seating

STR

SYN

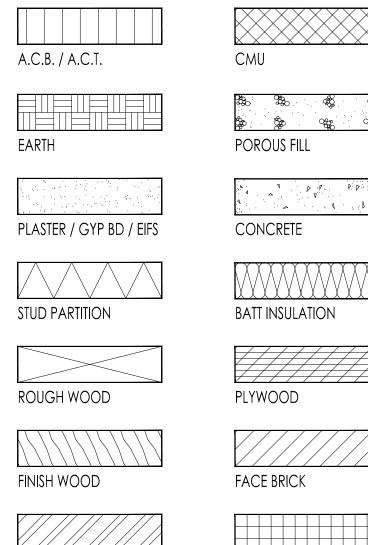
RIGID INSULATION

INSULATED METAL SIDING

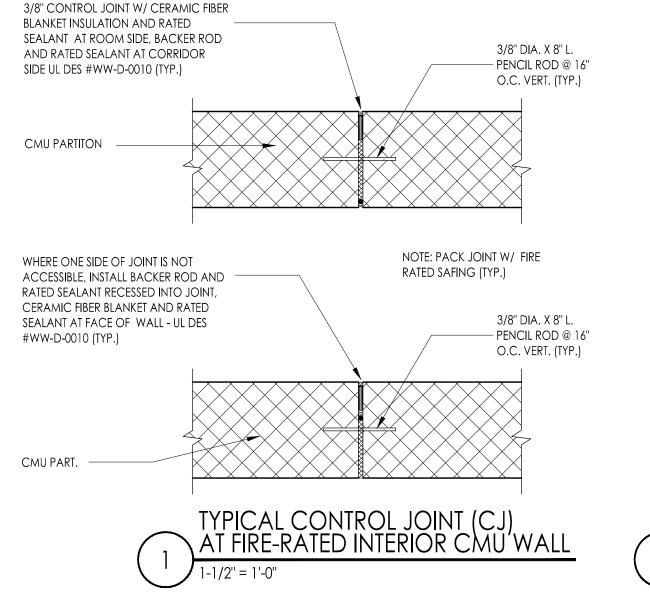
Square foot / feet

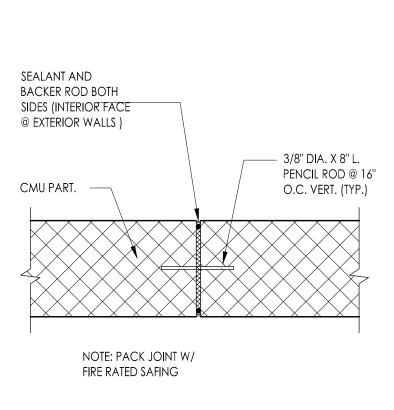
Security Window Film

Stainless steel



SOLID CMU NOTE: IN ALL LOCATIONS WHERE 4" SOLID 1-HOUR OR 2-HOUR RATED CMU IS INDICATED, PROVIDE AND INSTALL CMU OF LIGHTWEIGHT CLASSIFICATION USING AGGREGATE OF EXPANDED CLAY. EXPANDED SHALE OR EXPANDED SLATE, WITH A MINIMUM THICKNESS OF 3.6", IN COMPLIANCE WITH ANSI/ACI 216.1-97, TMS-0216-97 AND IBC-2015 TABLE 721.1 (2) ITEM 3-1.2 - SEE SPECIFICATION.





UNLESS OTHERWISE SPECIFIED ON DRAWINGS, PROVIDE & INSTALL LINTELS FOR ALL SQUARE HEAD MASONRY OPENINGS IN AL MASONRY WALLS IN ACCORDANCE WITH THE FOLLOWING SCHEDULES AND COMMENTS.

LOOSE LINTEL SCHEDULE (FOR 4", 8", 12" & 16" WALLS)											
LINTEL SIZE	REMARKS										
L - 3-1/2" x 3-1/2" x 1/4"											
L - 5" x 3-1/2" x 5/16"											
L - 6" x 3-1/2" x 5/16"											
W 8 x 18 + PLATE											
	(FOR 4", 8", 12" & 16" WALLS) LINTEL SIZE L - 3-1/2" x 3-1/2" x 1/4" L - 5" x 3-1/2" x 5/16" L - 6" x 3-1/2" x 5/16"										

LOOS	SE LINTEL SCHE (FOR 6" WALLS)	DULE
MASONRY OPENING	LINTEL SIZE	REMARKS
2'-0" TO 6'-0"	WT 7 x 11	
6'-1" TO 8'-0"	WT 8 x 13	

PROVIDE ONE (1) ANGLE FOR EACH 4" OF MASONRY WIDTH. BEAR LINTELS 6" MINIMUM ON EACH SIDE OF OPENING.

LOCATION.

- 3. ALL LINTELS IN EXTERIOR WALLS SHALL BE GALVANIZED. 4. WHERE OPENINGS ARE LOCATED NEXT TO COLUMNS OR BEAMS, ATTACH LINTEL TO
- STRUCTURAL STEEL. CONNECTION NOT TO PROTRUDE INTO OPENING. 5. REFER TO ARCHITECTURAL, HVAC & ELECTRICAL DRAWINGS FOR OPENING SIZE &

 \circ

Project Name ALTERATIONS AND RENOVATIONS TO **JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST MAYS LANDING,

NJ 08330

Project Number Project Date Checked By Drawn By dsb

Drawing Name Abbreviations and General Information

Date Description

ABBREVIATIONS Fire alarm Acrylic acoustical ceiling board North Tread Not in contract NIC Top of bank Air conditioning Face brick NO Anchor bolt Number Fire brick Terra cotta NOM NRC ACB Acoustical ceiling board Nominal Floor drain Telephone T&G Area drain Noise reduction coefficient Fire extinguisher Tongue and groove Fire extinguisher cabinet NTS Adjacent Not to scale Top of grate **TGR** Adjustable Flared end section Top of grade THK AFF Above finished floor Finish floor Thick THR AGG Finished floor elevation Overall Threshold Aggregate OC OD TKS On center Tackstrip Aluminum Fiberglass TLT, TOIL Alternating Outside diameter Toilet TOC TOM TOP OH Alternate bid Fixture Overhead Top of curb FLG OP ANC Opaque Anchor, Anchorage Flashing Top of masonry ANOD FLR **OPG** Anodized Floor Opening Top of plank TOS TPD TPG Foundation Opposite Access panel Top of steel APX Toilet paper dispenser **Approximate** Frame ARCH Architect Fiberglass reinforced polyester Tempered plate glass **TPTN** Parallel Toilet partition Fire proof PBD Particleboard Fire retardant Television Plumbing contractor Bottom of bank Floor sink Typical PCC Precast concrete Terrazzo Board FTG **PERI** Bituminous Footing Perimeter FUR Barrier Free Furring Plate glass Building Undercut Parking Block Plate Underwriter's laboratory GΑ Gauge UNO Blocking Plastic laminate Unless noted otherwise GB Bench mark Grab bar Plaster Urinal BOT GC Bottom General contractor Panel GCMU BRG Bearing Glazed concrete masonry unit Paint (ed) GD VAT Vinyl asbestos tile Brick Grade, grading GEP Gypsum wall board epoxy painted Precast Terrazzo Tile VB Bronze Vapor barrier VCT VERT VEST Precast Resilient Terrazzo Tile Both sides Ground face Vinyl composition tile Built up roof Glass, Glazing Pounds per square foot Vertical Vestibule Glass block Pounds per square inch PTD Gypsum wall board painted Paper towel dispenser VIF Verify In Field CABCabinet **GPDW** PTN VIN Gypsum drywa**l**l Partition Vinyl PTR VNR Catch basin Paper towel receptor Veneer CEM PLAS GRD.F.BLk PVC VTR Cement plaster Polyvinyl chloride Vent thru roof Ground face block GSFT GST GT PVMT CMU epoxy painted Glazed structural facing tile Pavement PWD CFL Counter flashing Plywood Glazed structural tile Ceiling height West G۷ Cast iron With Galvanized GVL Control joint Quarry tile Without Gravel **GWB** QTY Centerline / closet Gypsum Wall Board WB Wood base Quantity Ceiling Water closet CLR Clear Hose bib Wood WDW CMU Concrete masonry unit HDHead Riser Window COL **HDW** Return air Column Hardware Wire glass CONC Concrete Hollow metal Radius Wall hung COND **HOR** Condition Rubber tile WIN Window Horizontal CONST RCP Reinforced concrete pipe WM Construction Highpoint Wire mesh CONT WP Waterproofing / Work point Continuous Roof drain CONTR WPT HTR Contractor Heater Reinforce (d), (ing) Work point COOL Cooling Heating & ventilation contractor Reference (s) WR Water repellent CMU Painted Reflected Waterstop CPR WSCT Copper Register Wainscot Inside diameter WTW Carpet Remove Wall to wall CRS Required Welded wire fabric Course Calcium silicate masonry unit Insulate (d), (ion) Resilient Cast stone INV RFG Ceramic tile Invert Roofing CTP Clear tempered plate glass Roof hatch CTR Counter Right hand CWP Clear wire plate Janitor's closet Room Rough opening Joint **ROW** Right of way RUB Drain (s) Rubber, base **KCPL** DBL RV Radon vent Double Keene's cement plaster Drinking fountain Rain water conductor Kitchen DIM KPL Kickplate Dimension Diameter DK Deck DMB Styrene butadiene styrene Dry marker board Length Security Laboratory Solid core Door Laminate (d) DS SCH Schedule Downspout Lavitory LDR Dumbwaiter Leader Structural clay tile Lineal foot/Linear feet Storm drain Left-hand Safety glass Liveload Security glazing SHM Each Security hollow metal Location Exibition Board Low point Sheathing Similar Electrical contractor Lintel LW Lightweight Skylight Exhaust fan LWC Exterior insulated finish system Lightweight concrete Sleeve EJ, EXP J Sealant Expansion joint SOG Elevation Slab on grade Electrical Soundproof Masonry Material SPAC'G Elevator Spacing **EMER** Specification Emergency Maximum ENC Split face block Enclosure Mechanical contractor **MECH ENTR** Entrance Mechanical SPK Speaker EOP MED Edge of paving Sauare Medium Square foot / feet Epoxy paint Ethylene propylene diene monomers MFR EPDM Manufacturer Stainless steel Standard Equal Manhole Equipment Minimum Seating MISC STR Epoxy Resinous Flooring Miscellaneous Structural Existing To Remain MMB Suspended Membrane MO **SWF** ETR-R Existing To Remain - Refinished Security Window Film Masonry opening SYN MOV Synthetic Epoxy Terrazzo Movable Electric water cooler Mop receptor Expansion bolt Marble threshold EXG MTD Existing Mounted **MTFR** EXP Metal furring Exposed Exterior Mullion SYMBOL LIST MATERIAL LEGEND section number WALL SECTION drawing number A.C.B. / A.C.T. detail number DETAIL INFORMATION EARTH POROUS FILL drawing number DEMOLITION NOTE REFERENCE TAG D V SEE DEMOLITION NOTES PLASTER / GYP BD / EIFS CONCRETE WINDOW OR CURTAINWALL TYPE SEE WINDOW/CURTAINWALL SCHEDULE DOOR NUMBER BATT INSULATION SEE DOOR SCHEDULE BORROWED LIGHT NUMBER SEE DOOR APPLICABLE CODES SCHEDULE BUILDING SUBCODE - ROOM NAME/NUMBER REHABILITATION SUBCODE FINISH WOOD FACE BRICK —— EQUIPMENT NUMBER OR LETTER BARRIER FREE SUBCODE PLUMBING SUBCODE ELECTRICAL SUBCODE — → NUMBER OR METAL / STEEL RIGID INSULATION elevation number INTERIOR ELEVATION

drawing number

GENERAL NOTES ON DEMOLITION:

DEVICES ARE READY FOR SWITCHOVER.

CONSTRUCTION.

DETAILS RELATING TO THE NEW CONSTRUCTION.

INTERNATIONAL BUILDING CODE 2015 - NEW JERSEY EDITION

NEW JERSEY REHABILITATION NJUCC, SUBCHAPTER 5:23-6

NATIONAL STANDARD PLUMBING CODE 2015 NATIONAL ELECTRICAL CODE (NFPA 70) 2014

ICC-ANSI A117.1-2009

THESE NOTES SHALL APPLY TO ALL DEMOLITION WORK THROUGHOUT THE PROJECT.

A. ALL CONTRACTORS ARE ADVISED TO VISIT THE SITE AND VERIFY ALL AREAS AND CONDITIONS PRIOR TO SUBMITTING THEIR BIDS. THE CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND/OR OMISSIONS IN WRITING AT LEAST SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. FAILURE TO SO NOTIFY THE ARCHITECT INDICATES THAT ANY ADDITIONAL COSTS ASSOCIATED WITH THE DISCREPANCIES AND / OR OMISSIONS ARE INCLUDED IN THE CONTRACTOR'S BID AND THAT NO CHANGE TO THE CONTRACT AMOUNT WILL BE MADE AFTER THE RECEIPT OF BIDS OR THE AWARD OF CONTRACTS

B. ALL PLUMBING, MECHANICAL OR ELECTRICAL DISCONNECTS SHALL BE MADE BY THE RESPECTIVE TRADES. ALL EQUIPMENT, DEVICES, FIXTURES, ETC. SHALL BE REMOVED FROM THE SITE BY THE RESPECTIVE CONTRACTOR. NOTE: THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DIMINISHED NOR SHALL EXISTING FIRE ALARM DEVICES BE REMOVED UNTIL NEW

UNLESS NOTED OTHERWISE ALL DEMOLITION MATERIAL SHALL BE REMOVED OFF SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

D. THERE ARE SOME SPECIFIC ITEMS DESIGNATED BY THE ARCHITECT FOR SALVAGE. THESE ITEMS ARE INTENDED FOR REUSE IN THE NEW CONSTRUCTION. THE CONTRACTOR MUST TAKE CARE IN THE REMOVAL AND STORAGE OF THESE ITEMS UNTIL THEY ARE NEEDED IN THE NEW CONSTRUCTION.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT PORTIONS OF THE EXISTING CONSTRUCTION WHICH ARE ADJACENT TO AREAS TO BE DEMOLISHED. MAKE ALL CUTS AS NEATLY AS POSSIBLE. REFER TO FLOOR PLAN DRAWINGS FOR FINISHING OF THESE AREAS

IF NOT OTHERWISE NOTED OR DETAILED, ALL SURFACES LEFT ROUGH OR UNFINISHED BY DEMOLITION AND WHICH ARE EXPOSED TO VIEW, SHALL BE PATCHED TO MATCH ADJACENT SURFACES AND FINISHED TO PROVIDE A UNIFORM APPEARANCE WITH REGARD TO SIZE, SHAPE, COLOR. TEXTURE AND MATERIAL

G. THE CONTRACTOR SHALL PROVIDE A PHYSICAL BARRIER TO CONTAIN DUST AND DIRT AROUND THE DEMOLITION AREA AND SHALL MAKE EVERY EFFORT TO KEEP THE DEMOLITION SITE AND SURROUNDING AREAS AS CLEAN AS POSSIBLE. ALL TEMPORARY PARTITIONS SHALL BE 1 HOUR RATED CONSTRUCTION AND INCLUDE A DOOR.

H. NO DEMOLITION SHALL BEGIN UNTIL PROPER PROTECTION IS IN PLACE AND APPROVED BY ARCHITECT & OWNER TO ENSURE THE SAFETY OF THE PUBLIC, THE BUILDING OCCUPANTS, CONSTRUCTION WORKERS AND TO CONTAIN DUST AND DIRT WITHIN THE AREA OF DEMOLITION.

THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING THE REMOVAL AND DISPOSAL OF ALL MATERIALS & EQUIPMENT.

THE CONTRACTOR SHALL PROVIDE PROTECTION AGAINST INCLEMENT WEATHER FOR THE EXISTING BUILDING DURING THE INTERIM PERIOD BETWEEN DEMOLITION AND THE COMPLETION OF NEW

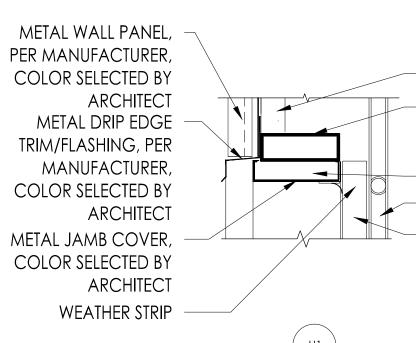
K. THE CONTRACTORS SHALL TAKE INTO ACCOUNT THEIR METHODS OF CONSTRUCTION FOR THE NEW WORK AND INCLUDE IN THEIR BID THE COST OF ADDITIONAL DEMOLITION WORK NECESSARY TO FACILITATE THE CONSTRUCTION. THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE AREA AROUND JOINTS BETWEEN NEW AND EXISTING CONSTRUCTION IN WALLS, FLOORS AND CEILINGS,

AREAS OF SIDEWALK AND PAVING, ETC. MUCH OF THIS WORK IS INDICATED IN SECTIONS AND

THE DEMOLITION WORK SHOWN ON THIS PLAN IS INTENDED TO BE A GENERAL OVERVIEW OF MAJOR DEMOLITION WORK REQUIRED. IT IS NOT A COMPLETE AND EXCLUSIVE REPRESENTATION OF ALL DEMOLITION WORK NEEDED FOR EXECUTION OF THE PROJECT. WHEN PREPARING THEIR BIDS, CONTRACTORS MUST REFER TO THE FULL SET OF CONSTRUCTION DOCUMENTS FOR VARIOUS MISCELLANEOUS ITEMS WHICH MUST BE REMOVED AND/OR RELOCATED AS PART OF THE WORK

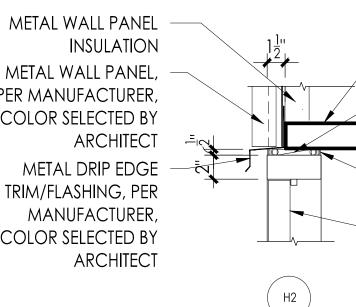
DOOR TYPE

M. ALL PRIME CONTRACTORS ARE RESPONSIBLE FOR THEIR OWN CUTTING AND PATCHING - SEE SPECIFICATION.



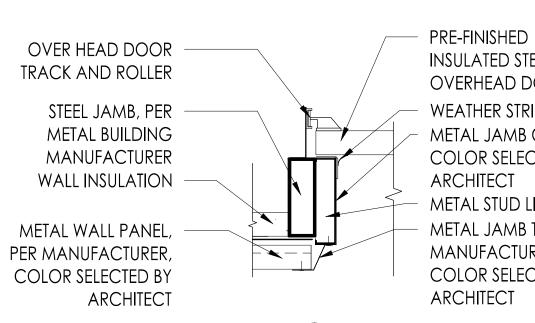
WALL INSULATION STEEL HEADER, PER METAL BUILDING MANUFACTURER METAL STUD LINER DOOR TRACK PRE-FINISHED **INSULATED STEEL** OVERHEAD DOOR

PER MANUFACTURER, COLOR SELECTED BY COLOR SELECTED BY

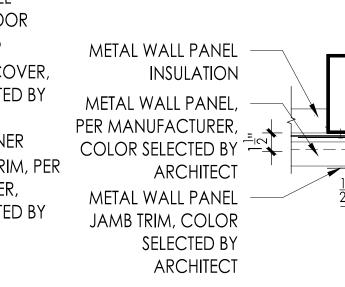


ROUGH FRAME JAMB PER STEEL BUILDING MANUFACTURER SHIM AS REQUIRED, MAINTAIN SEPARATION FROM STEEL AND ALUMINUM SEALANT AND BACKER ROD BOTH SIDES FRP DOOR IN ALUMINUM FRAME

OVERHEAD DOOR HEAD DETAILS Scale: 1 1/2' = 1'-0"



INSULATED STEEL OVERHEAD DOOR WEATHER STRIP METAL JAMB COVER, COLOR SELECTED BY ARCHITECT METAL STUD LINER METAL JAMB TRIM, PER MANUFACTURER, COLOR SELECTED BY ARCHITECT



ROUGH FRAME JAMB PER STEEL BUILDING MANUFACTURER SHIM AS REQUIRED MAINTAIN SEPARATION FROM STEEL AND ALUMINUM FRP DOOR IN ALUMINUM FRAME SEALANT AND BACKER ROD BOTH SIDES

OVERHEAD DOOR JAMB DETAILS Scale: 1 1/2' = 1'-0"

> **EXTERIOR** ALUMINUM SADDLE SET DOOR, REF IN A CONTINUOUS BED **SCHEDULE** OF SEALANT EXTERIOR **EXPOSED CONCRETE** CONCRETE METAL CONTROL

J2

THE FOLLOWING SCHEDULES AND COMMENTS.

SADDLE DETAILS

Scale: 1 1/2' = 1'-0"

LOOSE LINTEL SCHEDULE (FOR 4", 8", 12" & 16" WALLS) MASONRY OPENING LINTEL SIZE REMARKS L - 3-1/2" x 3-1/2" x 1/4" UP TO 4'-0" 4'-1" TO 6'-0" L - 5" x 3-1/2" x 5/16" 6'-1" TO 8'-0" L - 6" x 3-1/2" x 5/16" OVFR 8'-0" W 8 x 18 + PLATE

UNLESS OTHERWISE SPECIFIED ON DRAWINGS, PROVIDE & INSTALL LINTELS FOR ALL

SQUARE HEAD MASONRY OPENINGS IN AL MASONRY WALLS IN ACCORDANCE WITH

O VERO O	77 0 X 10 · 1 E/ (12	
LOO	SE LINTEL SCHED	DULE
MASONRY OPENING	LINTEL SIZE	REMARKS
2'-0" TO 6 '- 0"	WT 7 x 11	
6'-1" TO 8'-0"	WT 8 x 13	

PROVIDE ONE (1) ANGLE FOR EACH 4" OF MASONRY WIDTH BEAR LINTELS 6" MINIMUM ON EACH SIDE OF OPENING ALL LINTELS IN EXTERIOR WALLS SHALL BE GALVANIZED. 4. WHERE OPENINGS ARE LOCATED NEXT TO COLUMNS OR BEAMS, ATTACH LINTEL TO STRUCTURAL STEEL. CONNECTION NOT TO PROTRUDE INTO OPENING. 5. REFER TO ARCHITECTURAL, HVAC & ELECTRICAL DRAWINGS FOR OPENING SIZE &

DOOR SCHEDULE NOTES

1) OVERHEAD DOOR TO BE PRE-FINISHED METAL INSULATED,

	OOR S	CHEDUL	.E											
DR	DOOR	DOOR							SADDLE	HARD				
DR NO	LOCATION	SIZE	TYPE	MAT.	GLASS	TYPE	MAT.	HEAD	JAMB	SADDLE	WARE	RATING	SIGN TYPE	REMARKS
A001	METAL OUT BUILDING	3'-0" x 7'-0"	A	FRP		AF1	AL	H2/G002	J2/G002	\$1/G002	1.0			COLOR SELECTED BY ARCHITECT

FRAME TYPE

8'-0" X 10'-0" B GALV. STEEL INSUL -- -- H1/G002 J1/G002 -- -- -- REF DOOR SCHEDULE NOTE #1

RENOVATIONS TO **WILLIAM DAVIES** MIDDLE SCHOOL

ALTERATIONS AND

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

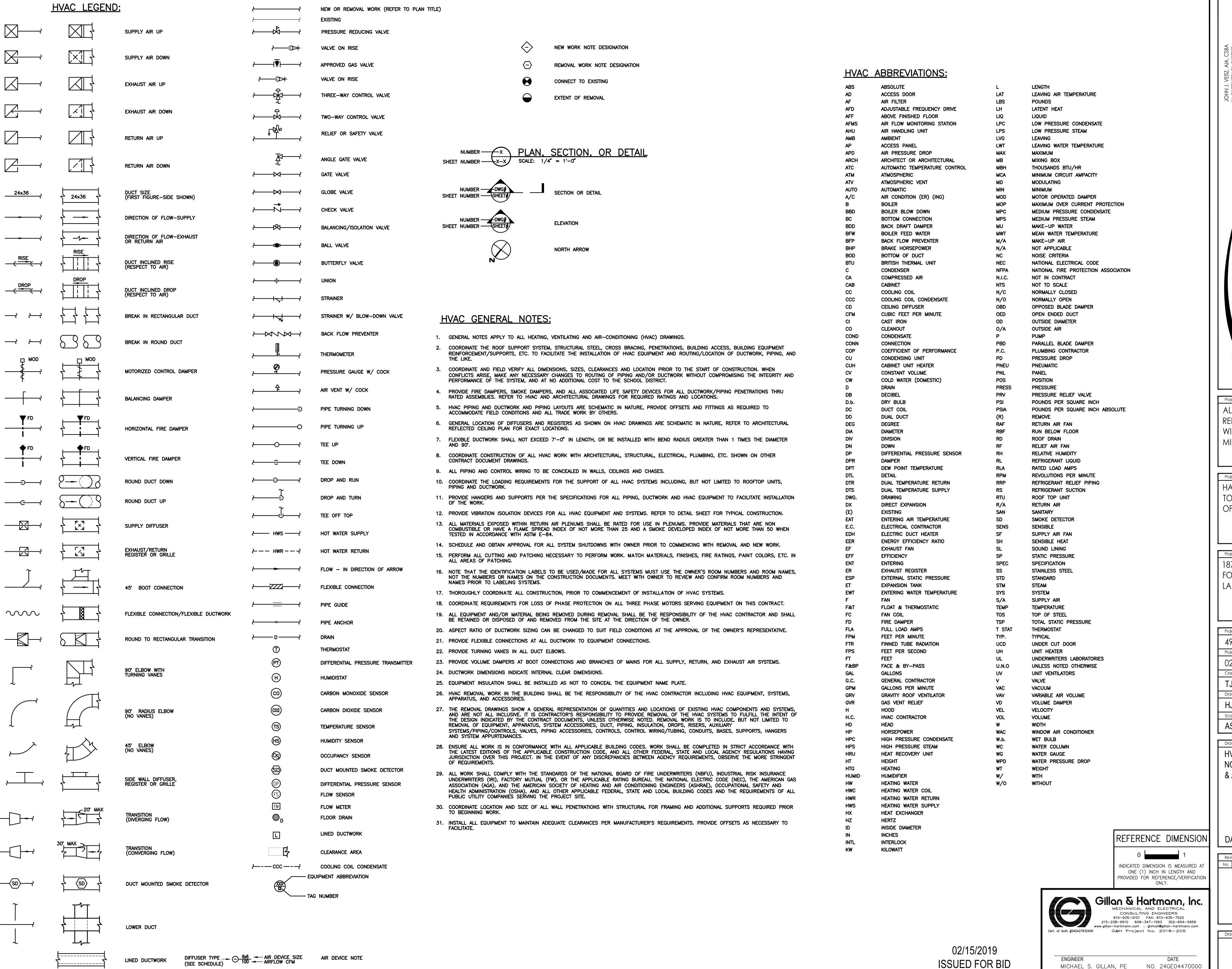
Project Location 1876 DENNIS FORMAN DR MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By Drawn By

Drawing Name **ABBREVIATIONS** DOOR SCHEDULE DOOR TYPES **DETAILS**

AS NOTED

No. Date Description



(SEE SCHEDULE)

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Project Name **ALTERATIONS AND** RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR, MAYS

I LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By

AS NOTED

Drawing Name **HVAC GENERAL** NOTES, LEGENDS

& ABBREVIATIONS

DAVIES M.S.

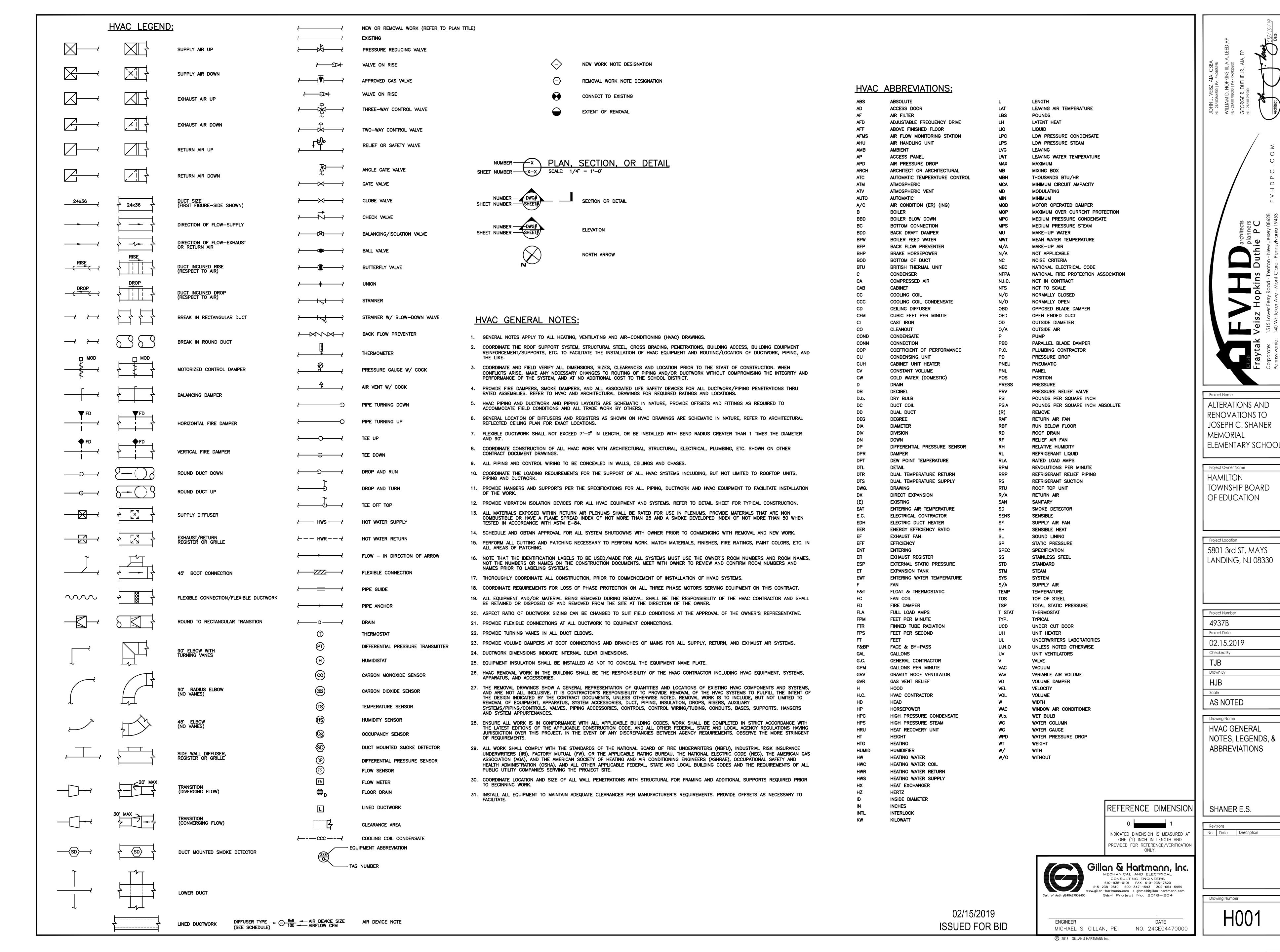
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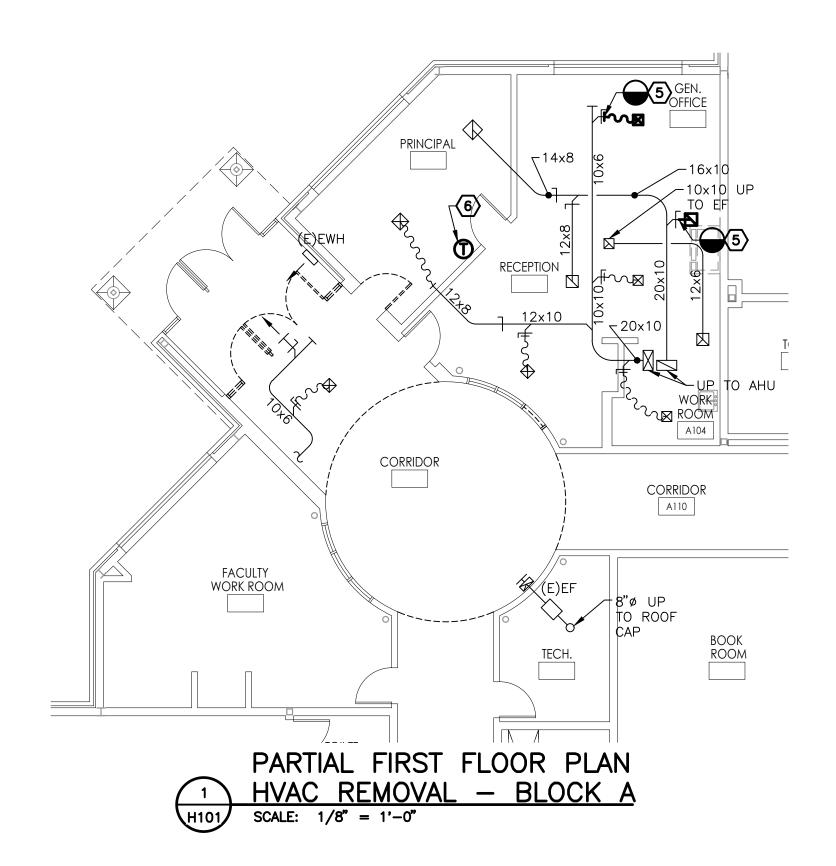
Drawing Number

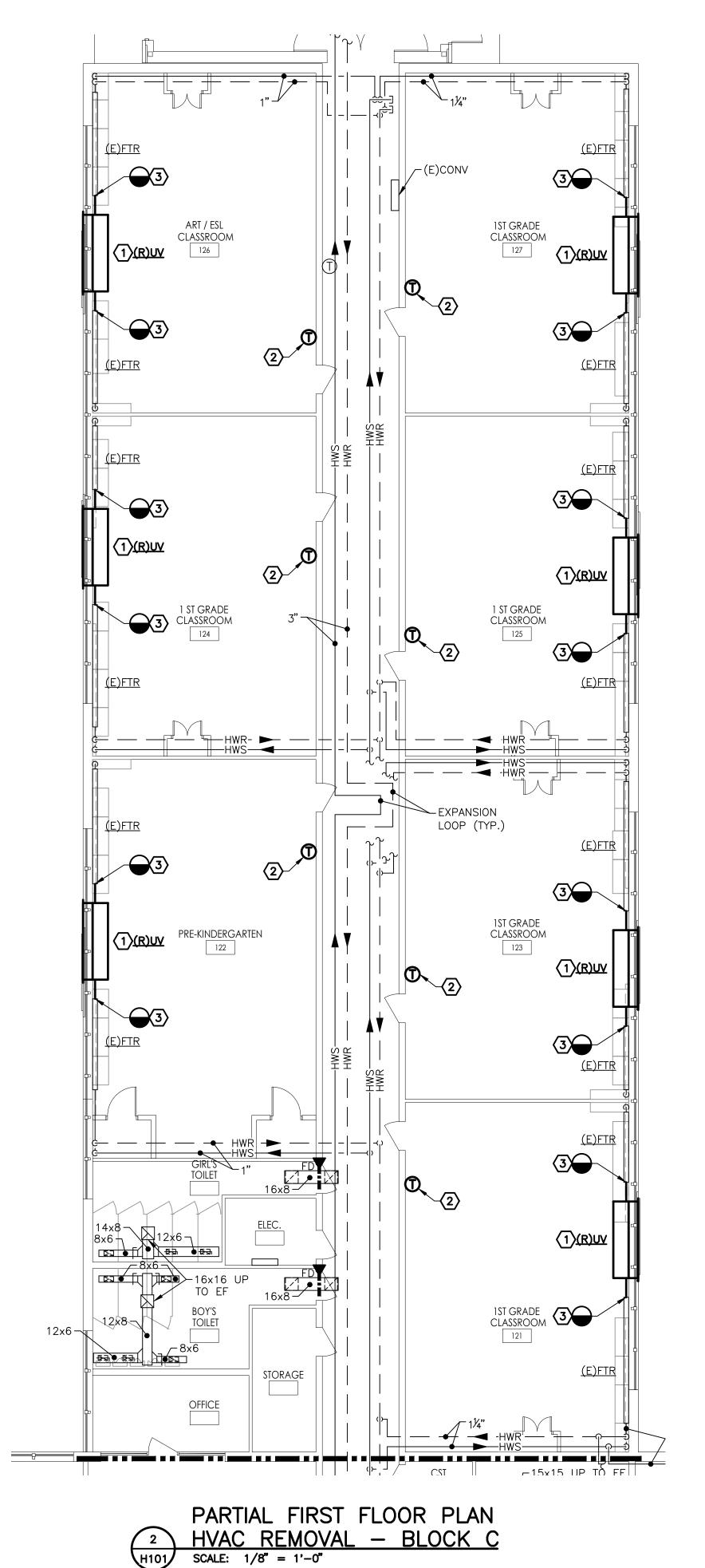
MICHAEL S. GILLAN, PE

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REMOVAL NOTES:

- (1) DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR AND ALL ASSOCIATED PIPING AS INDICATED INCLUDING ASSOCIATED CONTROLS, LOUVERS, WALL BOXES, ACCESSORIES, INSULATION, VALVES AND ANY ADDITIONAL ASSOCIATED APPURTENANCES. COORDINATE REMOVAL WITH ELECTRICAL AND GENERAL CONSTRUCTION CONTRACTORS FOR ALL POWER WIRING DEMOLITION WORK. REFER TO ARCHITECTURAL DOCUMENTS FOR LOUVER REMOVAL & WALL PATCHING.
- (2) DISCONNECT AND REMOVE EXISTING THERMOSTATS AND WALL SENSORS, INCLUDING SUB-BASES, WALL PLATES AND ASSOCIATED PNEUMATIC TUBING/WIRING BACK TO THE MAINS/JUNCTION BOXES. CAP AND SEAL PNEUMATIC TUBING AIRTIGHT. PATCH WALL TO MATCH EXISTING.
- (3) DISCONNECT EXISTING HEATING WATER SUPPLY AND RETURN PIPING AS INDICATED. INCLUDING INSULATION, SUPPORTS, HANGERS, VALVES, FITTINGS, UNIONS, ESCUTCHEONS AND ALL ASSOCIATED APPURTENANCES TO LOCATIONS INDICATED. REFER TO NEW WORK PLANS FOR NEW PIPING CONNECTIONS. WHERE NEW WORK IS NOT UTILIZING THE EXISTING OPENING, PATCH PENETRATIONS TO MATCH EXISTING CONSTRUCTION AND FINISH. WHERE EXISTING PIPING EXTENDS THRU THE FLOOR REMOVE PIPING AS REQUIRED TO FACILITATE A NEW FLOOR CONNECTION.
- 4 PRIOR TO THE START OF CONSTRUCTION (REMOVAL OR NEW WORK) PROVIDE A PRE-CONSTRUCTION MEASUREMENT AT THE EXISTING SYSTEM COMPONENTS INDICATED. SUBMIT A REPORT INDICATING FLOW AND PRESSURE LOSS.
- (5) DISCONNECT AND REMOVE EXISTING DIFFUSER, DUCTWORK, FLEXIBLE DUCT, AND ADDITIONAL APPURTENANCES. CAP DUCTWORK AT MAIN.
- 6 DISCONNECT EXISTING THERMOSTAT. REMOVE/EXTEND WIRING AS REQUIRED TO INSTALL THERMOSTAT IN NEW LOCATION. REFER TO NEW WORK PLANS.

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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

02.15.2019

AS NOTED

PARTIAL BASEMENT & FIRST FLOOR PLANS: PLUMBING HVAC -BLOCKS A & C

SHANER E.S.

No. Date Description

Drawing Number H101

02/15/2019 ISSUED FOR BID

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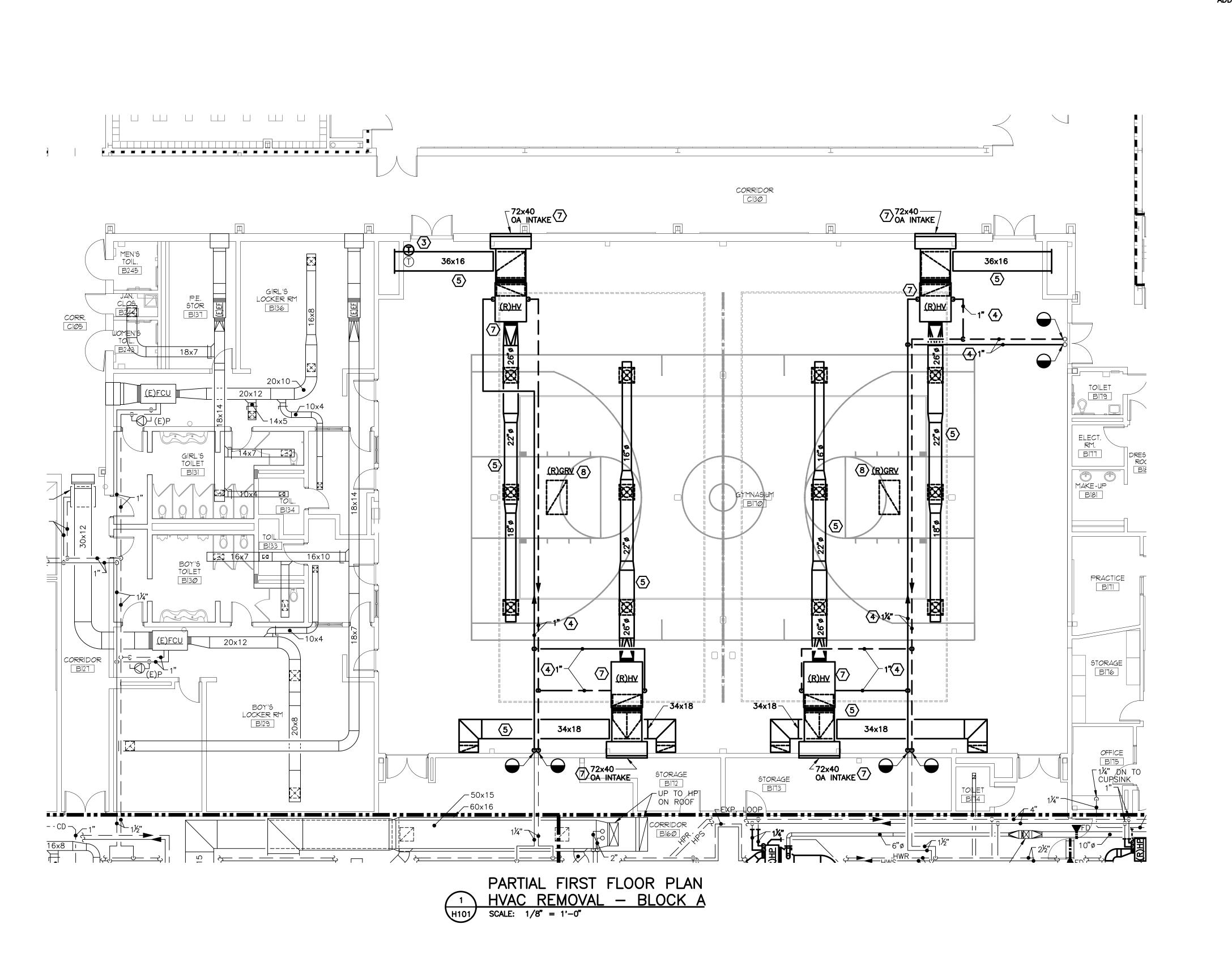
KEY PLAN - SHANER ELEMENTARY

REFERENCE DIMENSION

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ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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REMOVAL NOTES:

- 2 NOT USED.
- 3 DISCONNECT AND REMOVE EXISTING THERMOSTATS AND WALL SENSORS, INCLUDING SUB-BASES, WALL PLATES, AND ASSOCIATED PNEUMATIC TUBING/WIRING BACK TO THE MAINS/JUNCTION BOXES.
- LOCATIONS INDICATED. CAP PIPING AT MAIN. COORDINATE REMOVAL OF PIPING WITH EXISTING CONSTRUCTION AND ALL OTHER TRADE WORK. WHERE NEW WORK IS NOT UTILIZING THE EXISTING OPENING, PATCH PENETRATIONS TO MATCH EXISTING CONSTRUCTION AND FINISH. REFER TO NEW WORK NOTES FOR ADDITIONAL COORDINATION.
- DISCONNECT AND REMOVE EXISTING DUCTWORK INCLUDING ALL ASSOCIATED SUPPORTS, HANGERS, INSULATION, DAMPERS, GRILLES, REGISTERS, FLEXIBLE CONNECTIONS, FLEXIBLE DUCTWORK AND ALL ASSOCIATED APPURTENANCES TO LOCATIONS INDICATED. COORDINATE REMOVAL OF DUCTWORK WITH EXISTING CONSTRUCTION AND ALL OTHER TRADE WORK. WHERE NEW WORK IS NOT UTILIZING THE EXISTING OPENING, PATCH PENETRATIONS. REFER TO NEW WORK PLANS FOR NEW EQUIPMENT LOCATIONS. REFER TO NEW WORK NOTES FOR ADDITIONAL COORDINATION.
- 6 NOT USED
- DISCONNECT AND REMOVE EXISTING HEATING AND VENTILATING UNIT IN ITS ENTIRETY INCLUDING ALL ASSOCIATED SUPPORTS, HANGERS, BASE RAILS, DUCTWORK, FLEXIBLE DUCTWORK, PIPING, INSULATION, VALVES, CONTROLS, WIRING, AND ALL ASSOCIATED APPURTENANCES. INSULATION AND CONCRETE BLOCKING TO MATCH EXISTING TO BLOCK EXISTING LOUVER. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- DISCONNECT AND REMOVE EXISTING GRAVITY VENT AND ALL ASSOCIATED DUCTWORK, DAMPERS, AND ADDITIONAL APPURTENANCES. REFER TO ROOF REMOVAL PLANS FOR ADDITIONAL INFORMATION.

 \bigcirc NOT USED.

CAP AND SEAL PNEUMATIC TUBING AIRTIGHT. PATCH WALL TO MATCH EXISTING. DISCONNECT AND REMOVE EXISTING PIPING IN ITS ENTIRETY INCLUDING INSULATION, SUPPORTS, HANGERS, VALVES, FITTINGS, UNIONS, ESCUTCHEONS AND ALL ASSOCIATED APPURTENANCES TO

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

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KEY PLAN - DAVIES MIDDLE SCHOOL

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PARTIAL FIRST FLOOR PLAN: HVAC REMOVALS -

BLOCK A

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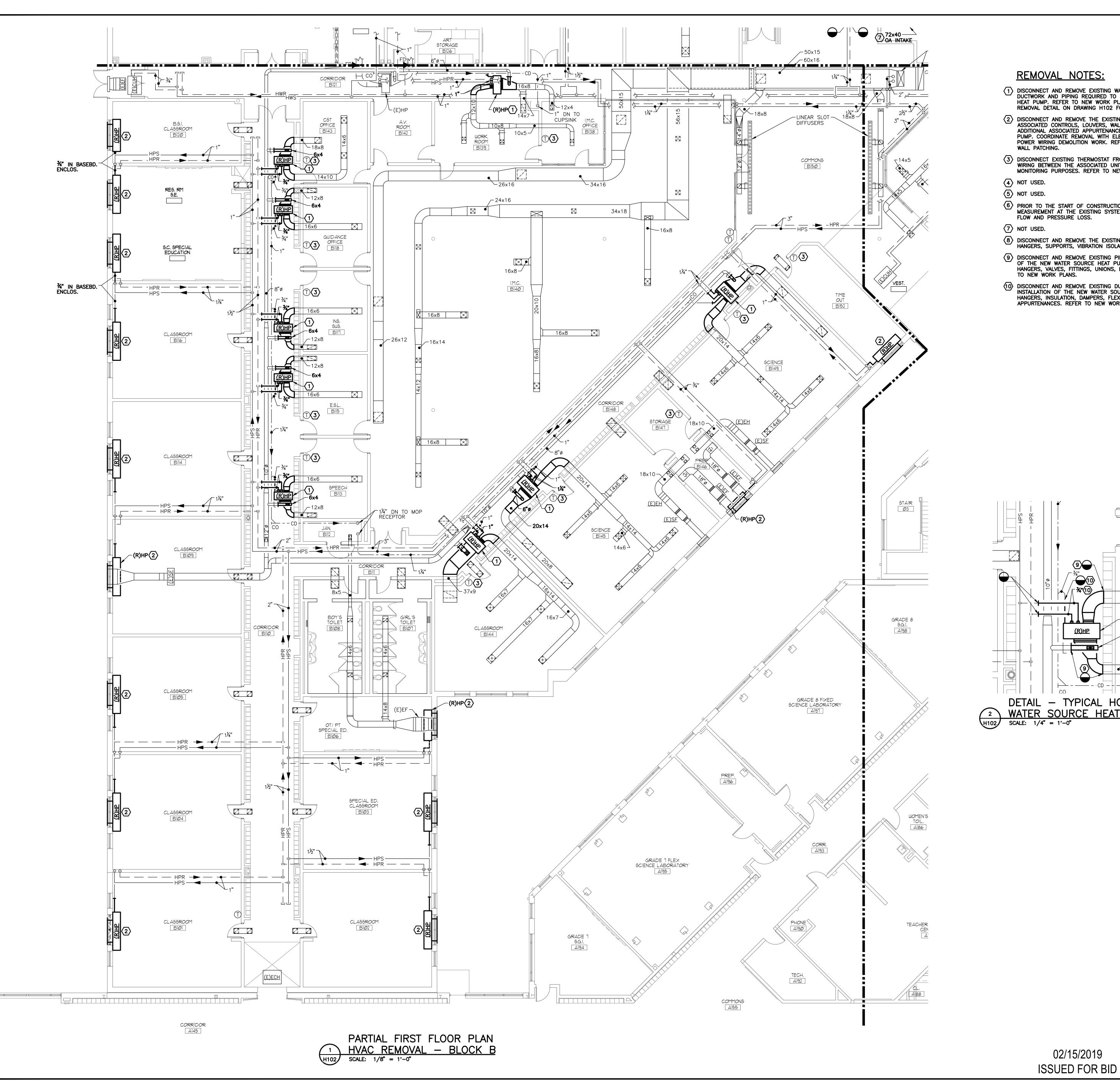
Drawing Number H101

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ENGINEER MICHAEL S. GILLAN, PE

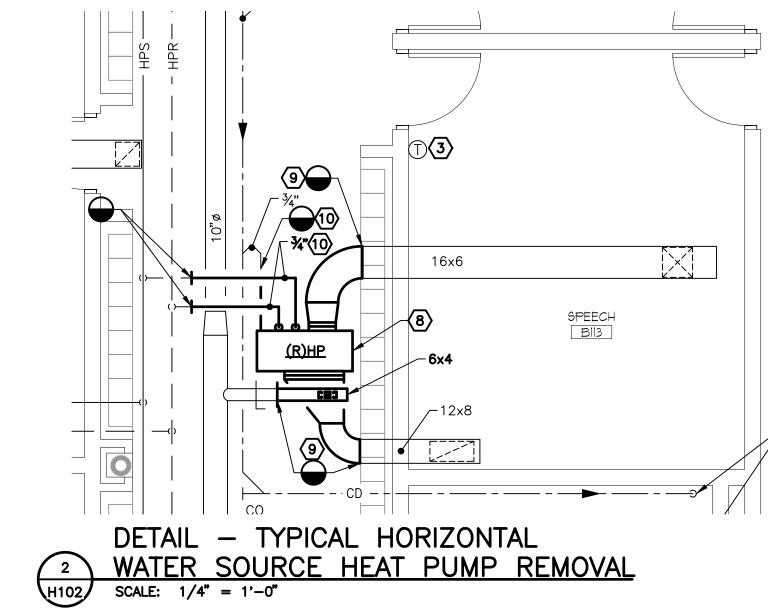
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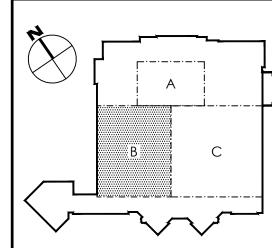


REMOVAL NOTES:

- DISCONNECT AND REMOVE EXISTING WATER SOURCE HEAT PUMP AS INDICATED. REMOVE ASSOCIATED DUCTWORK AND PIPING REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW WATER SOURCE HEAT PUMP. REFER TO NEW WORK PLANS AND TYPICAL HORIZONTAL WATER SOURCE HEAT PUMP REMOVAL DETAIL ON DRAWING H102 FOR ADDITIONAL INFORMATION.
- DISCONNECT AND REMOVE THE EXISTING WATER SOURCE HEAT PUMP AS INDICATED. REMOVE ALL ASSOCIATED CONTROLS, LOUVERS, WALL BOXES, ACCESSORIES, INSULATION, VALVES AND ANY ADDITIONAL ASSOCIATED APPURTENANCES IN ORDER TO FACILITATE THE NEW WATER SOURCE HEAT PUMP. COORDINATE REMOVAL WITH ELECTRICAL AND GENERAL CONSTRUCTION CONTRACTORS FOR ALL POWER WIRING DEMOLITION WORK. REFER TO ARCHITECTURAL DOCUMENTS FOR LOUVER REMOVAL &
- DISCONNECT EXISTING THERMOSTAT FROM THE ASSOCIATED UNIT CONTROLS. REMOVE ASSOCIATED WIRING BETWEEN THE ASSOCIATED UNIT AND THERMOSTAT. EXISTING THERMOSTAT TO REMAIN FOR MONITORING PURPOSES. REFER TO NEW WORK PLANS.
- PRIOR TO THE START OF CONSTRUCTION (REMOVAL OR NEW WORK) PROVIDE A PRE-CONSTRUCTION MEASUREMENT AT THE EXISTING SYSTEM COMPONENTS INDICATED. SUBMIT A REPORT INDICATING FLOW AND PRESSURE LOSS.
- DISCONNECT AND REMOVE THE EXISTING WATER SOURCE HEAT PUMP. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, VIBRATION ISOLATION.
- DISCONNECT AND REMOVE EXISTING PIPING AS REQUIRED IN ORDER TO FACILITATE THE INSTALLATION OF THE NEW WATER SOURCE HEAT PUMP. REMOVE ALL ASSOCIATED INSULATION, SUPPORTS, HANGERS, VALVES, FITTINGS, UNIONS, ESCUTCHEONS AND ALL ADDITIONAL APPURTENANCES. REFER TO NEW WORK PLANS.
- DISCONNECT AND REMOVE EXISTING DUCTWORK AS REQUIRED IN ORDER TO FACILITATE THE INSTALLATION OF THE NEW WATER SOURCE HEAT PUMP. REMOVE ALL ASSOCIATED SUPPORTS, HANGERS, INSULATION, DAMPERS, FLEXIBLE CONNECTIONS, FLEXIBLE DUCTWORK, AND ALL ADDITIONAL APPURTENANCES. REFER TO NEW WORK PLANS.



KEY PLAN - DAVIES MIDDLE SCHOOL



REFERENCE DIMENSION

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

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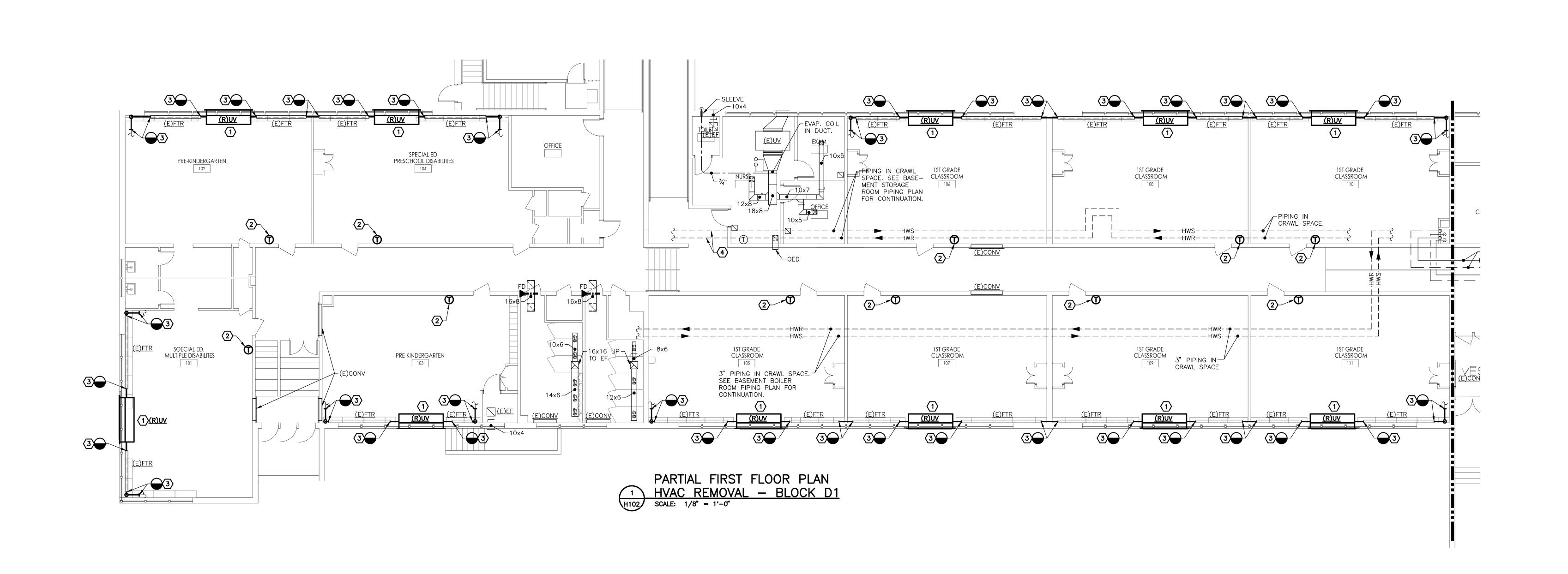
Project Number 02.15.2019

AS NOTED

PARTIAL FIRST FLOOR PLAN: **HVAC REMOVALS -BLOCK B**

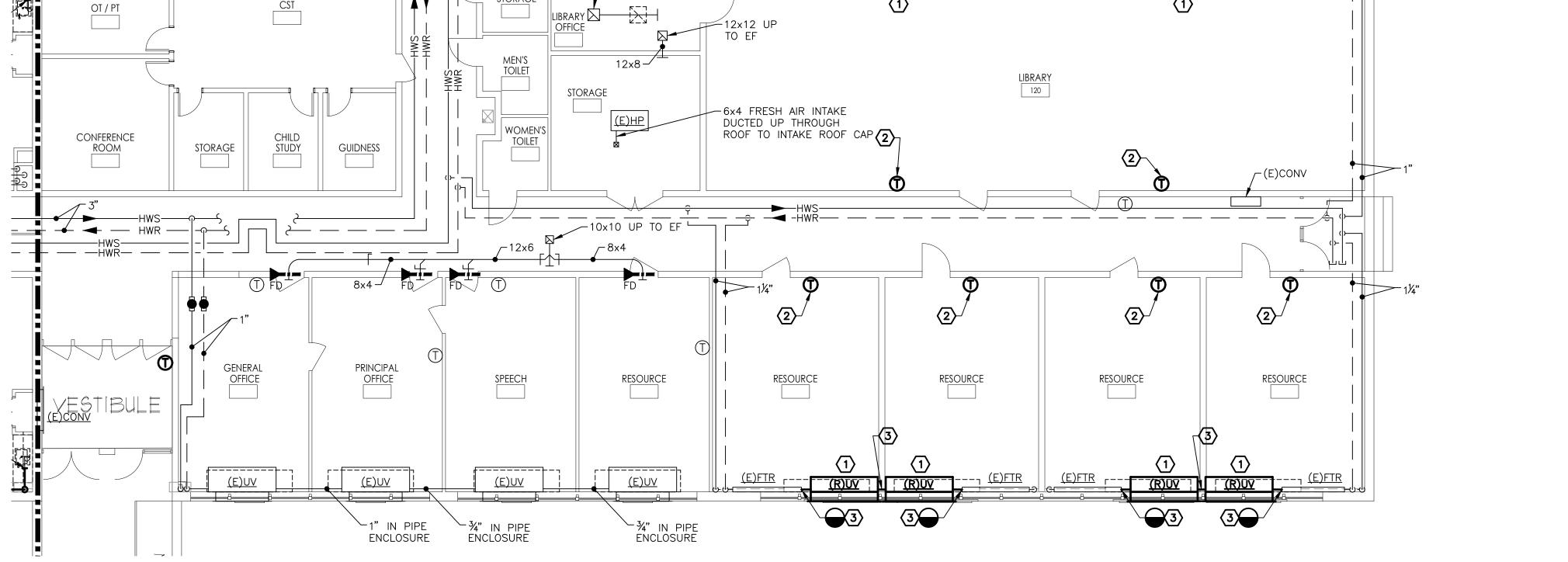
DAVIES M.S.

No. Date Description



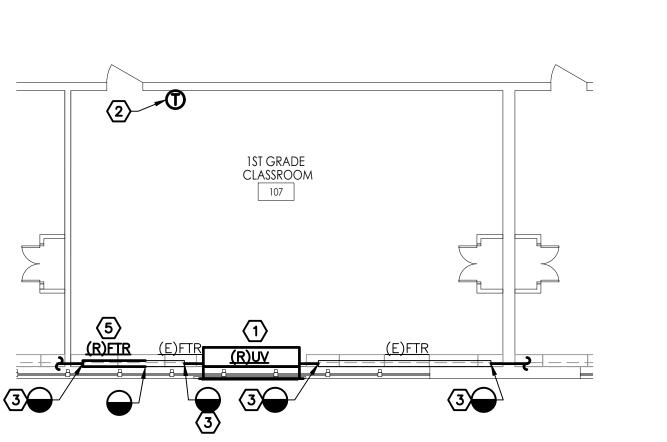
REMOVAL NOTES:

- 1 DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR AND ALL ASSOCIATED PIPING AS INDICATED INCLUDING ASSOCIATED CONTROLS, LOUVERS, WALL BOXES, ACCESSORIES, INSULATION, VALVES AND ANY ADDITIONAL ASSOCIATED APPURTENANCES. COORDINATE REMOVAL WITH ELECTRICAL AND GENERAL CONSTRUCTION CONTRACTORS FOR ALL POWER WIRING DEMOLITION WORK. REFER TO ARCHITECTURAL DOCUMENTS FOR LOUVER REMOVAL & WALL PATCHING.
- 2 DISCONNECT AND REMOVE EXISTING THERMOSTATS AND WALL SENSORS, INCLUDING SUB-BASES, WALL PLATES AND ASSOCIATED PNEUMATIC TUBING/WIRING BACK TO THE MAINS/JUNCTION BOXES. CAP AND SEAL PNEUMATIC TUBING AIRTIGHT. PATCH WALL TO MATCH EXISTING.
- (3) DISCONNECT EXISTING HEATING WATER SUPPLY AND RETURN PIPING AS INDICATED. INCLUDING INSULATION, SUPPORTS, HANGERS, VALVES, FITTINGS, UNIONS, ESCUTCHEONS AND ALL ASSOCIATED APPURTENANCES TO LOCATIONS INDICATED. REFER TO NEW WORK PLANS FOR NEW PIPING CONNECTIONS. WHERE NEW WORK IS NOT UTILIZING THE EXISTING OPENING, PATCH PENETRATIONS TO MATCH EXISTING CONSTRUCTION AND FINISH. WHERE EXISTING PIPING EXTENDS THRU THE FLOOR REMOVE PIPING AS REQUIRED TO FACILITATE A NEW FLOOR CONNECTION.
- PRIOR TO THE START OF CONSTRUCTION (REMOVAL OR NEW WORK) PROVIDE A PRE-CONSTRUCTION MEASUREMENT AT THE EXISTING SYSTEM COMPONENTS INDICATED. SUBMIT A REPORT INDICATING FLOW AND PRESSURE LOSS.
- DISCONNECT AND REMOVE EXISTING FINNED TUBE RADIATOR AS INDICATED TO FACILITATE THE INSTALLATION OF THE NEW UNIT VENTILATOR. REMOVE ASSOCIATED PIPING INCLUDING ALL ASSOCIATED HANGERS, SUPPORTS, VALVES, INSULATION, AND ANY ADDITIONAL APPURTENANCES.



PARTIAL FIRST FLOOR PLAN
HVAC REMOVAL — BLOCK D2

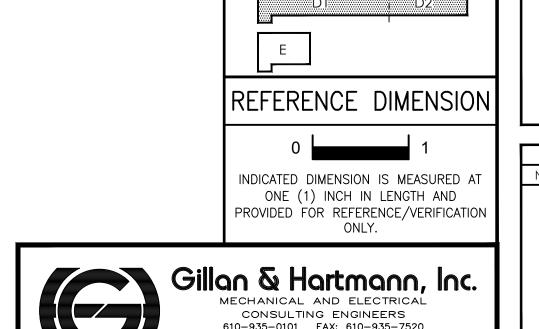
SCALE: 1/8" = 1'-0"



PARTIAL FIRST FLOOR PLAN 3 HVAC REMOVAL — CORNER UV INSTALLATION

H102 SCALE: 1/8" = 1'-0"

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NO. 24GE04470000 MICHAEL S. GILLAN, PE © 2018 GILLAN & HARTMANN Inc.

KEY PLAN - SHANER ELEMENTARY

H102

ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL **ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS LANDING, NJ 08330

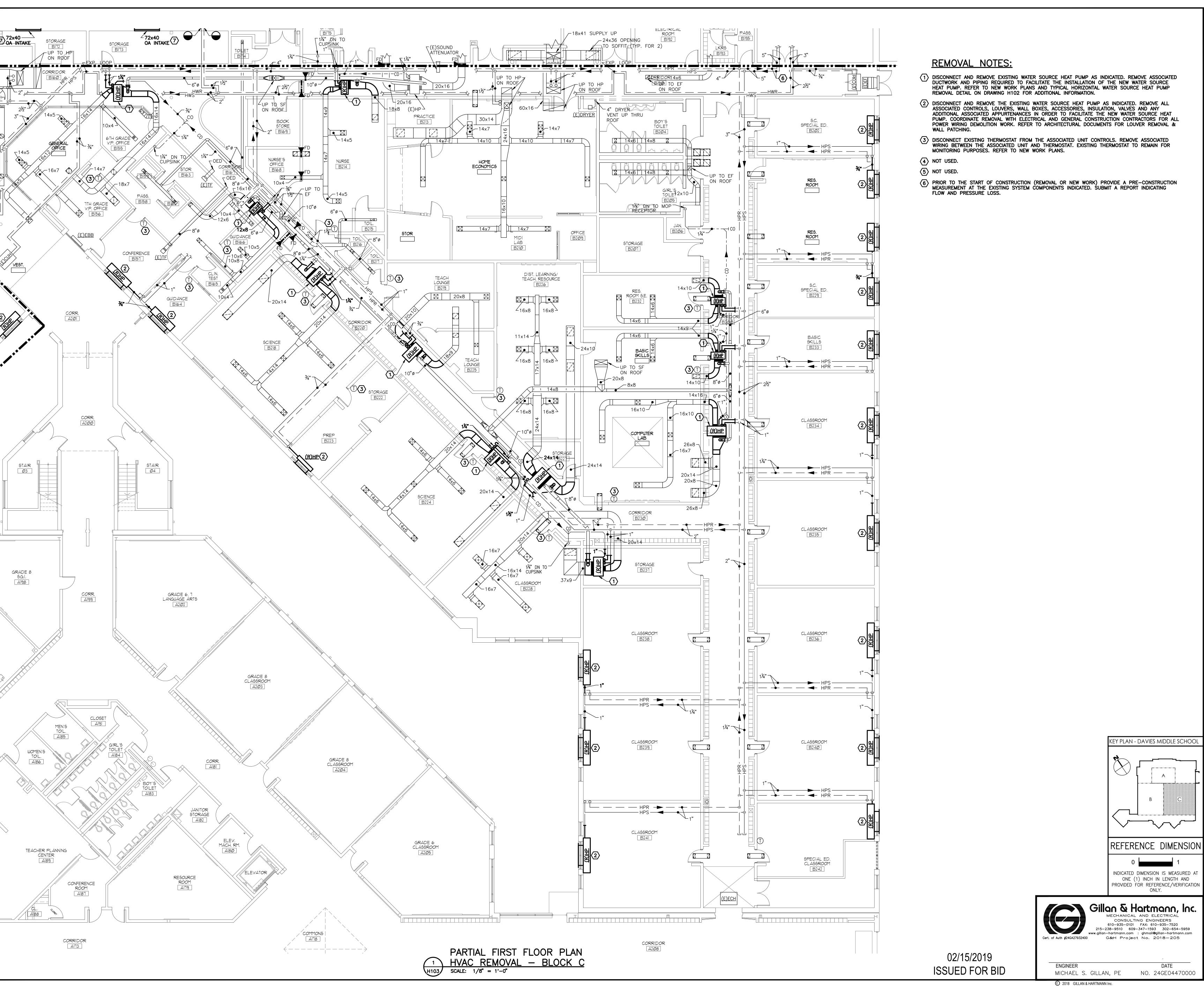
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AS NOTED

PARTIAL FIRST FLOOR PLANS: HVAC REMOVALS -BLOCKS D1 & D2

SHANER E.S.

No. Date Description



- DISCONNECT AND REMOVE THE EXISTING WATER SOURCE HEAT PUMP AS INDICATED. REMOVE ALL ASSOCIATED CONTROLS, LOUVERS, WALL BOXES, ACCESSORIES, INSULATION, VALVES AND ANY ADDITIONAL ASSOCIATED APPURTENANCES IN ORDER TO FACILITATE THE NEW WATER SOURCE HEAT PUMP. COORDINATE REMOVAL WITH ELECTRICAL AND GENERAL CONSTRUCTION CONTRACTORS FOR ALL POWER WIRING DEMOLITION WORK. REFER TO ARCHITECTURAL DOCUMENTS FOR LOUVER REMOVAL &
- DISCONNECT EXISTING THERMOSTAT FROM THE ASSOCIATED UNIT CONTROLS. REMOVE ASSOCIATED WIRING BETWEEN THE ASSOCIATED UNIT AND THERMOSTAT. EXISTING THERMOSTAT TO REMAIN FOR

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

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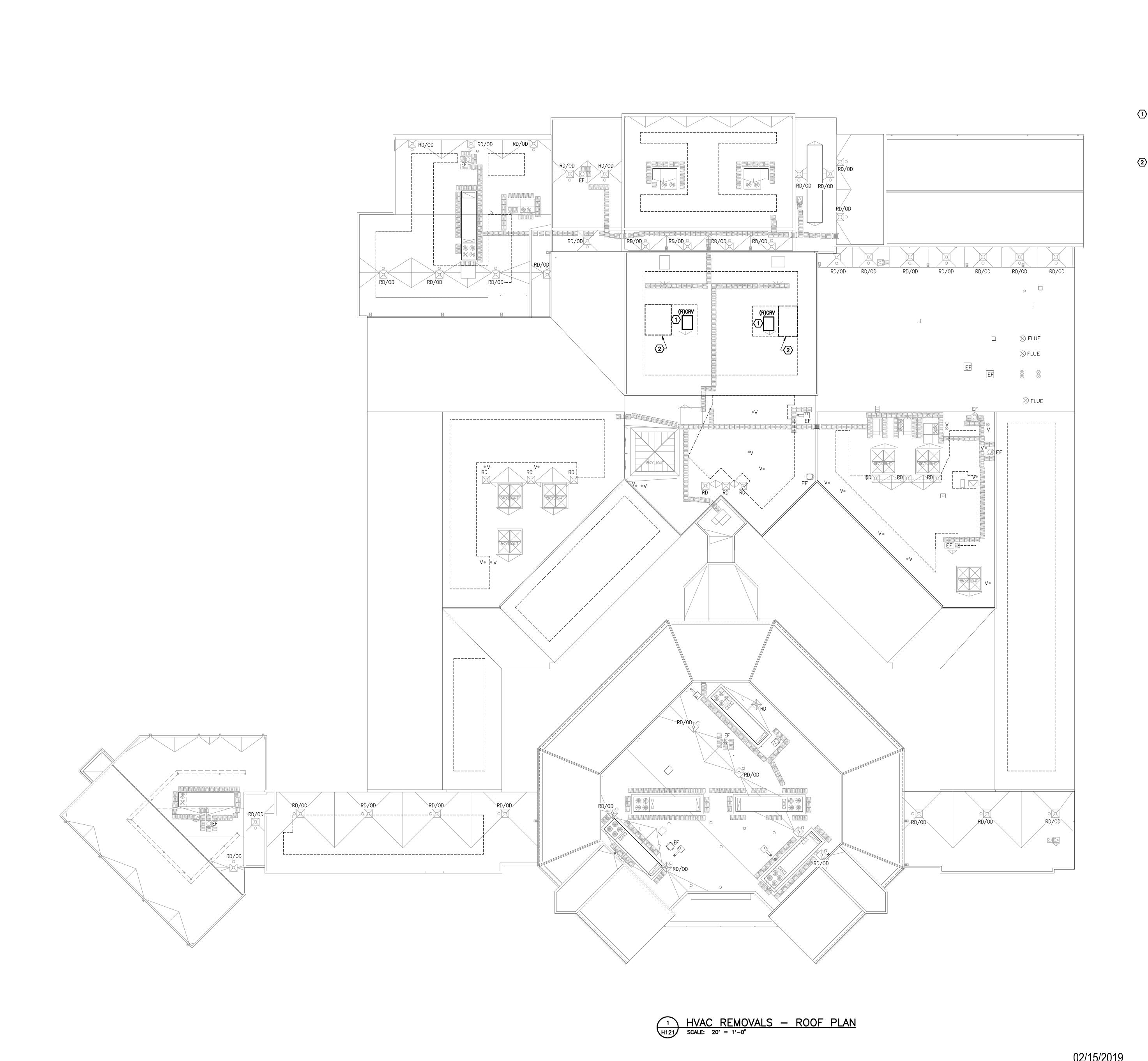
02.15.2019

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PARTIAL FIRST FLOOR PLAN: HVAC REMOVALS -BLOCK C

DAVIES M.S.

No. Date Description



REMOVAL NOTES:

- COORDINATE EXTENT OF SOLAR PANEL REMOVALS WITH THE ELECTRICAL CONTRACTOR TO FACILITATE NEW RTU INSTALLATION.

DISCONNECT AND REMOVE EXISTING ROOFTOP GRAVITY VENT/GOOSENECK IN ITS ENTIRETY INCLUDING BLOCKING, COUNTER FLASHING, WIRING, ACTUATOR, DUCTWORK, GRILLES, SUPPORTS, AND ALL ADDITIONAL APPURTENANCES. REMOVE PNEUMATIC TUBING BACK TO MAIN AND CAP AIRTIGHT. INFILL ROOF/MODIFY EXISTING OPENING AS REQUIRED TO FACILITATE THE NEW RTU. REFER TO NEW WORK PLANS AND ARCHITECTURAL DOCUMENTS.

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 TJB

AS NOTED

Drawing Name ROOF PLAN:

HVAC REMOVALS

DAVIES M.S.

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Drawing Number

02/15/2019 ISSUED FOR BID Gillan & Hartmann, Inc.

MECHANICAL AND ELECTRICAL

CONSULTING ENGINEERS

610-935-0101 FAX: 610-935-7520

215-238-9510 609-347-1593 302-654-5959

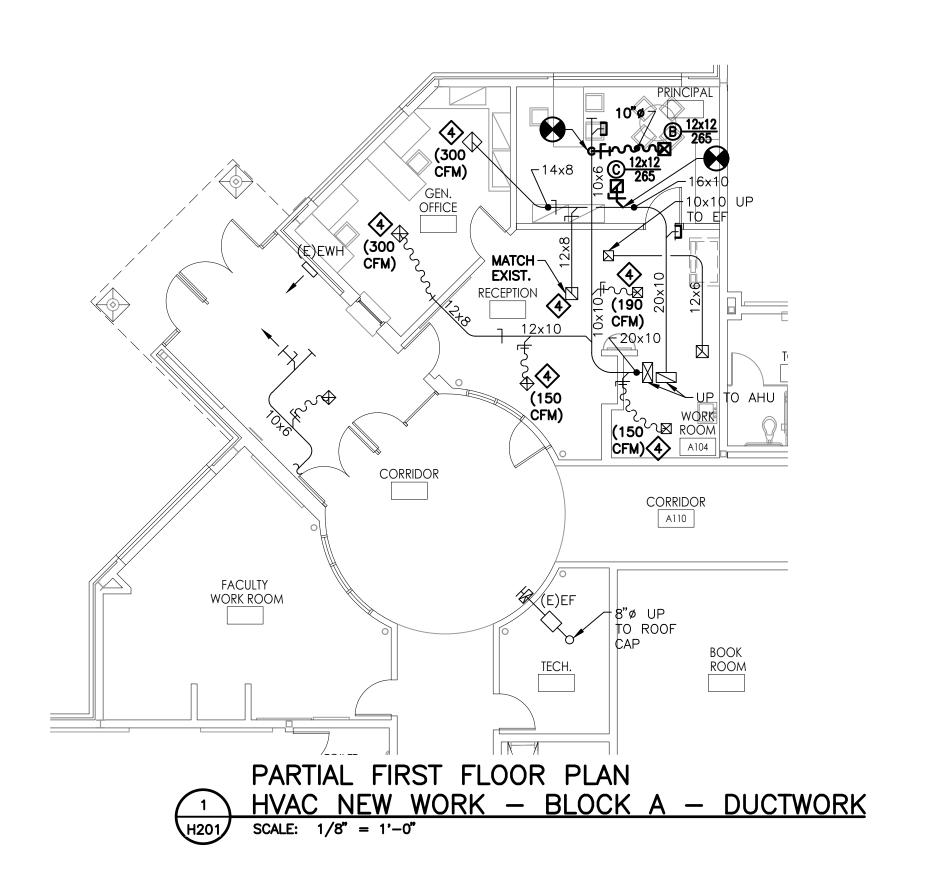
www.gillan-hartmann.com: ghmail@gillan-hartmann.com

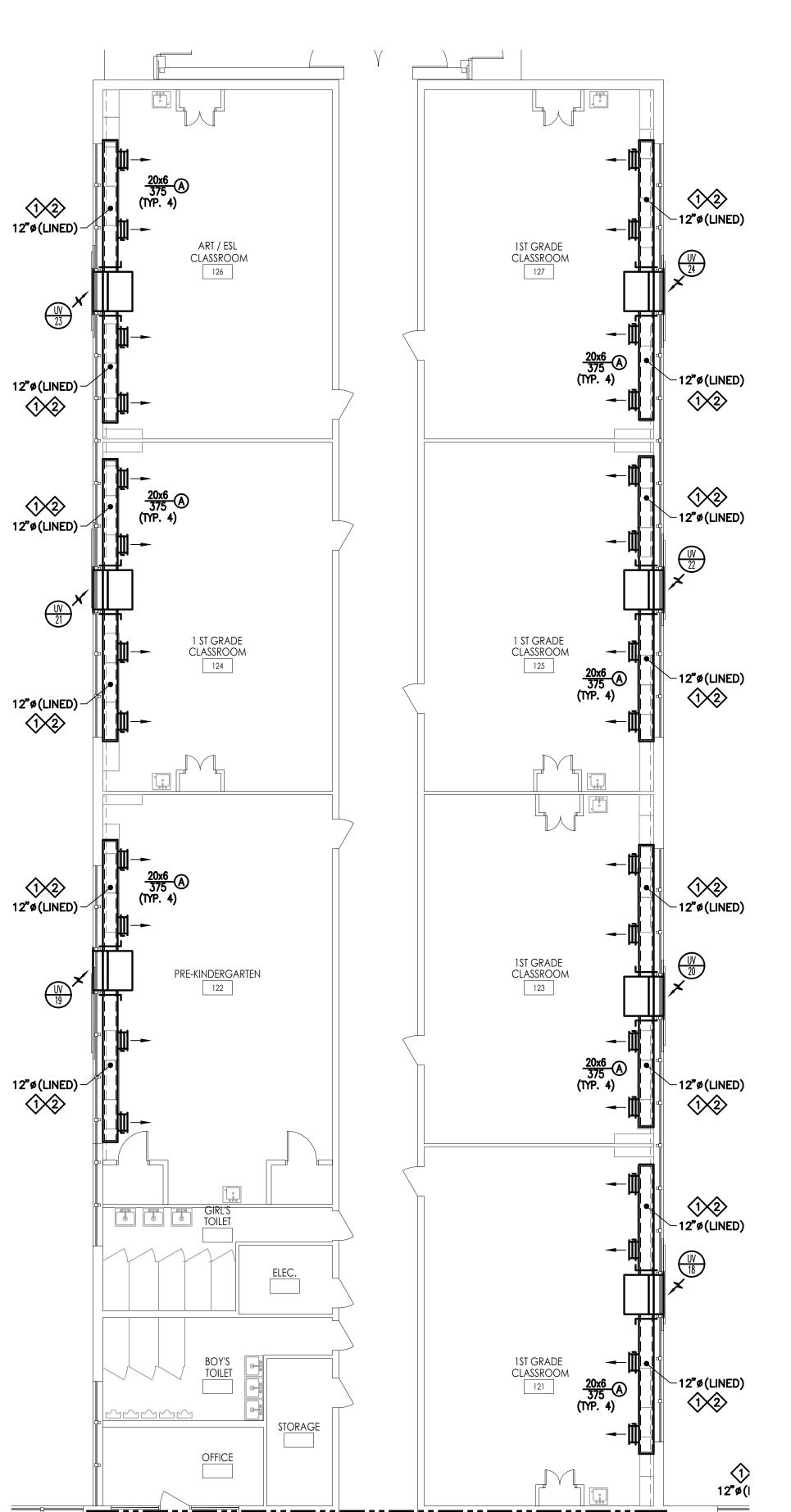
Cert. of Auth #24GA27932400 G&H Project No. 2018-205

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

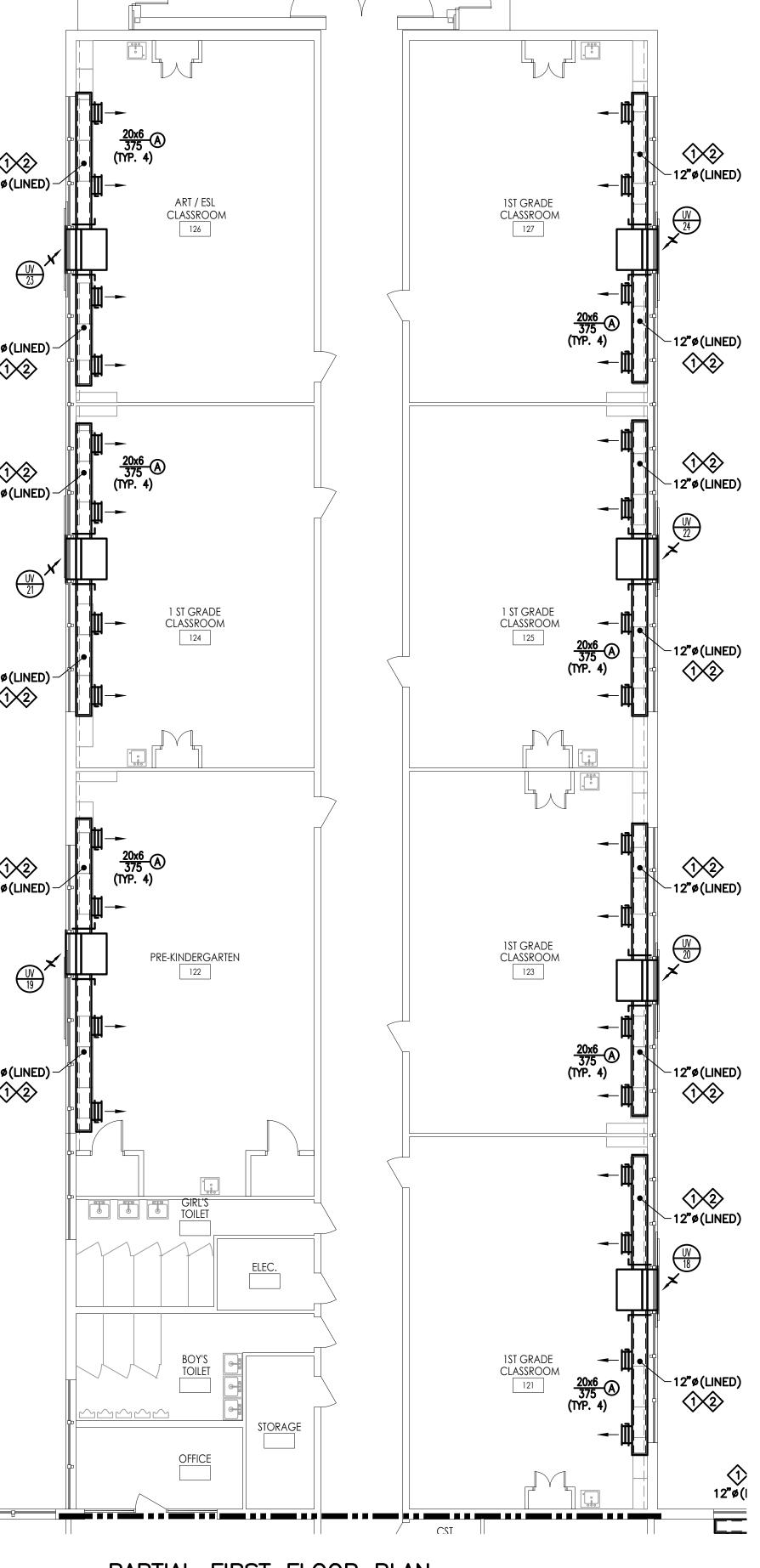
REFERENCE DIMENSION

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NEW WORK NOTES:



NOTE: (E)FTR IS NOT INDICATED FOR CLARITY PURPOSES. REFER TO NEW WORK PIPING PLANS.

- PROVIDE LINED DUCTWORK WITH SMOOTH (NON-FLANGED) CONNECTIONS. REFER TO TYPICAL UNIT VENTILATOR SECTION FOR ADDITIONAL INFORMATION.
- INSTALL DUCTWORK TO ENSURE BOTTOM OF DUCT IS A MINIMUM OF 8'-0" ABOVE THE FINISHED FLOOR.
- PROVIDE WALL FILLER PANEL/CLOSURE PIECE. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- 4 BALANCE AIRFLOW TO THE INDICATED VALUE.

ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

4937B 02.15.2019

AS NOTED

PARTIAL BASEMENT & FIRST FLOOR PLANS: HVAC NEW WORK -BLOCKS A & C -DUCTWORK

No. Date Description

REFERENCE DIMENSION SHANER E.S.

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

KEY PLAN - SHANER ELEMENTARY



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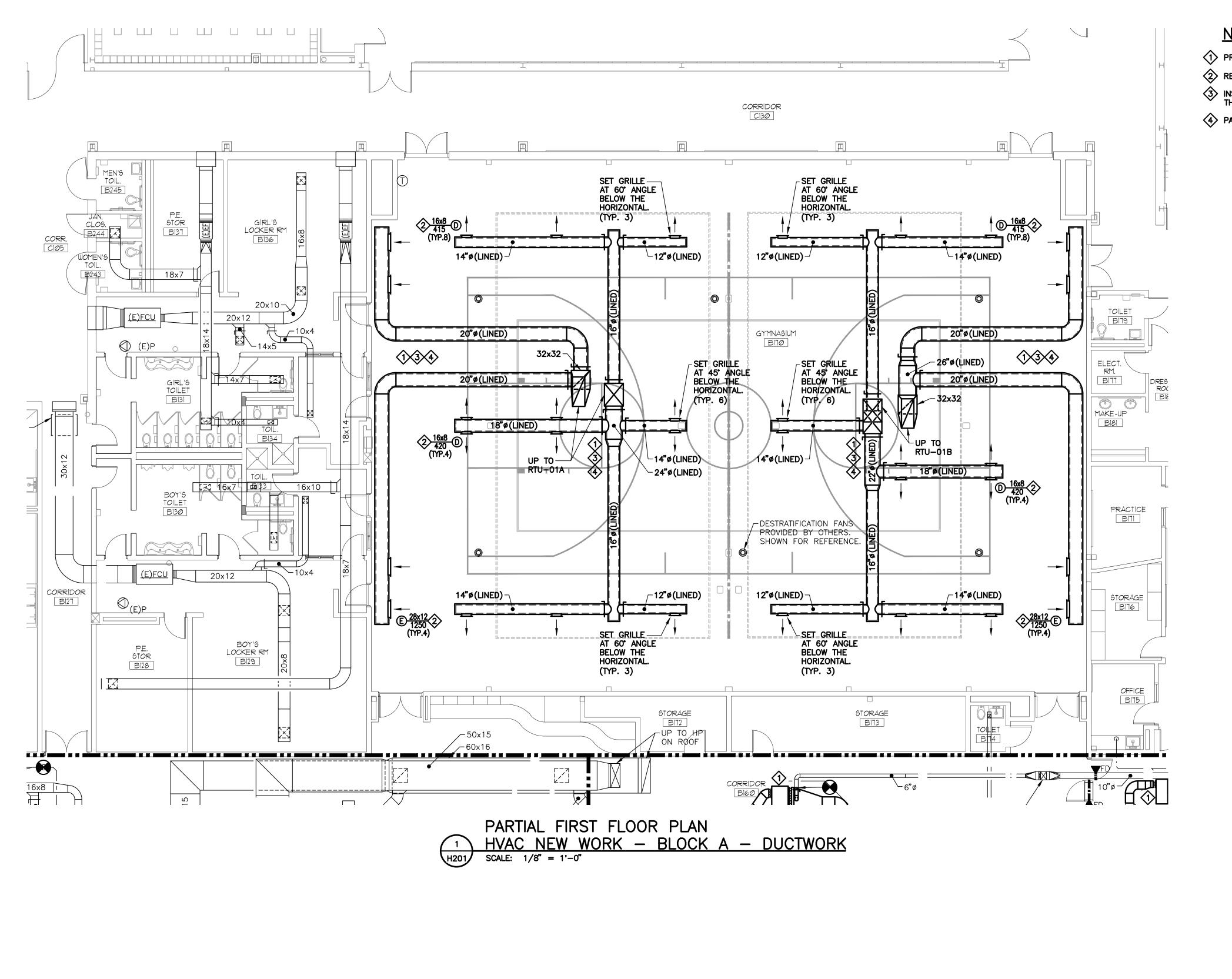
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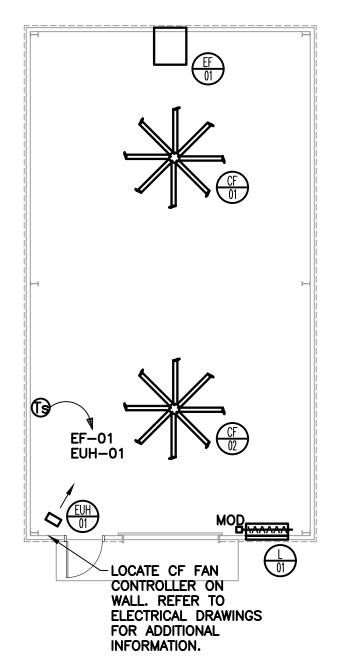
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ENGINEER NO. 24GE04470000 MICHAEL S. GILLAN, PE

H201





PARTIAL FLOOR PLAN 2 HVAC NEW WORK — NEW STORAGE BUILDING

SCALE: 1/8" = 1'-0" NOTE: REFER TO ARCHITECTURAL AND CIVIL DOCUMENTS FOR STORAGE BUILDING PHYSICAL LOCATION.

NEW WORK NOTES:

- PROVIDE DUCT LINER FOR ALL EXPOSED DUCTWORK PER THE SPECIFICATIONS.
- (2) REFER TO THE EXPOSED DUCT/GRILLE INSTALLATION DETAIL.
- PAINT DUCTWORK PER THE SPECIFICATIONS.

planners e P C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

02.15.2019

AS NOTED

KEY PLAN - DAVIES MIDDLE SCHOOL

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT

ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

PARTIAL FIRST FLOOR PLAN: HVAC NEW WORK -**BLOCK A & NEW** STORAGE BUILDING -

DAVIES M.S.

DUCTWORK

No. Date Description

Drawing Number

H20¹

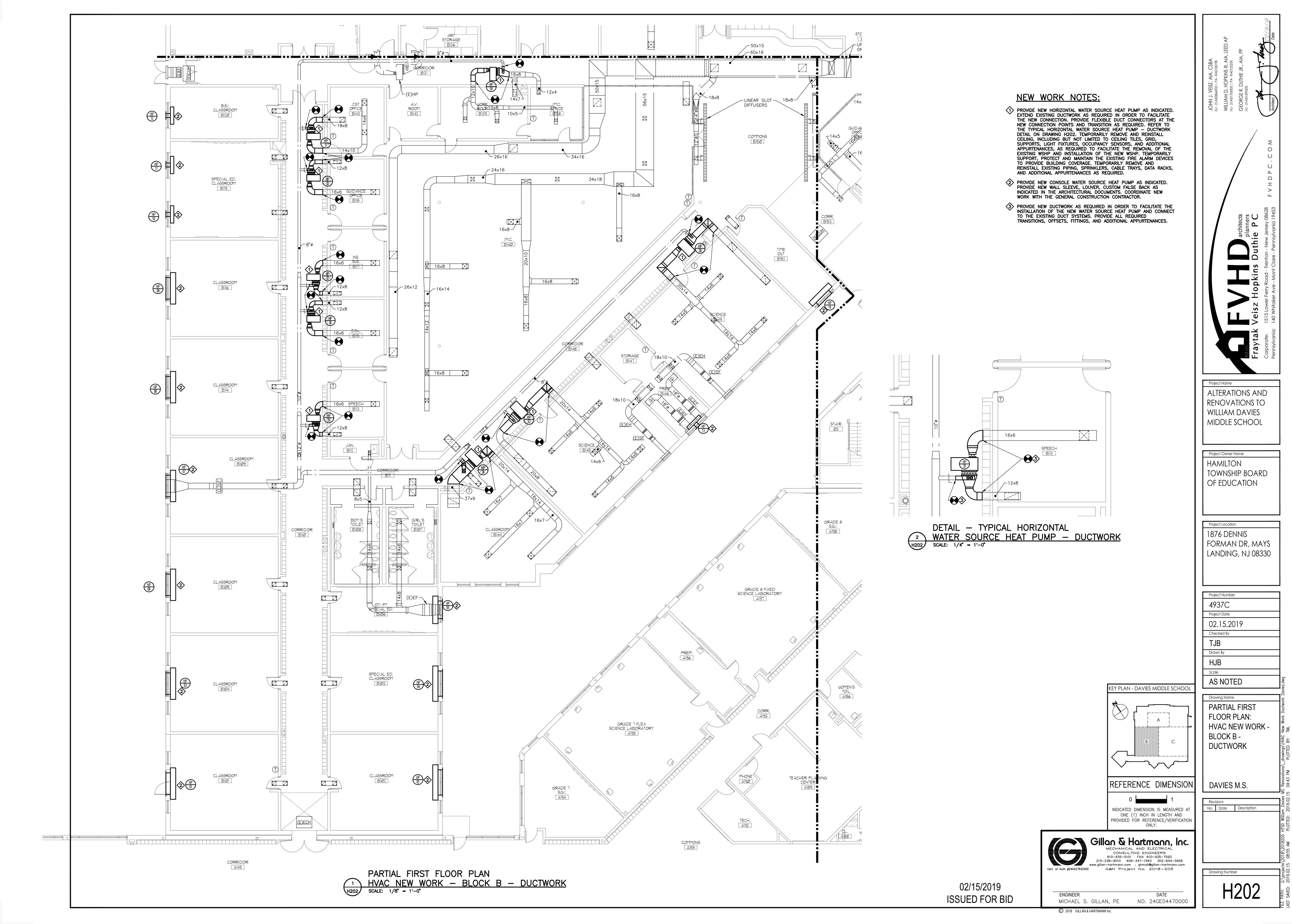
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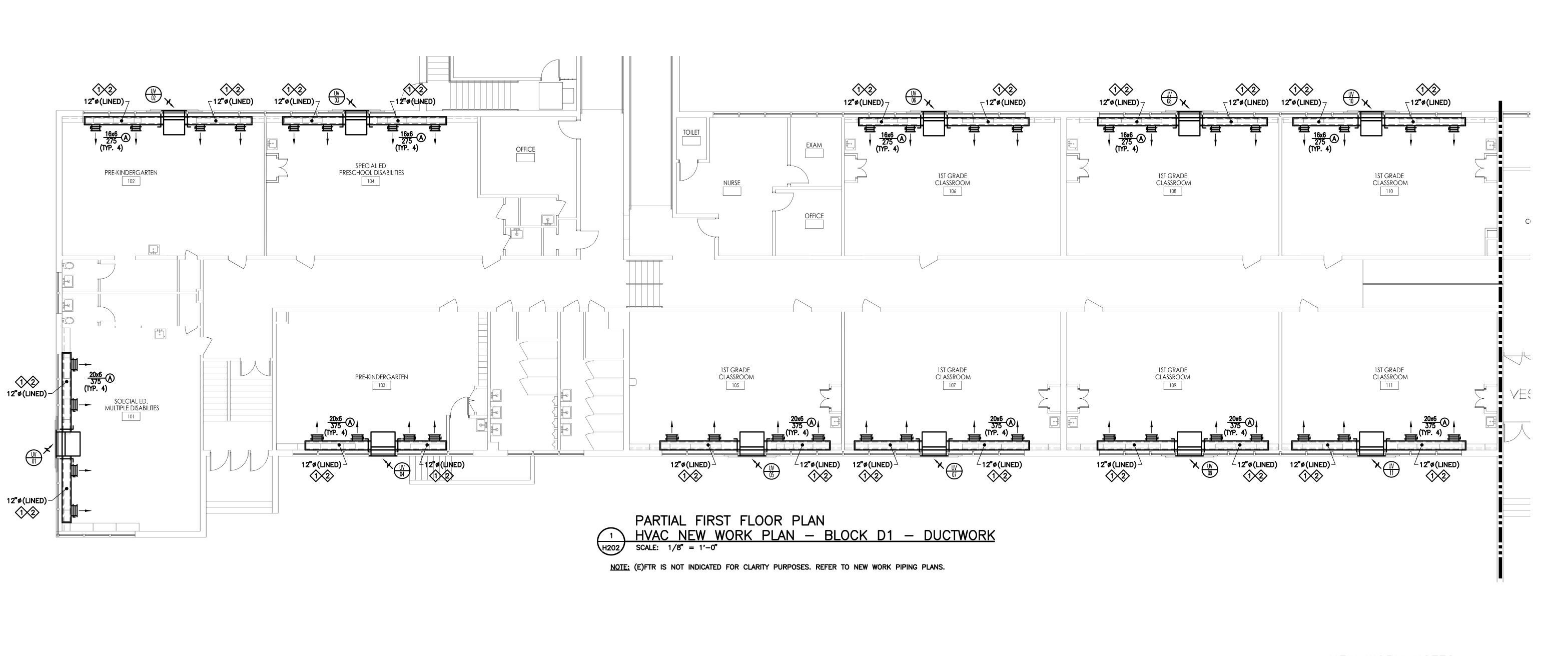
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215-238-9510 609-347-1593 302-654-5959 215-238-9510 609-347-1593 302-654-5959 www.gillan-hartmann.com : ghmail@gillan-hartmann.com Cert. of Auth #24GA27932400 G&H Project No. 2018-205

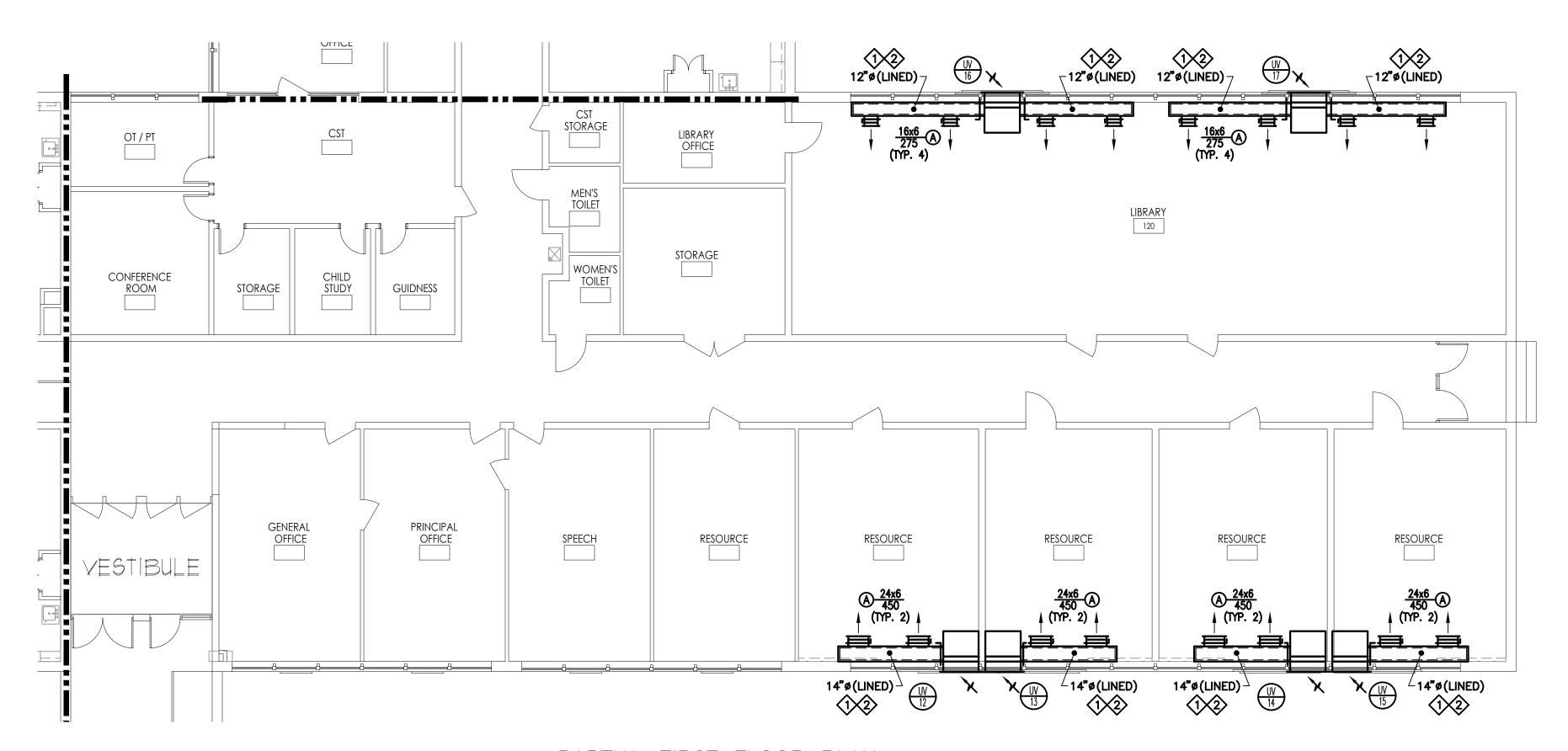
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MECHANICAL AND ELECTRICAL

ENGINEER NO. 24GE04470000 MICHAEL S. GILLAN, PE © 2018 GILLAN & HARTMANN Inc.







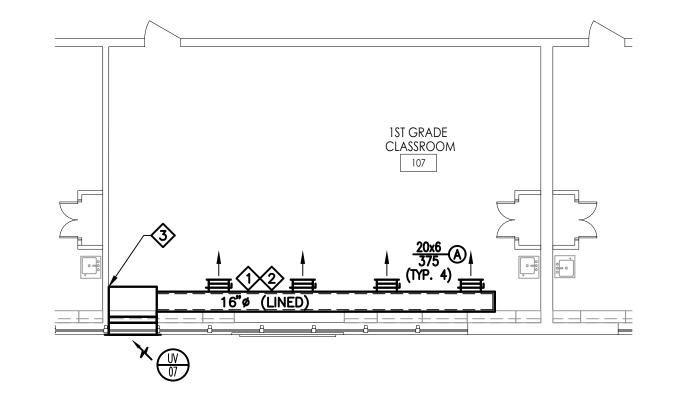
PARTIAL FIRST FLOOR PLAN HVAC NEW WORK - BLOCK D2 - DUCTWORK

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

NOTE: (E)FTR IS NOT INDICATED FOR CLARITY PURPOSES. REFER TO NEW WORK PIPING PLANS.

NEW WORK NOTES:

- PROVIDE LINED DUCTWORK WITH SMOOTH (NON-FLANGED)
 CONNECTIONS. REFER TO TYPICAL UNIT VENTILATOR SECTION FOR
 ADDITIONAL INFORMATION.
- (2) INSTALL DUCTWORK TO ENSURE BOTTOM OF DUCT IS A MINIMUM OF 8'-0" ABOVE THE FINISHED FLOOR.
- PROVIDE WALL FILLER PANEL/CLOSURE PIECE. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION.



PARTIAL FIRST FLOOR PLAN HVAC NEW WORK - DUCTWORK - CORNER UV INSTALLATION

| H202 | SCALE: 1/8" = 1'-0"

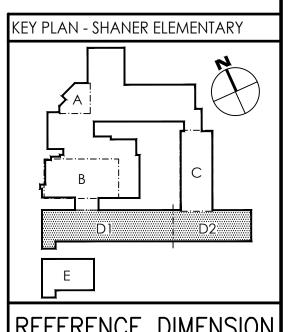
- NOTES:

 1. THIS PLAN IS TYPICAL FOR CORNER UNIT VENTILATOR INSTALLATIONS. REFER TO THE ARCHITECTURAL DOCUMENTS FOR UNIT VENTILATOR LOCATION.

 2. UTILIZE THE BELOW DUCTWORK SIZES FOR THE INDICATED UNIT TYPES:
- A. TYPE B: 14"ø. B. TYPE C: 16"ø

 3. UTILIZE THE BELOW SUPPLY REGISTER SIZES AND DISCHARGE AIRFLOW REQUIREMENTS FOR THE INDICATED UNIT TYPES:
 A. TYPE B: 16x6 AT 275 CFM.
 B. TYPE C: 20x6 AT 375 CFM.

02/15/2019 ISSUED FOR BID



REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.



ENGINEER MICHAEL S. GILLAN, PE

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H202

nners P C

ALTERATIONS AND

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

RENOVATIONS TO

MEMORIAL

JOSEPH C. SHANER

ELEMENTARY SCHOOL

Project Location 5801 3rd ST, MAYS LANDING, NJ 08330

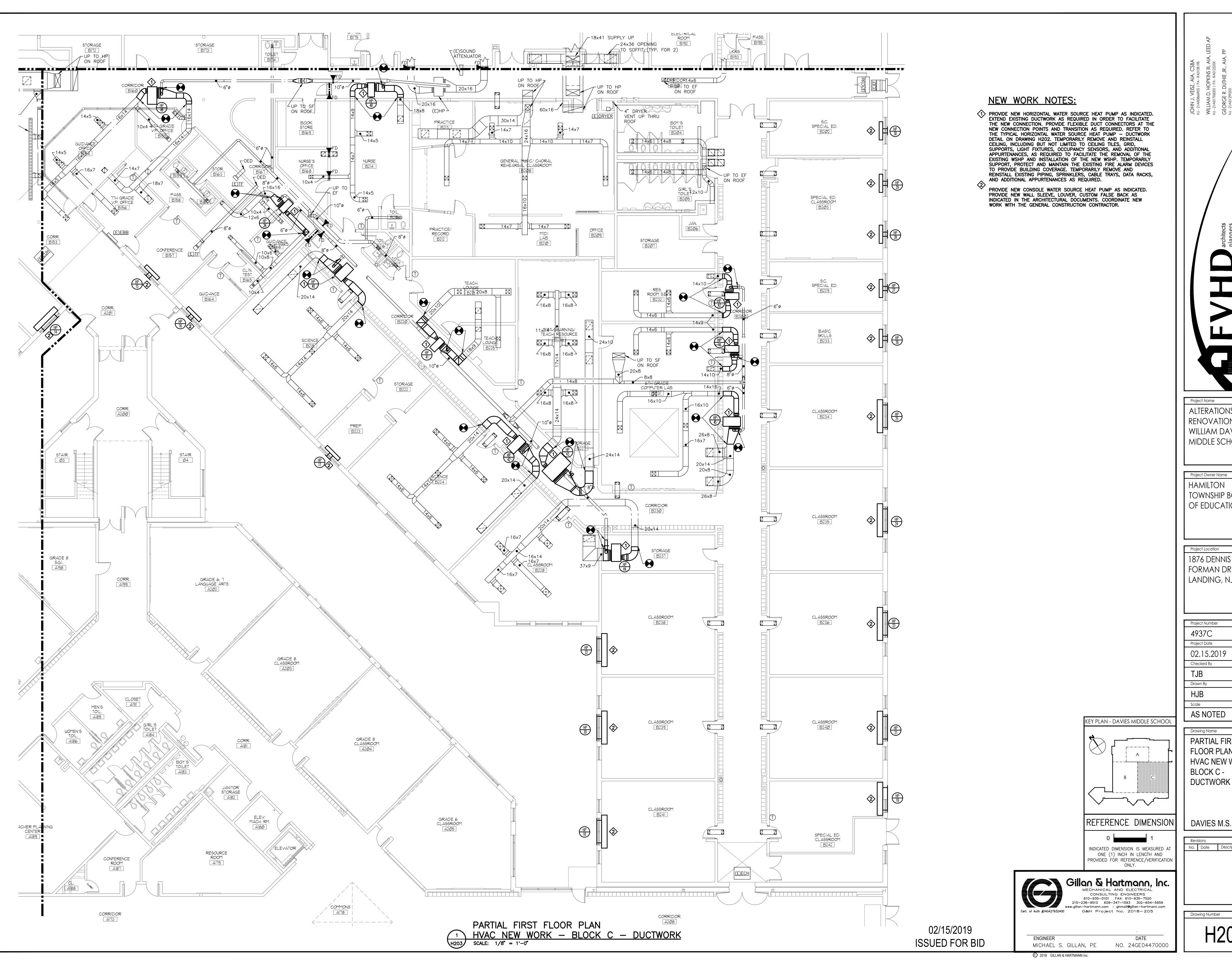
Project Number Project Date 02.15.2019 Checked By

AS NOTED PARTIAL FIRST

FLOOR PLANS: PLUMBING NEW WORK -BLOCKS D1 & D2 -DUCTWORK

SHANER E.S.

No. Date Description



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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

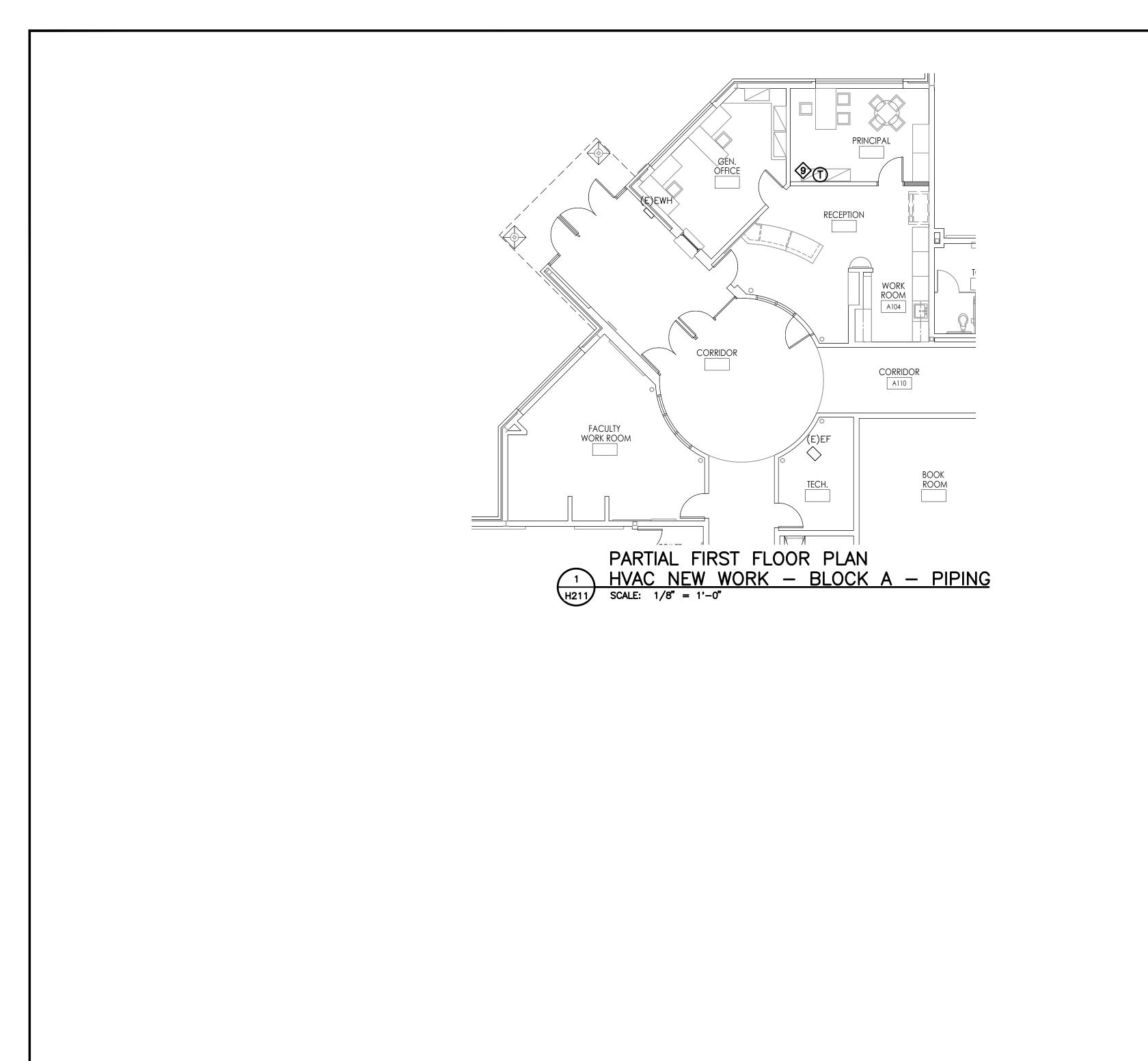
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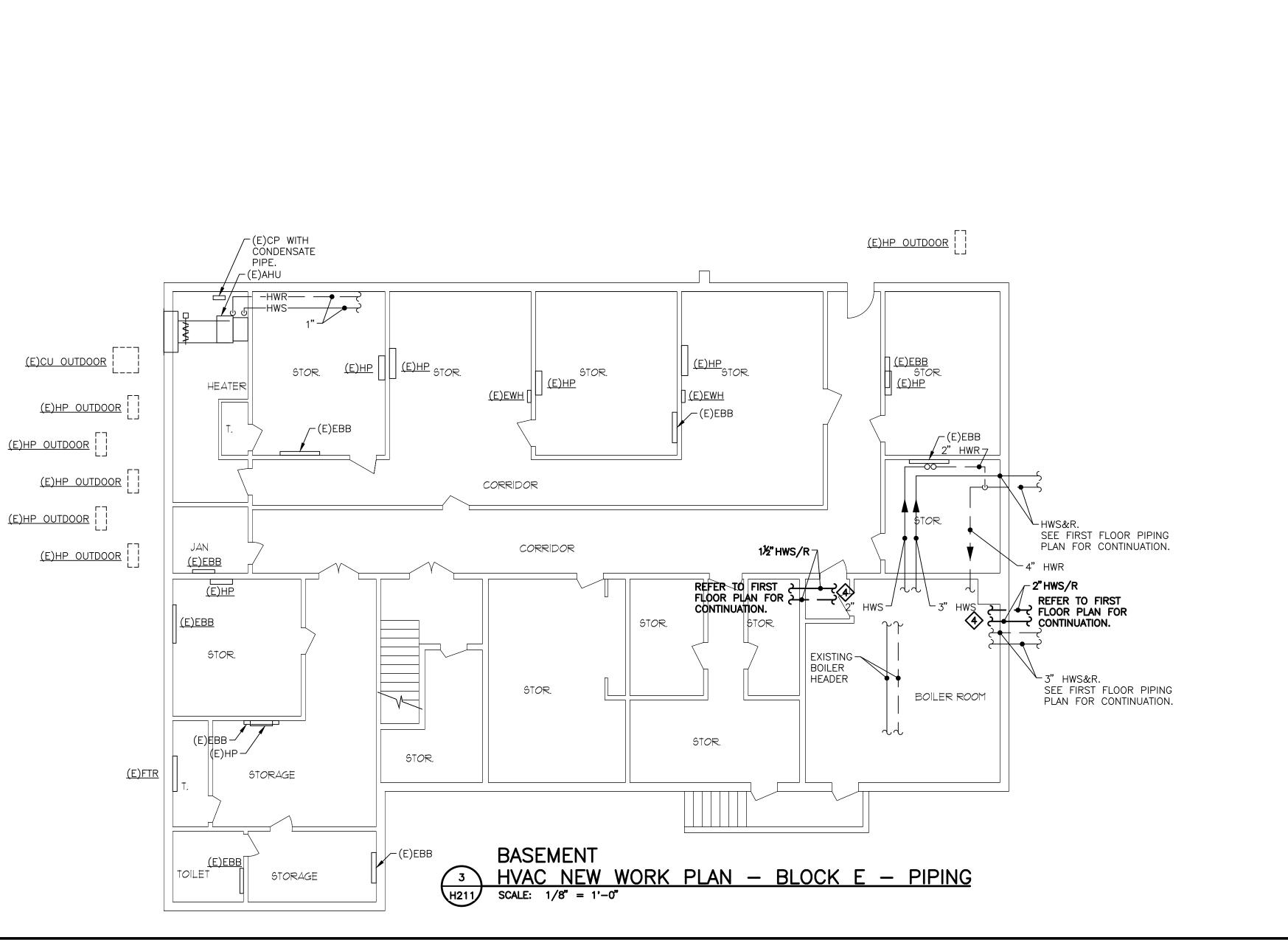
02.15.2019

AS NOTED

PARTIAL FIRST FLOOR PLAN: HVAC NEW WORK -BLOCK C -DUCTWORK

No. Date Description

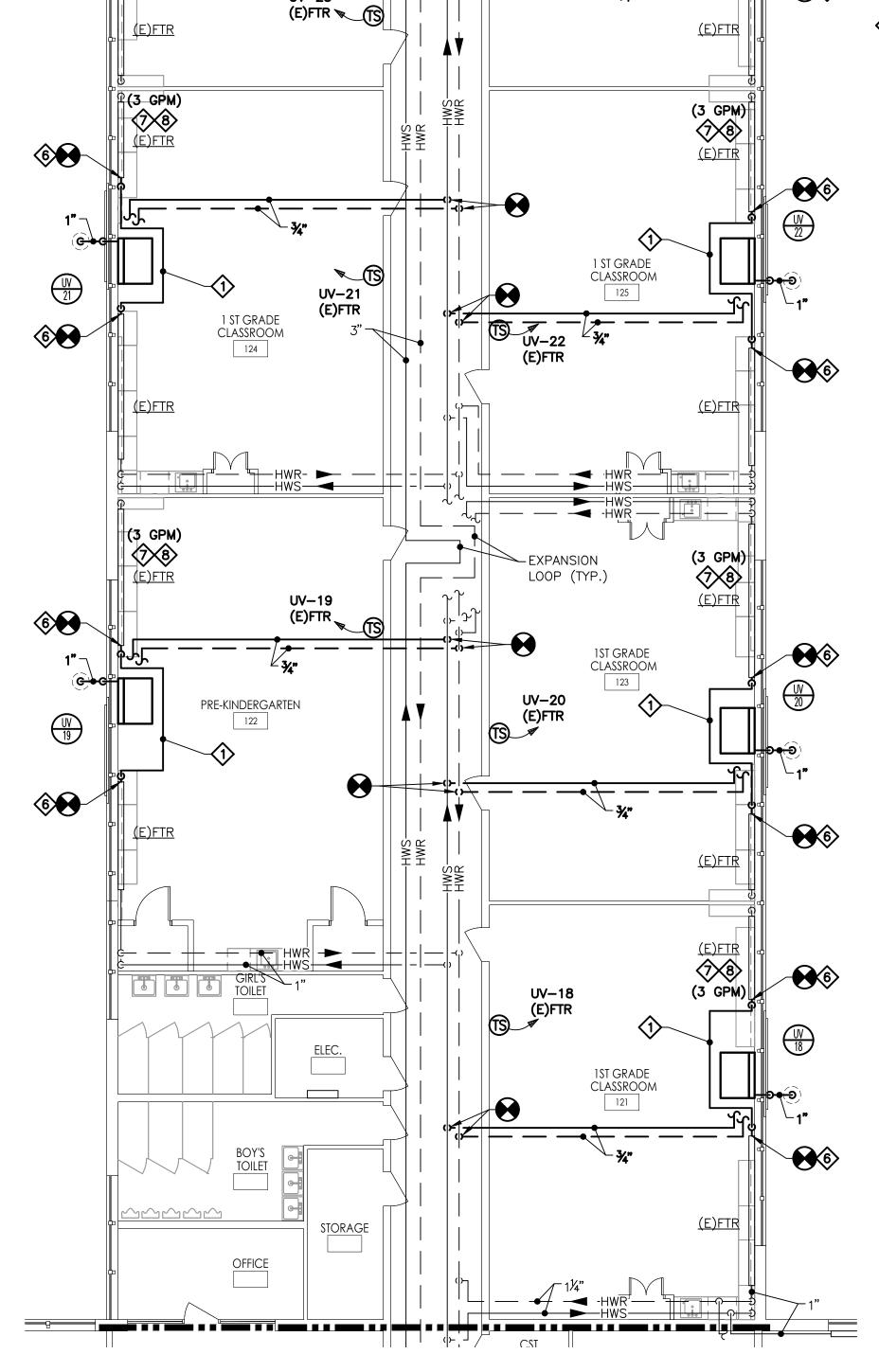




NEW WORK NOTES:

BALANCING STATION DETAILS.

- PIPING SHOWN OFFSET FOR VISUAL PURPOSES. PROVIDE NEW 34"
 HEATING WATER SUPPLY AND RETURN PIPING. INSTALL PIPING OVER
 THE NEW UNIT VENTILATOR. COORDINATE ROUTING WITH THE NEW DUCTWORK.
- PROVIDE FLOWMETER, SHUTOFF (BALL OR BUTTERFLY) VALVE, P/T PORTS AT THE INDICATED LOCATION. REFER TO THE WATER FLOW STATION DETAIL.
- PROVIDE PRESSURE-INDEPENDENT BALANCING VALVE. BALANCE TO THE INDICATED WATER FLOW RATE. REFER TO THE PRESSURE INDEPENDENT
- CONNECT NEW HEATING WATER PIPING INTO THE EXISTING BOILER HEADER. ROUTE PIPING AS REQUIRED TO FACILITATE THE NEW
- PROVIDE NEW CONDENSATE DRAIN THRU WALL TO DRY—WELL. PROVIDE DRY—WELL IN ACCORDANCE WITH DETAIL. COORDINATE WALL PENETRATION WITH EXISTING STRUCTURAL MEMBERS. SEAL PER DRY
- PROVIDE SHEET METAL ENCLOSURE TO CONCEAL PIPING, INSTALL PIPING RISER WITHIN THE SHEET METAL ENCLOSURE, PAINT ENCLOSURE COLOR AS SELECTED BY THE ARCHITECT, REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- PROVIDE NEW TWO-WAY CONTROL VALVE (ABOVE CEILING OR IN ENCLOSURE IF FIELD CONDITIONS PERMIT) AND ALL REQUIRED VALVES AND APPURTENANCES PER THE TWO WAY CONTROL VALVE DETAIL. SET BALANCING VALVE TO PRE—CONSTRUCTION READINGS. INDICATED VALUE IS ESTIMATED BASED ON ORIGINAL DESIGN DOCUMENTS. FIELD VERIFY FLOW RATE WITH EXISTING SETPOINTS.
- PRELOCATE EXISTING THERMOSTAT TO LOCATION INDICATED. EXTEND WIRING AS REQUIRED.

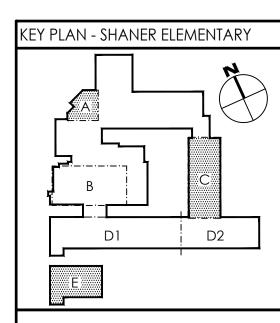


CL<u>ASSRO</u>OM

1ST GRADE CL<u>ASSRO</u>OM

UV-24 (E)FTR

PARTIAL FIRST FLOOR PLAN 2 HVAC NEW WORK PLAN — BLOCK C — PIPING
H211 SCALE: 1/8" = 1'-0"



REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

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MECHANICAL AND ELECTRICAL Cert. of Auth #24GA27932400 G&H Project No. 2018-204

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ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

nners P C

ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

Project Number 4937B 02.15.2019

AS NOTED

PARTIAL BASEMENT & FIRST FLOOR PLANS: HVAC NEW WORK -BLOCKS A, C, & E -**PIPING**

SHANER E.S.

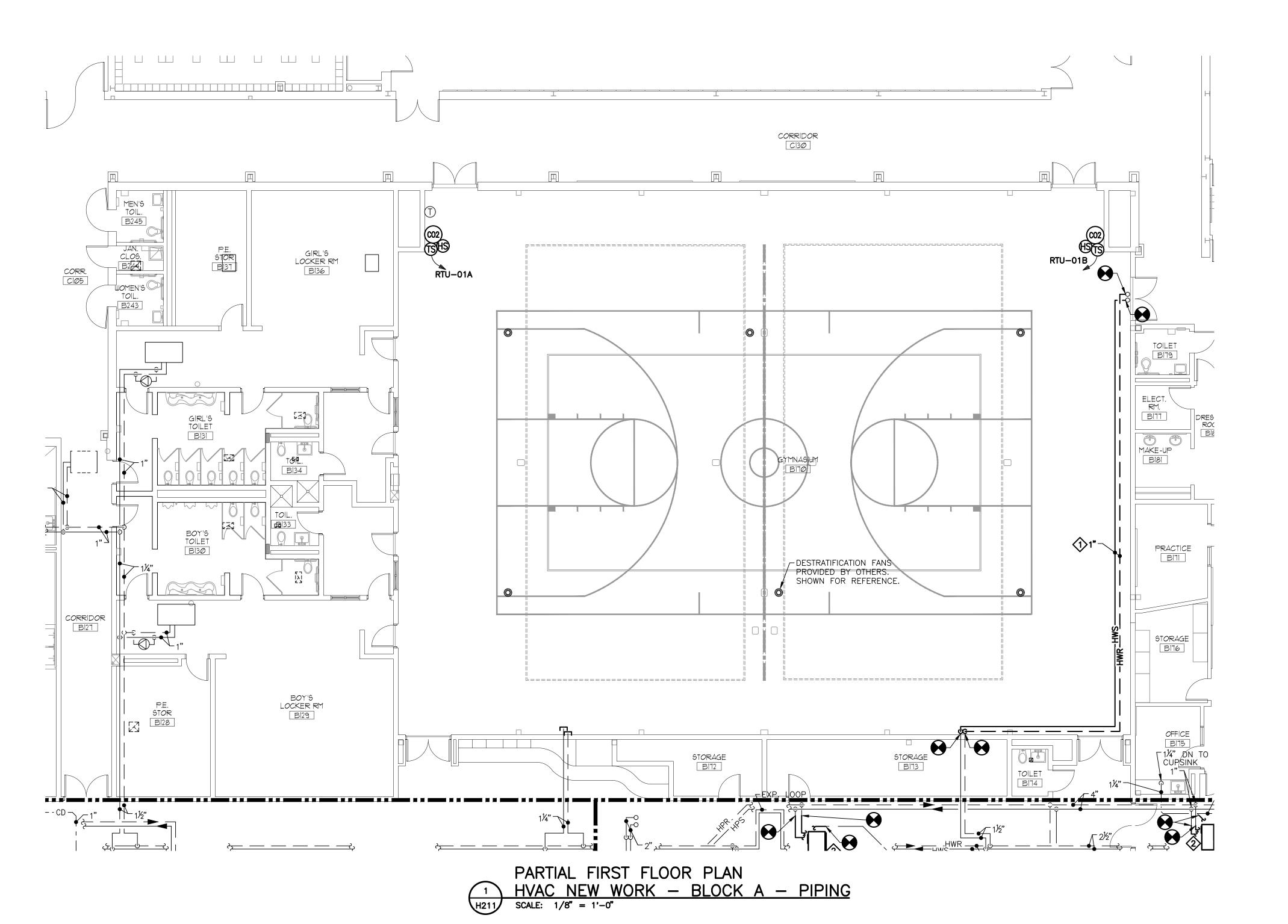
No. Date Description

Drawing Number

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NEW WORK NOTES:

INSTALL PIPING AS HIGH AS POSSIBLE. INSTALL PIPING THROUGH JOISTS.



ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019

AS NOTED

PARTIAL FIRST FLOOR PLAN: HVAC NEW WORK -BLOCK A - PIPING

DAVIES M.S.

No. Date Description INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

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CONSULTING ENGINEERS

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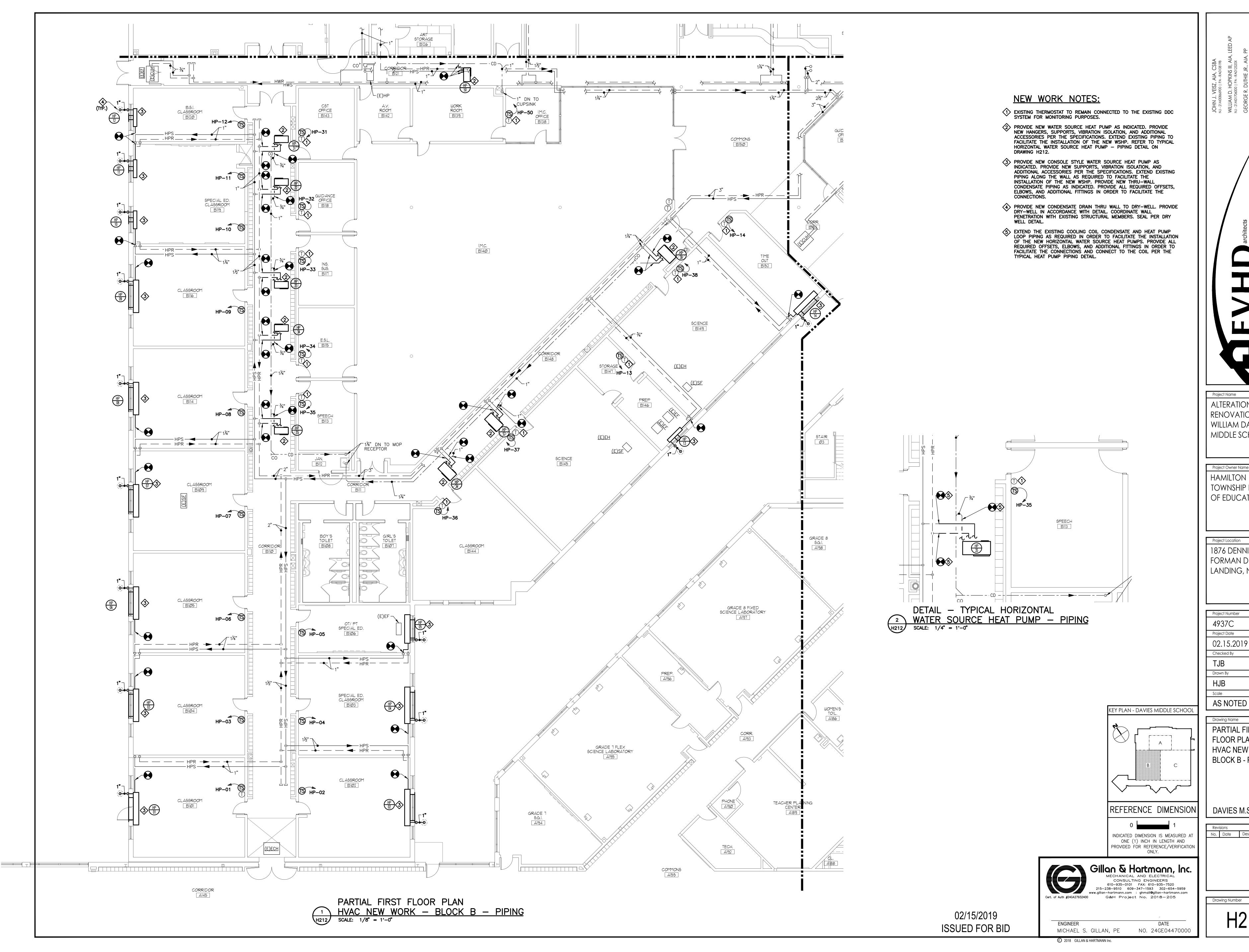
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Cert. of Auth #24GA27932400 G&H Project No. 2018-205 ENGINEER

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KEY PLAN - DAVIES MIDDLE SCHOOL

REFERENCE DIMENSION



nners P C

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

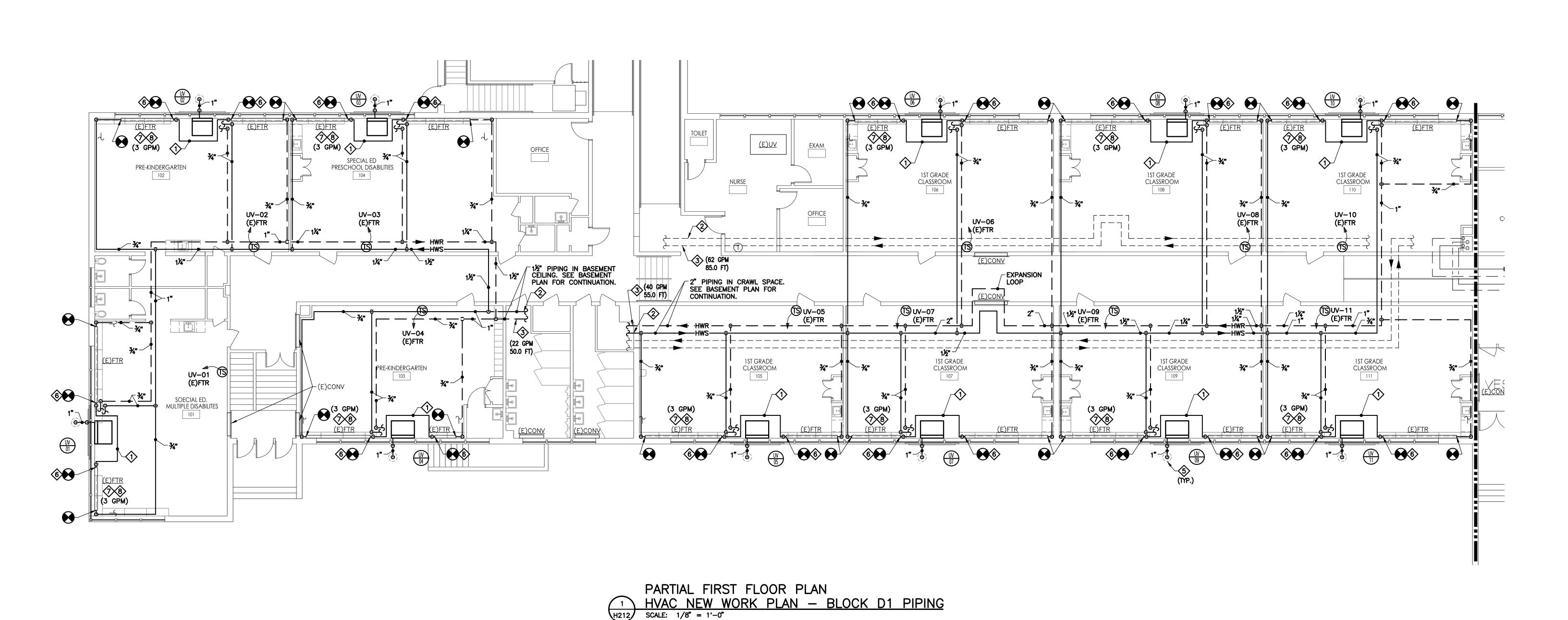
Project Number 02.15.2019

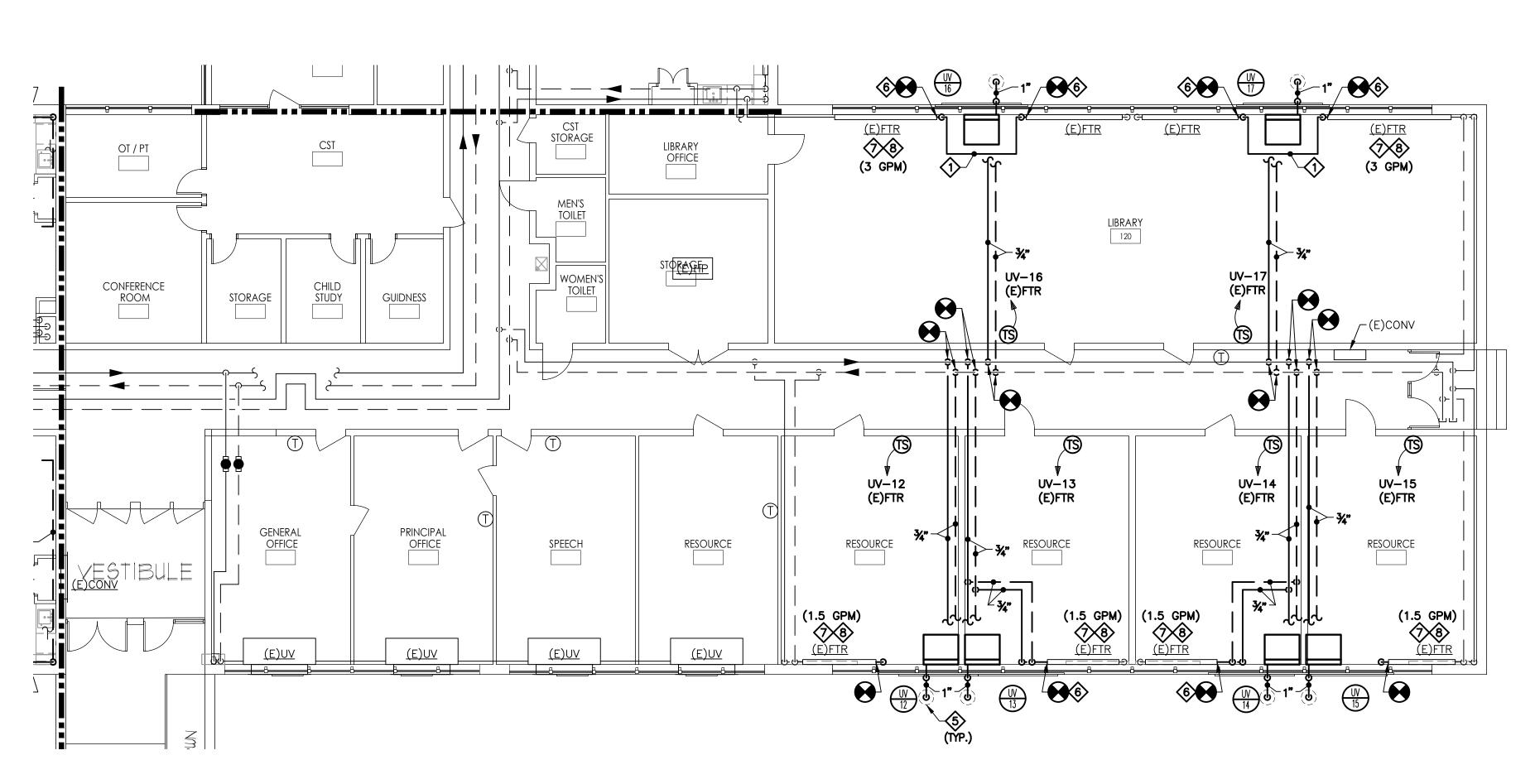
PARTIAL FIRST FLOOR PLAN: HVAC NEW WORK -

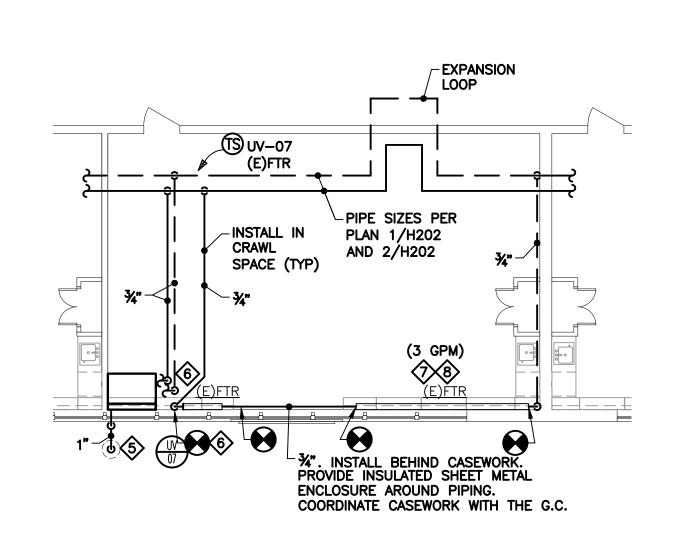
BLOCK B - PIPING

DAVIES M.S.

No. Date Description







PARTIAL FIRST FLOOR PLAN HVAC NEW

WORK — PIPING — CORNER UV INSTALLATION

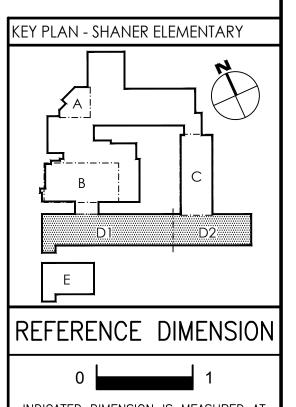
BY SCALE: 1/8" = 1'-0"

NOTES:
1. THIS PLAN IS TYPICAL FOR CORNER UNIT VENTILATOR INSTALLATIONS. REFER TO THE ARCHITECTURAL DOCUMENTS FOR UNIT VENTILATOR LOCATION.

NEW WORK NOTES:

- PIPING SHOWN OFFSET FOR VISUAL PURPOSES. PROVIDE NEW 34" HEATING WATER SUPPLY PIPING. INSTALL PIPING OVER THE NEW UNIT VENTILATOR. COORDINATE ROUTING WITH THE NEW DUCTWORK.
- PROVIDE FLOWMETER, SHUTOFF (BALL OR BUTTERFLY) VALVE, P/T PORTS AT THE INDICATED LOCATION. REFER TO THE WATER FLOW STATION DETAIL.
- PROVIDE PRESSURE—INDEPENDENT BALANCING VALVE. BALANCE TO THE INDICATED WATER FLOW RATE. REFER TO THE PRESSURE INDEPENDENT BALANCING STATION DETAILS.
- CONNECT NEW HEATING WATER PIPING INTO THE EXISTING BOILER HEADER. ROUTE PIPING AS REQUIRED TO FACILITATE THE NEW CONNECTION.
- PROVIDE NEW CONDENSATE DRAIN THRU WALL TO DRY-WELL. PROVIDE DRY-WELL IN ACCORDANCE WITH DETAIL. COORDINATE WALL PENETRATION WITH EXISTING STRUCTURAL MEMBERS. SEAL PER DRY WELL DETAIL.
- PROVIDE SHEET METAL ENCLOSURE TO CONCEAL PIPING. INSTALL PIPING RISER WITHIN THE SHEET METAL ENCLOSURE. PAINT ENCLOSURE COLOR AS SELECTED BY THE ARCHITECT. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- PROVIDE NEW TWO-WAY CONTROL VALVE (ABOVE CEILING, CRAWL SPACE, OR IN ENCLOSURE IF FIELD CONDITIONS PERMIT) AND ALL REQUIRED VALVES AND APPURTENANCES PER THE TWO WAY CONTROL
- VALVE DETAIL.

 8 SET BALANCING VALVE TO PRE—CONSTRUCTION READINGS. INDICATED VALUE IS ESTIMATED BASED ON ORIGINAL DESIGN DOCUMENTS. FIELD VERIFY FLOW RATE WITH EXISTING SETPOINTS.



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02/15/2019 ISSUED FOR BID ENGINEER DATE
MICHAEL S. GILLAN, PE NO. 24GE04470000

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JOHN J. VEISZ, AIA, CSBA

NJ-21AI00866900 | PA-RA0108198

WILLIAM D. HOPKINS III, AIA, LEED AP

NJ-21AI01706000 | PA-RA012520X

GEORGE R. DUTHIE JR., AIA, PP

NJ-21AI01299200

Estrais

Fraytak Veisz Hopkins Duthie P C

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628
Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C.

ALTERATIONS AND
RENOVATIONS TO
JOSEPH C. SHANER
MEMORIAL
ELEMENTARY SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

5801 3rd ST, MAYS LANDING, NJ 08330

Project Number

4937B

Project Date

02.15.2019

Checked By

TJB

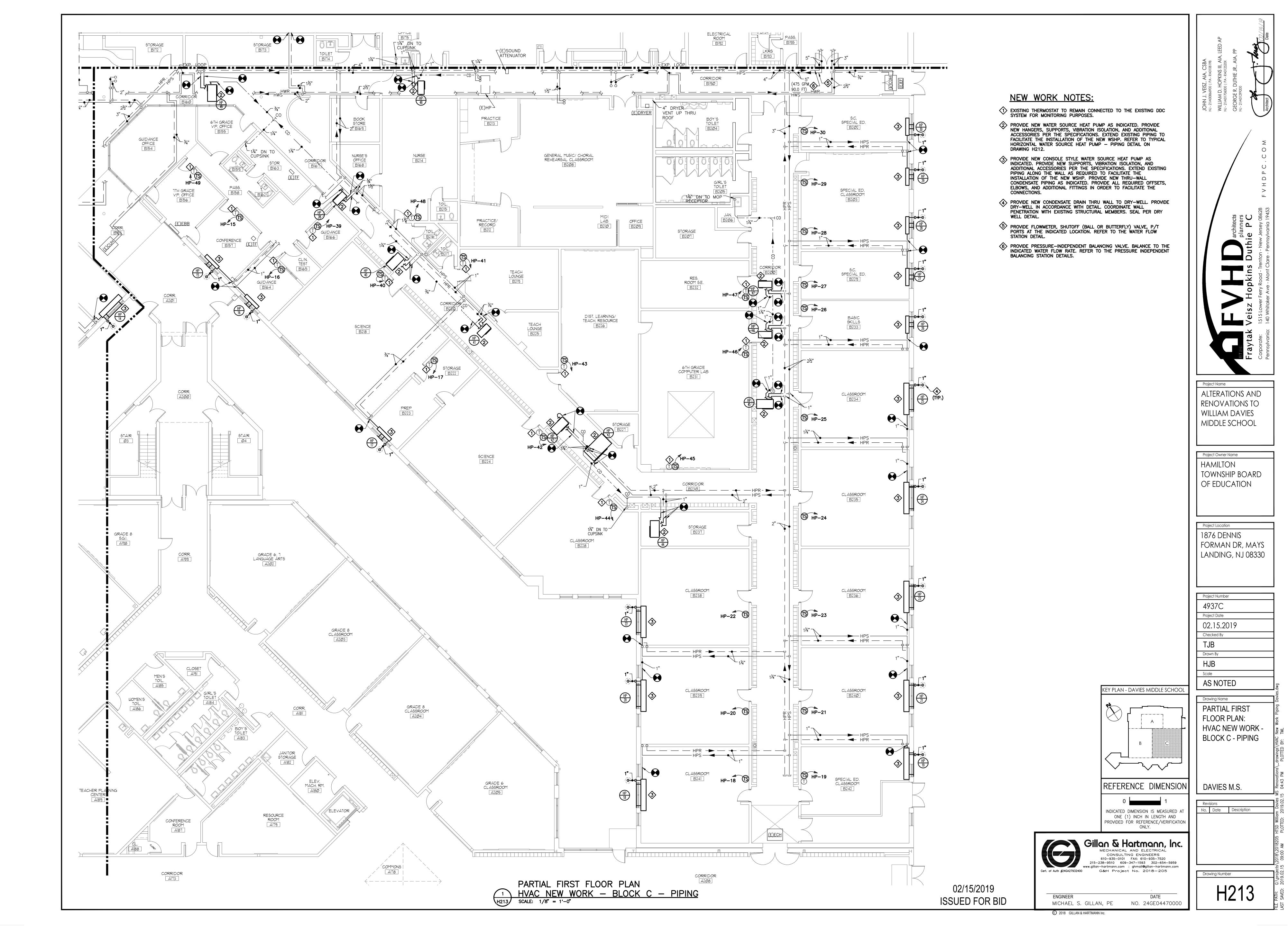
Drawn By
HJB
Scale
AS NOTED

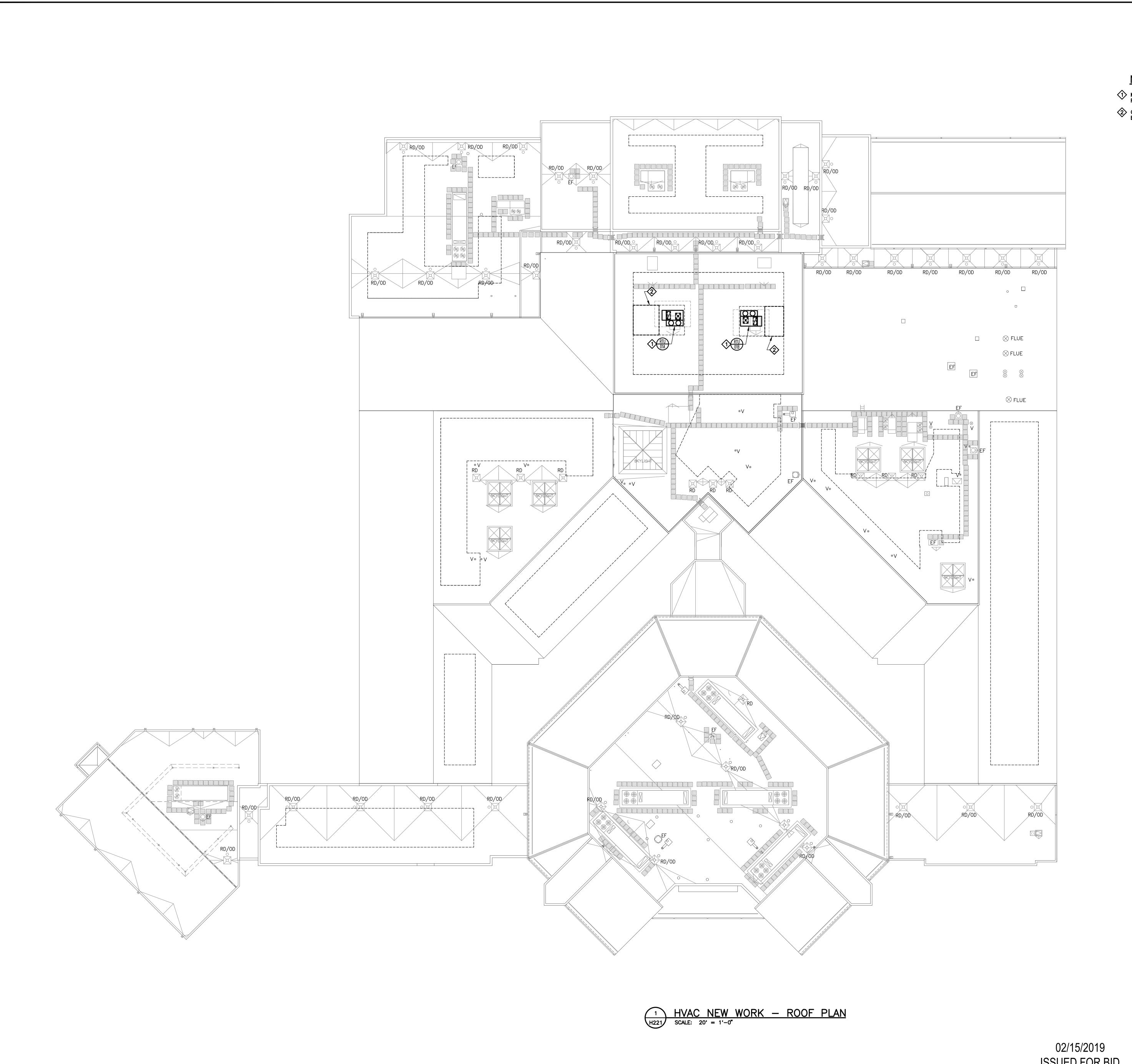
PARTIAL FIRST
FLOOR PLANS:
PLUMBING NEW
WORK BLOCKS D1 & D2 PIPING

SHANER E.S.

Revisions
No. Date Description

H212





NEW WORK NOTES:

- MODIFY EXISTING ROOF OPENING AS REQUIRED TO FACILITATE NEW RTU INSTALLATION.
- COORDINATE EXTENT OF SOLAR PANEL REMOVALS WITH THE ELECTRICAL CONTRACTOR TO FACILITATE NEW RTU INSTALLATION.

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019

TJB

AS NOTED Drawing Name

ROOF PLAN: HVAC NEW WORK

DAVIES M.S.

No. Date Description

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MECHANICAL AND ELECTRICAL

CONSULTING ENGINEERS

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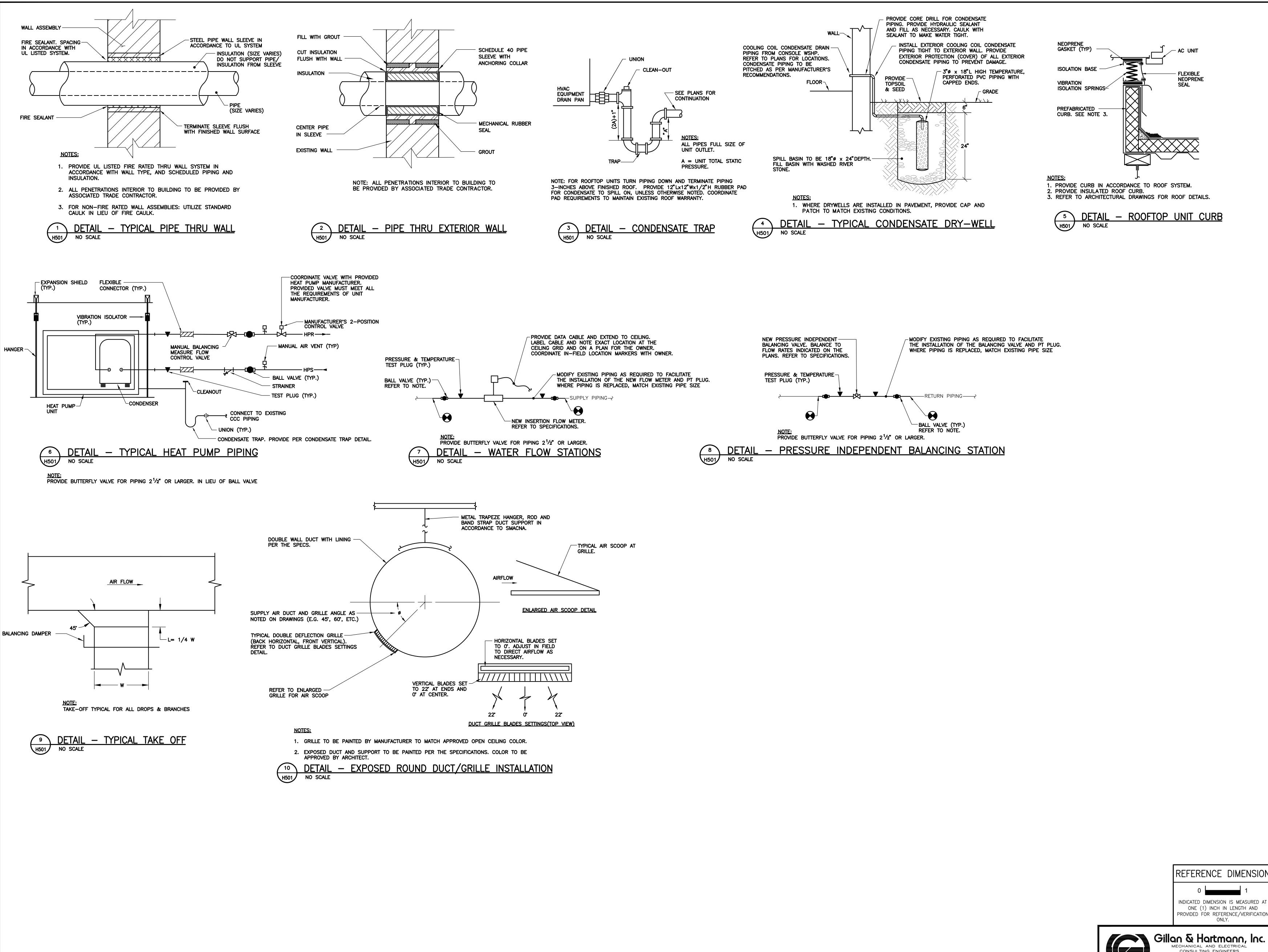
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Cert. of Auth #24GA27932400 G&H Project No. 2018-205

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

REFERENCE DIMENSION



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215-238-9510 609-347-1593 302-654-5959 www.gillan-hartmann.com : ghmail@gillan-hartmann.com Cert. of Auth #24GA27932400 G&H Project No. 2018-205 **ENGINEER**

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02/15/2019

ISSUED FOR BID

PROVIDED FOR REFERENCE/VERIFICATION ONLY. MICHAEL S. GILLAN, PE NO. 24GE04470000

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019

TJB

Checked By

Drawing Name

AS NOTED

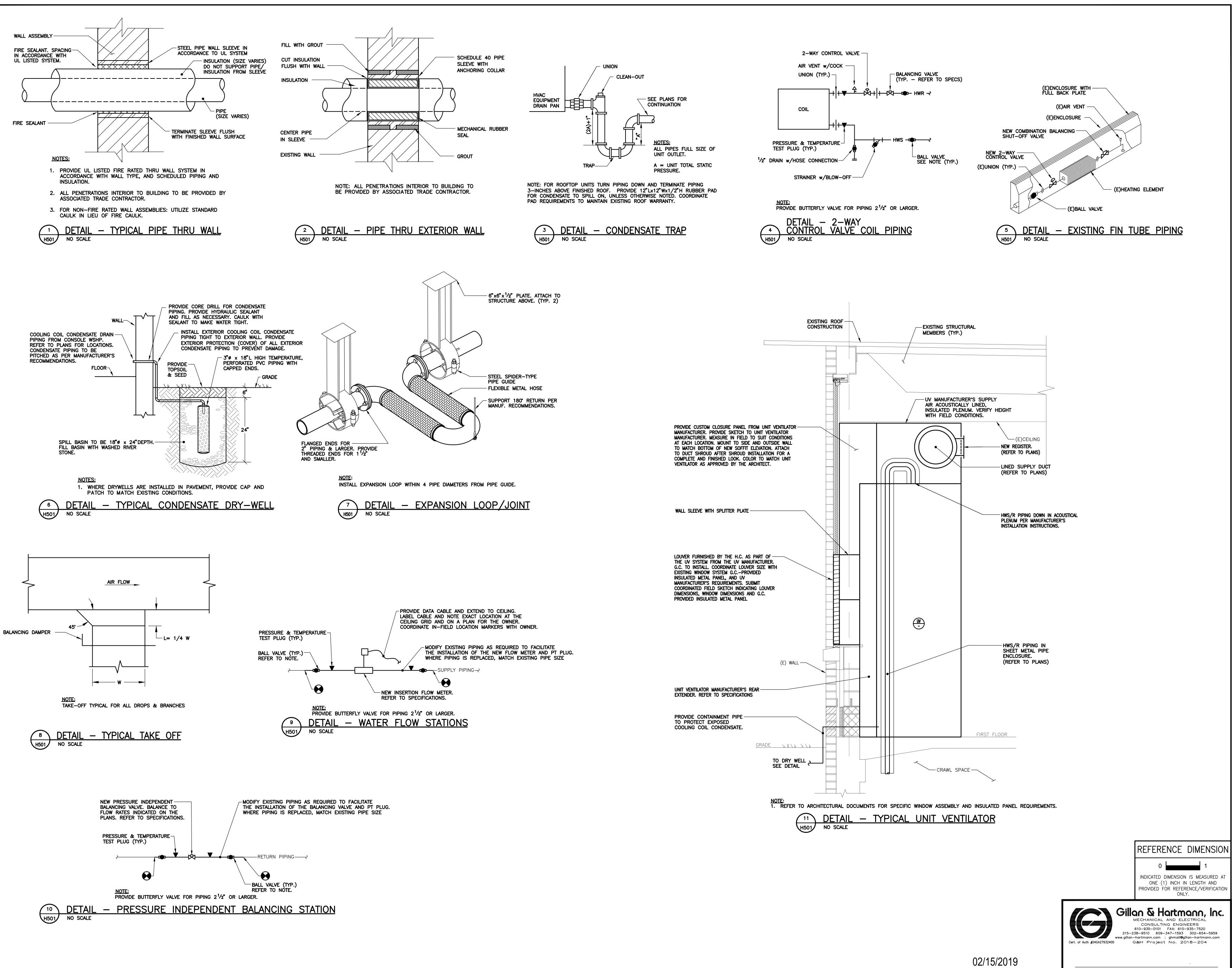
HVAC DETAILS

DAVIES M.S.

No. Date Description

Drawing Number

H501



nners P C

ALTERATIONS AND RENOVATIONS TO

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

JOSEPH C. SHANER

ELEMENTARY SCHOOL

MEMORIAL

Project Location

5801 3rd ST, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By TJB Drawn Bv

Drawing Name

HVAC DETAILS

AS NOTED

SHANER E.S.

No. Date Description

Drawing Number

H501

MICHAEL S. GILLAN, PE

NO. 24GE04470000

ENGINEER ISSUED FOR BID

			UNIT RATING		SUPPLY FA	AN		EXHAUST FA	.N	COND	ENS.					ENERGY	WHEEL						HEATIN	IG COIL			CO	OLING COIL		RE	-HEAT COIL					
DEE				Y STATIC				STATIC		мот	OR MO	TOR		SUMI	MER				W	INTER					AT GAS (6)						LEAVING	ELECTRIC	AL CHARACT	ERISTICS		
NO.	FACILITY	AREA SERVED	CFM MIN O/A EC	PRESS. I	IN. # OF MOTORS RP	OPER. HP	1 1	ESS. IN. # O	F OPER	HP QTY	HP QTY	HP CFM	CFM AIR	TURN OUT: TEMP AIR	SIDE LEATEMP AIR	AVING RECOVERE O/A LOA	ED CFM C	CFM RETUR	RN AIR OUT		-IVIC I	RECOVERED O/A LOAD	ERING LEAVII EMP *F TEM	P °F TO	OTAL INPUT	ENTERING AIR TEMP	F TEMP *F	TOTAL SENS	S. REFRIG. STAG H TYPE NO	SOURCE	AIR TEMP TOT	AL H	(2)		MODEL	REMARKS
				TOT EX	XT		T	T EXT					D.B.	W.B. D.B.	W.B. D.B.	W.B.		D.B.	W.B. D.E	. W.B. D.B		•	W.B. D.B.	W.B.		D.B. W.E	. D.B. W.B	B.			D.B. W.B.	VOLTS P	H FLA MO	JA MOP		
-01A	DAVIES MS	GYM	5000 2250 50	00 1.94 1.	.0 1 13	16 2.3	5 5000 0.	34 0.5 1	1.45	2 2	0.75 –						-				-	- 43.0	37.9 103.7	63.9 3	28.1 405.0	84.0 68.	54.6 54.2	2 209.5 154.	.4 R-410A VAF	R HOT GAS	75.0 62.0 11	0 460 3	3 40 4	3 50	RN-018	(1)(3)(4)(5)(7)(8)
-01B	DAVIES MS	GYM	5000 2250 50	00 1.94 1.	.0 1 13°	16 2.3	5 5000 0.	34 0.5 1	1.45	2 2	0.75 –						_				_	- 43.0	37.9 103.7	63.9 3	28.1 405.0	84.0 68.	5 54.6 54.2	2 209.5 154.	.4 R-410A VAF	R HOT GAS	75.0 62.0 11	0 460 3	3 40 4	3 50	RN-018	(1)(3)(4)(5)(7)(8)

COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

(3) PROVIDE MANUFACTURER'S ELECTRICAL SINGLE POINT CONNECTION AND INTEGRAL STARTER & PRE-WIRED DISCONNECT SWITCH. PROVIDE VIBRATION ISOLATION RAILS WITH SIGNED & SEALED VIBRATION CALCULATIONS PER THE SPECIFICATIONS.

(5) PROVIDE WITH INSULATED ROOF CURB.

(6) PROVIDE MANUFACTURER'S FULLY MODULATING, GAS VALVE FOR HEATING SECTION.

PROVIDE LOSS OF PHASE PROTECTION PER THE SPECIFICATIONS. (8) PROVIDE UNIT WITH SHORT CIRCUIT RATING OF 35kAIC.

(9) INSTALL UNIT OUTSIDE AIR INTAKE 10 FEET AWAY FROM ALL EXISTING PLUMBING VENTS. COORDINATE FINAL LOCATION OF OUTSIDE AIR INTAKE EXISTING STRUCTURE AND ARCHITECTURAL DRAWINGS. (10) PROVIDE PREMIUM EFFICIENCY MOTORS WITH VFD FOR VAV SYSTEM OPERATION.

WATER	SOURCE	HEAT	PUMP SCHED	ULE	1	<u> </u>
REF. NO		AREA SERVI	ED	UNIT TYPE	CONTROL VALVE	REMARKS
	SCHOOL	ROOM NUMBER	ROOM NAME	(1)	TYPE (3)	IVEINI/IVI
HP-01	DAVIES	B101	CLASSROOM	С	2-POS.	(2)
HP-02	DAVIES	B102	CLASSROOM	В	2-P0S.	(2)
HP-03	DAVIES	B104	CLASSROOM	С	2-POS.	(2)
HP-04	DAVIES	B103	SPECIAL ED. CLASSROOM	В	2-P0S.	(2)
HP-05	DAVIES	B106	OT/PT SPECIAL ED.	D	2-POS.	(2)
HP-06	DAVIES	B105	CLASSROOM	С	2-P0S.	(2)
HP-07	DAVIES	B109	CLASSROOM	С	2-POS.	(2)
HP-08	DAVIES	B114	CLASSROOM	С	2-POS.	(2)
HP-09	DAVIES	B116	CLASSROOM	С	2-P0S.	(2)
HP-10	DAVIES	B119	SPECIAL ED. CLASSROOM	Α	2-POS.	(2)
HP-11	DAVIES	B119	SPECIAL ED. CLASSROOM	A	2-POS.	(2)
HP-12	DAVIES	B120	B.S.I. CLASSROOM	Α	2-POS.	(2)
HP-13	DAVIES	B146/B147	PREP/STORAGE	E	2-POS.	(2)
HP-14	DAVIES	B152	TIME OUT	D	2-POS.	(2)
HP-15	DAVIES	B157	CONFERENCE	Α	2-POS.	(2)
HP-16	DAVIES	B164	GUIDANCE	F	2-POS.	(2)
HP-17	DAVIES	B223/B222	PREP/STORAGE	E	2-POS.	(2)
HP-18	DAVIES	B241	CLASSROOM	С	2-POS.	(2)
HP-19	DAVIES	B242	SPECIAL ED. CLASSROOM	С	2-POS.	(2)
HP-20	DAVIES	B239	CLASSROOM	С	2-POS.	(2)
HP-21	DAVIES	B240	CLASSROOM	С	2-POS.	(2)
HP-22	DAVIES	B238	CLASSROOM	С	2-POS.	(2)
HP-23	DAVIES	B236	CLASSROOM	С	2-POS.	(2)
HP-24 HP-25	DAVIES DAVIES	B235 B234	CLASSROOM CLASSROOM	C	2-POS. 2-POS.	(2)
HP-26	DAVIES	B234	BASIC SKILLS	A	2-P03.	(2)
HP-27	DAVIES	B229	S.C. SPECIAL ED.	A	2-POS.	(2)
HP-28	DAVIES	B203	SPECIAL ED. CLASSROOM	A	2-POS.	(2)
HP-29	DAVIES	B203	SPECIAL ED. CLASSROOM	Α	2-POS.	(2)
HP-30	DAVIES	B202	S.C. SPECIAL ED.	Α	2-POS.	(2)
HP-31	DAVIES	B143	CST OFFICE	G	2-POS.	(2)
HP-32	DAVIES	B118	GUIDANCE OFFICE	G	2-P0S.	(2)
HP-33	DAVIES	B117	INS. SUS.	G	2-P0S.	(2)
HP-34	DAVIES	B115	E.S.L.	G	2-P0S.	(2)
HP-35	DAVIES	B113	SPEECH	G	2-POS.	(2)
HP-36	DAVIES	B144	CLASSROOM	Н	2-POS.	(2)
HP-37	DAVIES	B145	SCIENCE	Q	2-POS.	(2)
HP-38	DAVIES	B149 B166/B165/	SCIENCE GUIDANCE/CLIN.	Q	2-POS.	(2)
HP-39	DAVIES	B158	TEST/PASS.	G	2-POS.	(2)
HP-40 HP-41	DAVIES	B218	SCIENCE TEACH LOUNGE/TEACH	J	2-POS.	(2)
HP-42	DAVIES	B219/B225 B224	LOUNGE' SCIENCE	K J	2-POS. 2-POS.	(2)
HP-43	DAVIES	B224 B226	DIST. LEARNING/TEACH.	L	2-P05.	(2)
HP-44	DAVIES	B228	RESOURĆE CLASSROOM	Н	2-P0S.	(2)
HP-45	DAVIES	B231	6TH GRADE COMPUTER LAB	J	2-P03.	(2)
HP-46	DAVIES	B231	6TH GRADE COMPUTER	М	2-P0S.	(2)
HP-47	DAVIES	B232	RES. ROOM S.E.	М	2-P0S.	(2)
HP-48	DAVIES	B214/B168	NURSE/NURSE'S OFFICE	Р	2-P0S.	(2)
HP-49	DAVIES	B153/B154/ B155/B156	GUIDANCE & VP OFFICE	N	2-P0S.	(2)
1						i I

WAT	ER SOU	RCE	HEA	AT PU	MP F	PERI	FOR	RMAN	ICE																										ВА	ASIS OF DESIGN: DAIKEN
				SUPPLY FA	N		COMF	PRESSOR		SOURCE	WATER					COOLIN	IG							HEA	ATING								C	OUTSIDE AIR		
UNIT TYPE	CONFIG. STYLE			STATIC PRESS.			М	OTOR		PRESS		CONDENSE		TOTAL	SENSIBLE	HEAT	EVAPORAT	OR AIR	TEMP			CONDI		TOTAL	HEAT	AID TO	EMP *F	COP	ELECTRICA	L CHA	ARACTER	RISTICS	(1)		MODEL	REMARKS
ITPE	SITLE	CFM	SPEED	IN. W.G.	# OF MOTORS	HP	QTY	RLA	GPM	DROP FT. HD.	% GLYCOL	ENTERING	LEAVING	COOLING MBH	COOLING	REJECT MBH	ENTERING	LEA	VING	AHRI	REFRIG TYPE	ENTERING	LEAVING	HEATING	HEAT ABSORB MBH			AT AHRI _						CFM		
				EXT.				(EACH)				2.002.000					DB WB	DB	WB							ENT.	LVG.	,	VOLTS PH	ASE	FLA	MCA	МОР			
Α	CONSOLE	559	HIGH	-	1	0.056	1	4.3	2.5	3.8	0	85.0	99.3	14.16	10.43	17.21	76.9 63.9	59.5	55.2	15.1	R-410A	70.0	57.3	18.21	15.25	64.3	94.2	5.1	277	1	4.6	5.7	15	50	WMHC2015	(2)(3)(4)(5)
В	CONSOLE	1500	HIGH	_	1	1/4	1	_	8.0	6.9	0	85.0	96.0	47.90	35.50	59.90	77.5 64.3	55.7	53.4	14	R-410A	70.0	59.0	55.95	43.78	65.0	99.4	4.39	460	3	-	10.7	15	215	UARQ9048	(2)(3)(4)(5)(6)
С	CONSOLE	1250	HIGH	_	1	1/4	1	_	8.0	5.2	0	85.0	96.0	38.79	27.45	49.16	78.6 65.0	58.4	54.6	14	R-410A	70.0	61.2	48.63	37.96	65.0	100.9	4.3	460	3	-	10.5	15	215	UARQ9040	(2)(3)(4)(5)(6)
D	CONSOLE	650	HIGH	_	1	1/4	1	_	8.0	2.7	0	85.0	96.0	16.16	12.11	19.73	77.5 64.3	60.3	55.9	13.7	R-410A	70.0	66.0	19.74	15.83	65.0	93.0	4.66	460	3	-	7.1	15	135	UARQ9024	(2)(3)(4)(5)(6)
Е	CONSOLE	559	HIGH	_	1	0.056	1	4.3	2.5	3.8	0	85.0	99.1	13.9	10.40	16.93	75.4 63.0	58.1	54.3	15.1	R-410A	70.0	57.6	18.02	14.86	68.9	98.6	5.1	277	1	4.6	5.7	15	10	WMHC2015	(2)(3)(4)(5)
F	CONSOLE	340	HIGH	_	1	0.056	1	4.3	3.7	7.9	0	85.0	94.4	14.02	10.41	17.04	75.8 63.2	48.1	48.0	15.1	R-410A	70.0	61.4	18.77	15.65	67.4	118.2	5.1	277	1	4.6	5.7	15	20	WMHC2015	(2)(3)(4)(5)
G	HORIZONTAL	450	HIGH	0.67	1	1/3	1	5.0	4.0	4.7	0	85.0	94.4	15.31	11.17	18.87	78.1 64.7	54.9	52.8	16	R-410A	70.0	62.3	19.04	15.40	60.7	99.3	5.2	277	1	5.8	7.0	15	70	WCCH4015	(2)(3)(7)
Н	HORIZONTAL	1900	HIGH	0.50	1	3/4	1	6.3	9.0	8.6	0	85.0	98.4	47.54	39.47	60.48	77.3 64.	57.9	55.5	14.1	R-410A	70.0	59.5	59.47	47.27	63.3	91.9	4.7	460	3	8.3	9.9	15	215	WCCH5048	(2)(3)(6)(7)
J	HORIZONTAL	1900	HIGH	0.50	1	3/4	1	6.3	12.0	15.3	0	85.0	95.0	47.31	39.18	60.14	76.4 63.5	5 57.2	54.9	14.1	R-410A	70.0	61.9	61.01	48.41	57.2	54.9	4.7	460	3	8.3	9.9	15	130	WCCH5048	(2)(3)(6)(7)
К	HORIZONTAL	900	HIGH	0.62	1	1/3	1	3.5	4.0	4.6	0	85.0	99.4	22.73	18.55	28.77	78.4 64.9	59.1	56.4	14.9	R-410A	70.0	58.1	29.68	23.78	60.1	90.2	4.8	460	3	4.7	5.6	15	150	WCCH5024	(2)(3)(6)(7)
L	HORIZONTAL	2500	HIGH	1.14	1	1.5	2	6.2	16.0	5.6	0	85.0	98.4	86.54	61.38	10.72	76.4 63.5	5 53.5	51.1	15.3	R-410A	70.0	61.7	86.78	66.36	65.8	97.7	4.6	460	3	14.8	16.4	20	175	WCCH2096	(2)(3)(6)(7)
М	HORIZONTAL	700	HIGH	0.72	1	1/3	1	9.0	3.4	3.3	0	85.0	101.3	21.84	15.83	27.80	78.8 65.2	57.6	54.5	14.9	R-410A	70.0	56.4	29.14	23.07	58.5	96.4	4.8	277	1	10.4	12.6	20	135	WCCH5024	(2)(3)(7)
N	HORIZONTAL	1500	HIGH	0.57	1	3/4	1	6.3	12.0	15.3	0	85.0	94.6	45.46	33.78	57.60	76.5 63.6	55.5	52.9	14.1	R-410A	70.0	62.1	60.11	47.63	65.6	102.4	4.7	460	3	8.3	9.9	15	110	WCCH5048	(2)(3)(6)(7)
Р	HORIZONTAL	700	HIGH	0.45	1	1/3	1	7.1	5.0	7.2	0	85.0	94.6	19.18	14.92	23.97	77.5 64.3	57.6	54.9	15.4	R-410A	70.0	61.8	25.35	20.46	62.4	95.5	4.9	277	1	9.9	11.7	15	90	WCCH5019	(2)(3)(7)
Q	HORIZONTAL	1900	HIGH	0.50	1	3/4	1	6.3	12.0	15.3	0	85.0	95.3	48.75	40.09	61.64	79.2 65.5	5 59.4	56.9	14.1	R-410A	70.0	61.7	61.56	49.90	57.5	87.0	4.7	460	3	8.3	9.9	15	400	WCCH5048	(2)(3)(6)(7)

(6) PROVIDE LOSS OF PHASE PROTECTION PER THE SPECIFICATIONS.

(1) COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

(2) PROVIDE SINGLE POINT ELECTRICAL CONNECTION AND FACTORY MOUNTED PRE-WIRED FUSED DISCONNECT SWITCH. (3) PROVIDE MERV 8 FILTER.

(4) FURNISH MANUFACTURER'S LOUVER. COORDINATE LOUVER SIZE AND ASSEMBLY WITH THE WALL SYSTEM WITH THE

(7) TEMPORARILY REMOVE AND REINSTALL THE EXISTING CEILING AND ASSOCIATED APPURTENANCES AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW ABOVE CEILING UNITS. TEMPORARILY SUPPORT, PROTECT, AND MAINTAIN THE EXISTING FIRE ALARM DEVICES TO MAINTAIN BUILDING COVERAGE.

(5) PROVIDE SKETCH OF CUSTOM WALL SLEEVES TO MANUFACTURER. COORDINATE CUSTOM SHEET METAL SLEEVE/FALSE BACK WITH FIELD CONDITIONS. REFER TO THE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFORMATION AND INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS.

ELECT	RIC UNIT	HEATER SCHED	JLE						BASIS	OF DESIGN	: QMARK (EUH)
REF. NO.	FACILITY	AREA SERVED	CFM	KW	мвн		FAN N	MOTOR	ELECTRICAL CHARACTERISTICS (1)	MODEL	REMARKS
						' F	RPM	HP	VOLTS/PHASE/HZ		
EUH-01	DAVIES MS	EXT. STOR. BLDG.	350	5	17.0	45	1600	1/100	208/3/60	MUH	(2)(3)(4)

(1) COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

(2) PROVIDE MANUFACTURER'S FACTORY MOUNTING BRACKET & WIRED DISCONNECT SWITCH. (3) PROVIDE HERMAL CUT-OUT. (4) PROVIDE

IDE	MANUFAC'	TURER'S	24V	CONTROL	TRANSFORMER,	FAN	DELAY	&	THE
DE	LOSS OF	PHASE	PROT	ECTION.					

EXHA	UST FAN SCHED	ULE											BASIS OF I	DESIGN: GREENHECK (F)
REF.	ADEA SERVED	FACILITY	VOLUME	STATIC IN. W	PRESS. C (8)	ספוער	M	IOTOR INFO	ORMATION (6)		TYPE	CONFC	MODEL	DEMARKS
NO.	AREA SERVED	FACILITY	(CFM)	TOTAL	E.S.P.	DRIVE	OPERATING HP	SIZE (HP)	V/C/P	FAN RPM	TYPE	SONES	MODEL	REMARKS
EF-01	EXT. STOR. BLDG.	DAVIES MS	1000	0.233	0.2	DIRECT	0.08	1/4	115/60/1	726	SIDEWALL	6.4	AER-S24C-610-VG	(1)(2)(3)(4)(5)(7)
(1) PRO	VIDE MANUFACTURER'S OSHA APF	PROVED GUARD H	OUSING.				(7) REFE	R TO TH	E SPECIFICAT	TIONS FOR (CONTROL SEQ	UENCES.	·	

(8) STATIC PRESSURE VALUE INCLUDES LOSS FROM FAN MANUFACTURER'S BACKDRAFT DAMPER.

PROVIDE MANUFACTURER'S PRE-WIRED DISCONNECT SWITCH. PROVIDE MANUFACTURER'S SPEED CONTROL.

PROVIDE WITH BIRD SCREEN.

PROVIDE WITH MOTOR GUARD. 6) COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

DIFF	JSER, REGISTER &	GRILL	E SCHE	EDULE			BAS	SIS OF DESIGN: TITUS
REF. NO.	TYPE	СҒМ	NECK SIZE	MAX. PRESS. DROP IN. W.G	MAX. NECK VELOCITY FPM	MAX. NC	BLOW PATTERN	REMARKS
Α	NOT USED	_	_	_	_	-	-	-
В	SUPPLY DIFFUSER - TDV	SEE PLANS	SEE PLANS	0.10	500	22	(2)	(1)(3)(5)
С	RETURN/EXHAUST GRILLE - 350RL	SEE PLANS	SEE PLANS	0.06	500	14	-	(3)
D	SUPPLY DIFFUSER - S300FL	SEE PLANS	SEE PLANS	0.08	500	20	22.5-DEG DEFLECTION	(1)(3)
Ε	RETURN GRILLE - S8F	SEE PLANS	SEE PLANS	0.06	500	20	_	(3)

(1) DOUBLE DEFLECTION

(2) UNLESS INDICATED OTHERWISE ON THE PLANS ALL BLOW PATTERNS ARE TO BE 4-WAY. (3) COLOR TO BE SELECTED BY THE PROFESSIONAL.

(4) NOT USED. (5) PROVIDE 24"x24" LAY-IN PANEL FOR CEILING GRID.

CIRCI	ULATION FAN	SCH	EDUL	E.					BASIS C	F DESIGN: B	IG ASS FANS
REF.	ADEA SERVED	MAX. MOUNT	BLADE DIAMETER	DBIVE	МОТ	OR INFORMATIO	N (5)	TVDE	SOUND	MODEL	DEMARKS
NO.	AREA SERVED	HEIGHT (FT.)	(FT.)	DRIVE	FLA	V/C/P	MOTOR RPM	TYPE	(dBA) (1)	MODEL	REMARKS
CF-01	EXT. STOR. BLDG.	(7)	8	DIRECT	3.9	120/60/1	120	CIRCULATION	< 35	ISIS	(2)(3)(4)(6)
CF-02	EXT. STOR. BLDG.	(7)	8	DIRECT	3.9	120/60/1	120	CIRCULATION	< 35	ISIS	(2)(3)(4)(6)

(1) REPORTED SOUND POWER IS AT MAXIMUM SPEED. PROVIDE WITH MANUFACTURER'S EXTENSION TUBE. COORDINATE TUBE LENGTH WITH FIELD CONDITIONS.

COORDINATE COLOR WITH ARCHITECT.

PROVIDE WITH MANUFACTURER'S CONTROLLER. COORDINATE ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

PROVIDE WITH SINGLE POINT CONNECTION AND PRE-WIRED DISCONNECT SWITCH. (7) INSTALL FAN WITH MINIMUM 2-FT BELOW ROOF. INSTALL PER MANUFACTURER'S CLEARANCE REQUIREMENTS.

		RER'S PRE-WIRE		ONNECT SWITCH.		
(3) PROVIDE	CONTROL VA	ALVE IN ACCORD	ANCE WITH TYP	PICAL HEAT PUMP	PIPING DETAI	LS.

HV	'AC VE	NTILATIO	ON SCH	IEDULE – WILLIA	M DAVIE	S MID	DLE S	CHOOL (1)																
										IMC 2015 VENTIL	ATION REQUIRE	MENTS								M FOR MULTIPLE ZO	ONE SPACES		CFM QUANTITIE	ES PROVIDED	
VENT	TLATION I NUMBER	SECONDARY VENTILATION	ROOM NO.	ROOM NAME	ROOM SQ.	0.4 /00FF	6057.04		OCCUPANTS				EXHAUST			SUPPLY AIR (CFM)	REQUIRED OA FOR SINGLE ZONE	REQUIRED EA FOR					DETUDNI AID	VEED AID	EVILALICE AID
SYSTEM	NUMBER	SYSTEM NO.	ROOM NO.	ROOM NAME	FT	OA/SQFT (CFM)	SQFT OA (CFM)	NO. OF OCCUPANTS	OA/OCCUPANTS (CFM)	OCCUPANT OA (CFM)	NO. OF FIXTURES	EA/FIXTURE (CFM)	FIXTURE EA (CFM)	EA/SQFT (CFM)	SF EA (CFM)		SPACE (CFM)	SINGLE ZONE SPACE (CFM)	OUTDOOR AIR %	SYSTEM EFFECTIVENESS	OUTDOOR AIR	OUTDOOR AIR (CFM)(2)	RETURN AIR (CFM)	(CFM)	EXHAUST AIR (CFM)
RTU	J-01A	-	170	GYMNASIUM (SEATING)	722	0.06	43.3	109	7.5	817.5	-	_	_	_	-	E000	1081	_	_	-	_	2250.0	5000		0
RTU	J-01A	_	170	GYMNASIUM (PLAY AREA)	3064	0.3	919.2	20	0	0	_	_	_	_	-	5000	1150	_	_	-	_	2250.0	5000		
RTU	J-01B	_	170	GYMNASIUM (SEATING)	722	0.06	43.3	109	7.5	817.5	_	_	_	_	-	5000	1081	_	_	_	_	2250.0	5000		
RTU	J-01B	_	170	GYMNASIUM (PLAY AREA)	3064	0.3	919.2	20	0	0	_	_	_	_	_	3000	1150	_	_	_	_	2230.0	5000		

(1) THIS PROJECT IS AN EQUIPMENT REPLACEMENT PROJECT. ONLY UNITS WHICH HAVE A MATERIAL CHANGE (ADDING COOLING, COMBINING UNITS) ARE INDICATED IN THE

VENTILATION SCHEDULE. ALL OTHER UNITS ARE IN-KIND REPLACEMENTS.

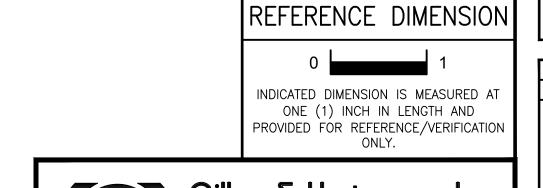
(1) REFER TO WATER SOURCE HEAT PUMP PERFORMANCE SCHEDULE.

(2) OUTDOOR AIR PRESSURIZATION CONTROL IS BY THE ITEMIZED EXHAUST FANS OR THE SPECIFIC RTU EXHAUST FAN FOR ECONOMIZER CONTROL.

_OUVEF	R SCHE	DULE						BASIS OF DESIGN	I: GREENHECK (-)
REF. NO.	AIRFLOW (CFM)	SIZE (I WIDTH	NCHES) HEIGHT	FREE AREA SQ. FT.	FREE AREA %	FACE VELOCITY FPM	PRESSURE LOSS IN. W.G.	MODEL	REMARKS
L-1	1000	42	20	1.86	31.9	537	0.04	ESD-202	(1)(2)

(1) PROVIDE ALL NECESSARY BLOCKING, SUPPORTS AND WATER TIGHT SEALING FOR INSTALLATION.
(2) COORDINATE LOUVER DIMENSIONS WITH THE ARCHITECTURAL DOCUMENTS. LOUVER SIZE TO MATCH INDICATED DIMENSIONS ON THE ARCHITECTURAL DOCUMENTS. REFER TO ARCHITECTURAL DOCUMENTS FOR LOUVER LOCATION.

> 02/15/2019 ISSUED FOR BID



Gillan & Hartmann, Inc.

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ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name **HAMILTON** TOWNSHIP BOARD OF EDUCATION

Project Location 1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By Drawn Bv

AS NOTED Drawing Name

HVAC SCHEDULES

DAVIES M.S.

No. Date Description

Drawing Number

U	NIT VE	NTILAT	OR PE	ERFORM	ANCE																																						BASIS OF	DESIGN: AIREDALE (MODIN	JINE)
		SUPPLY	' FAN		EXHAU	JST							ENERGY	WHEEL								C	OOLING					RE-H	EAT					HEATING							OUT	SIDE AIR	,		,
11.	AUT	STATIC			STATIC					SUM	IMER					WINT	ER					AIR TE	EMP 'F	MAY	,				AIR T	EMP 'F				MAY	WATED T	EMD		FLECTE	ICAL CHARAC	TERISTICS (.(8)				
J U	PE CFM	PRESS.	#_OF_	HP CFM	PRESS.	# OF	HP		RETURN AIR	OUTSIDE /	AIR SUPPL	Y AIR	PECOVERED	RET	JRN AIR	OUTSIDE A	IR SUPPLY A	IR DECOVED	FD COOLIN	SENSIBLI COOLING	E ENT	TERING	LEAVING	PRES	S. STAGES	REFRIG	SOURCE	TOTAL	LEA	WING	SOURCE TOTA	L ROWS	AIR TEM	P 'F MAX. PRESS.	*F	GPM	PRESS.		O/ 12 O/ 1/ 11 U/O	7211101100 (C	MIN	I. MAX.	MODEL	REMARKS	
	J		MOTORS	'	IIV. W.G		S	CFM	IEMP (F)	IEMP (T) IEMP	(1)	MBH	CFM LE	MP (°F)	IEMP (F) IEMP (F	MBH	MBH	MBH				— DROF	.р .с.	TYPE		MBH		1	MBH	1 1.0		DROP IN. W.C.	-		FT. HD.	,			CFM	M CFM			!
		EXT.			EXT.				DB WB	DB W	B DB	WB		DB	WB	DB WE	B DB W	3			DB	WB	DB W	В ''' '''					DB	WB			ENT.	_VG. ""	ENT L	.VG.		VOLTS	PHASE FLA	MCA M	1OP				
	A 900	0.5	1	3/4 2,300	0.5	1	2.5	200	75.0 63.0	95.0 78	3.0 78.8	67.0	8.6	200 70.	53.0	0.0 -1.	4 55.1 43	7 15.2	24.4	17.5	75.8	63.9	57.8 54.	.7 0.15	5 2	R-410A	A HOT GAS	16.7	75.0	61.2	HOT WATER 44.1	1	66.7	95.0 0.12	180.0 1	34.0 2	0.8	460	3 9.0	, 9.9 1 ^t	15.0 200	200	CMD24	(1)(2)(3)(4)(5)(6)(7)(9)(1	/)(10)
	B 1,100	0.5	1	3/4 2,300	0.5	1	2.5	350	75.0 63.0	95.0 78	80.6	68.7	12.8	350 70.	53.0	0.0 -1.	4 48.4 39	0 23.3	36.1	24.4	76.8	64.9	56.2 53.	.7 0.15	5 2	R-410A	A HOT GAS	22.3	75.0	60.9	HOT WATER 48.8	1	63.1	95.0 0.12	180.0 1	29.0 2	0.8	460	3 11.	2 12.6 1	5.0 350	350	CMD36	(1)(2)(3)(4)(5)(6)(7)(9)(1	/)(10)
	C 1,500	0.5	1	3/4 2,800	0.5	1	2.5	400	75.0 63.0	95.0 78	.0 81.2	69.3	13.8	400 70.0	53.0	0.0 -1.	4 46.2 37	3 25.4	46.8	31.5	76.7	64.8	57.2 54.	.2 0.15	5 2	R-410A	A HOT GAS	28.8	75.0	61.0	HOT WATER 61.8	3 1	63.7	95.0 0.12	180.0 1	24.0 2.3	0.8	460	3 13.	4 15.0 2	20.0 400	400	CMD48	(1)(2)(3)(4)(5)(6)(7)(9)(1	رر (10)(ر

(1) PROVIDE SINGLE POINT ELECTRICAL CONNECTION AND FACTORY MOUNTED AND DISCONNECT SWITCH.

(2) PROVIDE MERV 8 FILTER. (3) PROVIDE MANUFACTURER'S DISCHARGE PLENUM.

(4) FURNISH MANUFACTURER'S LOUVER. COORDINATE LOUVER SIZE AND ASSEMBLY WITH THE WALL SYSTEM WITH THE G.C.

(5) PROVIDE SKETCH OF CUSTOM FILLER PANELS TO MANUFACTURER. COORDINATE CUSTOM FILLER PIECE WITH FIELD

(6) PROVIDE MANUFACTURER'S CUSTOM FILLER PIECES FOR EITHER SIDE OF UV TO FILL IN OPEN AREA FROM UNIT TO WINDOW ABOVE WINDOW SILL. COORDINATE FILLER PIECE WITH DUCT SHROUD HEIGHT. FILLER PIECE TO BE OF (10)COORDINATE UNIT VENTILATOR DOOR SWING WITH FIELD CONDITION (10)COORDINATE UNIT VENTILATOR DOOR SWING WITH FIELD CONDITIONS TO ENSURE DOOR OPENS AGAINST THE WALL. SAME GAUGE, COLOR AND FINISH AS BASE UNIT CASING. PROVIDE ALL NECESSARY SUPPORTS AND INSTALL PER

MANUFACTURER'S REQUIREMENTS AND INSTRUCTIONS. (7) PROVIDE MANUFACTURER'S WALL SLEEVE WITH SPLITTER PLATE, LOW NOISE PACKAGE, INCLUDING NOISE REDUCING

(8) COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

UNIT V	ENTILATO	R SCH	HEDULE			
REF. NO.		AREA SE	ERVED	UNIT TYPE	CONTROL VALVE	REMARKS
	SCHOOL	ROOM NUMBER	ROOM NAME	(1)	TYPE (3)	
UV-01	SHANER	101	SPECIAL ED. MULTIPLE DISABILITIES	С	2-WAY	(2)(4)
UV-02	SHANER	102	PRE-KINDERGARTEN	В	2-WAY	(2)(4)
UV-03	SHANER	104	SPECIAL ED. PRESCHOOL DISABILITIES	В	2-WAY	(2)(4)
UV-04	SHANER	103	PRE-KINDERGARTEN	С	2-WAY	(2)(4)
UV-05	SHANER	105	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-06	SHANER	106	1ST GRADE CLASSROOM	В	2-WAY	(2)(4)
UV-07	SHANER	107	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-08	SHANER	108	1ST GRADE CLASSROOM	В	2-WAY	(2)(4)
UV-09	SHANER	109	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-10	SHANER	110	1ST GRADE CLASSROOM	В	2-WAY	(2)(4)
UV-11	SHANER	111	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-12	SHANER	116	RESOURCE	Α	2-WAY	(2)(4)
UV-13	SHANER	117	RESOURCE	Α	2-WAY	(2)(4)
UV-14	SHANER	118	RESOURCE	Α	2-WAY	(2)(4)
UV-15	SHANER	119	RESOURCE	A	2-WAY	(2)(4)
UV-16	SHANER	120	LIBRARY	В	2-WAY	(2)(4)
UV-17	SHANER	120	LIBRARY	В	2-WAY	(2)(4)
UV-18	SHANER	121	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-19	SHANER	122	PRE-KINDERGARTEN	С	2-WAY	(2)(4)
UV-20	SHANER	123	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-21	SHANER	124	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-22	SHANER	125	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)
UV-23	SHANER	126	ART / ESL CLASSROOM	С	2-WAY	(2)(4)
UV-24	SHANER	127	1ST GRADE CLASSROOM	С	2-WAY	(2)(4)

(1) REFER TO UNIT VENTILATOR PERFORMANCE SCHEDULE. (2) PROVIDE MANUFACTURER'S PRE-WIRED DISCONNECT SWITCH.

(3) PROVIDE CONTROL VALVE IN ACCORDANCE WITH 2-WAY CONTROL VALVE DETAILS. (4) PROVIDE WITH MANUFACTURERS 6" REAR EXTENSION PANEL AND CUSTOM FILLER PIECES.

DIFFL	JSER, REGISTER &	GRILL	E SCHE	EDULE			BAS	SIS OF DESIGN: TITUS
REF. NO.	TYPE	СҒМ	NECK SIZE	MAX. PRESS. DROP IN. W.G	MAX. NECK VELOCITY FPM	MAX. NC	BLOW PATTERN	REMARKS
Α	SUPPLY REGISTER - 300RL	SEE PLANS	SEE PLANS	0.08	600	19	22.5-DEG DEFLECTION	(1)(3)(4)
В	SUPPLY DIFFUSER - TDV	SEE PLANS	SEE PLANS	0.10	500	22	(2)	(1)(3)(5)
С	RETURN/EXHAUST GRILLE - 350RL	SEE PLANS	SEE PLANS	0.06	500	14	-	(3)
	RETURN/EXHAUST GRILLE - 350RL	SEE PLANS	SEE PLANS	0.06	500	14	-	(

(1) DOUBLE DEFLECTION
(2) UNLESS INDICATED OTHERWISE ON THE PLANS ALL BLOW PATTERNS ARE TO BE 4-WAY. (3) COLOR TO BE SELECTED BY THE PROFESSIONAL.

(4) PROVIDE OPPOSED BLADE BALANCING DAMPER IN DEVICE. DAMPER SHALL BE ADJUSTABLE FROM THE FRONT FACE.

(5) PROVIDE 24"x24" LAY-IN PANEL FOR CEILING GRID.

									IMC 2015 VENTILA	ATION REQUIRE	MENTS							REQUIRED CI	FM FOR MULTIPLE ZO	NE SPACES		CFM QUANTITIE	S PROVIDED	
VENTILATION STEM NUMBER	SECONDARY VENTILATION	ROOM NO.	ROOM NAME	ROOM SQ.	04 /005	SOFT 04		OCCUPANTS				EXHAUST			SUPPLY AIR	REQUIRED OA FOR	REQUIRED EA FOR SINGLE ZONE				OUTDOOR AID	RETURN AIR	VEED AID	EVUALIST AIR
STEM NUMBER	SYSTEM NO.	NOOM NO.	NOOM NAME	FT	OA/SQFT (CFM)	SQFT OA (CFM)	NO. OF OCCUPANTS	OA/OCCUPANTS (CFM)	OCCUPANT OA (CFM)	NO. OF FIXTURES	EA/FIXTURE (CFM)	FIXTURE EA (CFM)	EA/SQFT (CFM)	SF EA (CFM)	(CFM)	SINGLE ZONE SPACE (CFM)	SPACE (CFM)	OUTDOOR AIR %	SYSTEM EFFECTIVENESS	OUTDOOR AIR	OUTDOOR AIR (CFM)(2)	(CFM)	XFER AIR (CFM)(1)	EXHAUST AIR (CFM)
UV-01	_	101	SPECIAL ED. MULTI. DIS.	849	0.12	101.9	22	10	220	_	_	_	_	_	1500	325	_	_	-	_	400.0	1500	0	0
UV-02	_	102	PRE-KINDERGARTEN	854	0.12	102.5	22	10	220	_	_	_	_	_	1100	325	_	-	_	_	350.0	1100	0	0
UV-03	_	104	SPECIAL ED. PRESCHOOL	857	0.12	102.8	22	10	220	_	_	_	_	_	1100	325	_	-	_	_	350.0	1100	0	0
UV-04	_	103	PRE-KINDERGARTEN	761	0.12	91.3	19	10	190	_	-	-	-	_	1500	285	_	-	-	_	400.0	1500	0	0
UV-05	_	105	1ST GRADE CLASSROOM	813	0.12	97.6	21	10	210	_	_	-	-	-	1500	310	_	-	-	_	400.0	1500	0	0
UV-06	_	106	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	_	_	_	_	_	1100	310	_	-	-	_	350.0	1100	0	0
UV-07	_	107	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	_	_	_	_	_	1500	310	-	_	-	_	400.0	1500	0	0
UV-08	_	108	1ST GRADE CLASSROOM	813	0.12	97.6	21	10	210	_	_	_	_	_	1100	310	_	_	-	_	350.0	1100	0	0
UV-09	_	109	1ST GRADE CLASSROOM	813	0.12	97.6	21	10	210	_	_	_	_	_	1500	310	_	_	-	_	400.0	1500	0	0
UV-10	-	110	1ST GRADE CLASSROOM	815	0.12	97.8	21	10	210	_	_	_	_	-	1100	310	_	_	-	_	350.0	1100	0	0
UV-11	-	111	1ST GRADE CLASSROOM	824	0.12	98.9	21	10	210	_	_	_	_	-	1500	310	_	_	-	_	400.0	1500	0	0
UV-12	_	116	RESOURCE	410	0.12	49.2	11	10	110	_	_	_	_	_	900	160	_	_	-	_	200.0	900	0	0
UV-13	_	117	RESOURCE	379	0.12	45.5	10	10	100	_	_	_	_	_	900	150	_	_	-	_	200.0	900	0	0
UV-14	_	118	RESOURCE	379	0.12	45.5	10	10	100	_	_	_	_	_	900	150	_	_	-	_	200.0	900	0	0
UV-15	-	119	RESOURCE	395	0.12	47.4	10	10	100	_	_	_	_	_	900	150	_	_	-	-	200.0	900	0	0
UV-16	_	120	LIBRARY	813	0.12	97.6	21	10	210	_	_	_	_	_	1100	310	_	-	_	_	350.0	1100	0	0
UV-17	_	120	LIBRARY	813	0.12	97.6	21	10	210	_	_	_	_	_	1100	310	_	-	_	_	350.0	1100	0	0
UV-18	_	121	1ST GRADE CLASSROOM	852	0.12	102.2	22	10	220	_	_	_	_	_	1500	325	_	-	_	_	400.0	1500	0	0
UV-19	_	122	PRE-KINDERGARTEN	972	0.12	116.6	25	10	250	_	_	_	_	_	1500	370	_	-	-	_	400.0	1500	0	0
UV-20	_	123	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	_	_	_	_	_	1500	310	_	-	-	_	400.0	1500	0	0
UV-21	_	124	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	-	_	-	_	_	1500	310	_	-	_	_	400.0	1500	0	0
UV-22	_	125	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	-	_	_	_	_	1500	310	_	_	_	_	400.0	1500	0	0
UV-23	-	126	ART / ESL CLASSROOM	828	0.12	99.4	21	10	210	_	_	_	_	-	1500	310	_	_	-	_	400.0	1500	0	O
UV-24	_	127	1ST GRADE CLASSROOM	828	0.12	99.4	21	10	210	_	_	_	_	_	1500	310	_	_	_	_	400.0	1500	0	. 0

(1) NEGATIVE TRANSFER AIR IS BEING TRANSFERRED FROM THE SPACE. POSITIVE IS AIR BEING TRANSFERRED TO THE SPACE. (2) OUTDOOR AIR PRESSURIZATION CONTROL IS BY THE ITEMIZED EXHAUST FANS OR THE SPECIFIC RTU EXHAUST FAN FOR ECONOMIZER CONTROL.

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.



02/15/2019 ISSUED FOR BID

ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000 © 2018 GILLAN & HARTMANN Inc.

ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL ELEMENTARY SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By

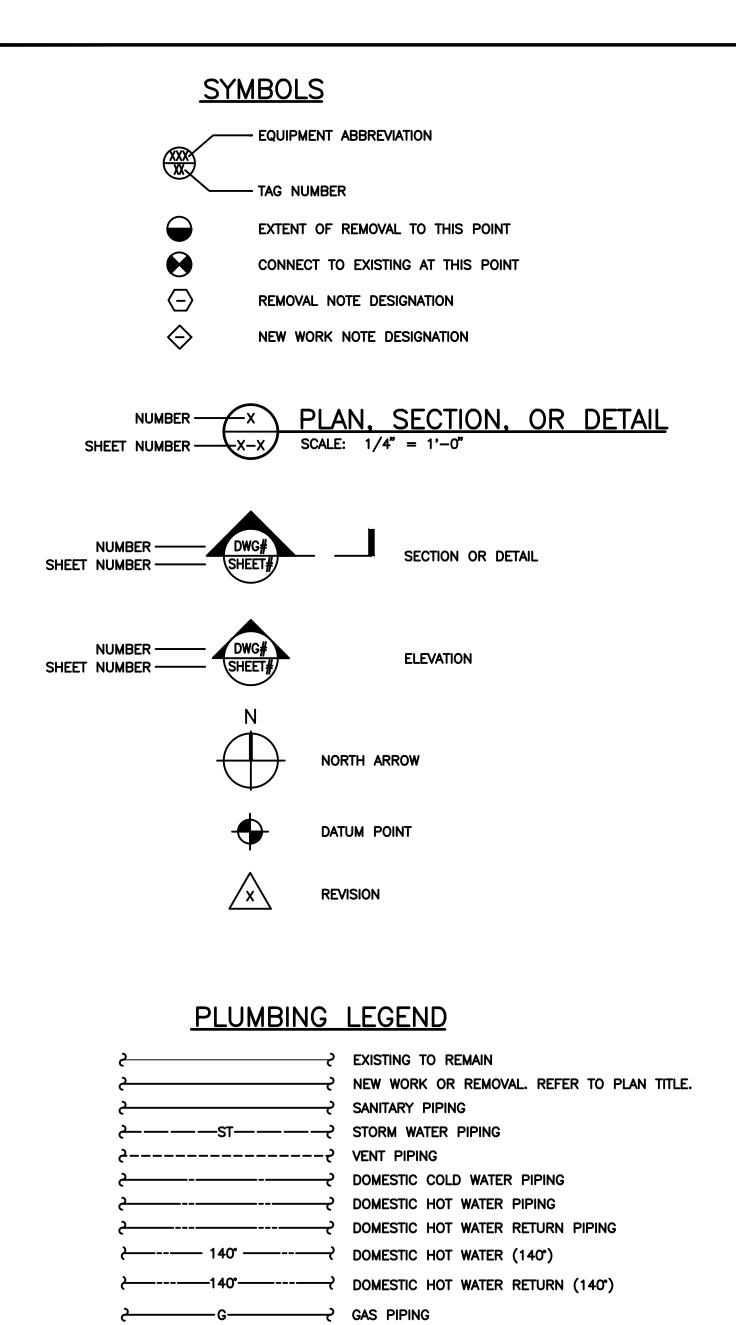
Drawn By AS NOTED

Drawing Name **HVAC SCHEDULES**

SHANER E.S.

No. Date Description

Drawing Number H601



——AW ——── ACID WASTE

——— SP ———— SPRINKLER PIPING

FLEXIBLE CONNECTION

P BUTTERFLY VALVE

CHECK VALVE

BALL VALVE

—— IW ——— INDIRECT WASTE PIPING

FS FORCED SANITARY / STORM MAIN

—|⊠ BALANCING VALVE

→ OS&Y VALVE

→ PIPE TEE DOWN

PIPE TEE OFF TOP

PIPE TURNING DOWN

一心 PIPE DROP AND TURN

→ PRESSURE GAUGE

ANGLE GATE VALVE

→ FLOW SWITCH

SOLENOID VALVE

→ TEMPERATURE GAUGE

SHOCK ABSORBER

PLAIN ROUND FLOOR DRAIN

PLAIN SQUARE FLOOR DRAIN

× PIPE ANCHOR

→ DIRECTION OF PIPE FLOW

PRESSURE REGULATOR VALVE

RELIEF OR SAFETY VALVE

—O PIPE TURNING UP

→ PIPE DROP AND RUN

→ PIPE TEE UP

—

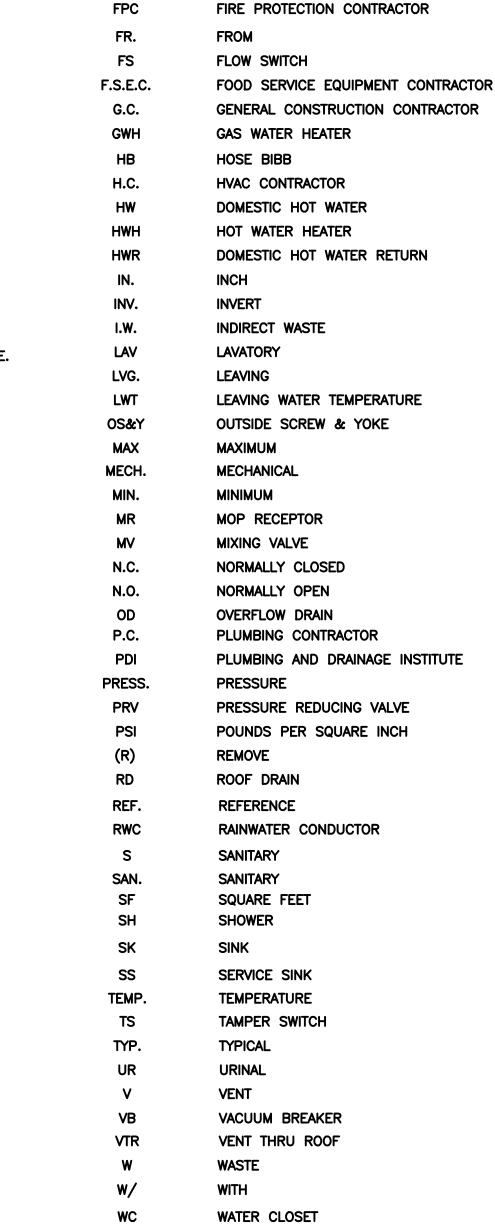
GATE VALVE

—(M)——→ METER

PIPE BREAK

VALVE ON RISE

BACK FLOW PREVENTER VALVE ASSEMBLY



WALL CLEANOUT

WATER COLUMN
WALL HYDRANT

ABBREVIATIONS

C.D.

DFU

EWH

FCO

FDC

AREA DRAIN

BELOW

DOWN

EXISTING

ENTERING

EYE WASH

CLEANOUT

CONTINUATION

ABOVE FINISHED FLOOR

BACK FLOW PREVENTER

CONDENSATE DRAIN

CIRCULATING PUMP

DRINKING FOUNTAIN

DOMESTIC WATER

DOMESTIC COLD WATER

DRAINAGE FIXTURE UNIT

ELECTRICAL CONTRACTOR

ELECTRIC WATER COOLER

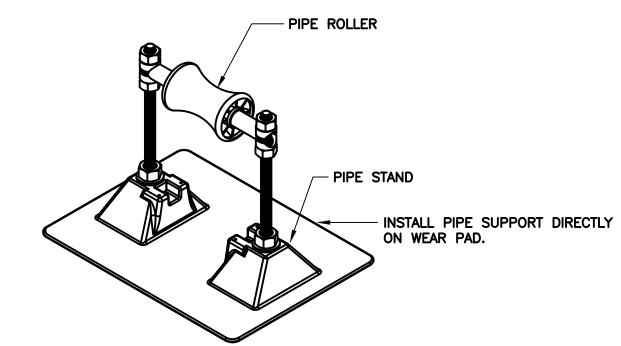
ELECTRIC WATER HEATER

FIRE DEPARTMENT CONNECTION

FLOOR CLEANOUT

FIRE PROTECTION

FLOOR DRAIN



NOTE:

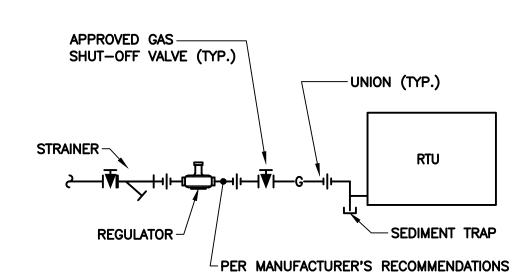
1. SPACE AND SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS. SPACING IS NOT TO EXCEED 10 FEET ON CENTER.

2. HEIGHT NOT EXCEED MANUFACTURER'S SPECIFICATIONS.

3. INSTALL PIPE SUPPORT ON WEAR PAD ON ROOF SURFACE.

1 DETAIL — ROOFTOP PIPE SUPPORT

P001 NO SCALE

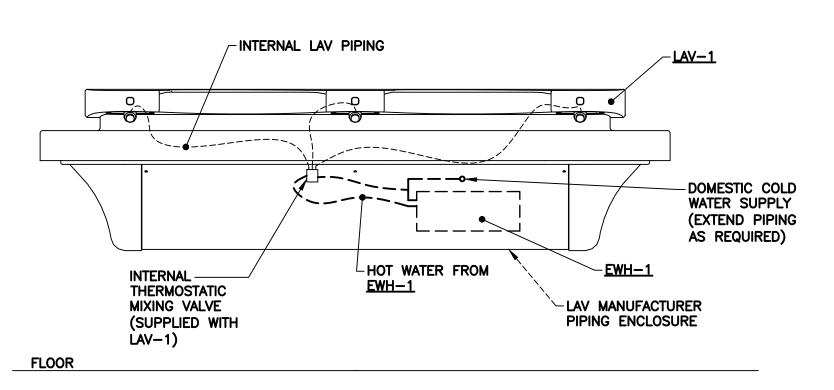


NOTE:

1. REGULATOR AND PIPING DOWNSTREAM OF REGULATOR TO BE SIZED IN ACCORDANCE TO RTU MANUFACTURER'S RECOMMENDATION.

COORDINATE REGULATOR LOCATION TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.





DETAIL — REPLACEMENT LAVATORY
INSTANTANEOUS WATER HEATER INSTALLATION
NO SCALE

PLUMBING GENERAL NOTES

- 1. GENERAL NOTES APPLY TO ALL PLUMBING DRAWINGS.
- 2. COORDINATE AND FIELD VERIFY ALL DIMENSIONS, SIZES, CLEARANCES, AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION. WHEN CONFLICT ARISES, MAKE ANY NECESSARY CHANGES TO ROUTING OF PIPING WITHOUT COMPROMISING THE INTEGRITY AND PERFORMANCE OF THE SYSTEM, AND AT NO ADDITIONAL COST TO THE OWNER.
- 3. PROVIDE ALL ASSOCIATED LIFE SAFETY DEVICES FOR ALL PIPING PENETRATIONS.
- 4. PLUMBING PIPING LAYOUTS ARE SCHEMATIC IN NATURE. PROVIDE OFFSETS AND FITTINGS AS REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
- 5. COORDINATE CONSTRUCTION OF ALL PLUMBING WORK WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL, HVAC, ETC. SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- 6. EQUIPMENT INSULATION SHALL BE INSTALLED AS NOT TO CONCEAL THE EQUIPMENT NAME PLATE.
- 7. PLUMBING REMOVAL WORK IN THE BUILDING SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR INCLUDING PLUMBING EQUIPMENT, SYSTEMS, APPARATUS, AND ACCESSORIES.
- 8. THE DRAWINGS SHOW A GENERAL REPRESENTATION OF QUANTITIES AND LOCATIONS OF EXISTING PLUMBING COMPONENTS AND SYSTEMS, AND ARE NOT ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE REMOVAL OF THE PLUMBING BUILDING SYSTEMS TO FULFILL THE INTENT OF THE DESIGN INDICATED BY THE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED. REMOVAL WORK IS TO INCLUDE, BUT NOT LIMITED TO REMOVAL OF EQUIPMENT, APPARATUS, SYSTEM ACCESSORIES, PIPING, INSULATION, DOMESTIC WATER HEATERS, VALVES, DROPS, RISERS, AUXILIARY SYSTEMS/PIPING/CONTROLS, VALVES, PIPING ACCESSORIES, CONTROLS, CONTROL WIRING/TUBING, CONDUITS, BASES, SUPPORTS, HANGERS AND SYSTEM APPLIETENANCES
- 9. ENSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE APPLICABLE CONSTRUCTION CODE, AND ALL OTHER FEDERAL, STATE, AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS, OBSERVE THE MORE STRINGENT OF REQUIREMENTS.
- 10. ALL WORK SHALL COMPLY WITH THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS (NBFU), INDUSTRIAL RISK INSURANCE UNDERWRITERS (IRI), FACTORY MUTUAL (FW), OR THE APPLICABLE RATING BUREAU, THE NATIONAL ELECTRIC CODE (NEC), THE AMERICAN GAS ASSOCIATION (AGA), AND THE AMERICAN SOCIETY OF HEATING AND AIR CONDITIONING ENGINEERS (ASHRAE), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES AND THE REQUIREMENTS OF ALL PUBLIC UTILITY COMPANIES SERVING THE PROJECT
- 11. COORDINATE LOCATION OF ALL HVAC, PLUMBING, AND ELECTRICAL EQUIPMENT WITH THE RESPECTIVE TRADE CONTRACTORS.
- 12. ALL EQUIPMENT AND OR MATERIAL BEING REMOVED IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR AND WILL BE RETAINED, DISPOSED OF, AND REMOVED FROM THE SITE AT THE DIRECTION OF THE OWNER.
- 13. IDENTIFICATION LABELS TO BE USED/MADE FOR ALL SYSTEMS MUST USE THE OWNER'S ROOM NUMBERS AND ROOM NAMES, NOT THE NUMBERS OR NAMES ON THE CONSTRUCTION DOCUMENTS. MEET WITH THE OWNER TO REVIEW AND CONFIRM ROOM NUMBERS AND NAMES PRIOR TO LABELING
- 14. PERFORM ALL CUTTING AND PATCHING NECESSARY TO PERFORM ABOVE SLAB WORK. MATCH EXISTING MATERIALS, FINISHES, FIRE RATINGS, PAINT COLORS, ETC. IN ALL AREAS OF PATCHING.
- 15. ALL PIPING TO BE CONCEALED UNLESS OTHERWISE INDICATED.
- 16. PROVIDE ALL NECESSARY HANGERS AND/OR SUPPORTS TO FACILITATE INSTALLATION OF ALL PIPING, EQUIPMENT, ETC.
- 17. COORDINATE ALL PLUMBING VALVE ACCESS DOORS & PANELS WITH G.C.
- 19. PROVIDE HANGERS AND SUPPORTS PER THE SPECIFICATIONS FOR ALL PIPING AND PLUMBING EQUIPMENT TO FACILITATE INSTALLATION OF THE WORK.

18. PERFORM SAW CUTTING, EXCAVATION, AND BACKFILL FOR ALL BELOW SLAB PIPING. FINAL FLOOR FINISH IS BY G.C. COORDINATE WORK WITH G.C.

- 20. SCHEDULE AND OBTAIN APPROVAL FOR ALL SYSTEM SHUTDOWNS WITH THE OWNER PRIOR TO COMMENCING WITH REMOVAL AND NEW WORK.
- 21. COORDINATE REQUIREMENTS FOR LOSS OF PHASE PROTECTION ON ALL THREE PHASE MOTORS SERVING EQUIPMENT ON THIS CONTRACT.
- 22. PROVIDE FLEXIBLE CONNECTORS FOR ALL PIPING AT BUILDING EXPANSION JOINTS.
- 23. INSTALL ALL EQUIPMENT TO MAINTAIN ADEQUATE CLEARANCES PER MANUFACTURER'S REQUIREMENTS. PROVIDE OFFSETS AS NECESSARY TO FACILITATE.

PLUM	BING FIXTURE SCHEDUL	.E				
REF. NO.	DESCRIPTION	MANUFACTURER AND MODEL NUMBER	FAUCET AND FLUSH VALVE	TRAP AND DRAIN	SUPPLIES	REMARKS/ACCESSORIES
WC-1	WATER CLOSET - WALL MOUNTED - B.F.	AMERICAN STANDARD "AFWALL MILLENNIUM FLOWISE" #3351.101	SLOAN 1.6 GPF - G2 OPTIMA PLUS #8111	-	_	BATTERY POWERED FLUSH VALVE. PROVIDE OPEN FRONT TOILET SEAT. MODIFY EXISTING WALL CARRIER AS REQUIRED. REFER TO ARCHITECTURAL DOCUMENTS FOR MOUNTING HEIGHTS.
UR-1	URINAL - WALL MOUNTED - B.F.	AMERICAN STANDARD #6590.001 "WASHBROOK"	SLOAN 0.5 GPF - G2 OPTIMA PLUS #8186-0.5	_	-	BATTERY POWERED FLUSH VALVE. MODIFY EXISTING WALL CARRIER AS REQUIRED. REFER ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING HEIGHT.
LAV-1	LAVATORY - WALL MOUNT - 3 STATION	BRADLEY "EXPRESS" MG-3	INTEGRAL	P-TRAP TO SUIT	½" ANGLE SUPPLIES TO SUI	3-SPRAYHEADS PER ASSEMBLY. PROVIDE BATTERY POWERED, INTEGRAL SPRAYHEAD W/ INFRARED CONTROL, LIQUID SOAP DISPENSER, & WALL CARRIER TO SUIT. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING HEIGHT, COLOR SELECTIONS, ETC. SET THERMOSTATIC MIXING VALVE TO A MAXIMUM DISCHARGE TEMEPERATURE OF 110°.
EWC-1	ELECTRIC IN-WALL BOTTLE FILLING STATION - B.F.	ELKAY LZWSGRN8K	-	P-TRAP TO SUIT	光" SUPPLY	PROVIDE WALL CARRIER TO SUIT. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING HEIGHT.

PLUM	IBING FIXTURE CONNECT	ΓΙΟΝ	SCHE	DULE				
REF. NO.	DESCRIPTION	TOTAL WSFU	CW SUPPLY	HW SUPPLY	DFU	DRAIN SIZE	VENT SIZE	REMARKS
WC-1	WATER CLOSET - WALL MOUNTED - B.F.	8	1"	_	6	4"	2"	SENSOR ACTIVATED FLUSH VALVE
UR-1	URINAL - WALL MOUNTED - B.F.	5	34"	_	5	2"	1½"	SENSOR ACTIVATED FLUSH VALVE
LAV-1	LAVATORY - WALL MOUNT - 3 STATION	3	1/2"	1/2"	3	1½"	1½"	3 SPRAYHEADS PER FIXTURE
EWC-1	ELECTRIC IN—WALL BOTTLE FILLING STATION — B.F.	0.75	1/2"	_	.5	1¼"	1¼"	_
	_							_

*B.F. = BARRIER FREE

*B.F. = BARRIER FREE

ELEC	ELECTRIC WATER HEATER SCHEDULE BASIS OF DESIGN: EEMAX											
REF. NO.	REF. NO. LOCATION	INPUT	WATER T	EMP (°F)	ELECTR	CICAL DATA	(1)	MODEL	REMARKS/ACCESSORIES			
		(KW)	INLET	OUTLET	VOLTS	VOLTS PHASE HZ			,			
EWH-1	POINT OF USE	10	50	105	277	277 1		MT010277T	(2) (3)			

(1) COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
(2) PROVIDE SINGLE POINT ELECTRICAL CONNECTION.
(3) PROVIDE W/ MANUFACTURER'S WALL MOUNTING BRACKETS.

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT
ONE (1) INCH IN LENGTH AND
PROVIDED FOR REFERENCE/VERIFICATION
ONLY



02/15/2019 ISSUED FOR BID

ENGINEER DATE
MICHAEL S. GILLAN, PE NO. 24GE044700

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WILLIAM D.
NJ-21A0170660
GEORGE R.
NJ-21A0129920

raytak Veisz Hopkins Duthie PC

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628

E V H D P

ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name

HAMILTON

TOWNSHIP BOARD

OF EDUCATION

Project Location

1876 DENNIS
FORMAN DR, MAYS
LANDING, NJ 08330

LANDING, NJ 08330

4937C
Project Date
02.15.2019
Checked By
TJB

TMH
Scale
AS NOTED

PLUMBING
GENERAL NOTES,
LEGEND,
ABBREVIATIONS. &

ABBREVIATIONS, & DETAILS

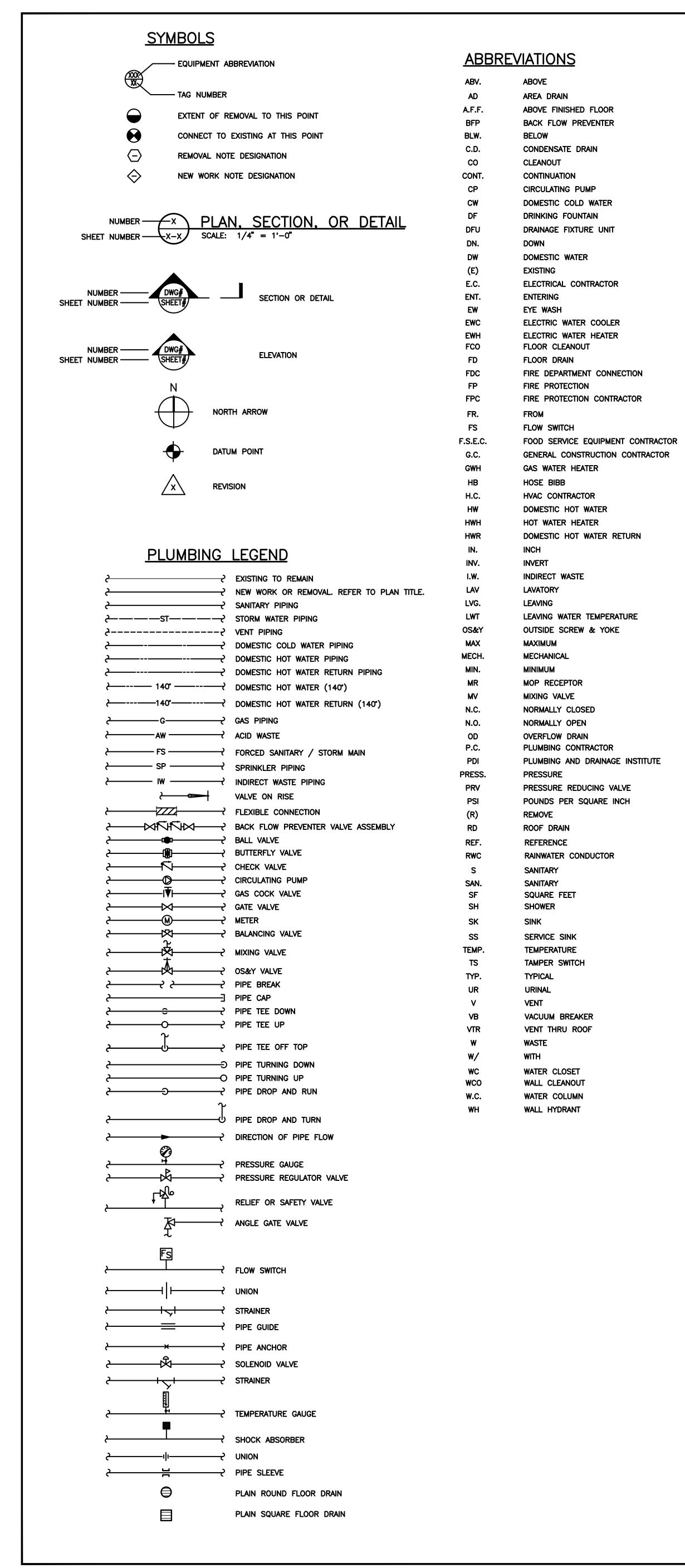
DAVIES M.S.

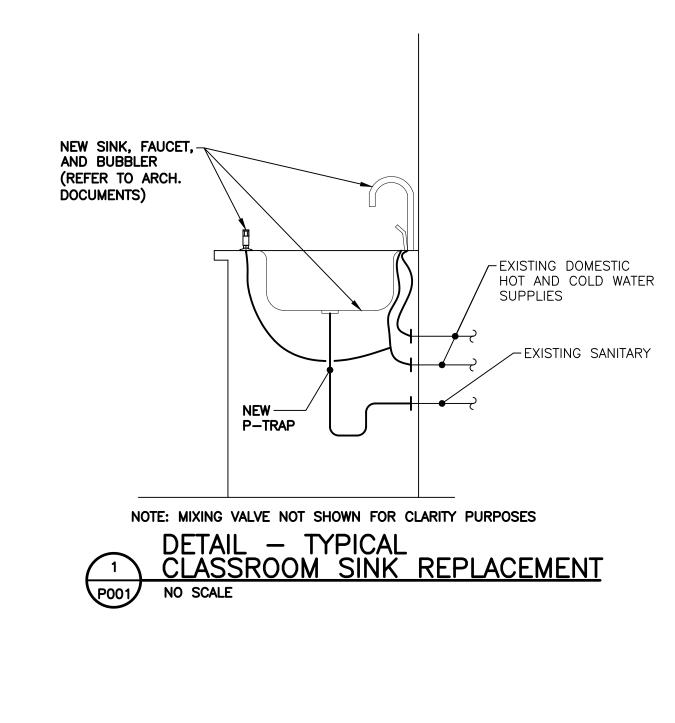
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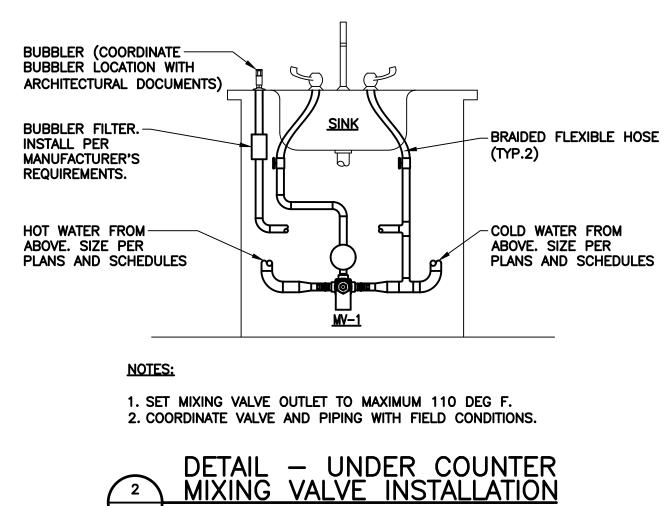
Drawing Number

P001

. GILLAN, PE NO. 24GE04470000







*B.F. = BARRIER FREE

PLUMBING GENERAL NOTES

- 1. GENERAL NOTES APPLY TO ALL PLUMBING DRAWINGS.
- 2. COORDINATE AND FIELD VERIFY ALL DIMENSIONS, SIZES, CLEARANCES, AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION. WHEN CONFLICT ARISES, MAKE ANY NECESSARY CHANGES TO ROUTING OF PIPING WITHOUT COMPROMISING THE INTEGRITY AND PERFORMANCE OF THE SYSTEM, AND AT NO ADDITIONAL COST TO THE OWNER.
- 3. PROVIDE ALL ASSOCIATED LIFE SAFETY DEVICES FOR ALL PIPING PENETRATIONS.
- 4. PLUMBING PIPING LAYOUTS ARE SCHEMATIC IN NATURE. PROVIDE OFFSETS AND FITTINGS AS REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
- 5. COORDINATE CONSTRUCTION OF ALL PLUMBING WORK WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL, HVAC, ETC. SHOWN ON OTHER CONTRACT
- 6. EQUIPMENT INSULATION SHALL BE INSTALLED AS NOT TO CONCEAL THE EQUIPMENT NAME PLATE.
- PLUMBING REMOVAL WORK IN THE BUILDING SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR INCLUDING PLUMBING EQUIPMENT, SYSTEMS, APPARATUS, AND ACCESSORIES.
- 8. THE DRAWINGS SHOW A GENERAL REPRESENTATION OF QUANTITIES AND LOCATIONS OF EXISTING PLUMBING COMPONENTS AND SYSTEMS, AND ARE NOT ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE REMOVAL OF THE PLUMBING BUILDING SYSTEMS TO FULFILL THE INTENT OF THE DESIGN INDICATED BY THE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED. REMOVAL WORK IS TO INCLUDE, BUT NOT LIMITED TO REMOVAL OF EQUIPMENT, APPARATUS, SYSTEM ACCESSORIES, PIPING, INSULATION, DOMESTIC WATER HEATERS, VALVES, DROPS, RISERS, AUXILIARY SYSTEMS/PIPING/CONTROLS, VALVES, PIPING ACCESSORIES, CONTROLS, CONTROL WIRING/TUBING, CONDUITS, BASES, SUPPORTS, HANGERS AND SYSTEM APPURTENANCES.
- ENSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE APPLICABLE CONSTRUCTION CODE, AND ALL OTHER FEDERAL, STATE, AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS, OBSERVE THE MORE STRINGENT OF REQUIREMENTS.
- 10. ALL WORK SHALL COMPLY WITH THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS (NBFU), INDUSTRIAL RISK INSURANCE UNDERWRITERS (IRI), FACTORY MUTUAL (FW), OR THE APPLICABLE RATING BUREAU, THE NATIONAL ELECTRIC CODE (NEC), THE AMERICAN GAS ASSOCIATION (AGA), AND THE AMERICAN SOCIETY OF HEATING AND AIR CONDITIONING ENGINEERS (ASHRAE), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND ALL OTHER APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES AND THE REQUIREMENTS OF ALL PUBLIC UTILITY COMPANIES SERVING THE PROJECT
- 11. COORDINATE LOCATION OF ALL HVAC, PLUMBING, AND ELECTRICAL EQUIPMENT WITH THE RESPECTIVE TRADE CONTRACTORS.
- 12. ALL EQUIPMENT AND OR MATERIAL BEING REMOVED IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR AND WILL BE RETAINED, DISPOSED OF, AND REMOVED FROM THE SITE AT THE DIRECTION OF THE OWNER.
- 13. IDENTIFICATION LABELS TO BE USED/MADE FOR ALL SYSTEMS MUST USE THE OWNER'S ROOM NUMBERS AND ROOM NAMES, NOT THE NUMBERS OR NAMES ON THE CONSTRUCTION DOCUMENTS. MEET WITH THE OWNER TO REVIEW AND CONFIRM ROOM NUMBERS AND NAMES PRIOR TO LABELING
- 14. PERFORM ALL CUTTING AND PATCHING NECESSARY TO PERFORM ABOVE SLAB WORK. MATCH EXISTING MATERIALS, FINISHES, FIRE RATINGS, PAINT COLORS, ETC. IN ALL AREAS OF PATCHING.
- 15. ALL PIPING TO BE CONCEALED UNLESS OTHERWISE INDICATED.
- 16. PROVIDE ALL NECESSARY HANGERS AND/OR SUPPORTS TO FACILITATE INSTALLATION OF ALL PIPING, EQUIPMENT, ETC.
- 17. COORDINATE ALL PLUMBING VALVE ACCESS DOORS & PANELS WITH G.C.
- 18. PERFORM SAW CUTTING, EXCAVATION, AND BACKFILL FOR ALL BELOW SLAB PIPING. FINAL FLOOR FINISH IS BY G.C. COORDINATE WORK WITH G.C.
- 19. PROVIDE HANGERS AND SUPPORTS PER THE SPECIFICATIONS FOR ALL PIPING AND PLUMBING EQUIPMENT TO FACILITATE INSTALLATION OF THE WORK.
- 20. SCHEDULE AND OBTAIN APPROVAL FOR ALL SYSTEM SHUTDOWNS WITH THE OWNER PRIOR TO COMMENCING WITH REMOVAL AND NEW WORK.
- 21. COORDINATE REQUIREMENTS FOR LOSS OF PHASE PROTECTION ON ALL THREE PHASE MOTORS SERVING EQUIPMENT ON THIS CONTRACT.
- 22. PROVIDE FLEXIBLE CONNECTORS FOR ALL PIPING AT BUILDING EXPANSION JOINTS.
- 23. INSTALL ALL EQUIPMENT TO MAINTAIN ADEQUATE CLEARANCES PER MANUFACTURER'S REQUIREMENTS. PROVIDE OFFSETS AS NECESSARY TO FACILITATE.

PLUMBI	NG FIXTURE SCHEDUL	.E				
REF. NO.	DESCRIPTION	MANUFACTURER AND MODEL NUMBER	FAUCET AND FLUSH VALVE	TRAP AND DRAIN	SUPPLIES	REMARKS/ACCESSORIES
SK-1 SINK BUBE	- SINGLE BOWL - TOP MOUNT WITH BLER	REFER TO ARCHITECTURAL DOCUMENTS	REFER TO ARCHITECTURAL DOCUMENTS	P-TRAP TO SUIT	1/2" ANGLE PR	ROVIDE WITH MV-1. SINK BASIN, FAUCET, BUBBLER, AND FILTER FURNISHED BY GENERAL CONSTRUCTION CONTRACTOR. LUMBING CONTRACTOR TO INSTALL FAUCET, BUBBLER, AND FILTER.

PLUM	BING FIXTURE CONNEC	TION	SCHE	DULE						
		DO	MESTIC WA	TER		SANITARY				
REF. NO.	DESCRIPTION	TOTAL WSFU	CW SUPPLY	HW SUPPLY	DFU	DRAIN SIZE	VENT SIZE	REMARKS		
	SINK — SINGLE BOWL — TOP MOUNT WITH BUBBLER	1.5	1/2"	1/2"	2	1½"	1½"			

MIXIN	IG VALVE SCHEDULE										BASIS OF DESIGN: LEONARD VALVE (-)
REF. NO.	LOCATION	MIN. GPM	DESIGN GPM	MAX PD@DESIGN FLOW (PSI)	CW INLET	HW INLET TEMP	OUTLET TEMP	INLET SIZE	OUTLET SIZE	MODEL	REMARKS
MV-1	POINT OF USE	0.25	2.0	5	45°F	120°F	110°F (MAX)	1/2"	1/2"	270-LF	POINT OF USE MIXING VALVE. SET MAXIMUM MIXING WATER TEMPERATURE TO 110°F. MIXING VALVE SHALL BE CERTIFIED IN ACCORDANCE WITH ASSE 1070. COORDINATE UNDERCOUNTER LOCATION WITH FIELD CONDITIONS.

REFERENCE DIMENSION

INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION



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ENGINEER MICHAEL S. GILLAN, PE NO. 24GE04470000

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ALTERATIONS AND RENOVATIONS TO JOSEPH C. SHANER MEMORIAL **ELEMENTARY SCHOOL**

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

Project Location 5801 3rd ST, MAYS

LANDING, NJ 08330

Project Number Project Date 02.15.2019 Checked By

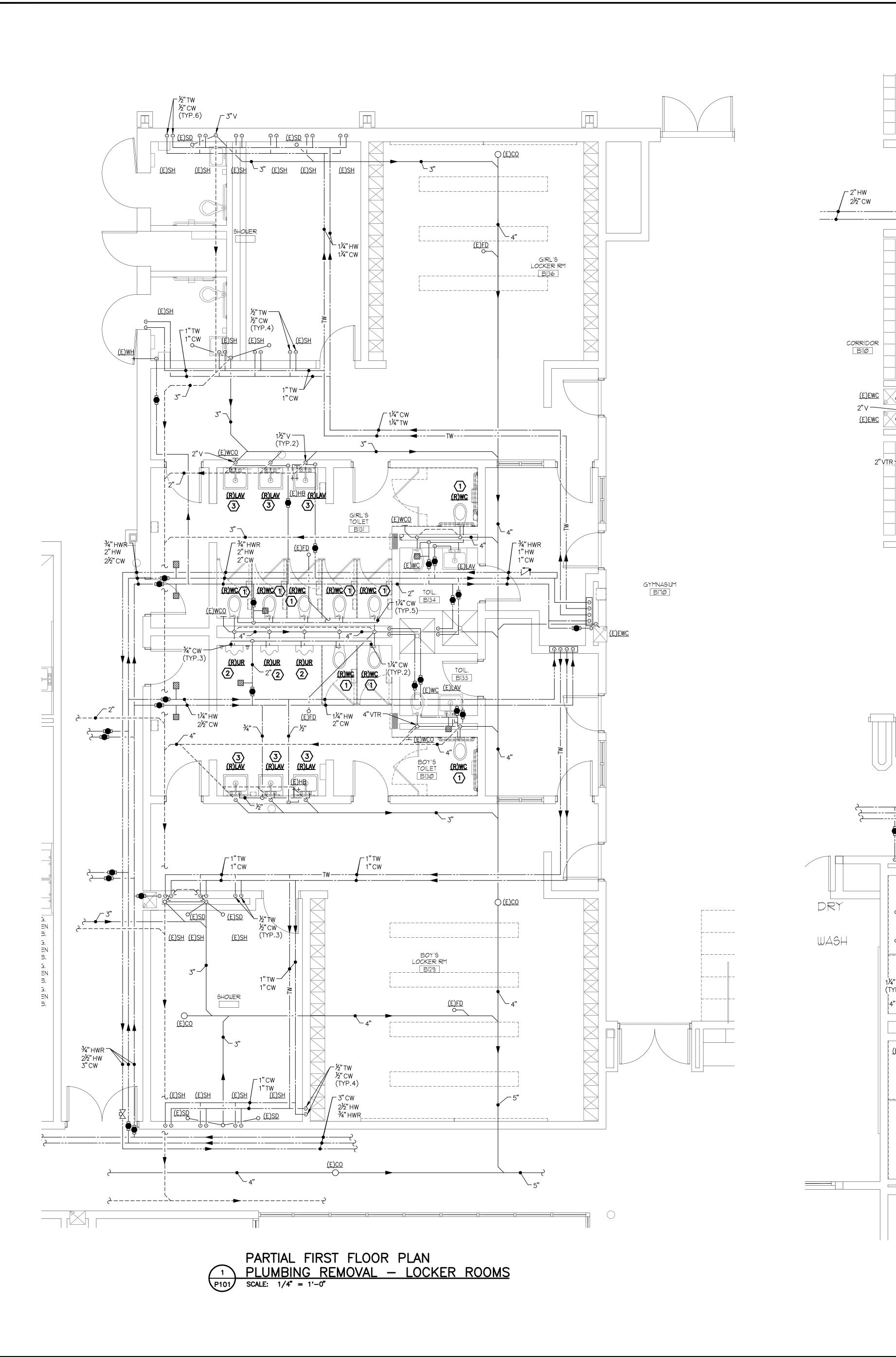
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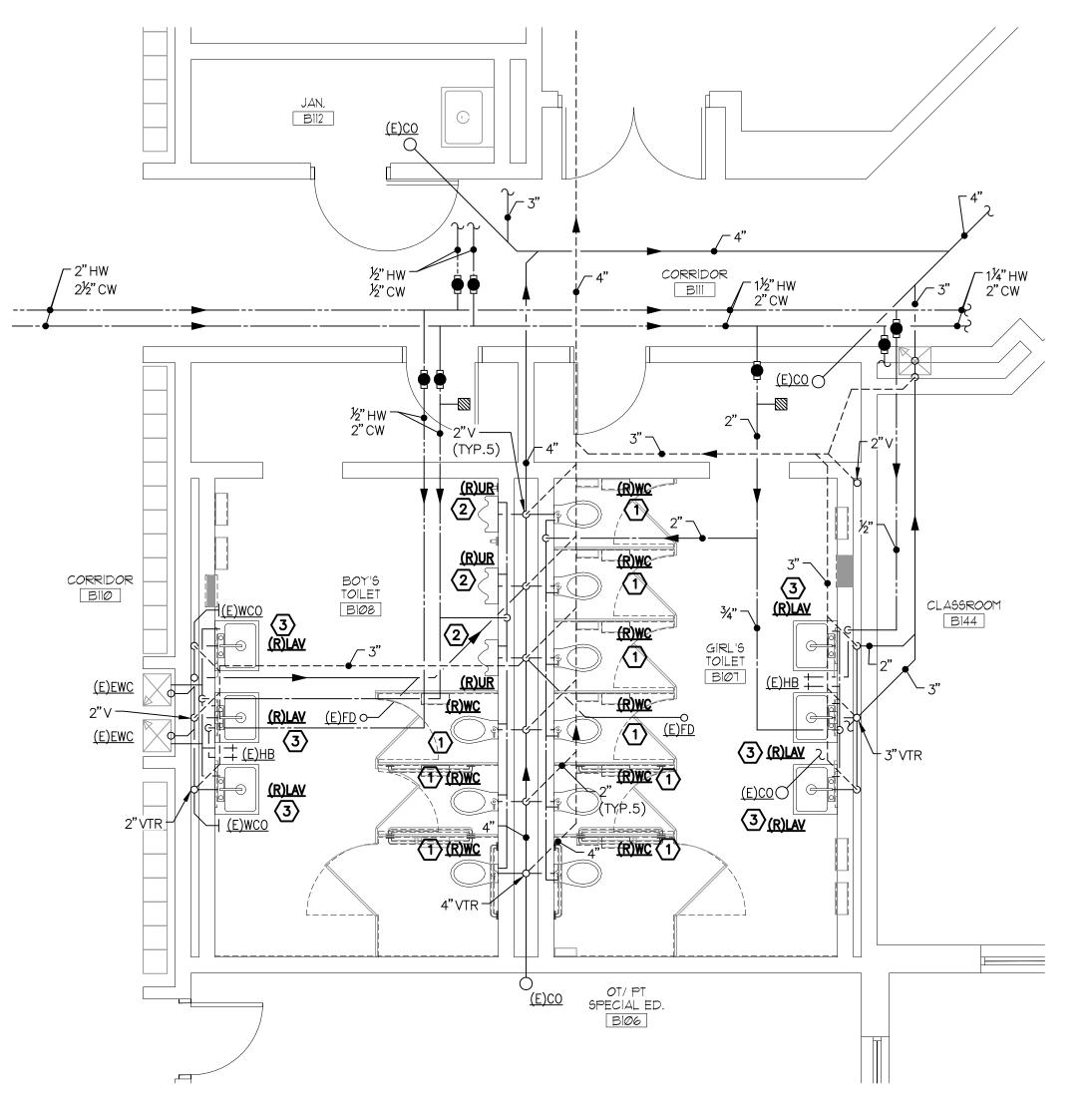
PLUMBING GENERAL NOTES, ABBREVIATIONS, SCHEDULES, & DETAILS

SHANER E.S.

No. Date Description

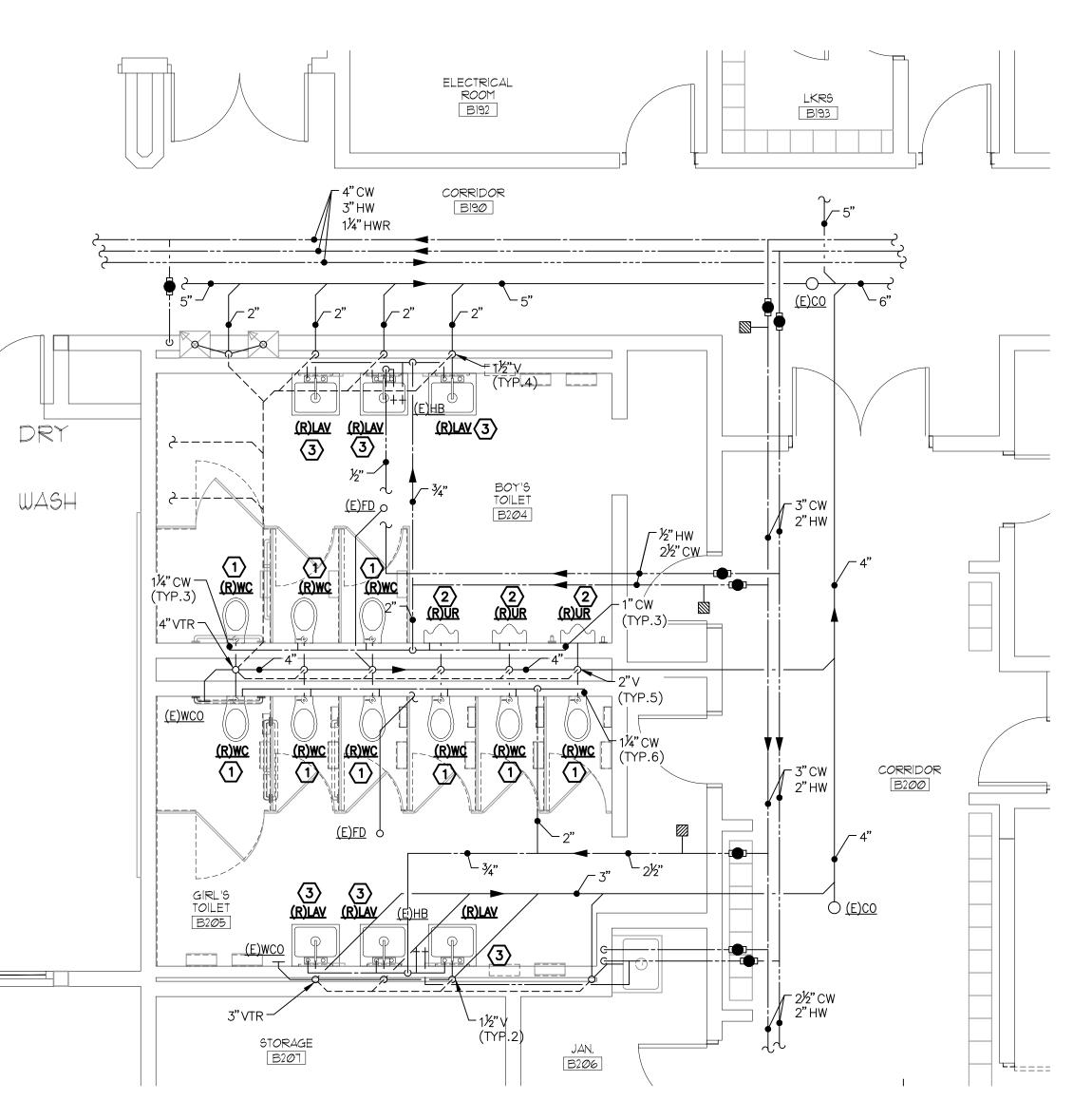
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PARTIAL FIRST FLOOR PLAN PLUMBING REMOVAL — TOILETS B107/B108

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



PARTIAL FIRST FLOOR PLAN
PLUMBING REMOVAL — TOILETS B204/B205

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

02/15/2019 ISSUED FOR BID

REMOVAL NOTES:

- DISCONNECT AND REMOVE EXISTING WALL MOUNTED URINAL, FLUSH VALVE, ASSOCIATED PIPING, AND SUPPORTS AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW WALL MOUNTED URINAL. TURN OVER EXISTING FLUSH VALVE TO THE OWNER. REMOVE SANITARY & VENT PIPE AND DOMESTIC WATER PIPING AS REQUIRED. REFER TO NEW WORK PLANS.
- DISCONNECT AND REMOVE EXISTING WALL MOUNTED LAVATORY,
 ASSOCIATED PIPING, SUPPORTS, FAUCET, TRAP, AND STOPS AS
 REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW WALL
 MOUNTED LAVATORY. TURN OVER EXISTING FAUCETS TO THE OWNER.
 REMOVE SANITARY & VENT PIPE AND DOMESTIC WATER PIPING AS



- DISCONNECT AND REMOVE EXISTING WATER CLOSET AND FLUSH VALVE AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW WALL MOUNTED WATER CLOSET. REMOVE SANITARY & VENT PIPE AND DOMESTIC WATER PIPING AS REQUIRED. REFER TO NEW WORK PLANS.
- REQUIRED. REFER TO NEW WORK PLANS.

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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

02.15.2019

AS NOTED

PARTIAL FIRST FLOOR PLANS: **PLUMBING** REMOVALS

DAVIES M.S.

No. Date Description

Drawing Number

NO. 24GE04470000 MICHAEL S. GILLAN, PE

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KEY PLAN - DAVIES MIDDLE SCHOOL

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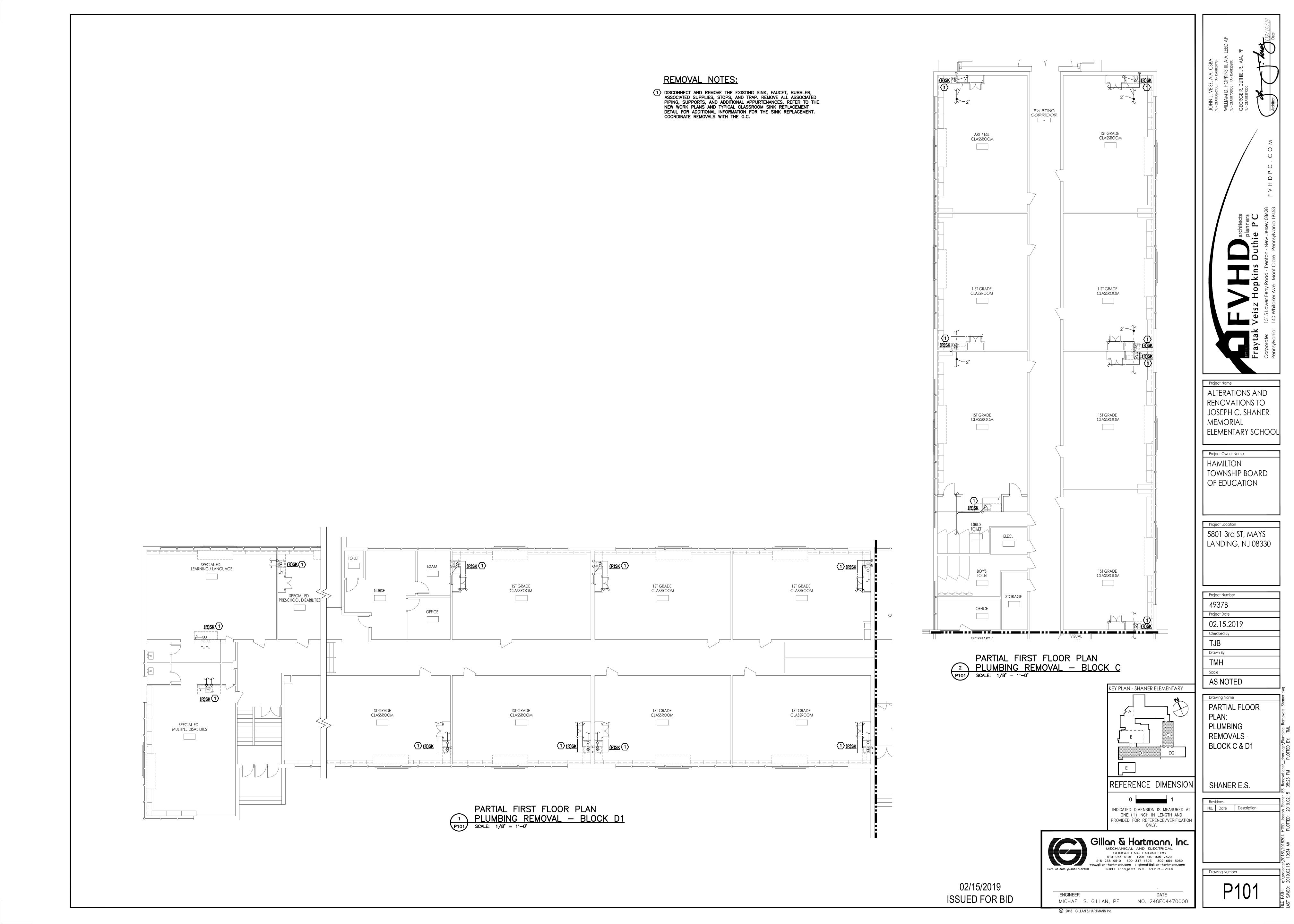
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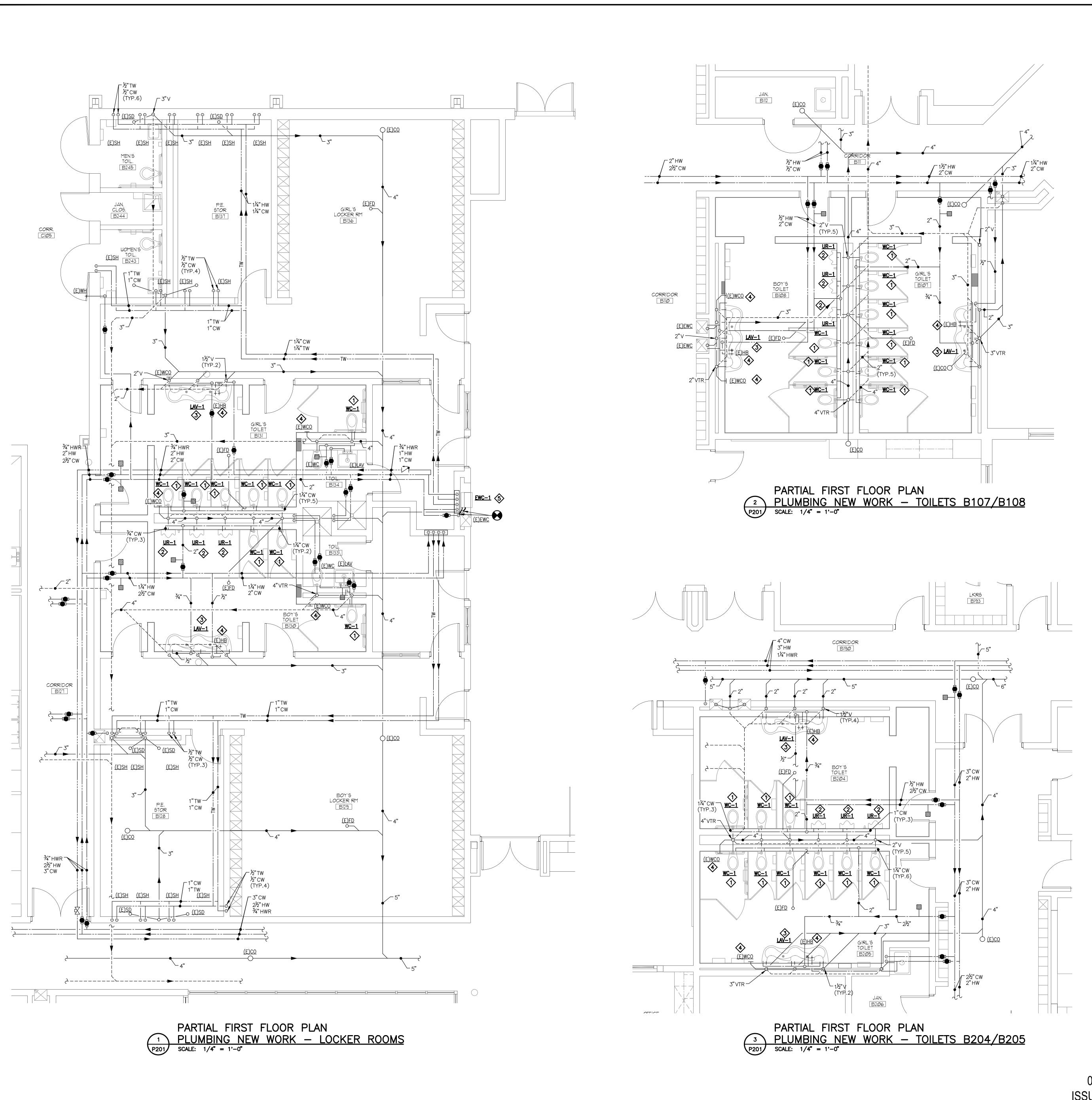
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MECHANICAL AND ELECTRICAL

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400 G&H Project No. 2018—205





- PROVIDE NEW WATER CLOSET AND FLUSH VALVE AS INDICATED. EXTEND DOMESTIC COLD WATER PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW WATER CLOSET. EXTEND OF THE NEW WATER CLOSET. MODIFY EXISTING WATER CLOSET
- WATER PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW URINAL. EXTEND SANITARY/VENT PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW URINALS. REFER TO ARCHITECTURAL DOCUMENTS FOR THE WALL OPENING AND COORDINATE WALL OPENING WITH THE GENERAL CONSTRUCTION CONTRACTOR.
- PROVIDE NEW WALL MOUNTED LAVATORY AS INDICATED. EXTEND DOMESTIC COLD WATER PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW LAVATORY. EXTEND SANITARY/VENT PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW LAVATORY. PROVIDE LAVATORY WITH THE POINT OF USE HOT WATER HEATER AS INDICATED ON THE PLUMBING SCHEDULE AND LAVATORY/HOT WATER HEATER PIPING DIAGRAM DETAIL. REFER TO ARCHITECTURAL DOCUMENTS FOR THE WALL OPENING AND COORDINATE WALL OPENING WITH THE GENERAL CONSTRUCTION CONTRACTOR.
- 5 PROVIDE NEW WALL MOUNTED ELECTRIC IN—WALL BOTTLE FILLING STATION AS INDICATED. EXTEND DOMESTIC COLD WATER PIPING SERVING THE EXISTING WATER COOLER AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW BOTTLE FILLER. EXTEND SANITARY/VENT PIPING AS REQUIRED TO FACILITATE THE INSTALLATION OF THE NEW ELECTRIC IN-WALL BOTTLE FILLING STATION. REFER TO ARCHITECTURAL DOCUMENTS FOR THE WALL OPENING AND COORDINATE WALL OPENING WITH THE GENERAL CONSTRUCTION CONTRACTOR.

NEW WORK NOTES:

SANITARY/VENT PIPING AS REQUIRED TO FACILITATE THE INSTALLATION SUPPORTS AS REQUIRED TO ACCEPT THE NEW WALL MOUNTED WATER CLOSET. REFER TO ARCHITECTURAL DOCUMENTS FOR THE WALL OPENING AND COORDINATE WALL OPENING WITH THE GENERAL CONSTRUCTION CONTRACTOR. PROVIDE NEW WALL MOUNTED URINAL AND FLUSH VALVE AS INDICATED. MODIFY THE EXISTING URINAL SUPPORTS AS REQUIRED TO ACCEPT THE NEW WALL MOUNTED URINAL. EXTEND DOMESTIC COLD

REMOVE AND REINSTALL EXISTING WALL CLEANOUT COVER AND/OR HOSE BIBB AS REQUIRED TO FACILITATE THE NEW TILING. REFER TO THE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL INFO AND COORDINATE WITH THE GENERAL CONTRACTOR.

ALTERATIONS AND RENOVATIONS TO

WILLIAM DAVIES

MIDDLE SCHOOL

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HAMILTON TOWNSHIP BOARD

OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

02.15.2019

AS NOTED

PARTIAL FIRST FLOOR PLAN: PLUMBING NEW **WORK - TOILET &**

DAVIES M.S.

LOCKER ROOMS

No. Date Description

Drawing Number

02/15/2019 ISSUED FOR BID Gillan & Hartmann, Inc.

MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
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215-238-9510 609-347-1593 302-654-5959 www.gillan—hartmann.com : ghmail@gillan—hartmann.com G&H Project No. 2018-205

NO. 24GE04470000

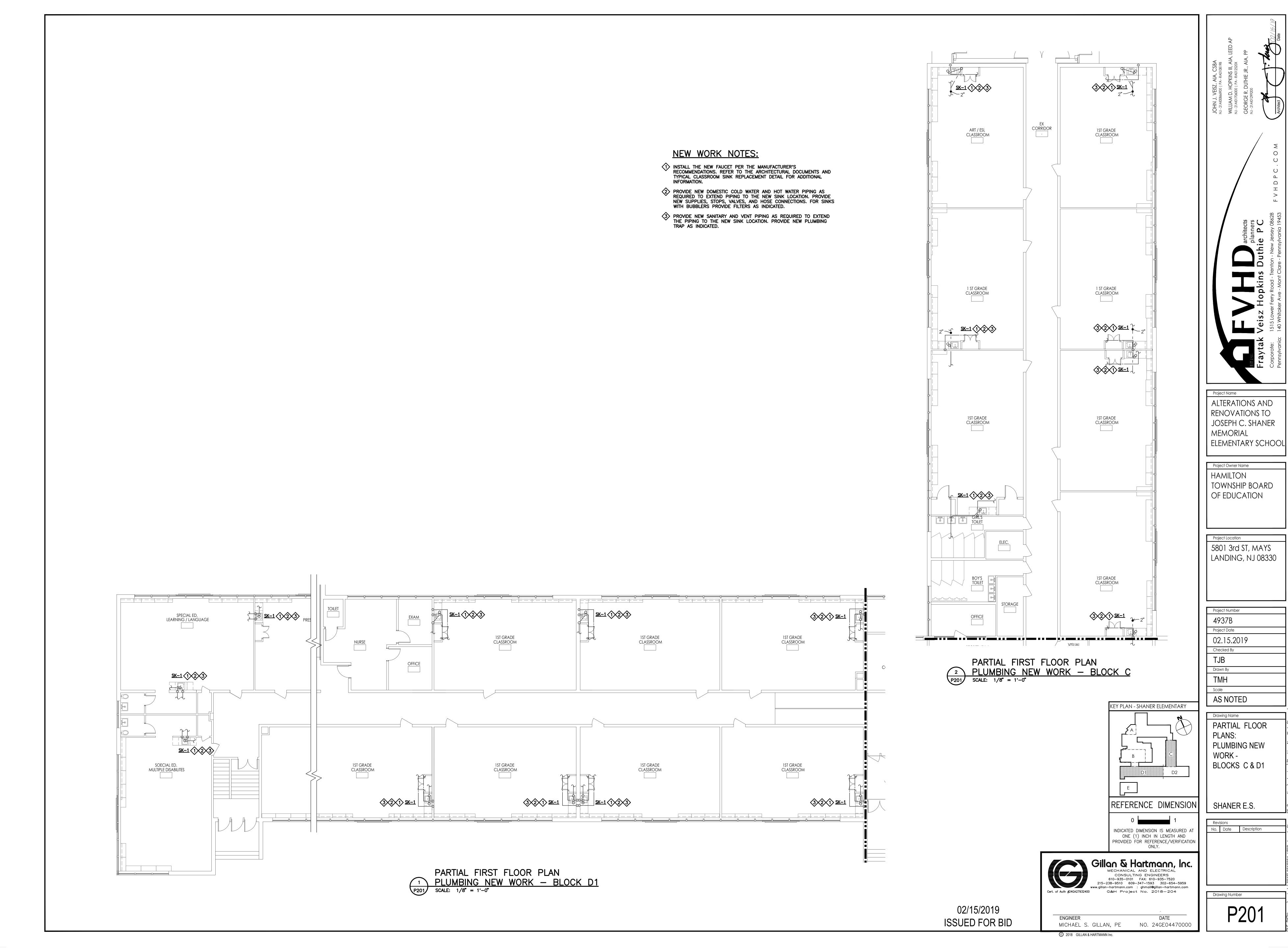
KEY PLAN - DAVIES MIDDLE SCHOOL

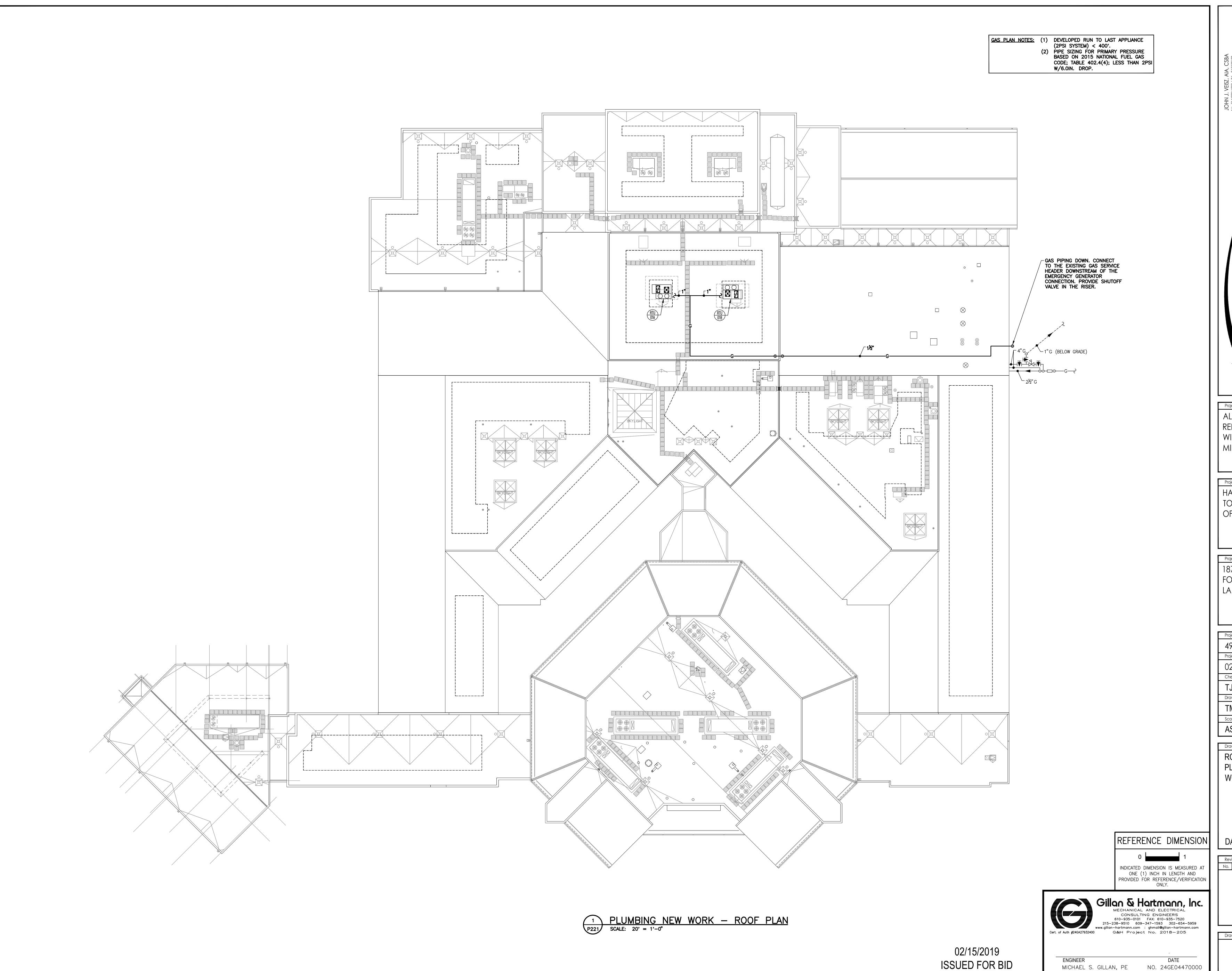
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MICHAEL S. GILLAN, PE





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ALTERATIONS AND RENOVATIONS TO WILLIAM DAVIES MIDDLE SCHOOL

Project Owner Name HAMILTON TOWNSHIP BOARD OF EDUCATION

1876 DENNIS FORMAN DR, MAYS LANDING, NJ 08330

Project Number Project Date 02.15.2019 TJB

AS NOTED

Drawing Name ROOF PLAN: PLUMBING NEW

DAVIES M.S.

No. Date Description

Drawing Number