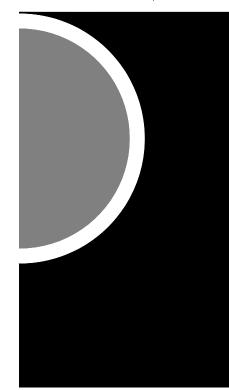
Hamtramck Public Schools

Kosciuszko Middle School Toilet Room Upgrades

2333 Burger, Hamtramck, MI 48212

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65 Market Street Mount Clemens, MI 48043 (Phone) 586-469-3600 (Fax) 586-469-3607

Mechanical / Electrical Engineer:

Strategic Energy Solutions

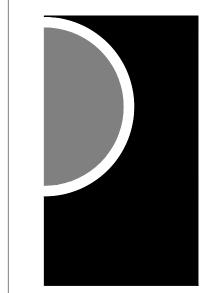
4000 West Eleven Mile Road Berkley, MI 48072 (Phone) 248-399-1900 (Fax) 248-399-1901 Owner:

Hamtramck Public Schools

3201 Roosevelt Hamtramck, MI 48212 (Phone) 313-872-9270 (Fax) 313-872-8679

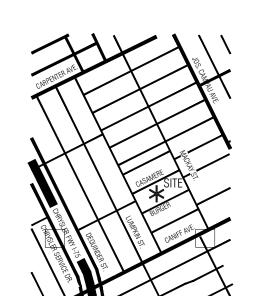
Sheet Number	Sheet Title
A0-00	Cover Sheet
Architectural	
A0-01	General Project Information
A0-02	Life Safety Plan & Code Analysis
A0-03	Composite Plan
A0-04	Schedules, Door, Frame & Wall Types
A1-01	Partial Demolition Plans
A3-01	Partial New Work Floor Plans
A4-01	Partial Reflected Ceiling Plans and Details
A9-01	Partial Finish Floor Plans
Structural	
S3-01	Partial Foundation / Framing Plans
Mechanical	
M000	Mechanical General Information
MD101	Partial First Floor Mechanical Demolition Pla
P100	Partial Underground Plumbing Plan
P101	First Floor Plumbing Plan
M101	Partial First Floor HVAC Plan
M600	Mechanical Details, Schedules and Tempera Controls
Electrical	T
E000	Electrical General Information
ED101	Partial First Floor Electrical Demolition Plan
E101	Partial First Floor Electrical Plan
	Electrical Details and Schedules

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PROJECT NAME

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PROJECT NO.

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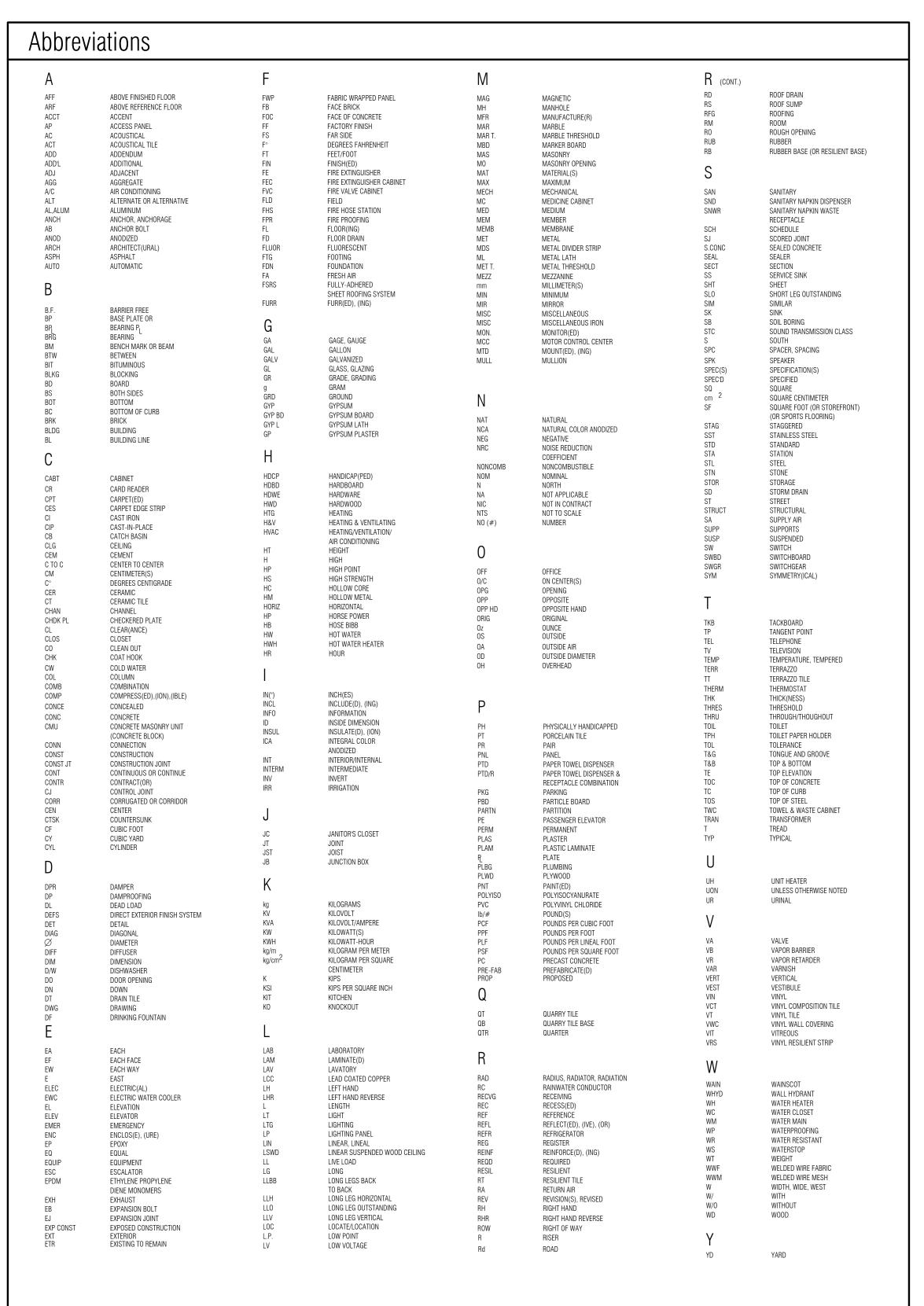
ACS

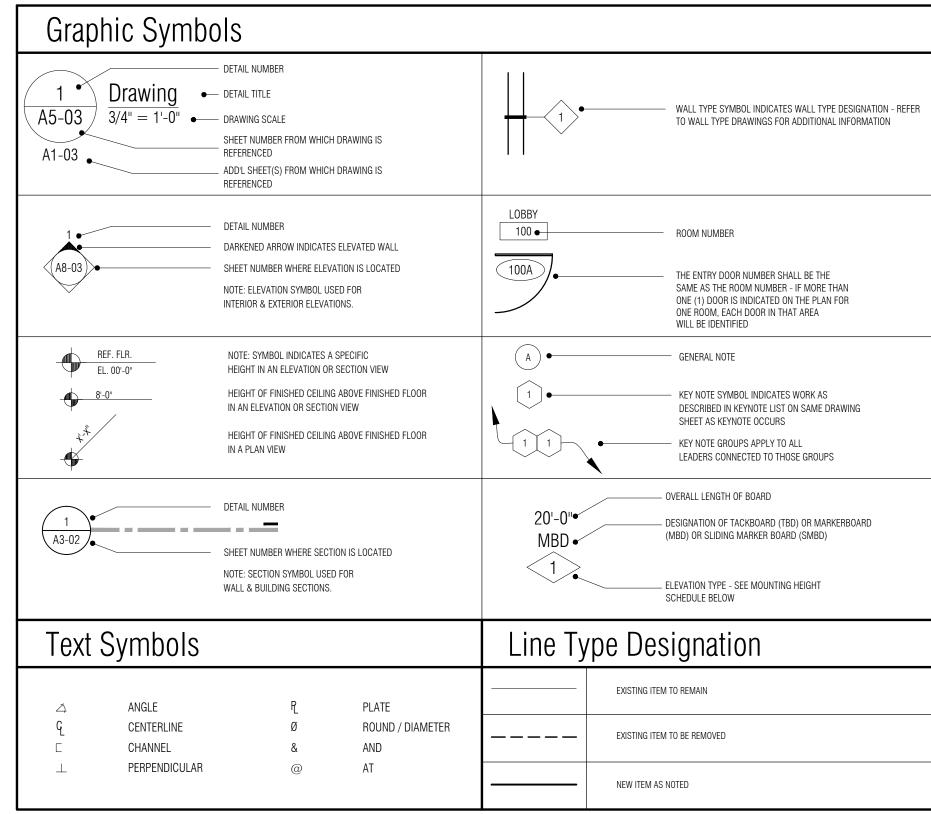
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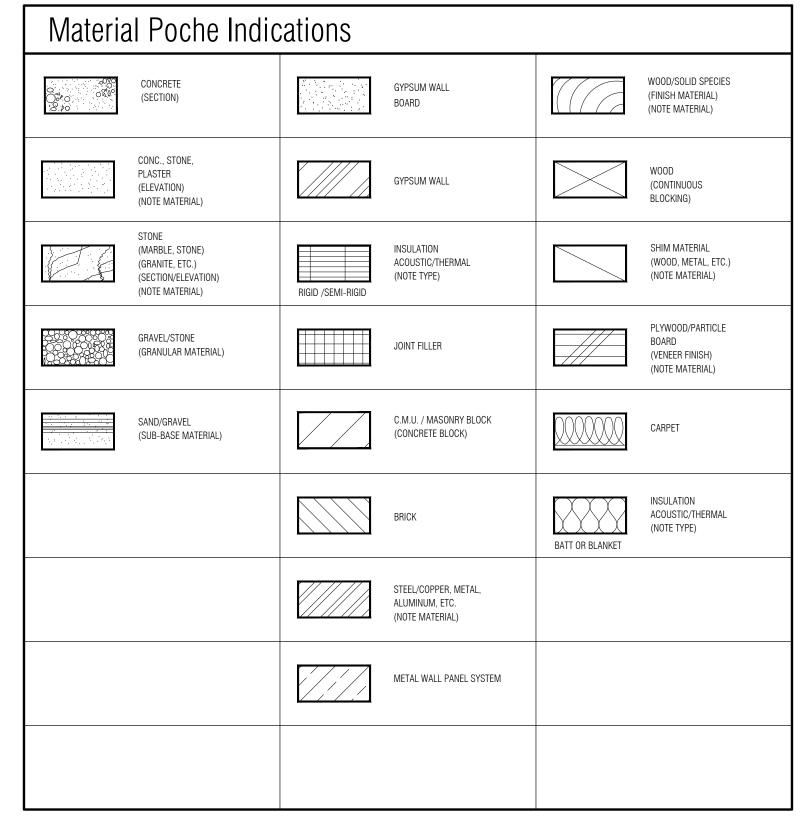
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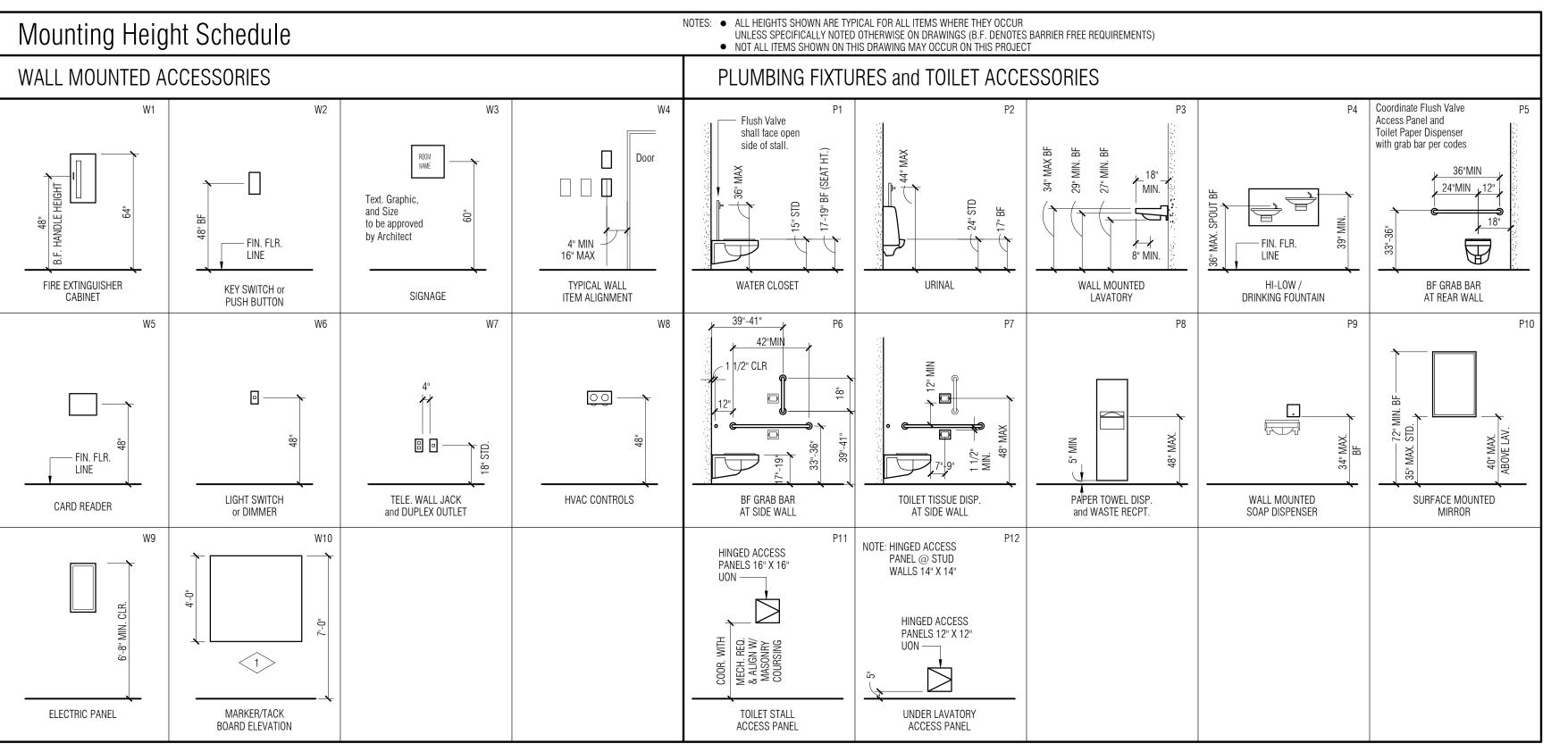
COVER SHEET

SHEET NO. **A**0-00

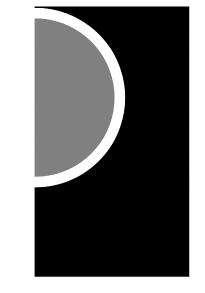








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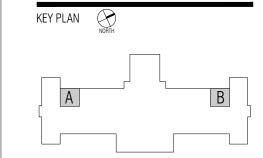
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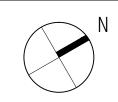
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SHEET NAME **GENERAL** PROJECT **INFORMATION**

SHEET NO. A0-01

CODE INFORMATION - NARRATIVE

EXISTING BUILDING:

THE ORIGINAL BUILDING WAS CONSTRUCTED IN 1928 AS AN EDUCATIONAL BUILDING. THE BUILDING HAS BEEN CONTINUALLY OCCUPIED AS AN EDUCATIONAL FACILITY FROM THAT TIME. THE CURRENT SCHOOL HAS BEEN CONSTRUCTED / RENOVATED AND APPROVED FOR OCCUPANCY UNDER PREVIOUS CODES. THE STRUCTURE IS MASONRY BEARING WITH CONCRETE FLOOR AND BEAMS.

PROPOSED PROJECT SCOPE:

THE PROPOSED PROJECT IS TO CONSTRUCT 2 TOILET ROOMS CONSISTING OF BOYS AND GIRLS ON THE EAST AND WEST ENDS OF THE SCHOOL

BUILDING CODE PLAN LEGEND

■ ■ ■ ■ ■ NEW, OR EXISTING TO BE UPGRADED, 1-HOUR "FIRE PARTITION" CONSTRUCTION PER 2012 MBC SECTION 708. THIS WALL CONSTRUCTION HAS 20 MINUTE DOOR AND FRAME PROTECTIVES FOR ALL CORRIDORS.

■■■ NEW, OR EXISTING TO BE UPGRADED, 2-HOUR "FIRE BARRIER" CONSTRUCTION PER 2012 MBC SECTION 707 AND 1997 NFPA 101 SECTION 6-2.3. THIS WALL CONSTRUCTION HAS 90 MINUTE DOOR AND FRAME PROTECTIVES. PROVIDE FIRE / SMOKE DAMPERS AS REQUIRED PER 2012 MBC SECTION 714.

OCCUPANT LOAD EXITING THROUGH EGRESS COMPONENT

 $\bullet \longrightarrow$ (#)

OCCUPANT CAPACITY OF EGRESS COMPONENT

ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS SHALL BE IDENTIFIED

MUST BE A MIN. 3" IN HEIGHT WITH A MIN. 3/8" STROKE IN CONTRASTING COLOR, AND

THE END OF EACH WALL AND AT INTERVALS NOT EXCEEDING 30'-0".

. THESE CODE ANALYSIS DRAWINGS (SHEET A0-02), NOTES, PLANS AND WALL

AS REQUIRED FOR LIFE SAFETY AND BUILDING CODE COMPLIANCE. ALL OTHER CONSTRUCTION REQUIREMENTS ARE INDICATED ON THE CONSTRUCTION DOCUMENTS.

ALL FIRE RATED WALLS OF ANY TYPE SHALL BE SEALED TIGHT TO ROOF DECK SYSTEM ABOVE WITH UL APPROVED MATERIAL BY EITHER JOHNS MANSVILLE FIRETEMP, HILTI FIRESTOP COMPOUND, OR 3M. ALL PRODUCTS / MATERIALS MUST BE UL APPROVED AND CLASSIFIED AND SUBMITTED FOR REVIEW AND APPROVAL BY ARCHITECT BEFORE

WITH SIGNS OF STENCILING (WHERE WALL AREAS ARE CONCEALED FROM VIEW). LETTERS

READ "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS". LOCATE WITHIN 15'-0" OF

IDENTIFICATION TYPES AND LOCATIONS ARE FOR FIRE RATINGS AND / OR SMOKE BARRIERS

KITCHEN

EMERGENCY WINDOW

XXX ###

ROOM NAME AND NUMBER

EXISTING BUILDING TO REMAIN

OCCUPANT LOAD OF ROOM OR AREA

RENOVATED AREA

GENERAL LIFE SAFETY NOTES

APPLICATION/INSTALLATION.

CODE INFORMATION - BUREAU OF FIRE SERVICES

GOVERNING CODE:

1999 SCHOOL SAFETY RULES NFPA 101 LIFE SAFETY CODE, 1997 EDITION W/ AMENDMENTS (LSC)

CHAPTER 3 USE and OCCUPANCY CLASSIFICATION:

NFPA 101 SECTION 4-1.3: EDUCATIONAL OCCUPANCY WITH ASSEMBLY AREA

LSC BUILDING DATA SUMMARY:

1997 LIFE SAFETY CODE: CONSTRUCTION TYPE: II (000) USE GROUP: E - EDUCATIONAL W/ AN ASSEMBLY SPACE

CHAPTER 5 - MEANS OF EGRESS:

EGRESS CAPACITY LEVEL COMPONENTS AND RAMPS

0.2" / PERSON

CHAPTER 6 FEATURES of FIRE PROTECTION:

ALLOWABLE: PER MICHIGAN SCHOOL RULES, 10-1.6 CODE ANALYSIS AREA DATA - GROSS AREA - 'E' USE: (EXISTG. AREA) LOWER LEVEL = 26,562 SQ FTAREA TO BE RENOVATED = 1,990 SQ FT

PER LSC SECTION 9-1.7 & 10-1.7 AND MICHIGAN SCHOOL RULES 10-1.7.1

ALLOWANCES PER OCCUPANT: - 26-1.7- BUSINESS: 1 PERSON/100 SQ FT - 10-1.7.1- CLASSROOMS: 1 PERSON/20 NET SQ FT

CODE INFORMATION - BUREAU OF CONSTR. CODES

GOVERNING CODES:

2012 MICHIGAN BUILDING CODE w/ AMENDMENTS (MBC) 2011 NATIONAL ELECTRICAL CODE w/ AMENDMENTS (NEC)

2012 MICHIGAN MECHANICAL CODE w/ AMENDMENTS (MMC) 2012 MICHIGAN PLUMBING CODE w/ AMENDMENTS (MPC) 2009 ICC / ANSI A 117.1

CLASSIFICATION OF OCCUPANCY (PER MBC SECTION 305)

- USE GROUP E - EDUCATIONAL

CONSTRUCTION TYPE (PER MBC CHAPTER 6)

- EXISTING BUILDING : TYPE IB, NOT FIRE SUPPRESSED - EXISTING BUILDING: 3 STORIES, LOWER LEVEL IS 34" BELOW GRADE

OCCUPANT LOADS WERE CALCULATED BASED ON THE FOLLOWING ALLOWANCES.

PER MBC TABLE 1004.1.1

THE MOST RESTRICTIVE APPLIES.

STORAGE / MECH: 1/300 SF (GROSS) 1/20 SF (GROSS) CLASSROOM KITCHEN / SERVING 1/200 SF (GROSS) DINING ASSEMBLY UNCONCENTRATED 1/15 SF (GROSS) GYMNASIUM W/O BLEACHERS 1/50 SF (GROSS)

MEANS OF EGRESS CAPACITY (PER MBC 1005.3.2)

MEANS OF EGRESS CAPACITY FACTOR 0.2" PER OCCUPANT

MICHIGAN PLUMBING CODE:

TABLE 403.1

TOTAL BUILDING OCCUPANT LOAD:

PLUMBING FIXTURE CALCULATIONS:

PER MICHIGAN PLUMBING CODE SECTION 403: TABLE 403.1

NOTE: THERE IS NO PERFORMANCE AREA OR PLATFORM IN THE ASSEMBLY SPACE. NO SIMULTANEOUS OCCUPANCY OF THE GYMNASIUM OR CAFETERIA AREA AS AN ASSEMBLY SPACE IS PLANNED DURING EDUCATIONAL OCCUPANCY. PLUMBING FIXTURE COUNTS HAVE CALCULATED FOR THE GREATEST OCCUPANCY LOAD ANTICIPATED AND ARE INDICATED IN THE TOTAL QUANTIFICATION IN THE TABLE BELOW FOR THE EDUCATIONAL USE. THEREFORE OCCUPANCY LOAD OF 820 IS USED

DIVIDED BY 50% FOR MEN AND WOMEN EQUALS

USE GROUP "E":

410 OCCUPANT LOAD FOR MEN 410 OCCUPANT LOAD FOR WOMEN

MEN REQUIRED FIXTURES: WATER CLOSETS = (E) 1 / 50 OCC

URINALS = 67% MAXIMUM OF REQUIRED CAN BE SUBSTITUTED

LAVATORIES = (E) 1 / 50 OCC**WOMEN REQUIRED FIXTURES:**

9 (3/6) | 14 (8/6) | 9

OCCUPANCY /

EDUCATIONAL (E):

MALE (WC/UR)

FEMALE

TOTAL

WATER CLOSETS = (E) 1 / 50 OCC

LAVATORIES = (E) 1/50 OCC OTHER REQUIRED FIXTURES:

SERVICE SINK = 1 REQUIRED

DRINKING FOUNTAIN = (E) 1 / 100 OCC

DESCRIPTION OCCUPANT LOAD WATER CLOSETS | LAVATORIES | DRINK'G FOUNTAIN | SERVICE SINKS

REQ'D PROV'D REQ'D PROV'D REQ'D PROV'D REQ'D PROV'D

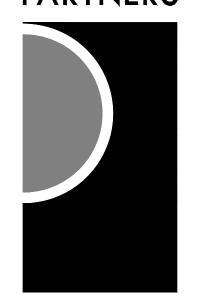
GYMNASIUM 58 46 (46) LOCKER ROOM LOCKER ROOM STORAGE 34 EXIST. (1)-HOUR 58 WATER CORRIDOR 106 170 170 METER NOTE: EGRESS DOOR 1/2 LEVEL UP - DIRECT NOTE: EGRESS DOOR NOTE: MECH ROOM 1/2 LEVEL DOWN 1/2 LEVEL UP - DIRECT STAIR ACCESS STAIR ACCESS SERVING MIDDLE SCHOOL CAFETERIA MECH / STORAGE ELEMENTARY CAFETERIA CLASSROOM 4 13 108 46 WEAR WASHING 2 - LINE OF WALL AND EGRESS DOORS 1/2 LEVEL UP -

DIRECT STAIR ACCESS

Ground Level Code Plan

1/16" = 1'-0"

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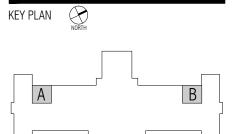
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Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

2333 Burger Hamtramck, MI 48212

PROJECT NO.

16-118

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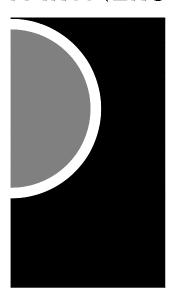
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SHEET NAME CODE ANALYSIS

SHEET NO. A0-02

A1-01 A3-01 A4-01 Demo New Work R.C.P.

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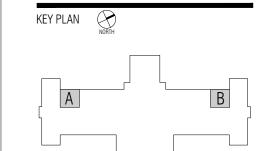
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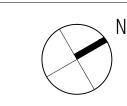
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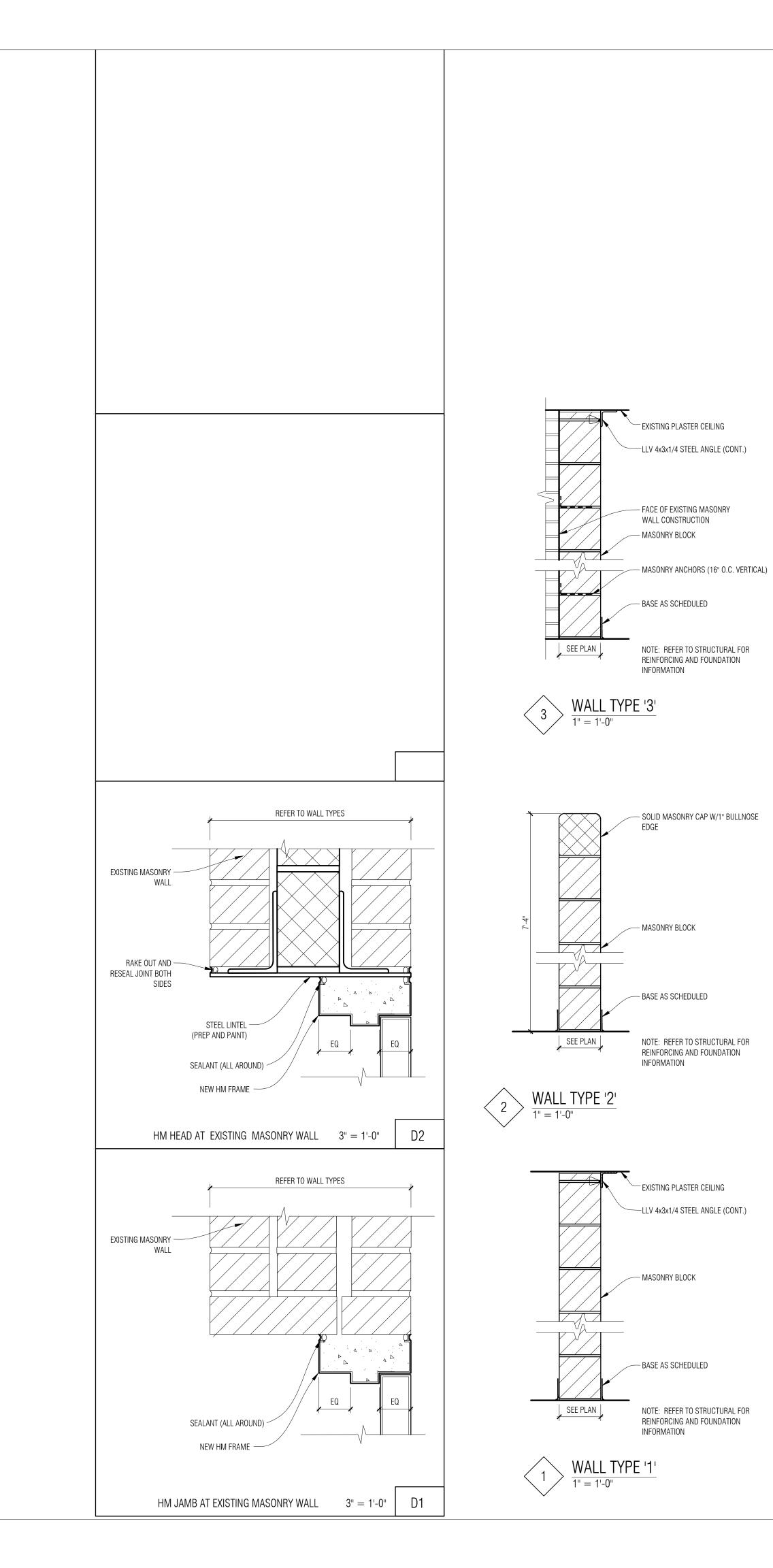


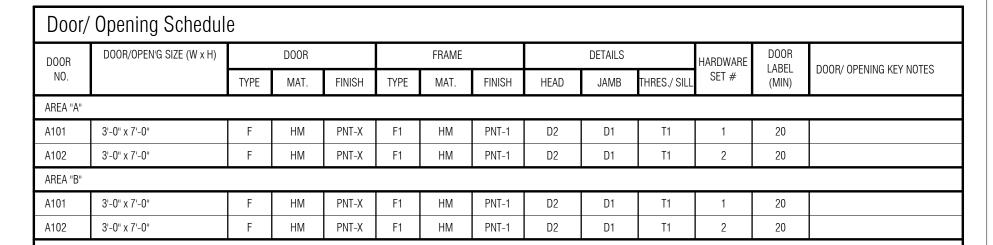
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SHEET NAME

COMPOSITE PLAN

SHEET NO.
A0-03





Door/ Openings General Notes:

- A. FIELD VERIFY ALL OPENINGS PRIOR TO DOOR/FRAME FABRICATION
- REFER TO DRAWING A0-04 FOR TYPICAL HEAD/JAMB/SILL DETAIL-REFER TO BALANCE OF DRAWINGS FOR ADDITIONAL DETAILS.
 ALL FRAMES IN 5" WALLS TO BE 5 3/4" DEPTH UNLESS OTHERWISE NOTED.

Door/ Opening Key Notes:

- SET FRAME AND ANCHORS TO ENGAGE WALL MASONRY AND NOT HIT VOID BETWEEN WALL CONSTRUCTION.
- 2. FRAME SET IN EXISTING MASONRY. PROVIDE RENOVATION ANCHORS. FILL FASTENER HEADS FOR SMOOTH FINISH.

Room Finish Schedule

ROOM	DOOM NAME	El OOD	DACE	WALLS			CEILING	DOOM FINIOUS VEV MOTEO	
NO.	ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	FIN.	ROOM FINISH KEY NOTES
AREA "A"									
A100	BOYS RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	
A101	STAFF RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ACT-1	
A102	JANITOR	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	1
A103	GIRLS RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	
A104	CORRIDOR	ETR	ETR	ETR	ETR	PNT-12,13	ETR	ETR	
AREA "B"									
B100	BOYS RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	
B101	STAFF RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ACT-1	
B102	JANITOR	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	1
B103	GIRLS RESTROOM	EPOXY	EPOXY	PNT-X	PNT-X	PNT-X	PNT-X	ETR	
B104	CORRIDOR	ETR	ETR	ETR	ETR	PNT-X	ETR	ETR	

Room Finish General Notes:

A. REFER TO REFLECTED CEILING PLANS AND FINISH FLOOR PLANS FOR LOCATIONS OF MATERIAL/ PAINT TRANSITION.

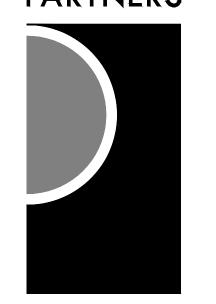
B. REFER TO MATERIAL FINISH/ COLOR SCHEDULE, SPECIFICATION SECTION 000200.

Room Finish Key Notes:

1. EXISTING PLASTER CEILING TO BE PAINTED (PNT-X)

Door Types	Frame Types
AS SCHED AS SCHED	AS SCHED 2" - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
F. FLOOR F	F. FLOOR F1

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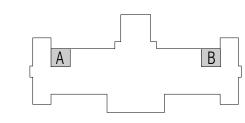
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KEY PLAN



WNFR

Hamtramck Public Schools

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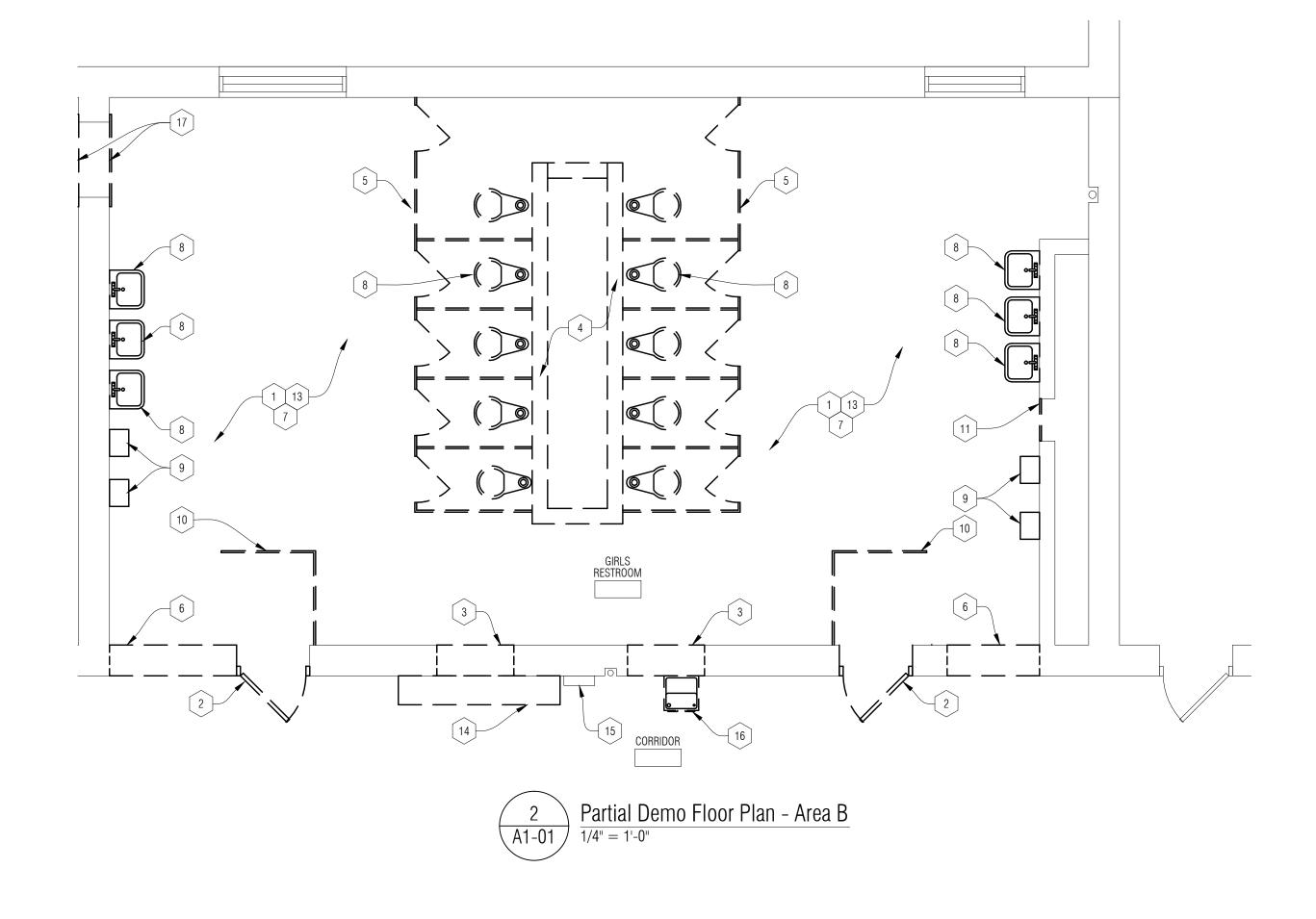
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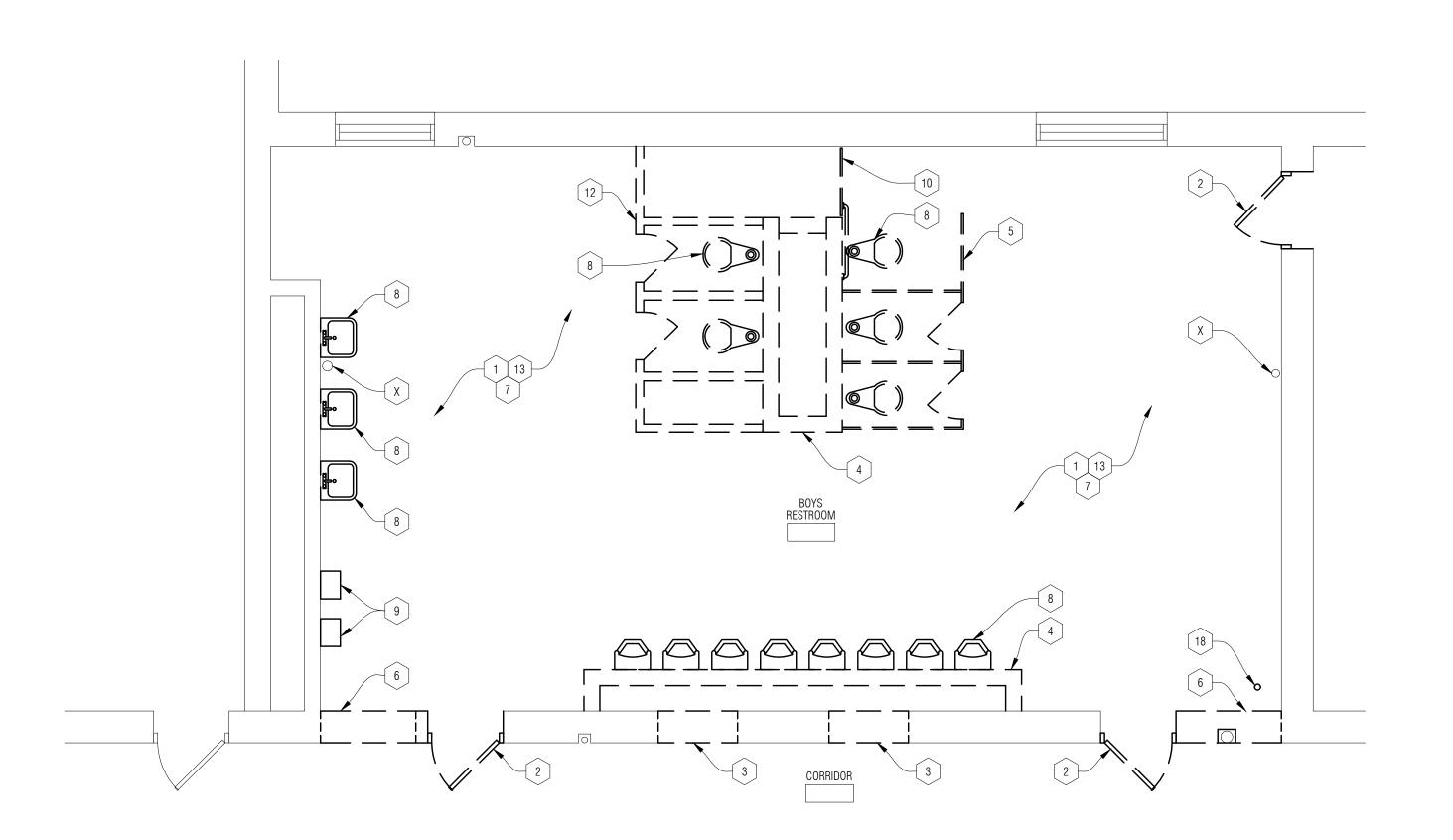
SHEET NAME SCHEDULES, DOOR, FRAME & WALL TYPES

SHEET NO.
A0-04

Wall Types – General Notes:

A. REFER TO WALL SECTIONS AND INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.





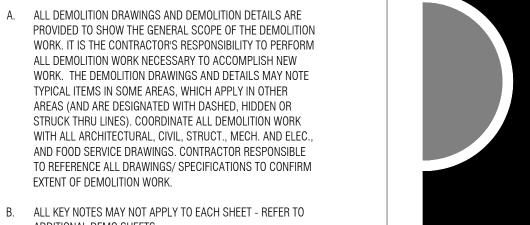


DEMO FLOOR PLAN - KEY NOTES:

- REMOVE EXISTING WOOD DOOR, FRAME AND ALL ASSOCIATED COMPONENTS
- EXISTING MASONRY AS REQUIRED.
- DISPENSER, MIRROR, SOAP DISPENSER, TOILET PAPER HOLDER, ETC.
- 8 REMOVE EXISTING PLUMBING FIXTURE REFER TO MECH.
- REMOVE EXISTING TOILET PARTITION SCREEN WALL AND ALL ASSOCIATED COMPONENTS
- 11 REMOVE EXISTING THRU WALL METAL RETURN AIR GRILLE
- 12 REMOVE EXISTING 2x4 TOILET PARTITION STALLS 6'-0"± HIGH
- 14 REMOVE EXISTING SINGLE TIER LOCKERS AND RETURN TO OWNER
- EXISTING ELECTRICAL PANEL TO REMAIN PROTECT DURING CONSTRUCTION PHASE
- 16 REMOVE EXISTING DRINKING FOUNTAIN REFER TO MECH.
- EXISTING DOOR OPENING

- 1 REMOVE EXISTING CERAMIC TILE FLOORING AND QUARRY BASE
- 3 EXISTING MASONRY WALL TO BE REMOVED AND MODIFIED FOR NEW DOOR AND FRAME INSTALLATION - CUT MASONRY OPENING AT JOINTS TO TOOTH IN
- NEW MASONRY AND DOOR FRAME COORDINATE WITH NEW WORK. SHORE
- $\left[\begin{array}{c}4\end{array}\right]$ REMOVE EXISTING 6'-0" \pm HIGH MASONRY CHASE WALL
- REMOVE EXISTING TOILET PARTITIONS AND ALL ASSOCIATED COMPONENTS
- 6 EXISTING MASONRY WALL TO BE REMOVED AND MODIFIED FOR NEW OPENING - COORDINATE WITH NEW WORK. SHORE EXISTING MASONRY
- 7 REMOVE ALL TOILET ACCESSORIES INCLUDING PAPER TOWEL
- 9 REMOVE EXISTING HAND DRYER REFER TO ELEC.
- [13] REMOVE SAWCUT AND REMOVE EXISTING CONCRETE FLOOR SLAB IN IT'S ENTIRETY - REFER TO FINISH FLOOR PLAN FOR LIMIT OF WORK
- 17 REMOVE EXISTING PLYWOOD SHEATHING ON BOTH SIDES OF
- 18 REMOVE EXISTING THRU FLOOR DRAIN PIPE REFER TO MECH.

DEMO FLOOR PLAN - GENERAL NOTES:



B. ALL KEY NOTES MAY NOT APPLY TO EACH SHEET - REFER TO ADDITIONAL DEMO SHEETS.

EXTENT OF DEMOLITION WORK.

C. ALL REMOVED ITEMS, WALLS, FLOORS, CEILING, OPENINGS, ETC ARE TO BE PATCHED/REPAIRED AND PREPPED TO RECEIVE NEW WORK AND/OR FINISHES.

D. ALL CONSTRUCTION AND DEMOLITION MEANS, METHODS AND SAFETY PRECAUTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

E. WALL REMOVAL THAT TERMINATES INTO A WALL OR CEILING TO REMAIN SHALL BE COMPLETELY REMOVED FREE OF

REMOVE ALL ITEMS PROJECTING FROM EXISTING WALLS OR FLOORS TO REMAIN (BLOCKING, SCREWS, FASTENERS, PIPES, CONDUITS, MOUNTING PLATES, FIXED EQUIPMENT, ETC).

PROJECTIONS, READY TO RECEIVE NEW WORK.

G. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING AND UNDERSTANDING EXISTING CONDITIONS PRIOR TO BIDDING.

PATCH AND REPAIR FOR NEW FINISH. U.N.O.

CONTRACTOR SHALL PROTECT EXISTING BUILDING ELEMENTS AND SITE FROM DAMAGE CAUSED BY CONSTRUCTION OR CONSTRUCTION TRADES. CONTRACTOR SHALL REPAIR ALL DAMAGED AREAS (IDENTIFIED BY OWNER, ARCHITECT, OR CONSTRUCTION MANAGER) AT NO ADDITIONAL COST.

MAINTAIN EXISTING FIRE RATING WHERE OCCURS AND WHERE POSSIBLE DURING DEMOLITION. REFER TO CODE AND LIFE SAFETY SHEETS FOR MORE INFORMATION.

J. ASBESTOS AND OTHER HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER'S ABATEMENT CONTRACTOR PRIOR TO START OF CONSTRUCTION. IF ANY SUSPECTED HAZARDOUS MATERIAL IS ENCOUNTERED, STOP WORK IN THAT AREA AND IMMEDIATELY INFORM THE ARCHITECT.

K. DISPOSE OF ALL DEMOLITION MATERIALS LEGALLY OFF-SITE, U.O.N.

REMOVE ALL PICTURES, FRAMES &PLAQUES THAT MAY BE DAMAGED DURING CONSTRUCTION AND RETURN TO OWNER.

M. CONTRACTOR IS TO DEMO AND PREPARE EXISTING WALL CONSTRUCTION AS REQUIRED FOR INSTALLATION OF NEW MECHANICAL AND ELECTRICAL WORK WITHIN EXISTING WALL.

N. PREP ALL MASONRY OPENINGS TO RECEIVE NEW TOOTHED-IN MASONRY FOR LIKE NEW APPEARANCE WHERE DEMOLITION OCCURS AND WALL IS VISIBLE.

O. CONTRACTOR TO COORDINATE EXIST. CONC. SLAB REMOVAL THAT IS REQUIRED FOR INSTALLATION OF NEW UNDERGROUND PLUMBING WITH DEMOLITION CONTRACTOR.

P. REMOVE ALL EXISTING EXPOSED CONDUIT NOT IN USE PRIOR TO OR AFTER NEW WORK.

Q. ALL DEVICES SUCH AS SECURITY CAMERAS, CLOCKS, DVD, VCR, WIFI WIRELESS ROUTERS, ETC. AND THEIR ASSOC. COMPONENTS ARE TO BE CAREFULLY REMOVED AND TURNED OVER TO OWNER.

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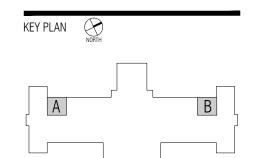
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PROJECT NAME

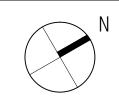
Kosciuszko Middle School Toilet Room Upgrades

2333 Burger Hamtramck, MI 48212

PROJECT NO. 16-118

ISSUES / REVISIONS

Bidding - Construction 04/22/2016



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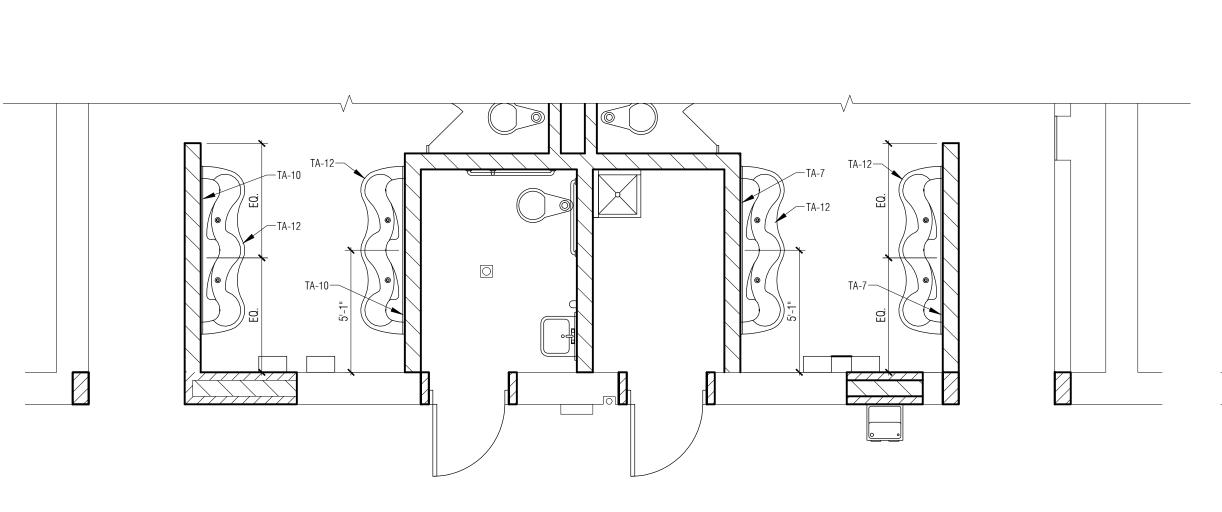
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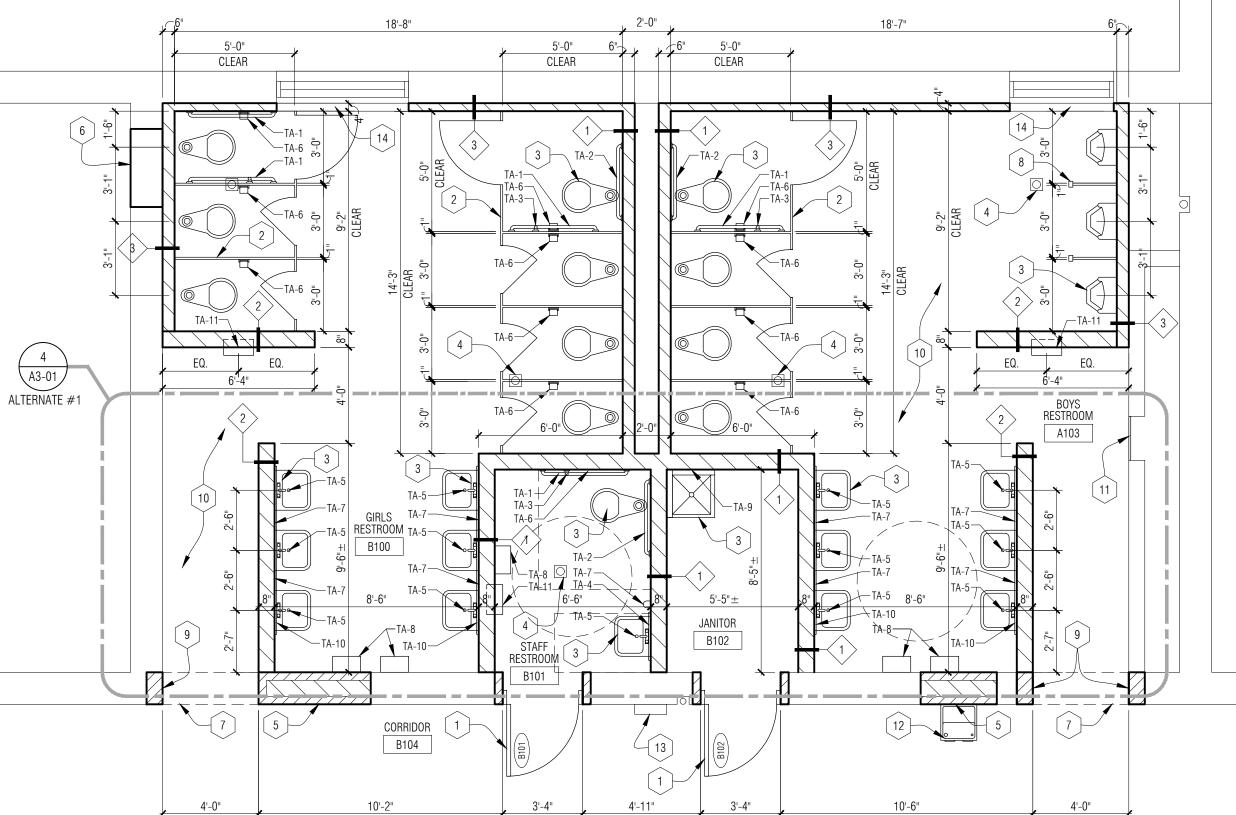
SHEET NAME

PARTIAL DEMO FLOOR PLANS

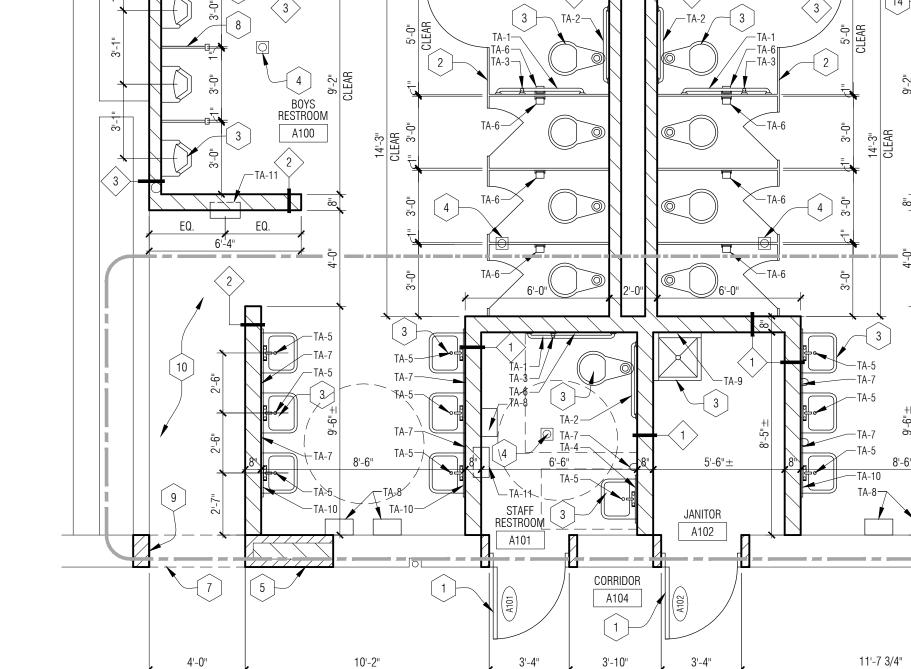
A1-01



 $\binom{4}{A3-01}$ Partial New Work Floor Plan - Area B (Alternate #1)



Partial New Work Floor Plan - Area B



 $\frac{1}{A3-01} \frac{\text{Partial New Work Floor Plan - Area A}}{1/4" = 1'-0"}$

FLOOR PLAN - GENERAL NOTES:

- A. ALL PLAN DIMENSIONS ARE NOMINAL TO FACE OF WALL. WALL THICKNESSES ARE SHOWN NOMINAL - SEE WALL TYPES FOR ACTUAL THICKNESS.
- B. COORDINATE SIZE AND LOCATION OF ALL DUCT, SHAFT AND LOUVER OPENINGS IN WALLS AND FLOORS WITH MECHANICAL AND ELECTRICAL. PROVIDE ALL REQUIRED LINTELS FOR OPENINGS.
- C. ALL EXPOSED CORNERS OF MASONRY BLOCK ARE TO BE BULLNOSED.
- D. DO NOT SCALE DRAWINGS. USE DIMENSIONS PROVIDED. IF A CONFLICT IS ENCOUNTERED OR A REQUIRED DIMENSION IS NOT PROVIDED, REQUEST A CLARIFICATION FROM THE ARCHITECT.
- E. EXISTING MASONRY WALL INTERSECTIONS WHICH ARE LEFT EXPOSED AFTER DEMOLITION OF ADJACENT MASONRY CONSTRUCTION MUST BE PATCHED AND REPAIRED WITH NEW MASONRY OR EXISTING BRICK VENEER, TOOTH-IN TO MATCH EXISTING COURSING AND BOND PATTERN, TYPICAL AT ALL LOCATIONS.
- F. FIRE RATED PARTITIONS ARE INDICATED ON CODE PLANS.
- G. REFER TO MECHANICAL / ELECTRICAL DRAWINGS FOR INSTALLATION OF NEW EQUIPMENT, WIRING, ETC. AT EXISTING WALLS. ALL ITEMS ARE TO BE INSTALLED WITHIN EXISTING WALLS - REMOVE AND REINSTALL MASONRY (TOOTH-IN) AT ALL LOCATIONS.
- H. REFER TO MECHANICAL / ELECTRICAL DRAWINGS FOR REMOVAL OF EXISTING EQUIPMENT WITHIN EXISTING CONSTRUCTION -TOOTH-IN NEW MASONRY BLOCK AND AND PREP FOR NEW FINISH.
- I. FIELD VERIFY ALL EXISTING OPENINGS TO RECEIVE NEW WORK PRIOR TO FABRICATION OF ANY FRAME TYPES - NOTIFY ARCHITECT OF ANY DISCREPANCIES.

FLOOR PLAN - KEY NOTES:

- 1 NEW H.M. DOOR AND H.M. FRAME IN NEW OPENING REFER TO DOOR SCHEDULE - COORDINATE WITH FIELD CONDITIONS
- 2 TOILET PARTITION SYSTEM
- 3 PLUMBING FIXTURE COORDINATE WITH MECHANICAL
- 4 FLOOR DRAIN COORDINATE WITH MECHANICAL
- 5 TOOTH-IN NEW BRICK AND BLOCK MASONRY AT AREA OF REMOVED WALL TO MATCH EXISTING - COORDINATE WITH EXISTING FIELD CONDITIONS - MATCH BRICK COURSING
- 6 TOOTH-IN NEW BRICK AND BLOCK MASONRY AT AREA OF REMOVED DOOR AND FRAME TO MATCH EXISTING - COORDINATE WITH EXISTING FIELD CONDITIONS - MATCH BRICK COURSING
- 7 NEW OPENING IN EXISTING MASONRY WALL
- [8] URINAL SCREEN SYSTEM
- 9 TOOTH-IN NEW BRICK AT AREA OF NEW MASONRY OPENING TO MATCH EXISTING - COORDINATE WITH EXISTING FIELD CONDITIONS - MATCH EXISTING BRICK COURSING
- 10 NEW EPOXY FLOOR FINISH
- NEW WALL RETURN AIR GRILLE (LOW ON WALL) PAINT TO MATCH WALL COLOR
- 12 NEW DRINKING FOUNTAIN COORDINATE WITH MECHANICAL
- 13 EXISTING ELECTRICAL PANEL PROTECT DURING CONSTRUCTION PHASE
- [14] SOLID MASONRY BLOCK WINDOW SILL W/ 1" BULLNOSE EDGE

PROJECT NO.

LEGEND - TOILET ACCESSORIES

TA-1 42" GRAB BAR (HORIZONTAL)

TA-2 36" GRAB BAR (HORIZONTAL)

TA-3 18" GRAB BAR (VERTICAL) TA-4 24"W X 36"H MIRROR

A3-01

ALTERNATE #1

4'-0"

TA-5 UNDER-LAVATORY GUARD

TA-6 TOILET TISSUE DISPENSER

TA-7 SOAP DISPENSER TA-8 ELECTRIC HAND DRYER

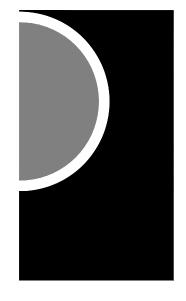
TA-9 MOP AND BROOM HOLDER - 3 HOLDERS

TA-10 36"H x 84"W MIRROR

TA-11 SEMI-RECESSED WASTE RECEPTACLE

TA-12 LAVATORY SYSTEM - SEE MECHANICAL (ALTERNATE #1)

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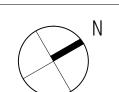
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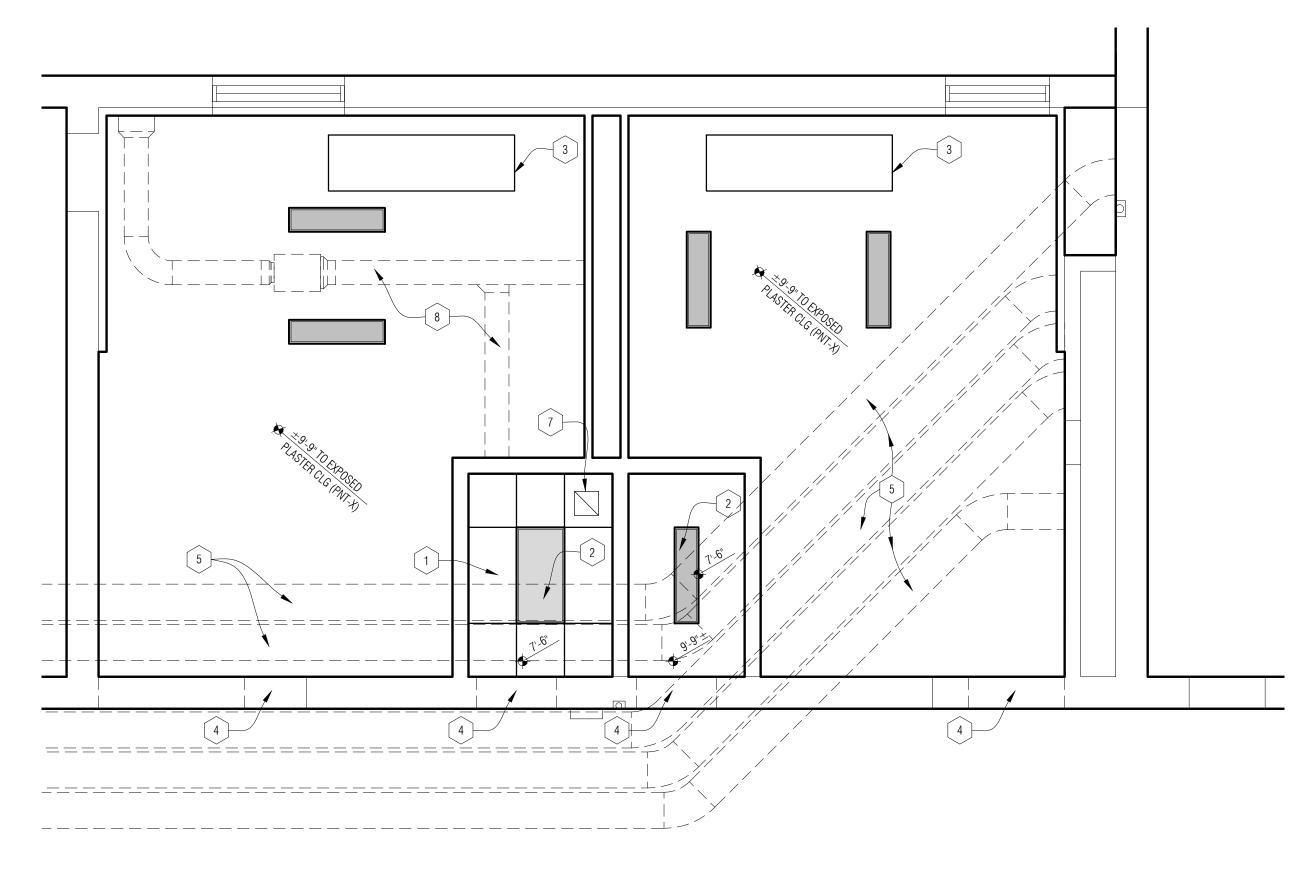
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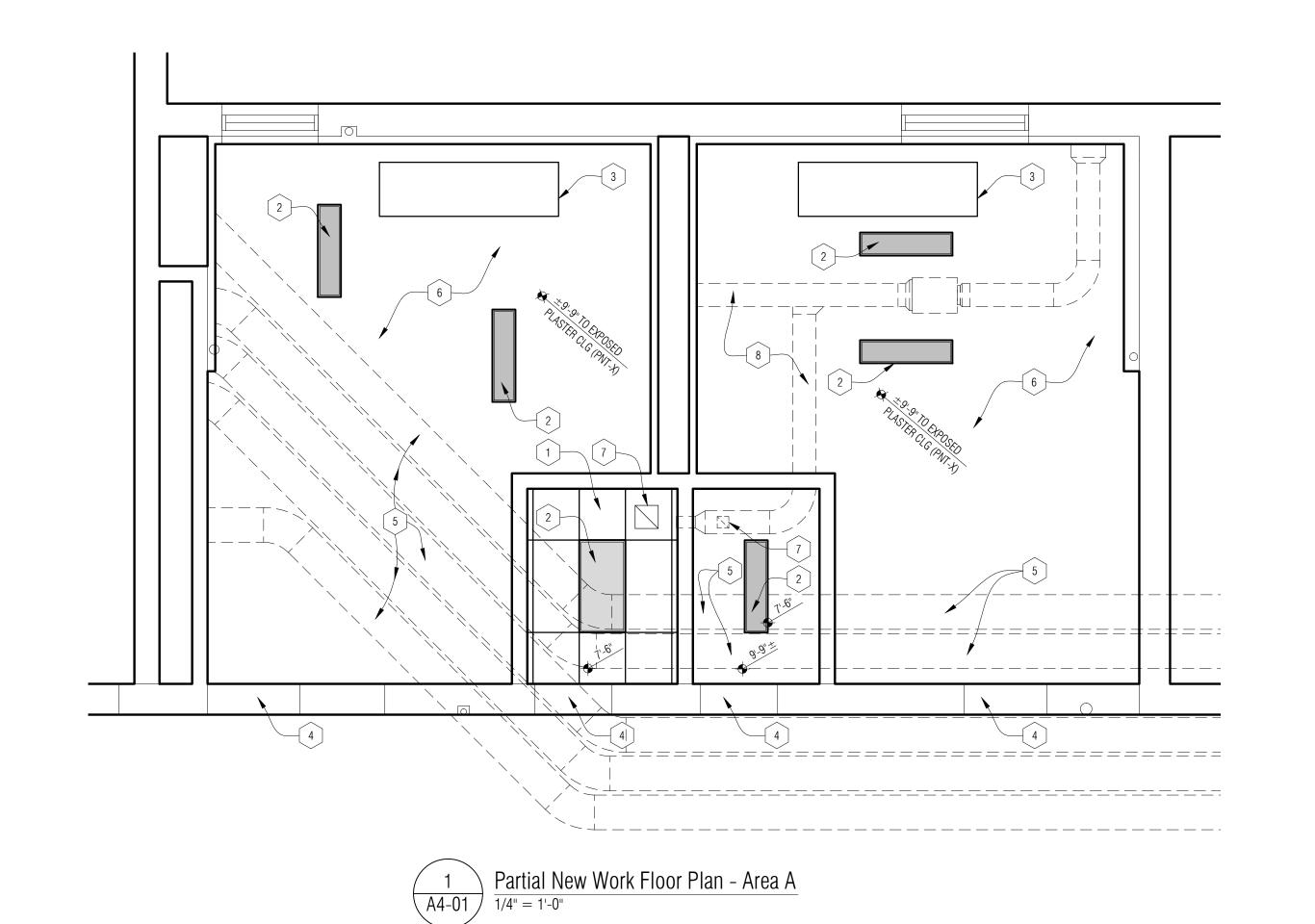
PARTIAL NEW WORK FLOOR PLANS

SHEET NO.
A3-01

 $\frac{3}{A3-01}$ Partial New Work Floor Plan - Area A (Alternate #1)





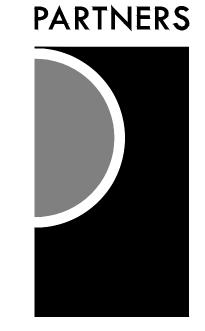


- A. REFER TO FLOOR PLANS FOR ROOM NAMES, NUMBERS AND ROOM DIMENSIONS.
- B. REFER TO ELECTRICAL FOR LIGHT FIXTURE TYPES AND SPECIFICATIONS.
- C. REFER TO MECHANICAL FOR DIFFUSERS, REGISTERS, AND RETURNS.
- D. ALL LIGHT FIXTURES ARE TO BE CENTERED WITHIN CEILING TILE AND GYP SOFFIT U.O.N.
- E. CEILING GRID IS TO BE CENTERED IN ROOM U.O.N.
- F. COORDINATE EXACT LOCATION OF LIGHT FIXTURES BETWEEN

REFLECTED CEILING PLAN - KEY NOTES:

- 1 ACOUSTICAL CEILING TILE AND GRID (ACT-1).
- 2 LIGHT FIXTURE COORDINATE WITH ELECTRICAL
- (3) EXISTING CEILING MOUNTED RADIATOR TO REMAIN PREP AND CLEAN MTL TO RECEIVE NEW PAINT COLOR - PAINT COMPLETE INCLUDING ALL HANGERS, BRACKETS, ETC. (PNT-X).
- 4 EXPOSED STEEL LINTEL PAINT TO MATCH ADJACENT MASONRY.
- 5 EXISTING DUCTWORK TO REMAIN PREP AND CLEAN MTL TO RECEIVE NEW PAINT COLOR - PAINT COMPLETE INCLUDING ALL HANGERS, BRACKETS, ETC. (PNT-X).
- 6 EXISTING PLASTER TO REMAIN PREP AND CLEAN CEILING TO RECEIVE NEW PAINT COLOR - PAINT COMPLETE INCLUDING ALL HANGERS, BRACKETS, ETC. (PNT-X). PATCH AND REPAIR CEILING AS NEEDED FROM DEMOLITION AND NEW WORK - COORDINATE WITH MECHANICAL AND ELECTRICAL FOR LOCATION AND LIMIT OF
- 7 EXHAUST FAN REFER TO MECHANICAL
- [8] NEW DUCTWORK (PNT-X) REFER TO MECHANICAL





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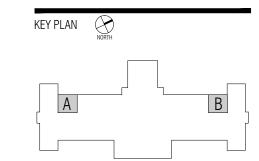
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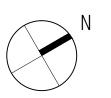
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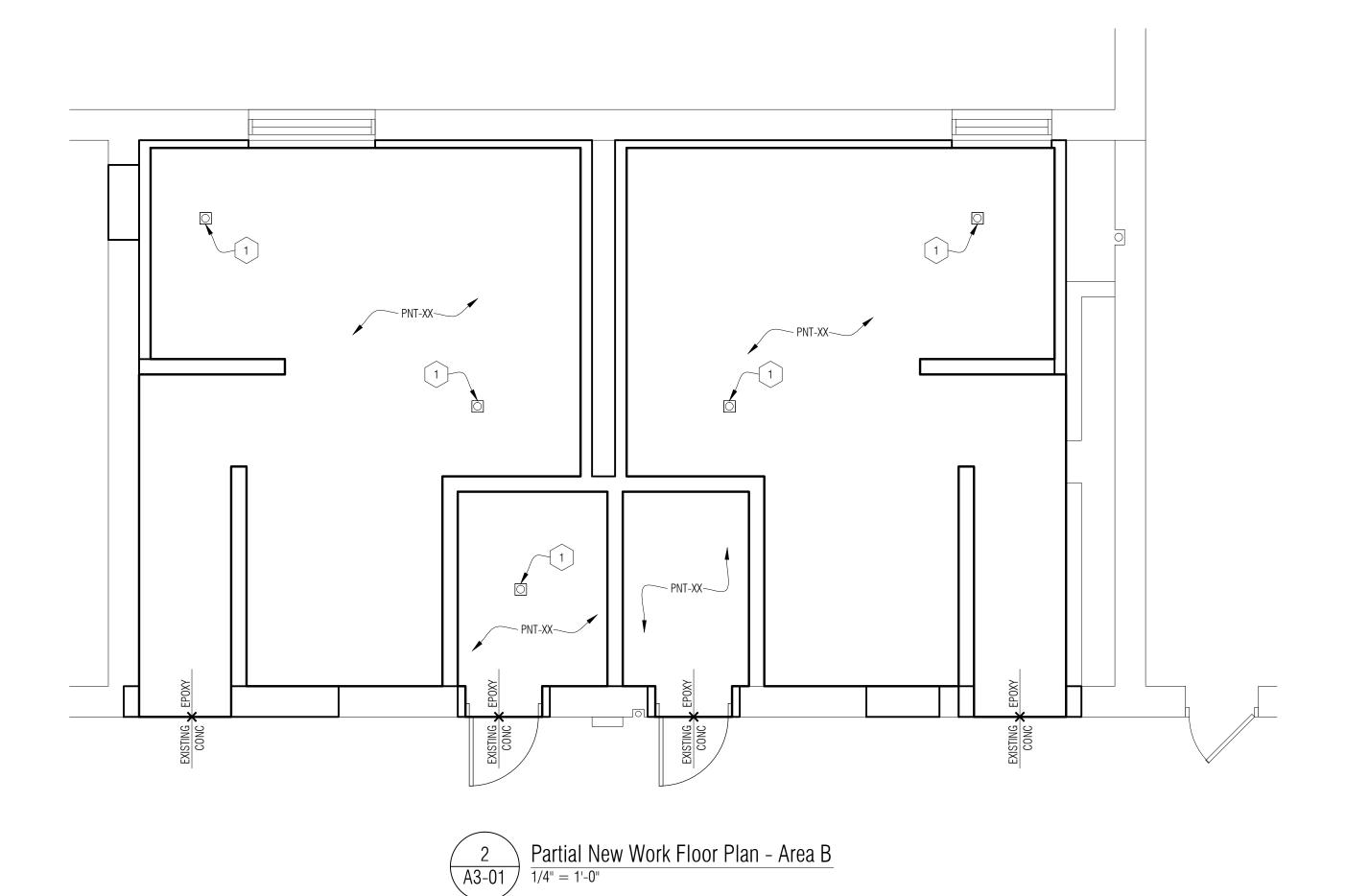
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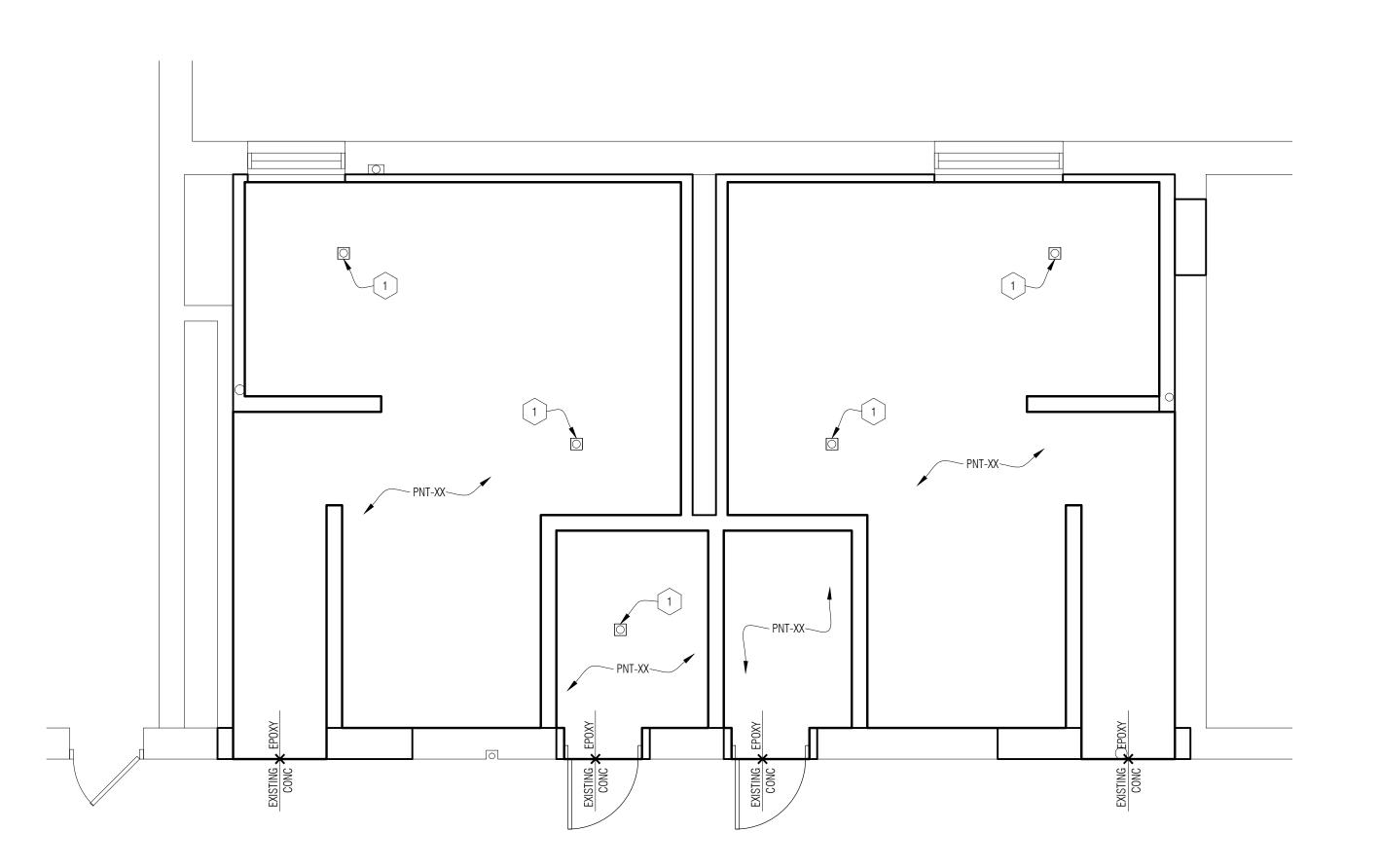
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PARTIAL REFLECTED CEILING PLANS

SHEET NO.
A4-01







FINISH FLOOR PLAN - GENERAL NOTES:

- A. REFERENCE ROOM FINISH SCHEDULE AND MATERIAL FINISH / COLOR SCHEDULE (SPEC SECTION 000200) FOR ADDITIONAL FINISH INFORMATION.
- B. UNLESS OTHERWISE NOTED, FLOOR FINISHES TRANSITION UNDER THE CENTERLINE OF DOORS (WHEREVER APPLICABLE).

FINISH FLOOR PLAN - KEY NOTES:

1 FLOOR DRAIN - REFER TO MECH. PROVIDE POSITIVE SLOPE TO DRAIN - VERIFY LOCATION IN FIELD

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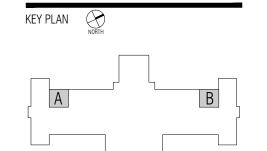
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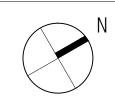
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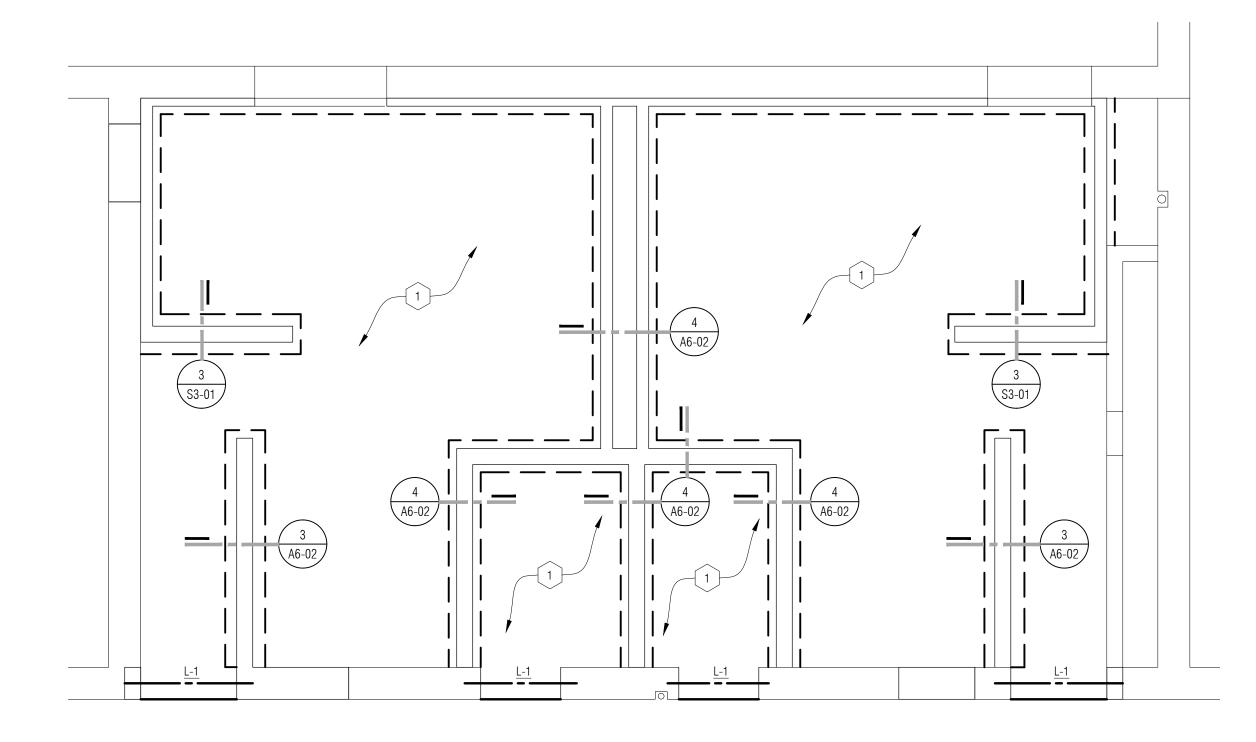
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PARTIAL FINISH FLOOR PLANS

SHEET NO. A9-01



Partial Foundation / Framing Plan - Area B

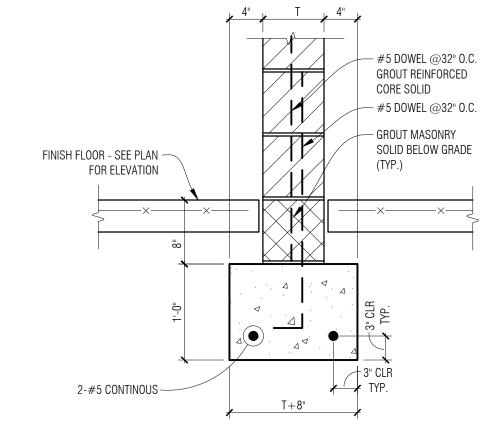
REINFORCE ALL MASONRY WALLS WITH #5 BARS @ 48" O.C. (U.O.N.) FULL HEIGHT VERTICAL, GROUT REINFORCED CORES SOLID. DOWEL TO FOOTING. PLACE BARS AT CORNERS AND FACE OF OPENINGS.

FOUNDATION PLAN - KEY NOTES:

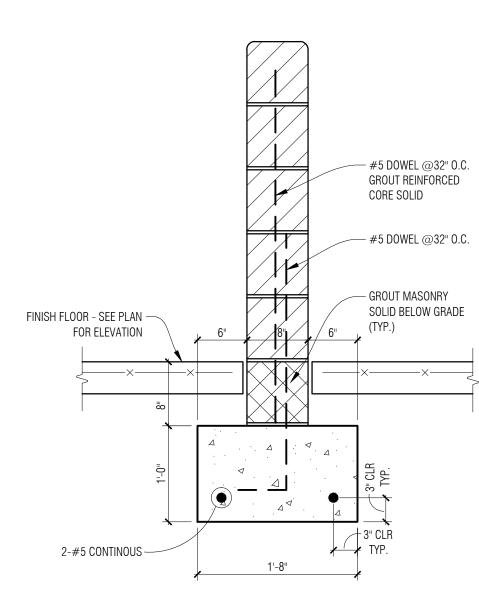
4" THICK CONCRETE FLOOR SLAB W/ (1) LAYER 6x6-W1.4x W1.4 W.W.F. PLACED IN UPPER 1/3 OF SLAB ON VAPOR BARRIER OVER 6" COMPACTED SAND FILL

LINTEL SCHEDULE

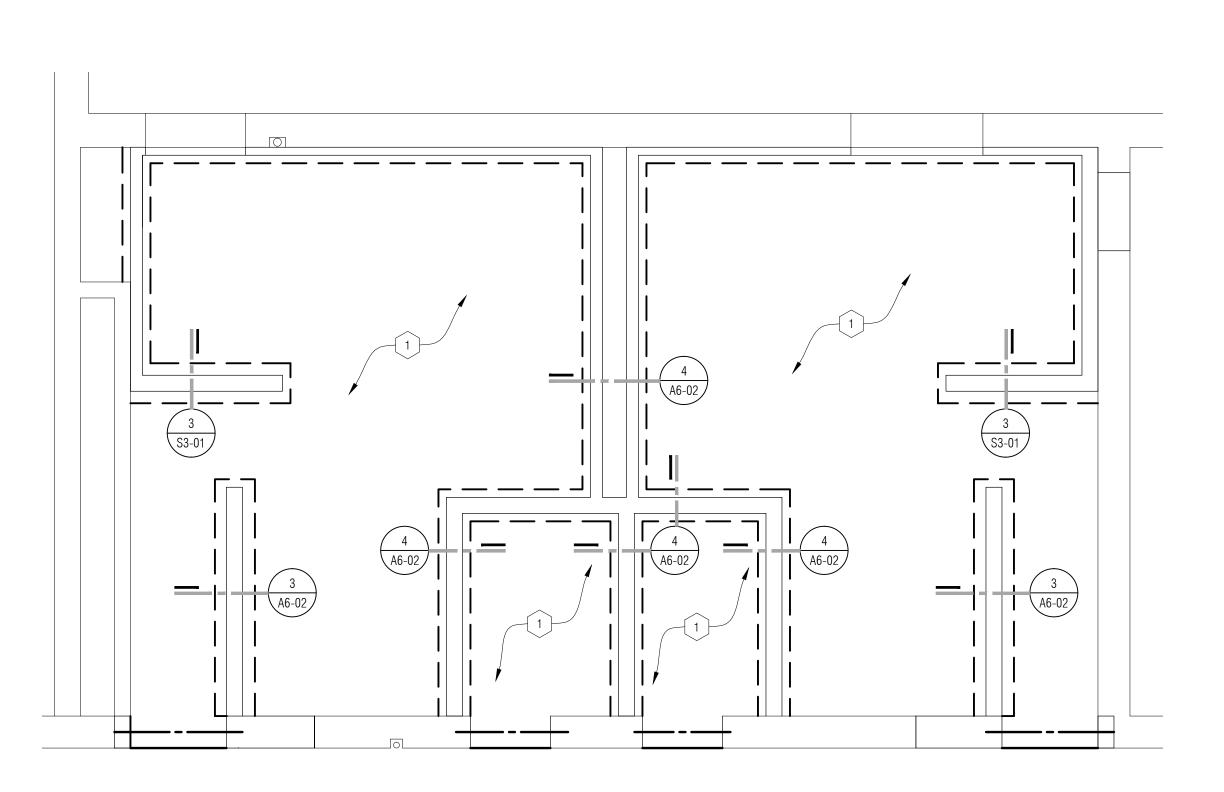
L-1 (3) L4 x 3-1/2 x 5/16 LLV LINTEL BEAR 8" ON WALL EACH END ON ONE COURSE GROUTED SOLID. REBUILD EXISTING WALL AS REQUIRED. SHORE EXISTING STRUCTURE AS NECESSARY FOR PLACEMENT.







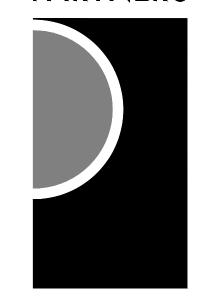






NOTE:
REINFORCE ALL MASONRY WALLS WITH #5 BARS @ 48" O.C. (U.O.N.)
FULL HEIGHT VERTICAL, GROUT REINFORCED CORES SOLID. DOWEL TO
FOOTING. PLACE BARS AT CORNERS AND FACE OF OPENINGS.

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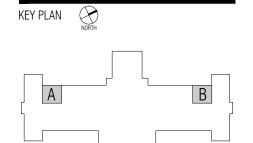
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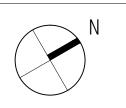
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PARTIAL FOUNDATION PLANS

MECHANICAL ABBREVIATIONS

DESCRIPTION

AUTOMATIC AIR VENT / AIR ADMITTANCE VALVE

ABBREV.

ABBREV.	DESCRIPTION
HR	HOUR
HTG	HEATING
HYD	HYDRANT
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
INV	INVERT
ISP	INTERNAL STATIC PRESSURE
IW	INDIRECT WASTE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
BS/HR	POUNDS PER HOUR
LDB	LEAVING DRY BULB TEMPERATURE
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MECH	MECHANICAL MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MOTOR OPERATED DAMPER (AUTOMATIC)
MOP	MAXIMUM OVER—CURRENT PROTECTION
N.C.	NOISE CRITERIA
NIC	NOT IN CONTRACT
NC NC	NOT IN CONTRACT NORMALLY CLOSED
NO	NORMALLY OPEN
NOM	NOMINAL
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER / CENTER TO CENTER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
ORS	OVERFLOW ROOF SUMP
OS&Y	OUTSIDE SCREW AND YOKE
PD	PRESSURE DROP (FEET OF WATER)
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PT	PRESSURE / TEMPERATURE PORT
 RA	RETURN AIR
RH	RELATIVE HUMIDITY
REQD	REQUIRED
REL.A	RELIEF AIR
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
RS	ROOF SUMP
SA	SUPPLY AIR
SH	SHOWER
SP	STATIC PRESSURE
Ft / SF	
SS	SQUARE FOOT/SQUARE FEET SERVICE SINK
TC T & D	TEMPERATURE CONTROL TEMPERATURE AND DRESSURE
T & P	TEMPERATURE AND PRESSURE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY

MECHANICAL ABBREVIATIONS

MECHANICAL ABBREVIATIONS				
ABBREV.	DESCRIPTION			
UR	URINAL			
VD	VOLUME DAMPER (MANUALLY ADJUSTABLE)			
VTR	VENT THRU ROOF			
W	WASTE			
W&V	WASTE AND VENT			
WB	WET BULB TEMPERATURE			
WC	WATER CLOSET			
WG	WATER GAUGE			
WH	WALL HYDRANT			

MECHANICAL PIPING SYMBOLS					
ABBREV.	DESCRIPTION				
	PIPE ELBOW UP				
——— э	PIPE ELBOW DOWN				
	PIPE TEE DOWN				
-	DIRECTION OF FLOW				
	UNION				
<u> </u>	STRAINER				
	CONCENTRIC REDUCER				
	ECCENTRIC REDUCER				
	EXPANSION JOINT				
	FLEXIBLE CONNECTION				
X	PIPE ANCHOR				
	PIPE GUIDE				
	PIPE CAP OR PLUG				
——⋈——	ISOLATION VALVE				
$\overline{\hspace{1cm}}$	CIRCULATING PUMP				
	GLOBE VALVE				
<u></u> Б	BALL VALVE				
	BUTTERFLY VALVE				
<u> </u>	ANGLE VALVE				
	CHECK VALVE (SWING)				
	CHECK VALVE (SPRING)				
——I ₄ ——	PLUG VALVE				
	NEEDLE VALVE				
	OUTSIDE SCREW AND YOKE VALVE (OS&Y)				
	PRESSURE REGULATING VALVE				
	SOLENOID VALVE				
	CONTROL VALVE (2-WAY / 3-WAY)				
$\overline{\mathcal{C}}$	CENTRIFUGAL FAN				
 	AUTOMATIC GAS SHUT-OFF VALVE				
<u> </u>	TRAP (PLAN VIEW)				
<u> </u>	FLOOR DRAIN / FUNNEL FLOOR DRAIN (PLAN VIEW)				
	FLOOR DRAIN / FUNNEL FLOOR DRAIN (ELEVATION)				
	ROOF SUMP				
CO	CLEAN OUT (IN FLOOR)				
√/C0	CLEAN OUT (IN LINE)				
	CLEAN OUT (WALL)				
BFP	BACKFLOW PREVENTER				
+	HOSE BIBB, WALL HYDRANT				
	DIRECTION OF PIPE PITCH				
<u> </u>	SPRINKLER HEAD (UPRIGHT)				
$\overline{\qquad}$	SPRINKLER HEAD (SIDEWALL)				
FS	FLOW SWITCH				
<	SIAMESE CONNECTION (YARD) SIAMESE CONNECTION (WALL MOUNTED)				
<u>→</u>	, ,				
	FIRE HYDRANT				
→ <u>></u>	FLOW MEASURING DEVICE				
	BALANCING VALVE				
 ∏AAV	COMBINATION FLOW MEASURING AND BALANCING DEVICE				
LIAAV	AUTOMATIC AIR VALVE				

171	ECHANICAL SYMBOLS
ABBREV.	DESCRIPTION
\$	RECTANGULAR TAKE-OFF (SINGLE LINE)
	RECTANGULAR TAKE-OFF (DOUBLE LINE)
\(\frac{1}{2} \)	ROUND TAKE-OFF (SINGLE LINE)
5	ROUND TAKE-OFF (DOUBLE LINE)
	SPIN-IN FITTING (WITH VOLUME DAMPER)
5	ELBOW (WITH TURNING VANES)
	RADIUS RECTANGULAR ELBOW
	RADIUS ROUND ELBOW
	RECTANGULAR ELBOW UP
	ROUND ELBOW UP
	RECTANGULAR ELBOW DOWN
	ROUND ELBOW DOWN
	CONCENTRIC TRANSITION (DOUBLE LINE)
├	CONCENTRIC TRANSITION (SINGLE LINE)
	ECCENTRIC TRANSITION (DOUBLE LINE)
├	ECCENTRIC TRANSITION (SINGLE LINE)
R	INCLINED RISE IN DIRECTION OF AIR FLOW (DOUBLE LINE)
Ş— <u>I</u> R—Ş	INCLINED RISE IN DIRECTION OF AIR FLOW (SINGLE LINE)
D	INCLINED DROP IN DIRECTION OF AIR FLOW (DOUBLE LINE)
<u> </u>	INCLINED DROP IN DIRECTION OF AIR FLOW (SINGLE LINE)
	FLEXIBLE CONNECTION
	FLEXIBLE DUCT CONNECTION TO SUPPLY DIFFUSER
F	SUPPLY DIFFUSER
	LINEAR SLOT DIFFUSER
\	RETURN OR EXHAUST GRILLE
#	TRANSFER GRILLE
	CROSS SECTION OF SUPPLY AIR DUCT
	CROSS SECTION OF EXHAUST OR RETURN AIR DUCT
	EXISTING FIRE DAMPER (HORIZONTAL) NEW
—	EXISTING FIRE DAMPER (VERTICAL)
	NEW
	EXISTING SMOKE DAMPER NEW
• — — — — — — — — — — — — — — — — — — —	EXISTING COMBINATION FIRE/SMOKE DAMPER
	NEW (VERTICAL)
9	EXISTING COMBINATION FIRE/SMOKE DAMPER (HORIZONTAL)
Ye .	NEW .
	VOLUME DAMPER (MANUALLY ADJUSTABLE)
	MOTORIZED DAMPER
	SMOKE DETECTOR
<u>(CO2)</u>	CO2 SENSOR THERMOSTAT OR
(T)	TEMPERATURE SENSOR HUMIDISTAT OR
H)	HUMIDITY SENSOR
υ 	RETURN OR EXHAUST / SUPPLY AIR FLOW

RETURN OR EXHAUST / SUPPLY AIR FLOW

MECHANICAL SYMBOLS

G	NATURAL GAS FIFING
——BCW——	BOOSTED-DOMESTIC COLD WATER PIPING
——BHW——	BOOSTED-DOMESTIC HOT WATER PIPING
CW	DOMESTIC COLD WATER PIPING
NPCW	NON POTABLE COLD WATER PIPING
TW	TEMPERED WATER PIPING
——НW——	DOMESTIC HOT WATER PIPING
-HW(140°F)-	DOMESTIC 140°F HOT WATER PIPING
HWR	DOMESTIC HOT WATER RETURN PIPING
——SAN——	SANITARY WASTE PIPING
PSAN	PUMPED SANITARY PIPING
V	VENT PIPING
ST	STORM SEWER PIPING
——PST——	PUMPED STORM PIPING
RC	RAIN CONDUCTOR PIPING
ORC	OVERFLOW RAIN CONDUCTOR PIPING
——CHWR——	CHILLED WATER RETURN PIPING
——CHWS—	CHILLED WATER SUPPLY PIPING
CWR	CONDENSER WATER RETURN PIPING
CWS	CONDENSER WATER SUPPLY PIPING
——HHWR——	HEATING HOT WATER RETURN PIPING
—HHWS—	HEATING HOT WATER SUPPLY PIPING
—HPLR—	HEAT PUMP LOOP RETURN PIPING
—HPLS—	HEAT PUMP LOOP SUPPLY PIPING
——RL——	REFRIGERANT LIQUID PIPING
RS	REFRIGERANT SUCTION PIPING
——HGB——	HOT GAS BY-PASS PIPING
——GXHR——	GEO HEAT EXCHANGE RETURN
——GXHS——	GEO HEAT EXCHANGE SUPPLY
——STM——	STEAM PIPING
——HPS——	HIGH PRESSURE STEAM PIPING
——LPS——	LOW PRESSURE STEAM PIPING
——CR——	STEAM CONDENSATE RETURN PIPING
——PCR——	PUMPED STEAM CONDENSATE RETURN PIPING
——LPC——	LOW PRESSURE CONDENSATE PIPING
——НРС——	HIGH PRESSURE CONDENSATE PIPING
——МА——	MEDICAL AIR PIPING
N	NITROGEN GAS PIPING
 02	OXYGEN GAS PIPING
VAC	VACUUM PIPING

2012 MICHIGAN BUILDING CODE

2012 MICHIGAN PLUMBING CODE

2012 MICHIGAN MECHANICAL CODE

2012 INTERNATIONAL FIRE CODE

2009 NFPA 90A

2008 NFPA 96

2009 MICHIGAN UNIFORM ENERGY CODE

2012 INTERNATIONAL FUEL GAS CODE

2007 NFPA 13, NFPA 14, NFPA 20

GUIDELINE (ADA-AG)

2012 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS

2003 ICC/ANSI ACCESSIBLE AND USABLE BUILDING & FACILITIES

AMERICANS WITH DISABILITIES ACT ACCESSIBILITIES

PIPING LEGEND

COMPRESSED AIR PIPING

CONDENSATE DRAIN PIPING

FIRE PROTECTION PIPING

FUEL OIL RETURN PIPING

FUEL OIL SUPPLY PIPING

NATURAL GAS PIPING

DRAIN TILE

DESCRIPTION

ABBREV.

—СА—

—CD—

— DT —

—F—

—FOR——

—F0S—

	NON POTABLE COLD WATER PIPING			
——TW——	TEMPERED WATER PIPING			
——НW——	DOMESTIC HOT WATER PIPING			
—HW(140°F)—	DOMESTIC 140°F HOT WATER PIPING			
——HWR——	DOMESTIC HOT WATER RETURN PIPING			
——SAN——	SANITARY WASTE PIPING			
PSAN	PUMPED SANITARY PIPING			
V	VENT PIPING			
ST	STORM SEWER PIPING			
——PST——	PUMPED STORM PIPING			
RC	RAIN CONDUCTOR PIPING			
ORC	OVERFLOW RAIN CONDUCTOR PIPING			
——CHWR——	CHILLED WATER RETURN PIPING			
——CHWS——	CHILLED WATER SUPPLY PIPING			
CWR	CONDENSER WATER RETURN PIPING			
——cws——	CONDENSER WATER SUPPLY PIPING			
—HHWR—	HEATING HOT WATER RETURN PIPING			
—HHWS—	HEATING HOT WATER SUPPLY PIPING			
—HPLR—	HEAT PUMP LOOP RETURN PIPING			
—HPLS—	HEAT PUMP LOOP SUPPLY PIPING			
——RL——	REFRIGERANT LIQUID PIPING			
——RS——	REFRIGERANT SUCTION PIPING			
——HGB——	HOT GAS BY-PASS PIPING			
——GXHR——	GEO HEAT EXCHANGE RETURN			
GXHS	GEO HEAT EXCHANGE SUPPLY			
——STM——	STEAM PIPING			
——HPS——	HIGH PRESSURE STEAM PIPING			
——LPS——	LOW PRESSURE STEAM PIPING			
——CR——	STEAM CONDENSATE RETURN PIPING			
——PCR——	PUMPED STEAM CONDENSATE RETURN PIPING			
——LPC——	LOW PRESSURE CONDENSATE PIPING			
——HPC——	HIGH PRESSURE CONDENSATE PIPING			
——МА——	MEDICAL AIR PIPING			
N	NITROGEN GAS PIPING			
<u> </u>	OXYGEN GAS PIPING			
VAC	VACUUM PIPING			

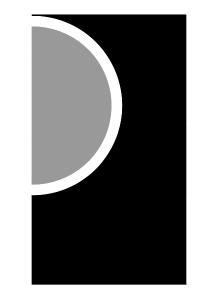
	DRAWING INDEX			
(SHT NO	CHT NO DESCRIPTION		
	м000	MECHANICAL GENERAL INFORMATION		
N	MD101	PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN		
F	P100	PARTIAL UNDERGROUND PLUMBING PLAN		
F	P101	FIRST FLOOR PLUMBING PLAN		
L	M101	PARTIAL FIRST FLOOR HVAC PLAN		
N	М600	MECHANICAL DETAILS, SCHEDULES AND TEMPERATURE CONTROLS		

DRAWING NOTATION				
SYMBOL	DESCRIPTION			
1	NEW WORK KEY NOTE NO. 1			
1	DEMOLITION KEY NOTE NO. 1			
EF 1	EQUIPMENT DESIGNATION, (IE: EXHAUST FAN NO. 1)			
S-1 8ø 100	AIR TERMINAL TAG: S = SUPPLY R = RETURN E = EXHAUST NECK SIZE = 10"x10" CFM = 100 (TYPICAL FOR 2)			
	EXISTING DEVICES OR EQUIPMENT			
	NEW OR MODIFIED DEVICES OR EQUIPMENT			
<i>\\\\</i>	EXISTING SYSTEM COMPONENT TO BE REMOVED			
POINT OF NEW CONNECTION				
SECTION NO. 4				
SHEET M5.2 ON WHICH SECTION IS DRAWN				
	SECTION NO. 6			
6 SECTION				

WATER FLOW TEST DATA					
DATE PERFORMED	REPORTED PRESSURES				
xx-xx-20xx	STATIC	RESIDUAL			
XX-XX-20XX	xx PSI @ xx GPM	xx PSI @ xx GPM			

SHEET M5.2 ON WHICH SECTION IS CUT (ENLARGED PARTIAL PLAN SIMILAR)

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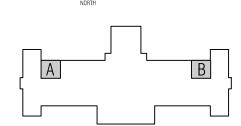
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Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

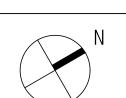
2333 Burger Hamtramck, MI 48212

PROJECT NO.

16-118

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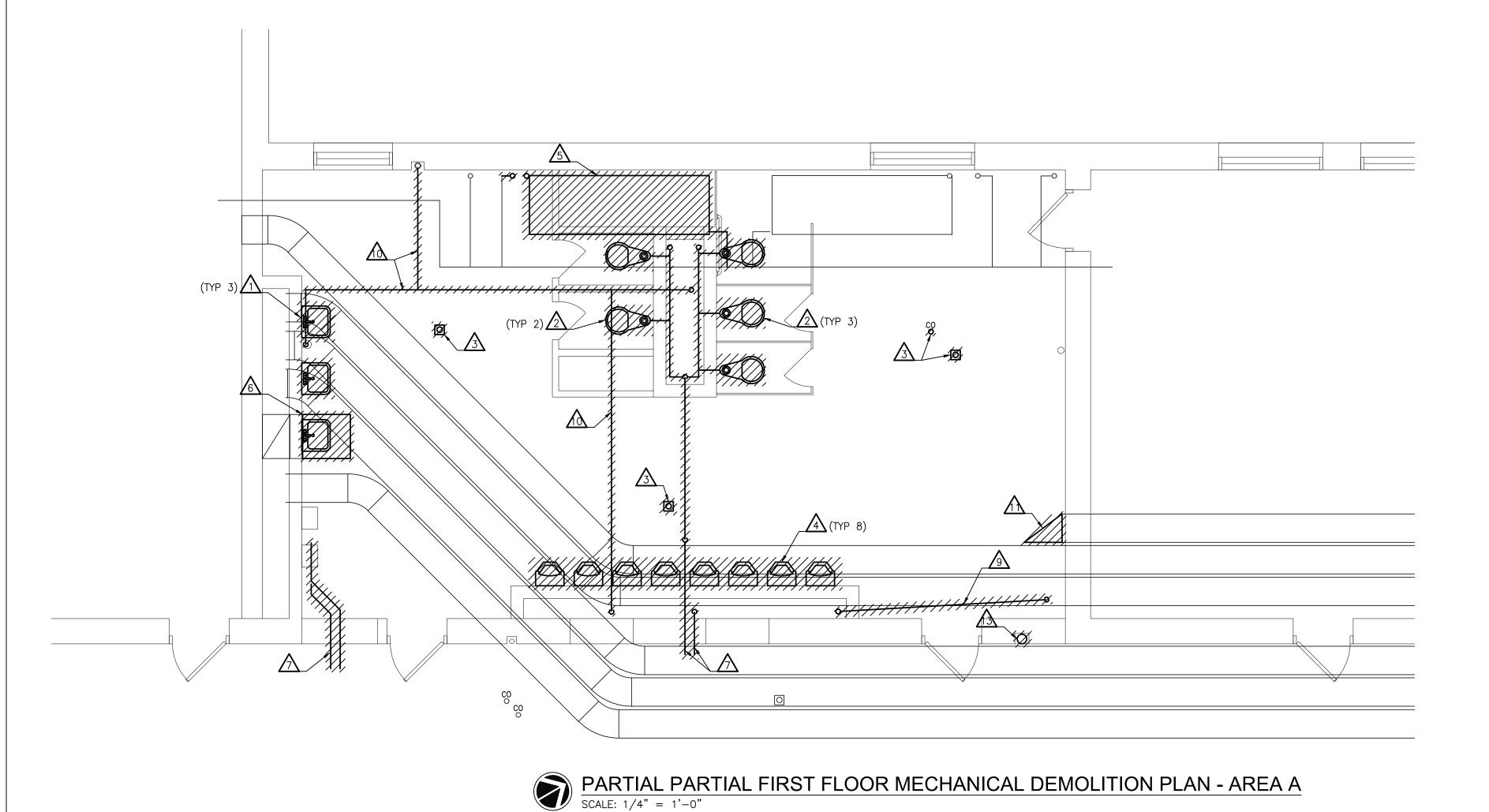
RRS

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MECHANICAL GENERAL INFORMATION





GENERAL DEMOLITION NOTES

REQUIRED BY THE NEW WORK.

- 1. ANY INTERRUPTIONS OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING'S OPERATION.
- 2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK TO BE PERFORMED. THE EXACT EXTENT OF DEMOLITION SHALL BE AS
- 3. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.
- 4. ALL DEMOLITION OF THE EXISTING MECHANICAL SYSTEMS, INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONTROLS, SUPPORTS, HANGERS, AND EQUIPMENT SHALL BE UNDER SCOPE OF DIVISION 20 THRU 23 OF THE SPECIFICATIONS.
- 5. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED.

DEMOLITION KEYED NOTES

REMOVE WALL MOUNTED LAVATORY COMPLETE. COORDINATE UNDERGROUND PIPE REMOVAL IN FIELD.

REMOVE FLOOR MOUNTED WATER CLOSET COMPLETE. COORDINATE UNDERGROUND PIPE REMOVAL IN FIELD.

REMOVE WALL FLOOR DRAIN/CLEAN OUT COMPLETE. COORDINATE UNDERGROUND PIPE REMOVÁL IN FIELD.

REMOVE WALL MOUNTED URINAL COMPLETE. COORDINATE UNDERGROUND PIPE REMOVAL IN FIELD.

5 STEAM RADIATOR TO BE RELOCATED. REFER TO NEW WORK PLAN FOR LOCATION. MODIFY STEAM PIPING AS REQUIRED TO ACCOMMODATE NEW LOCATION.

REMOVE EXHAUST FAN AND PLATFORM COMPLETE. COORDINATE WALL PATCHING WITH ARCHITECTURAL TRADES.

REMOVE HOT AND COLD WATER PIPING SERVING TOILET ROOM COMPLETE. REFER TO NEW WORK PLAN FOR EXTENT OF DEMOLITION.

REMOVE ELECTRIC WATER COOLER COMPLETE. COORDINATE UNDERGROUND PIPE REMOVAL IN FIELD.

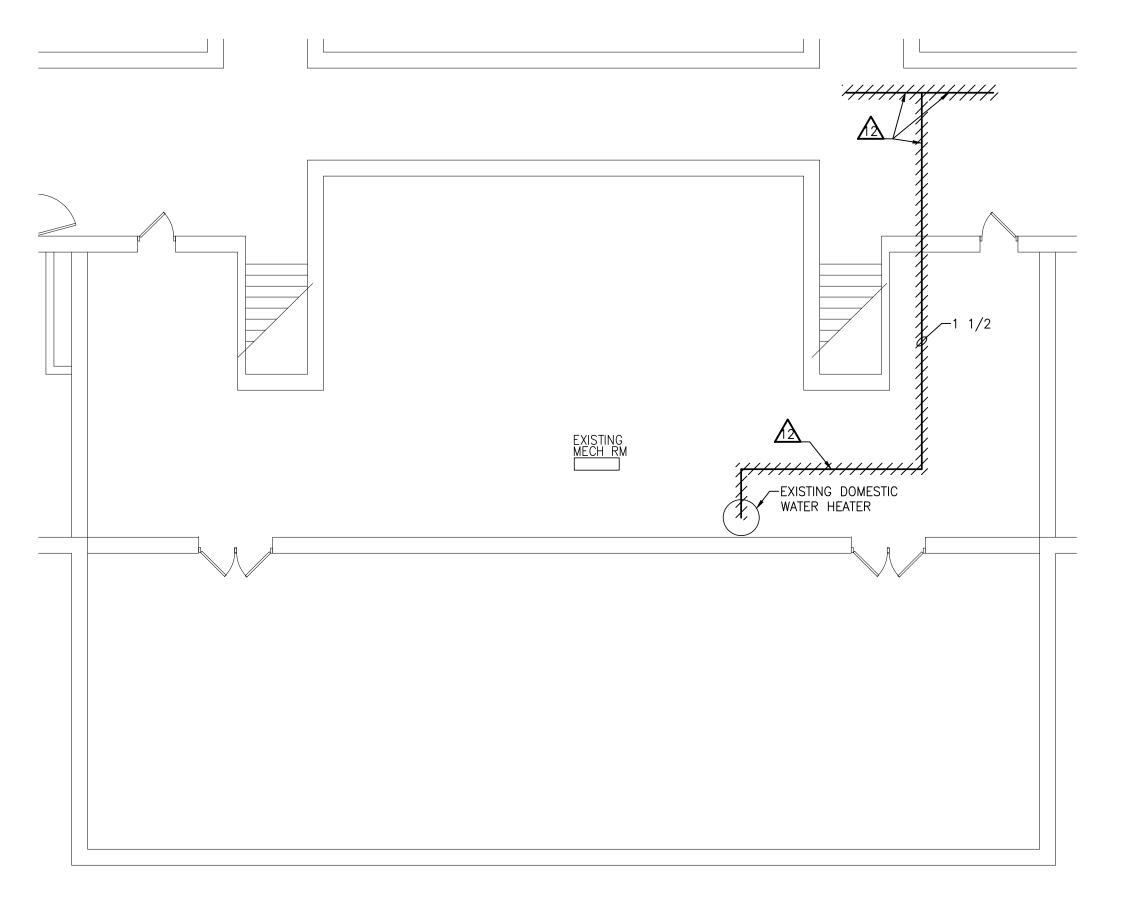
VERIFY DRAIN PIPE IS ABANDONED AND REMOVE COMPLETE. COORDINATE SECOND FLOOR PATCHING WITH ARCHITECTURAL TRADES.

REMOVE VENT PIPING BACK TO STACK. PREPARE VENT STACK FOR NEW

REMOVE GRILLE AND PORTION OF VENTILATION DUCT AS INDICATED. PREPARE REMAINING DUCT FOR NEW WORK.

REMOVE HOT WATER PIPING SERVING EXISTING TOILET ROOMS. CAP PIPING AT WATER HEATER. FIELD VERIFY EXACT LOCATION AND ROUTING.

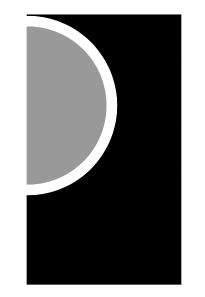
REMOVE PORTION OF 6" SANITARY VENT RISER TO ACCOMMODATE NEW TOILET ROOM OPENING. CAP PIPE AT FLOOR IN A CONCEALED MANNER. COORDINATE FLOOR PATCHING WITH ARCHITECTURAL TRADES.



PARTIAL PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN

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

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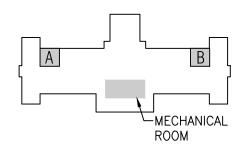
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KEY PLAN



OWNER

Public Schools

PROJECT NAME

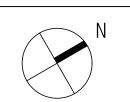
Kosciuszko Middle School Toilet Room Upgrades

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PROJECT NO.

16-118

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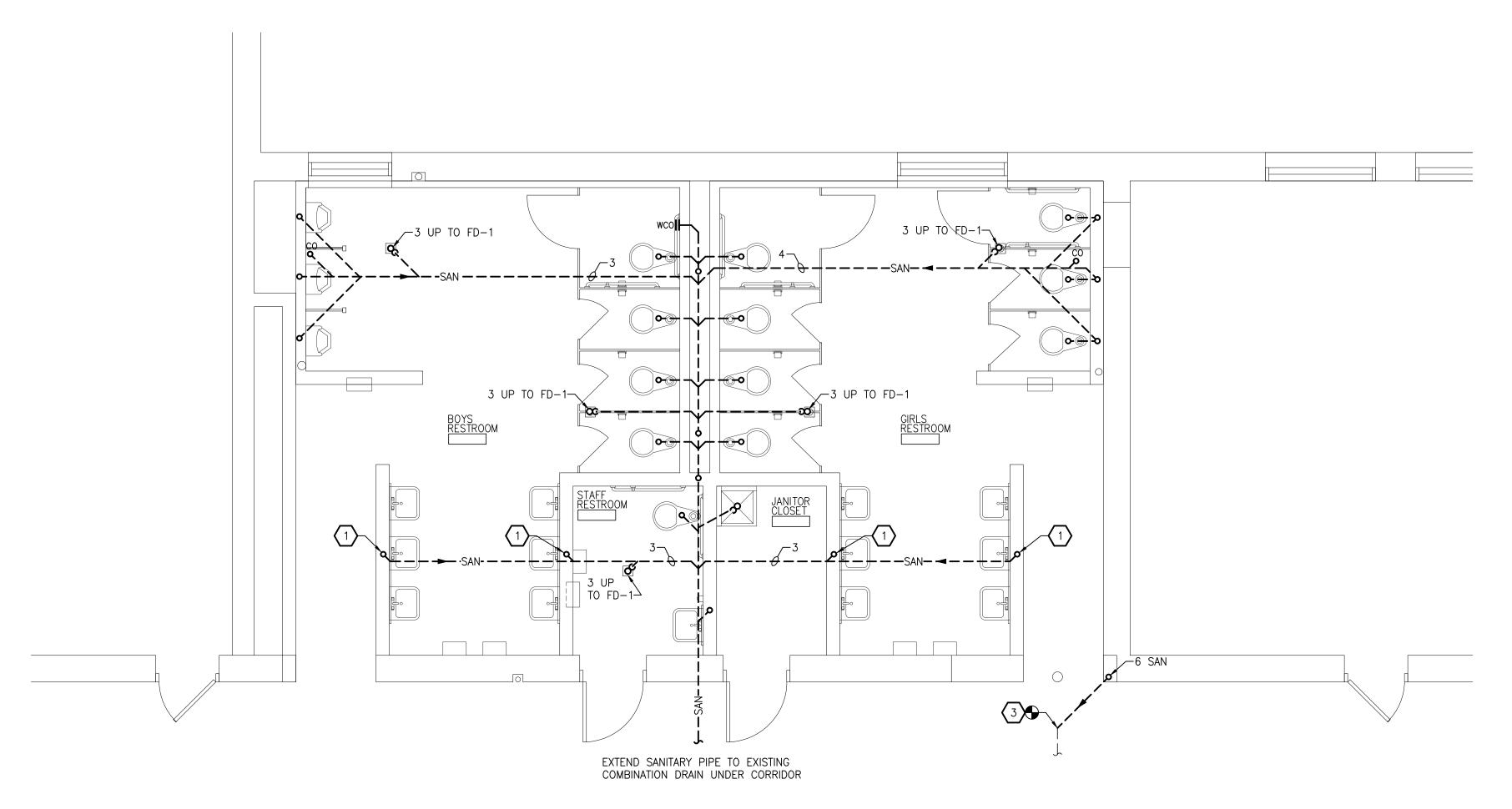
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PARTIAL FIRST FL00R MECHANICAL DEMOLITION PLAN MD101

PARTIAL UNDERGROUND PLUMBING PLAN - AREA B SCALE: 1/4" = 1'-0"



PARTIAL UNDERGROUND PLUMBING PLAN - AREA A SCALE: 1/4" = 1'-0"

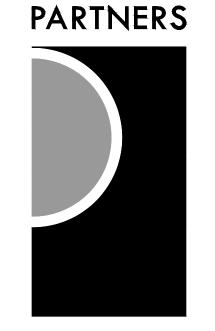
PLUMBING GENERAL NOTES

- 1. THESE DRAWINGS ARE DIAGRAMMATIC & INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE PLUMBING SYSTEMS COMPLETE AND PER APPLICABLE CODES INCLUDING REQUIRED COMPONENTS, OFFSETS REQUIRED TO AVOID THE STRUCTURE, ETC.
- 2. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS OF AND EXACT LOCATIONS OF FIXTURES (STANDARD AND BARRIER FREE), SINKS, ETC.
- 3. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PLUMBING AND PIPING WITH THE WORK OF ALL OTHER TRADES.
- 4. PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS.
 PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. PIPING
 SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
- 5. PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
- 6. CONTRACTOR SHALL PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL MECHANICAL SYSTEMS.
- HOT AND COLD WATER PIPING RUN-OUTS TO LAVS AND SINKS SHALL BE 3/4" UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR FIXTURE CONNECTION SIZES.
- 8. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
- 9. MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
- 10. PROVIDE VALVES ON ALL BRANCH PIPING SERVING GROUP TOILET ROOMS. PROVIDE FULL OPEN VALVES AND SHUT OFF VALVES PER PLUMBING CODE.

KEYED NOTES

- 3" SANITARY UP TO LAVATORIES. ROUTE SANITARY PIPE IN WALL. REFER TO FIXTURE SCHEDULE FOR CONNECTION SIZES.
- 2 4" SANITARY UP TO WATER CLOSET.
- 3 RE-CONNECT TO EXISTING 6" SANITARY DRAIN.

DAI NOTES



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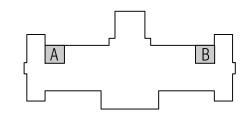
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KEY PLAN NORTH



OWNER

Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

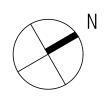
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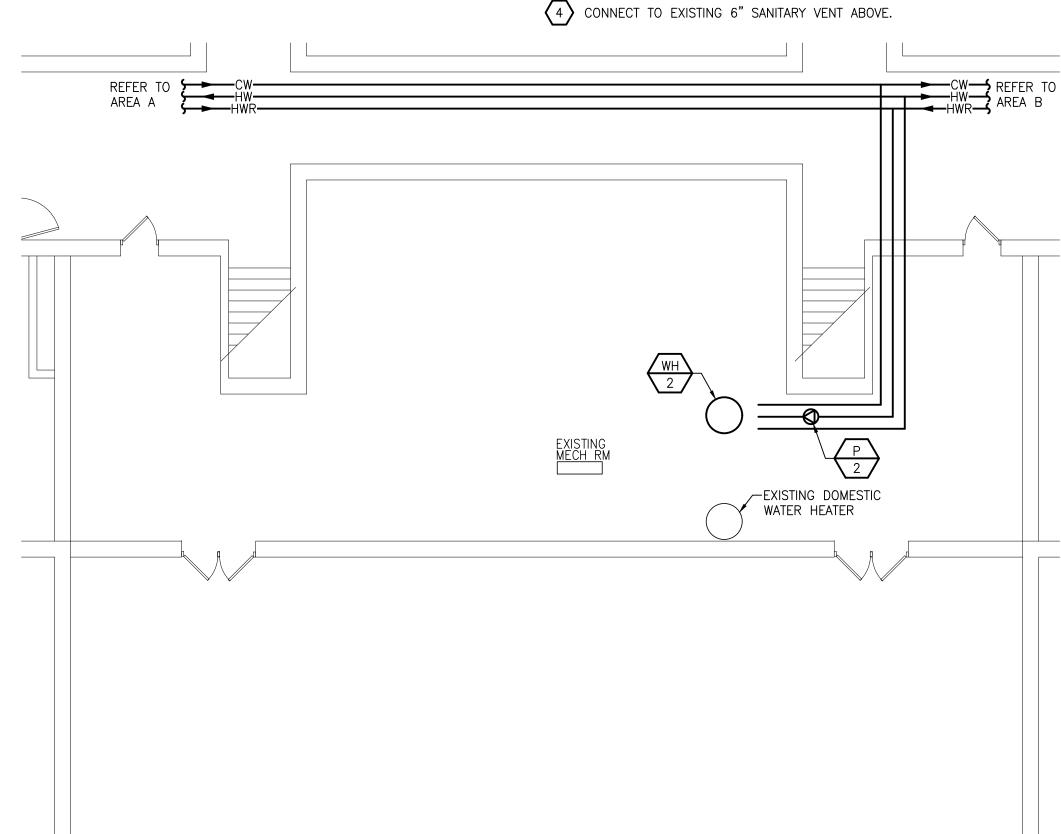
UNDERGROUND PLUMBING PLAN

PLUMBING GENERAL NOTES

- 1. THESE DRAWINGS ARE DIAGRAMMATIC & INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE PLUMBING SYSTEMS COMPLETE AND PER APPLICABLE CODES INCLUDING REQUIRED COMPONENTS, OFFSETS REQUIRED TO AVOID THE STRUCTURE FTC.
- 2. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS OF AND EXACT LOCATIONS OF FIXTURES (STANDARD AND BARRIER FREE), SINKS, ETC.
- 3. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PLUMBING AND PIPING WITH THE WORK OF ALL OTHER TRADES.
- 4. PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS.
 PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. PIPING
 SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
- 5. PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
- 6. CONTRACTOR SHALL PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL MECHANICAL SYSTEMS.
- 7. HOT AND COLD WATER PIPING RUN-OUTS TO LAVS AND SINKS SHALL BE 3/4" UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR FIXTURE CONNECTION SIZES.
- 8. PROVIDE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
- 9. MINIMUM UNDERGROUND PIPE SIZE SHALL BE 3".
- 10. PROVIDE VALVES ON ALL BRANCH PIPING SERVING GROUP TOILET ROOMS. PROVIDE FULL OPEN VALVES AND SHUT OFF VALVES PER PLUMBING CODE.

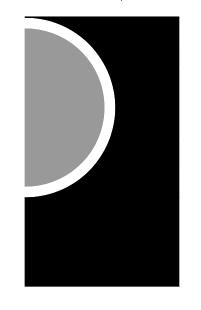
KEYED NOTES

- 1 ALTERNATE: PROVIDE BRADLEY MG-3 EXPRESS LAVATORY SYSTEM IN LIEU OF THREE INDIVIDUAL LAVATORY SINKS.
- ROUTE 2" COLD WATER PIPE IN CHASE UNDIMINISHED TO FURTHEST FIXTURE. REFER TO PLUMBING FIXTURE SCHEDULE FOR FIXTURE PIPE CONNECTION SIZE.
- ROUTE 2" COLD WATER PIPE IN WALL UNDIMINISHED TO FURTHEST FIXTURE. REFER TO PLUMBING FIXTURE SCHEDULE FOR FIXTURE PIPE CONNECTION SIZE.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR FIXTURE PIPE CONNECTION S





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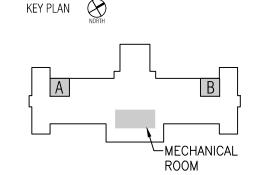
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Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

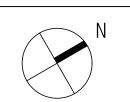
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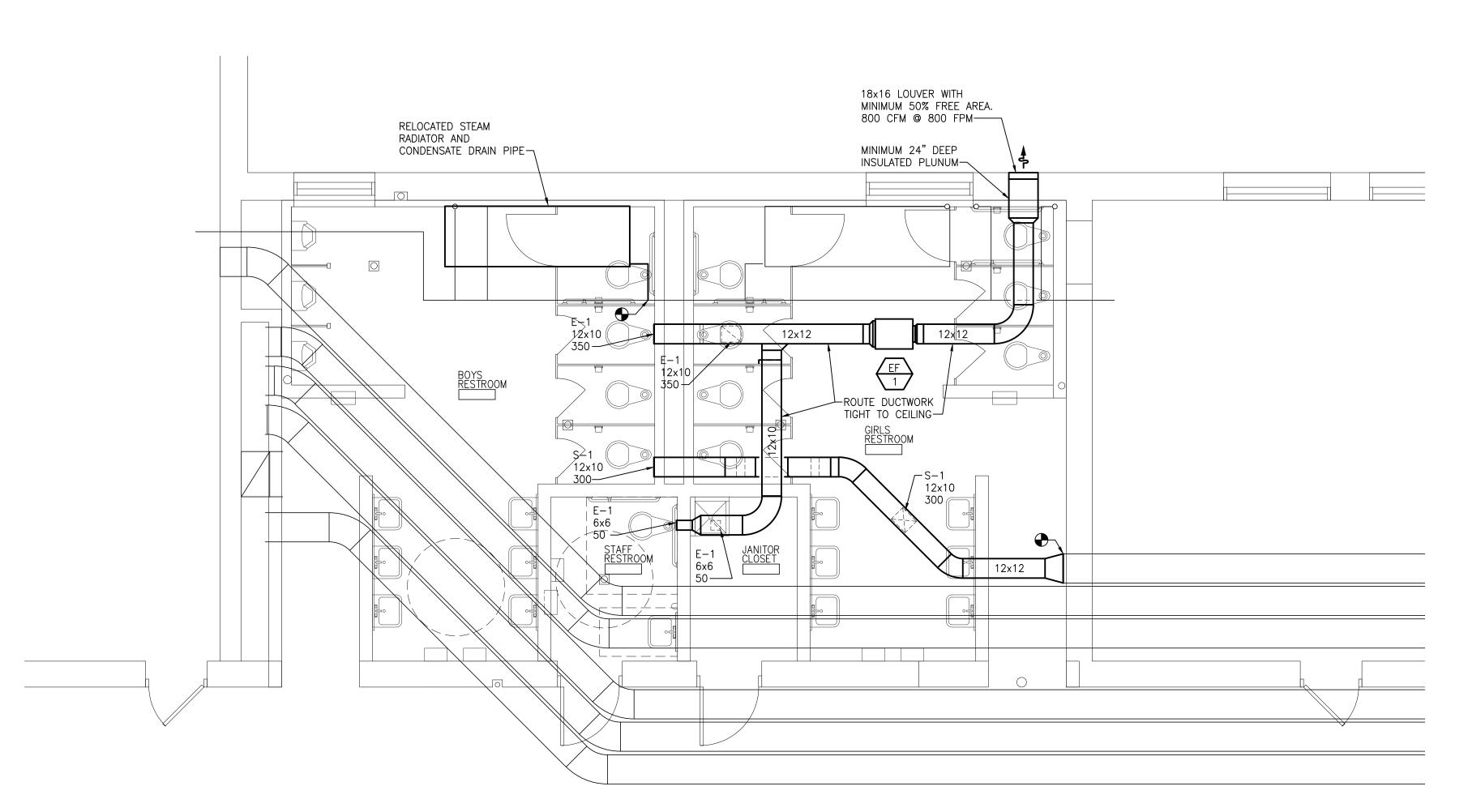
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FIRST FLOOR PLUMBING PLAN

PARTIAL FIRST FLOOR HVAC PLAN - AREA B SCALE: 1/4" = 1'-0"



PARTIAL FIRST FLOOR HVAC PLAN - AREA A SCALE: 1/4" = 1'-0"

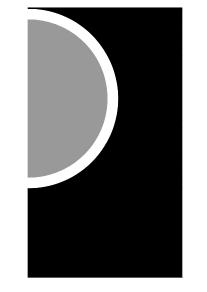
HVAC GENERAL NOTES

- 1. THESE DRAWINGS ARE DIAGRAMMATIC & INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE SHEET METAL SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS, SPECIAL RADIUS OR MITERED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
- 2. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER

TRADES. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.

- 3. DUCTWORK SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. DUCTWORK SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
- 4. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.
- 5. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS ETC. WITH ARCHITECTURAL TRADES.
- 6. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
- 7. COORDINATE AND PROVIDE ACCESS DOORS IN HARD CEILING AREAS FOR ACCESS TO BALANCING DAMPERS, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
- 8. BRANCH DUCTWORK TO GRILLES, REGISTERS AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
- 9. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 5'-0".

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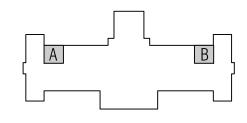
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Hamtramck Public Schools

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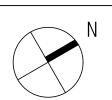
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PARTIAL FIRST FLOOR HVAC PLAN

	EXHAUST FAN SCHEDULE													
UNIT ID	SERVING	TYPE	CFM	ESP (IN WG)	FAN RPM		MOTO		DRIVE		ECTRICA		MODEL NO.	REMARKS
						BHP HP RPM DRIVE TYPE VOLTS PHASE FLA								
EF-1	TOILET ROOMS	CENTRIFUGAL INLINE	800	00 0.5 1100 0.18 1/2 1725 BELT 115 1 9.8 BDF-80-F										

- 1. MODEL NUMBERS ARE GREENHECK UNLESS OTHERWISE NOTED.
- 2. ROVIDE WITH GRAVITY BACKDRAFT DAMPER.
- 3. MOTOR STARTER PROVIDED BY ELECTRICAL TRADES.

	DOMESTIC WATER RECIRC PUMP SCHEDULE									
UNIT ID	SERVICE	SERVICE TYPE GPM HEAD MOTOR FLA RPM VOLTS PHASE MODEL NO. REMARKS								
P-1	DOMESTIC HOT WATER INLINE 4 15 125 1.1 2950 120 1 NBF-25									

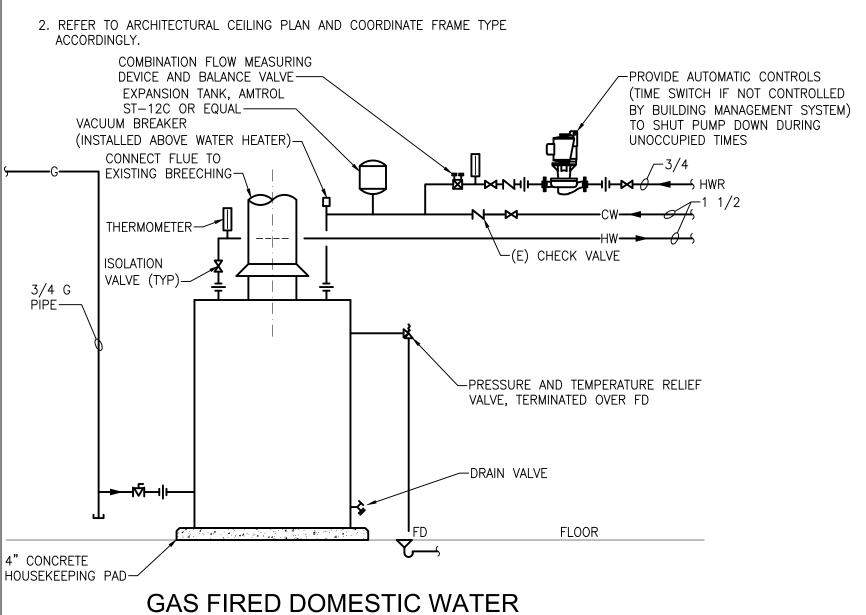
NOTES:

- 1. MODEL NUMBERS ARE BELL & GOSSET UNLESS NOTED OTHERWISE.
 - 3. PROVIDE LEAD FREE ALL BRONZE RECIRCULATING PUMP WITH AQUASTAT AND TIME CLOCK, 120V-1Ø - POWERED FROM PUMP.
- 2. ELECTRICAL TRADES SHALL PROVIDE DISCONNECT.

	GRILLE, REGISTER AND DIFFUSER SCHEDULE									
UNIT ID	FACE SIZE	NECK SIZE	MOUNTING	ACCESSORY	FINISH	MATERIAL	MODEL NO.	REMARKS		
S-1	NECK+2"	SEE PLANS	NOTE 2	OPPOSED BLADE DAMPER	WHITE	STEEL	510D			
E-1	NECK+2"	SEE PLANS	NOTE 2	_	WHITE	STEEL	535D			

NOTES:

1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.



HEATER CONNECTION DETAIL

THERMOSTATIC MIXING VALVE DETAIL

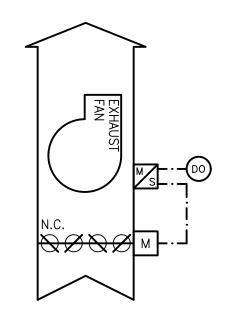
NO SCALE

UNIT ID	STORAGE CAPACITY (GAL)	FUEL TYPE	INPUT RATE (MBH)	RECOVERY (GPH)	MODEL NO.	REMARKS
WH-2	80	NAT. GAS	180	175	DM-80T-180-3N	

DOMESTIC WATER HEATER SCHEDULE

NOTES:

1. MODEL NUMBERS ARE BRADFORD WHITE UNLESS OTHERWISE NOTED.



TOILET ROOM EXHAUST FAN CONTROL DIAGRAM

TOILET ROOM EXHAUST FAN SEQUENCE OF OPERATIONS:

1. WITH THE EXHAUST FAN'S HAND/OFF/AUTO SWITCH IN THE "AUTO" POSITION, THE SUPPLY FAN SHALL BE AUTOMATICALLY STARTED AND STOPPED WITH THE TIME CLOCK OCCUPANCY

PLUMBING FIXTURE SCHEDULE

			W	ATER CLOSETS/URI	NALS		PIF	PE CONNE	CTION SIZ	ZES			
IC	UNIT DENTIFICATION	FIXTURE MATERIAL	MOUNTING STYLE	CONSUMPTION GALLONS/ FLUSH	SUPPLY SPUD LOCATION	FLUSH VALVE MANUFACTURER/ MODEL	WASTE	VENT	CW	HW	TOILET SEAT MANUFACTURER/ MODEL	MANUFACTURER/MODEL	REMARKS
	WC-1	VITREOUS CHINA	FLOOR	1.6	ТОР	SLOAN/ ROYAL	4	2	1	_	BEMIS/1955SSC	KOHLER CO. WELLWORTH 4405	FIXTURE SHALL BE MOUNTED AT ADA HEIGHT.
	UR-1	VITREOUS CHINA	WALL	1.0	TOP	SLOAN/ ROYAL	2	1 1/2	3/4	_		KOHLER CO. BARDON K 4904	FIXTURE SHALL BE MOUNTED AT ADA HEIGHT.

APPROVED MANUFACTURERS:

WATER CLOSETS - AMERICAN STANDARD, FERGUSON, KOHLER, SLOAN, ZURN TOILET SEATS - BEMIS, CENTOCO, CHURCH, FERGUSON, SANDERSON, ZURN

URINALS — AMERICAN STANDARD, FERGUSON, KOHLER, SLOAN, ZURN FLUSHOMETERS - SLOAN, DELTA, ZURN, KOHLER

			LAVATORIES/SINKS	5		PIF	PE CONNE	CTION SIZ	ZES			
UNIT IDENTIFICATION	FIXTURE MATERIAL	MOUNTING STYLE	BOWL DIMENSIONS L x W x D INCHES	NUMBER OF BOWLS	OVERALL DIMENSIONS L x W x D INCHES	WASTE	VENT	CW	HW	FAUCET MANUFACTURER/ MODEL	MANUFACTURER/MODEL	REMARKS
LAV-1	VITREOUS CHINA	WALL HUNG		1	20 1/2"x 18 1/4"x 7 1/8"	1 1/2"	1 1/2"	1/2"	1/2"	AMERICAN STANDARD/ INNSBROOK 6055.205		FIXTURE SHALL BE MOUNTED AT ADA HEIGHT. PROVIDE ASSE 1070 VALVES. PROVIDE FAUCET WITH 1.0 GPM AERATOR.

APPROVED MANUFACTURERS:

LAVATORIES – AMERICAN STANDARD, FERGUSON, KOHLER, SLOAN, ZURN SINKS — ELKAY, FRANKE, JUST, MOEN

FAUCETS — AMÉRICAN STANDARD, CHICAGO, DELTA

			SERVICE SINKS			PIF	E CONNE	CTION SIZ	ZES			
UNIT IDENTIFICATION	FIXTURE MATERIAL	MOUNTING STYLE	BOWL DIMENSIONS L x W x D INCHES	TRAP TYPE	OVERALL DIMENSIONS L x W x D INCHES	WASTE	VENT	CW	HW	FAUCET MANUFACTURER/ MODEL	MANUFACTURER/MODEL	REMARKS
SS-1	STONE	FLOOR	24" × 24" × 10"	STANDARD	24 3/16 x 24 3/16" x 10	3"	1 1/2"	3/4"	3/4"	FIAT/ 830–AA	FIAT/ MSB-2424	PROVIDE WITH VACUUM BREAKER, STAINLESS STEEL GRID STRAINER, PAIL HOOK AND HOSE THREAD, HOSE AND MOP HANGERS.

APPROVED MANUFACTURERS:

SERVICE SINKS/BASINS - ACORN, AMERICAN STANDARD, CRANE, FLORESTONE, FURGUSON, KOHLER, MUSTEE, PRECAST TERRAZZO, STERN-WILLIAMS, SWAN, ZURN FAUCETS - AMERICAN STANDARD, CHICAGO, DELTA, ELKAY, KOHLER, MOEN, SPEAKMAN, T&S, ZURN

		ELECTRIC WAT	TER COOLERS/DRIN	KING FOUNTAINS		PIF	PE CONNE	CTION SIZ	'ES			
UNIT IDENTIFICATION	FIXTURE MATERIAL	MOUNTING STYLE	CONTROL	NUMBER OF RECEPTORS	CAPACITY GPH	WASTE	VENT	CW	HW	ELECTRICAL INFO HP-VOLTS-PHASE	MANUFACTURER/MODEL	REMARKS
EWC-1	STAINLESS STEEL	WALL	BAR	1	8	2"	1 1/2"	3/4"	1	5 AMPS-120-1ø	ELKAY/LZSVR8	FILTERED COOLER

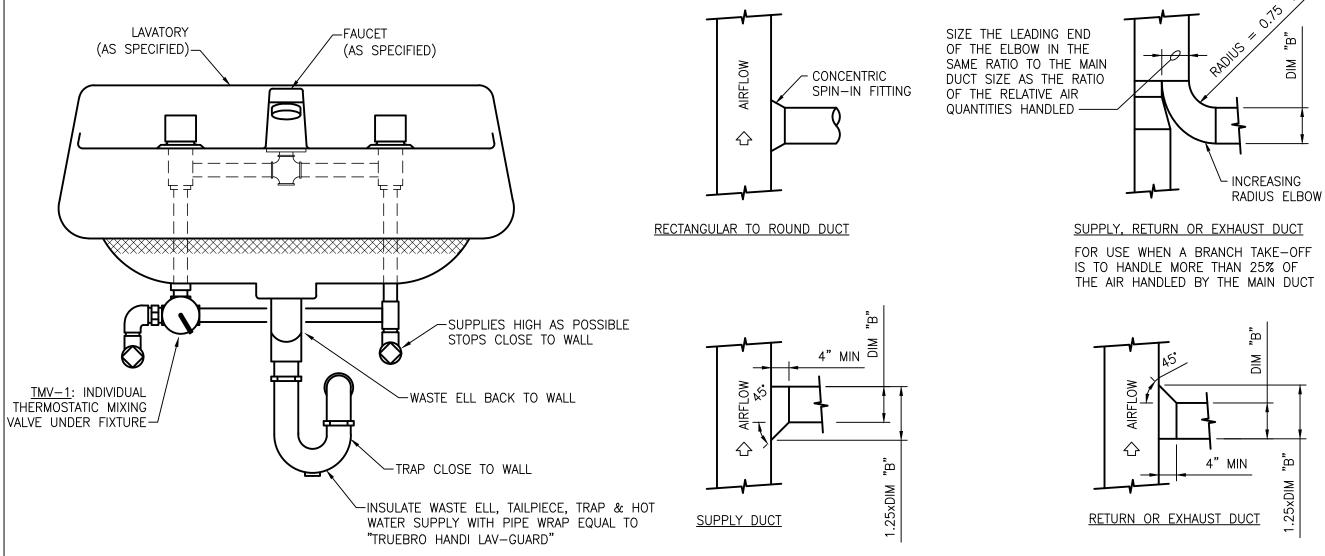
APPROVED MANUFACTURERS: ELKAY, HALSEY TAYLOR, OASIS, ACORN

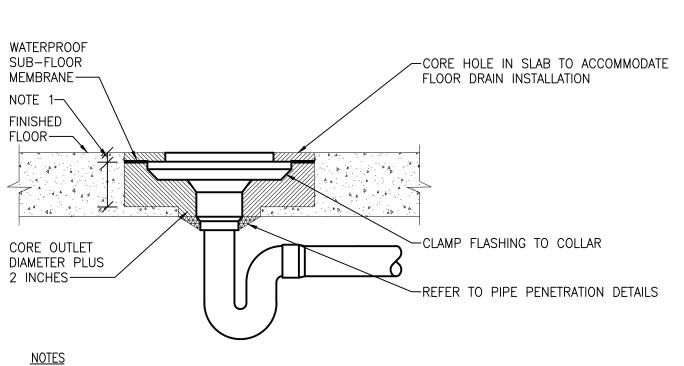
			PIP	E CONNE	CTION SIZ	'ES						
UNIT IDENTIFICATION	TOP/STRAINER MATERIAL	TOP SHAPE	OUTLET SIZE INCHES	OUTLET TYPE	GRATE TYPE	WASTE	VENT	CW	HW	DIMENSIONS INCHES	MANUFACTURER/MODEL	REMARKS
FD-1	NICKEL BRONZE	ROUND	3	воттом		3"	1 1/2"	_	-	9" DIAMETER	JR SMITH/2005Y-A	7" DIAMETER STRAINER

APPROVED MANUFACTURERS: FLOOR DRAINS/SINKS - JOSAM, MIFAB, SIOUX CHIEF, J.R. SMITH, TYLER PIPE, WATTS, ZURN

NOTE:

- 1. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM AND FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, WATER AND ENERGY CONSERVATION CODES. THE SCHEDULED AND/OR SPECIFIC PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TRIM OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS AND CODES.
- 2. INSTALL ASSE 1070 WATER-TEMPERATURE LIMITING DEVICES ON SUPPLIES FOR LAVATORIES AND SINKS THAT WILL BE USED FOR HANDWASHING.
- 3. PROVIDE MANUFACTURERS RECOMMENDED CONCEALED ARM WALL CARRIER WITH FOOT SUPPORTS AT ALL WALL HUNG LAVATORIES.
- 4. PROVIDE MANUFACTURERS RECOMMENDED WALL CARRIER WITH FOOT SUPPORTS AT ALL WALL HUNG WATER CLOSETS.
- 5. WHERE INDICATED ON PLAN, PROVIDE WITH AIR ADMITTANCE VALVE (AAV-1), STUDOR MINI VENT MODEL 20301. MOUNT UNDER SINK, UNDER COUNTER, OR IN STUDOR MULTI-PURPOSE RECESS BOX, MODEL 20306 OR APPROVED EQUAL.



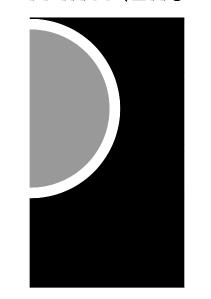


- REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR THICKNESS AND FINISHES.
- WHERE WATERPROOF FLOOR COVERINGS OCCUR, PROVIDE WIDE FLANGE STRAINER AND PLUG SEEPAGE OPENINGS.
- PROVIDE EXTENSIONS WHERE REQUIRED TO ACCOMODATE FLOOR THICKNESS.

RECTANGULAR DUCT BRANCH TAKE-OFF DETAILS NO SCALE

FLOOR DRAIN DETAIL (EXISTING FLOORS) NO SCALE

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Statement of Intellectual Property

F 586.469.3607

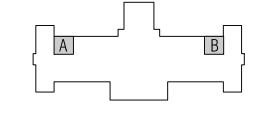
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Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

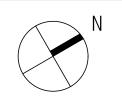
2333 Burger Hamtramck, MI 48212

PROJECT NO.

16-118

ISSUES / REVISIONS

Bidding - Construction 04/22/2016



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APPROVED BY TMV

MECHANICAL DETAILS,

SCHEDULES AND TEMPERATURE **CONTROLS**

SHEET NO. M600

NO SCALE

	LUMINAIRE	SCHEDULE		
FIXTURE MARK	DESCRIPTION	MANUFACTURER(S)	LAMP SOURCE	WATTS
A	1'x4' LED VANDAL RESISTANT LUMINAIRE SUITABLE FOR SURFACE MOUNTING. MARINE GRADE ALUMINUM BODY WITH DIE CAST END CAPS, POLYESTER POWER COAT WHITE FINISH, HIGH IMPACT POLYCARBONATE LENS ELECTRONIC DRIVER. FLAT END CAPS. 4575 LUMENS, 4000K. 120V OPERATION.	1. KENALL LIGHTING LED MLHA12-48-F-MW-PP-45L40K-DCC- 1-120. 2. ENGINEER APPROVED EQUAL	LED 4000°K 120V 80+ CRI	45
AE	SAME AS TYPE "A" EXCEPT WITH ADDED EMERGENCY BATTERY PACK 1100 LUMENS.	 KENALL LIGHTING LED MLHA12-48-F-MW-PP-45L40K-DCC- 1-120-LEL. ENGINEER APPROVED EQUAL 	LED 4000°K 120V 80+ CRI	45
B	5.33"x4' LED VANDAL RESISTANT WALL MOUNTED LUMINAIRE. MARINE GRADE ALUMINUM BODY WITH DIE CAST END CAPS, POLYESTER POWER COAT WHITE FINISH, HIGH IMPACT POLYCARBONATE LENS ELECTRONIC DRIVER. FLAT END CAPS. 4526 LUMENS, 4000K. 120V OPERATION.	 KENALL LIGHTING LED MLHA5-48-F-MW-PP-45L40K-DCC- 1-120. ENGINEER APPROVED EQUAL 	LED 4000°K 120V 80+ CRI	45
BE	SAME AS TYPE "B" EXCEPT WITH ADDED EMERGENCY BATTERY PACK 1100 LUMENS.	1. KENALL LIGHTING LED MLHA12-48-F-MW-PP-45L40K-DCC- 1-120-LEL. 2. ENGINEER APPROVED EQUAL	LED 4000°K 120V 80+ CRI	45
CE	2' x 4' LED TROFFER LUMINAIRE SUITABLE FOR RECESS MOUNTING IN LAY—IN TYPE GRID CEILING, COLD—ROLLED STEEL HOUSING, POLYESTER PAINTED WHITE ENAMEL FINISH, LINEAR FACETED REFLECTOR CAVITY, LINEAR CLEAR ACRYLIC DIFFUSER, FLUSH ALUMINUM WHITE DOOR FRAME, SPRING LOADED LATCH, INTEGRAL T—BAR SAFETY CLIPS, ELECTRONIC DRIVER. 1400 LUMEN EMERGENCY BATTERY PACK CAPABLE OF PROVIDING EMERGENCY ILLUMINATION FOR MINIMUM OF 90 MINUTES LIGHT OUTPUT OPERATION	1. LITHONIA 2GTL LED 2GTL-4-48L-FW-LP835-EL14L 2. METALLUX 24GR LED 3. LSI	LED 3500°K MVOLT 80+ CRI	47
D	4' STRIP LED FIXTURE SURFACE MOUNTED ON CEILING, COLD—ROLLED STEEL HOUSING WITH SNAP—N—LOCK END PLATE, MDEDIUM DIFFUSE LENS, RUST RESISTANCE, INTEGRATED ON A TWO—LAYER CIRCUIT BOARD, ELECTRONIC LED DRIVER, NOMINAL 2000 LUMEN OUTPUT.	1. LITHONIA ZL2N-L48-2000L-MDD-WH 2. METALLUX	LED 3500°K MVOLT 80CRI	32

LUMINAIRE SCHEDULE GENERAL NOTES

- 1. REFER TO ELECTRICAL SPECIFICATIONS FOR MORE INFORMATION.
- 2. ALL LIGHT FIXTURES SHALL BE UL LABELED.
- 3. FIRST MANUFACTURER LISTED IS BASIS OF DESIGN. OTHER MANUFACTURERS LISTED ARE APPROVED MANUFACTURERS.
- 4. ELECTRICAL TRADES SHALL PROVIDE COMPLETE SUBMITTALS (SHOP DRAWINGS) ON ALL LIGHT FIXTURES, LAMPS, CONTROLS AND ACCESSORIES, ETC. REFER TO SPECIFICATION FOR SUBMITTAL FORMAT AND PROCESS.
- 5. ALL LUMINARIES AND CONTROLS SHALL COMPLY WITH THE MICHIGAN UNIFORM ENERGY CODE AND ASHRAE 90.1.

SYMBOL	DESCRIPTION
	FLUORESCENT LIGHT FIXTURE
	FLUORESCENT NIGHT LIGHT FIXTURE
	FLUORESCENT EMERGENCY LIGHT FIXTURE
	WALL MOUNTED FLUORESCENT LIGHT FIXTURE
\bigcirc	DOWNLIGHT
$\hat{\Diamond}$	DOWNLIGHT WALL WASH FIXTURE
	WALL SCONCE LIGHT FIXTURE
- \(-	SURFACE MOUNTED LIGHT FIXTURE
<u></u>	INTERIOR WALL MOUNTED LIGHT FIXTURE
∇ ∇	TRACK AND TRACK MOUNTED LIGHT FIXTURES
⊗	CEILING MOUNTED EXIT LIGHT — ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
•	WALL MOUNTED EXIT LIGHT — ARROWS AS INDICATED ON PLAN (SHADED AREA INDICATES FACE(S) OF FIXTURE)
	EMERGENCY BATTERY UNIT
484	COMBINATION EMERGENCY BATTERY UNIT/EXIT SIG
⊶□	EXTERIOR POLE MOUNTED LIGHT FIXTURE
早	EXTERIOR WALL MOUNTED LIGHT FIXTURE
×	EXTERIOR POST TOP LIGHT FIXTURE
•	BOLLARD LIGHT FIXTURE
\$	SINGLE POLE SWITCH
\$2	TWO POLE SWITCH
\$3	THREE WAY SWITCH
\$4	FOUR WAY SWITCH
\$к	KEYED SWITCH
\$D	DIMMER SWITCH
\$L	LOW VOLTAGE SWITCH
\$P	SWITCH WITH PILOT LIGHT
\$\$	DUAL SWITCH

LIGH	TING CONTROLS LEGEND
SYMBOL	DESCRIPTION
\$т	DIGITAL TIMER SWITCH
\$ o	WALL OCCUPANCY SENSOR SWITCH
OS	OCCUPANCY SENSOR
DLS	DAYLIGHT SENSOR
HP	PHOTOCELL

NOTES:

1. DRAWINGS INDICATE DESIGN INTENT ONLY.

2. SENSOR SELECTION, QUANTITY AND LOCATION TO BE DETERMINED BY MANUFACTURER BASED ON AREA TO BE COVERED.

SYMBOL	DESCRIPTION									
F	AUDIBLE DEVICE									
Ē	COMBINATION AUDIBLE/VISUAL DEVICE									
Ę	CEILING MOUNTED AUDIBLE/VISUAL DEVICE									
S	VISUAL DEVICE									
)SI	CEILING MOUNTED VISUAL DEVICE									
√FD	FIRE DEPARTMENT COMMUNICATION OUTLET									
F	MANUAL PULL STATION									
DH	DOOR HOLDER									
Ś	SMOKE DETECTOR (ZONED AS INDICATED)									
⟨\$⟩ _P	PHOTOELECTRIC SMOKE DETECTOR (ZONED AS INDICATED)									
(I)	HEAT DETECTOR (ZONED AS INDICATED)									
(TS)	TAMPER SWITCH									
(FS)	FLOW SWITCH									
<u></u>	DUCT MOUNTED SMOKE DETECTOR									
FAA	FIRE ALARM ANNUNCIATOR PANEL									
FACP	FIRE ALARM CONTROL PANEL									

ELECTRICAL ABBREVIATIONS

DESCRIPTION

ABBREV.

AF	AMP FUSE										
AFF	ABOVE FINISHED FLOOR										
AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)										
ATS	AUTOMATIC TRANSFER SWITCH										
СВ	CIRCUIT BREAKER EXISTING FLECTRICAL FOLLIPMENT OR WORK										
(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK										
EMT	ELECTRICAL METALLIC TUBING										
EWC	ELECTRIC WATER COOLER										
FA	FIRE ALARM										
FACP	FIRE ALARM CONTROL PANEL										
FLA	FULL LOAD AMPS										
G/GRD	GROUND										
GFI	GROUND FAULT INTERRUPTER										
НОА	HAND-OFF-AUTO										
IG	ISOLATED GROUND										
LP	LIGHTING PANEL										
MCB	MAIN CIRCUIT BREAKER										
MDP	MAIN DISTRIBUTION PANEL										
MLO	MAIN LUG ONLY										
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION										
NF	NON-FUSIBLE										
NIC	NOT IN CONTRACT										
Р	POLE										
(R)	RELOCATED EXISTING ELECTRICAL EQUIPMENT										
(RR)	REMOVE AND REINSTALL										
RMC	RIGID METALLIC CONDUIT										
RP	RECEPTACLE PANEL										
TBB	TELEPHONE BACKBOARD										
TYP.	TYPICAL										
WG	WIRE GUARD										
WP	WEATHERPROOF										

SYMBOL	DESCRIPTION								
TC	TIME CLOCK								
С	CONTACTOR								
	HARD WIRE CONNECTION BY ELECTRICAL CONTRACTOR								
φ	SINGLE RECEPTACLE OUTLET								
Ψ	DUPLEX RECEPTACLE OUTLET								
 	DUPLEX RECEPTACLE OUTLET MOUNTED 6" ABOVE FINISH COUNTER								
ФС	CEILING MOUNTED DUPLEX RECEPTACLE OUTLET								
P	EMERGENCY DUPLEX RECEPTACLE OUTLET								
П	DEDICATED DUPLEX RECEPTACLE OUTLET								
	QUAD RECEPTACLE OUTLET								
===	DEDICATED QUAD RECEPTACLE OUTLET								
Φ	FLOOR MOUNTED DUPLEX RECEPTACLE OUTLET								
\otimes	NEMA RECEPTACLE OUTLET (CONFIGURATION AS NOTED)								
	PLUG STRIP								
J	JUNCTION BOX (C=CEILING MOUNTED)								
	RECEPTACLE PANEL								
	LIGHTING PANEL								
	DISTRIBUTION/EQUIPMENT POWER PANEL								
Т	TRANSFORMER								
\sim	SINGLE PHASE MOTOR								
\	THREE PHASE MOTOR								
•	CONDUIT DOWN								
0	CONDUIT UP								
•	GROUNDING ROD								
=	GROUND								
	GROUNDING BAR								
М	METER								
	NON-FUSED DISCONNECT SWITCH								
	FUSED DISCONNECT SWITCH								
	COMBINATION MAGNETIC MOTOR STARTER								
\$м	MOTOR RATED SWITCH								
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR								

POWER SYMBOL LIST

AUXILIARY SYST. SYMBOL LIST										
SYMBOL	OL DESCRIPTION									
∇	TELEPHONE OUTLET									
∇	FLOOR MOUNTED TELEPHONE OUTLET BOX (TYP.)									
\forall	TELEPHONE OUTLET MOUNTED 6" ABOVE FINISHED COUNTER									
▼	DATA OUTLET									
A	COMBINATION OUTLET (VOICE, VIDEO, AND/OR DATA)									
△c	CEILING MOUNTED OUTLET BOX (TYP.)									
•	PUSH BUTTON									
0	BELL									
CR	CARD READER									
DH	MAGNETIC DOOR HOLD									
—TV	TELEVISION OUTLET									
$\vdash \bigcirc$	WALL CLOCK									
$\vdash \bigoplus$	DOUBLE SIDED WALL CLOCK									
	COMBINATION WALL CLOCK / SPEAKER									
<u>S</u>	SPEAKER									
	CAMERA									

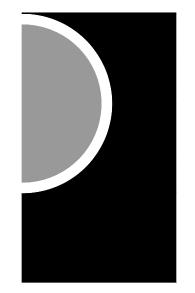
DRAWING INDEX							
SHT NO	DESCRIPTION						
E000	ELECTRICAL GENERAL INFORMATION						
ED101	PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN						
E101	PARTIAL FIRST FLOOR ELECTRICAL PLAN						
E600	ELECTRICAL DETAILS AND SCHEDULES						

DRAWING NOTATION

SYMBOL	DESCRIPTION								
FA	LIGHTING FIXTURE TAG								
1	CONSTRUCTION KEY NOTE NUMBER 1								
1	DEMOLITION KEY NOTE NUMBER 1								
EF 1	EQUIPMENT DESIGNATION, (I.E. EXHAUST FAN NUMBER 1)								
	EXISTING DEVICES OR EQUIPMENT								
	NEW OR MODIFIED DEVICES OR EQUIPMENT								
	NEW OR MODIFIED UNDERGROUND WIRING								
<i>\$///////</i> \$	EXISTING SYSTEM COMPONENT TO BE REMOVED								
	SECTION NUMBER 4 E5.2 SHEET E5.2 ON WHICH SECTION IS DRAWN								
	SECTION NO. 6								
6 E5.2	SECTION SCALE: 1/4" = 1' - 0"								

	APPLICABLE CODES AND REGULATIONS
YEAR	CODE
2014	MICHIGAN ELECTRICAL CODE RULES, PART 8
2014	NATIONAL ELECTRICAL CODE (NFPA 70)
2012	MICHIGAN BUILDING CODE
2012	MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS
2009	MICHIGAN RESIDENTIAL CODE
2009	MICHIGAN UNIFORM ENERGY CODE
2010	NFPA 20
2010	NFPA 72
2012	NFPA 101
2010	NFPA 110
2009	ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS & FACILITIES

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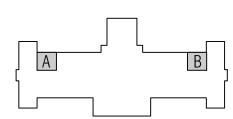
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Hamtramck SHEET E5.2 ON WHICH SECTION IS CUT (ENLARGED PARTIAL PLAN SIMILAR)

Public Schools

PROJECT NAME

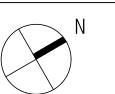
Kosciuszko Middle School Toilet Room Upgrades

2333 Burger Hamtramck, MI 48212

PROJECT NO.

16-118

ISSUES / REVISIONS Bidding - Construction 04/22/2016

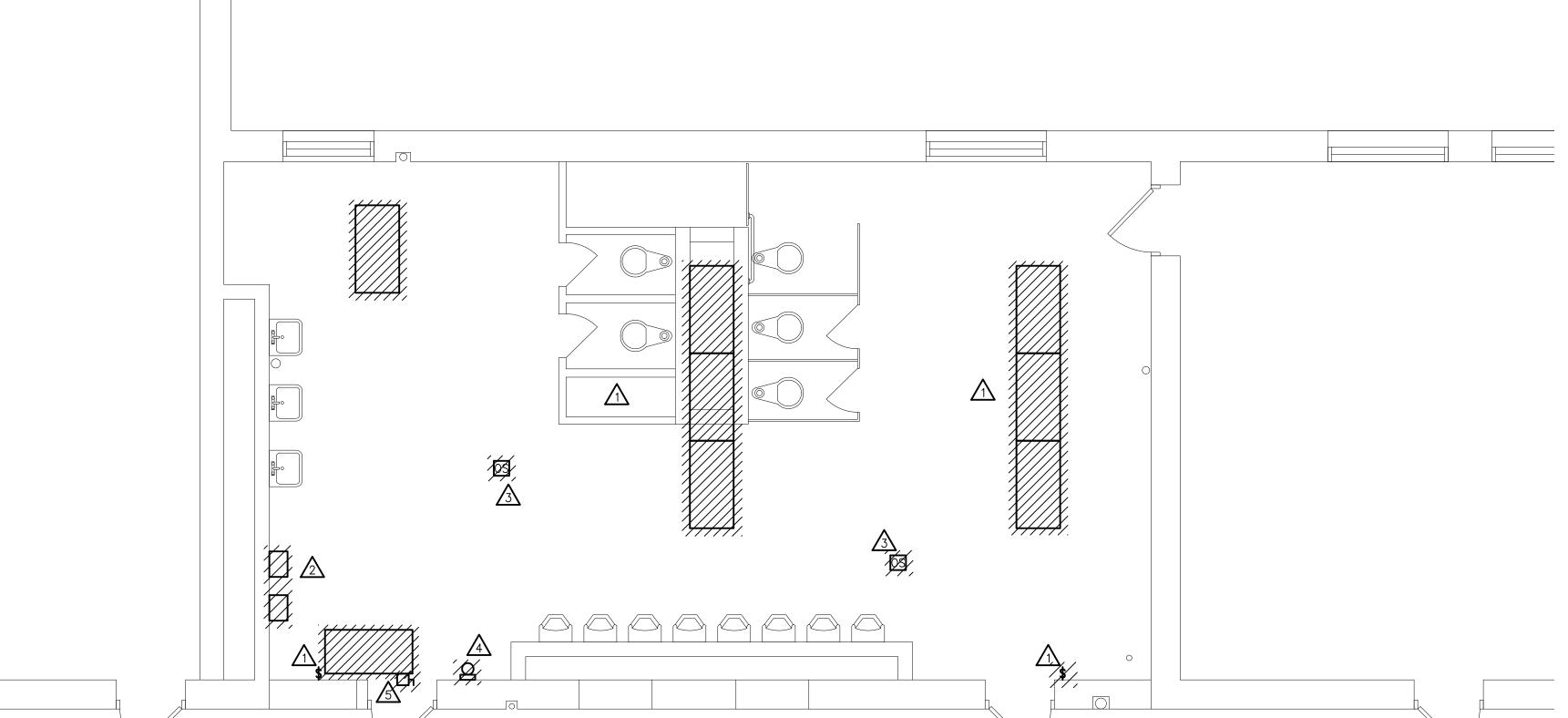


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ELECTRICAL GENERAL INFORMATION



GENERAL DEMOLITION NOTES

- 1. ANY INTERRUPTIONS OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING'S OPERATION
- OPERATION.

 2. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK TO BE PERFORMED. THE EXACT EXTENT OF DEMOLITION SHALL BE AS
- 3. ALL MECHANICAL ITEMS TO BE REMOVED SHALL BE REMOVED COMPLETE WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTWORK.
- 4. ALL DEMOLITION OF THE EXISTING MECHANICAL SYSTEMS, INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONTROLS, SUPPORTS, HANGERS, AND EQUIPMENT SHALL BE UNDER SCOPE OF DIVISION 20 THRU 23 OF THE SPECIFICATIONS.
- 5. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED.

DEMOLITION KEYED NOTES

EXISTING LIGHT FIXTURES AND SWITCHING TO BE REMOVED. REMOVED CONDUIT AND WIRING BACK TO SOURCE, CAP ALL EXISTING OPENINGS. REFER TO NEW PLANS FOR NEW LIGHTING AND SWITCH LOCATIONS.

EXISTING HAND DRYERS TO BE REMOVED, REMOVE CONDUIT AND WIRING BACK TO SOURCE, CAP ALL EXISTING OPENINGS.

REQUIRED BY THE NEW WORK.

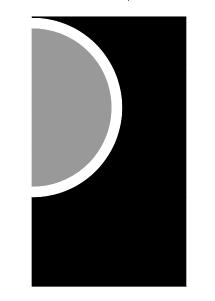
EXISTING OCCUPANCY SENSORS TO BE REMOVED, REMOVE CONDUIT AND WIRING BACK TO SOURCE, REFER TO NEW PLANS FOR NEW OCCUPANCY SENSORS LOCATION.

EXISTING BELL TO BE REMOVED, STORED AND PREPARED TO BE RE-INSTALLED IN NEW LOCATION. PROTECT CIRCUIT TO BE EXTENDED. REFER TO NEW PLANS FOR NEW LOCATION.

DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH, REMOVE CONDUIT AND WIRING BACK TO SOURCE, COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR PRIOR TO REMOVAL.

EXISTING BRANCH PANEL 120/240V SINGLE PHASE TO REMAIN. REFER TO NEW WORK PLANS FOR ADDITIONAL INFORMATION.

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P 586.469.3600

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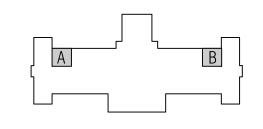
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PLAN 🚫



OWNER

Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

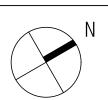
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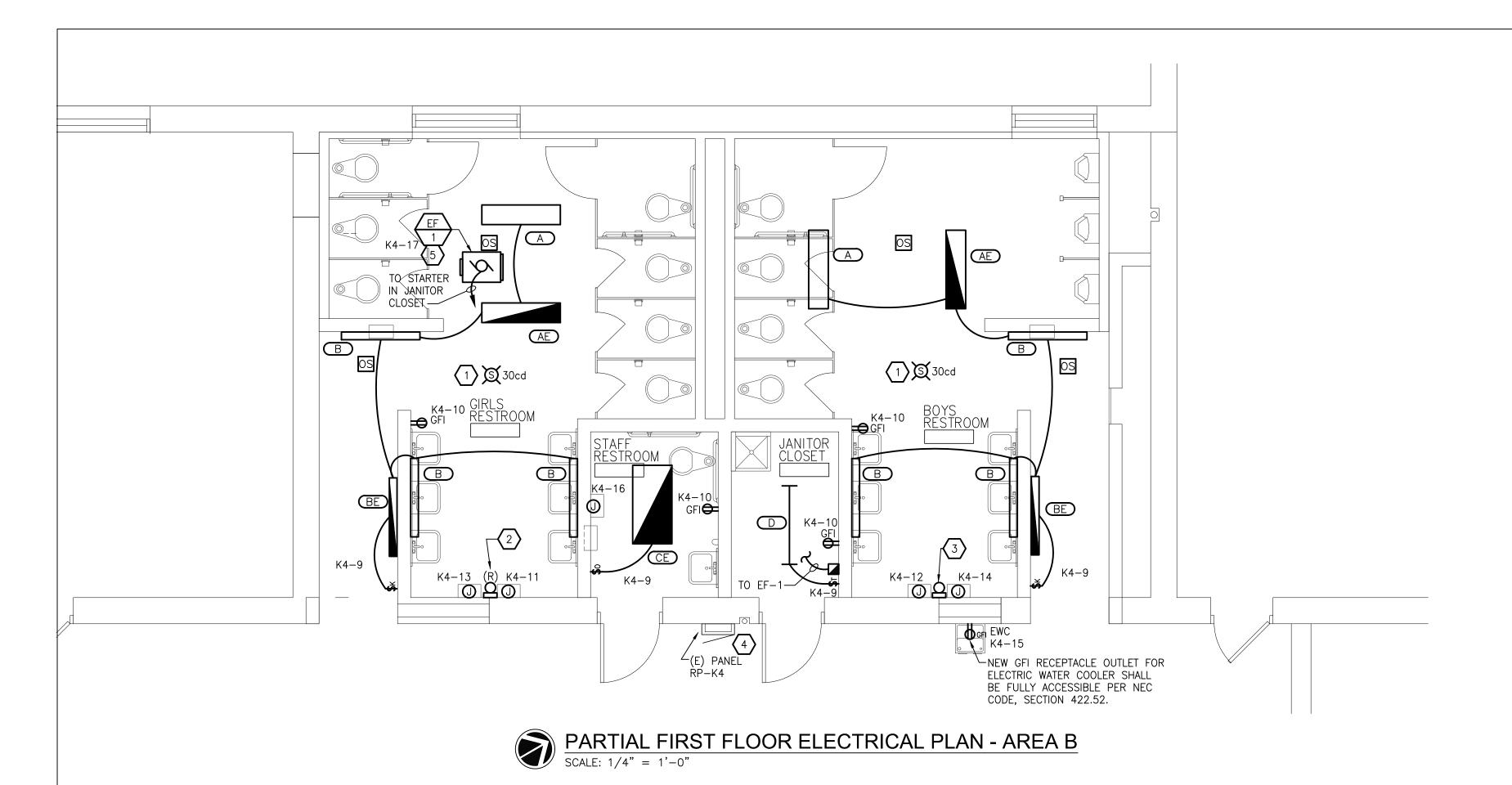
PARTIAL FIRST
FLOOR ELECTRICAL
DEMOLITION PLAN

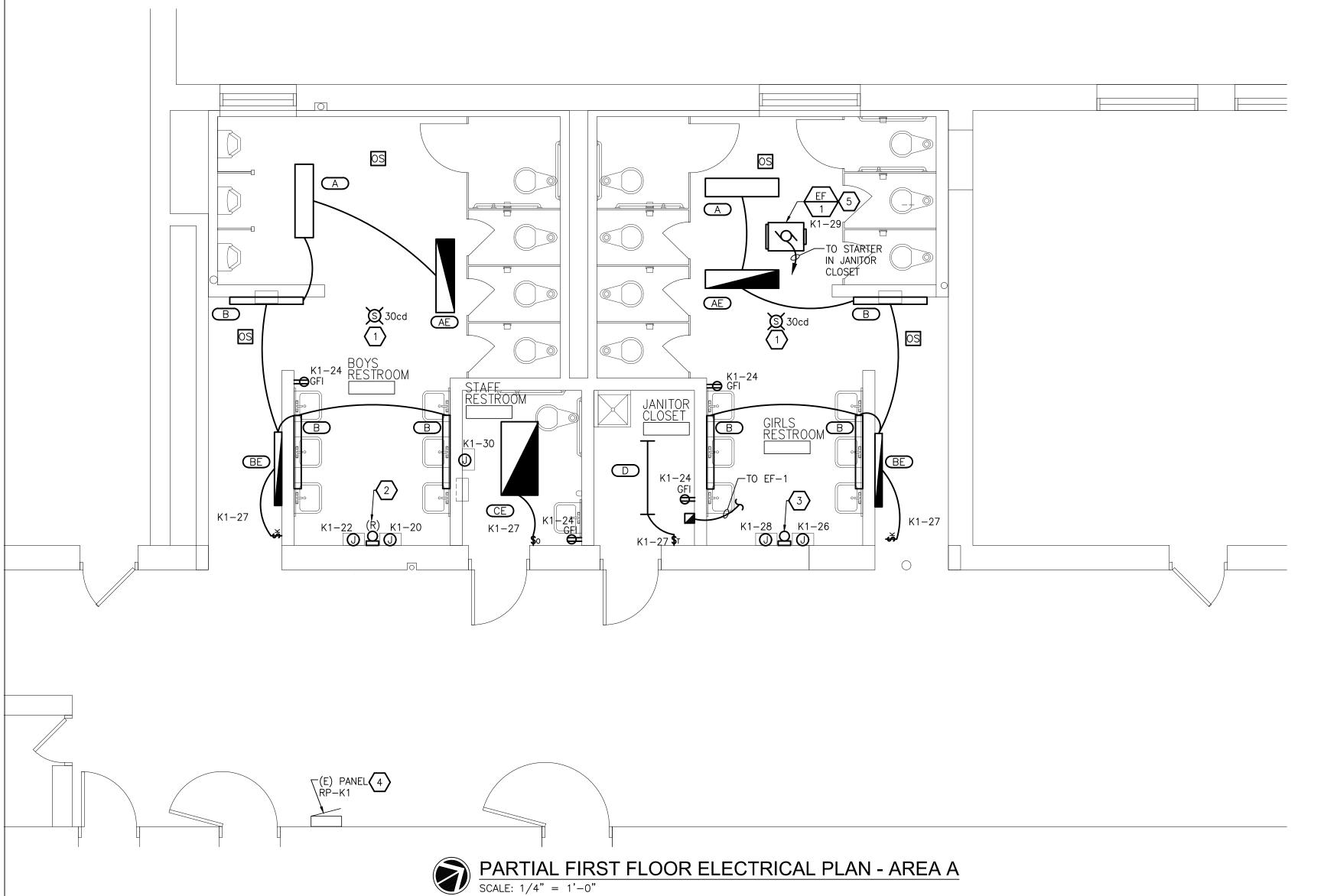
SHEET NO.

PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN - AREA A

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

g: 3:(16 USS / UZ Namtramck School District Nosciuszko MS Tollet Koom Upgrades\UAD\Elec\T6 USS / UZ - EDTUT.c Apr 22, 2016, 10:54am - Layout: EDTOT - Plotted by: rrs





ELECTRICAL GENERAL NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
- 2. SEE LUMINAIRE SCHEDULE ON ELECTRICAL GENERAL INFORMATION SHEET.
- 3. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND

TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.

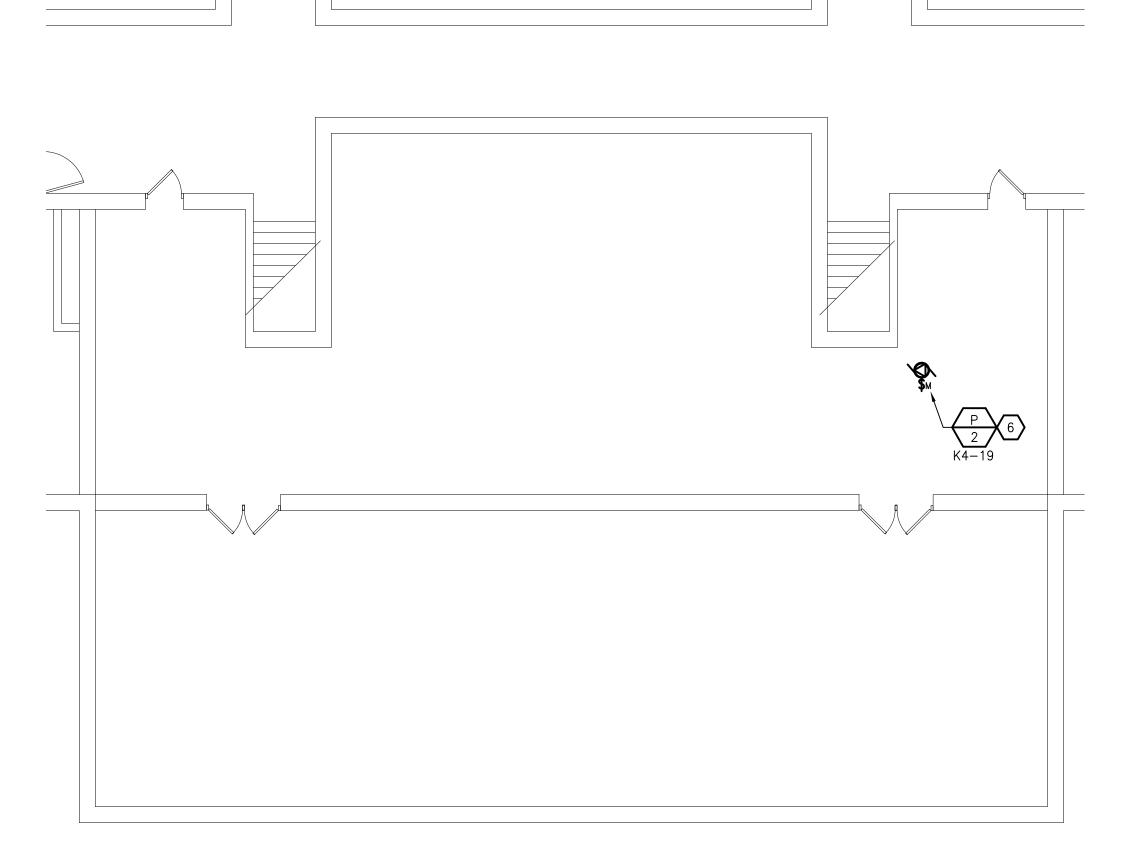
- 4. WHERE MORE THEN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.
- 5. ALL ELECTRICAL DEVICES SHOWN ON THIS PLAN SHALL BE NEW UNLESS
- 6. ANY 120 VOLT BRANCH CIRCUIT FEEDER LONGER THAN 75'-0" TO LAST DEVICE SHALL BE SIZED TO THE NEXT LARGER STANDARD AWG SIZE. E.C. SHALL FIELD VERIFY ALL LENGTHS OF FEEDERS.
- 7. ALL RECEPTACLES SHALL BE 20A. RATED.

OTHERWISE NOTED.

- 8. ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE.
- 9. ALL RECEPTACLES WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE GFCI TYPE RECEPTACLE.
- 10. REFER TO ARCHITECTURAL FLOOR PLAN AND ELEVATIONS FOR EXACT LOCATION OF DEVICES.
- 11. ALL JUNCTION BOXES SERVING BRANCH CIRCUIT WIRING SHALL BE LABELED WITH CIRCUITS SERVED.
- 12. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
- 13. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- 14. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
- 15. ALL ELECTRICAL EQUIPMENT MOUNTED ON THE FLOOR SHALL BE MOUNTED ON A 4" CONCRETE HOUSE KEEPING PAD.
- 16. ALL BRANCH CIRCUIT WIRING SHALL BE 2#12, 1#12GND IN 3/4" CONDUIT, UNLESS NOTED OTHERWISE.

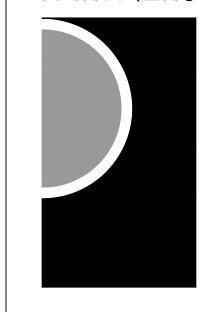
KEYED NOTES

- NEW CEILING MOUNTED FIRE ALARM STROBE, 15cd, CONNECT TO NEW FIRE ALARM CONTROL PANEL IN OFFICE AREA, REFER TO RISER DIAGRAM.
- RELOCATED SCHOOL BELL TO BE WALL MOUNTED, EXTEND CONDUIT AND WIRING TO THIS NEW LOCATION, REFER TO DEMOLITION PLANS.
- NEW SCHOOL BELL TO MATCH EXISTING, CONNECT TO EXISTING SCHOOL BELL SYSTEM, PROVIDE NEW CONDUIT AND WIRING TO THIS NEW LOCATION.
- EXISTING PANEL TO BE REUSED FOR NEW CIRCUITS, REFER TO PANEL SCHEDULE SHEET E600.
- NEW EXHAUST FAN EF-1 AND CONNECT TO CIRCUIT NUMBER AS SHOWN. RUN 2#12+1#12GND-3/4C". PROVIDE NEW HOA SWITCH, CONNECT TO TIMECLOCK.
- NEW EXHAUST FAN P-1 AND CONNECT TO CIRCUIT NUMBER AS SHOWN. RUN 2#12+1#12GND-3/4C". DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR AND STARTER BY MECHANICAL CONTRACTOR.









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Statement of Intellectual Property

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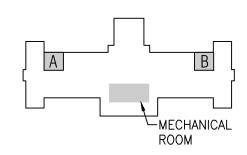
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KEY PLAN NORTH



OWNER

Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

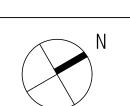
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PROJECT NO.

16-118

ISSUES / REVISIONS

Bidding - Construction 04/22/2010



DRAWN BY **FAA**

CHECKED BY

APPROVED BY

PARTIAL FIRST FLOOR ELECTRICAL

PLAN
SHEET NO.
E101

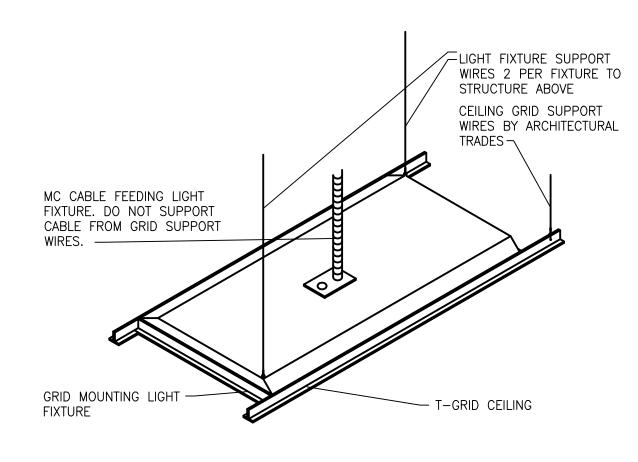
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PANEL NAME: (E) RP-K1 LOCATION: CORRIDOR NEAR KITCHEN SOURCE: (E) PARK OHIO DISTRIBUTION PANEL FEEDER SIZE: EXISTING					MAIN: 150 BUSSING: 200 GROUND BUS: STANDARD MOUNTING: SURFACE NEUTRAL: 100%							L-L VOLTAGE: 240 L-N VOLTAGE: 120 PHASE: 1 WIRE: 3 MIN SC INTERRUPT RATING: 10kA				
LOAD DESCRIPTION	LIGHTING LOAD	RECEPTACLE LOAD	CONTINUOUS LOAD	NON- CONTINUOUS LOAD	OCPD	CKT L	1	.2 CKT	OCPD	NON- CONTINUOUS LOAD	CONTINUOUS LOAD	RECEPTACLE LOAD	LIGHTING LOAD	LOAD DESCRIPTION		
existing load		800			20	1		2	20			800		existing load		
existing load		800			20	3		4	20			800		existing load		
existing load		800			20	5		6	20			800		existing load		
existing load		800			20	7		8	20			800		existing load		
EXISTING LOAD		800			20	9		10	20			800		existing load		
EXISTING LOAD		800			20	11		12	20			800		existing load		
EXISTING LOAD				1000 1000	20	13 15		14 16	15	1000				existing load		
TV/CTINIC LOAD				1800	20	17		18	20	696				EF-4 (WATER METER ROOM)		
existing load				1800	30	19		20	20	1500				BOYS HAND DRYER		
NEW LIGHTING - CLASSROOM	495				20	21		22	20	1500				BOYS HAND DRYER		
NEW LIGHTING - KITCHEN	1092				20	23		24	20			720		BOYS AND GIRLS RECEPTACLES		
NEW LIGHTING - CAFETERIA	1212				20	25		26	20	1500				GIRLS HAND DRYER		
RESTROOMS LIGHTING	700				20	27		28	20	1500				GIRLS HAND DRYER		
EF-1 RESTROOM				1176	15	29		30	20	1500				STAFF HAND DRYER		
SPACE						31		32						SPACE		
SPACE						33		34						SPACE		
SPACE						35		36						SPACE		
SPACE						37		38						SPACE		
SPACE						39		40						SPACE		
														-		
CONNECTED LOAD]		EMAN			DEMAND LOAD						
OAD TYPE	L1		L2	TOTAL		F	ACTO			L1		L2	TOTAL	1		
IGHTING LOAD (VA)	1707		1792	3499		1.00		1,0,				1792	3499			
RECEPTACLE LOAD (VA)			5520	10320			1.00 (FIRST 10KVA)		4651		5349	10000	RECEPTACLE DEMAND FACTOR PER			
		Amoui	nt over 10kVA	320		0.50	(> 101	KVA)		74		86	160	ARTICLE 220.44 OF THE NEC		
CONTINUOUS LOAD (VA)	0		0	0			1.00			0		0	0	_		
NON-CONTINUOUS (VA)	10172		6800	16972	105~		0.80			8138		5440	13578	1		
TOTAL LOAD (KVA)	16.68		14.11	31.11	125% OF LIGHT/CONT AND RECEPT		14.57		12.67	27.24						

(<10KVA) LOAD PLUS OTHER LOAD

-- PER NEC ARTICLE 215.2 -

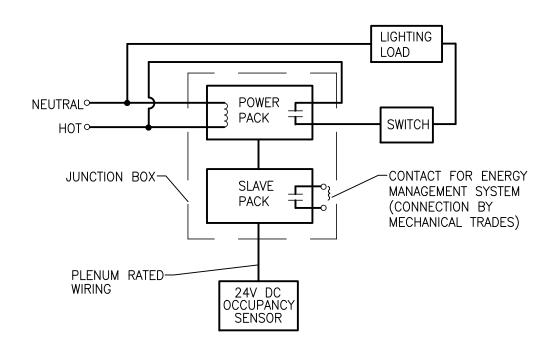
105.6



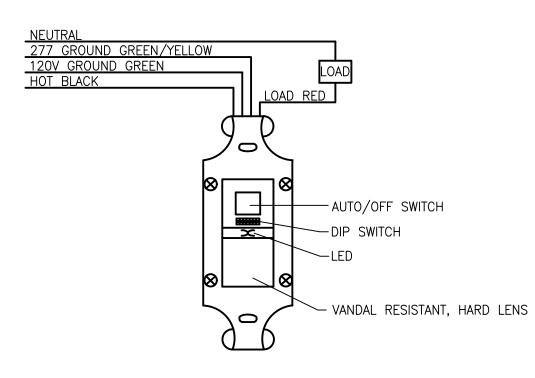
T-GRID FIXTURE MOUNTING DETAIL NO SCALE

ELECTRICAL FIXTURES

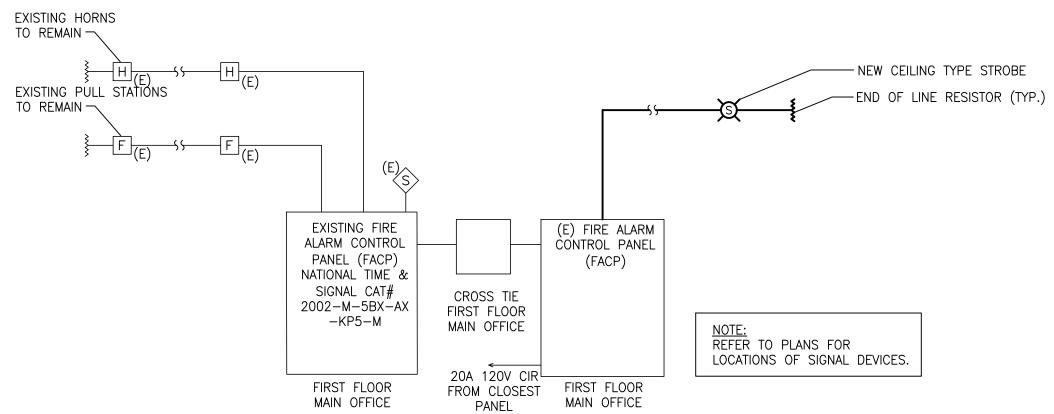
- 1. LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL HAVE ONE 12 GAUGE HANGER WIRE CONNECTED FROM THE FIXTURE TO THE STRUCTURE ABOVE. THIS WIRE MAY BE SLACK.
- 2. LIGHT FIXTURE WEIGHING MORE THAN 10 POUNDS AND LESS THAN 56 LBS. SHALL HAVE 12 GAUGE WIRES ATTACHED AT OPPOSING CORNERS OF THE LIGHT FIXTURE TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.
- 3. LIGHT FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED BY DIRECTLY FROM THE STRUCTURE ABOVE. THESE WIRES MUST BE TAUT.
- 4. PENDANT MOUNTED FIXTURES SHALL BE DIRECTLY SUPPORTED FROM THE STRUCTURE ABOVE USING A 9 GAUGE WIRE OR AN APPROVED ALTERNATE SUPPORT WITHOUT USING THE CEILING SUSPENSION SYSTEM FOR DIRECT SUPPORT.
- 5. TANDEM FIXTURES MAY UTILIZE COMMON WIRES.



TYPICAL CEILING MOUNTED OCCUPANCY SENSOR WIRING DIAGRAM NO SCALE



OCCUPANCY SENSOR SCHEMATIC NO SCALE



129.6

TOTAL AMPACITY (A)

MINIMUM FEEDER SIZE (A)

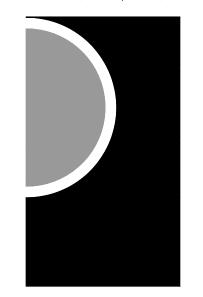
- 1. FOR FIRE ALARM EQUIPMENT SPECIFICATION AND ADDITIONAL REQUIREMENTS, SEE SPECIFICATIONS.
- 2. ALL DUCT DETECTORS SHALL BE WIRED TO ACTIVATE ALARM SYSTEM AND SHUT DOWN FAN. PROVIDE INDICATOR LIGHT WHERE SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS OR ARE MORE THAN 10FT. ABOVE THE FINISHED FLOOR.
- 3. CANDELA RATING ARE SHOWN IN ALL ROOMS, ALL AUDIO AND VISUAL RATINGS SHALL MEET OR EXCEED NFPA REQUIREMENTS.
- 4. PROVIDE REMOTE POWER SUPPLIES AS REQUIRED FOR NOTIFICATION APPLIANCE CIRCUITS, NOT TO EXCEED 80% OF
- 5. PROVIDE SMOKE DETECTOR ABOVE EACH REMOTE POWER SUPPLY
- 6. PROVIDE BATTERY, CURRENT LOAD AND VOLTAGE DROP CALCULATIONS PER SPECIFICATIONS.

- 7. SEAL AROUND ALL PIPES & CONDUITS IN MASONRY AND DRYWALL WALLS.
- 8. ALL FIRE ALARM WIRING SHALL BE MINIMUM #14 AWG AND IN CONDUIT MIN 3/4" IN EXPOSED CEILING AREAS, CABLE IS ACCEPTABLE ABOVE LAY-IN CEILINGS IN J-HOOKS.
- 9. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INVOLVED IN OBTAINING APPROVAL AND CERTIFICATION FROM STATE ELECTRICAL INSPECTOR FOR A COMPLETE SYSTEM. CERTIFIED CONTRACTOR TO PAY ALL FEES REQUIRED.
- 10. THE ELEVATION DIAGRAM IS FOR REFERENCE PURPOSES. EXACT QUANTITIES OF DEVICES AND LOCATIONS SHALL COMPLY WITH NFPA GUIDELINES AND MEET APPROVAL OF THE STATE ELECTRICAL INSPECTOR. FIRE ALARM CONTRACTOR SHALL HAVE SHOP DRAWINGS APPROVED BY THE STATE ELECTRICAL INSPECTOR PRIOR TO COMMENCEMENT OF WORK.
- 11. FOR FIRE ALARM SYMBOL LEGEND SEE DRAWING E000.
- 12. PROVIDE COVER WITH SIREN FEATURE TO ALL NEW FIRE ALARM MANUAL PULL STATION.

FIRE ALARM RISER

NO SCALE

PARTNERS



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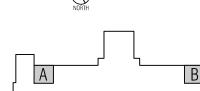
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Hamtramck Public Schools

PROJECT NAME

Kosciuszko Middle School Toilet Room Upgrades

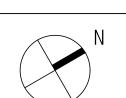
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ISSUES / REVISIONS

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SHEET NAME ELECTRICAL **DETAILS AND** SCHEDULES