Owen Ames Kimball
Building Since 1891

ADDENDUM NO. 03 – PORTAGE PUBLIC SCHOOLS – CENTRAL ELEMENTARY SCHOOL BP 4: CONSTRUCTION

June 19th, 2023

The following items are changes, clarifications, corrections of errors, etc., with respect to the Contract Documents previously issued. This addendum shall be a part of the Contract Documents.

Items listed below may or may not affect the cost of the Contractor's Proposal. Changes in cost shall be incorporated in the Contractor's Proposal.

ITEM No.1

DRAWING AND SPECIFICATION CHANGES AS NOTED BY TOWER PINKSTER - ATTACHED

- See Tower Pinkster write up
- Drawings: S-001, S-500, S-600, S-601

ITEM No.2

Pre-Bid RFI's & Bid Scope Clarifications – ATTACHED

- Drawings: A201D, A212

ADDENDUM NO. 3 (BP4)

DATE OF ISSUANCE:	**June 19, 2023**
PROJECT:	**Central Elementary School Bid Package 4: Construction** **8422 South Westnedge Avenue** **Portage, MI 49002**
OWNER:	**Portage Public Schools**
ARCHITECT'S PROJECT NO.:	**21-237.10**
ORIGINAL BID ISSUE DATE:	**May 17, 2023**

SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes the following documents:

- Drawings: **S-001, S-500, S-600, S-601**

CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

CHANGES TO DRAWINGS

ADD-3 Item No. D-1 - Concrete Masonry Unit Compressive Strength Requirements

Refer to Sheet(s):S-001

Concrete masonry unit compressive strength requirements noted in MA-1 have been updated to coordinate with compressive strength requirements of MA-2.

ADD-3 Item No. D-2 - P3 Reinforcing Requirements

Refer to Sheet(s): S-500, S-601

Reinforcement requirements of pier P3 revised per constructability comments. Callout referencing detail location added to S-601.

ADD-3 Item No. D-3 - CMU Horizontal Reinforcement Requirements

Refer to Sheet(s): S-600

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Horizontal reinforcement requirements for CMU walls revised to utilize ladder type horizontal reinforcement in lieu of deformed bars. Detail 10 added to clarify conditions of ladder reinforcement at wall intersections.

ADD-3 Item No. D-4 - Masonry Lintel Shear Reinforcement Requirements

Refer to Sheet(s): S-600

Shear stirrups eliminated from lintels <= 4’-0” per constructability comments.

ADD-3 Item No. D-5 - Wall Pier Tie Reinforcement Requirements

Refer to Sheet(s): S-600

Reinforcing ties within pier elements eliminated per constructability comments.

END OF ADDENDUM.

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GR GENERAL REQUIREMENTS

GR-1 AS USED IN THESE GENERAL NOTES:
"DRAWINGS" MEANS THE LATEST STRUCTURAL DESIGN DRAWINGS, UON.
"SPECIFICATIONS" MEANS THE LATEST PROJECT SPECIFICATIONS, UON.
"CONTRACT DOCUMENTS" IS DEFINED AS THE DESIGN DRAWINGS AND THE SPECIFICATIONS
"SER" IS DEFINED AS THE STRUCTURAL ENGINEER OF RECORD FOR THE STRUCTURE IN ITS FINAL CONDITION.
"DESIGN PROFESSIONALS" IS DEFINED AS THE OWNER'S ARCHITECT AND SER.
"MEP" INCLUDES, BUT IS NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION.
"CONTRACTOR" IS DEFINED TO INCLUDE ANY OF THE FOLLOWING: GENERAL CONTRACTOR AND THEIR SUBCONTRACTORS, CONSTRUCTION MANAGER AND THEIR SUBCONTRACTORS, STRUCTURAL STEEL FABRICATOR OR STRUCTURAL STEEL ERECTOR.
"BASE BUILDING STRUCTURE" IS DEFINED AS THE STRUCTURAL FRAME DESIGNED BY THORNTON TOMASETTI.
"STRUCTURE IN ITS FINAL CONDITION" MEANS ALL STRUCTURAL ELEMENTS SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS ARE INSTALLED AND COMPLETELY CONNECTED AND INSPECTED WITH NO OUTSTANDING NON-COMPLIANCE ISSUES.
"DELEGATED DESIGN" MEANS A SCOPE OF WORK THAT MEETS PERFORMANCE CRITERIA ESTABLISHED IN THE CONTRACT DOCUMENTS AND IS TO BE COMPLETED BY THE CONTRACTOR'S LICENSED ENGINEER.
"SERVICE LEVEL" LOADS ARE DEFINED AS NOMINAL OR UNFACTORED LOADS TO BE COMBINED USING ALLOWABLE STRESS LOAD COMBINATIONS
"STRENGTH LEVEL" LOADS ARE DEFINED AS FACTORED LOADS TO BE COMBINED USING STRENGTH DESIGN LOAD COMBINATIONS

GR-2 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, MEP CONTRACT DOCUMENTS, AS WELL AS ANY OTHER APPLICABLE TRADES.

GR-3 THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION.

GR-4 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS, FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.

GR-5 LATERAL LOAD RESISTANCE AND STABILITY OF THE STRUCTURE IN ITS FINAL CONDITION IS PROVIDED BY MASONRY WALL AND LATERAL STABILITY OF OTHER ELEMENTS IS PROVIDED THROUGH PRECAST PLANK TOPPING SLAB.

GR-6 THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS.

GR-7 THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND COORDINATE WITH THE STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER CONSULTANTS, PROJECT SHOP DRAWINGS AND FIELD CONDITIONS.

GR-8 IN CASES OF CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.

GR-9 APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.

GR-10 ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS.

GR-11 ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS, IF NOT INDICATED ON DRAWINGS.

GR-12 CENTERLINES OF COLUMNS AND FOUNDATIONS COINCIDE WITH GRID LINE INTERSECTIONS, UON.

GR-13 CENTERLINES OF WALLS COINCIDE WITH CENTERLINES OF FOUNDATIONS, UON.

GR-14 CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES, UON.

GR-15 THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE.

GR-16 THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOAD IS APPLIED.

GR-17 THE CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATIONS WITH THE AS-BUILT TOP OF SUPPORT ELEVATIONS.

GR-18 THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE SER.

GR-19 ELEVATIONS INDICATED ON STRUCTURAL DRAWINGS ARE BASED ON A PROJECT DATUM INDICATED ON THE CIVIL DRAWINGS.

GR-20 SEE ARCHITECTURAL, CIVIL, AND MEP CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO:

CIVIL:
PROJECT DATUM
SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
SITE PREPARATION
BACKFILLING MATERIALS AND REQUIREMENTS
PAVING AND SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE
NEW AND EXISTING SITE UTILITIES

ARCHITECTURAL:
PLAN DIMENSIONS AND PROJECT DATUM
SLAB EDGE DIMENSIONS
FINISH ELEVATIONS
WATERPROOFING AND DAMP-PROOFING DETAILS
RAMP GEOMETRY, PITS, SLAB SLOPES AND DEPRESSIONS
EMBEDMENTS, INSERTS, BLOCKOUTS, ETC.
EXACT OPENING SIZES FOR PIPES, DUCTS, ETC.
CONCRETE FINISHES AND TOPPING SLABS
CONCRETE CURBS AND HOUSEKEEPING PADS
FIRE RATINGS
METAL PAN STAIRS AND SUPPORTS

MEP:
PIPE AND DUCT SIZES FOR OPENING AND SLEEVE COORDINATION
FLOOR DRAINS
UNDERFLOOR AND PERIMETER DRAINAGE SYSTEMS
EQUIPMENT CURBS
CONDUITS AND EMBEDMENTS IN WALLS AND SLABS

CD CODES AND DESIGN CRITERIA

CD-1 PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. THE PROJECT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, UON:

MICHIGAN BUILDING CODE 2015 (INTERNATIONAL BUILDING CODE, 2015 EDITION)

STRUCTURAL CONCRETE:
"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
THE AMERICAN CONCRETE INSTITUTE (ACI 318-14)

MASONRY:
"BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
THE AMERICAN CONCRETE INSTITUTE (TMS 402-13)

"SPECIFICATION FOR MASONRY STRUCTURES"
THE AMERICAN CONCRETE INSTITUTE (TMS 602-13)

STRUCTURAL STEEL:
"SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", (AISC 360-10) CONFORMING TO THE PROVISIONS OF LOAD RESISTANCE FACTOR DESIGN, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC-LRFD)

CD-2 SEE DESIGN LOAD DIAGRAMS ON SHEET S-006 FOR LOCATIONS AND EXTENT OF LIVE LOAD.

CD-3 SEE DESIGN LOAD DIAGRAMS ON SHEET S-006 FOR LOCATIONS AND EXTENT OF SUPERIMPOSED DEAD LOADS.

CD-4 OCCUPANCY OR RISK CATEGORY: III

CD-5 SNOW LOADS (SERVICE LEVEL):

FLAT ROOF SNOW LOAD (Pf):	23.1 PSF
GROUND SNOW LOAD (Pg)	30 PSF
SNOW EXPOSURE FACTOR (Ce):	1.0
SNOW LOAD IMPORTANCE FACTOR (Is):	1.1
THERMAL FACTOR (Ct):	1.0
SNOW DRIFTING PER CODE	

SEE DESIGN LOAD DIAGRAMS ON SHEET S-007 FOR LOCATIONS AND EXTENT OF ROOF AND SNOW LOADS.

CD-6 WIND LOAD DESIGN DATA (STRENGTH LEVEL):

MAIN WIND FORCE RESISTING SYSTEM	
BASIC WIND SPEED, V	120 MPH
EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT	± 0.18

COMPONENT AND CLADDING DESIGN PRESSURES
REFER TO TABLE ON S 007 FOR COMPONENT AND CLADDING DESIGN PRESSURES

ROOF EFFECTIVE WIND AREA
REFER TO TABLE ON S 007 FOR ROOF DESIGN PRESSURES

CD-7 SEISMIC LOAD DESIGN DATA (STRENGTH LEVEL):

SEISMIC IMPORTANCE FACTOR (I_s)	1.25
S_s	0.089 g
S_1	0.051 g
S_{DS}	0.095 g
S_{D1}	0.081 g
SITE CLASS	D
SEISMIC DESIGN CATEGORY	B
LATERAL SYSTEM DESCRIPTION	ORDINARY REINFORCED MASONRY WALLS
SEISMIC RESPONSE COEFFICIENT (Cs)	0.079
RESPONSE MODIFICATION FACTOR (R)	2
ANALYSIS PROCEDURE DESCRIPTION	EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR	495 KIPS

CD-8 IN CASES WHERE THE CONTRACTOR DETERMINES THAT SUSPENDED OR FLOOR MOUNTED EQUIPMENT LOADS EXIST WHICH EXCEED DESIGN LOADS INDICATED ON CONTRACT DOCUMENTS, CONTRACTOR SHALL SUBMIT LOAD DATA TO DESIGN PROFESSIONALS FOR REVIEW PRIOR TO PROCEEDING WITH WORK.

CD-9 DISTRIBUTE THE MAXIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBER FOR DUCTWORK, PIPING ETC OVER THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE MEP DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION.

CD-10 ELEVATOR GUIDERAIL SUPPORTS, MACHINE ROOMS, PITS, AND PENTHOUSES ARE BASED ON ELEVATOR TYPES INDICATED ON ARCHITECTURAL CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT FOR REVIEW ANY PLANNED CHANGE TO ELEVATORS TO DESIGN PROFESSIONALS PRIOR TO SUBMITTING CORRESPONDING STRUCTURAL SHOP DRAWINGS FOR ACTION.

CD-11 STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATION ISOLATORS.

CD-12 SERVICEABILITY

LIVE LOAD DEFLECTION IS LESS THAN L/360

LIVE LOAD DEFLECTION FOR ELEMENTS SUPPORTING CMU OR BRICK IS LESS THAN L/600

LONG-TERM TOTAL DEFLECTION IS LESS THAN L/240

LATERAL DRIFT DUE TO WIND LOADS IS LESS THAN OR EQUAL TO H/400

CD-13 CONNECTIONS OF SYSTEMS DESIGNED BY CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS, ESCALATORS, PRECAST, AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.

CD-14 FOR FIRE RATING AND FIREPROOFING ASSEMBLY EVALUATIONS, CONSIDER THE FOLLOWING ASSEMBLIES RESTRAINED: COMPOSITE WIDE-FLANGE STEEL FRAMING, INTERIOR BAYS OF CONTINUOUS CAST-IN-PLACE CONCRETE CONSTRUCTION. CONSIDER ALL OTHER ASSEMBLIES UNRESTRAINED.

CD-15 THERE HAVE BEEN NO LOAD RESTRICTION FACTORS APPLIED TO THE STRUCTURAL DESIGN FOR THE PURPOSES OF SELECTING FIREPROOFING ASSEMBLIES.

DI DELEGATED DESIGN ITEMS

DI-1 THE CONTRACTOR SHALL EMPLOY OR RETAIN A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS LOCATED TO DESIGN AND DETAIL DELEGATED DESIGN ITEMS TO MEET THE PERFORMANCE AND DESIGN CRITERIA ESTABLISHED AS PART OF THE BASE BUILDING STRUCTURE INDICATED IN THE CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO:

COLD FORMED METAL FRAMING
METAL PAN STAIRS
MEP ACCESS PLATFORMS
STRUCTURAL PRECAST HOLLOWCORE PLANK AND CONNECTIONS
STEEL JOISTS, BRIDGING AND CONNECTIONS

SU SUBMITTALS

SU-1 THE CONTRACTOR SHALL PROVIDE THE REQUIRED SUBMITTALS FOR STRUCTURAL REVIEW AS OUTLINED IN THE SPECIFICATIONS. THIS INCLUDES BOTH ITEMS FULLY DESIGNED ON THE CONTRACT DOCUMENTS AND ITEMS LISTED AS DELEGATED DESIGN. ITEMS INCLUDE BUT ARE NOT LIMITED TO:

031000	S	CALC	CONCRETE FORMWORK
032000	S		CONCRETE REINFORCEMENT AND EMBEDDED ASSEMBLIES
033000	S		CAST-IN-PLACE CONCRETE
033000		CALC	CONCRETE MIX DESIGNS
034100	S	CALC	PRECAST STRUCTURAL CONCRETE
042200	S		CONCRETE MASONRY UNITS
051200	S		STRUCTURAL STEEL
052000	S	CALC	STRUCTURAL STEEL JOISTS
053000	S		STEEL DECK
316100	S		FOOTINGS

S = SHOP DRAWINGS REQUIRED
CALC = SUPPORTING CALCULATIONS REQUIRED, SEALED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED

SU-2 SUBMIT LOADS IMPOSED ONTO BASE BUILDING STRUCTURE BY THE FOLLOWING CONTRACTOR DESIGNED SYSTEMS:

PRECAST PLANK CONCRETE AND CONNECTIONS
EXTERIOR CLADDING SYSTEMS
ARCHITECTURAL ORNAMENTATION (FLAGPOLES, BANNERS, MASTS, ETC.)
ELEVATOR REACTIONS
METAL STAIRS
CATWALKS
MEP EQUIPMENT

WHERE CONTRACTOR LOADS IMPOSED DO NOT EXCEED AND/OR CONNECTION CONDITIONS DO NOT DIFFER FROM WHAT IS INDICATED IN THE STRUCTURAL DRAWINGS, SUBMIT FOR RECORD A LETTER SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED STATING THE FOLLOWING:

"THE CONTRACTOR DESIGNED SYSTEM HAS BEEN DESIGNED TO IMPOSE LOADS ON THE BASE BUILDING STRUCTURE THAT ARE WITHIN THE LOAD LIMITS AND AT THE LOCATIONS INDICATED ON THE STRUCTURAL DRAWINGS."

WHERE CONTRACTOR LOADS IMPOSED FOR THE ITEMS LISTED ABOVE EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM WHAT IS SHOWN IN THE STRUCTURAL DRAWINGS, SUBMIT FOR APPROVAL TO SER LOADS IMPOSED ON THE PRIMARY STRUCTURAL FRAME DUE TO THE DEAD, LIVE, AND WIND/SEISMIC LOADS INDICATED ON THE CONTRACT DOCUMENTS.

SUBMITTAL SHALL LIST THE DESIGN LOADS USED AND BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE LOCATION, MAGNITUDE AND DIRECTION OF UNFACTORED IMPOSED LOADS, GRAPHICALLY REPRESENTED IN THEIR APPROPRIATE LOCATIONS ON A COPY OF THE CONTRACT DOCUMENT STRUCTURAL FRAMING PLANS OR ELEVATIONS AS APPROPRIATE. DETAIL REFERENCES IN THE CONNECTIONS APPLICABLE AT EACH LOCATION SHALL BE NOTED ON THE SUBMITTAL DRAWINGS.

FOR EXTERIOR WALL ASSEMBLIES, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOADS IMPOSED ON THE BASE BUILDING STRUCTURE AND SHALL INCLUDE THE REACTIONS BASED ON THE ACTUAL LOADS OF THE ENTIRE ASSEMBLY, INCLUDING BUT NOT LIMITED TO GLAZING, CLADDING, METAL STUD BACKUP, AND MULLIONS.

FOR MEP SYSTEMS, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOADS IMPOSED ON THE BASE BUILDING STRUCTURE AND SHALL INCLUDE THE REACTIONS BASED ON THE ACTUAL LOADS OF THE ENTIRE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEM, INCLUDING BUT NOT LIMITED TO PIPING, DUCTS, ELECTRICAL RACEWAYS, AND EQUIPMENT WEIGHTS.

A SUBSTITUTION REQUEST MAY BE REQUIRED WHERE CONTRACTOR LOADS IMPOSED EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM THE BASIS OF DESIGN.

SU-3 THE SER'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

FN FOUNDATIONS

FN-1 THE FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT BY DRIESENGA & ASSOCIATES, INC. DATED JULY 28, 2022.

FN-2 FOUNDATIONS HAVE BEEN DESIGNED BASED ON THE FOLLOWING DESIGN VALUES FROM THE GEOTECHNICAL REPORT (SERVICE LEVEL):

NET ALLOWABLE BEARING CAPACITY:	2,000 PSF	(ISOLATED FOOTINGS WITH COLUMN LOADS EXCEEDING 100 KIPS)
	2,500 PSF	(ISOLATED FOOTINGS OTHERWISE)
	2,500 PSF	(CONTINUOUS WALL FOOTINGS)

SEE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS AND INFORMATION. DESIGN VALUES SHALL BE FIELD VERIFIED BY QUALIFIED GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.

FN-3 THE CONTRACTOR SHALL VERIFY ALL EARTHWORK AND FOUNDATION INSTALLATION/CONSTRUCTION IS IN CONFORMANCE WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT.

FN-4 CONTRACTOR SHALL BE RESPONSIBLE TO ADEQUATELY PROTECT ALL EXCAVATION. WHERE NECESSARY, SHEET AND SHORE THE EXCAVATION WITH ALL REQUIRED TIEBACKS AND BRACING AS DETERMINED BY CONTRACTOR'S ENGINEER.

CM CONCRETE MATERIALS

CM-1 CONCRETE STRENGTH SHALL MEET THE FOLLOWING 28-DAY COMPRESSIVE STRENGTHS (f' c), UON:

FOOTINGS AND PIERS	4,000 PSI
FOUNDATION WALLS, PILASTERS, BUTTRESSES	4,000 PSI
NON-SHRINK GROUT	8,000 PSI
SLAB ON GRADE	4,000 PSI
HOLLOW CORE PRECAST PLANK	5,000 PSI AND HIGHER WHERE NEEDED, SEE PLAN
CONCRETE TOPPING	5,000 PSI AND HIGHER WHERE NEEDED, SEE PLAN

CM-2 PROVIDE NORMALWEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, UON.

CM-3 THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.

CM-4 ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.

RE CONCRETE REINFORCEMENT

RE-1 ALL CONCRETE SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS VERIFY WITH THE SER.

RE-2 REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UON:

DEFORMED BARS:	ASTM A615 GRADE 60
WELDABLE DEFORMED BARS:	ASTM A706
EPOXY COATED DEFORMED BARS:	ASTM A615 / A775
WELDED WIRE REINFORCEMENT	ASTM A1064
EPOXY COATED WELDED WIRE REINFORCEMENT	ASTM A1064 / A884

RE-3 DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENTS, ACI-318 AND ACI-315, UON.

RE-4 WHERE A 90-DEG, 135 –DEG OR 180-DEG HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STANDARD HOOKS UON.

RE-5 DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT UON.

RE-6 REINFORCEMENT SHALL HAVE CONCRETE PROTECTION (CLEAR COVER) PER ACI 318 UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

RE-7 LAP REINFORCEMENT ONLY AT LOCATIONS AS SPECIFICALLY DETAILED ON THE DRAWINGS EXCEPT REINFORCEMENT MARKED AS CONTINUOUS CAN BE SPLICED AT LOCATIONS DETERMINED BY CONTRACTOR USING TENSION LAP SPLICES (LTS). SEE LAP SPLICE AND EMBEDMENT SCHEDULE.

RE-8 UNLESS OTHERWISE NOTED ALL LAP SPLICES ARE TO BE TENSION LAP SPLICES PER LAP SPLICE AND EMBEDMENT SCHEDULE.

RE-9 LAP WELDED WIRE REINFORCEMENT TWO PANEL SPACINGS, UON.

CJ CONCRETE CONSTRUCTION AND CONTRACTION JOINTS

CJ-1 PROVIDE CONSTRUCTION JOINTS IN ACCORDANCE WITH ACI-318. SUBMIT SHOP DRAWINGS SHOWING PROPOSED CONSTRUCTION JOINT LOCATIONS, DETAILS AND THE PLACEMENT SEQUENCE FOR THE SER'S APPROVAL PRIOR TO PROCEEDING WITH WORK.

CJ-2 UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS, HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN FOOTINGS, PILE CAPS, MAT FOUNDATIONS, GRADE BEAMS, BEAMS, UPTURNED BEAMS, SLABS, AND WALLS WITHOUT PRIOR WRITTEN APPROVAL FROM THE SER BEFORE CONSTRUCTION.

CJ-3 PLACE VERTICAL CONSTRUCTION JOINTS TO PROVIDE A 60 FT MAXIMUM LENGTH OF CONCRETE PLACEMENT AND LOCATE AS FOLLOWS:
A. FOUNDATION WALLS: MINIMUM OF 8 FT FROM ANY WALL INTERSECTION, PILASTER, PIER, OR WALL OPENING

CJ-4 PROVIDE CONTINUOUS WATERSTOPS AT ALL CONSTRUCTION JOINTS EXPOSED TO SOIL OR WATER, AS DESCRIBED IN THE SPECIFICATIONS AND WHERE INDICATED IN THE ARCHITECTURAL DOCUMENTS.

CJ-5 UNLESS OTHERWISE INDICATED ON DRAWINGS, PROVIDE CONTRACTION JOINTS IN CONCRETE SLAB ON GRADE AT COLUMN CENTERLINES AND BETWEEN COLUMN CENTERLINES AT A SPACING NOT TO EXCEED 36 X THE SLAB THICKNESS. REFER TO TYPICAL CONCRETE SLAB ON GRADE DETAIL FOR ADDITIONAL INFORMATION.

SP STRUCTURAL PRECAST CONCRETE

SP-1 TYPICAL DETAILS INDICATE GENERAL CRITERIA FOR DESIGN AND DETAILING OF PRECAST CONCRETE. PROVIDE DESIGNS THAT MEET INDICATED CRITERIA AND LISTED CODES AND STANDARDS.

SP-2 PROVIDE CONNECTIONS BETWEEN ADJACENT PRECAST UNITS TO TRANSMIT 1000 POUNDS PER LINEAR FOOT OF DIAPHRAGM LOADS.

SP-3 PROVIDE CAMBER TO LIMIT DEFLECTION SUCH THAT NO POINT OF THE DEFLECTED STRUCTURE EXCEEDS THE PLANK SPAN OVER 360 BELOW THE STATED ELEVATION. CAMBER DESIGN SHALL INCLUDE EFFECTS OF LONG-TERM DEFLECTION, SHRINKAGE, CREEP, AND MAXIMUM ALLOWABLE CONSTRUCTION TOLERANCES.

SP-4 DO NOT USE POWER-DRIVEN ANCHORS OR ANCHORS WHICH REQUIRE DRILLING INTO PRESTRESSED UNITS. SUBMIT PROPOSED ANCHOR PROCEDURES FOR PRECAST UNITS TO THE DESIGN PROFESSIONALS AND PRECAST SUPPLIER FOR REVIEW.

MA MASONRY

MA-1 LOAD BEARING, NON-LOAD BEARING, AND BACKUP WALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:

A2

CONCRETE MASONRY UNITS:	ASTM C90, NORMALWEIGHT (135 PCF) (MINIMUM NET AREA COMPRESSIVE STRENGTH 2000 PSI FOR USE WITH TYPE S OR M MORTAR OR 2650 PSI FOR USE WITH TYPE N MORTAR)
MORTAR:	ASTM C270, TYPE S, M OR N
MORTAR USAGE (UON ON DRAWINGS):	USE TYPE S OR M MORTAR WHEN MASONRY IS IN DIRECT CONTACT WITH SOIL; USE TYPE S MORTAR FOR ALL EXTERIOR AND INTERIOR LOAD-BEARING WALLS; USE TYPE N MORTAR FOR ALL EXTERIOR AND INTERIOR NON-LOAD-BEARING WALLS
GROUT:	ASTM C476
REINFORCEMENT:	ASTM A615, GRADE 60
JOINT REINFORCEMENT:	ASTM A951, TRUSS OR LADDER TYPE
EXTERIOR JT REINF:	GALVANIZE PER ASTM A153
INTERIOR JT REINF:	
TYPICAL	GALVANIZE PER ASTM A641
RELATIVE HUMIDITY >75%	GALVANIZE PER ASTM A153
ADHESIVE ANCHORS:	HILTI HIT-HY 270

MA-2 THE MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (f' m) SHALL BE 2,000 PSI, UON ON DRAWINGS, DETERMINED BY THE UNIT STRENGTH METHOD IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS.

MA-3 CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT.

MA-4 LAY MASONRY UNITS IN RUNNING BOND UON WITH UNITS DESIGNED TO ALIGN WITH WEBS IN EACH COURSE.

MA-5 ALL CELLS WITH REINFORCEMENT SHALL BE GROUTED SOLID. ALL CELLS WHERE MASONRY IS IN CONTACT WITH SOIL SHALL BE GROUTED SOLID.

MA-6 GROUT MINIMUM OF ONE (1) CELL WITH REINFORCEMENT AT EACH SIDE OF ALL OPENINGS. SEE DRAWINGS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.

MA-7 VENEER MASONRY TIE SYSTEM TO BE COORDINATED WITH TIE MANUFACTURER AND COMPONENT AND CLADDING WIND LOADING REQUIREMENTS OF IBC/MBC

SS STRUCTURAL STEEL

SS-1 STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS:

ASTM A6 ROLLED W SHAPES AND CHANNELS:	ASTM A572 OR A992, MINIMUM YIELD STRENGTH 50 KSI
MISCELLANEOUS ANGLES:	ASTM A36, MINIMUM YIELD STRENGTH 36 KSI
HOLLOW STRUCTURAL SECTIONS:	ASTM A500 GRADE C, MINIMUM YIELD STRENGTH 46 KSI FOR ROUND AND 50 KSI FOR RECTANGULAR HSS
PLATES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI

SS-2 CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR CONNECTION DESIGN:

ANGLES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI UON
WTs:	ASTM A572 OR A992, MINIMUM YIELD STRENGTH 50 KSI
PLATES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI UON
BOLTS:	ASTM F3125 GRADES A325 AND F1852 OR A490 AND F2280 OR AS INDICATED IN DETAILS
NUTS:	ASTM A563
WASHERS:	ASTM F436
ANCHOR RODS:	ASTM F1554 GRADE 55 WITH WELDABILITY SUPPLEMENT S1
HEADED STUDS:	ASTM A108, GRADE 1010 THROUGH 1020 HEADED STUD TYPE, COLD-FINISHED CARBON STEEL, AWS D1.1, TYPE B 3/4" DIAMETER UON
WELD ELECTRODES:	MINIMUM TENSILE STRENGTH 70 KSI

SS-3 WHERE NO CAMBER IS INDICATED, FABRICATE BEAMS SO THAT ANY NATURAL CAMBER IS UPWARD AFTER ERECTION.

SS-4 SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE SER IN WRITING.

SS-5 FOR STEEL MEMBERS AND EMBEDMENTS EXPOSED TO WEATHER, PROVIDE HOT-DIPPED GALVANIZED FINISH.

SS-6 PROVIDE HOLES IN ALL STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1 1/8" DIA. AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.

SS-7 SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE DESIGN PROFESSIONALS.

SS-8 FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN PROFESSIONALS.

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ISSUED FOR	DATE
ADD. No. 3	JUN 19, 2023
ADD. No. 1	JUN 5, 2023

PROJECT TITLE
CENTRAL ELEMENTARY SCHOOL BID PACKAGE 4: CONSTRUCTION ADDENDUM 3

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
GENERAL NOTES I

DATE
MAY 17, 2023

SHEET NUMBER
S 001
21-237.10

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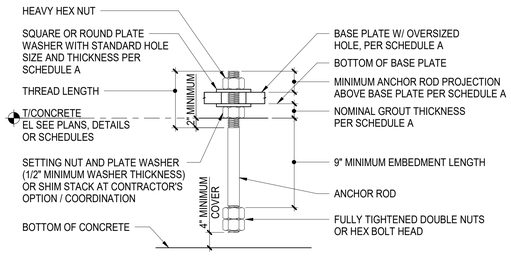
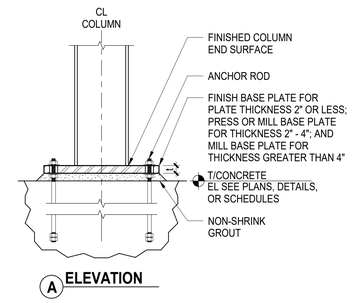


1 TYPICAL ANCHOR ROD DETAIL
NOT TO SCALE

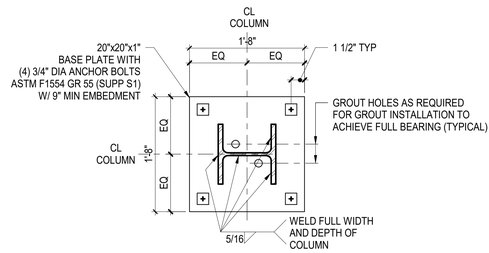


A ELEVATION

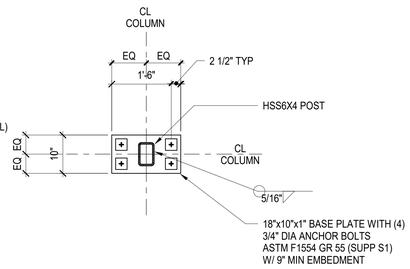
SCHEDULE A					
ANCHOR ROD DIAMETER	BASE PL HOLE DIA	MIN WASHER SIZE	MIN WASHER t	MIN PROJ ABOVE BASE PL	NOMINAL GROUT THICKNESS
3/4"	1-5/16"	2"	1/4"	3"	2"

NOTES:

1. BASE PLATE THICKNESS SHOWN IS A MINIMUM. DIMENSION AFTER ALL MILLING IS COMPLETED
2. COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR
3. SEE ANCHOR ROD SCHEDULE AND TYPICAL ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION
4. ANCHOR ROD CONFIGURATION IS TO USE SQUARE PATTERN OUTSIDE COLUMN. IF SPECIFIED BASE PLATE SIZE DOES NOT PERMIT OUTSIDE PLACEMENT USE SQUARE PATTERN INSIDE COLUMN. USE RECTANGULAR ANCHOR ROD CONFIGURATION WHERE NOTED

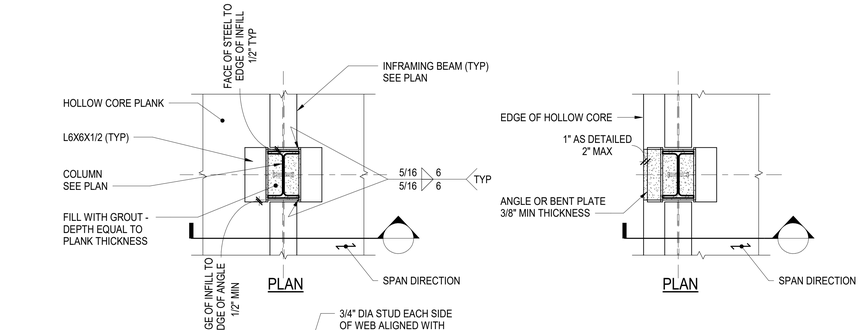


B W12 PLAN
WITH SQUARE ANCHOR ROD PATTERN OUTSIDE COLUMN



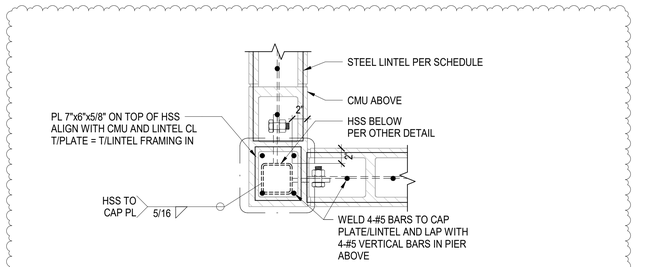
C HSS POST PLAN

2 TYPICAL BASE PLATE DETAIL
NOT TO SCALE

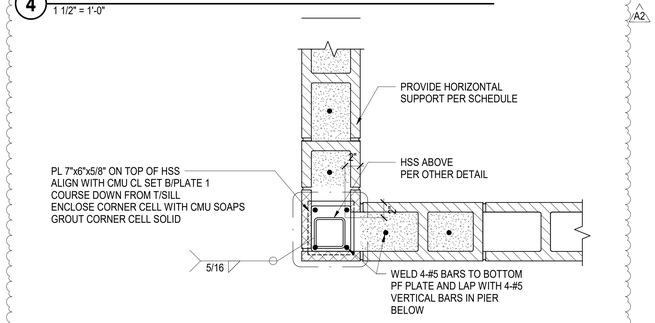


REFER TO INTERIOR COLUMNS FOR INFORMATION NOT SHOWN

3 INFILL, SLAB SUPPORT, AND LATERAL BRACING AT COLUMNS
3/4" = 1'-0"



4 LINTELS AT CORNER SUPPORTED BY TUBE POST
1 1/2" = 1'-0"



5 SILL AT CORNER WITH TUBE POST
1 1/2" = 1'-0"

ISSUED FOR	DATE
ADD. No. 3	JUN 19, 2023
ADD. No. 1	JUN 5, 2023

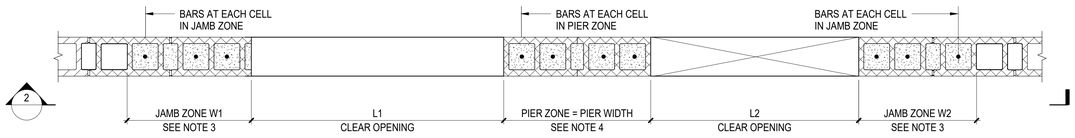
PROJECT TITLE
CENTRAL ELEMENTARY SCHOOL BID
PACKAGE 4: CONSTRUCTION
ADDENDUM 3

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

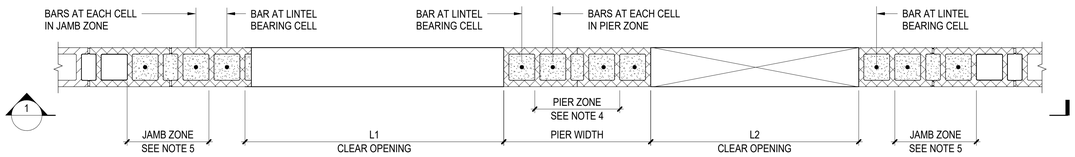
SHEET TITLE
TYPICAL STEEL COLUMN DETAILS

DATE
MAY 17, 2023

SHEET NUMBER
S 500
21-237.10



CMU WALL WITH CMU LINTEL



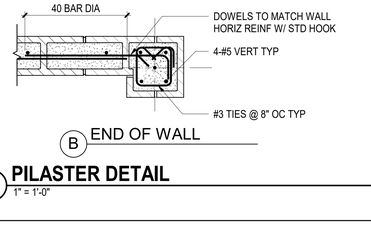
CMU WALL WITH STEEL OR PRECAST LINTEL

NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF MASONRY WALL OPENINGS
2. SUM OF OPENING WIDTHS L1 PLUS L2 ON EITHER SIDE OF PIER SHALL NOT EXCEED 24'-0", AND ANY INDIVIDUAL OPENING SHALL NOT EXCEED 12'-0" IN WIDTH. FOR CONDITIONS EXCEEDING THIS CRITERIA, ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO CONSTRUCTION
3. JAMB ZONE REFERS TO WIDTH OF JAMB ZONE BASED ON ADJACENT CLEAR OPENING L1 AND L2, RESPECTIVELY AS PER TYPICAL CMU NON-BEARING WALL JAMB AND PIER ZONE SCHEDULE
4. PIER ZONE REFERS TO MINIMUM WIDTH OF PIER AS SCHEDULED ON TYPICAL CMU NON-BEARING WALL JAMB AND PIER ZONE SCHEDULE
5. PROVIDE P1 TYPE REINFORCEMENT EITHER SIDE OF THE OPENING AS FOLLOWS:
   a. UPTO 7'-0" WIDE OPENING - 16" WIDE PIER
   b. UPTO 12'-0" WIDE OPENING - 24" WIDE PIER

1 TYPICAL CMU NON-BEARING WALL PLAN DETAIL AT ADJACENT WALL OPENINGS

1" = 1'-0"



SECTION VIEW

REINFORCING SCHEDULE FOR CONCRETE MASONRY WALL				
WALL TYPE	NOMINAL THICKNESS	VERTICAL REINF	HORIZONTAL REINF	No. OF REINF CURTAIN
DCMU/CMU-1	8"	#4 @ 32" OC	SEE NOTE 9-10	SINGLE
CMU-2	8"	#4 @ 48" OC	SEE NOTE 9-10	SINGLE
CMU-3	12"	#4 @ 48" OC	SEE NOTE 9-10	DOUBLE
CMU-4	8"/12"	#4 @ 72" OC	SEE NOTE 9-10	SINGLE

A1

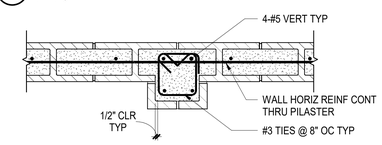
NOTES:

1. SEE PLANS FOR WALL TYPE LOCATIONS.
2. LAP SPLICE REINFORCING PER 5 / S 600
3. CMU SHALL BE RUNNING BOND & FULLY GROUTED UON
4. USE DOUBLE OPEN END BLOCKS TO THE EXTENT PRACTICAL TYP DO NOT PLACE CLOSED SIDES BACK TO BACK.
5. SEE STRUCTURAL GENERAL NOTES FOR MATERIAL SPECIFICATIONS
6. FOR WALL CONTRUCTION & CONTROL JOINT SEE DETAIL 7 / S 601
7. FOR WALL CORNERS & INTERSECTIONS SEE DETAIL 9 / S 600
8. DCMU DENOTES DECORATIVE CONCRETE MASONRY UNIT.
9. PROVIDE LADDER TYPE HORIZONTAL REINFORCING 2 x W2.1 (9 GAGE) FOR INTERIOR WALLS AND 2 x 3/16" DIA WIRE FOR EXERIOR WALLS AT 16" OC AT WALLS BETWEEN CONTROL JOINTS.
10. HORIZONTAL REINF SPACING SHALL BE MINIMUM OF PIER WIDTH DIVIDED BY 2 OR PER SCHEDULE WHICHEVER IS LESS.

A1

3 CMU WALL REINFORCING SCHEDULE

1" = 1'-0"



7 PILASTER DETAIL

1" = 1'-0"

REINFORCING SCHEDULE FOR LINTEL CMU WALL							MIN. JAMB ZONE OR PIER WIDTH
	OPENING LENGTH	MIN LINTEL DEPTH	8" WALL		12" WALL		
			HORIZ	VERT	HORIZ	VERT	
ML-1	L ≤ 4'-0"	2'-0"	#5	-	2-#5	-	16"
ML-2	L ≤ 6'-0"	2'-8"	#5	#3 @ 8" OC	2-#6	#3 @ 8" OC	16"

A1

4 WALL LINTEL DETAIL AND SCHEDULE

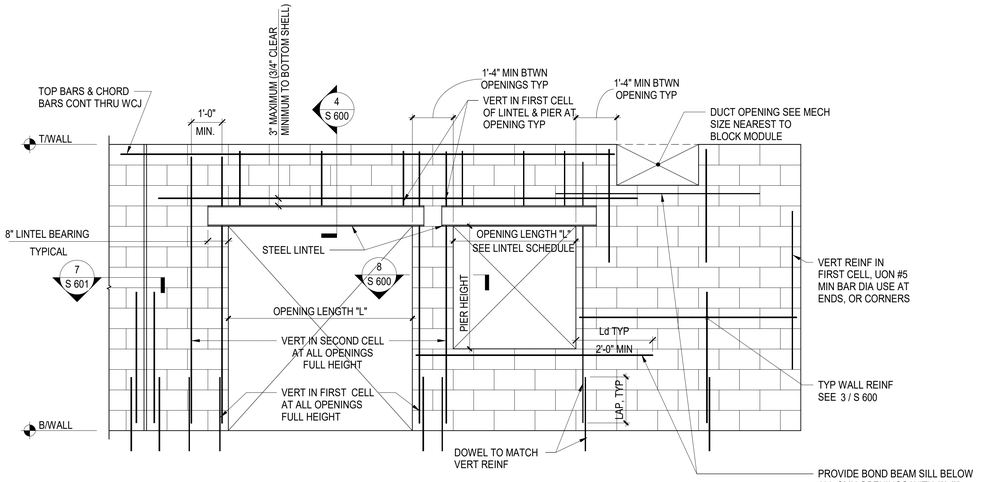
1" = 1'-0"

NOTES:

1. USE WALL PIER DETAIL AS INDICATED ON CMU PLANS
2. EXTEND HORIZONTAL TIES LAP SPLICE LENGTH ABOVE & BELOW OPENING

8 WALL PIER DETAIL

1" = 1'-0"



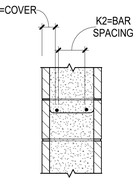
2 CMU WALL ELEVATION W/ OPENING

1/2" = 1'-0"

NOTES:

1. "K" SHALL BE TAKEN AS THE CMU COVER DIMENSION OR THE CLEAR SPACING BETWEEN ADJACENT BARS, WHICHEVER IS LESS. SEE ABOVE.
2. WHERE EPOXY-COATED REINFORCING IS USED, INCREASE LAP SPLICE LENGTH BY 50%.
3. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
4. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.
5. "N/A" MEANS "NOT ALLOWABLE" INCREASE "K" FOR ALLOWABLE LAP SPLICE.

LAP SPLICE LENGTH (f 'm=2000PSI)			
BAR SIZE	FOR K≥2db	FOR K≥3db	FOR K≥4db
#3	N/A	1'-10"	1'-5"
#4	3'-0"	2-6"	1'-10"
#5	3'-9"	3'-1"	2'-4"
#6	4'-6"	4'-6"	3'-6"
#7	5'-3"	5'-3"	4'-2"
#8	6'-0"	6'-0"	5'-6"
#9	6'-10"	6'-10"	6'-2"



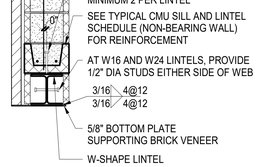
K=MINIMUM (K1 OR K2)

5 REBAR OFFSET AND LAP SPLICE CMU f 'm=2000 PSI

1" = 1'-0"

NOTES:

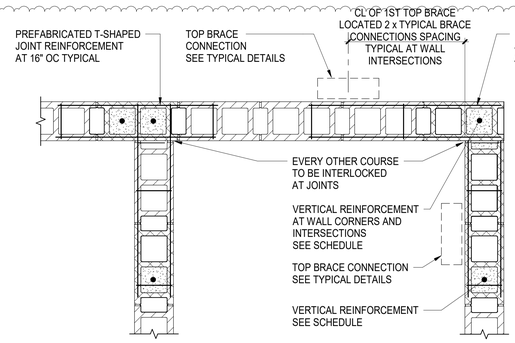
1. LINTEL ANGLES AND W-SHAPE LINTELS SHALL BE ASTM A36 STEEL MINIMUM
2. NO MORE THAN SIX COURSES OF CMU MAY BE PLACED, REINFORCED, GROUTED AND CURED AT ONE TIME ABOVE LINTEL BEFORE PROCEEDING FURTHER
3. PROVIDE MINIMUM 8" BEARING EACH END
4. 2L LINTELS SHALL BE WELDED OR BOLTED TOGETHER AT INTERVALS NOT EXCEEDING 2'-0" OC, WITH A MINIMUM OF TWO CONNECTIONS BETWEEN ENDS
5. AT EXTERIOR WALL SYSTEMS AND AT HUMID LOCATIONS LINTELS SHALL BE GALVANIZED, REFER TO SPECIFICATIONS FOR FURTHER INFORMATION
6. SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS
7. SEE TYPICAL CMU NON-BEARING WALL ELEVATION WITH STEEL OR PRECAST LINTELS FOR DETAILS OF REINFORCEMENT AROUND OPENINGS



STEEL LINTEL WITH PLATE

6 TYPICAL STEEL LINTEL SCHEDULE (NON-BEARING WALL)

NOT TO SCALE



HORIZONTAL JOINT REINFORCEMENT INTERSECTION DETAIL

10 TYPICAL PLAN DETAIL AT MASONRY WALL WITH INTERLOCKED INTERSECTIONS

1" = 1'-0"

9 BOND BEAM AT WALL END AND INTERSECTION DETAILS

1" = 1'-0"

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PROJECT TITLE
CENTRAL ELEMENTARY SCHOOL BID PACKAGE 4: CONSTRUCTION ADDENDUM 3

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
TYPICAL MASONRY WALL DETAILS

DATE
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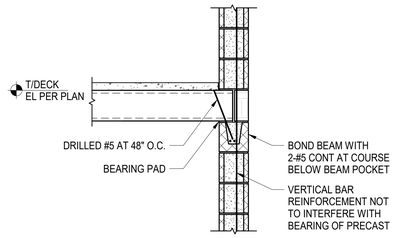
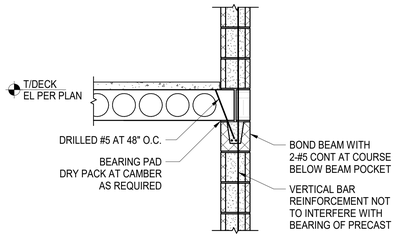
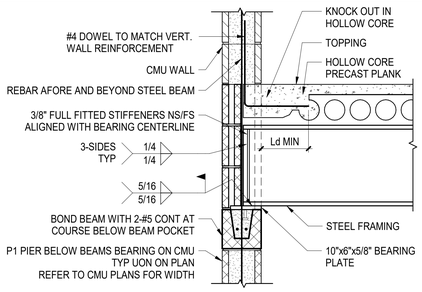


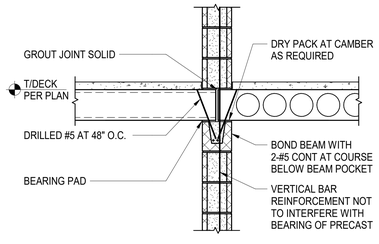
1 TYPICAL PLANK BEARING AT CMU DETAIL ONE SIDE, SPAN PERPENDICULAR
3/4" = 1'-0"



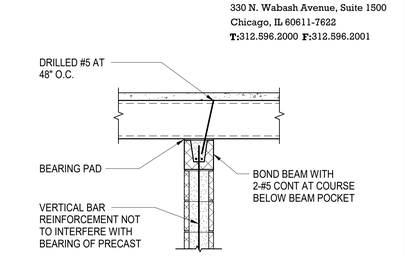
2 TYPICAL PLANK BEARING AT CMU DETAIL ONE SIDE, SPAN PARALLEL
3/4" = 1'-0"



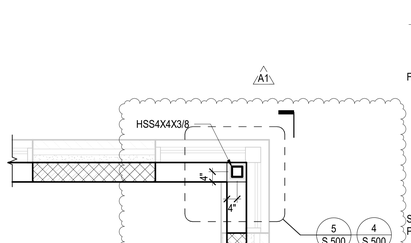
3 TYPICAL STEEL BEAM SUPPORTING PLANK BEARING AT CMU WALL, ONE SIDE
1" = 1'-0"



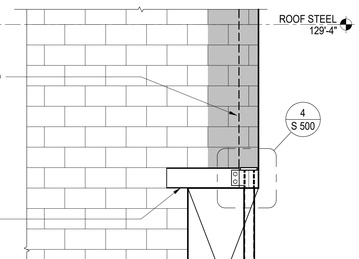
4 TYPICAL PLANK BEARING AT CMU DETAIL BOTH SIDES
3/4" = 1'-0"



5 TYPICAL PLANK BEARING AT CMU DETAIL CONTINUOUS OVER WALL BELOW
3/4" = 1'-0"

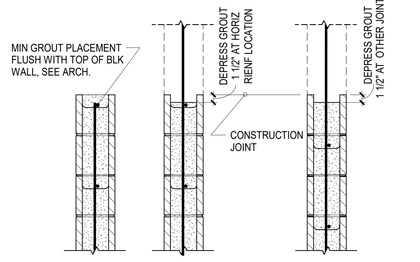


6 TYPICAL PLANK BEARING AT CMU DETAIL CANTILEVER CONDITION
3/4" = 1'-0"

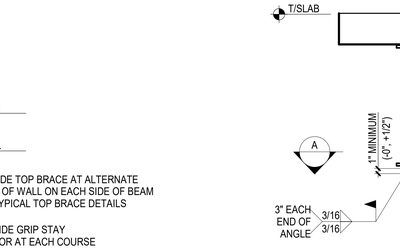


WALL PLAN

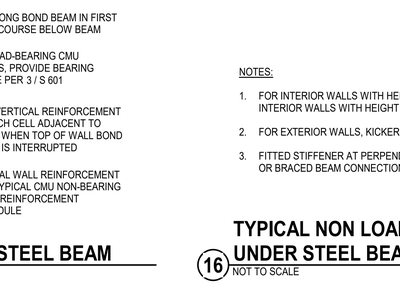
7 CMU WALL CONTROL JOINT
1" = 1'-0"



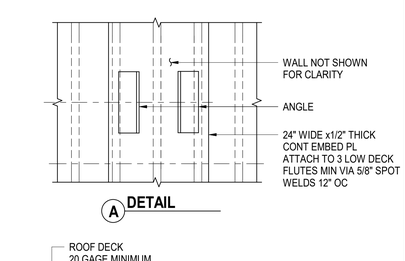
8 CMU WALL CONSTRUCTION JOINTS
1" = 1'-0"



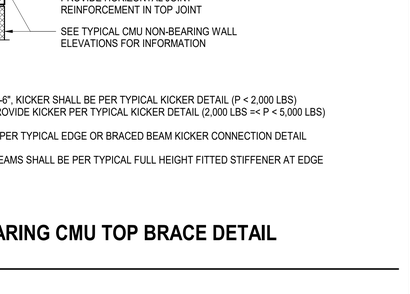
A DETAIL



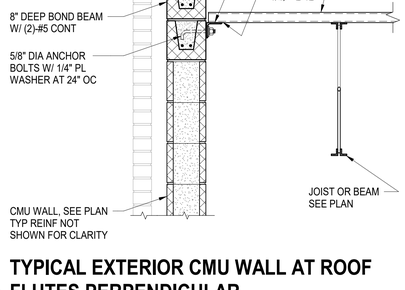
TYPICAL TOP BRACE DETAIL AT INTERIOR CMU WALL TO UNDERSIDE OF ROOF DECK - FLUTES PERPENDICULAR
9 NOT TO SCALE



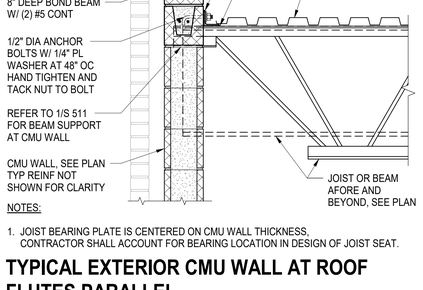
A DETAIL



TYPICAL INTERIOR CMU WALL AT ROOF - FLUTES PARALLEL
10 NOT TO SCALE

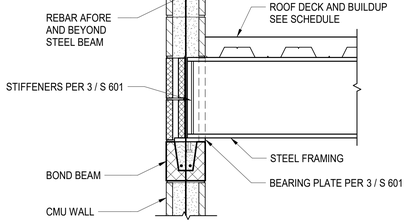


11 TYPICAL EXTERIOR CMU WALL AT ROOF FLUTES PERPENDICULAR
NOT TO SCALE

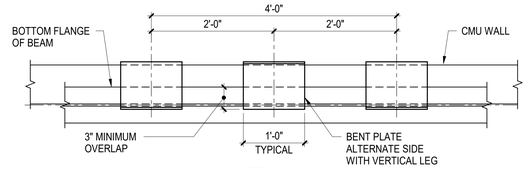


NOTES:
1. JOIST BEARING PLATE IS CENTERED ON CMU WALL THICKNESS. CONTRACTOR SHALL ACCOUNT FOR BEARING LOCATION IN DESIGN OF JOIST SEAT.

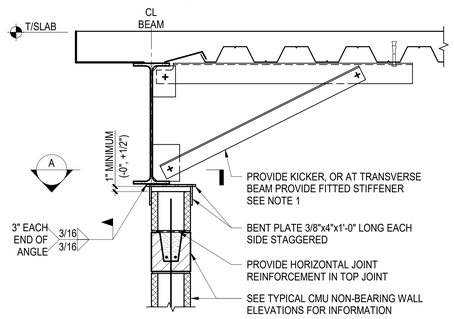
12 TYPICAL EXTERIOR CMU WALL AT ROOF FLUTES PARALLEL
NOT TO SCALE



13 STEEL BEAM SUPPORTED BY PERPENDICULAR CMU WALL AT ROOF DECK
1" = 1'-0"



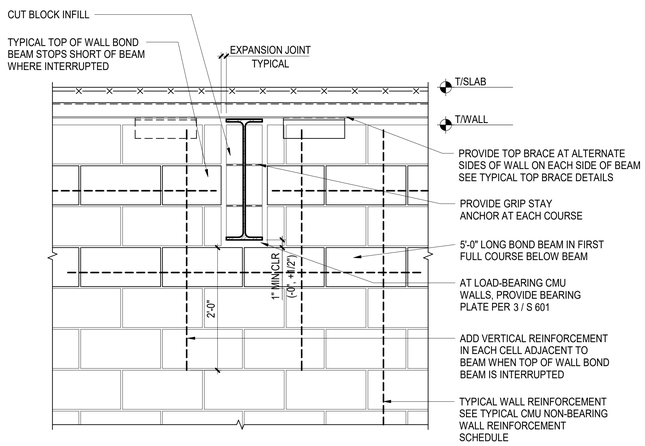
A DETAIL



NOTES:
1. FOR INTERIOR WALLS WITH HEIGHT <= 23'-6", KICKER SHALL BE PER TYPICAL KICKER DETAIL (P < 2,000 LBS)
   INTERIOR WALLS WITH HEIGHT > 23'-6", PROVIDE KICKER PER TYPICAL KICKER DETAIL (2,000 LBS =< P < 5,000 LBS)
2. FOR EXTERIOR WALLS, KICKER SHALL BE PER TYPICAL EDGE OR BRACED BEAM KICKER CONNECTION DETAIL
3. FITTED STIFFENER AT PERPENDICULAR BEAMS SHALL BE PER TYPICAL FULL HEIGHT FITTED STIFFENER AT EDGE OR BRACED BEAM CONNECTION DETAIL

TYPICAL NON LOAD-BEARING CMU TOP BRACE DETAIL UNDER STEEL BEAM
16 NOT TO SCALE

14 CORNER GLAZING CONDITION
1/2" = 1'-0"



15 TYPICAL DETAIL OF CMU WALL AT PERPENDICULAR STEEL BEAM
NOT TO SCALE

ISSUED FOR	DATE
ADD. No. 3	JUN 19, 2023

PROJECT TITLE
CENTRAL ELEMENTARY SCHOOL BID
PACKAGE 4: CONSTRUCTION
ADDENDUM 3

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

SHEET TITLE
TYPICAL MASONRY WALL DETAILS

DATE
MAY 17, 2023

SHEET NUMBER
S 601
21-237.10

Owen-Ames-Kimball Co.

Printed on Mon Jun 19, 2023 at 10:42 am EDT

Job #: 1090-A PPS - A - Central Elementary
8422 S Westnedge Ave
Portage, Michigan 49002
2693236100

RFI Response Report

#	Subject	Question	Official Response
ADD 1 -BP 4 - Prebid RFI 001	Substitution Request 001	Request to add Wolverine Enclosures / AAP as an approved fabricator for Section 07 4213.23. Larry Krause, Wolverine Enclosures, larry.k@panels.com	Please submit as a Voluntary Alternate. M. Rossio 6/7/23
ADD 1-BP 4 - Prebid RFI 002	Door Hardware Clarification	Specifications 087100 Door Hardware Door Hardware Specifications are incomplete and missing all Hardware Sets and Opening Assignments. With the Specifications that are currently included we are unable to begin pricing any materials; including Doors and Frames which required the correct and proper hardware preps. When will correct Hardware Specifications (087100) be issued – including complete Hardware Sets? Tom Roberts - S.A. Morman & Co., troberts@samorman.com	Hardware Specification to be included in Addendum No. 1 (OAK to have add.by June 6)M. Rossio 5/31/2023
ADD 1-BP 4 - Prebid RFI 003	Toilet Accessories - Clarification Enlarged Plans A401	Enlarged Plans A401 1/A401 Toilet/Shower 104T has Marks 16 and 17. There are no Marks 16 or 17 shown on Keyed Notes – Enlarged Plans. Please Clarify 5/A401 Women's 115 and Men's 119 have "Mark" 16. There is no Mark 16 shown on Keyed Notes – Enlarged Plans. Please Clarify Is a Shower Grab Bar required at 104T? Please clarify Tom Roberts, S.A. Morman & Co., troberts@samorman.com	Refer to Addendum No. 1Items 1 and 2:A401:Keynote 16: Stainless Steel Framed Mirror (24" x 60"). (Women's 115/ Men's 119)Keynote 17: Continuous Stainless Steel Shower Grab Bar.Removed keynote to shower head.Item 3:Yes, shower grab bar is required, refer to revised keynote 17.M. Rossio 6/2/23
ADD 1-BP 4 - Prebid RFI 004	Specification 10 2800 - Manufacturer Clarification	No Manufacturer or Model Number is provided for Mark 12 Baby Changing Station. Please Clarify No Manufacturer or Model Number is provided for Mark 14 Changing Seat. Please Clarify Tom Roberts, S.A. Morman & Co., troberts@samorman.com	Keynote 12: Baby Changing Station shall be one of the 4 manufacturers listed in section10 2800 para 2.6.A meeting the requirements of para 2.6.B.Keynote 14: Fold Down Changing Seat, see section 10 2800 para 2.4.F attached toAddendum No. 1 (American Specialties, Inc; 8209)D. Heaton 6/1/23
ADD 1-BP 4 - Prebid RFI 005	Specification 10 2800 -Plans Clarification	Specifications include Bobrick B-76727 Hooks, but none are shown on Plans. Please clarify. Specifications include Bobrick B-680 Soap Dish, but none are shown on Plans. Please clarify. Specifications include Bobrick B-223 Mop & Broom Holder, but none are shown on Plans. Please clarify. Tom Roberts, S.A., Morman & Co., troberts@samorman.com	Refer to Addendum No. 1. Robe Hooks, Soap Dish added to Shower 104T. Mop and BroomHolders added to 117, 261S.M. Rossio 6/2/2023
ADD 1-BP 4 - Prebid RFI 007	Technology Clarification	1. Print T401, under backbone equipment schedule. Fiber optic parts are listed as Corning. In the upper right corner of the print it shows Panduit fiber optic ends. The written spec also states Corning. Which is correct? The corning part number for fiber is 3X the cost of Panduit/General Cable equivalent. 2. Demo print TS101. How many strands is the existing fiber that has to be pulled back and respliced? Dave Phillips, ElectroMedia, Inc., dphillips@electromediainc.com	1. All items should be Corning brand for the base bid. Updated part numbers will be included in addendum 1. If you would like to propose another manufacturer, please do so as a voluntary alternate. 2. See addendum 1 for revised instructions and more detail on sheet TS101.
ADD 1-BP 4 - Prebid RFI 008	Scope Clarification	Demo print TS101. Who is responsible for the demo of the existing conduit? Who is responsible for the directional bore and installation of the new conduit? Dave Phillips, ElectroMedia, Inc., dphillips@electromediainc.com	1. N/A as demo of the existing building is to be bid at a later date. 2. Electrical is responsible for the directional bore and install of the new conduit.
ADD 1-BP 4 -	Scope Clarification	The specifications call for fiberglass Z girts. Who is responsible for this and where is it detailed on the drawings. Frank Wright, Advanced Construction Group Inc, frankw@acongrp.com	These would be at the canopy but none are shown on the drawings. Any "Z" girts would be provided as needed by the Metal Panel contractor.

#	Subject	Question	Official Response
Prebid RFI 011			
ADD 1-BP 4 - Prebid RFI 012	Scope Clarification	1. Is the clock contractor responsible for providing the power pigtails to the awarded Electrical contractor? Ron Mielecki, Electromedia, rmielecki@electromediainc.com	1. Yes the clock contractor is responsible for providing the pigtails for the electrical contractor.
ADD 2 - BP 4 - Prebid RFI 006	Substitution Request 002	Request for Playcraft equipment to be approved as an equal for the Playground Equipment. Karmen Posthumus, Play Environments Design, karmenp@playenviro.com	Playcraft is approved as equal
ADD 2 - BP 4 - Prebid RFI 009	Substitution Request 003	Request to have Victaulic couplings, fittings, and valves allowed on the hydronic piping and domestic water piping systems. Division 22 – Plumbing: 22 1116 Domestic Water Piping – I would like this verbiage added as an option under Aboveground Domestic Water Piping. “Grooved Joints: Assemble joints with grooved end pipe or grooved end tube coupling housing, gasket, lubricant, and bolts according to coupling and fitting manufacturer’s written instructions.” Division 23 – HVAC: 23 2113 Hydronic Piping – I would like this verbiage added as an option under Aboveground Hydronic Piping. “Schedule 40 steel pipe; grooved, mechanical joint coupling and fittings, and grooved, mechanical joints.” Blake Simon, Victaulic, Blake.Simon@victaulic.com	This is not accepted but may be presented as a voluntary alternate for review. Per client direction, grooved piping systems are notallowed on domestic water and hydronic systems.K. Beckstrom 06/08/2023
ADD 2 - BP 4 - Prebid RFI 010	Substitution Request 004	Request approval to quote the attached as equal to, or an acceptable alternate to the specified products listed in the specifications or on the plan schedules. Dick Vredevoogd, Balfrey & Johnston, dickv@balfrey-johnston.com	Please submit as a voluntary alternate.K. Beckstrom 06/08/2023
ADD 2 - BP 4 - Prebid RFI 013	Grooved Pipe & Fittings	Will grooved pipe and fittings be accepted on the heating and chilled water piping? The spec states 2-1/2” and larger needs to be welded. There is a mention of grooved fittings under the pipe joint construction. The valve spec allows grooved valves in the valve specification. Ken Pluta, A1 Mechanical Contractors, kpluta@a1refrig.com	This is not accepted but may be presented as a voluntary alternate for review. Per client direction, grooved piping systems are not allowed heating and chilledwater systems. Specifications will be updated to reflect this in future addendum.K. Beckstrom 06/08/2023
ADD 2 - BP 4 - Prebid RFI 014	Substitution Request 005	Request to add Castle Metal Products as an acceptable fabricator. They have the capabilities and expertise to complete the radius MCM panels as indicated in the plans on this project. Castle Metal Products has vast experience manufacturing metal composite material wall panels with millions of square feet of wall panels fabricated. The Castle Metal Products RS-400 would provide an equal aesthetic and would be fabricated with material from the manufacturers listed in the spec with a finish to match the architect’s desired color and warranty. In addition, the Castle Metal Products RS-400 system meets and exceeds the specification by passing the following additional panel assembly performance tests: Air Leakage: ASTM E283 Structural: ASTM E330 Water Penetration - Static: ASTM E331 Water Penetration – Dynamic: AAMA 501.1 Pressure Equalization: ASTM E1233 Pressure Equalized Rainscreen: AAMA 508 Drained and Back Ventilated: AAMA 509 Fire: NFPA 285 Camryn Castle, Dynamic Enclsoure, cam@dynamicenclosure.com	Please submit as a Voluntary AlternateM. Rossio 6/12/23
ADD 2 -BP 4 - Prebid RFI 015	Tech Cabinet	Is there a specification, model number, or product data for the tech cabinet that is called out in Café 180?	See detail on sheet T422. Middle Atlantic DWR-18-22PD Cameron Drake
ADD 2 - BP 4 - Prebid	Monument Sign	Drawing A111 does not contain information for a monument sign. Is the new monument sign part of this bid package? Will the existing monument sign have to be moved? Larry Gerken, Visual Entities, lgerken@visualentitiesinc.com	TowerPinkster will be working with OAK to provide an allowance for a new monument sign in thebid package. The existing concrete/masonry monument sign shown on CD 100 is to be demo'd.M. Rossio 6/12/23

#	Subject	Question	Official Response
RFI 016			
ADD 2 - BP 4 - Prebid RFI 017	Substitution Request 006	Request to add Duro-Tuff 60-Mil Membrane to the approved list. Nick Prezzato, Superior Services RSH, Inc, nick@superiorservicesrsh.com	Provide as a voluntary alternate.M. Rossio 6/12/23
ADD 2 - BP 4 - Prebid RFI 018	Interior Signage	Will the interior signage be included in this bid package? Larry Gerken, Visual Entities, lgerken@visualentitiesinc.com	Interior signage will be out at a later date.
ADD 2 - BP 4 - Prebid RFI 019	Steel Detail Clarification	Steel beam legend shows collector connections indicated by a large black dot. What is the expected design of collector connections at masonry bearing locations and beam to column locations? Please provide detail to follow. Scott Bruce, Van Dellen Steel, sbruce@vandellensteel.com	For steel beam to column connection, please refer to sheet note 9 in detail 1/S520, starting "At drag connections, provide additional column of bolts beyond number required per details". Similar note is provided at other details on the same sheet. For steel beam to masonry connection, please refer to detail 2/S511. TM (TT) - 6/14/2023
ADD 2 - BP 4 - Prebid RFI 020	Glass & Glazing for Wood Doors Clarification	Specifications 081416 Flush Wood Doors note that Wood Doors are to be factory glazed. We have been informed by the Wood Door Manufacturer that several of the Glass Types (i.e. FPSG-1, FPSG-3, SG-1) is not available from the factory. Please review and clarify glass requirements for all Wood Doors as noted on the Door Schedule. If the various “special” glass is indeed required (i.e. ½” School Guard SG4, 1.125” Bullet Resistant Laminated, 1 1/8” Viracon IG Laminated, etc.) the Wood Doors cannot and will not be factory glazed. All glass and glazing will need to be supplied and installed by Bid Category #18 Aluminum, Glass & Glazing. Tom Roberts, S.A. Morman & Co., troberts@samorman.com	All glazing in the wood doors will be by BC 18 - Aluminum, Glass, and Glazing.
ADD 2 - BP 4 - Prebid RFI 021	MCM-1 Color Clarification	The color is called out as two different things on the elevations. MCM-1 Clear Anod. & MCM-1 Dark bronze. (The Spec calls out Clear Anod.) REF sheet - A 301 Could you please let me know what color is being used? Alex Santiago, MetalTech Building Specialists, alex@metaltech.com	MCM-1 is to be Clear Anod. Elevations on A301 to be updated in Addendum No. 2.M. Rossio/AC 6/12/2023
ADD 2 - BP 4 - Prebid RFI 022	Door Operators	Can you please clarify who is providing and installing the door operators? Matt Hazelhoff, Hazelhoff Builders Inc., matt@hazelhoffbuilders.com	All door operators are provided by BC 16: Doors, Frames and Hardware and all will be installed by BC 18: Aluminum, Glass & Glazing. Raceways and power are provided by BC 39: Electrical.
ADD 2 - BP 4 - Prebid RFI 023	Curved Coping	The distributor of the MCM panel is unable to provide the curved coping as shown in drawing A-111 . If we sourced a curved coping from a different manufacture the metal color would likely be different. Would we be able to segment the coping cap? Cortney Chick, Advanced Construction Group Inc., cortneyc@acongrp.com	Revised detail to metal fascia in lieu of coping. Fasciato be curved.M. Rossio 6/14/23
ADD 2 - BP 4 - Prebid RFI	Waterplace Fireplace	Is there a specification for the waterplace fireplace shown in detail 12/I422? Matt Hazelhoff, Hazelhoff Builders, Inc., matt@hazelhoffbuilders.com	Basis of Design - Provide NZW72F Netzero Single-Sided Firebox (AA-11-05375), Media "black glass", Liner "black Glass", Flame Color - Natural Orange, with Safety Screen. - https://netzerofire.com/netzero-resources/Waterplace Resources - Fireboxes - NZW72F Single-Sided.Coordinate with

#	Subject	Question	Official Response
024			Mech (P101A/B) and Elect. (E101A - noted as FP-1).M. Rossio 6/12/23 Retailer: BUILDER'S FIREPLACE COMPANY - 521 West Main St., Lowell, MI, 49331 - 616-897-0848HEAT N SWEEP - 2041 W Grand River Avenue, Okemos, MI, 48864 - 517-349-2555
ADD 2 - BP 4 - Prebid RFI 025	Door Hardware Clarification	Some of the hardware sets have cylinders by Owner, other sets list Sargent Cylinder and GMK Keying. Please clarify who is to supply the cylinder and keying on this project. Tim Ruster, SAHR, tjr@teamsahr.com	Exterior: ASSA cylinders provided by Portage Public Schools Interior: Sargent XC to match existing Portage Public Schools GGM System provided by hardware supplier. JC/M. Rossio 6/14/23
ADD 2 - BP 4 - Prebid RFI 026	Substitution Request 007	Request the approval of the SL-15 aluminum storefront doors. Special-Lite is approved in the spec for the aluminum framing but the aluminum doors. Special-Lite's SL-15 exceeds the thermal performance of the specification without being thermally broken. The spec indicates that the door construction should be made with "high-performance plastic connectors separate aluminum members". The thermal performance of the SL-15 is superior to some of those specified as well. Craig Mester, The Eisen Group, cmester@eisengroup.com	Refer to Add. No. 2. Entrance Door Systems 08 4113 2.4 A. Stile-and-Rail Entrance Doorsto be removed from specifications. Doors 107B, 112C, and 114D to be revised to FRPEntrance Doors.M. Rossio 6/14/23
ADD 2 - BP 4 - Prebid RFI 027	Anchor Bolt in CMU Wall	Detail 11&12/S601 show a bent anchor bolt embedded in CMU wall supporting deck relief angle. This installation method is not particularly affective. Should these anchors be bid as epoxy, wedge, or screw type anchors? Scott Bruce, Van Dellen Steel, sbruce@vandellensteel.com	Base bid drawings shall be per design intent indicated on the structural drawings. Epoxy, wedge, and screw anchors may be considered as an alternate for the purposes of pricing/ bidding. Any alternates to be fully evaluated by TT as a substitution request submitted by the awarded contractor. TM(TT) - 6/14/2023
ADD 2 - BP 4 - Prebid RFI 028	Door Clarification	Opening 151A is noted on the Door Schedule as a STC42 Wood Door Type FG2. Opening 151B is also noted as a STC42 Wood Door Type FG2 with 45 Minute Fire Rating. I have been told by all of the approved manufacturers that they are unable to provide STC42 with a Type FG2 Door, they cannot provide a 45 Minute Fire Rating and they cannot provide the glass as specified. Please clarify as soon as possible how you would like these two Openings priced/manufactured? Tom Roberts, S.A. Morman & Co., troberts@samorman.com	Doors 151A and 151B - revise door type to "F" in lieu of "FG2". Maintain STC42 rating. Doors to be updated in Add. 2 as noted.M. Rossio 6/12/23
ADD 2 - BP 4 - Prebid RFI 029	Masonry/ Miscellaneous Metals Scope Clarification	Will OAK provide a winter allowance for all masons to carry in their bids. Who is responsible for the supplying and installing of the fero fast brackets and steel angles as indicated on detail 4/S 605. Who is responsible for the supplying and installing the thermally broken support bracket called out on Detail 3/S 605. The note refers to the architectural plans, I am not seeing these on the architectural plans. Joe Wiseman, JK Masonry, Inc., joe@jkmasonryinc.com	1. No, O-A-K will carry the winter allowance. 2. BC 09 - Masonry will furnish and install the Fero Tie System. BC 11 - Miscellaneous Metals will furnish angles to the mason for install. 3. BC 09 - Masonry is responsible for supplying and installing the thermally broken support bracket.
ADD 2 - BP 4 - Prebid RFI 030	Fero System Shelf angle thickness	Reference detail 4/S605 refers to a 3/4" continuous shelf angle. Just want to verify if that is the correct thickness?	Please use 3/8" angle for the purpose of the bid/pricing, detail will be updated. TM (TT) 6/14/2023
ADD 2 - BP 4 - Prebid RFI 031	Joist Size	There appears to be a significant amount of 12k joists and some 14k joists on this project. Vulcraft no longer produces these sizes. The joists will be quoted as 16ks. Do we need to make any adjustments on ceiling heights and duct clearance? Caleb Hopping, Builders Iron Inc., caleb.hopping@builderiron.com	Ceiling heights and duct elevations are finalized and fully coordinated. Base bid drawings shall be per design intent indicated on the structural drawings if said joists are available by other manufacturer and meet SJI specifications. If deeper steel joists are to be considered, further cross-discipline coordination will be required. Any alternates to be fully evaluated by TT as a substitution required submitted by the awarded contractor. TM (TT) - 6/14/2023

#	Subject	Question	Official Response
ADD 2 - BP 4 - Prebid RFI 032	AISC Certified	The steel spec calls for the fabricator to be AISC certified. Will this specification requirement be waived? Ron Paridee, Division 5 Metalworks, rparidee@d5m.net	No, this requirement will not be waived. Fabricator to be AISC certified. TM/M. Rossio 6/15/23
ADD 2 - BP 4 - Prebid RFI 033	Substitution Request 008	I am submitting Alfrex FR Metal Composite Material for consideration as an acceptable equal to the specified products. We are equal to the other domestic MCM manufacturers, Alucobond, Alpolic, Reynobond, and Alucoil since: We use the same aluminum alloy, PPG paints, fire-resistant core type, and manufacturing process. We manufacture the same standard product thicknesses, widths, and lengths We provide the same finish warranties and product performance warranties We are fully tested and product compliant to the same North American building code requirements. We have passed the same required fire performance tests for the USA and Canada. We all only manufacture MCM panels and supply those panels to the same customer base. It is that customer base which supplies their own proprietary installation systems and final fabricated panel assembly. Our manufacturing plant and global headquarters is located in Buford, Georgia USA. For review I have attached a digital submittal package containing a request for substitution form and supporting documentation, including our ICC-ESR report and project references. Please note that we are typically more price competitive since we manufacture our fire-resistant core material in house, and extremely competitive on custom colors. For additional information, please visit our website at www.alfrexusa.com Camille Knezevich, Alfrex, camille@alfrexusa.com	Provide as Voluntary Alternate. M. Rossio 6/14/2023
ADD2 - BP 4 - Prebid RFI 034	Paging Clarification	We are requesting clarification on the reference to “…enable alert notification from each classroom…”. We interpret this to imply that each Lightspeed classroom amplifier shall provide the ability to initiate a “call-in” function and alert the system that a call has been placed from a specific classroom with system annunciation by specific room number/name either via the administrative console or the optional digital display. Please confirm that this is the intended function of the Lightspeed integration with the Carehawk system. "NOTE: INTEGRATE CONTACT CLOSURES FROM LIGHTSPEED AUDIO SYSTEM AMPLIFIER TO ENABLE ALERT NOTIFICATION FROM EACH CLASSROOM AS WELL AS LOCAL AUDIO MUTE DURING PAGES" Spec Section: 27 5123.50 Drawing #: T406-Paging & Bell Riser Diagram-Typical. Isaac McClelland, Buist Electric, imcclelland@Buistelectric.com>	Yes, this means that each Lightspeed classroom amplifiershall provide the ability to initiate a "call-in" function to theCareHawk system.Cameron Drake
ADD 2 - BP 4 - Prebid RFI 035	Casework Scope Clarification	Can you confirm that the specialty corner bookcases are to be included in BC 31 - Casework? Terry Edewaard, Architectural Systems Group LLC., terry@asgllc.org	This is correct. This is included in BC 31 Casework scope of work.
ADD 2 - BP 4 - Prebid RFI 036	Termite Control	Is termite control required? If so please provide a specification. John Kakoczki, Earley & Assoc., jkakoczki@earleyassoc.com	Yes - refer to specification section 31 3116 Termite Control. A revised spec section will be provided in add. no. 2 to clarify information with spec. M. Rossio 6/15/23
ADD 2 - BP 4 - Prebid RFI 037	Concrete/ Masonry Scope Clarification	1. Is Bid Category No. 6: Concrete responsible for grouting "beam pockets"? 2. Is Bid Category No. 6: Concrete responsible for calking exterior construction and control joints? 3. Is Bid Category No. 7: Polished concrete pouring their own concrete floors?	1. BC 06 - Concrete is responsible for base leveling plates. BC 09 - Masonry is responsible for grouting beam pockets. 2. Yes, Bid Category 6: Concrete is responsible for caulking the exterior construction and control joints. 3. Yes, Bid Category 7: Polished Concrete is responsible for pouring their own concrete.
ADD 2 - BP 4 - Prebid RFI 038	Sink Tag	It appears the sink in Learning Studio 252 is not tagged. Please update. Ken Pluta, A-1 Refrigeration, kpluta@a1refrig.com	There is no sink in Learning Studio 252. Plumbing drops in shared wall betweenLearning Studio 252 and Learning Commons 240 serve sink SK-1 located inLearning Commons 240.K. Beckstrom 06/14/2023
ADD 2 - BP 4 - Prebid RFI	Waste Piping	There is no above ground waste piping shown to the 2nd floor fixtures, not in the gang restrooms P000A/P301 - The urinals in 115 do not have water or waste to them. Was the plan to have the chase wall extend further to include them? Ken Pluta, A-1 Mechanical, kpluta@a1refrig.com	1. Refer to 2/P301.2. Revised chase layout to include urinals in Men's 119. Refer to Add. No. 2.- K. Beckstrom 06/15/2023

#	Subject	Question	Official Response
039			
ADD 2 - BP 4 - Prebid RFI 040	Flooring Clarification	Can you please confirm that CPT-1 wraps down the face of the carpeted platforms? I am confused between the use of the base and not having a detail regarding termination of the carpet on the platform edges. Justin Roberts, Great Lakes Flooring Specialists, justin@greatlakesflooring.net	Yes, in the gathering stair carpet wraps tread andriser where indicated - refer to details 13A and 13BI 422 for required nosing and trims.
ADD 2 - BP 4 - Prebid RFI 041	Plumbing Plan Clarification	On sheet P101D, there is a callout for SK-6 on the East wall of the Café. I can't find SK-6 in the specifications. Ken Pluta, A-1 Mechanical, kpluta@a1refrig.com	This sink is SK-5 in the specifications. Refer to Add. 02 for drawing correction.- K. Beckstrom 06/15/20203
ADD 2 - BP 4 - Prebid RFI 042	LPDA/Painting Scope Clarification	It appears that the wallcovering spec is in the LPDA scope currently. Can you please confirm this is correct? Jonathan Fisk, Sobie Company Inc., jfisk@sobiecompany.com	No, Spec section 09 7200 will be removed from BC 19 - LPDA and will added to BC 20 - Painting.
ADD 2 - BP 4 - Prebid RFI 043	Waterplace Fireplace 02	Who is responsible for suppling and installing the waterplace fireplace shown in detail 12/I422? Matt Hazelhoff, Hazelhoff Builders Inc., matt@hazelhoffbuilders.com	BC 12 - General Trades is responsible for suppling and installing the waterplace fireplace.
ADD 2 - BP 4 - Prebid RFI 044	Caulking Clarification	1. Who is responsible for caulking drywall and masonry? 2. Who is responsible for caulking casework, countertops and solid surfaces?	1. BC 15 - Joint Sealants is responsible for caulking at transitions from drywall to masonry. 2. For casework, countertops and solid surface the respective trades are responsible for caulking their own work. (BC 12 - General Trades, BC 31 - Casework, BC 32 - Educational Casegoods)
ADD 2 - BP 4 - Prebid RFI 046	AV7 Riser	Bid Category No. 40 – AV7 Riser on T422: A gym subwoofer is shown connected to an AV decoder, linked by a cable type “F”. I suspect that this box is a copy/paste error and is not applicable. Please clarify. Isaac McClelland, Buist Electric, imcclelland@Buistelectric.com	Yes, this is a copy/paste error. The subwoofer item and cable are removed in Addendum #2. Cameron Drake
ADD 2 - BP 4 - Prebid RFI 049	BC 06, BC 27, BC 36 Scope Clarification	1. Please clarify who is to provide the sub slab insulation related to Alternate 3? 2. Please confirm the setting of all FSE equipment is provided by BC No. 27 (Food Service Equipment) 3. Please clarify if BC 36 (Mechanical/Plumbing) is to provide the exterior ACCU pads. Given the size and complexity of these pads, does it makes sense for BC 06 (Concrete) to provide and install this? 4. Is it acceptable for the CM to provide a temporary heating allowance for all BC 36 (Mechanical/Plumbing) bidders? Eric Camp, R.W. LaPine Inc., ecamp@rwlapine.com	1. BC 06: Concrete is to provide the sub slab insulation. 2. Yes BC 27: Food Service Equipment is setting all of their own equipment. 3. BC 06: Concrete to provide exterior ACCU pads. 4. No, BC 36: Mechanical contractor is responsible for the temporary heating cooling and ventilating as addressed in the General Requirements section 01500.1.
ADD 2 - BP 4 - Prebid RFI 050	Substitution Request 010	Request to approve the attached product as an approved substitute. https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtQ/iWUAfEy5HsU2lHPf4bxA13ufp4IGdvJFsdZzOVyQebc https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtR/mH5KprDG.HzgrYyff8LY6SrxSsrCXdk2P794z04mftI https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtP/GvZsV5DFq7jGvnPITqdJ8sfsLc.oOfWx20TiLyFzvYk https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtO/WvbLT.7QTn1x4AMVpmUrMr_vjH1B19hz2kg_LLn1wN4 https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtM/wcWa8M56fYIOKixlN8VLMgXz85CJJPq7Y5KDv9nqR5U https://scrantonproducts.my.salesforce.com/sfc/p/#37000000PwRN/a/Ho000001ULtL/	Provide as a voluntary alternate. M. Rossio 6/15/23

#	Subject	Question	Official Response
		iwV2jN9OZU1Hwh.gZVE41TUmeYhbnvkBDisYWe7ujpo Erik Muir, Scranton Products, erik.muir@azekco.com	
ADD 2 - BP 4 - Prebid RFI 051	Substitution Request 011	Request to have Fulton condensing hydronic boilers to be added as an approved equal. Craig Mulder, Process Engineering & Equipment Company, cmulder@pecopage.com	Please submit as a voluntary alternate.K. Beckstrom 06/15/2023
ADD 2 - BP 4 - Prebid RFI 052	Electrical Scope Clarification	1. Spec Section 20 0500-1 under Scope of work #3 Calls for a cash allowance to be included for utility installation charges. What dollar amount should be included for this allowance? 2. Spec Section 20 0500-1 Under Scope of Work #9 calls for electrical bid category to provide the fire alarm system. This differs from OAK's index of bid categories breakdown. Is the electrical bid category to provide and install the fire alarm system? 3. What bid category is to provide the Hand Dryers? 4. Alternate #2 Calls for a VESDA smoke sampling system to be provided and installed for the Gym. What bid category is to provide and install this system? Andrew Clemens, Circuit Electric, Andrew.Clemens@circuitelectric.com	1. O-A-K will carry the referenced allowance. 2. Direction in the CM Project Manual takes precedence BC 45 - Fire Alarm is responsible for fire alarm. 3. BC 26 - Toilet, Bath and Laundry Accessories is responsible for the hand dryers. 4. BC 45 - Fire Alarm is responsible for providing and installing the VESDA system.
ADD 2 - BP 4 - Prebid RFI 056	Technology Sheet Clarification	Plan sheet T421: Connections to Carehawk alert notification will require home runs to Carehawk SS32, is the intention that the AV contractor will run these wires? Plan sheet T421: where will FACP alarm contacts be located? Plan sheet T422 shows an IS6-115 subwoofer connected to an AV Decoder, this will not work. Should this IS6-115 be deleted? Brian Rotman, Parkway Electric, brian.rotman@parkway.us	1 - The AV contractor will run wire from the TV-A location to a splice point within the room served. The homerun from classroom to SS-32 location for Carehawk notification will be part of the scope of this project. 2 - The FACP panel and contacts are located in room 'Reception 100'. 3 - Correct, this has been removed as part of Addendum #2. Cameron Drake
ADD 2 - BP 4 - Prebid RFI 057	Substitution Request 013	Request to approve the attached United Enertech product as an equal. 23 3000: Air Duct Accessories Manual Volume Dampers Combination Fire & Smoke Dampers & 08 9119 Fixed Louvers Chris Schut, Schut Mechanical Sales, chris@schutmechanicalsales.com	Please submit as a voluntary alternate.K. Beckstrom 06/15/2023
ADD 2- BP 4 - Prebid RFI 058	Communications Conduit	ES 101 Will the new communications conduit that goes towards the NE run all the way into the telecom room D140 inside the building or does it stop at the outside wall? If it does run all the way into the building is it under the floor? Bob O'Brien, Parkway Electric, bob.obrien@parkway.us	Yes, this conduit runs all the way into D140 and it is underground conduit that stubs up into D140. Thank you, Eric Jones 6/16/2023
ADD 2 - BP 4 - Prebid RFI 061	Substitution Request 014	Request to add the attached hand dryers (Speedflow Plus) as an approved equal. Samantha Layedra, Sani Flow Corp, slayedra@saniflowcorp.com	Provide as a voluntary alternate. M. Rossio 6/15/23
ADD 2 - BP 4 - Prebid RFI 068	Scope Clarification	1. Which bid category has the casework in Café 180? 2. Which bid category has the solid surface wall cap in detail 8G/I402? Tim Lasher, Clark Contracting Services, tlasher@clarkcc.com	1. Bid Category 31 - Casework; is responsible for casework in Café 180. 2. Bid Category 12 - General Trades; is responsible for the solid surface wall cap detail in 8G/I402.
ADD 3 - BP 4 - Prebid RFI 045	Audio Visual Systems & Public Address Systems Scope Clarification	Bid Category No. 40 – Audio Visual Systems scoping (page 29) indicates to provide "Complete Audio Video Systems related work as shown on the drawings". Drawings indicate cable type "A" which is Cat6 cabling (the application it is used for is truly data transmission and this cabling would typically be provided by the Structured Cabling Contractor). Since each bid category can be bid on separately, in whose scope is cable type A? (Note: Bid Category No. 43- Structured Cabling Systems indicates "Low Voltage Data Cabling Systems" on page 31 of the project manual). Please clarify. Bid Category No. 40 – AV[#] Riser diagrams on T421 show cable type "E" with a tag of "BYO", defined as "wire or cable by others". Please clarify which whether this cabling by others is within the scope of any bid category in this bid package or whether this cabling will be part of the "separate contract" referenced in the note box above the cabling lines. Bid Category No. 42 – Public Address	Bid Category 43 - Structured Cabling Systems is responsible for all of the referenced.

#	Subject	Question	Official Response
		Systems scoping (page 30) has similar situation to the previous AV question. However, in this case the Cat6 cabling is not used for data transmission, as the specified paging system uses this cabling for analog use. However, it is Cat6 horizontal cable runs. Please clarify scope responsibility. Isaac McClelland, Buist Electric, imcclelland@Buistelectric.com	
ADD 3 - BP 4 - Prebid RFI 047	Substitution Request 009	Request to be bid Omnisport Activ+ as an approved equal for this project. Emily Wolf, Spec Athletic, emily@specathletic.com	Substitution request was not accepted.
ADD 3 -BP 4 - Prebid RFI 059	Structured Cabling Scope Clarification	ES 101 Should Scope 43 provide and install a cable of some type to the camera on the light pole described by Note 2? Bob O'Brien, Parkway Electric, bob.obrien@parkway.us	Yes, BC 43 - Structured Cabling Systems should provide and install the cable for the camera.
ADD 3 - BP 4 - Prebid RFI 060	Gypsum Ceiling Perimeter	On A212 they show the enlarged Café RCP. For the perforated gypsum ceiling, I am curious what the architect has in mind for the perimeter, Is there an upturn and how high? Does he want an axiom trim? I do not see a cut through detail that gives me that vital information. Bill Ritsema, Ritsema Associates, ritsemab@ritsema.com	At perforated gypsum board clouds, provide 4" height silver metal edge axiom trim. Refer to specification section 09 5113 2.6. Refer to attached updated drawings: A201D, A212. Updated paint color of perforated gypsum board clouds. - A.Carmona 06.16.2023
ADD 3 - BP 4 - Prebid RFI 062	I.T. Licensing and Integration Clarification Items	1. If sufficient portage licenses are not available on the existing controller, should a license expansion be provided? 2. Is integration required between the video surveillance and access control systems? 3. The access control hardware devices section of the bid spec specifies different hardware devices compared to drawing T441. For example, HID multiclass RFP 15 and RP40 readers are on the specs, but the bid plans specify HID Prox 5355 and 5365 readers. Other examples include differences in request to exit devices and door position switches (Bosch and Assa Abloy vs. Schlage). Should the bid specs or bid plans be followed to determine specified device types? Jamie Metcalf, Buist Electric, jmetcalf@buistelectric.com	1. FOR BIDDING PURPOSES, ASSUME THERE ARE NO SPARE LICENSES. ALL LICENSING SHOULD BE PROVIDED AS NEW. 2. NO INTEGRATION BETWEEN THE ACCESS CONTROL SYSTEM AND CAMERA SYSTEM IS DESIRED. 3. DRAWING SHEET T441 IS THE AUTHORITATIVE SOURCE. USE THE PART NUMBERS LIST THERE. THIS OVERRIDES ANY CONFLICTS ON OTHER SHEETS OR WITHIN THE SPECS.
ADD 3 - BP 4 - Prebid RFI 064	BC 43 - Structured Cabling System Scope Clarifications	Can you confirm the category 43 communications is responsible for grounding only in the IT rooms? Not the backbone grounding system? Bob Groteler, Town & Country Group, bob.groteler@tcgroupinc.com	1. Yes BC 43 Structured Cabling Systems is responsible for grounding the IT rooms. Backbone will be by BC 39 Electrical.
ADD 3 - BP 4 - Prebid RFI 065	Structured Cabling Clarification Items	1. Print T001 General notes #1 & #7 Does this apply being its new construction? 2. Print T401 faceplate part numbers call for plastic. Is this correct or stainless steel to match electrical? 3. Print T401 Data cabling schedule. Is calling for riser rated wire. Is this correct or is it plenum? Bob Groteler, Town & Country Group, bob.groteler@tcgroupinc.com	1. THESE NOTES APPLY IN AS MUCH AS THE EXISTING BUILDING NEEDS TO REMAIN WORKING UNTIL THE NEW BUILDING IS FULLY FUNCTIONAL. THEN THE FIBER CAN BE REWORKED PRIOR TO THE EXISTING BUILDING BEING DEMOLISHED. 2. THE INTENT IS TO MATCH (MATERIAL AND COLOR OF) ELECTRICAL FACEPLATES. THE PART NUMBERS ARE THERE TO ENSURE THOSE SPECIFIC FACEPLATES ARE USED IF PLASTIC IS WHAT IS REQUIRED. 3. THERE ARE NO PLENUM SPACES IN THE BUILDING. RISER-RATED CABLING IS WHAT IS DESIRED.
ADD 3 - BP 4 - Prebid RFI 072	Fire Alarm System	1. Drawing M303 shows multiple doors that need to either open or close as part of the system operation. There are 2 sets of double doors on the first floor that lead from the Cafeteria to the Gym with no control notes, 1 door in the Kitchen receiving area (leads into kitchen) with no control notes, Servery Roll Door has no control notes, doors to Library, Art, Room and Office with no control notes, 2nd floor door to ESI Studio (north of stairs) with no control notes. Please advise. 2. Will all doors, roll doors, louvers, required to open or close have limit switches to monitor door position? Please advise. Jeff Bristow, Knightwatch, jbristow@knightwatch.net	1. All referenced doors are to be controlled in the closed position as part of the system operation. 2. Yes, include limit switches.

Owen-Ames-Kimball Co.
300 Ionia NW
Grand Rapids, Michigan 49503
P: 616-456-1521
F: 616-458-0770

Project: 1090-A PPS - A - Central Elementary
8422 S Westnedge Ave
Portage, Michigan 49002
P: 269-323-6100

RFI #BP 4 - Prebid RFI 060: Gypsum Ceiling Perimeter

Status	Open		
To	Kayla Mielke (TowerPinkster (Kalamazoo))	**From**	Anastasia Wojcik (Owen-Ames-Kimball Co. - Kalamazoo) 2700 Stadium Dr., Suite 2 Kalamazoo, Michigan 49008
Date Initiated	Jun 15, 2023	**Due Date**	Jun 18, 2023
Location		**Project Stage**	Bidding
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number	A212	**Reference**	
Linked Drawings			
Received From			
Copies To	Mike Hoeksema (Owen-Ames-Kimball Co. - Kalamazoo)		

Activity

Question

Question from Anastasia Wojcik Owen-Ames-Kimball Co. - Kalamazoo *on Thursday, Jun 15, 2023 at 02:02 PM EDT*

On A212 they show the enlarged Café RCP. For the perforated gypsum ceiling, I am curious what the architect has in mind for the perimeter, Is there an upturn and how high? Does he want an axiom trim? I do not see a cut through detail that gives me that vital information.

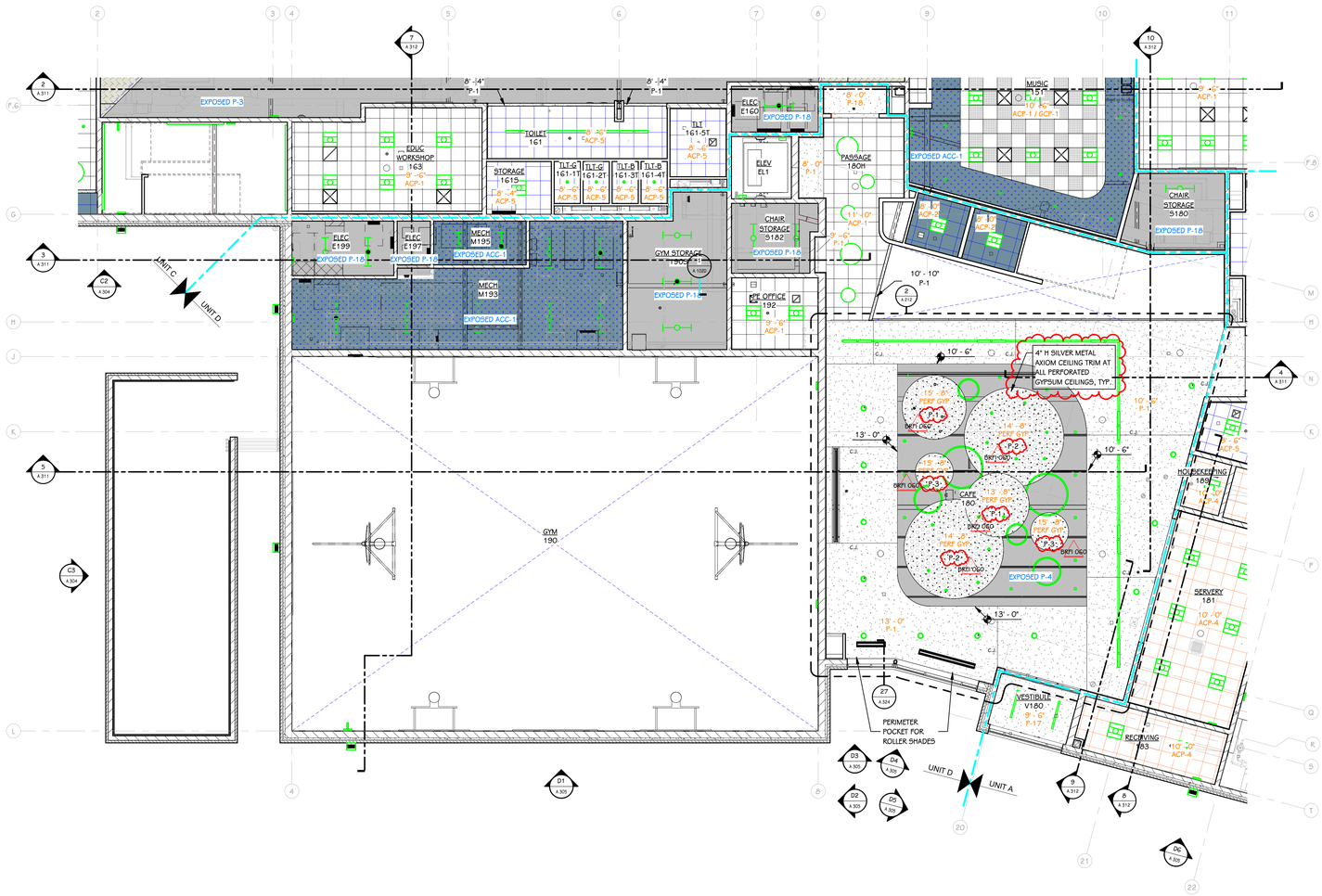
Bill Ritsema, Ritsema Associates, ritsemab@ritsema.com

Awaiting an Official Response

At perforated gypsum board clouds, provide 4" height silver metal edge axiom trim. Refer to specification section 09 5113 2.6.

Refer to attached updated drawings: A201D, A212.
Updated paint color of perforated gypsum board clouds.

- A.Carmona 06.16.2023



FIRST FLOOR REFLECTED CEILING PLAN - UNIT D

1/8" = 1'-0"

REFLECTED CEILING KEY

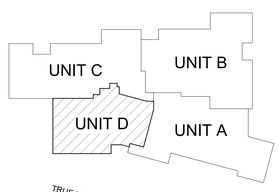
- GYPSUM BOARD
- METAL TRIM TAG (REFER TO CEILING PLANS) — MT01 — METAL TRIM (CEILING) — TRIM HEIGHT
- REFER TO FLOOR PLANS AND G003 FOR WALL TAG INFO.
- ACOUSTICAL PERFORATED GYPSUM BOARD FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-1) 2' X 2' LAY IN
- C.J. - REFER TO PLANS FOR C.J. LOCATIONS WERE REQUIRED
- ACOUSTICAL CEILING PANEL (ACP-2) 2' X 2' LAY IN, CUSTOM COLOR TILE 4 GRID FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-3) 2' X 2' LAY IN, CUSTOM COLOR TILE 4 GRID FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-4) 2' X 2' LAY IN KITCHEN
- ACOUSTICAL CEILING PANEL (ACP-5) 2' X 2' LAY IN TOILET ROOMS
- GYPSUM CEILING PANEL (GCP-1) 2' X 2' LAY IN GYPSUM CEILING PANELS, ONLY WHERE HATCHED MUSIC ROOM
- ACOUSTICAL CEILING COATING (ACC-1) COORDINATING PAINT P-3
- ACOUSTICAL CEILING COATING (ACC-2) COORDINATING PAINT P-4
- TECTUM HIGH-NRC CEILING PANELS NATURAL, 47-3/4 x 96 x 1" FIRE SUPPRESSION COVERS TO BE "WHITE"
- LINEAR METAL CEILING (LMC-1) ALUMINUM WOOD LOOK CEILING FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- SOFFIT WALL METAL PANEL (SWMP-1) FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- EXPOSED PAINTED CEILING REFER TO ELEVATIONS AND DETAILS FOR PAINT EXTENTS
- LIGHTING - REFERENCE ONLY — OR — MECHANICAL - REFER TO MECH. SHEET METAL PLAN

GENERAL NOTES - REFLECTED CEILINGS

1. WHERE CEILING TILE IS LESS THAN 3' AT PERIMETER OF ROOM PROVIDE A CUT 2x4 TILE IN LIEU OF FULL 2x2 TILE AND SMALL PIECE OF TILE OR DOUBLE GRID - MATCH 2x2 FOR STYLE AND COLOR.
2. AT AREAS OF EXPOSED CEILING PAINT ALL STRUCTURE, DUCTWORK, PIPING, CONDUIT, HANGERS ETC., COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING SPECIFICATIONS. REFER TO THE REFLECTED CEILING PLANS AND KEY FOR PAINT COLORS.
3. ALL BULKHEADS TO BE P-17, UNLESS OTHERWISE NOTED.
4. REFER TO ELEVATIONS AND DETAILS FOR REQUIRED CEILING TRIM PROFILES AND FINISHES.
5. REFER TO ELEVATIONS AND FINISH PLANS FOR EXTENT OF WALL PAINTING ASSOCIATED WITH EXPOSED AND ACC CEILINGS.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

CENTRAL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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BRFI 060 — JUN 16, 2023
ISSUED FOR — DATE

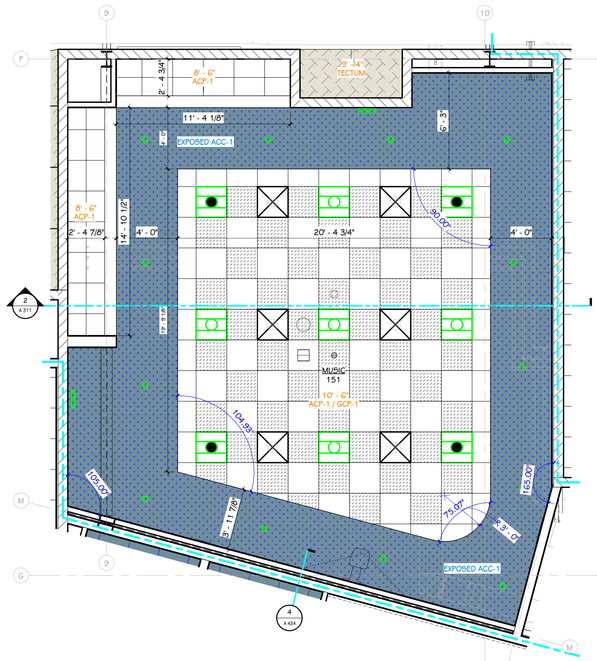
PROJECT TITLE
CENTRAL ELEMENTARY SCHOOL BID PACKAGE 4: CONSTRUCTION

OWNER
PORTAGE PUBLIC SCHOOLS
Portage, Michigan

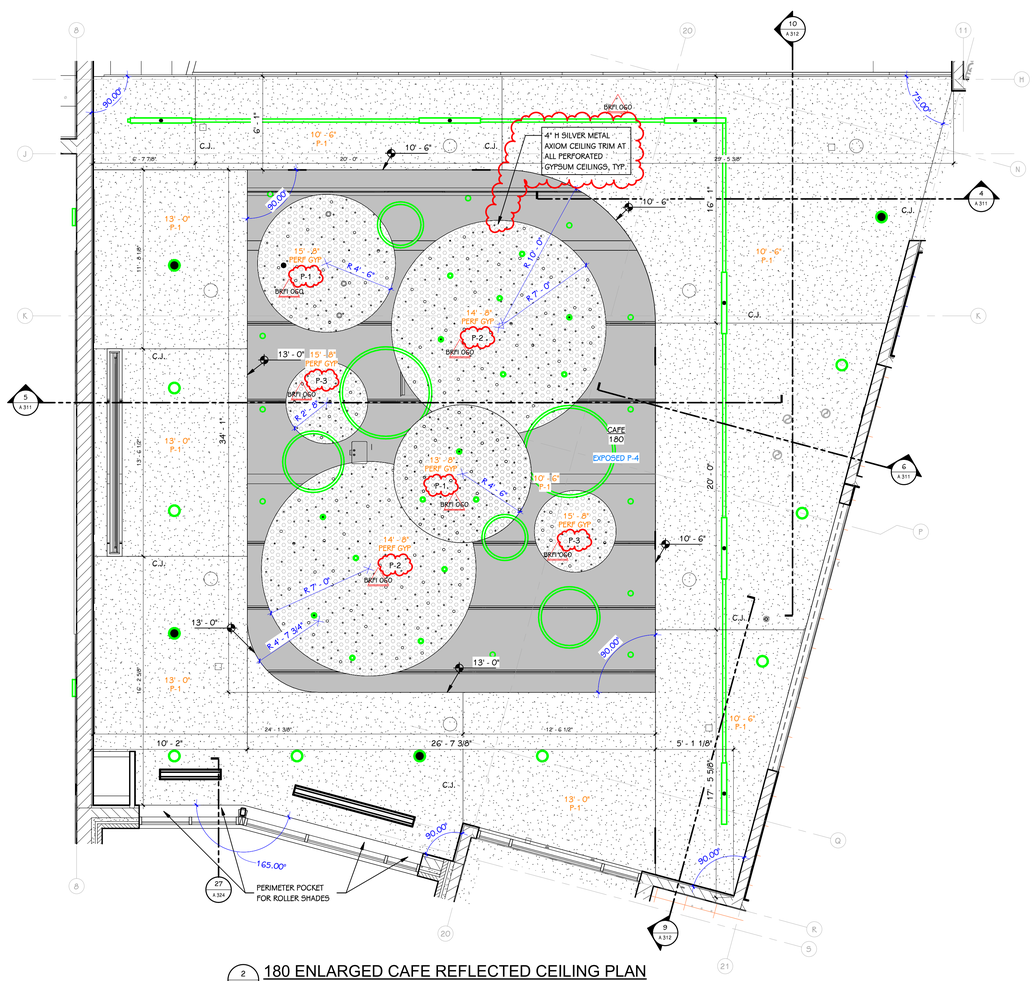
SHEET TITLE
FIRST FLOOR REFLECTED CEILING PLAN - UNIT D

DATE
MAY 17, 2023

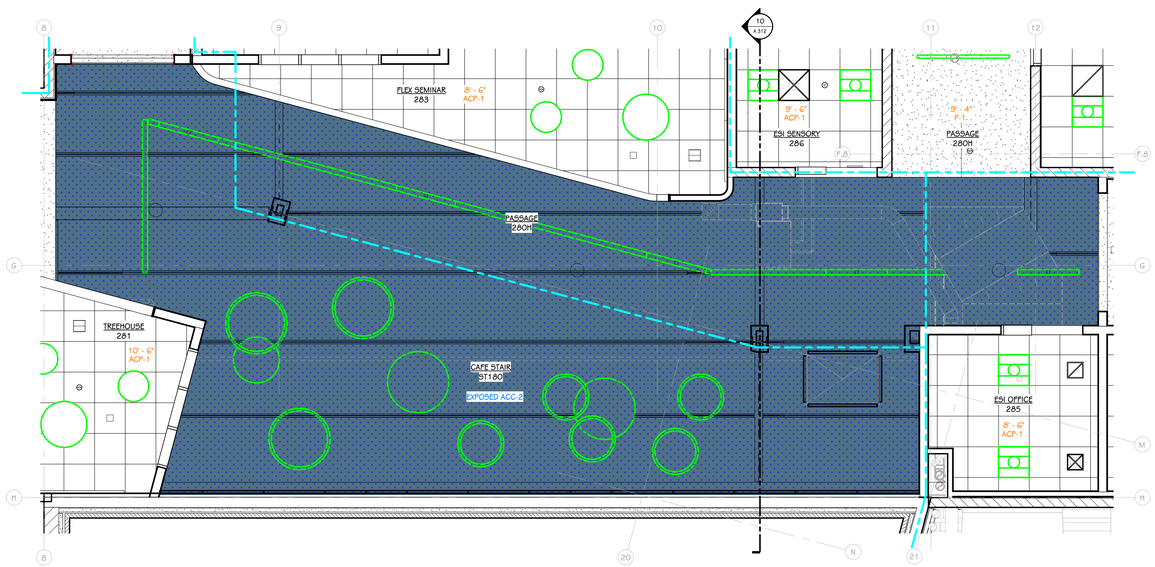
SHEET NUMBER
A 201D
21-237.10



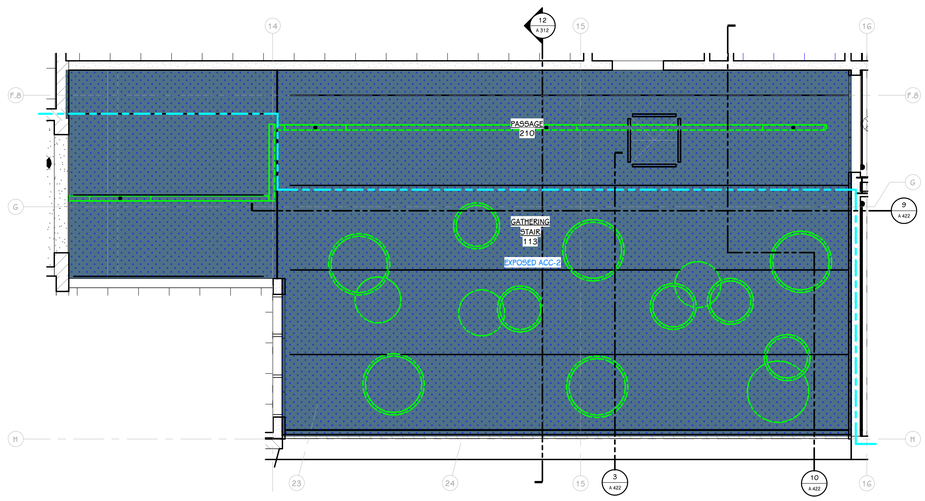
1 A212 151 ENLARGED MUSIC REFLECTED CEILING PLAN
1/4" = 1'-0"



2 A212 180 ENLARGED CAFE REFLECTED CEILING PLAN
1/4" = 1'-0"



3 A212 180 ENLARGED CAFE STAIR REFLECTED CEILING PLAN
1/4" = 1'-0"



4 A212 113 ENLARGED GATHERING STAIR REFLECTED CEILING PLAN
1/4" = 1'-0"

REFLECTED CEILING KEY

- GYPSUM BOARD — METAL TRIM TAG (REFER TO CEILING PLANS): TRIM (CEILING) / TRIM HEIGHT. REFER TO FLOOR PLANS AND G003 FOR WALL TAG INFO.
- ACOUSTICAL PERFORATED GYPSUM BOARD — FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-1) — 2' X 2' LAY IN. C.J. - REFER TO PLANS FOR C.J. LOCATIONS WERE REQUIRED
- ACOUSTICAL CEILING PANEL (ACP-2) — 2' X 2' LAY IN, CUSTOM COLOR TILE 4 GRID; FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-3) — 2' X 2' LAY IN, CUSTOM COLOR TILE 4 GRID; FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- ACOUSTICAL CEILING PANEL (ACP-4) — 2' X 2' LAY IN; KITCHEN
- ACOUSTICAL CEILING PANEL (ACP-5) — 2' X 2' LAY IN; TOILET ROOMS
- GYPSUM CEILING PANEL (GCP-1) — 2' X 2' LAY IN GYPSUM CEILING PANELS, ONLY WHERE HATCHED; MUSIC ROOM
- ACOUSTICAL CEILING COATING (ACC-1) — COORDINATING PAINT P-3
- ACOUSTICAL CEILING COATING (ACC-2) — COORDINATING PAINT P-4
- TECTUM HIGH-NRC CEILING PANELS — NATURAL, 47-3/4 x 96 x 1"; FIRE SUPPRESSION COVERS TO BE "WHITE"
- LINEAR METAL CEILING (LMC-1) — ALUMINUM WOOD LOOK CEILING; FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- SOFFIT WALL METAL PANEL (SWMP-1) — FIRE SUPPRESSION COVERS TO BE "BRUSHED CHROME"
- EXPOSED PAINTED CEILING — REFER TO ELEVATIONS AND DETAILS FOR PAINT EXTENTS
- OR ○ LIGHTING - REFERENCE ONLY
- MECHANICAL - REFER TO MECH. SHEET METAL PLAN

GENERAL NOTES - REFLECTED CEILINGS

1. WHERE CEILING TILE IS LESS THAN 3" AT PERIMETER OF ROOM PROVIDE A CUT 2x4 TILE IN LIEU OF FULL 2x2 TILE AND SMALL PIECE OF TILE OR DOUBLE GRID - MATCH 2x2 FOR STYLE AND COLOR.
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3. ALL BULKHEADS TO BE P-17, UNLESS OTHERWISE NOTED.
4. REFER TO ELEVATIONS AND DETAILS FOR REQUIRED CEILING TRIM PROFILES AND FINISHES.
5. REFER TO ELEVATIONS AND FINISH PLANS FOR EXTENT OF WALL PAINTING ASSOCIATED WITH EXPOSED AND ACC CEILINGS.

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