

Issue Date: January 5, 2026

To: All Bidding and Cooperative Contractors

BIDDING ADDENDUM NO. 06

JOHNSON CITY CENTRAL SCHOOL DISTRICT

JCCSD CAPITAL PROJECT PHASE 2

HIGH SCHOOL	SED # 03-15-02-06-0-011-027
K-8 ELEMENTARY MIDDLE	SED # 03-15-02-06-0-020-017
BUS GARAGE	SED # 03-15-02-06-5-010-011
BUS STORAGE SOUTH.....	SED # 03-15-02-06-4-014-006
BUS STORAGE NORTH	SED # 03-15-02-06-4-015-006

HA PN 2024-239P

I. PURPOSE:

- A. Addenda shall make revisions, additions and/or deletions, and clarifications to the documents dated **December 1, 2025**, for the project referenced above. Bidders shall review the Addendum in detail and incorporate any effects the Addendum may have in their bid price.
- B. Acknowledgement: Bidders must acknowledge receipt of any and all Addenda in the space provided on the Bid Form. Failure to do so may result in rejection of the Bid. All requirements of the bidding documents remain unchanged except as cited herein.

II. GENERAL INFORMATION:

- A. Last day for questions will be **Tuesday January 6, 2026 at Noon**

III. QUESTIONS/CLARIFICATIONS:

- A. RFIs
 1. See attached

IV. PROJECT MANUAL CHANGES:

- A. None

V. DRAWING CHANGES:

- A. HS E-105
 - 1. Revised Baseboard Circuit Numbers
- B. HS E-401
 - 1. Added Panel LB-1

VI. ATTACHMENTS:

- A. Specifications
 - 1. None
- B. Drawings
 - 1. HS E-105
 - 2. HS E-401
- C. Other
 - 1. RFIs
 - a. RFI Alliance 01 Jamb J-7 HA
 - b. RFI Alliance 02 Door 113A Wall Type HA
 - c. RFI Alliance 03 Typ Masonry Wall Reinforcement HA
 - d. RFI Alliance 04 Window Lintel HA
 - e. RFI Alliance 05 Grouted Walls HA
 - f. RFI Alliance 06 Triangle Anchors HA
 - g. RFI Alliance 07 16 Inch Fire Wall Deck and Plate HA
 - h. RFI Alliance 08 Lintel L-1 in Schedule HA
 - i. RFI Alliance 09 Wall Reinforcement HA
 - j. RFI Alliance 10 Wall Designation HA
 - k. RFI Alliance 11 Shelf Angle P Placement HA
 - l. RFI Fahs 02 Screen Wall HA
 - m. RFI Forno 01 Keynote 6 Door 141A1 and 141B HA
 - n. RFI Forno 02 Keynote 1 Door 146 HA
 - o. RFI Forno 03 Spec 081116 Door Hardware P206 and P206A HA
 - p. RFI H and V 01 HVAC Tag D-1 D-2 HA
 - q. RFI H and V 02 HVAC ECH HA
 - r. RFI H and V 03 HVAC EF-1 2 HA
 - s. RFI H and V 04 HVAC Damper Drum Louver HA
 - t. RFI H and V 05 HVAC L-3 L-4 Dampers HA
 - u. RFI H and V 06 HVAC Electric Heater Spec HA
 - v. RFI H and V 07 HVAC Power Ventilator Spec HA

- w. RFI J-A Plastering 01 Fireproofing Equal HA
- x. RFI Jeffords 04 Retaining Wall Rail Galv HA
- y. RFI Main Line 07 Pool Contract Scope of Work HA
- z. RFI Main Line 08 Pool Backfill Pool HA
- aa. RFI Main Line 09 Pool Waterproofing HA
- bb. RFI Matco 03 Electrical Scope of Work HA
- cc. RFI Matco 04 Electrical Panelboard LA HA
- dd. RFI Nelcorp 02 Bus Garage Access Control HA

END OF DOCUMENT

J:\2024-239 JCCSD Capital Project 2025 and 2026 Phases 1 and 2\Construction Admin\Bidding Addenda\Phase 2\Bidding Addendum 06\Bidding Addendum 06.docx

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp

Name: Tom Cunningham

Telephone Number: 607-639-1665

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS A-107, A-400

Spec Section Referenced: _____

Other References: _____

Request: 2/HS A-107 section marker 3/A-107 through door 113C is referring to jamb detail type J-7 on A-400. Door schedule for these two OH doors 113C and 113D refer to same detail which shows attachment to CMU. The wall designation on floor plan calls out wall 9 which is metal studs. Please clarify

ANSWER: THE WALL SECTION HS 3 / A-107 IS CORRECT TO BE 3 5/8" (16 GA.) STEEL STUDS AT 16" O.C. DELETE THE CMU HATCH BEYOND SHOWN AT THE JAMB. PROVIDE DOUBLE JAMB STUDS EACH SIDE TO ATTACH THE DOOR TRACK TO. PARTITION TAG 9 SHOWN ON HS 2 / A-107 SHOULD BE TAG 5 SIMILAR WITH 16 GA STUDS.

Answered By: R. SMITH

Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp **Name:** Tom Cunningham

Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS A-107

Spec Section Referenced: _____

Other References: _____

Request: 2/HS A-107 @ new door 113A where lockers are removed, there are two wing walls added to finish off ends of exposed lockers and are not labeled with a wall type. Please clarify wall type.

ANSWER: DELETE CMU HATCH AT TEH NEW WALLS NEAR DOOR 113A.
WALL TYPE TO BE SIMILAR TO PARTITION TYPE 5A.

Answered By: R. SMITH **Date:** 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp **Name:** Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Contract(s) bidding on: _____

Drawing Referenced: S-401

Spec Section Referenced: _____

Other References: _____

Request: S-401 Typical masonry wall reinforcing schematic @ control joint reads "Refer to Arch Drawings for locations." Where do the architectural drawings show these locations?

ANSWER: REFER TO TYPICAL EXPANSION CONTROL JOINT DETAIL ON DRAWING ALL GN-102. COORDINATE WITH EXTERIOR BUILDING ELEVATIONS ON HS A-200 AND HS A-201 FOR CONTROL JOINT LOCATIONS SHOWN. DETAIL ON GN-102 INDICATES MAX SPACING OF CONTROL JOINTS TO BE 20 FT. SUBMIT A CONTROL JOINT PLAN FOR APPROVAL WITH THE SHOP DRAWINGS.

Answered By: R. SMITH

Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp

Name: Tom Cunningham

Telephone Number: 607-639-1665

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS S-202

Spec Section Referenced: _____

Other References: _____

Request: S-202 @ window openings in exterior wall of new pool, the "P" marker for lintel is a precast lintel and steel angle (not engineered brick support system) see arch schedule. Detail 2/A-306 of this opening is showing a support bracket system. Please clarify.

ANSWER: REFER TO RFI-8

Answered By: DJL Date: 1.2.2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Contract(s) bidding on: _____

Drawing Referenced: HS A-313

Spec Section Referenced: _____

Other References: _____

Request: Details 1 through 11 on A-313 call out different sized cmu walls "with vertical reinforcing grouted solid laid in full bed of mortar". Are these walls grouted solid or are they only grouted at the vertical reinforcement?

ANSWER: THE MASONRY CORES ARE TO BE GROUTED SOLID ONLY AT THE VERTICAL REINFORCING BARS. FOR ALL VERTICAL REINFORCING REFER TO STRUCTURAL DRAWINGS. REFER TO HS S-401 FOR TYPICAL MASONRY REINFORCING SCHEMATIC.

Answered By: **R. SMITH** Date: **1-2-2026**

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp

Name: Tom Cunningham

Telephone Number: 607-639-1665

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS A-313

Spec Section Referenced: _____

Other References: _____

Request: Details 1 through 11 on A-313 are showing triangle anchors attached to the columns per S-203 typical masonry anchor details. Will the wire anchor points for these triangles be pre-installed to steel columns and beams by structural steel package so that the fire proofing will not be disturbed to weld these pieces on after?

ANSWER: THE STEEL COLUMNS AND BEAMS ARE TO BE FABRICATED WITH THE FACTORY WELDED ON WIRE ANCHORS WHERE DETAILED TO ACCEPT ALL MASONRY TIES.

Answered By: R. SMITH

Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/29/2025

Company: Alliance Masonry Corp

Name: Tom Cunningham

Telephone Number: 607-639-1665

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS S-508, HS S-504

Spec Section Referenced: _____

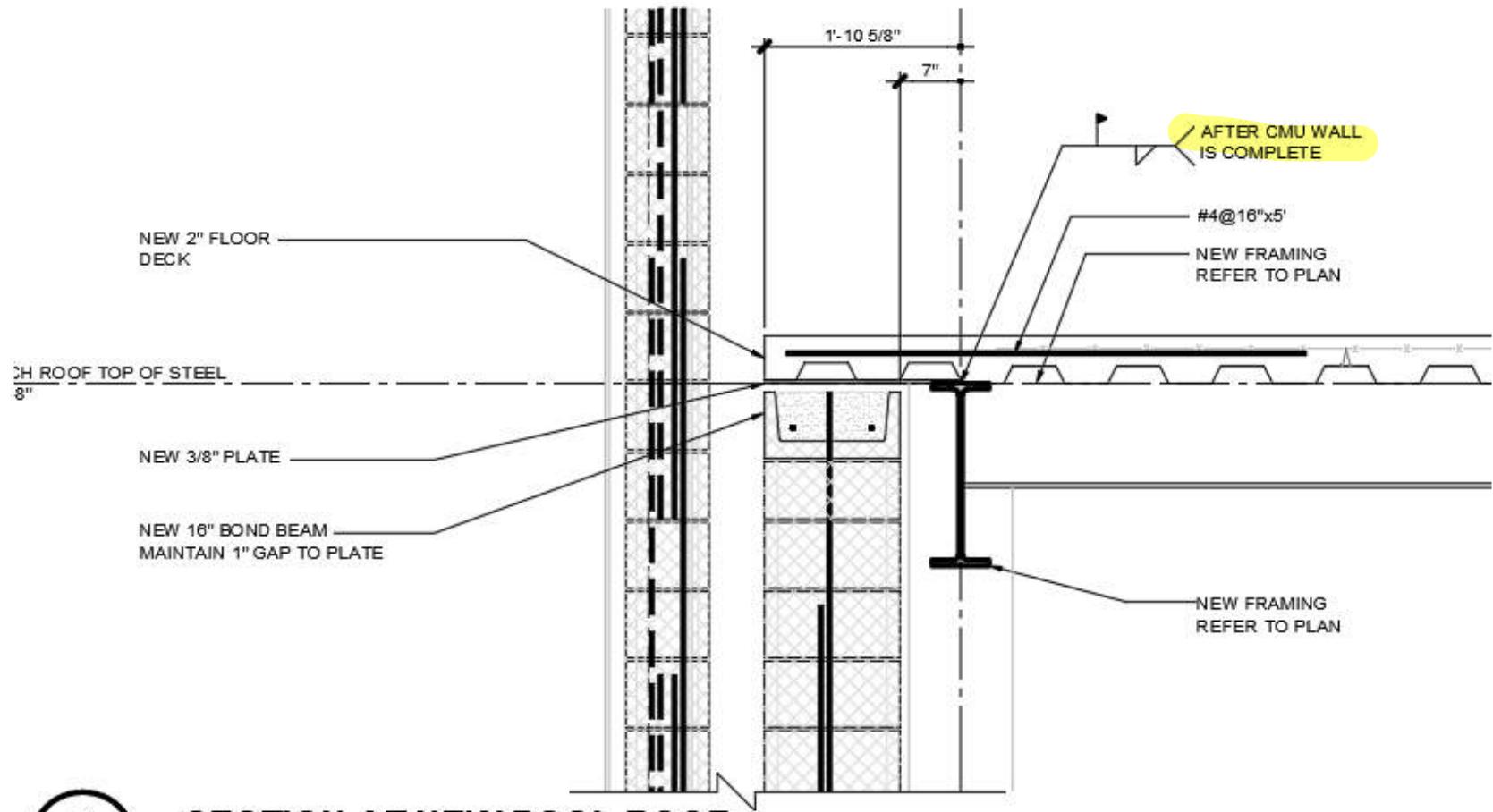
Other References: _____

Request: Detail 1/S-508 the new 16" cmu firewall on 4.8 line will not be constructible as shown if the metal plate and decking is installed prior to the cmu wall being completed. Per note om 1/S-504 "this masonry wall shall not be installed until pool deck slab is installed." Can a note be added to ensure the steel plate and decking can not be installed prior to completion of this cmu wall?

NOTE ADDED TO SECTION, SEE REVISED SECTION ATTACHED.

Answered By: **DJL**

Date: 1-2-2026



SECTION AT NEW POOL ROOF

SCALE: 3/4" = 1'-0"

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/31/2025

Company: Alliance Masonry Corp Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Contract(s) bidding on: _____

Drawing Referenced: HS S-202

Spec Section Referenced: _____

Other References: _____

Request: At the pool vestibule on 01 line there are three L-1 lintels labeled. No L-1 lintel is in the Lintel schedule. Please clarify.

ANSWER: ELIMINATE L-8 LINTEL FROM LINTEL SCHEDULE
ADDED L-1 LINTEL TO LINTEL SCHEDULE
REVISED TYPE 7 DETAIL IN LINTEL SCHEDULE
REVISED P LINTELS TO TYPE 7 LINTELS IN LINTEL SCHEDULE
ADDED NOTES 4,5,6 TO LINTEL TYPES IN SCHEDULE

Answered By: **DJL** Date: **1-2-2026**

LINTEL SCHEDULE

TAG	TYPE	SIZE	WALL CONST	BEARING	MAX MO	JAMBS	
L-1	7	HSS8x8x1/4 + 1/4x20 CONT BOTTOM PLATE	NEW 12" CMU	8" EACH END	6'-0"	NOTE 2	
L-9	9	(2) MC8x21.4 BOLT TOGETHER @ 48" oc	EX 8" CMU	8" EACH END	7'-0"	NOTE 2, 4, 5, 6	
P	7	HSS8x8x1/4 + 1/4x20 CONT BOTTOM PLATE	NEW 12" CMU	8" EACH END	10'-0"	NOTE 2, 4, 5	

NOTE:

- PROVIDE GAP AT ENDS OF LINTELS TO ALLOW FOR EXPANSION AND CONTRACTION.
- WELD VERTICAL CMU REINFORCING TO THE TOP OF BEAMS.
- REFER TO ARCH DRAWINGS FOR NON-BEARING WALL LINTELS
- ALL STEEL LINTELS IN FIRERATED WALLS SHALL RECEIVE INTUMESCENT PAINT FIREPROOFING
- PROVIDE CONNECTION TO NEW AND EXISTING COLUMNS FOR LINTELS AS REQUIRED

1. GROUT SOLID UNDER BEARING TO FOUNDATION
2. GROUT TWO COURSES SOLID UNDER BEARING EACH END
3. SHORE EXISTING WALLS AS REQUIRED
4. ENTIRE LINTEL SHALL BE GALVANIZED
5. PROVIDE MASONRY TIES AT 16" oc, WELD VERTICAL BARS TO LINTEL
6. REFER TO PLAN NOTE "B" ON S-201 FOR LOCATIONS

MATERIALS:

WIDE FLANGE BEAMS: ASTM A992 GRADE 50

ANGLES: ASTM A36

PRECAST: 3000 PSI CONCRETE, GRADE 60 REINFORCEMENT



TYPE 1



TYPE 2



TYPE 3



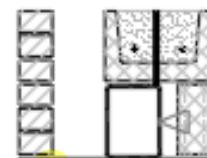
TYPE 4



TYPE 5



TYPE 6



TYPE 7



TYPE 8



TYPE 9

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/31/2025

Company: Alliance Masonry Corp **Name:** Tom Cunningham

Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS S-509

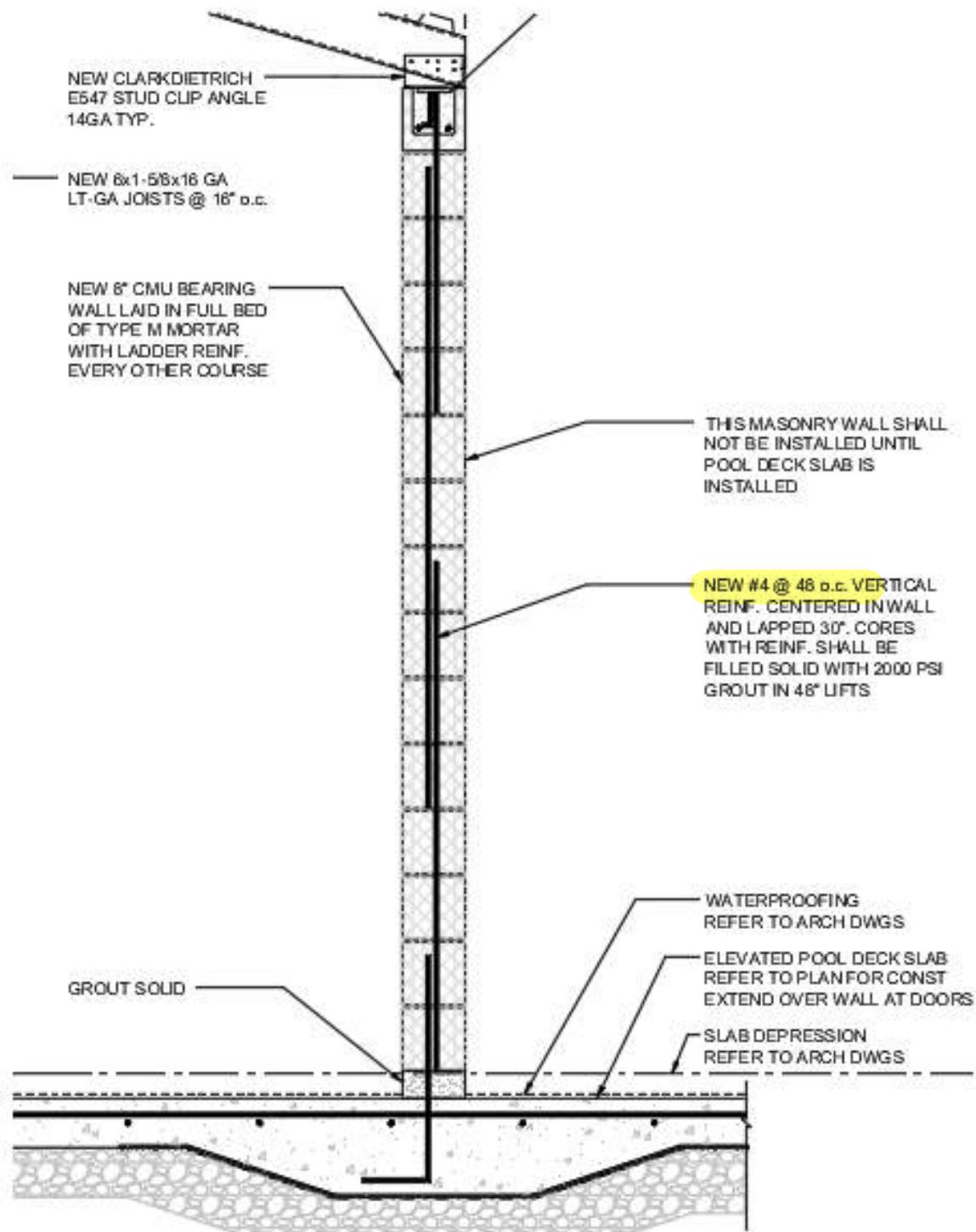
Spec Section Referenced: _____

Other References: _____

Request: 3/HS S-509 At the pool office cmu bearing wall, please clarify the wall reinforcement size and spacing.

ANSWER: REFER TO ATTACHED

Answered By: DJL Date: 1.2.2026



HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/31/2025

Company: Alliance Masonry Corp Name: Tom Cunningham

Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS A-102

Spec Section Referenced: _____

Other References: _____

Request: 1/HS A-102 What is the wall designation for the wall running between the 4" cmu column wraps on line ECK line 1.7 to 2.1.

ANSWER: ~~CMU WALL ON ECK LINE BETWEEN 1.7 AND 2.6" IS A 6" CMU WALL (PARTITION TYPE 1) FOR THE RINSE OFF SHOWERS. THE WALL TERMINATES AT 8'-0" PER INTERIOR ELEVATION HS 2/A-502. COVERED WITH WT-2 GLAZED WALL TILE.~~

Answered By: R. SMITH **Date:** 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12/31/2025

Company: Alliance Masonry Corp **Name:** Tom Cunningham

Name: Tom Cunningham

Telephone Number: 607-639-1665 **Fax Number:**

Fax Number:

Contract(s) bidding on: _____

Drawing Referenced: HS A-201

Spec Section Referenced: _____

Other References: _____

Request: 1/HS A-201 the horizontal shelf angle "P" between 4.8 line and 3.5 line is shown at a height where the backup wall is metal studs. Is this correct placement?

on elevation 1/HS A-201, between 4.8 and 3.5 the brick support angle can't be higher than elevation 20'-8" +/- see 6/A-306 - DJL

ANSWER: STEP THE FERO SHELF ANGLE SIMILAR TO AS SHOWN ON ELEVATION 2 / A-200 AND AS SHOWN ON SECTION HS 6 / A-306 SIMILAR

Answered By: R. SMITH **Date:** 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form**

Send to: Thadius Donoghue - tdm@hulberteng-ls.com
Ray Smith - rsmith@ha-pa.com

Section 00 22 14

Please Type or Print Neatly

Date: _____

Company: _____ **Name:** _____

Telephone Number: _____ **Fax Number:** _____

Contract(s) bidding on: _____

Drawing Referenced: _____

Spec Section Referenced: _____

Other References: _____

Request: _____

ANSWER: **GENERAL TRADES** _____

Answered By: **R. SMITH** _____ **Date:** **1-5-2026** _____

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 12/29/2025Company: Forno Enterprises, Inc.Name: Shawn MurphyTelephone Number: 607-865-7860Fax Number: 607-865-4392

Contract(s) bidding on: _____

Drawing Referenced: High School HS A-108

Spec Section Referenced: _____

Other References: _____

Request: **HS A-108: Construction Key Note #6 "1 Hour Rated Aluminum Framed System... etc"; The floor plan 2/HS A-108 shows Key Note #6 at door/frame #141A.1 & 141B, however the door schedule on sheet HS A-400 shows these openings to be wood doors with hollow metal frames, not aluminum. Please clarify if these frames are to be fire rated aluminum per Key Note #6 or hollow metal per door schedule.**

**DOOR 141B IS NOT IN A FIRE RATED WALL PER DRAWING
CC-100 AND HS A-108. DELETE 45 MIN. RATING FOR DOOR
ANSWER: 141B.**

**DOOR 141A.1 TO BE ONE HOUR FIRE RATED ALUMINUM
FRAME SYSTEM WITH 45 MINUTE ALUMINUM STOREFRONT
DOOR TYPE D. DOOR 141B IS TO BE NON RATED ALUMINUM
STOREFRONT DOOR AND FRAME SYSTEM, DOOR TYPE D.
DOOR HARDWARE TO BE REVISED FOR ALUMINUM DOOR
SYSTEM.**

Answered By: R. SMITH Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 12/29/2025Company: Forno Enterprises, Inc.Name: Shawn MurphyTelephone Number: 607-865-7860Fax Number: 607-865-4392

Contract(s) bidding on: _____

Drawing Referenced: High School HS A-109

Spec Section Referenced: _____

Other References: _____

Request: HS A-109: Construction Key Note #1 "1 Hour Rated Aluminum Framed System... etc";
The floor plan 2/HS A-109 shows Key Note #1 at door/frame #146, however
the door schedule on sheet HS A-400 shows this opening to be a wood door with
hollow metal frame, not aluminum. Please clarify if this frame is to be fire rated
aluminum per Key Note #1 or hollow metal per door schedule.

ANSWER: DOOR 146 TO BE ONE HOUR FIRE RATED ALUMINUM FRAME
SYSTEM WITH 45 MINUTE ALUMINUM STOREFRONT DOOR TYPE D.
DOOR HARDWARE TO BE REVISED FOR ALUMINUM DOOR SYSTEM.

Answered By: R. SMITHDate: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 12/29/2025

Company: Forno Enterprises, Inc.

Name: Shawn Murphy

Telephone Number: 607-865-7860

Fax Number: 607-865-4392

Contract(s) bidding on: _____

Drawing Referenced: _____

Spec Section Referenced: 08116 Fire Rated Aluminum Full Vision Doors and Frames

Other References: _____

Request: **Specification 081116 Fire Rated Aluminum...; Section 2.7 Door Hardware -A:
"Refer to Door Hardware Specification set 14 and 15..."; However the door schedule
on sheet HS A-400 calls for doors # P206 and P206A to receive hardware set #48 at each.
Please clarify if we are to follow the specification or door schedule for hardware sets
at these two locations.**

ANSWER: **REVISED SPECIFICATION 08 11 16, 2.7, A. TO SAY;
COORDINATED WITH DOOR SCHEDULE DRAWING A-400
AND DOOR HARDWARE SPECIFICATION 08 71 00 FOR
DOOR HARDWARE SETS.**

Answered By: R. SMITH

Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 23 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number:

Contract(s) bidding on: HVAC

Drawing Referenced: M-108, M-110 M-305 Tag D-2, D-1

Spec Section Referenced: 233700 Air outlets and inlets

Other References: _____

Request: Tag D-1 & D-2 shown on drawing not provided on schedule

Please make and model and size for Tag D-1, D-2-

ANSWER: D-1 and D-2 are existing diffusers to remain. This will be clarified on the M drawings.

Answered By: Manish Patel Date: 1-5-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 23 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number:

Contract(s) bidding on: HVAC

Drawing Referenced: M-105, 108 110

Spec Section Referenced: no specification provided in bid documents

Other References:

Request: these drawings clearly call out ECH, however no ECH is listed or provided in scheduled

Request: <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=EGU>

Please add or define the ECH required for this unit.

ANSWER: Drawing HS M-108: Rotate existing ECH-1's (units are existing to remain).

Drawing HS M-110: ECH-1 is existing (not in scope of work)

Drawing HS M-105: ECH-1: See below.

Answered By: Manish Patel

Date: 1/5/26

ELECTRIC CABINET HEATER SCHEDULE											
TAG	TYPE	DIMENSIONS			CFM	MBH	KW	VOLTAGE	FLA	MFR / MODEL	REMARKS
		LENGTH	HEIGHT	DEPTH							
ECH-1	WALL MOUNTED	35"	26-3/8"	9-3/4"	250	11.1	5	480V-3Φ	1	BERKO / CUH935	
ECH-2	WALL MOUNTED	35"	26-3/8"	9-3/4"	250	21.3	8	480V-3Φ	10	BERKO / CUH935	

NOTES:

1. INTEGRAL THERMOSTAT.
2. VERIFY COLORS WITH ARCHITECT.
3. PROVIDE FUSED DISCONNECT.

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 23 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number: _____

Contract(s) bidding on: HVAC

Drawing Referenced: M-300

Spec Section Referenced: no specification provided in bid documents

Spec Section Referenced: no specification provided in bid documents

Other References:

Request: Please provide basis of design for EF-1, 2

Please provide Power ventilators specification

ANSWER: EF-1 and EF-2 are scheduled on HS M-300. See attached for basis of design manufacturer, dimensions, material, performance requirements, etc.. These cut sheets will be added to the M drawings.

Answered By: Manish Patel

Date: 1-5-2026

Representative

[REDACTED]

Customer	.
Project	.
Engineer	.
P.O. #	.
JOB #.	

Date [REDACTED]

Sys. No.

EF-1
 [REDACTED]
 [REDACTED]

Drawing Revision

A
 [REDACTED]

FEI_T Based on
 Default Motor Efficiencies
 Regulated Motor Efficiencies
 FEI_T = 1.13

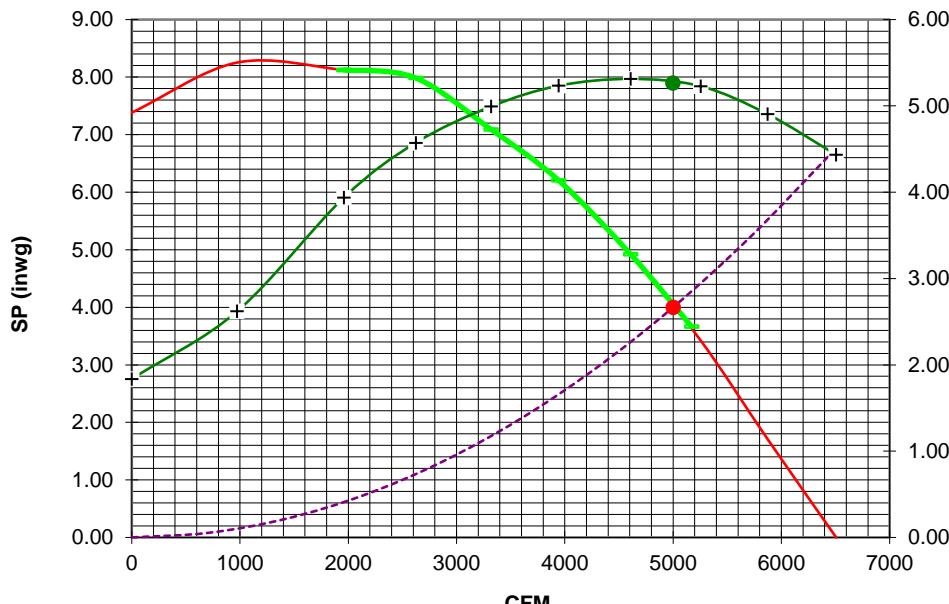
Model	DHK
Fan Size	1825
Dia.[in]	19.31
CFM	5000
SP	4
BHP	5.26
RPM	2240

T = 70 [°F]
 ALT = 0 [feet]

OV = 2439 [fpm]
 TS = 11324 [fpm]

CLASS II WHEEL

Air performance



Density :
 0.075 lb/ft³



FEI 80

M.K. Plastics Corporation certifies that the models shown here in are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and 311 and comply with the requirements

Performance shown is for installation type B: Free inlet, Duct outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with AMCA 208 and are based on default motor efficiencies. FEI values for fans with specific motors will vary slightly from those shown.

Sound power level

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA standard 301. Values shown are for (inlet L_w and L_{wA}) sound power levels for installation type B :Free inlet, Ducted outlet. Ratings include the duct end correction.

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

RPM	Hz								LwA
	63	125	250	500	1000	2000	4000	8000	
2240	98	97	97	96	87	84	79	75	96

Sound pressure level variation

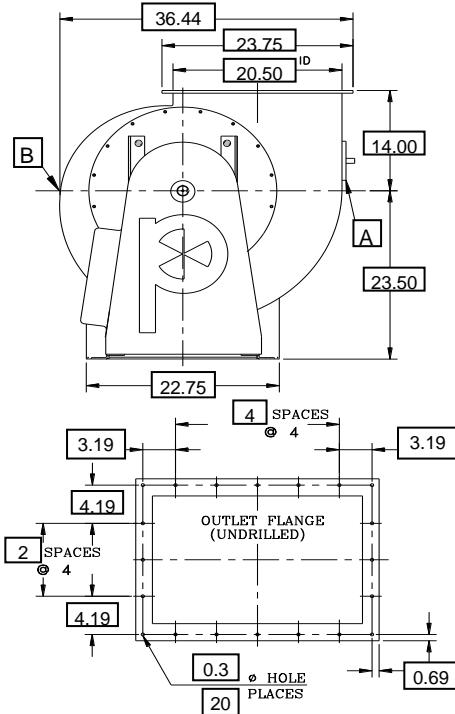
Values shown are calculated based on a free-field over a reflecting plane conditions. (ASHRAE Fundamentals Handbook). dBA levels are not licensed by AMCA international

Feet	1	3	5	10	15	50	100	150
dB(A)	98	89	84	78	75	64	58	55

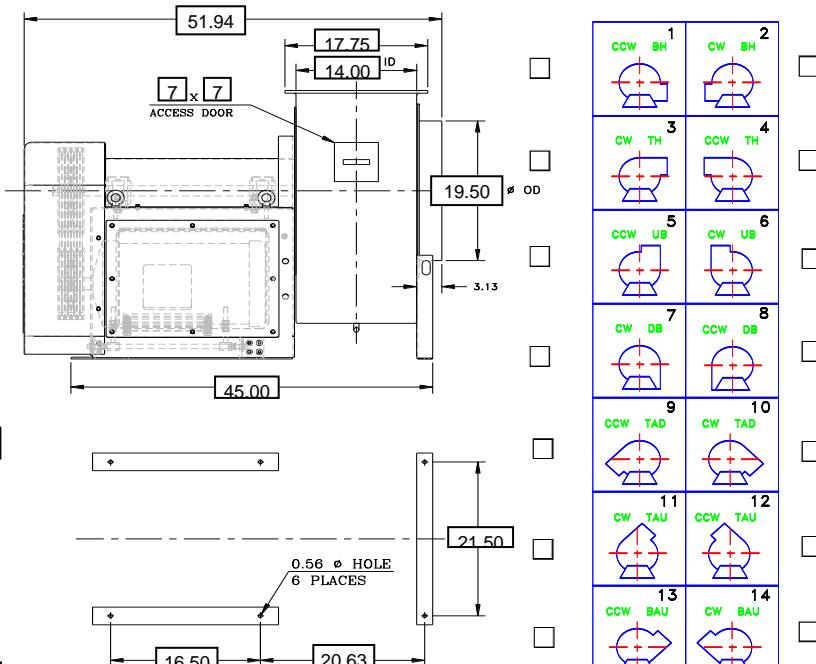
Comments :

[REDACTED]

Drawing Revision . B



Customer Project .
 Engineer .
 P.O. # .
 JOB # .



Arrangement 10

Position not specified

Dimensions are subject to change. Certified prints are available.

Quantity 4
 Sys. No. EF-1
 .
 .
 Materials
 Casing FRP
 Impeller FRP
 Stand 4-6 mils epoxy coated steel
 Shaft C-1045 Carbon steel
 Hardware 304 stainless steel

Maximum motor frame 256T

<input checked="" type="checkbox"/> Belt drive	<input type="checkbox"/> Vibration isolators*	<input type="checkbox"/> Damper*
<input type="checkbox"/> Hub seal	<input type="checkbox"/> Spring	<input type="checkbox"/> Screen*
<input checked="" type="checkbox"/> Belt & shaft guard	<input type="checkbox"/> RIS	<input type="checkbox"/> Inlet flange
<input checked="" type="checkbox"/> Motor cover	<input type="checkbox"/> Flex. Connector	<input type="checkbox"/> Flange & Sleeve*
<input checked="" type="checkbox"/> Access door	<input type="checkbox"/> Inlet	<input type="checkbox"/> Inlet
<input type="checkbox"/> Position A	<input type="checkbox"/> Outlet	<input type="checkbox"/> Outlet
<input type="checkbox"/> Position B	<input type="checkbox"/> Graphite liner	<input type="checkbox"/> Outlet transition
<input checked="" type="checkbox"/> 0.75" Drain & Plug	<input type="checkbox"/> Disconnect switch (unwired)*	<input type="checkbox"/> Other
Note: * Drawings required		

Additional information

Revisions

No.	Description	Date	Approved by

Motor
 Type PREM
 Enclosure TEFC
 HP 7.50
 V/Ph/Hz 460/3/60
 RPM 1800
 Weight [Lb]
 Fan 350
 Motor 158
 Total 508

Released by	Checked by	Approved by
Initial		
Date		

Representative

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.
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Customer	.
Project	.
Engineer	.
P.O. #	.
JOB #.	

Date .

Sys. No.

EF-2
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.
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Drawing Revision

. A
. .

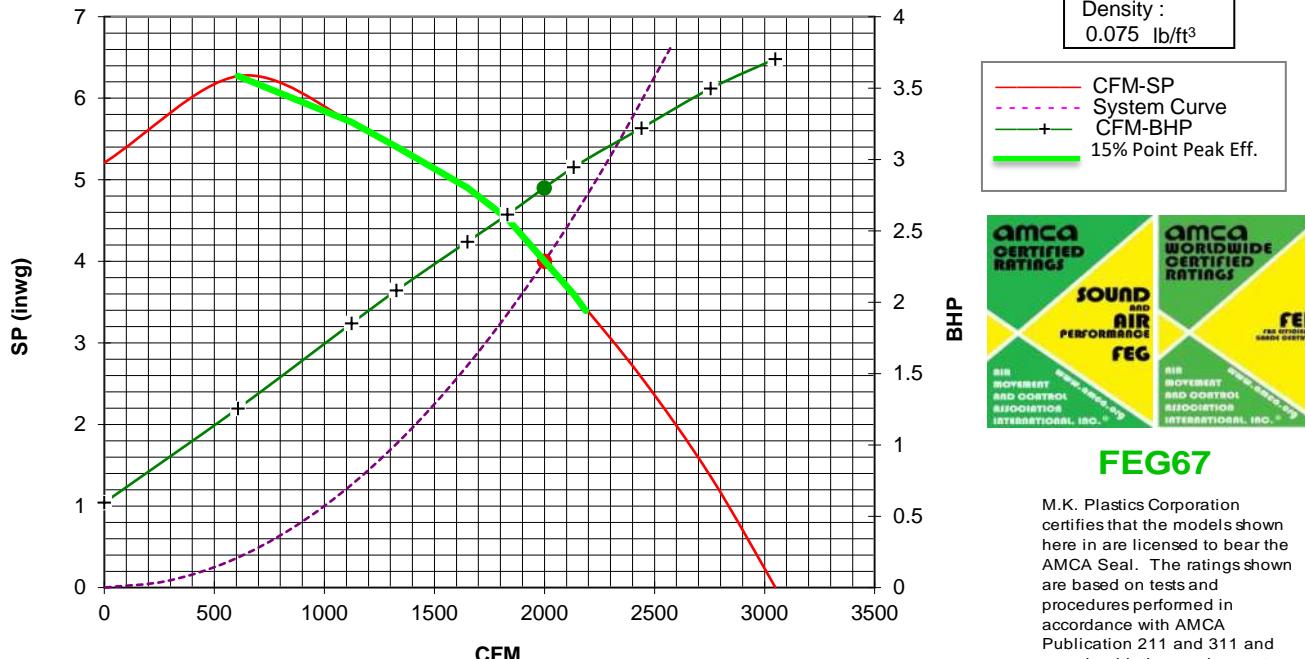
FEI_T Based on
Default Motor Efficiencies
Regulated Motor Efficiencies

Air performance

FEI_T = 1.04

Model	CNW
Fan Size	250
Dia. [in]	15.88
CFM	2000
SP	4
BHP	2.80
RPM	2127

T = 70 [°F]
 ALT = 0 [feet]
 OV = 4082 [fpm]
 TS = 8840 [fpm]



Performance shown is for installation type D: Ducted inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with AMCA 208 and are based on default motor efficiencies. FEI values for fans with specific motors will vary slightly from those shown.

Sound power level

The sound power level ratings shown are in decibels, referred to 10⁻¹² Watts calculated per AMCA standard 301. Values shown are for (inlet L_W) sound power levels for installation Type D :Ducted inlet, Ducted outlet. Ratings include the duct end correction.

RPM	Hz								L _W A
	63	125	250	500	1000	2000	4000	8000	
2127	99	102	101	97	92	85	79	72	99

Sound pressure level variation

Values shown are calculated based on a free-field over reflecting plane conditions.
 (ASHRAE Fundamentals Handbook). dBA levels are not licensed by AMCA international

Feet	1	3	5	10	15	50	100	150
dB(A)	101	91	87	81	77	67	61	57

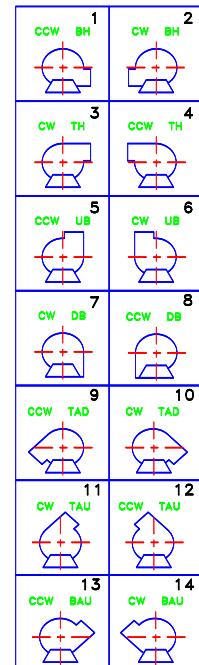
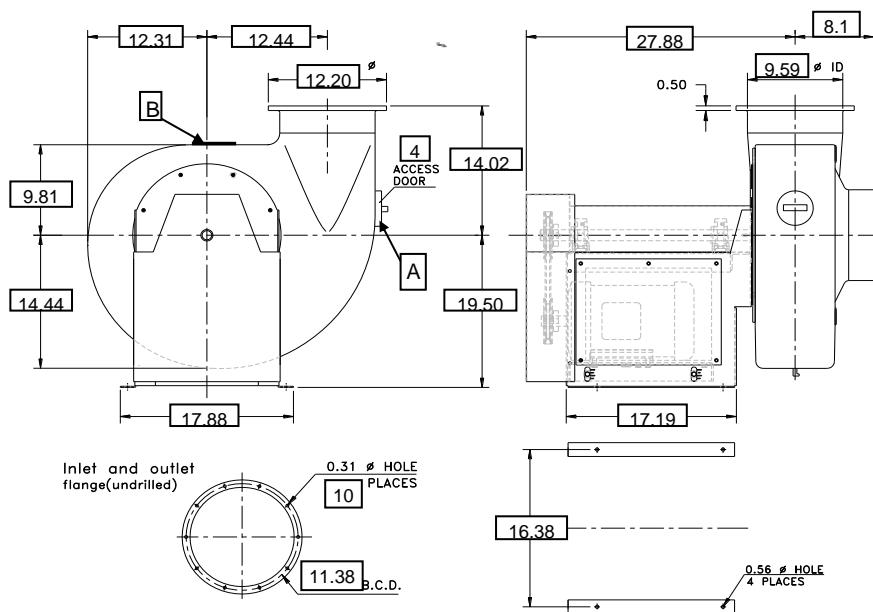
Comments :

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Drawing . B
Revision .

Customer .
Project .
Engineer .
P.O. # .

JOB # .



Arrangement 10

Position not specified

Quantity .
Sys. No. EF-2
. .

Materials .
Casing FRP
Impeller FRP
Stand 4-6 mils epoxy coated steel
Shaft C-1045 Carbon steel
Hardware 316 stainless steel

Motor .
Type TEFC
Enclosure .
HP 5.00
V/Ph/Hz 460/3/60
RPM .

Weight [Lb]
Fan 180
Motor 110
Total 290

Maximum motor frame: 184T			
Accessories	<input checked="" type="checkbox"/> Belt drive	<input type="checkbox"/> Vibration isolators*	<input type="checkbox"/> Damper*
	<input type="checkbox"/> Hub seal	<input type="checkbox"/> Spring	<input type="checkbox"/> Screen*
	<input checked="" type="checkbox"/> Belt & shaft guard	<input type="checkbox"/> RIS	<input type="checkbox"/> Inlet flange
	<input checked="" type="checkbox"/> Motor cover	<input type="checkbox"/> Flex. Connector	<input type="checkbox"/> Flange & Sleeve*
	<input checked="" type="checkbox"/> Access door	<input type="checkbox"/> Inlet	<input type="checkbox"/> Inlet
	<input type="checkbox"/> Position A	<input type="checkbox"/> Outlet	<input type="checkbox"/> Outlet
	<input type="checkbox"/> Position B	<input type="checkbox"/> Graphite liner	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> 0.5" Drain & Plug		
	<input type="checkbox"/> Disconnect switch (unwired)*		

Note: * Drawings required

Additional information

Revisions

No.	Description	Date	Approved by

Initial	Released by	Checked by	Approved by
Date			

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 23 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number:

Contract(s) bidding on: HVAC

Drawing Referenced: M-103, M-200 Tag S-1 detail

Spec Section Referenced: 233700 Air outlets and inlets

Other References:

Request: Please advise the purpose of cable operated damper on drum louver, should this cable run inside the duct or out side the duct?

Since all of the duct work for S-1 diffusers is not directly above the pool can a face operated dampers work?

ANSWER: The purpose of the cable operated damper on the drum louver is due to difficulty accessing the S-1 damper after it is installed. Per note on detail on HS-M-200, cable shall run outside the duct. If the TAB contractor can reach the damper to adjust it after installation, then the cable operator can be omitted, but that is unlikely. See location of diffuser near top of spiral duct on detail on HS-M-200.

Answered By: Manish Patel **Date:** 1/5/26

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 24 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number:

Contract(s) bidding on: HVAC

Drawing Referenced: M-111,

Spec Section Referenced: no specification referenced

Other References:

Request: DWG m-111 shows L-3, L-4 connected to a damper then up to unidentified boxes/ducts

Please advise what these louvers and dampers are connected to

ANSWER: The dampers are backdraft dampers behind the louvers. These are connected to kitchen range hoods which have integral fans.

Answered By: Manish Patel **Date:** 1/5/26

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 12 24 25Company: H&V SalesName: Randy CorsiTelephone Number: 716 310-2187

Fax Number: _____

Contract(s) bidding on: HVACDrawing Referenced: M-105, 106 M-302Spec Section Referenced: no specification provided for electric heaters

Other References: _____

Request: DWG m-105 & M-106 shows EBB-3 & EBB-4, however nothing is scheduled for EBB-3 & 4
_____Please advise schedule and basis of design for EBB-3, 4
_____ANSWER: See below.
_____Answered By: Manish Patel Date: 1/5/26
_____**ELECTRIC BASEBOARD SCHEDULE**

TAG	LENGTH	WATTS	BTU/HR	VOLTAGE	MFGR / MODEL	REMARKS
EBB-1A	108"	4500	15,345	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.
EBB-1B	120"	5000	17,050	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.
EBB-1C	60"	2500	8,525	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.
EBB-2	72"	3000	10,236	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.
EBB-3	48"	3000	10,236	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.
EBB-4	48"	1500	5,118	277/10	INDEECO MODEL 916 - PEDESTAL	PROVIDE REMOTE T'STAT. PROVIDE DISCONNECT SWITCH.

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 12 24 25

Company: H&V Sales

Name: Randy Corsi

Telephone Number: 716 310-2187

Fax Number:

Contract(s) bidding on: HVAC

Drawing Referenced: M-300 M-111, M-114

Spec Section Referenced: no specification provided in bid documents for power ventilators

Other References:

Request: Schedule on M300 show EF-1- LC as model G down blast fan, fan not found on M-114 room

DWG m-111 shows fan EF-1, 2, 3-LC, as in in line fans, Schedule calls out roof fan for EF-1-LC

Please advise what fans are required, with what accessories and performance data for EF-1, 2, 3 -LC

nothing scheduled for EF-2, 3-LC please provide

ANSWER: See attached

Answered By: Manish Patel

Date: 1/5/26

Representative

[Redacted]

Customer	.
Project	.
Engineer	.
P.O. #	.
JOB #.	

Date

[Redacted]

Sys. No.

EF-1
[Redacted]
[Redacted]

Drawing
Revision

A
[Redacted]

FEI_T Based on
Default Motor Efficiencies
Regulated Motor Efficiencies
FEI_T = 1.13

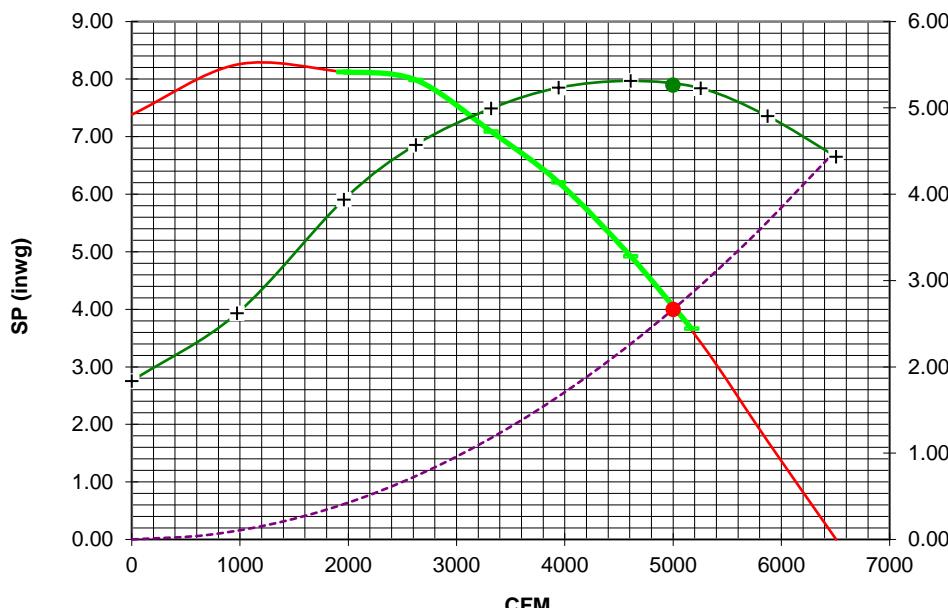
Model	DHK
Fan Size	1825
Dia.[in]	19.31
CFM	5000
SP	4
BHP	5.26
RPM	2240

T = 70 [°F]
ALT = 0 [feet]

OV = 2439 [fpm]
TS = 11324 [fpm]

CLASS II WHEEL

Air performance



Density :
0.075 lb/ft³



FEI 80

M.K. Plastics Corporation certifies that the models shown here in are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and 311 and comply with the requirements

Performance shown is for installation type B: Free inlet, Duct outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with AMCA 208 and are based on default motor efficiencies. FEI values for fans with specific motors will vary slightly from those shown.

Sound power level

The sound power level ratings shown are in decibels, referred to 10^{-12} watts calculated per AMCA standard 301. Values shown are for (inlet L_{wi} and L_{wiA}) sound power levels for installation type B :Free inlet, Ducted outlet. Ratings include the duct end correction.

The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

RPM	Hz								L _{wA}
	63	125	250	500	1000	2000	4000	8000	
2240	98	97	97	96	87	84	79	75	96

Sound pressure level variation

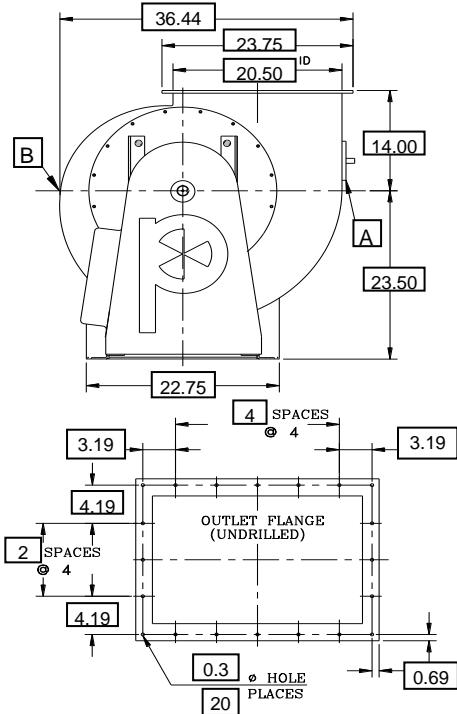
Values shown are calculated based on a free-field over a reflecting plane conditions. (ASHRAE Fundamentals Handbook). dBA levels are not licensed by AMCA international

Feet	1	3	5	10	15	50	100	150
dB(A)	98	89	84	78	75	64	58	55

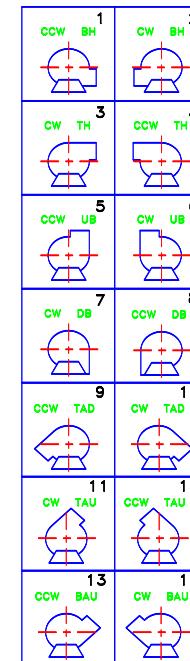
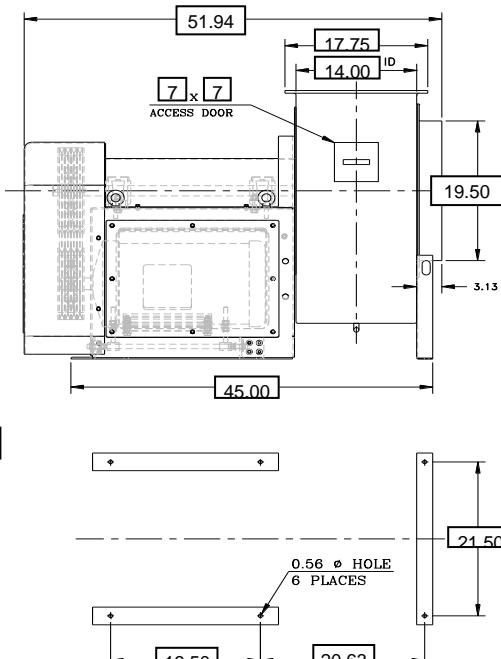
Comments :

[Redacted]

Drawing Revision . B



Customer Project .
 Engineer .
 P.O. # .
 JOB # .



Position not specified

Arrangement 10

Maximum motor frame 256T

Dimensions are subject to change. Certified prints are available.

Quantity 4
 Sys. No. EF-1
 .
 .
 Materials
 Casing FRP
 Impeller FRP
 Stand 4-6 mils epoxy coated steel
 Shaft C-1045 Carbon steel
 Hardware 304 stainless steel

<input checked="" type="checkbox"/> Accessories	<input type="checkbox"/> Belt drive	<input type="checkbox"/> Vibration isolators*	<input type="checkbox"/> Damper*
<input type="checkbox"/> Hub seal	<input type="checkbox"/> Spring	<input type="checkbox"/> Screen*	<input type="checkbox"/> Inlet flange
<input checked="" type="checkbox"/> Belt & shaft guard	<input type="checkbox"/> RIS	<input type="checkbox"/> Flange & Sleeve*	<input type="checkbox"/> Inlet
<input checked="" type="checkbox"/> Motor cover	<input type="checkbox"/> Flex. Connector	<input type="checkbox"/> Outlet	<input type="checkbox"/> Outlet
<input checked="" type="checkbox"/> Access door	<input type="checkbox"/> Inlet	<input type="checkbox"/> Graphite liner	<input type="checkbox"/> Outlet transition
<input type="checkbox"/> Position A	<input type="checkbox"/> Outlet		<input type="checkbox"/> Other
<input type="checkbox"/> Position B	<input type="checkbox"/> Graphite liner		
<input checked="" type="checkbox"/> 0.75" Drain & Plug	<input type="checkbox"/> Disconnect switch (unwired)*		
<input type="checkbox"/> Disconnect switch (unwired)*			

Note: * Drawings required

Additional information

Revisions

No.	Description	Date	Approved by

Motor
 Type PREM
 Enclosure TEFC
 HP 7.50
 V/Ph/Hz 460/3/60
 RPM 1800
 Weight [Lb]
 Fan 350
 Motor 158
 Total 508

Released by	Checked by	Approved by
Initial		
Date		

Representative

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Customer	.
Project	.
Engineer	.
P.O. #	.
JOB #.	

Date .

Sys. No.

EF-2
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Drawing Revision

. A
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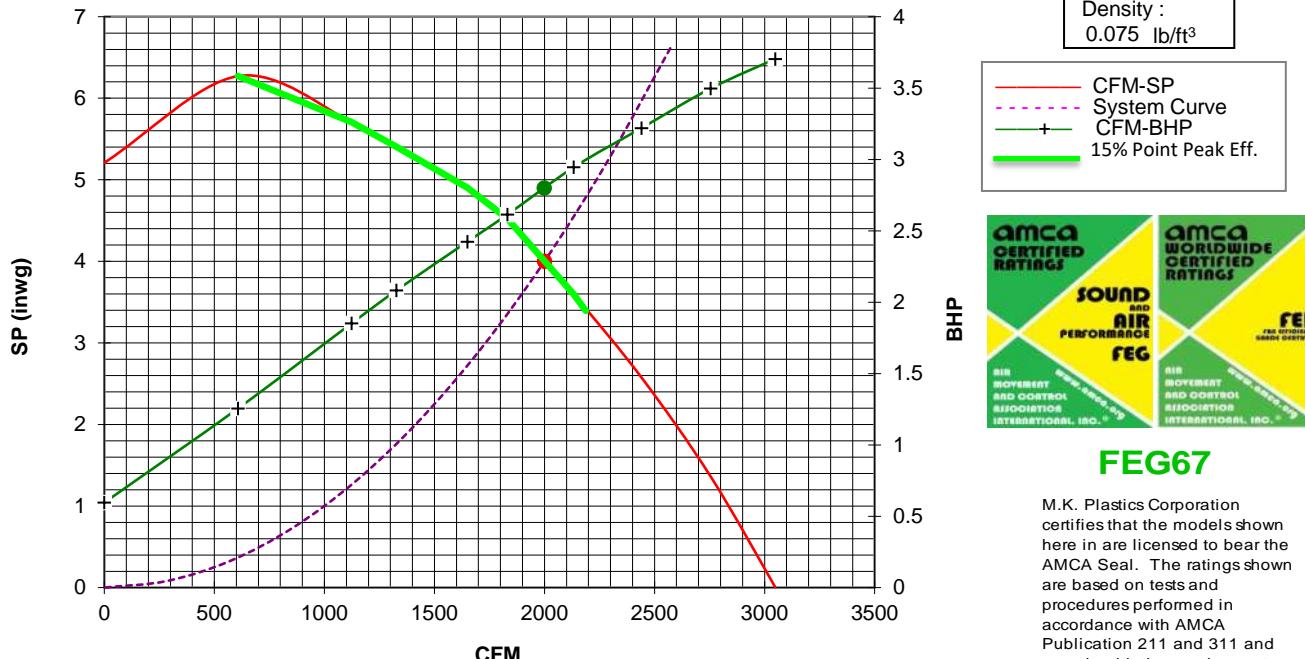
FEI_T Based on
Default Motor Efficiencies
Regulated Motor Efficiencies

Air performance

FEI_T = 1.04

Model	CNW
Fan Size	250
Dia. [in]	15.88
CFM	2000
SP	4
BHP	2.80
RPM	2127

T = 70 [°F]
 ALT = 0 [feet]
 OV = 4082 [fpm]
 TS = 8840 [fpm]



Performance shown is for installation type D: Ducted inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with AMCA 208 and are based on default motor efficiencies. FEI values for fans with specific motors will vary slightly from those shown.

Sound power level

The sound power level ratings shown are in decibels, referred to 10⁻¹² Watts calculated per AMCA standard 301. Values shown are for (inlet L_W) sound power levels for installation Type D :Ducted inlet, Ducted outlet. Ratings include the duct end correction.

RPM	Hz								L _W A
	63	125	250	500	1000	2000	4000	8000	
2127	99	102	101	97	92	85	79	72	99

Sound pressure level variation

Values shown are calculated based on a free-field over reflecting plane conditions.
 (ASHRAE Fundamentals Handbook). dBA levels are not licensed by AMCA international

Feet	1	3	5	10	15	50	100	150
dB(A)	101	91	87	81	77	67	61	57

Comments :

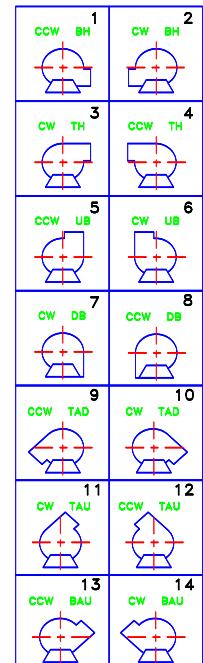
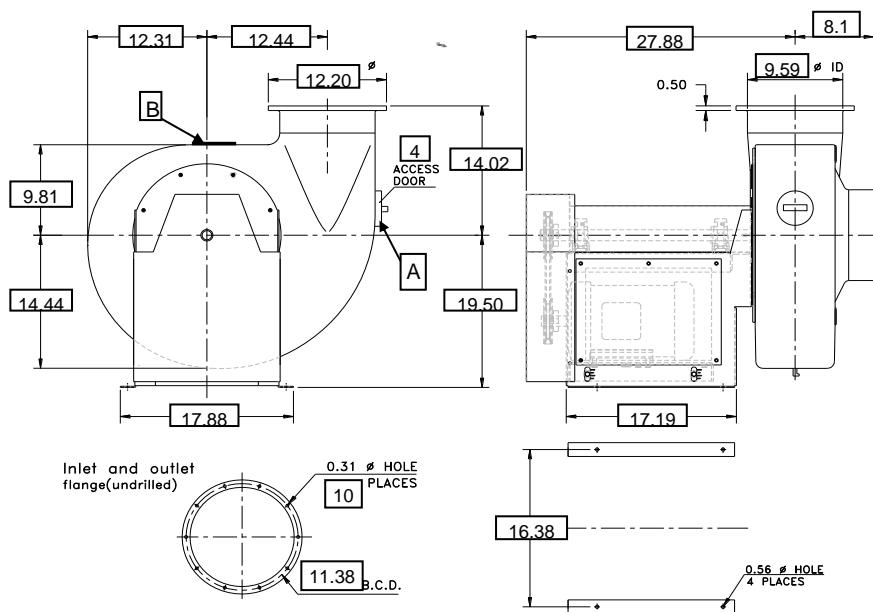
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M.K. Plastics Corporation certifies that the models shown here in are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and 311 and comply with the requirements of the AMCA Certified Rating.

Drawing . B
Revision .

Customer .
Project .
Engineer .
P.O. # .

JOB # .



Arrangement 10

Position not specified

Quantity .
Sys. No. EF-2
. .

Materials .
Casing FRP
Impeller FRP
Stand 4-6 mils epoxy coated steel
Shaft C-1045 Carbon steel
Hardware 316 stainless steel

Maximum motor frame: 184T			
Accessories	<input checked="" type="checkbox"/> Belt drive	<input type="checkbox"/> Vibration isolators*	<input type="checkbox"/> Damper*
	<input type="checkbox"/> Hub seal	<input type="checkbox"/> Spring	<input type="checkbox"/> Screen*
	<input checked="" type="checkbox"/> Belt & shaft guard	<input type="checkbox"/> RIS	<input type="checkbox"/> Inlet flange
	<input checked="" type="checkbox"/> Motor cover	<input type="checkbox"/> Flex. Connector	<input type="checkbox"/> Flange & Sleeve*
	<input checked="" type="checkbox"/> Access door	<input type="checkbox"/> Inlet	<input type="checkbox"/> Inlet
	<input type="checkbox"/> Position A	<input type="checkbox"/> Outlet	<input type="checkbox"/> Outlet
	<input type="checkbox"/> Position B	<input type="checkbox"/> Graphite liner	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> 0.5" Drain & Plug		
	<input type="checkbox"/> Disconnect switch (unwired)*		

Note: * Drawings required

Motor .
Type .
Enclosure TEFC
HP 5.00
V/Ph/Hz 460/3/60
RPM .

Weight [Lb]
Fan 180
Motor 110
Total 290

Additional information

Revisions			
No.	Description	Date	Approved by

Initial	Released by	Checked by	Approved by
Date			

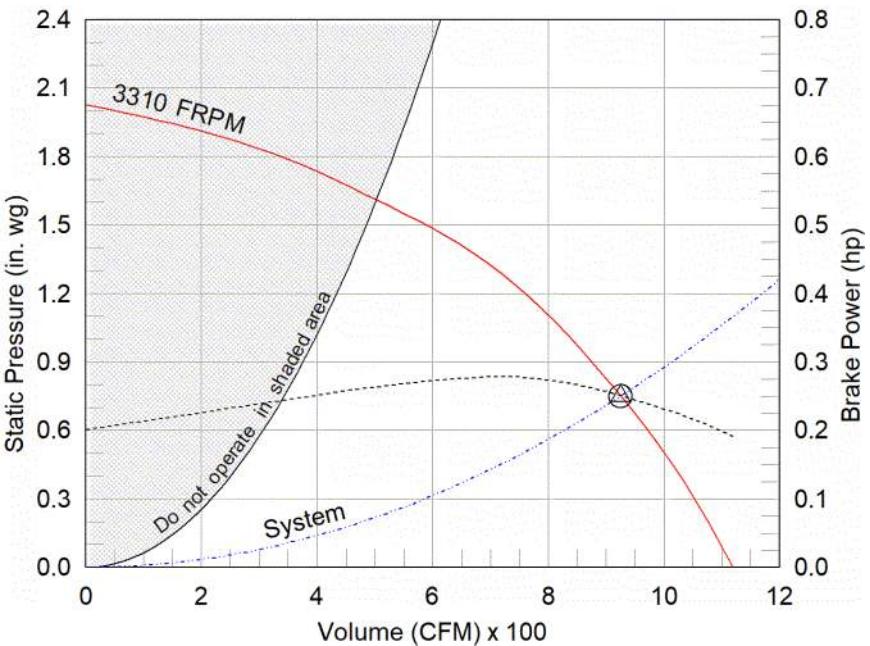
Model: SQ-7-VG

Direct Drive Mixed Flow Inline Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	40
Weight w/ Acc's (lb)	79

Performance	
Requested Volume (CFM)	925
Actual Volume (CFM)	925
Total External SP (in. wg)	0.75
Fan RPM	3310
Operating Power (hp)	0.25
Elevation (ft)	961
Airstream Temp (F)	70
Air Density (lb/ft ³)	0.072
Tip Speed (ft/min)	7,800
Static Eff. (%)	44

Misc Fan Data	
Fan Energy Index (FEI)	-
Outlet Velocity (ft/min)	1,033



Motor	
Motor Mounted	Yes
Size (hp)	1/2
Voltage/Cycle/Phase	115/60/1
Enclosure	TENV
Motor RPM	3900
Windings	1
FLA (Amps)	5.7
Min. Circuit Ampacity (MCA)	7
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 KA

 Operating Bhp point
 Operating point at Total External SP
 Fan curve
 System curve
 Brake horsepower curve

Static Pressure Calculations

External SP	0.75 in. wg
Direct Drive RPM Adjustment	0 in. wg
Total External SP	0.75 in. wg

Nameplate Model: SQ-7-M1-VG-X

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	83	67	69	71	76	76	68	60	80	69	16.1
Outlet	90	78	72	69	77	78	68	58	82	70	18.6
Radiated	88	67	61	72	67	66	57	49	73	61	11.3

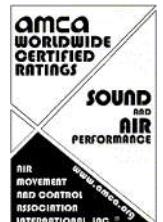
Notes:

All dimensions shown are in units of in.

*Please consult factory for actual motor amp draw

LwA - A weighted sound power level, based on ANSI S1.4 dBa - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International

Sones - calculated using AMCA 301 at 5 ft



Model: SQ-7-VG

Direct Drive Mixed Flow Inline Fan

Greenheck model SQ Mixed Flow meets or exceeds legacy centrifugal models SQ/BSQ in performance and features. SQ Mixed flow is an approved equal and can be considered a direct replacement for these models.

Standard Construction Features:

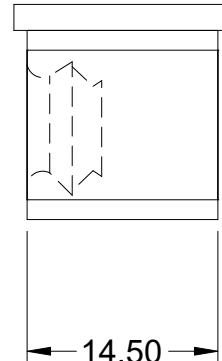
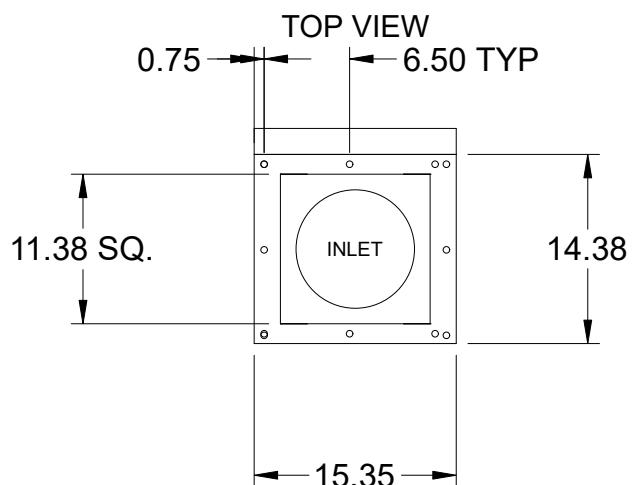
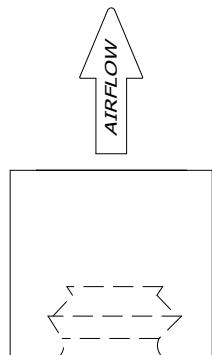
Galvanized steel housing - Mixed flow composite wheel - Two bolted access panels - Slip-in duct connection flange - Ball bearing motors - Corrosion resistant fasteners

Selected Options & Accessories:

Motor - Vari-Green EC motor
Control - Vari-Green Dial on Exterior of Fan Housing, Mounted and Wired
UL/cUL 705 Listed - "Power Ventilators"
Junction Box Mounted and Wired
Switch, NEMA-3R, Toggle, Shipped Separate
High Wind Rated
Miami-Dade NOA # Upon Request
Florida Product Approval # Upon Request
For Outdoor Use (Horizontal Base Mount Only), Shipped Separate
Galvanized Housing
Composite Mixed Flow Wheel
Composite Inlet Cone
Fan: Spring, Restrained, 1 Inch Isolator PN: 459042, Incl. 4 isolators and 4 brackets
Unit Warranty: 1 Yr (Standard)

SQ-7-VG

Direct Drive Mixed Flow Inline Fan



END VIEW

SIDE VIEW

Notes: All dimensions shown are in units of in.

AMCA



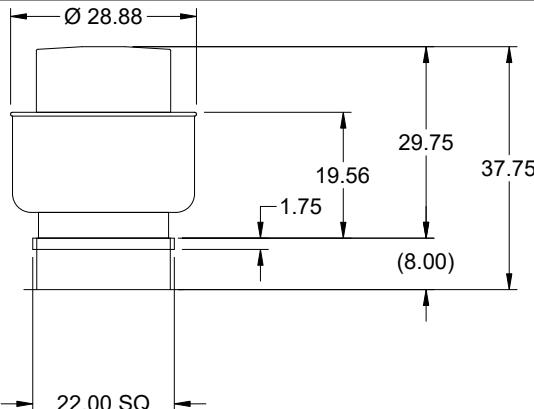
AMCA Licensed for Sound and Air Performance. Power rating (BHP/kW) does not include transmission losses.

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA certified ratings seal applies to air and sound performance ratings only. Performance certified is for installation type B: Free inlet, Ducted outlet. Power rating (bhp) does not include transmission losses. The sound power level ratings are shown in decibels, referred to 10-12 watts, calculated per AMCA Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lwi, LwiA and outlet Lwo, LwoA, installation type B: Free inlet, Ducted outlet. Ratings for inlet sound do not include the effects of duct end correction. Ratings for outlet sound include the effects of duct end correction. The AMCA Certified Ratings Seal for Sound applies to inlet LwiA ratings only. Radiated (casing) sound data is the sound generated through the fan housing when the fan is ducted on both the inlet and outlet (Installation type D). The AMCA licensed air and/or sound performance data has been modified for installation, appurtenances (accessories), etc. The modified performance is not AMCA licensed but is provided to aid in selection and applications of the product.

Model: CUE-160XP-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	98
Weight w/ Acc's (lb)	132
Weight w/ Acc's and Curb (lb)	157
Standard Curb Cap Size (in.)	22 x 22
Optional Damper (in.)	16 x 16
Roof Opening (in.)	18.5 x 18.5



OVERALL HEIGHT MAY BE GREATER DEPENDING ON
MOTOR, ADAPTER, AND/OR HINGE BASE.

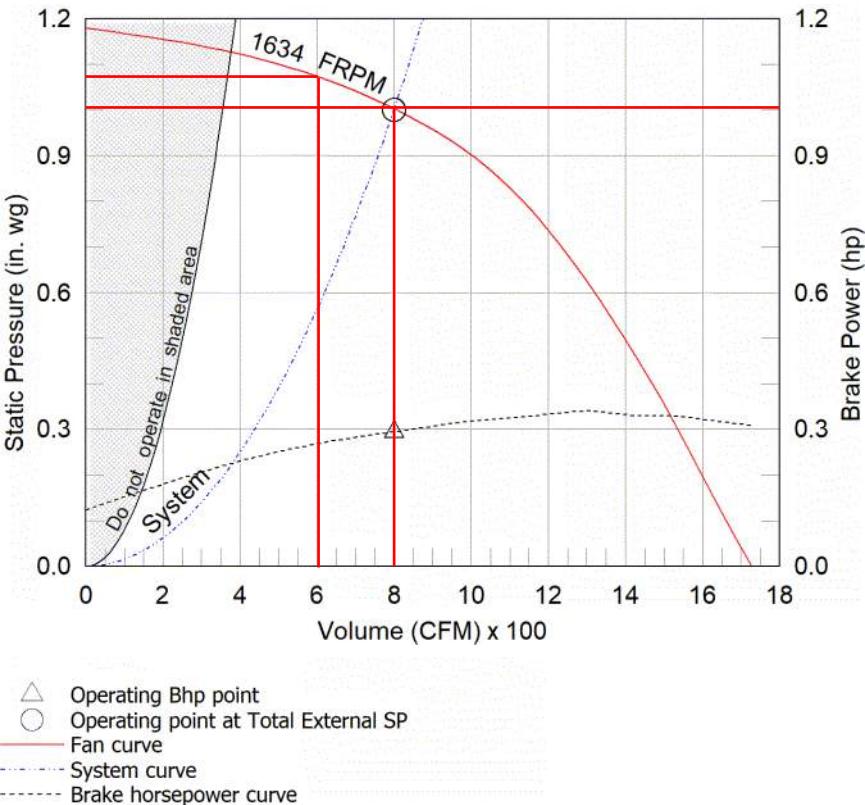
Performance	
Requested Volume (CFM)	800
Actual Volume (CFM)	800
Total External SP (in. wg)	1
Fan RPM	1634
Operating Power (hp)	0.29
Elevation (ft)	961
Airstream Temp.(F)	180
Air Density (lb/ft ³)	0.060
Tip Speed (ft/min)	5,773
Static Eff. (%)	43

Misc Fan Data	
Fan Energy Index (FEI)	1.40
Outlet Velocity (ft/min)	465

Motor	
Motor Mounted	Yes
Size (hp)	1
Voltage/Cycle/Phase	460/60/3
Enclosure	TEFC
Motor RPM	2160
Efficiency Rating	High
Windings	1
FLA (Amps)	1.8
Min. Circuit Ampacity (MCA)	2
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	79	76	73	68	64	62	56	51	71	59	9.9



Notes:

All dimensions shown are in units of in.
*NEC FLA, MCA and MOP are for reference only – based on tables 430.248 or 430.25 of National Electric Code 2020. Actual motor FLA may vary, for sizing thermal overload, consult factory. MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc). LwA - A weighted sound power level, based on ANSI S1.4 dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International
Sones - calculated using ANSI/AMCA 301 at 5 ft



Model: CUE-160XP-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

Selected Options & Accessories:

Motor with Shaft Grounding
Motor - Vari-Green EC motor
Control - Dial for balancing
Standard Curb Cap Size - 22 Square
UL/cUL 705 Listed - "Power Ventilators"
Switch, NEMA-1, Toggle,
Junction Box Mounted & Wired in weather-protected motor compartment
High Wind Rated (+/- 150 PSF Rating)
Florida Product Approval #FL13225.1 & Miami-Dade NOA #24-0919.01
Foam Curb Seal (Factory Applied)
Coated with Permatector, Concrete Gray-RAL 7023, Fan And Attached Acc
Non-Stick Coated Wheel
External Lifting/Tie Down Points - Set of 4
Fastener Material: Stainless
Birdscreen: Stainless Steel, nom. 85% Free Area
Aluminum Rub Ring
Clean-out Port - Factory Installed
Aluminum Wheel Material
Conduit Chase Qty 1
Unit Warranty: 1 Yr (Standard)
Damper Shipped Loose, VCD-43-PB-16X16, Not Coated, Nominal Size
Damper Actuator (TFB120-S), 115 VAC Actuated
End Switch

Selected Sub Marks

See individual submittals for full details
GPF-22-G8

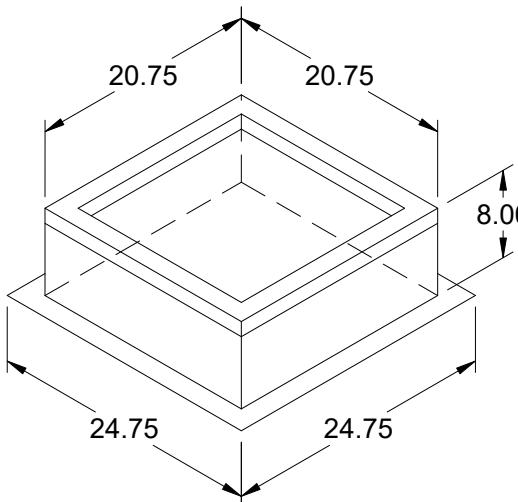
The Vari-Green Motor included in this order can operate on any three phase voltage between 380V and 480V.

AMCA



AMCA Licensed for Sound and Air Performance and FEI ratings. Power rating (BHP/kW) does not include transmission losses.

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA certified ratings seal applies to sound and air performance and FEI ratings only. Performance certified is for installation type A: Free inlet, Free outlet. Power rating (BHP/kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per ANSI/AMCA Standard 301. Values shown are for installation type A: free inlet hemispherical sone levels. dBA levels are not licensed by AMCA International. The AMCA Certified Ratings Seal applies to sone ratings only.



Model: GPF

Roof Curb

Standard Construction Features:

- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.064 in. aluminum - Straight Sided without a cant - 2 in. or 5 in. mounting flange - 1 in. thick 3 lb density insulation - Height - Available from 8 in. to 42 in. as specified in 0.5 in. increments. Notes: - The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in.. - The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size. - The Roof Opening Dimension may or may not be the same as the Structural Opening Dimension. - Damper Tray is optional and must be specified. Tray size is same as damper size. - Security bars are optional and must be specified. Frames and gridwork are all 12 ga steel.

***This curb can be mounted on the roof or wall (with a sidewall mounted CUE or CUBE fan).

General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Weight (lb)	Shipped Assembled	Union Label
	1	GPF-22	Nominal	1.25	25	Yes	No Preference

Dimensions

Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)	Actual Inside Width (in.)	Actual Inside Length (in.)	Flange Width (in.)	Flange Length (in.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)
8	22	22	20.75	20.75	17.25	17.25	24.75	24.75	21	21

*May not be applicable

Accessories

Material	Security Bars	Liner	Insulation (in.)	Insulation R Value
Galvanized	No	No	1	R4.3

Model: SP-A200

Ceiling Exhaust Fan

Standard Construction Features:

- Corrosion resistant galvanized steel scroll and housing - Sound absorbing insulation - White designer non-yellowing grille - Rectangular outlet duct collar with integral spring loaded backdraft damper - Double inlet forward curved wheel - Plug type disconnect - Adjustable mounting brackets - Field rotatable discharge

Selected Options & Accessories:

Motor rated for continuous use

Motor with Thermal Overload

Motor with CSA Approval

Motor with 40 Degree C Ambient Temperature

UL/cUL 507 Listed - Electric Fan

Solid State Speed Control, 6 Amp, Shipped Loose

Round Duct Connector, (PN: RDC-8) Shipped Loose

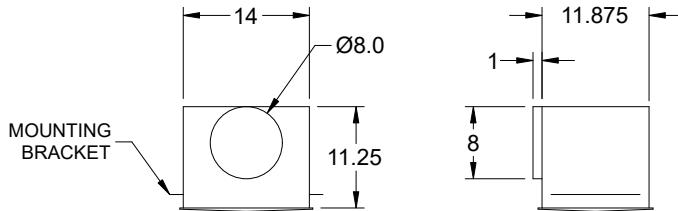
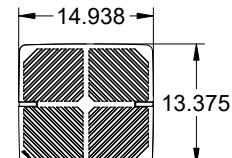
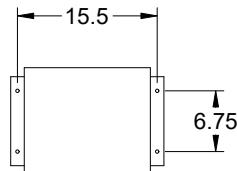
Adjustable easy installation mounting bracket

Standard Grille

Polypropylene Wheel Material

Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington

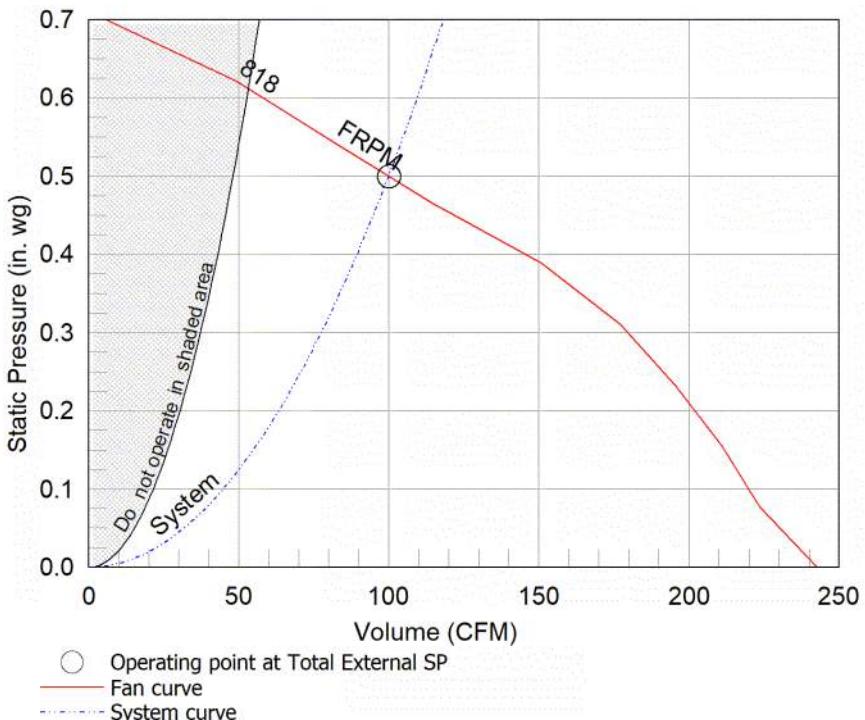
State Energy Code



Dimensional	
Quantity	1
Weight w/o Acc's (lb)	24
Weight w/ Acc's (lb)	26

Performance	
Requested Volume (CFM)	100
Actual Volume (CFM)	100
Total External SP (in. wg)	0.5
Fan RPM	818
* FLA (A)	0.46
Elevation (ft)	961
Airstream Temp.(F)	70
Air Density (lb/ft ³)	0.072
Sones	3.0

Motor	
Motor Mounted	Yes
** Input Watts (W)	35
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP



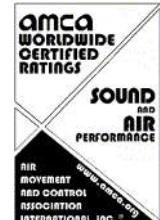
Notes:

All dimensions shown are in units of in.

*FLA is approximate and will vary slightly with the motor.

Sones - calculated using AMCA 301 at 5 ft

** Wattage is approximate and may vary between motors.



AMCA



AMCA Licensed for Sound and Air Performance Without Appurtenances (Accessories). Power rating (BHP/kW) does not include transmission losses.

Greenheck Fan Corporation certifies that the model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The watt ratings shown are at free air. The sound ratings shown are for loudness values in spherical sones at 5 ft. (1.5m) in a spherical free field calculated per Annex B of AMCA 311. Values shown are for installation type B: free inlet spherical sone levels. The AMCA Certified Ratings Seal applies to sone ratings only.

The AMCA licensed air and/or sound performance data has been modified for installation, appurtenances or accessories, etc. not included in the certified data. The modified performance is not AMCA licensed but is provided to aid in selection and applications of the product.

Model: SP-A200

Ceiling Exhaust Fan

Standard Construction Features:

- Corrosion resistant galvanized steel scroll and housing - Sound absorbing insulation - White designer non-yellowing grille - Rectangular outlet duct collar with integral spring loaded backdraft damper - Double inlet forward curved wheel - Plug type disconnect - Adjustable mounting brackets - Field rotatable discharge

Selected Options & Accessories:

Motor rated for continuous use

Motor with Thermal Overload

Motor with CSA Approval

Motor with 40 Degree C Ambient Temperature

UL/cUL 507 Listed - Electric Fan

Solid State Speed Control, 6 Amp, Shipped Loose

Round Duct Connector, (PN: RDC-8) Shipped Loose

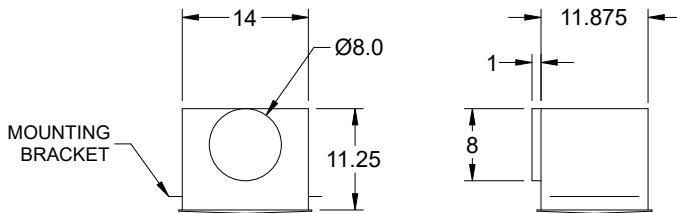
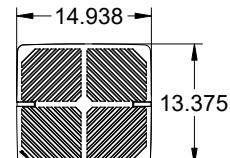
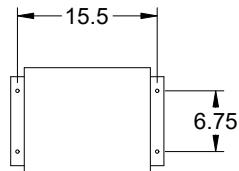
Adjustable easy installation mounting bracket

Standard Grille

Polypropylene Wheel Material

Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington

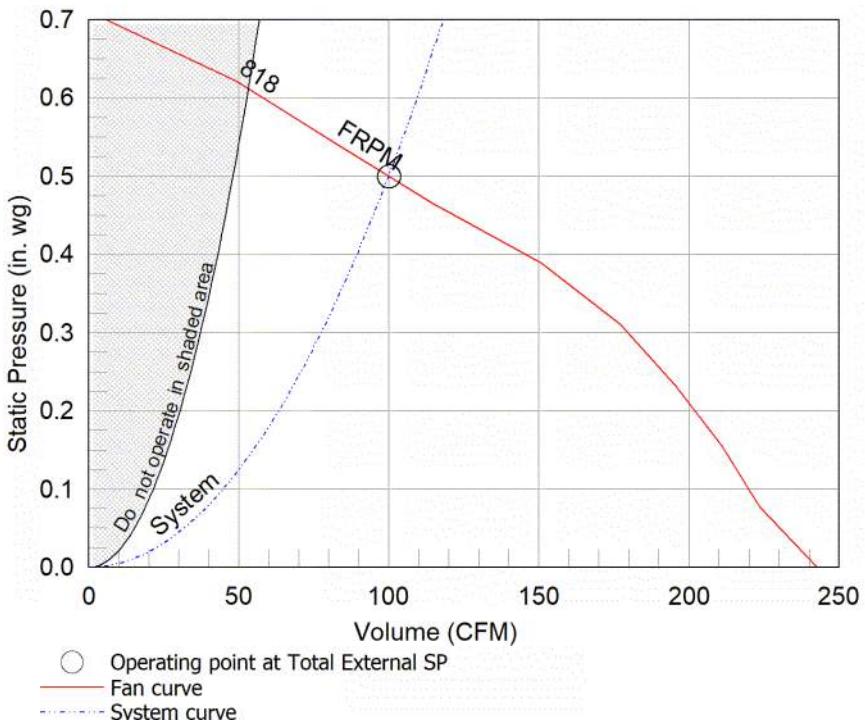
State Energy Code



Dimensional	
Quantity	1
Weight w/o Acc's (lb)	24
Weight w/ Acc's (lb)	26

Performance	
Requested Volume (CFM)	100
Actual Volume (CFM)	100
Total External SP (in. wg)	0.5
Fan RPM	818
* FLA (A)	0.46
Elevation (ft)	961
Airstream Temp.(F)	70
Air Density (lb/ft ³)	0.072
Sones	3.0

Motor	
Motor Mounted	Yes
** Input Watts (W)	35
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP



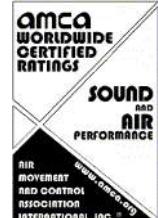
Notes:

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Sones - calculated using AMCA 301 at 5 ft

** Wattage is approximate and may vary between motors.



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Model: SP-A200

Ceiling Exhaust Fan

Standard Construction Features:

- Corrosion resistant galvanized steel scroll and housing - Sound absorbing insulation - White designer non-yellowing grille - Rectangular outlet duct collar with integral spring loaded backdraft damper - Double inlet forward curved wheel - Plug type disconnect - Adjustable mounting brackets - Field rotatable discharge

Selected Options & Accessories:

Motor rated for continuous use

Motor with Thermal Overload

Motor with CSA Approval

Motor with 40 Degree C Ambient Temperature

UL/cUL 507 Listed - Electric Fan

Solid State Speed Control, 6 Amp, Shipped Loose

Round Duct Connector, (PN: RDC-8) Shipped Loose

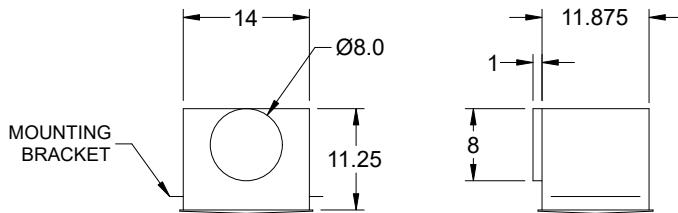
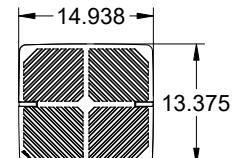
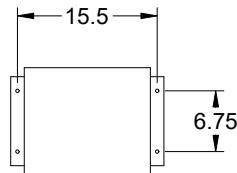
Adjustable easy installation mounting bracket

Standard Grille

Polypropylene Wheel Material

Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington

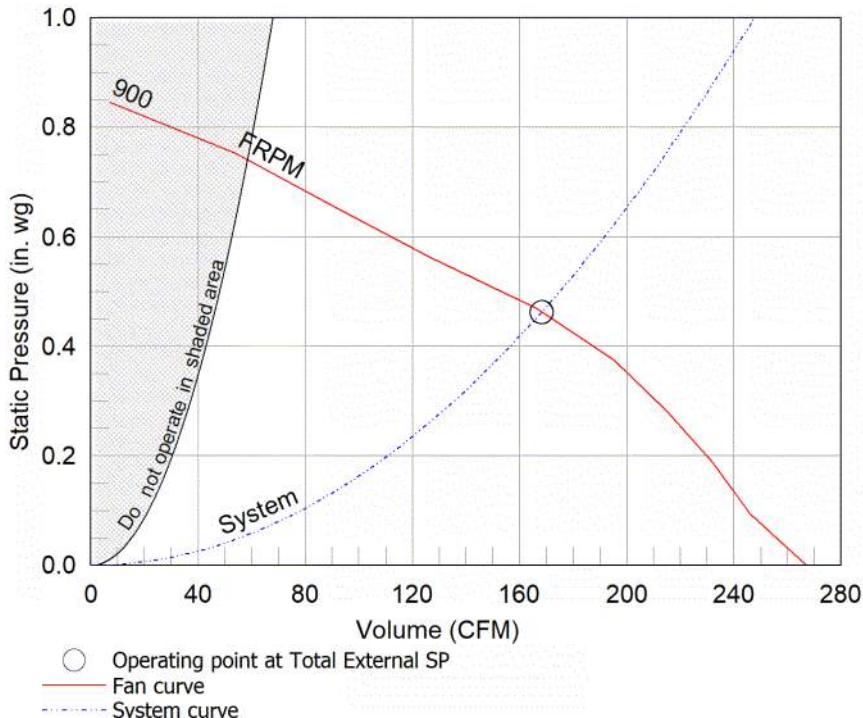
State Energy Code



Dimensional	
Quantity	1
Weight w/o Acc's (lb)	24
Weight w/ Acc's (lb)	26

Performance	
Requested Volume (CFM)	175
Actual Volume (CFM)	168
Total External SP (in. wg)	0.463
Fan RPM	900
* FLA (A)	0.46
Elevation (ft)	961
Airstream Temp.(F)	70
Air Density (lb/ft ³)	0.072
Sones	3.0

Motor	
Motor Mounted	Yes
** Input Watts (W)	49
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP



Notes:

All dimensions shown are in units of in.

*FLA is approximate and will vary slightly with the motor.

Sones - calculated using AMCA 301 at 5 ft

** Wattage is approximate and may vary between motors.



AMCA



AMCA Licensed for Sound and Air Performance Without Appurtenances (Accessories). Power rating (BHP/kW) does not include transmission losses.

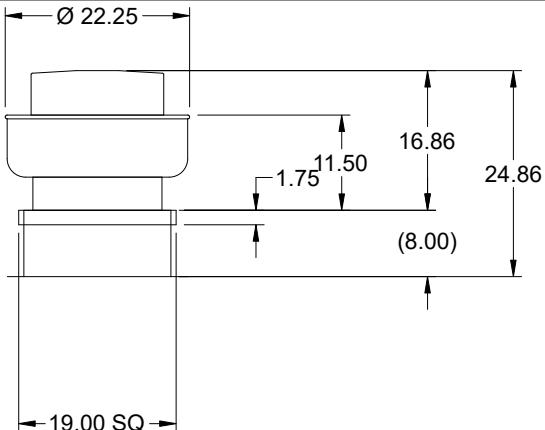
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Model: CUE-080-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	31
Weight w/ Acc's (lb)	36
Weight w/ Acc's and Curb (lb)	57
Standard Curb Cap Size (in.)	19 x 19
Roof Opening (in.)	15.5 x 15.5



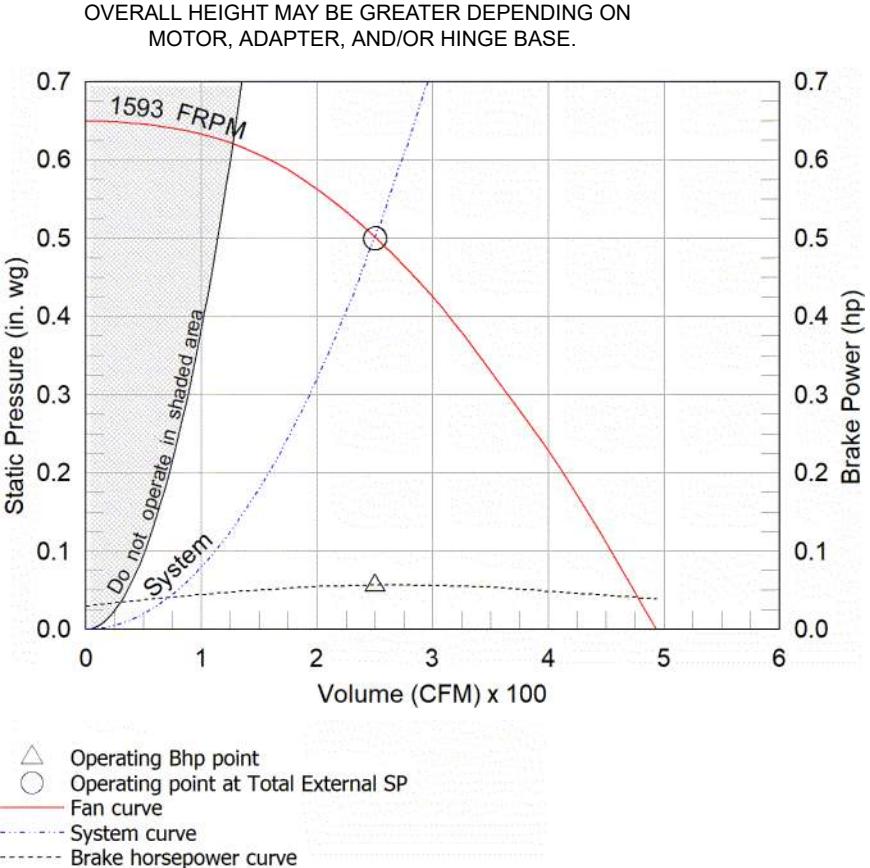
Performance	
Requested Volume (CFM)	250
Actual Volume (CFM)	250
Total External SP (in. wg)	0.5
Fan RPM	1593
Operating Power (hp)	0.06
Elevation (ft)	961
Airstream Temp.(F)	70
Air Density (lb/ft ³)	0.072
Tip Speed (ft/min)	4,535
Static Eff. (%)	35

Misc Fan Data	
Fan Energy Index (FEI)	-
Outlet Velocity (ft/min)	625

Motor	
Motor Mounted	Yes
Size (hp)	1/10
Voltage/Cycle/Phase	115/60/1
Enclosure	TENV
Motor RPM	1725
Efficiency Rating	High
Windings	1
FLA (Amps)	1.5
Min. Circuit Ampacity (MCA)	2
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	70	74	69	62	61	58	52	47	67	55	7.7



Notes:

All dimensions shown are in units of in.
 *NEC FLA, MCA and MOP are for reference only – based on tables 430.248 or 430.25 of National Electric Code 2020. Actual motor FLA may vary, for sizing thermal overload, consult factory. MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc). LwA - A weighted sound power level, based on ANSI S1.4 dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International
 Sones - calculated using ANSI/AMCA 301 at 5 ft



Model: CUE-080-VG

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Standard Construction Features:

- Aluminum housing - Backward curved composite (sizes 60-95) or aluminum (sizes 99-300) wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

Selected Options & Accessories:

- ✓ Motor - Vari-Green EC motor
- ✓ Control - Dial for balancing
- ✓ Standard Curb Cap Size - 19 Square
- ✓ UL/cUL 705 Listed - "Power Ventilators"
- ✓ Switch, NEMA-3R, Toggle,
- ✓ Junction Box Mounted & Wired
- ✓ High Wind Rated (+/- 150 PSF Rating)
Florida Product Approval #FL13225.1 & Miami-Dade NOA #24-0919.01
- ✓ Foam Curb Seal (Factory Applied)
- ✓ Coated with Permatector, Concrete Gray-RAL 7023, Fan And Attached Acc
- ✓ Fastener Material: Stainless
- ✓ Birdscreen: Stainless Steel, nom. 89% Free Area
- ✓ Aluminum Rub Ring
- ✓ Composite Wheel Material
- Conduit Chase Qty 1
- Unit Warranty: 1 Yr (Standard)

Selected Sub Marks

See individual submittals for full details

GPF-19-G8

The Vari-Green Motor included in this order has a 'Multi-Voltage' ability. The red wire on the motor is called a 'Voltage Doubler', and when it is connected the motor can be powered by 115V.

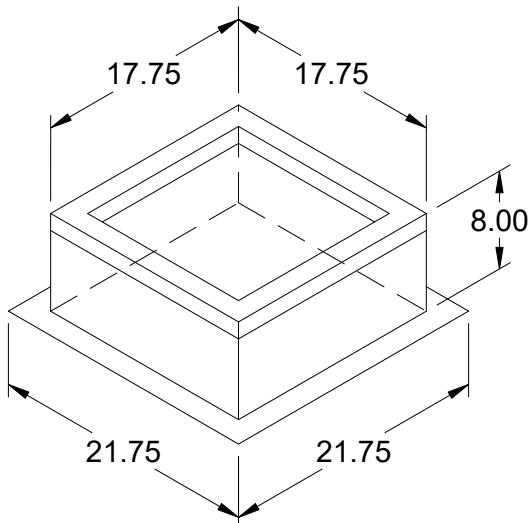
If the Red wire is disconnected, then the motor can be powered with 208-230/277V. The motor will leave the factory with the voltage doubler wired per the order.

AMCA



AMCA Licensed for Sound and Air Performance. Power rating (BHP/kW) does not include transmission losses.

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Model: GPF

Roof Curb Standard Construction Features:

- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.064 in. aluminum - Straight Sided without a cant - 2 in. or 5 in. mounting flange - 1 in. thick 3 lb density insulation - Height - Available from 8 in. to 42 in. as specified in 0.5 in. increments. Notes: - The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in.. - The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size. - The Roof Opening Dimension may or may not be the same as the Structural Opening Dimension. - Damper Tray is optional and must be specified. Tray size is same as damper size. - Security bars are optional and must be specified. Frames and gridwork are all 12 ga steel.

***This curb can be mounted on the roof or wall (with a sidewall mounted CUE or CUBE fan).

General

Tag	Qty	Model	Sizing Method	Undersizing (in.)	Weight (lb)	Shipped Assembled	Union Label
	1	GPF-19	Nominal	1.25	21	Yes	No Preference

Dimensions

Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)	Actual Inside Width (in.)	Actual Inside Length (in.)	Flange Width (in.)	Flange Length (in.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)
8	19	19	17.75	17.75	14.25	14.25	21.75	21.75	18	18

*May not be applicable

Accessories

Material	Security Bars	Liner	Insulation (in.)	Insulation R Value
Galvanized	No	No	1	R4.3

Coatings

Coating Type	Coating Color	Match Color Name	Match Color Code	Coating Area
Permatector	Concrete Gray-RAL 7023			Entire Unit

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 1/5/2026Company: T & A Plastering Name: Chris VanMarkerTelephone Number: 315-437-0264 Cell: _____
Fax Number: 315-532-7089Contract(s) bidding on: 078100 / 078120Drawing Referenced: Sections / DetailsSpec Section Referenced: 078100

Other References: _____

Request: Please consider Cafco 400 Medium DensityCementitious Fireproofing as Equal to Specified Cafco
Blazeshield HP. Attached Product DataANSWER: Blazeshield HP is approved for exterior use which we felt was
preferred for a Pool environment as the Cafco 400 is not approved
for exterior use.Answered By: R. SMITHDate: 1-5-2026

DESCRIPTION

CAFCO 400 / ISOLATEK Type 400 is a Portland cement based, wet mix, medium density Spray-Applied Fire Resistive Material (SFRM) designed to provide fire protection for structural steel and concrete in commercial and high rise construction. The durable surface and Portland cement based formulation make it well suited for applications in either unconditioned or conditioned areas.

CAFCO 400 / ISOLATEK Type 400 is used in areas which may be subject to higher levels of abuse and elevated humidity such as mechanical and electrical rooms, parking garages, elevator shafts, etc. and meets the current IBC high rise bond strength requirement of ≥ 430 psf and 1,000 psf.

In addition to fire resistance, CAFCO 400 / ISOLATEK Type 400 also provides thermal benefits. As a thermal insulator, it is effective in reducing heat loss, particularly when applied to the underside of a roof deck. The R-value added by CAFCO 400 / ISOLATEK Type 400 may also allow a reduction in roof insulation.

PRODUCT ADVANTAGES

- Meets or exceeds industry in-place performance standards
- Portland cement based product is extremely durable and ideal for areas where resistance to physical abuse, abrasion forces and impact is required
- Offers the best fire resistance performance per unit thickness and greatest productivity of any medium density SFRM
- Cost effective, clean and neat in appearance

Thermal Performance

Product	Conductivity(k)*	Resistance (R/inch)
CAFCO 400	0.494 BTU in/hr ft ² F @ 75°F (0.0712 W/m·K @ 24°C)	2.02
ISOLATEK Type 400		

*When tested in accordance with ASTM C518

Physical Performance

Characteristic	ASTM Method	Industry Standard Performance*	Laboratory Tested Performance**
Density	E605	22pcf (353 kg/m ³)	25.3pcf (405 kg/m ³)
Combustibility	E136	Noncombustible	Noncombustible
Cohesion/Adhesion	E736	430 psf (20.6 kPa)	8,556 psf (409.7 kPa)
Deflection	E759	No Cracks or Delaminations	No Cracks or Delaminations
Bond Impact	E760	No Cracks or Delaminations	No Cracks or Delaminations
Compressive Strength	E761	7,344 psf (351.7 kPa)	22,112 psf (1,058.7 kPa)
Air Erosion Resistance	E859	Less than 0.025 g/ft ² (0.27 g/m ²)	0.000 g/ft ² (0.000 g/m ²)
Corrosion Resistance	E937	Does Not Promote Corrosion of Steel	Does Not Promote Corrosion of Steel
Sound Absorption	C423		0.60 NRC 1/2" (13 mm) on deck and beam
Cone Calorimeter	E1354	No Flaming or Heat Release	No Flaming or Heat Release
Fungal Resistance	G21	No Growth After 28 Days	Passed

* Standard performance based on industry standards and practices. Refer to UL design for density requirement.

** Values represent independent laboratory tests under controlled conditions.

FIRE TEST PERFORMANCE

CAFCO 400 / ISOLATEK Type 400 has been extensively tested for fire resistance and is rated for up to 4 hours for floor assemblies, beams, joists, columns, and roof assemblies.

- Classified by UL in accordance with ANSI/UL 263 (ASTM E119)
- Classified by UL in accordance with CAN/ULC-S101 (ASTM E119)
- Tested in accordance with BS476 Parts 21 & 22 (Assessed in accordance with 5th Edition ASFP Yellow Book)
- Tested in accordance with EN13381 Parts 3 & 4
- Assessed in accordance with AS 1530.4:2014/AS4100:1998(R2016) Amendment 1

CAFCO 400 / ISOLATEK Type 400 has also been tested for surface burning characteristics in accordance with ASTM E84 and is rated Class A
Flame Spread0 Smoke Developed0

CODE COMPLIANCES

CAFCO 400 / ISOLATEK Type 400 satisfies the requirements of the following:

- IBC® - INTERNATIONAL BUILDING CODE®
- City of Los Angeles (LADBS, Category 1 Material)
- NBC - National Building Code of Canada
- ICC-ES, AC23 and AC10 Requirements (UL ER13348-01)

MAJOR SPECIFICATIONS

CAFCO 400 / ISOLATEK Type 400 complies with the requirements of the following specifications:

- MasterSpec®, Section 078100 APPLIED FIREPROOFING (AIA)
- MasterFormat® 2014, Section 07 81 00 Applied Fireproofing (CSC,CSI)
- Unified Facilities Guide Specification, UFGS 07 81 00 Spray-Applied Fireproofing (USACE, NAVFAC, AFCEC, NASA)
- Master Construction Specifications, Number 07 81 00 Applied Fireproofing (VA)
- Code of Federal Regulations, Title 40 Protection of the Environment (EPA)
- PBS-P100, Facilities Standards for the Public Buildings Services (GSA)
- Factory Mutual Approved

CAFCO 400 / ISOLATEK Type 400 Guide Specification

SECTION 078100 - APPLIED FIREPROOFING

The following is an outline/shot language specification. Complete specifications for Spray-Applied Fire Resistive Materials are available on various media upon request.

PART 1 - GENERAL

1.1 Work included

1.1.1 Provide all labor, materials, equipment and services necessary for, and incidental to, the complete and proper installation of all sprayed fire protection and related work as shown on the drawings or where specified herein, and in accordance with all applicable requirements of the Contract Documents.

1.1.2 The material and installation shall conform to the applicable building code requirements of all authorities having jurisdiction.

1.2 Quality Assurance

1.2.1 Work shall be performed by a firm with expertise in the installation of fire protection or similar materials. This firm shall be recognized or otherwise approved by the spray-applied fire resistive material manufacturer.

1.2.2 Before proceeding with the fire protection work, approval of the proposed material thicknesses and densities shall be obtained from the architect and other applicable authorities having jurisdiction.

1.3 Related Sections

1.3.1 SECTION 051200 - STRUCTURAL STEEL FRAMING

1.3.2 SECTION 053100 - STEEL DECKING

1.3.3 SECTION 072100 - THERMAL INSULATION

1.3.4 SECTION 078123 - INTUMESCENT FIREPROOFING

1.3.5 SECTION 078443 - JOINT FIRESTOPPING

1.4 References

A. ASTM E84 - Surface Burning Characteristics of Building Materials.

B. ASTM E119 - Fire Tests of Building Construction and Materials.

C. ASTM E605 - Thickness and Density of Sprayed Fire-Resistive Materials Applied to Structural Members.

D. ASTM E736 - Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members.

E. ASTM E759 - Effect of Deflection of Sprayed Fire-Resistive Materials Applied to Structural Members.

F. ASTM E760 - Effect of Impact on Bonding of Sprayed Fire-Resistive Materials Applied to Structural Members.

G. ASTM E761 - Compressive Strength of Sprayed Fire-Resistive Materials Applied to Structural Members.

H. ASTM E859 - Air Erosion of Sprayed Fire-Resistive Materials Applied to Structural Members.

I. ASTM E937 - Corrosion of Steel by Sprayed Fire-Resistive Materials Applied to Structural Members.

J. CAN / ULC-S101 - Standard Methods of Fire Tests of Building Construction and Materials.

1.4.1 Underwriters Laboratories (UL) Fire Resistance Directory.

1.4.2 Underwriters Laboratories of Canada (ULC) List of Equipment and Materials.

1.4.3 IBO® INTERNATIONAL BUILDING CODE® CHAPTER 17 STRUCTURAL TESTS AND SPECIAL INSPECTIONS, Section 1705 Special Inspections.

1.4.4 AWCI Publication: Technical Manual 12-A Standard Practice for the Testing and Inspection of Field-Applied Sprayed Fire Resistive Materials; an Annotated Guide.

1.5 **Submittals**

1.5.1 Manufacturer's Data: Submit Manufacturer's specification, including certification as may be required to show material compliance with Contract Documents.

1.5.2 Test Data: Independent laboratory test results shall be submitted for all specified performance criteria.

1.6 **Delivery, Storage and Handling**

1.6.1 Deliver materials to the project in manufacturer's unopened packages, fully identified as to trade name, type and other identifying data. Packaging shall bear the UL labels for fire hazard and fire-resistance classifications.

1.6.2 Store materials above ground, in a dry location, protected from the weather. Damaged packages found unsuitable for use must not be used.

1.7 **Project Conditions**

1.7.1 When the prevailing outdoor temperature at the building is less than 40°F (4°C), a minimum substrate and ambient temperature of 40°F (4°C) shall be maintained prior to, during, and a minimum of 24 hours after application of spray-applied fire resistive material. If necessary for job progress, General Contractor shall provide enclosures and heat to maintain proper temperatures and humidity levels.

1.7.2 General Contractor must provide adequate ventilation to allow proper drying of the sprayed fire protection during and subsequent to its application. Ventilation must not be less than 4 complete air exchanges per hour until the material is dry. When spraying in enclosed areas such as basements, stairwells, shafts, and small rooms, additional air exchanges may be necessary.

1.7.2.1 Ventilation must not be less than 4 complete air exchanges per hour until the material is dry. When spraying in enclosed areas such as basements, stairwells, shafts, and small rooms, additional air exchanges may be necessary.

1.8 **Sequencing/Scheduling**

1.8.1 All fire protection work on a floor shall be completed before proceeding to the next floor.

1.8.2 The Contractor shall cooperate in the coordination and scheduling of fire protection work to avoid delays in job progress.

PART 2 - PRODUCTS

2.1 **Acceptable Manufacturers**

2.1.1 The spray-applied fire resistive material shall be manufactured under the CAFCO® / ISOLATEK® brand name, by authorized producers.

2.2 **Materials**

2.2.1 Materials shall be CAFCO 400, (UL/ULC designation: ISOLATEK Type 400) applied to conform to the drawings, specifications and following test criteria.

2.2.1.1 Deflection: When tested in accordance with ASTM E759, the material shall not crack or delaminate when the non-concrete topped galvanized deck to which it is applied is subjected to a one time vertical centerload resulting in a downward deflection of 1/120th of the span.

2.2.1.2 Bond Impact: When tested in accordance with ASTM E760, the material shall not crack or delaminate from the concrete topped galvanized deck to which it is applied.

2.2.1.3 Cohesion/Adhesion (bond strength): When tested in accordance with ASTM E736, the material applied over uncoated or galvanized steel shall have a minimum bond strength of 430 psf (20.6 kPa).

2.2.1.4 Air Erosion: When tested in accordance with ASTM E859, the material shall not be subject to losses from the finished application greater than 0.025 grams per sq. ft. (0.27 grams per square meter).

2.2.1.5 Compressive Strength: When tested in accordance with ASTM E761, the material shall not deform more than 10 percent when subjected to a crushing force of 7,344 psf (351.7 kPa).

2.2.1.6 Corrosion Resistance: When tested in accordance with ASTM E937, the material shall not promote corrosion of steel.

2.2.1.7 Surface Burning Characteristics: When tested in accordance with ASTM E84, the material shall exhibit the following surface burning characteristics:
Flame Spread 0
Smoke Developed 0

2.2.1.8 Density: When tested in accordance with ASTM E605, the material shall meet the minimum individual and average density values as listed in the appropriate UL / ULC design as required by the authority having jurisdiction.

2.2.2 The material shall have been tested and classified by Underwriters Laboratories (UL) or Underwriters Laboratories of Canada (ULC) in accordance with the procedures of UL 263 (ASTM E119) or CAN/ULC-S101.

2.2.3 Spray-applied fire resistive materials shall be applied at the appropriate minimum thickness and density to achieve the following ratings:
Floor assemblies ____ hr.
Roof assemblies ____ hr.
Beams ____ hr.
Girders ____ hr.
Columns ____ hr.
Joists ____ hr.

2.2.4 Potable water shall be used for the application of spray-applied fire resistive materials.

2.2.5 Spray-applied fire resistive materials shall contain no detectable asbestos. Material manufacturer shall provide certification of such upon request.

PART 3 - EXECUTION

3.1 **Preparation**

3.1.1 All surfaces to receive spray-applied fire resistive material shall be free of oil, grease, loose mill scale, dirt, paints/primers or other foreign materials which would impair satisfactory bonding to the surface. Manufacturer shall be contacted for procedures on handling primed/painted steel. Any cleaning of surfaces to receive sprayed fire protection shall be the responsibility of the General Contractor or Steel Erector, as outlined in the structural steel or steel deck section.

3.1.2 Clips, hangers, supports, sleeves and other attachments to the substrate are to be placed by others prior to the application of spray-applied fire resistive materials.

3.1.3 The installation of ducts, piping, conduit or other suspended equipment shall not take place until the application of spray-applied fire resistive materials is complete in an area.

3.1.4 The spray-applied fire resistive material shall only be applied to steel deck which has been fabricated and erected in accordance with the criteria set by the Steel Deck Institute.



ISOLATEK INTERNATIONAL is registered with the
AIA Continuing Education System (AIA/CES)



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The performance data herein reflect our expectations based on tests conducted in accordance with recognized standard methods under controlled conditions. The applicator, general contractor, property owner and/or user MUST read, understand and follow the directions, specifications and/or recommendations set forth in Isolatek International's publications concerning use and application of these products, and should not rely merely on the information contained in this Technical Data Sheet. Isolatek International is not responsible for property damage, bodily injuries, consequential damages, or losses of any kind that arise from or are related to the applicator's general contractor's, or property owner's failure to follow the recommendations set forth in Isolatek International's publications. The sale of these products shall be subject to the Terms and Conditions set forth in the Company's invoices.



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800.631.9600 or 973.347.1200
www.isolatek.com | technical@isolatek.com
technical-international@isolatek.com



HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form**

Send to: Thadius Donoghue - tdm@hulberteng-ls.com
Ray Smith - rsmith@ha-pa.com

Section 00 22 14

Please Type or Print Neatly

Date: 12/30/2025

Company: Jeffords Steel & Engineering **Name:** Matt McKenna

Telephone Number: 315-265-3871 **Fax Number:** 315-265-3994

Contract(s) bidding on: Miscellaneous Metals

Drawing Referenced: A-200>A-201>3,4&7/A-306

Spec Section Referenced: 055000 Metal Fabrications, 099600 High-Performance Coatings, 055213 Pipe and Tube Railings

Other References: _____

Request: Do the Exterior Railings at the Concrete stair and at the retaining wall require galvanizing before Epoxy Primer?

ANSWER: THE NEW EXTERIOR STEEL PIPE RAILING SYSTEM AT THE RETAINING WALL ARE NOT GALVANIZED AND ARE TO RECEIVE HIGH PERFORMANCE COATING AS INDICATED ON A-306. REFER TO HIGH PERFORMANCE COATING SPEC. 099600.

Answered By: R. SMITH

Date: 1-2-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

MLCP RFI #7

Date: 1-2-26Company: Main Line Commercial Pools, Inc. Name: Gavin GrimesTelephone Number: 610-715-2664 Fax Number: n/aContract(s) bidding on: Contract 7 AquaticsDrawing Referenced: AQD-100Spec Section Referenced: 011200 Contract 7 Scope of Work

Other References: _____

Request: Please confirm the existing pool equipment shown on AQD-100 is removed and discarded by the pool contractor? Dumpsters by Aquatic Contractor?

ANSWER: Response provided in Addendum 03Answered By: David Gilmore Date: 1/5/2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

MLCP RFI #8

Date: 1-2-26Company: Main Line Commercial Pools, Inc. Name: Gavin GrimesTelephone Number: 610-715-2664 Fax Number: n/aContract(s) bidding on: Contract 7 AquaticsDrawing Referenced: S-101Spec Section Referenced: 011200 Contract 7 Scope of Work

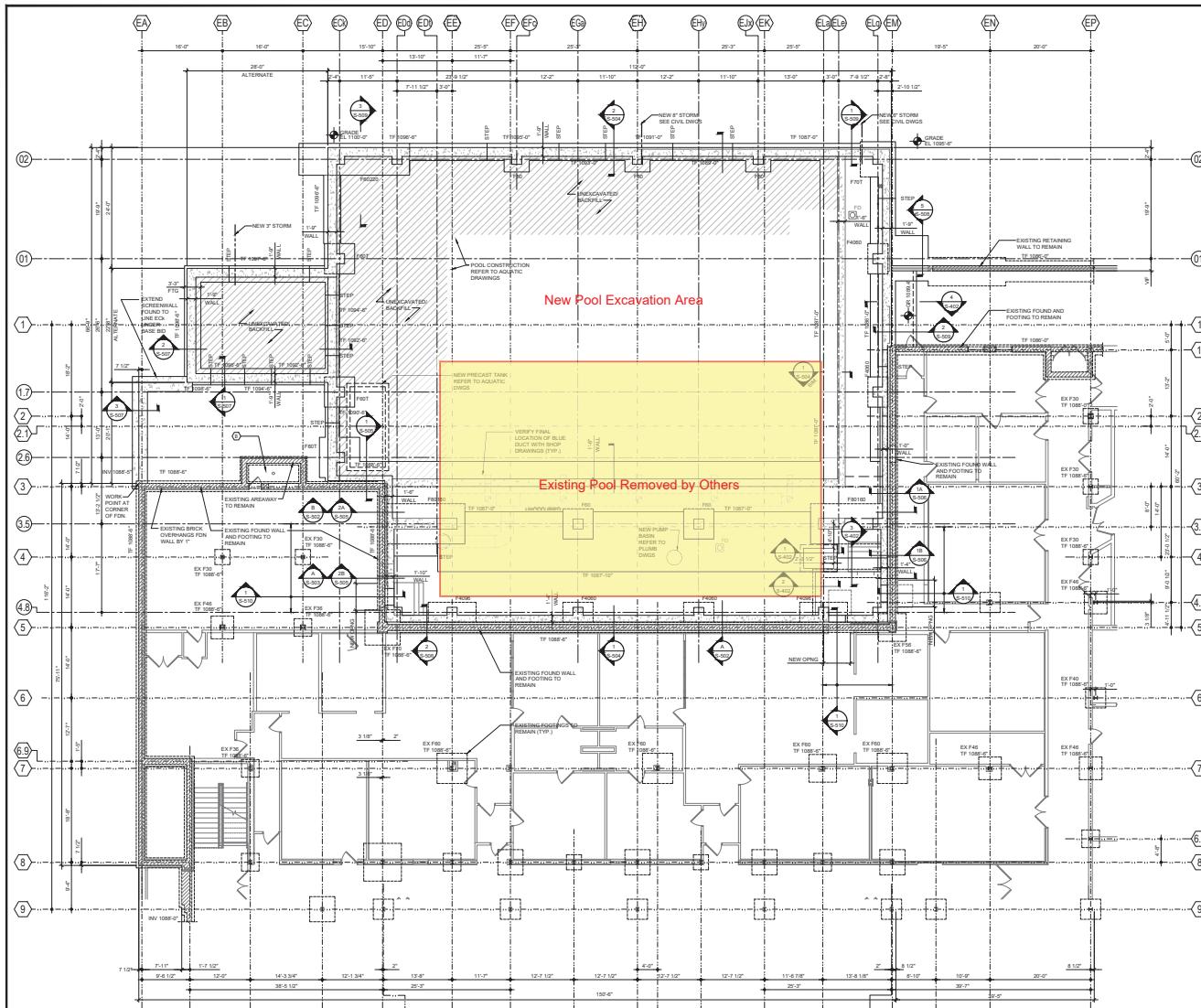
Other References: _____

Request: see attached overlay of the existing swimming pool (attached). Who is responsible to backfill the existing pool to subgrade once the pool is removed (area in yellow)?

Please confirm GC contract is responsible to backfill the new building footers?

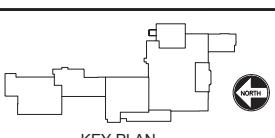
ANSWER: General Trades is responsible to provide backfill to subgrade for all areas of demolition including the area of the demolished old pool. The Aquatics Contractor is responsible to provide backfill to subgrade at the newly excavated new pool as excavated by the Aquatics Contractor.

Answered By: David Gilmore Date: 1/5/2026



4 TYPICAL RETURN CONVERTER DETAIL

TYPICAL PERIMETER OVERFLOW DETAIL



Issued for Bidding
December 1, 2025

CAPITAL PROJECT

PHASE 2
SED #03-15-02-06-0-011-027
SED #3-15-02-06-0-020-017
SED #3-15-02-06-5-010-011
SED #3-15-02-06-4-015-006
SED #3-15-02-06-4-014-006

The logo for the Johnson City Central School District, featuring a stylized 'JC' monogram in blue and red.

Johnson City Central
School District
Johnson City, NY

A small black diamond symbol.

Capital Project 2025 2026
Phase 2

**FIRST FLOOR
FOUNDATION
CONSTRUCTION PLAN**

NAC	2024-239P
CHECKED BY: EDM	BUILDING DRAWING NO.: HS S-101

FIRST FLOOR FOUNDATION CONSTRUCTION PLAN - UNIT F

1 TYPICAL GUTTER DETAIL @ RETAINING WALL

2 TYPICAL GUTTER DETAIL @ SLAB-ON-GRADE

The diagram illustrates a concrete slab foundation with the following key features and dimensions:

- EX-EXISTING FLOOR TELL (TOP OF FLOOR):** A horizontal line representing the existing floor level.
- NEW SLAB SECTION TO BE ADDED:** A vertical line representing the new slab section to be added.
- 3'-0" (900 mm) DEPTH OF DUCT AND PIPING:** The depth of the duct and piping below the new slab section.
- SLAB DEPRESSION WITH ARCH SWING:** A recessed area in the slab with an arch-shaped support.
- 3'-0" (900 mm) DEPTH:** The depth of the slab blockout below the new slab section.
- SLAB BLOCKOUT:** A rectangular cutout in the slab for the duct and piping.
- DECK TRACK PLATE:** A plate used for deck tracking.
- SPF 2X4 GA 250 DECK TRACK PLATE:** A specific type of deck track plate.
- 4'-0" (1200 mm) CONTINUOUS PLATE WITH 4" HEADED STUDS:** A continuous plate with 4" headed studs.
- NOT DIPPED GALVANIZED:** A note indicating the plate is not dipped galvanized.
- BENTONITE WATERSTOP 3-SIDES:** A bentonite waterstop applied to three sides of the slab.
- NEW DUTCHWALL:** A new wall structure, referred to as a "DUTCHWALL".
- REFERS TO MEDIUM DWGS:** A reference to medium drawings.

SECTION 115-504 FOR
CONSTRUCTION

REFER TO MECH
DWGS

**TYPICAL SLAB BLOCKOUT PLAN DETAIL
FOR EVACUATOR @ RETAINING WALL**

FOOTING SCHEDULE			BEARING PRESSURE
MARK	SIZE	DEPTH	REINFORCING @ BOTTOM E/W
F50	5" x 5" x 5"	1'-2"	5#-5
F10	6" x 6" x 6"	1'-5"	6#-5
F20T	6" x 6" x 6"	1'-5"	8#-5 TOP AND BOTTOM E/W
F15	7" x 7" x 6"	1'-6"	
F20T	7" x 7" x 7"	1'-6"	8#-5 TOP AND BOTTOM E/W
F80T	8" x 8" x 8"	1'-10"	9#-6 BOTTOM E/W
F4000	4" x 10" x 9"	1'-5"	5#-5 TOP AND BOTTOM E/W
F4000E	4" x 10" x 9"	1'-6"	8#-7 x 5#-7 E/W
F6000	6" x 10" x 10"	2'-5"	12#-7 x 12#-7 E/W
F80160	6" x 10" x 10"	3'-6"	14#-8 x 14#-8 E/W
F80160	6" x 10" x 10"	5'-6"	17#-8 x 17#-8 E/W

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

MLCP RFI #9

Date: 1-2-26Company: Main Line Commercial Pools, Inc. Name: Gavin GrimesTelephone Number: 610-715-2664 Fax Number: n/aContract(s) bidding on: Contract 7 AquaticsDrawing Referenced: S-101Spec Section Referenced: 011200 Contract 7 Scope of Work

Other References: _____

Request: Detail 1 pn S101 calls for waterproofing of the new foundation wall. Who is responsible to install the waterproofing?

Who is responsible to install the 4" under drain system below the pool slab?

ANSWER: **GENERAL TRADED CONTRACTOR IS
RESPONSIBLE FOR WATERPROOFING AND
UNDERSLAB DRAINAGE SYSTEM.**

Answered By: R. SMITH Date: 1-5-2026

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: 1/2/2026

Company: Matco Electric Name: Jon R.

Telephone Number: 607-729-4921 Fax Number: 607-729-0932

Contract(s) bidding on: Contract #5 - Electrical

Drawing Referenced: K-8 ES-100 & HS C113

Spec Section Referenced: 01 12 00 MULTIPLE CONTRACT SUMMARY

Other References: _____

Request: Please clarify the delineation of scope responsibilities between Contract #1 - Site and Contract #5 - Electrical. Specifically, which contractor is responsible for the excavation, backfill, and restoration for the site lighting on drawing K-8 ES-100 as well as the procurement and installation of the light pole bases. There seems to be conflicting statements between the drawings and specs.

ANSWER: Per previous addendum.

e. Revise 1.7 E. 2. e. for Electrical Contract to be Site electrical, security and communication distribution including conduit, wiring and connection. Excavation, backfill, subgrade and finish grade is by the Site Contractor. Electrical contractor shall be responsible for conduit, electric cable and pull box placement.

f. Electrical service and distribution up to five feet outside the building plus connection to site utility.

g. Exterior and interior lighting Including exterior light poles, light pole bases by Site Contract

Answered By: David Gilmore

Date: 1/5/2026

administration required for the total performance of the Work of this Contract including but is not limited to, the following:

- a. All work as shown on CIVIL (C) series drawings and the LANDSCAPE (LA) series drawings unless specifically noted as by another contract.
- b. Site preparation, including clearing, demolition, tennis court demolition and relocations, and earthwork.
- c. Site improvements, including roadways, parking lots, pedestrian paving, curbs, site development furnishings and equipment, and landscaping.
- d. Topsoil, fine grading and seeding all disturbed area caused by the demolition or construction. Seed and mulch is required for stabilization of ground. District to advise type of grass seed required.
- e. Site improvements, including, site sanitary, storm drainage improvements, utility installation and tie-in at existing structures, and landscaping beyond five feet outside of the building. Coordination is required with Electrical and Plumbing Contracts.
- f. Site water supply and distribution. Site sanitary sewerage. Site storm drainage outside of the five feet outside of the building.
- g. The Contractor is responsible for excavation and backfill of all utility work five feet outside the building and as shown on Site drawings.
- h. Site lighting bases
- i. Fencing and gates
- j. Repairing any asphalt, parking curbs and walks damaged by demolition or construction. All areas are to be restored to previous conditions or better.
- k. Exterior cleaning of the project site.
- l. Maintaining roads and walkways and maintaining building egress in accordance with the drawings and specifications and to accommodate the construction schedule and District use of the buildings.
- m. Perform the final cleaning of the exterior project before the facilities are turned over to the District for their use. Refer to Section 01 50 00 for further information.
- n. Concrete walkway, bollards and concrete curb and sidewalk.
- o. Sediment and erosion control.
- p. Backfill and stone at area between existing boiler room and new pool vestibule for boiler piping.

3. Temporary facilities and controls in the **Site Demolition and Construction Contract** include, but are not limited to, the following:

- a. Sediment and erosion control.
- b. Unpiped sewers and drainage, including drainage ditches, dry wells, stabilization ponds, and containers.
- c. Stormwater control.
- d. Excavation for all site utilities up to 5 feet outside of the building.
- e. Temporary roads and paved areas.
- f. Temporary site security fencing, enclosures and lock-up.
- g. Maintenance and restoration of Owner's existing facilities used as temporary facilities.
- h. Site enclosure fence and relocation as required.

B. CONTRACT No. 2: General Trades Demolition and Construction, Abatement

1. Work of the following Divisions and Specification Sections:

1. Work of the following Divisions and Specification Sections:
 - a. **VOLUME 1**
 - DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS (All Sections)
 - DIVISION 01 - GENERAL REQUIREMENTS (All Sections)
 - b. **VOLUME 3**
 - DIVISION 02 - EXISTING CONDITIONS
 - 02 41 19 SELECTIVE STRUCTURE DEMOLITION
 - DIVISION 07 - THERMAL AND MOISTURE PROTECTION
 - 07 84 13 PENETRATION FIRESTOPPING
 - 07 84 46 FIRE-RESISTIVE JOINT SYSTEMS
 - 07 92 00 JOINT SEALANTS
 - c. **VOLUME 4**
 - DIVISION 26 – ELECTRICAL (All Sections - Reference SECURITY Contract)
2. Work of the Electrical Demolition and Construction Contract includes all electrical demolition and construction. Provide all material, labor, equipment, supervision, management, and administration required for the total performance of the Work of this Contract including but is not limited to, the following:
 - a. All work as shown on ELECTRICAL (E) series drawings unless specifically noted as by another contract. Note HS E-005A, HS E-005B, HS E-005C, HS E-005D, are in the security contract scope of work.
 - b. Coordination with work provided by the Site Contract including Site improvements, site sanitary, storm drainage improvements, utility installation and tie-in at existing structures and landscaping. Coordination is required with Site and Plumbing Contracts.
 - c. The Electrical Contractor is responsible for excavation and backfill of all utility work up to five feet outside the building and as shown on Site drawings. Connections to site utilities by Electrical Contract.
 - d. Exterior painting of exposed piping, HVAC ductwork, and electrical conduit shall be by the Contractor providing the exposed piping, HVAC ductwork, and electrical conduit.
 - e. Site electrical, security and communication distribution including conduit, wiring and connection. Excavation, backfill, subgrade and finish grade is by the Electrical Contractor.
 - f. Electrical service and distribution up to five feet outside the building plus connection to site utility.
 - g. Exterior and interior lighting.
 - h. Any work specifically called out for the Electrical Construction Contract in the AQ series drawings and Aquatics specifications.
 - i. Building communication and security not specified for the security contract and site communications and security distribution including conduit, wiring and connection.
 - j. Special electrical systems.

HIGHLAND ASSOCIATES / HULBERT ENGINEERING

Contractor Pre-Bid RFI Form

Section 00 22 14

Please Type or Print Neatly

Date: 1/2/2026

Company: Matco Electric Corporation **Name:** Daniel J. Randall

Telephone Number: (607)-729-4921 **Fax Number:** (607)-729-0921

Contract(s) bidding on: Electrical Contract # 5

Drawing Referenced: HS E-105

Spec Section Referenced: _____

Other References: _____

Request: Can you please verify the exact location of panelboard "LA"? Drawing HS E-105 shows two circuits feeding electric baseboard heaters from this panel and I'm unable to find its location anywhere within the construction documents.

ANSWER: The panel circuit number in Toilet Rooms 122 and 1213 indicated 'LA' on E-105 should read "LB-1" and is located in corridor. The baseboard heat in these rooms should be fed to this panel. Refer to First Floor Composite Plan on HS E-004 for panel location and HS E-401 for Panel Schedule. Revised drawings attached.

Answered By: Rick Clift, Highland Associates **Date:** 1-5-26

HIGHLAND ASSOCIATES / HULBERT ENGINEERING**Contractor Pre-Bid RFI Form****Section 00 22 14**

Please Type or Print Neatly

Date: December 23, 2025

Company: NELCORP Electrical Contracting Corp. **Name:** Phil Kasper

Telephone Number: 607-754-8428 **Fax Number:** 607-785-8783

Contract(s) bidding on: Electrical

Drawing Referenced: BG_E-102 BG_E100

Spec Section Referenced: _____

Other References: _____

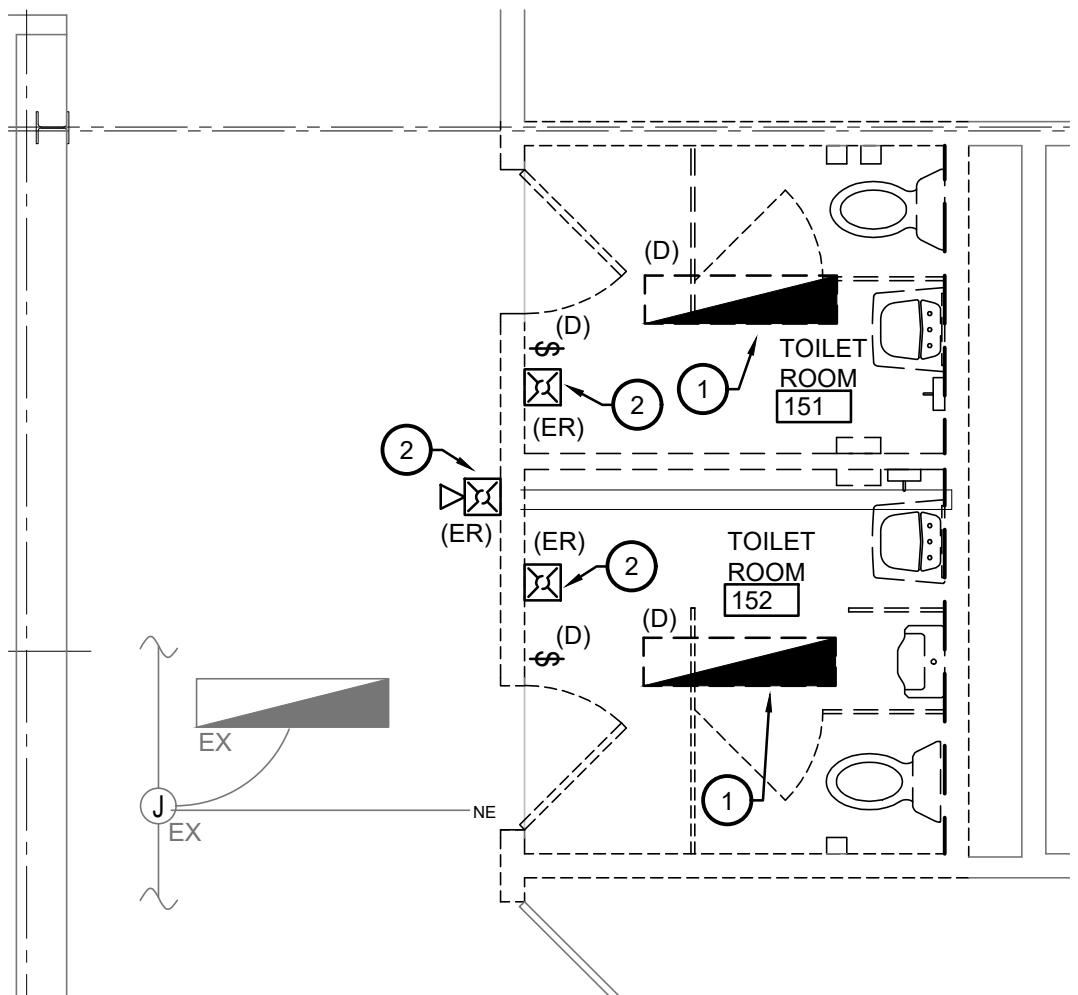
Request: _____

On drawing BG_E102 there 4 door that have access control. Does the wiring go back to the bus garage? If so how far is the bus garage from the south bus storage building?

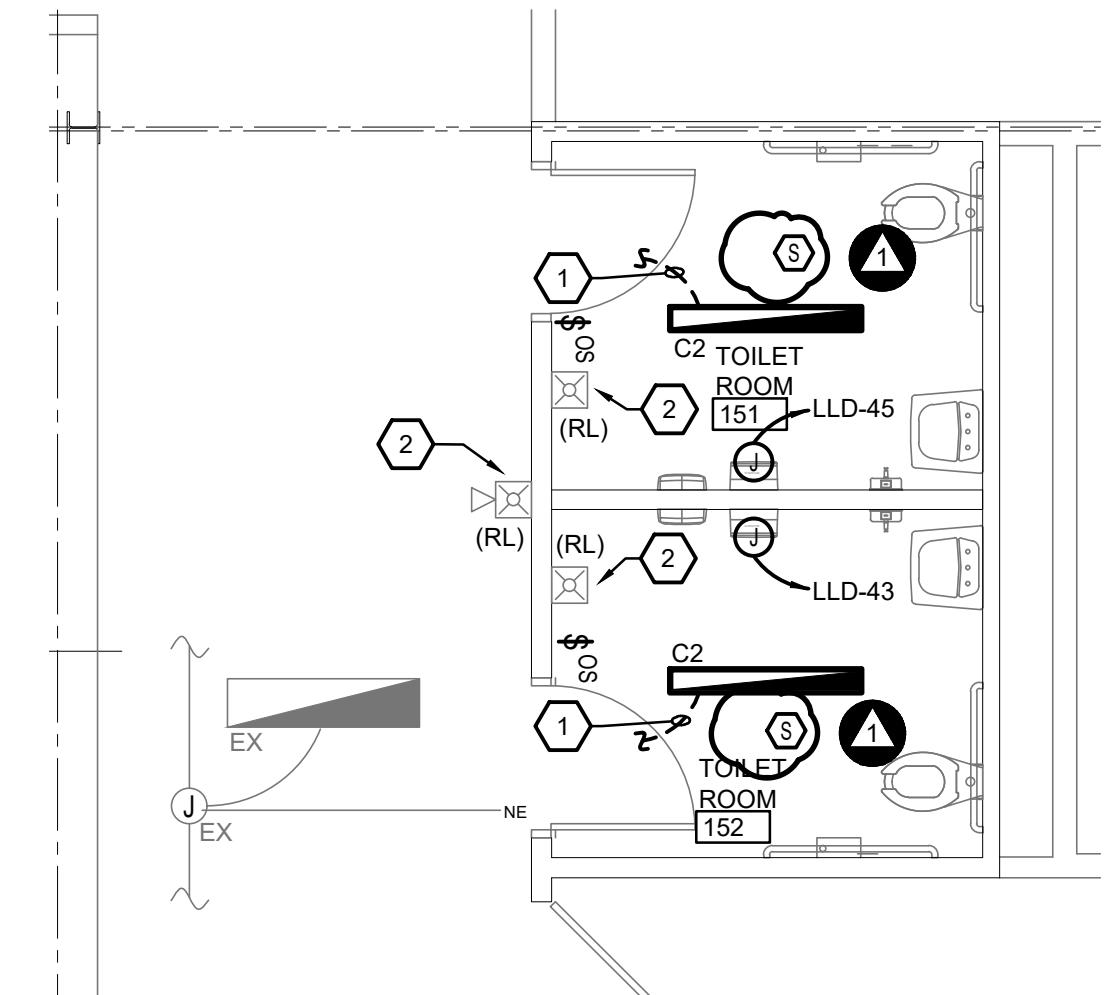
Are the access control devices wireless?

ANSWER: _____
Refer to BS A-100, per door schedule, access control is hard wired and tied back to new controller to be located in the south bus storage building. Location of controllers shall be determined by Day Automation. All wiring shall be provided by Day Automation. Refer to Drawing HS_E-005A for Day Automation Project Summary with responsibilities, clarifications and exclusions.

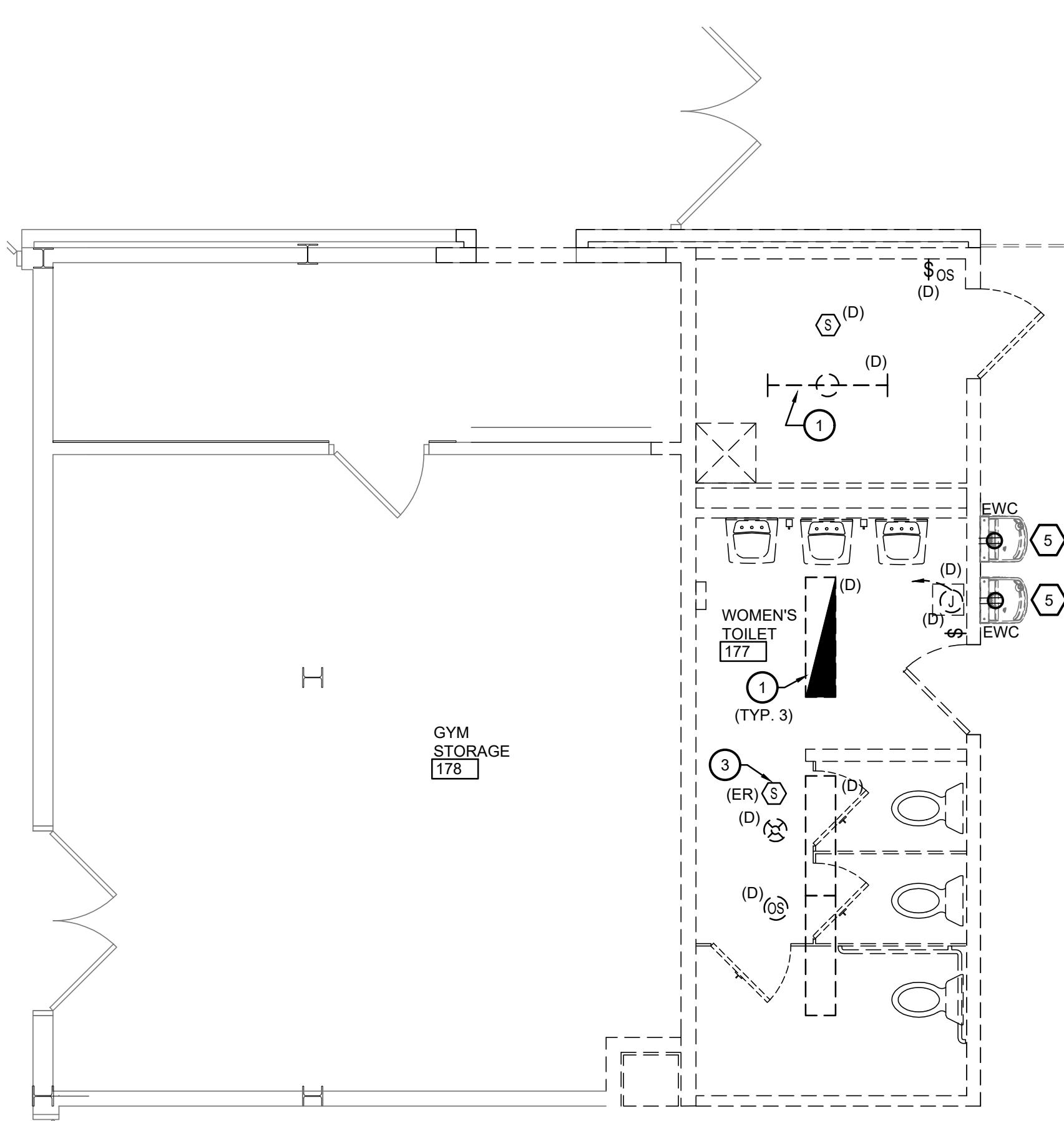
Answered By: R. Clift / R. Smith, Highland Associates **Date:** 1-5-26



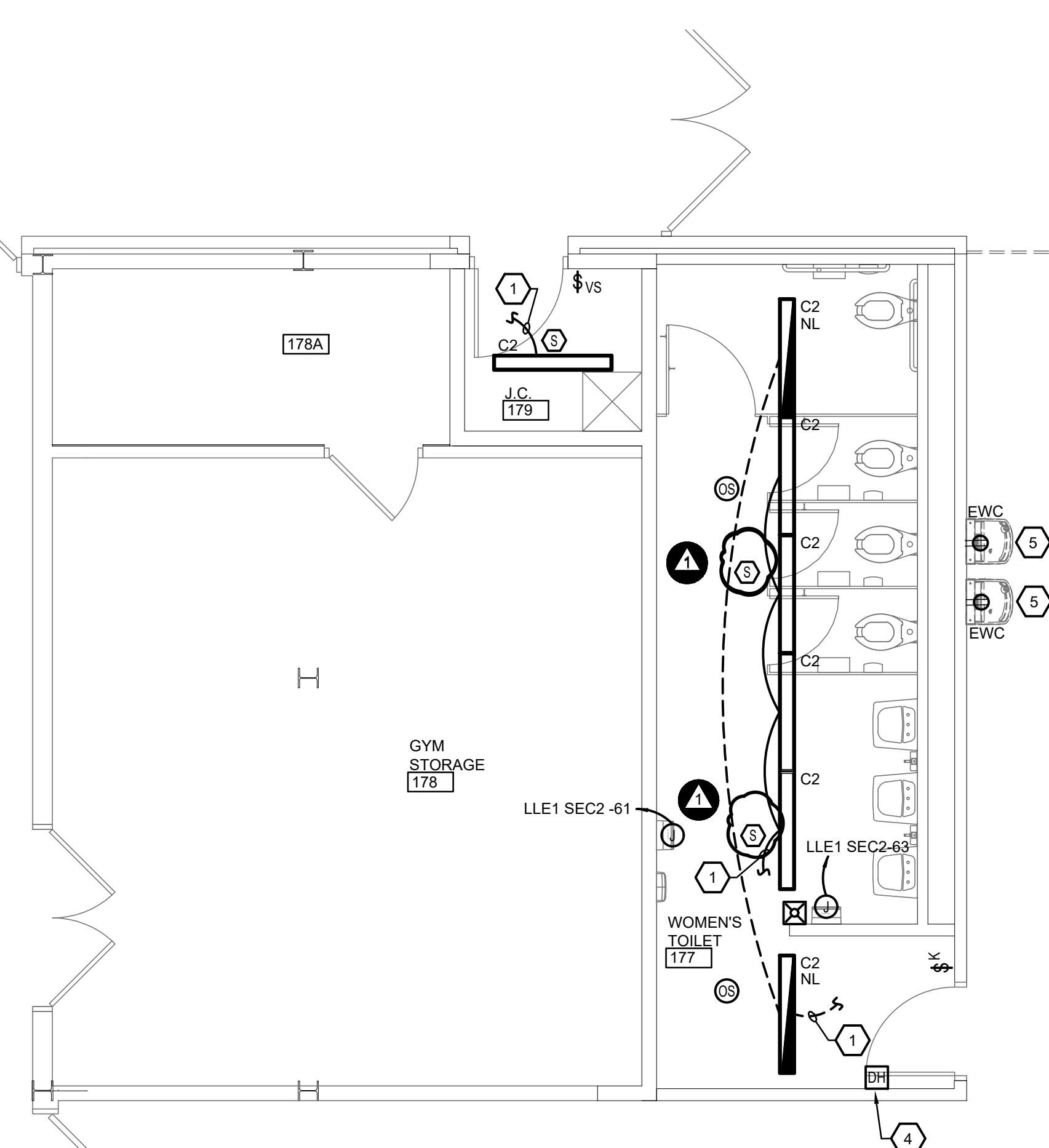
TOILET ROOMS 151/152
ELECTRICAL DEMOLITION PLAN



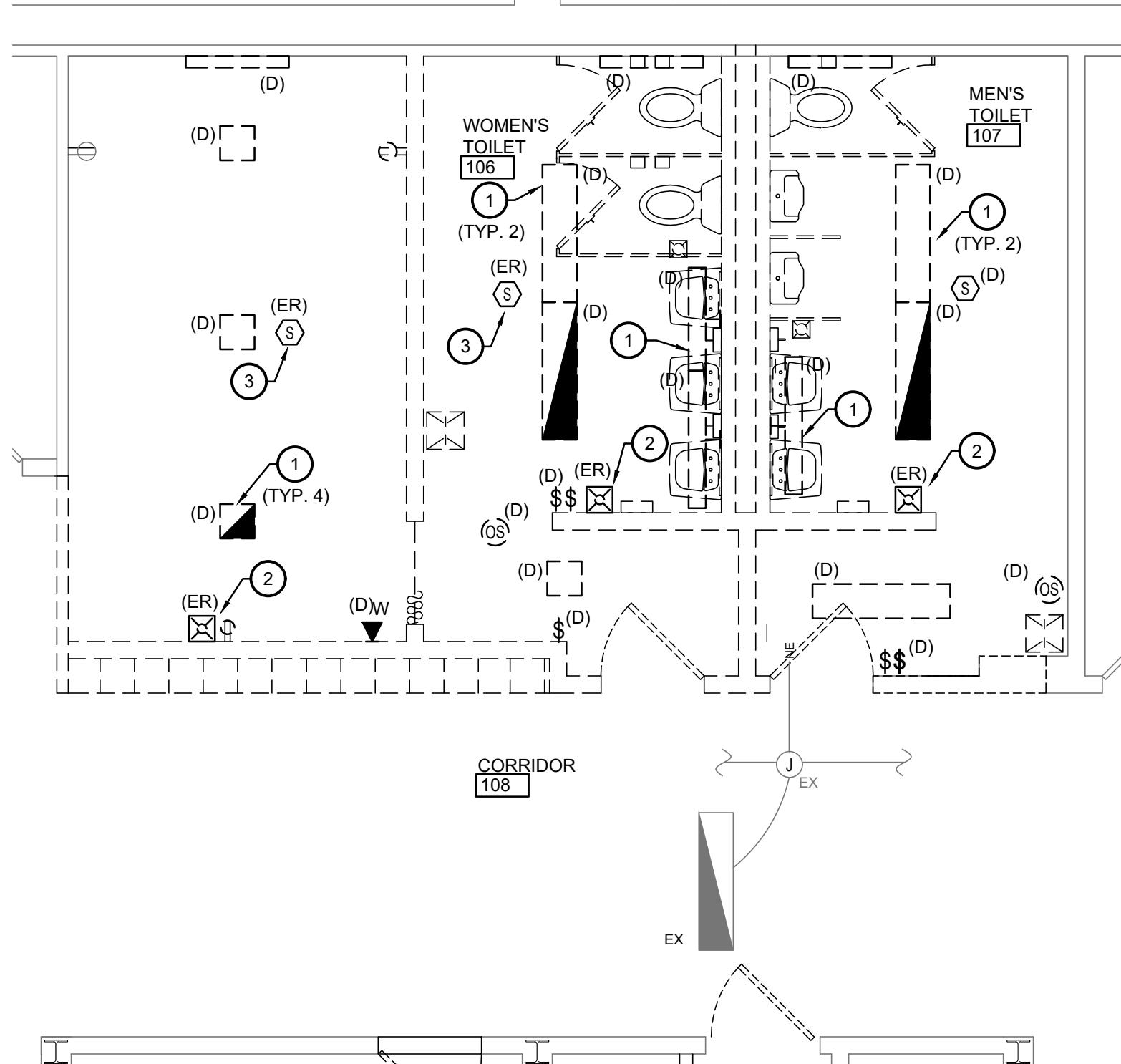
TOILET ROOMS 151/152
ELECTRICAL RENOVATION PLAN



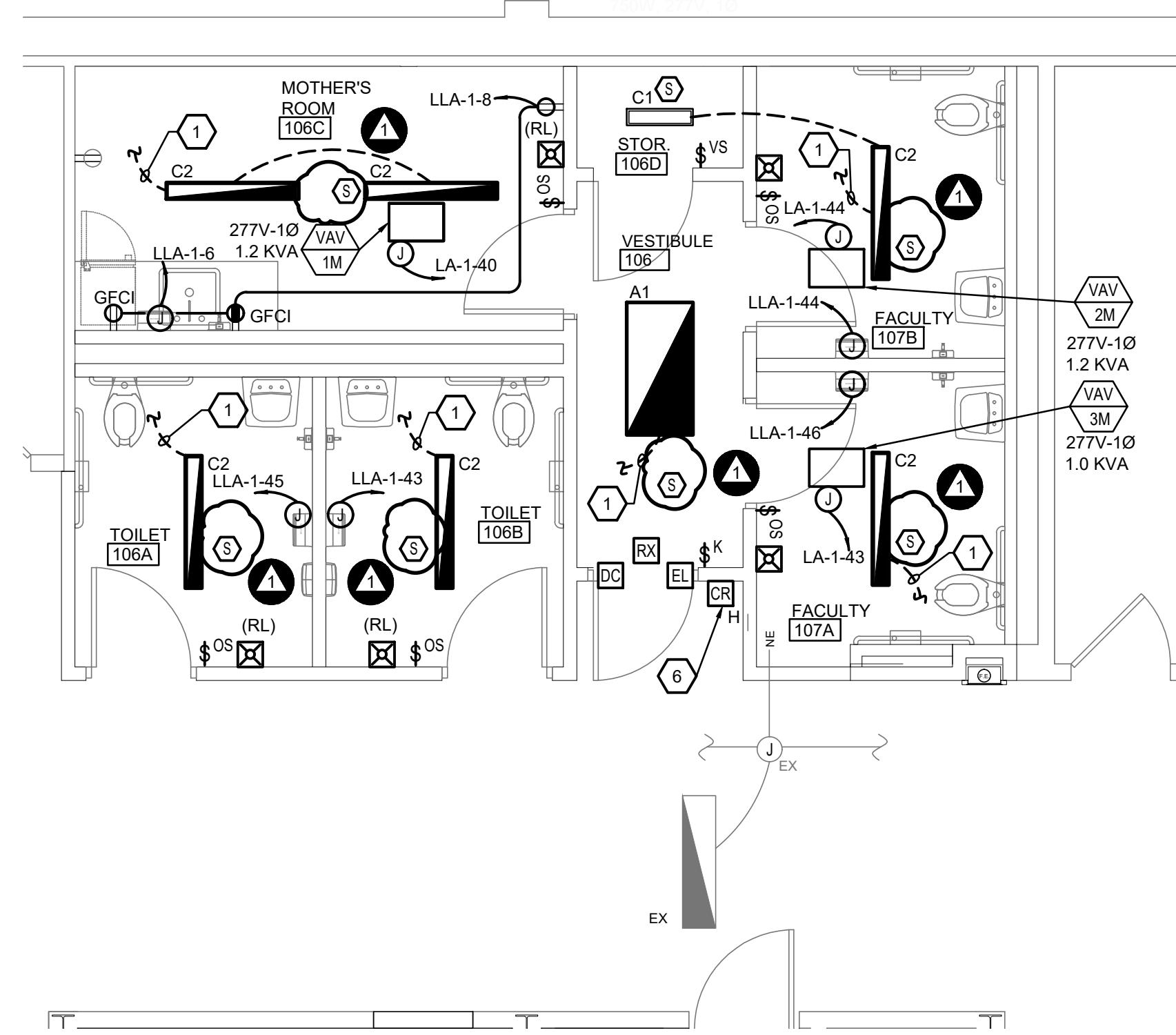
GIRLS TOILET ROOMS 177 @ SOUTH LOBBY
ELECTRICAL DEMOLITION PLAN



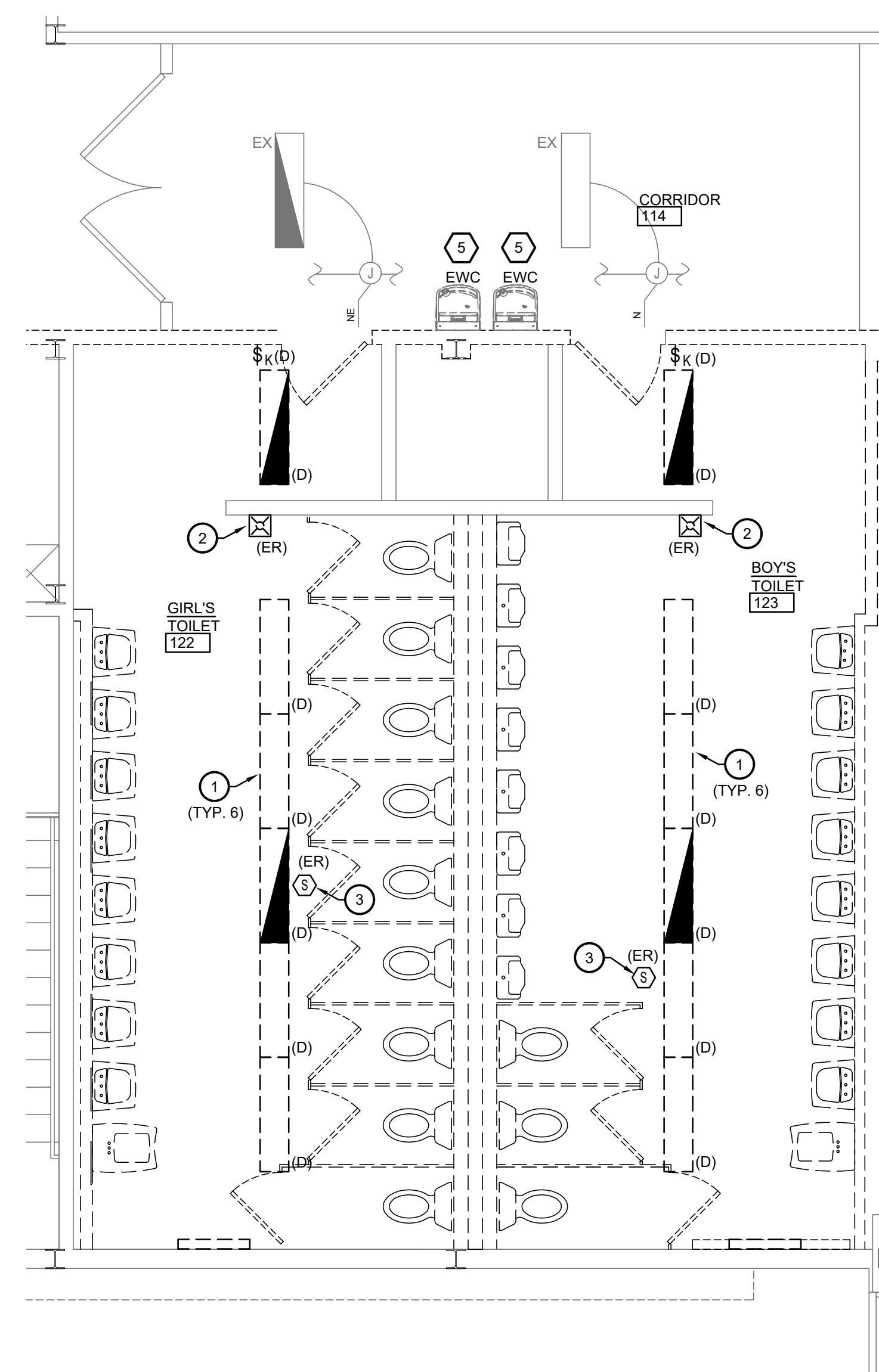
GIRLS TOILET ROOMS 177 @ SOUTH LOBBY
ELECTRICAL RENOVATION PLAN



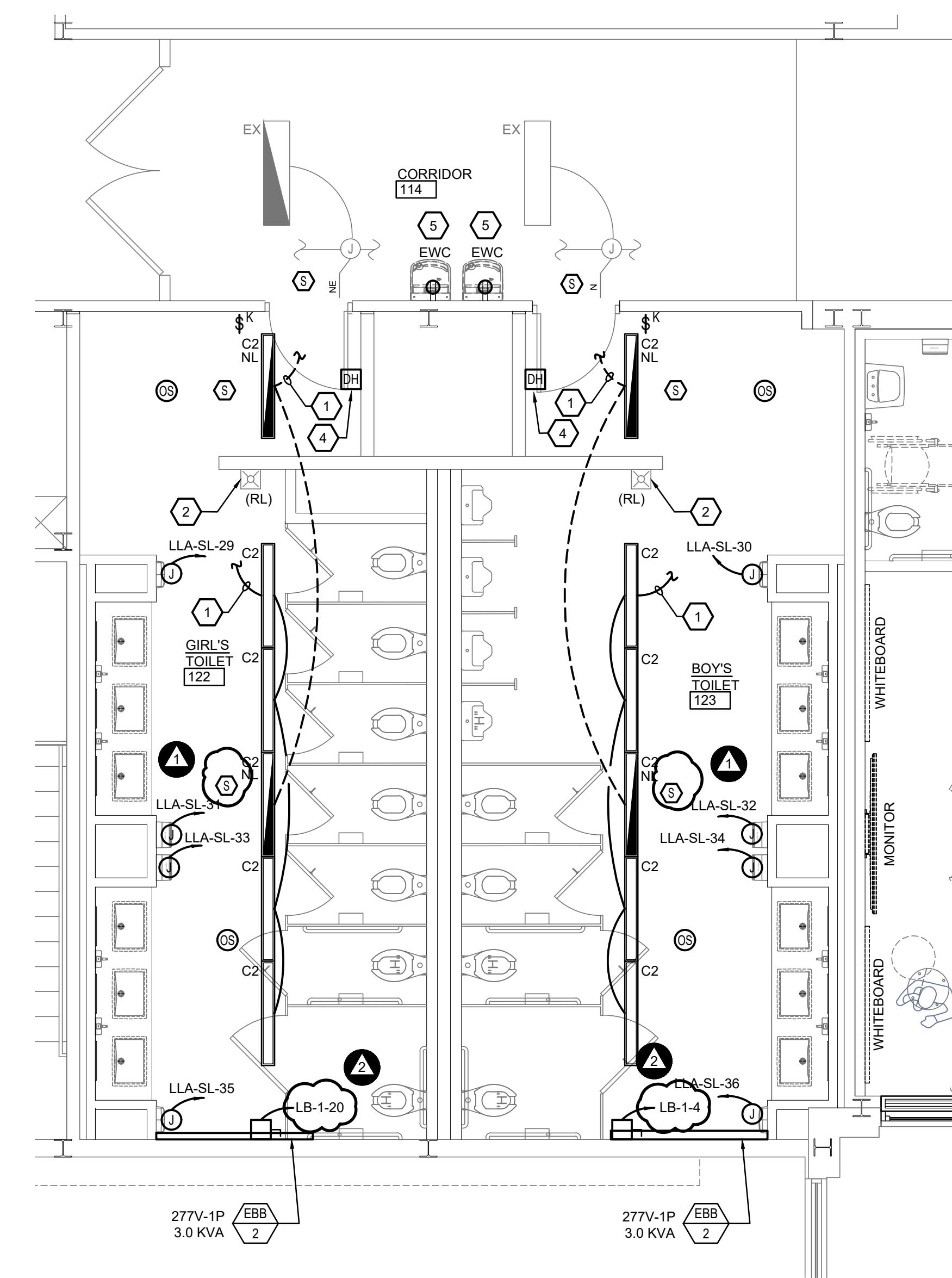
TOILET ROOMS ACROSS FROM KITCHEN
ELECTRICAL DEMOLITION PLAN



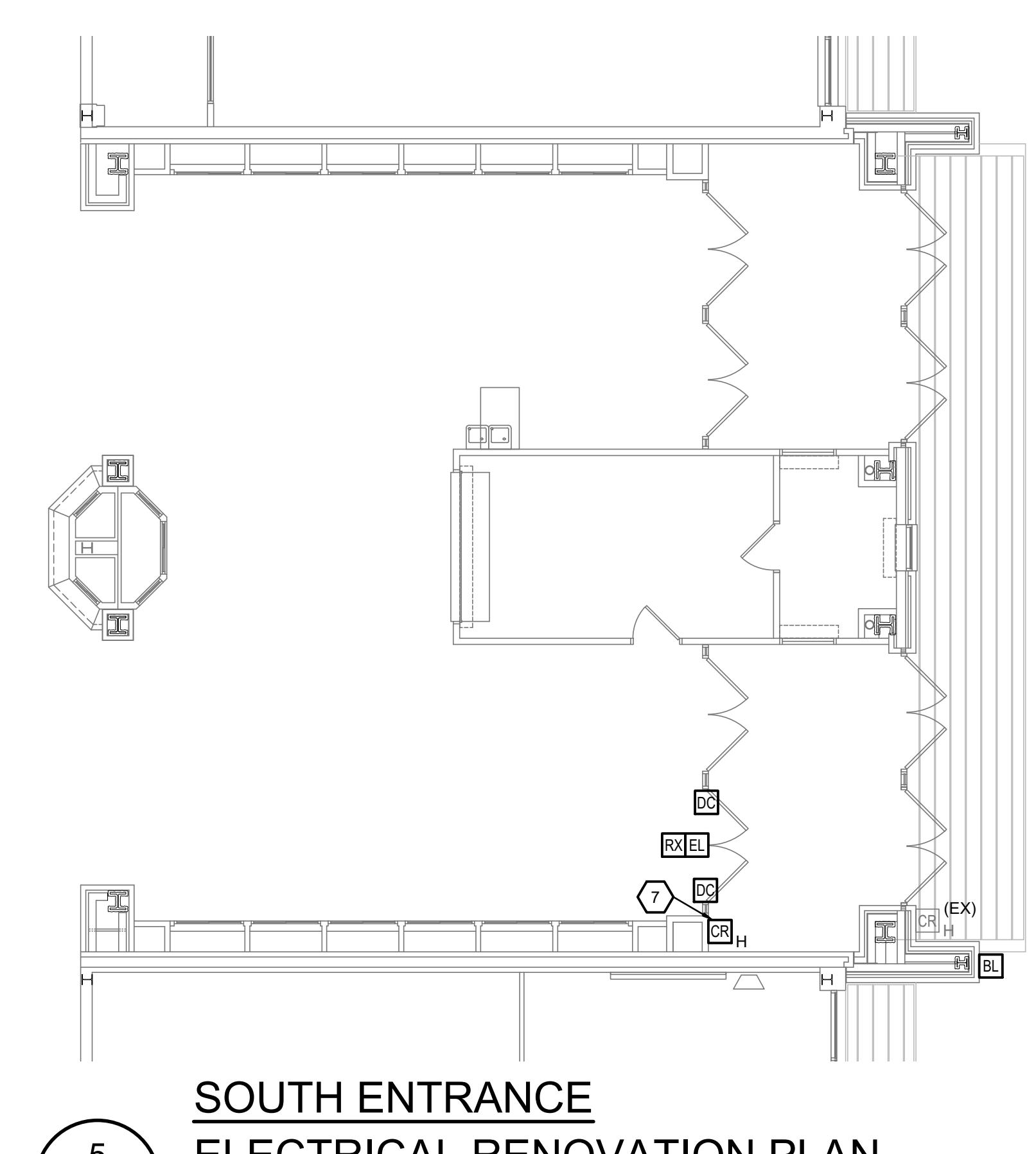
TOILET ROOMS ACROSS FROM KITCHEN
ELECTRICAL RENOVATION PLAN



TOILET ROOMS 122/123
ELECTRICAL DEMOLITION PLAN



TOILET ROOMS 122/123
ELECTRICAL RENOVATION PLAN



SOUTH ENTRANCE
ELECTRICAL RENOVATION PLAN

ELECTRICAL DEMOLITION KEYNOTES

- ① DISCONNECT AND REMOVE LIGHT FIXTURES AND SWITCHING. CIRCUIT TO REMAIN TO BE UTILIZED IN NEW WORK.
- ② REMOVE FIRE ALARM STROBE AND STORE FOR REINSTALLATION IN NEW WORK. EXISTING FIRE ALARM WIRING TO REMAIN.
- ③ REMOVE FIRE ALARM SMOKE DETECTOR AND STORE FOR REINSTALLATION IN NEW WORK. EXISTING FIRE ALARM WIRING TO REMAIN.

ELECTRICAL RENOVATION KEYNOTES

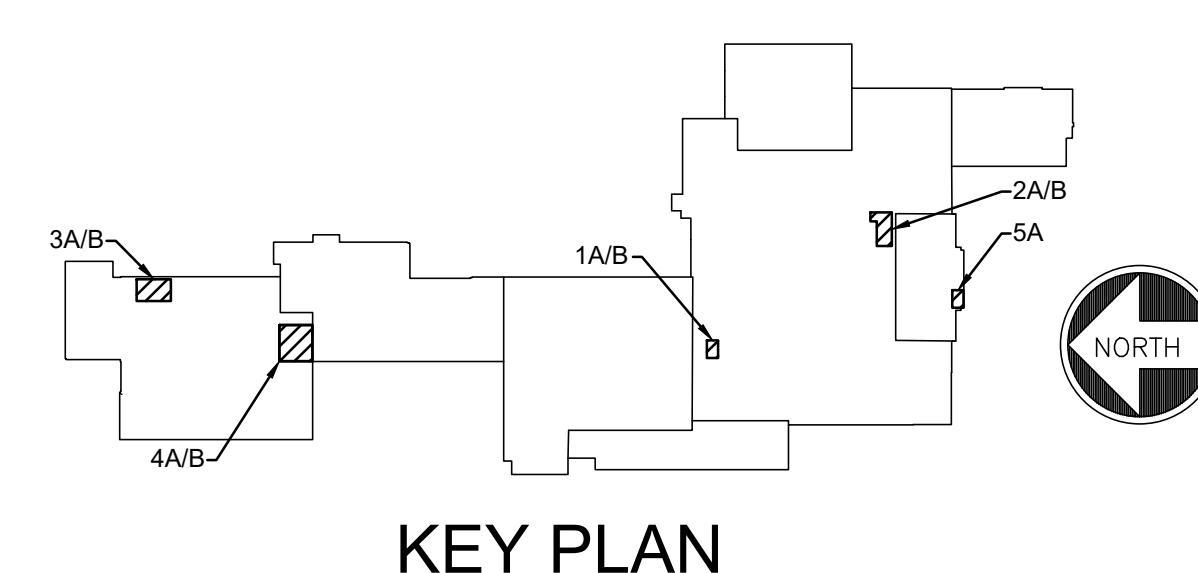
- ① CONNECT NEW LIGHT FIXTURES TO EXISTING CORRIDOR NORMAL LIGHTING CIRCUIT USING #2H2, #12G IN 3/4" C. FIXTURE TO BE CONTROLLED BY KEYSWITCH & OCCUPANCY SENSOR. FIXTURES SHOWN SHADED SHALL BE CONNECTED TO THE EXISTING CORRIDOR NORMAL/EMERGENCY LIGHTING CIRCUIT AND ALWAYS BE ON (NIGHTLIGHT).
- ② REINSTALL EXISTING FIRE ALARM STROBE EXTENDING EXISTING FIRE ALARM WIRING AND CONDUIT AS REQUIRED.
- ③ CIRCUIT NEW HAND DRYER STATION TO 20A/1P CIRCUIT BREAKER IN PANEL INDICATED USING #2H2, #12G IN 3/4".
- ④ DOOR HOLD OPEN DEVICE IS TO BE PROVIDED WITH DOOR HARDWARE. TIE TO NEAREST RECEPTACLE CIRCUIT. PROVIDE NEW SMOKE DETECTORS ON EACH SIDE OF DOOR AND A CONTROL RELAY SO DOOR SHALL RELEASE UPON ACTIVATION OF FIRE ALARM.
- ⑤ ELECTRIC WATER COOLERS RELOCATED BY PLUMBING CONTRACTOR. PROVIDE NEW RECEPTACLES AS INDICATED AND EXTEND EXISTING 20A ELECTRIC WATER COOLER CIRCUITS TO NEW LOCATIONS.
- ⑥ E.C. TO PROVIDE A 120V CONNECTION TO DOOR CONTROLLER BOX. POWER TO BE PROVIDED FROM PANEL KP-1-14. E.C. TO COORDINATE CONNECTION LOCATION WITH DAY AUTOMATION.
- ⑦ E.C. TO PROVIDE A 120V CONNECTION TO DOOR CONTROLLER BOX. POWER TO BE PROVIDED FROM PANEL EPD-1. E.C. TO COORDINATE CONNECTION LOCATION WITH DAY AUTOMATION.

DEMOLITION / RENOVATION KEY

(EX) INDICATES EXISTING ITEM TO REMAIN
(ER) INDICATES EXISTING ITEM TO BE RELOCATED IN NEW WORK
(D) INDICATES ITEM TO BE DEMOLISHED
(RL) INDICATES RELOCATED ITEM

REVISIONS	
BID ADDENDUM #4	12/23/25
REMOVED VAPE DETECTORS	10/26
BID ADDENDUM #4	REvised Baseboard Circuit Numbers

Issued for Bidding
December 1, 2025



CAPITAL PROJECTS

PHASE 2
HS SED #03-15-02-06-0-011-027
K-8 SED #3-15-02-06-0-020-017
BG SED #3-15-02-06-5-010-011
BSN SED #3-15-02-06-4-015-006
BSS SED #3-15-02-06-4-014-006

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Clarks Summit, PA 18411
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New York • Pennsylvania

PROJECT TITLE:
Johnson City Central School District Johnson City, NY
Capital Project 2025 2026 Phase 2
DRAWN BY: R.F.C.
CHECKED BY: L.K.N.
BUILDING: HS
DRAWING NO.: E-105
DATE: 12-01-2025

DRAWING TITLE:
FIRST FLOOR TOILET ROOM ELECTRICAL RENOVATION PLANS
DRAWN BY: R.F.C.
PROJECT NO.: 2024-239P
CHECKED BY: L.K.N.
BUILDING: HS
DRAWING NO.: E-105
DATE: 12-01-2025

PANELBOARD SCHEDULE NOTES (APPLIES TO ALL PANELBOARD SCHEDULE DRAWINGS):

- ALL LOADS SHOWN LIGHT ARE EXISTING TO REMAIN AND LOADS SHOWN BOLD ARE NEW. KILOVOLT-AMPS SHOWN FOR EXISTING LOADS ARE APPROXIMATE AND ARE SHOWN FOR REFERENCE ONLY.
- WHERE SCHEDULES ARE LABELED "REPLACEMENT PANELBOARD SCHEDULES", REPLACE EXISTING PANELBOARDS WITH NEW IN SAME LOCATION. PROVIDE NEW CIRCUIT BREAKERS TO MATCH CHARACTERISTICS OF EXISTING CIRCUIT BREAKERS BEING REPLACED OR ADDED IN RESPECTIVE PANELS. RECONNECT EXISTING LOADS TO NEW BREAKER, EXTENDING CONDUIT AND WIRING IF REQUIRED.
- TRACE CIRCUITS TO VERIFY LOADS INDICATED ON EXISTING PANEL SCHEDULE ARE ACCURATE PRIOR TO ANY WORK ON PANEL.
- PROVIDE NEW UPDATED PANEL SCHEDULES IN ALL NEW PANELS.

EXISTING PANELBOARD SCHEDULE																	
DESIGNATION: LA-1		MAINS: 225A		VOLTAGE: 277/480V-30-4W		LOCATION: CORRIDOR		SINGLE PANEL									
TYPE: -		O.C. DEVICE: MAIN LUG ONLY		MINIMUM O.C. DEVICE		FED BY: SWBD #1		DOUBLE PANEL		COMMON COVER							
OCT	POLE	TRIP	WIRE	G	C	LOAD	KVA A	KVA B	KVA C	LOAD	C	G	WIRE	TRIP	POLE	OCT NO	
1	/					1.0	1.0										2
3	3	20	-	-	-	UH #1 DOCK	1.0	1.0		RCH #2 CAFE	20	3	4				6
5	/																
7	/					1.0	1.0										
9	3	20	-	-	-	UH #2 REFUSE SERVICE	1.0	1.0		RCH #15 CAFETERIA EAST WALL	20	3	10				12
11	/																
13	/					1.0	1.0										
15	3	15	-	-	-	RCH #2	1.0	1.0		RCH #1 KITCHEN STAFF EXIT	20	3	16				18
17	/																
19	/					1.0	1.0										
21	3	20	-	-	-	EXISTING LOAD	1.0	1.0		LIGHTS - CORRIDOR	-	20	1	20			
23	/																
25	1	20	-	-	-	LIGHTS - CORRIDOR	1.0	1.0		LIGHTS - SERVING, STORAGE & STAGE	-	20	1	26			
27	1	20	-	-	-	LIGHTS - KITCHEN	1.0	1.0		LIGHTS - A110 CAFE #1	-	20	1	28			
29	1	20	-	-	-	LIGHTS - KITCHEN	1.0	1.0		LIGHTS - A110 CAFE #1	-	20	1	29			
31	1	20	-	-	-	LIGHTS - KITCHEN	1.0	0.0		SPARE	-	20	1	32			
33	1	20	-	-	-	LIGHTS - BASEMENT STOR, MECH& CORR	1.0	1.0		LIGHTS - A102 CAFE #2	-	20	1	34			
35	1	20	-	-	-	LIGHTS - BASEMENT STORAGE RMS	1.0	2.2		LIGHTS - DISHWASH OFFICE/SERVERY	3/4" #12 2H12	20	1	36	**		
37	1	20	-	-	-	LIGHTS - BASEMENT LOCKERS & DINING	1.0	1.0		BASEBOARD HEAT - A105 & 107	-	20	1	38			
39	1	20	-	-	-	BASEBOARD HEAT - BASEBOARD NORTH	1.0	1.2		VAV-1HS MOTHERS ROOM	-	20	1	40			
41	1	20	-	-	-	BASEBOARD HEAT - BASEBOARD SOUTH	1.0	1.0		BASEBOARD HEAT - KITCHEN OFF & REC	-	20	1	42			
43	1	20	2H12 #12/34"	-	-	VAV-3HS TOILET RM 107A	1.2	1.2		VAV-2H5 TOILET RM 107B	3/4" #12 2H12	20	1	44			
45	1	20	2H12 #12/34"	-	-	BASEBOARD 122 TOILETS	3.0	3.0		BASEBOARD 123 TOILETS	3/4" #12 2H12	20	1	46			
47	1					SPACE				SPACE							
49	1					SPACE				SPACE							
51	1					SPACE				SPACE							
53	1					SPACE				SPACE							
CONNECTED KVA PER PHASE												15.4	20.2	15.2			
* REMOVE WIRING AND RE-LABEL BREAKER AS SPARE																	
** UTILIZE EXISTING BREAKER FOR NEW LIGHTING CIRCUIT												TOTAL CONNECTED KVA	50.8	42.77			
TOTAL DEMAND KVA													35.56				

EXISTING PANELBOARD SCHEDULE																	
DESIGNATION: LA-2		MAINS: 225A		VOLTAGE: 277/480V-30-4W		LOCATION: CORRIDOR		SINGLE PANEL									
TYPE: -		O.C. DEVICE: MAIN LUG ONLY		MINIMUM O.C. DEVICE		FED BY: SWBD #1		DOUBLE PANEL		COMMON COVER							
OCT	POLE	TRIP	WIRE	G	C	LOAD	KVA A	KVA B	KVA C	LOAD	C	G	WIRE	TRIP	POLE	OCT NO	
1	/					1.0	1.0										2
3	3	20	-	-	-	UH #1 DOCK	1.0	1.0		RCH #2 CAFE	20	3	4				6
5	/																
7	/					1.0	1.0										
9	3	20	-	-	-	UH #2 REFUSE SERVICE	1.0	1.0		RCH #15 CAFETERIA EAST WALL	20	3	10				12
11	/																
13	/					1.0	1.0										
15	3	15	3H12 #12/34"	-	-	RCH #2	1.0	1.0		RCH #1 KITCHEN STAFF EXIT	20	3	16				18
17	/																
19	/					1.0	1.0										
21	3	20	-	-	-	EXISTING LOAD	1.0	1.0		LIGHTS - CORRIDOR	1.0	1.0					
23	/																
25	1	20	-	-	-	LIGHTS - CORRIDOR	1.0	1.0		LIGHTS - SERVING, STORAGE & STAGE	-	20	1	24			
27	1	20	-	-	-	LIGHTS - KITCHEN	1.0	1.0		LIGHTS - A110 CAFE #1	-	20	1	26			
29	1	20	-	-	-	LIGHTS - KITCHEN	1.0	0.0		SPARE	-	20	1	32			
31	1	20	-	-	-	LIGHTS - BASEMENT STOR, MECH& CORR	1.0	1.0		LIGHTS - A102 CAFE #2	-	20	1	34			
33	1	20	-	-	-	LIGHTS - BASEMENT STORAGE RMS	1.0	2.2		LIGHTS - DISHWASH OFFICE/SERVERY	3/4" #12 2H12	20	1	36	**		
35	1	20	-	-	-	LIGHTS - BASEMENT LOCKERS & DINING	1.0	1.0		BASEBOARD HEAT - A105 & 107	-	20	1	38			
37	1	20	-	-	-	BASEBOARD HEAT - BASEBOARD NORTH											