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Van Buren Public Schools

Tyler Elementary School Secured Entry Renovation

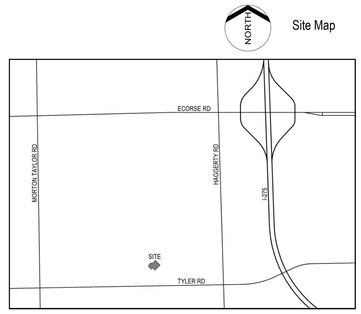
42200 Tyler Rd
Belleville, MI 48111

List of Drawings

Code Information

REFER TO DRAWING LS0.1 FOR LIFE SAFETY AND CODE INFORMATION

Site Map



Registration Seal

Signature
Date

Signature
Date

Signature
Date

Issued for	Issue Date
Design Development	06-24-2024

iDS Project Number

20111-3008

NOTES AND SCHEDULES

Foundation Notes and Schedule

Prepare soil supporting foundations in accordance with recommendations in the geotechnical report

Bottom of all exterior footings must be at least 42" minimum below grade. If interior foundations are left exposed to freezing weather during construction, lower bottom of footing to 42" below grade. Provide frost blocks at all exterior swing doors per detail FN-04 . Bottom of frost block shall match bottom of adjacent footing. Coordinate dimensions in plan with architecture/site drawings to match joints in sidewalks.

The contractor shall coordinate penetrations through footing with MEP (sleeves, locations, elevations...)

The contractor shall safeguard and protect all excavations and adjacent structures, pavements, and utilities. All excavations shall be kept free of water. The contractor is responsible for the design, installation, maintenance, and removal of all shoring, bracing, and dewatering that is required to properly construct the foundations and protect adjacent structures, pavements and utilities.

See foundation typical details for additional requirements

Footing Label Conventions: FS-24T(24")
- footing type, see schedule
- "T" indicates top bars are required
- indicates the non-standard thickness of footing required at this location

label	dimensions		reinforcement
	plan	min. thickness	
FS-24	see plan	26"	(2) #5 bars, top&bot

Slab-on-Grade Notes and Schedule

Place slabs on a 10 mil vapor barrier, on compacted granular fill. all subgrade below slab to be prepared in accordance with recommendations in the geotechnical report

Contractor shall submit control joint layout for architect's approval.

See achitectural for extents and dimensions of all slab depressions including areas depressed for special flooring or entry grating. Maintain slab thickness at depressed slab locations. Contractor to coordinate and provide all slab depressions, housekeeping pads, and pits required by the mep drawings

See slab typical details on S0.3 for more information.

label	total thickness	reinforcing	notes
SL-1	5"	6x6-W2.9xW2.9	typical, locate reinforcing in top half of slab

Bearing Plate Notes and Schedule

Provide 5,000 psi leveling grout bed under bearing plate. Set edge of bearing plate back 1/2" from face of masonry wall. All plates shall be 36 ksi.

Provide a bearing plate at all locations where a steel beam or joist bears on masonry. See framing plans for type required at each location. Provide bearing plate PL-1 unless noted otherwise on plan.

For beams with only (1) end bearing on masonry, provide a welded connection to the bearing plate, as shown in 1/S0.2.

For beams with both ends bearing on masonry, provide a welded connection to the bearing plate at one end (1/S0.2) and a slip connection to the bearing plate at the other end, as shown in 2/S0.2.

After the interior space has become temperature controlled, and the beam installation is complete, fill voids remaining in the bearing pockets with cmu and non-shrink grout.

see MS-14 for typical detail.

label	plan size	plate thickness	embed. studs	notes
PL-1	7" x 9"	1/2"	(2) 1/2" dia. x 6"	long dimension parallel to wall

SUBMITTALS

SUBMITTALS

Stamping of shop drawings by SDI does not approve any alteration or deviation from the construction documents. If alterations, substitutions, and deviations from the construction documents are indicated by the contractor in shop drawings, they are not approved by sdi's stamp or submittal comments. Alterations, substitutions, and deviations should not be included in the shop drawings - they must be submitted as a separate document to SDI for review.

The following items related to the building structural system are to be submitted to the architect in accordance with the requirements of the project specifications:

1) Concrete mix designs and control joint locations

2) Concrete test results

3) Slab joint layout

4) Reinforcing bar shop drawings - footings, walls, piers, & slabs

5) Masonry vertical and horizontal reinforcing bar shop drawings including masonry dowel layout (foundation to wall dowels) provided by the mason to the foundation contractor prior to foundation installation

6) Masonry materials (block, grout, mortar)

7) Veneer ties
- product information
- sealed engineering calculations for all brick cavity conditions

8) Steel joists shop drawings

9) Welder certifications for shop and field welders

10) Structural steel shop drawings (design beam shear reactions plus any specified axial load requirements for connections by be labeled on beam piece sheets)

11) Sharpy V-notch impact test results for steel members or plates 2" or greater in thickness that are CJP welded

12) Steel connections calculations (signed and sealed)

13) Steel deck shop drawings

14) All inspection reports as pertaining to the items listed above

SPECIAL INSPECTION

STATEMENT of SPECIAL INSPECTIONS

The contractor shall coordinate owner-paid, independent inspections meeting all applicable requirements of IBC Chapter 17. For steel see also AISC 360 Chapter N, and for masonry see also ACI 530 Chatper 3.

All inspections shall be documented with written reports and a final report; submitted to the owner and copied to the architect, structural engineer, and building official. Reinspection of deficient work wil be required as necessary to confirm that corrections have been satisfactorily completed.

Continuous Inspection is to be understood as an inspector present during all hours of activity for the given operation, unless stated otherwise.

Periodic Inspection is to be understood as an inspector present sufficient to ensure regular and repeated evaluation, not less than daily, for the given operation, unless stated otherwise.

Soils

Continuous inspection of procedures during placement and compaction of engineered fills.

Periodic confirmation of sub-grade bearing capacities and excavation depths.

Concrete

Continuous testing of slump, air content, and temperature of concrete as well as collection and subsequent testing of cylinders. (Continuous being understood as daily for each mix type and not less than 50% of all batches/truckloads being tested.)

Periodic inspection of the placement of formwork, placement of reinforcing, and curing practices.

Masonry

Periodic inspection, of constructed geometry, voids prior to grouting, mortar joints, reinforcement, anchors, cold and hot weather practices, as well as observation, collection, and subsequent testing of grout prisms.)

Steel

Periodic inspection of completed bolted connnections, welded conections, deck attachments, stud attachments, and related field practices. (Periodic being understood as 10% of completed connections visually evaluated.)

Final inspection of project completeness.

One-time shop inspection of shop practices and welder certificates

STRUCTURAL DEMOLITION

STRUCTURAL DEMO NOTES

1. Material having salvage value shall become the property of the owner unless otherwise directed by the owner. All other material and debris accumulated as a result of demolition shall become the property of the contractor and shall be removed from the premises by the contactor.

2. Furnish, install, and maintain in safe conditions at all times temporary protection required to ensure safety for persons and property during demolition.

3. Prior to the start of demolition work the general contractor shall determine the location of load bearing walls, beams, and columns. No load bearing structural walls, beams, or columns shall be demolished without specific approval from the engineer of record.

4. No structural member or component shall be cut, notched, or otherwise altered unless approved in writing by the engineer of record.

5. The contract structural drawings and specifications represent the finished structure, and do not indicate the method or means of construction.

6. The general contractor or construction manager shall supervise and direct the work and shall be solely responsible for all construction means and methods executed on site.

7. Temporary shoring of load bearing elements shall be designed by the contractor's registered structural engineer (other than the engineer or record).

REFERENCES

All work shall conform to the requirements of the most recent version of the following referenced standards:

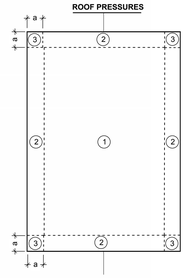
Building Code	2015 Michigan Building Code
Structural Loads	ASCE-7
Concrete	ACI 301 ACI 318: Building Code Requirements for Structural Concrete and Commentary ACI SP 66: ACI Detailing Manual Portland Cement Association "Design and Control of Concrete Mixtures"
Masonry	ACI 530/ASCE 5 ACI 530.1/ASCE 6
Brick	BIA "Technical Notes on Brick Construction"
Steel	AISC 360-10: Specification for Structural Steel Buildings
Welding	American Welding Society AWS D1.1/D1.1M
Steel Joists	Steel Joists Institute "Standard Specifications"
Metal Deck	Steel Deck Institute Specifications
Soils Report	
Constuction Loads	ASCE 37 (unless noted otherwise ASCE 7 (where adjacent to occupied or existing space)

STRUCTURAL LOADS

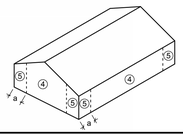
DESIGN LOADS
All loads are subject to modification per requirements of ASCE-7

Risk Category	III
Roof Loading	
Roof Live Load	20 psf
Snow Load	25 psf uniform + drifting
Snow	
Ground snow	Pg = 25 psf
Importance factor	Is = 1.1
Exposure factor	Ce = 1.0
Thermal factor	Ct = 1.0
Flat roof uniform snow load	Pf = 25 psf
Seismic	
Seismic importance factor	Ie = 1.25
Site classification of soil	D
1.0 second spectral response	S1 = 4.8%
0.2 second spectral response	Ss = 9.8%
Seismic design category	B
Seismic-resisting system	Ordinary reinforced masonry shear wall
Response modification factor	R = 2.0
Analysis procedure used	equivalent lateral force procedure
Wind	
Basic wind speed	V = 120 mph
Exposure category	C

ROOF PRESSURES



WALL PRESSURES



COMPONENTS & CLADDING ULTIMATE (LRFD) WIND PRESSURES

Zone	Effective Area Per ASCE 7-10 CH 26 (square feet)	Ultimate Pressure (lbs per square foot)		
		positive	negative	overhang
1 (ROOF)	10	+ 16	-40	n/a
	20	+ 16	- 38	n/a
	50	+ 16	- 36	n/a
	100	+ 16	- 35	n/a
2 (ROOF)	10	+ 35	- 66	- 64
	20	+ 34	- 60	- 64
	50	+ 32	- 52	- 64
	100	+ 30	- 44	- 64
3 (ROOF)	10	+ 35	- 66	- 64
	20	+ 34	- 60	- 64
	50	+ 32	- 52	- 64
	100	+ 30	- 44	- 64
4 (WALL)	10	+ 38	- 40	n/a
	20	+ 36	- 38	n/a
	50	+ 34	- 36	n/a
	100	+ 32	- 34	n/a
5 (WALL)	10	+ 38	- 48	n/a
	20	+ 36	- 44	n/a
	50	+ 34	- 42	n/a
	100	+ 32	- 38	n/a

Positive and negative signs in the table above denote pressures active toward and away from building surfaces, respectively.

Parties using the above table are responsible for calculating the appropriate effective areas for use with their scope

Pressures shown are Ultimate LRFD forces per ASCE 7-10

a = 10% of least building width or 40% of mean roof height, whichever is smaller, but not less than 4% of least building width or 5 ft

MATERIALS

MATERIALS

SOIL:

Soil supporting foundations	2,000 psf minimum allowable brg. capacity

CONCRETE:

Foundations	5,000 psi at 28 days
Interior Slab on Grade	4,000 psi at 28 days
Exterior Slab on Grade	5,000 psi at 28 days, 0.4 max w/c ratio, 6% air-entrainment
Reinforcing bar	ASTM A615 (grade 60)
Welded wire fabric	ASTM A1064 flat sheets
Synthetic fiber reinforcing	ASTM C1116 (Tuf-Strand SF by Euclid or equal)

MASONRY:

CMU	ASTM C90 normal weight (net compressive strength f'm = 2500 psi, minimum unit strength = 3250 psi)
Brick (clay masonry)	ASTM C62 & C216 (net compressive strength = 1000 psi)
Rebar positioners	Corelock rebar positioner by Wire-Bond, No. 376 rebar positioner by Heckmann Building Products or #RB rebar positioner by Hohmann&Barnard, Inc. or equal
Rebar splice connectors	Spyra-Lox rebar lap-joint tie by Hohmann&Barnard, Inc. or equal
Mortar below grade	ASTM C270, Type M (mortar cement)
Mortar typical	ASTM C270, Type S (mortar cement)
Mortar brick	ASTM C270, Type N
Grout in CMU cores	ASTM C476 (3000 psi at 28 days)
Reinforcing bar	ASTM A615 (grade 60)
Tie Wire	ASTM A-82
Horizontal Joint Reinforcement	A-82, hot-dipped galvanized per ASTM A-153

STEEL:

Structural steel:	
W-shapes	ASTM A992 - Fy=50 ksi
Channels, Angles, Plates	ASTM A36 - Fy=36 ksi
HSS Round	ASTM A500 Type B - Fy = 42 ksi
HSS Rectangular, Square	ASTM A500 Type B - Fy = 46 ksi
Structural steel pipe	ASTM A53 - Type E or S, grade B, Fy = 35 ksi
Structural steel bolts	ASTM A325-N
Washers	ASTM F436 hardened washer
Nuts	ASTM A563
Welding electrodes (E-70 series)	ASTM A233
Steel roof deck	ASTM A653-94 Structural Quality grade 33, G-60 galvanized
Grout below plates	Non-shrink, non-metallic (5000 psi)
Anchor bolts	ASTM F1554 threaded rods, 36 ksi uno
Screw Anchors	Hilti Kwik HUS-EZ
Adhesive for Anchors	
Into Concrete	Hilti HIT-HY 200 Adhesive w/ SafeSet
Into Masonry	Hilti HIT-HY 270, HIT-SC sleeve if hollow
Headed steel studs	ASTM A108-Grade 1010-1020, welded per chapter 7 of ANSI/AWS D1.1

CONSTRUCTION NOTES

It is the responsibility of the Construction Manager(CM)/General Contractor(GC) to bring these notes to the attention of relevant Subcontractors and to coordinate all efforts to ensure that these limits are followed.

The permanent structure must be completed by the construction team within the specific limitations indicated below - which relate to sequencing, temporary shoring or bracing, construction loads, etc.

Means and Methods: the means and methods of construction are the sole responsibility of the CM/GC & their Subcontractors (Construction Team).

Electronic files: Electronic structural drawing files, when requested by the contracting team, may be provided at the discretion of the engineer of record only after SDI has received the signed release form. When electronic files are provided they are provided for convenience only, their accuracy cannot be ensured, and nothing in them shall be construed to supercede requirements of construction documents or requirements dictated by field conditions.

Field measurements: Verification of field dimensions is the responsibility of the contracting team.

Partial Completion of Structure: The structural documents depict a completed structure, and as such the structure does not have full structural integrity until it is completed. All judgments pertaining to procedures whereby the project is advanced through intermediate stages of partial completion must be considered matters of Means and Methods, and shall be the responsibility of the Construction Team.

Construction shoring and bracing: Means and Methods, Partial Completion of Structure, construction sequencing, or unforseen field conditions may require temporary shoring or bracing to advance the structure towards completion. Structural members are not self-bracing and must be shored and/or braced by the Construction Team as necessary until stabilized by virtue of completed connections. Not all necessary shoring or bracing is identified in the construction documents. Common construction conditions that require engineered shoring or bracing include but are not limited to:
- structural building framing prior to connection and floor completion
- openings in walls prior to lintel installation

Reference the structural plans, elevations, and details for additional conditions that require temporary shoring or bracing.

The GC/CM are responsible for ensuring that design and construction of temporary shoring and bracing is fully captured in Subcontractor scope.

Engineering of shoring and bracing: The design of all construction shoring and bracing must be performed by a Delegated Structural Engineer, other than SDI, hired by the CM/GC or one of their Subcontractors. See "Delegated Design Notes" on this page for further information.

Protection from weather: During construction it is the Construction Team's responsibility to appropriately protect structural elements from the damage due to weather. Footings subject to cold weather should be protected from freezing by appropriate means that may include lowering the bottom of footings to an elevation below frost depth. For hot and cold weather concrete placement, follow recommendations of ACI 305 and 306.

Excavations: The contractor must safeguard and protect all excavations and adjacent structures, pavements, and utilities. All excavations must be kept free of water. The contractor is responsible for the design, installation, maintenance, and removal of all shoring, bracing, and dewatering that is required to properly construct foundations and protect adjacent structures, pavements and utilities.

Unsuitable Soil: Where areas and depths of unsuitable existing soil is identified on the site the unsuitable soil must be removed and replaced with engineered fill in accordance with the Project Geotechnical Report. Coordinate these efforts with the Project Geotechnical Engineer and the on site Soils Testing Agency.

Underpinning: Where underpinning is required the GC/CM shall devise means and methods whereby the work is to be completed including conformance to any requirements already specified in the construction documents. Engineering of underpinning is a Delegatd Design responsibility and must be performed by a licensed geotechnical engineer.

Anchor bolt placement: Accurate placement of anchor bolts is the responsibility of the Construction Team. Prior to casting foundation concrete, all cast-in place column anchor rods must be surveyed. Coordinate the results of this survey with the steel Subcontractor to ensure a common understanding of grid and anchor bolt locations and to identify misplaced anchors. Incorrectly placed bolts identified after concrete has cured must be addressed by the Construction Team in order to maintain the original base plate and anchor rod capacity. Calculations must be submitted by a licensed engineer, other than SDI, demonstrating the design forces are met.

Mobile Equipment or Construction on Foundations
Concrete foundations, after curing 7 days, can support all types of light equipment loads (up to 10,000 lb. gross vehicle weight) provided that the equipment has rubber tires.

Cranes and boom trucks in excess of 10,000 lbs require SDI approval for use over foundations

Skid-steer loaders and other equipment on steel tracks are, in all cases, prohibited from driving on exposed concrete mat foundations.

Unless approved by SDI, crane pads must be located such that crane surcharge loading overlap with building foundations.

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Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator

Project Designer
Designer

Project Architect / Engineer

Drawn By
Author

Q.M. Review

Approved

Drawing Scale

Issued for	Issue Date
Design Development	2024.06.24

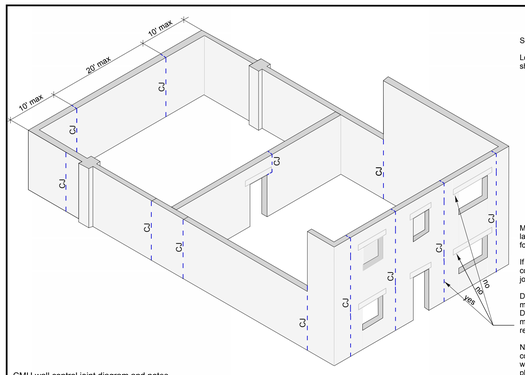
IDS Drawing Title

Typical Structural
Notes and Schedules

IDS Project Number
20111-3008

Drawing Number
S0.1

MASONRY DETAILS



CONTROL JOINT NOTES

See MS-03 for typical control joint detail

Locate control joints (CJ) as shown on plan, if not shown on plan provide control joint as follows:

- at 1-1/2 times the CMU wall height 20 ft on center max, whichever is smaller
- within 10 ft of corners
- on both sides of openings greater than 6'-0" wide
- at one side of opening less than 6'-0" wide
- changes in wall height
- on one side of doorways, locate CJ on latch side

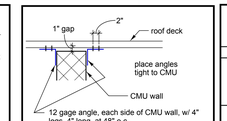
Masonry contractor must submit control joint layout
for review and approval

If walls consist of different types of masonry units, consult NCMA TEK notes for possible additional joint requirements

Diagram is appropriate for masonry partition walls, masonry backup walls, or masonry bearing walls. Diagram is not intended to outline control joints in masonry veneer. See architectural drawings for required locations of veneer control joints

No CMU contol joints permitted at window jambs. control joints should be centered between windows or doorways unless shown otherwise on plan

CMU wall control joint diagram and notes
no scale — typical detail MS-50

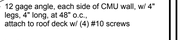


note: for CMU walls over 20 ft tall, reduce 12 ga angle spacing to 24" oc max

CMU partition walls below metal deck
no scale — typical detail MS-10

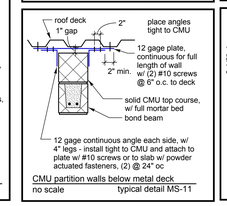
for use with f'm = 2000 psi masonry and fy = 60 ksi (non-epoxy coated) reinforcing bars (case A: standard reinforcing in tension)

bar size	minimum lap length
#3	18"
#4	24"
#5	38"
#6	56"
#7	80"

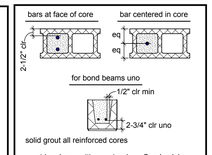


Splices should be staggered within wall
note: updated 4-8-19

masonry reinforcing lap schedule (f'm=2000psi)
no scale — typical detail MS-01



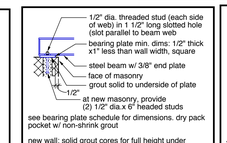
CMU partition walls below metal deck
no scale — typical detail MS-11



solid grout all reinforced cores

provide rebar positioners (such as CoreLock by Wire-Bond) at 48" vertically

rebar locations in reinforced CMU
no scale — typical detail MS-02

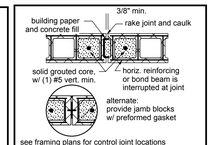


see bearing plate schedule for dimensions. dry pack pocket w/ non-shrink grout

new wall: solid grout cores for full height under bearing plate and reinforce with (1) # 5 bar.

existing wall: solid grout (3) courses below bearing

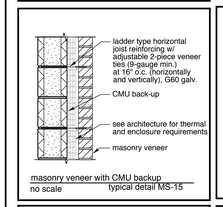
beams bearing on new or existing CMU walls
no scale — typical detail MS-14



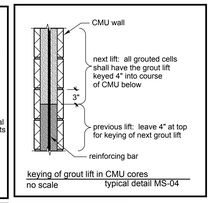
see framing plans for control joint locations

see MS-51 for required control joint locations not otherwise shown on plan

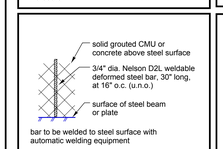
masonry control joints
no scale — typical detail MS-03



masonry veneer with CMU backup
no scale — typical detail MS-15



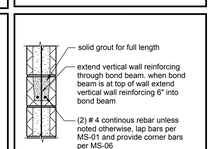
keying of grout lift in CMU cores
no scale — typical detail MS-04



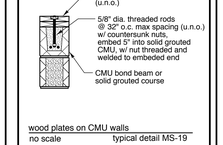
bar to be welded to steel surface with automatic welding equipment

lap 28" with wall reinforcing. solid grout all reinforced cells

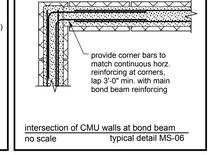
deformed anchor attached to steel
no scale — typical detail MS-17



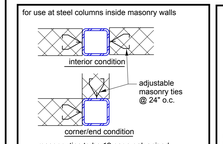
bond beam
no scale — typical detail MS-05



wood plates on CMU walls
no scale — typical detail MS-19

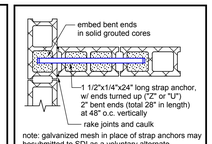


intersection of CMU walls at bond beam
no scale — typical detail MS-06



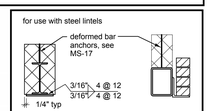
masonry ties to be 12 gage galvanized adjustable masonry ties. attach on all sides of column which are adjacent to brick or CMU.

masonry ties at steel columns
no scale — typical detail MS-20



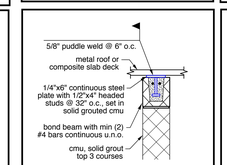
note: galvanized mesh in place of strap anchors may besubmitted to SDI as a voluntary alternate. requested mesh locations will need to be reviewed and approved by SDI

intersection of CMU walls
no scale — typical detail MS-07

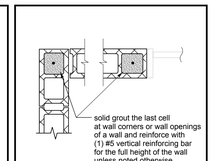


provide 3/8" plates/bent plates as shown where masonry would overhang flange by more than 1/2". end bottom plate 1/4" short of opening at each end. provide end bearing according to typ. det. MS-14. lintels in exterior walls to be galvanized (both bent plate and beam). solid grout cores first (3) courses above plate

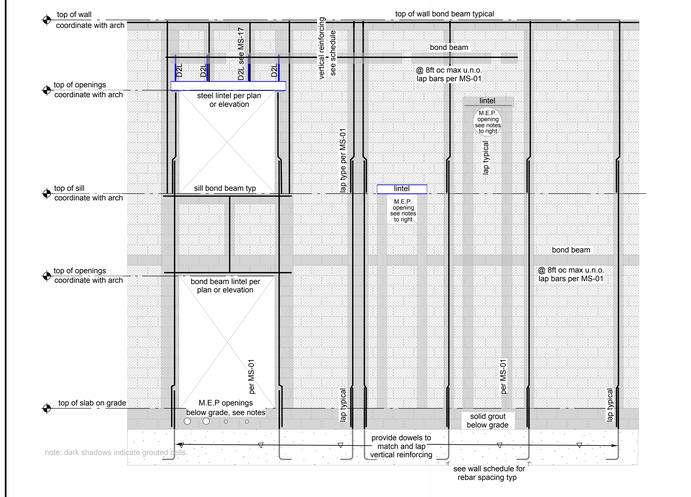
steel lintels in masonry walls
no scale — typical detail MS-24



metal roof deck bearing on CMU walls
no scale — typical detail MS-21

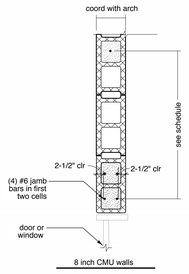


additional reinforcing at corners and openings
no scale — typical detail MS-08



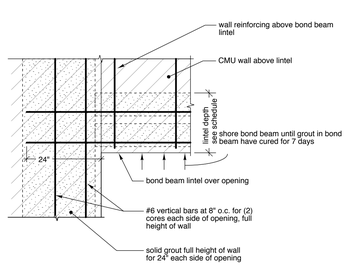
typical CMU wall elevation
no scale — typical detail MS-51

for use at all cmu wall openings greater than 2 ft wide unless noted otherwise



typical jamb reinforcing at wall openings greater than 2 ft wide (doors, windows, louvers, duct openings, etc)
no scale — typical detail MS-26

for use at the ends of all bond beam lintels



elevation at ends of bond beam lintels
no scale — typical detail MS-25

MASONRY SCHEDULES

MASONRY WALL NOTES AND SCHEDULE

Control joints shall be provided in walls per detail MS-03 as shown on the plans or elevations. If not specified on the plans or elevations, then provide per MS-50.

See MS-02 for placement of rebar within the grouted cells.

Walls are to be assumed to be partially grouted with the spacing of the vertically grouted cores to match the spacing of the reinforcing noted in the schedule below. Fully grouted walls will be noted special where required.

label	wall width	vertical reinforcement size/spacing	vertical reinforcement position	bond beams	notes
MW-8	8"	#5@32"	centered	8 ft oc max	

LINTEL NOTES AND SCHEDULES

All openings in masonry walls shall have a lintel placed over the opening. See architectural drawings for all locations, dimensions and elevations of doors, windows and wall openings. See MEP for all duct and utility penetrations through walls.

If an opening or lintel is not shown on the structural drawings, contractor shall provide a lintel per the following:

Lintels Unless Noted Otherwise
Loose Veneer Lintels: see schedule below
Openings in CMU block up to 4'-0": ML-1 or (2) L5x3-1/2"x3/8 (8 in CMU) or (2) L5x5x3/8" (12 in CMU)
Openings in CMU block 4' to 10': ML-3 or W8x31 + 3/8 cap plate to match wall thickness

For openings larger than noted above, or if the opening is located below a beam, contact the architect for direction. provide bearing plates and 3/8" end plates at ends of all W-shape and HSS lintels. provide 3/4" dia. nelson D2L deformed bar anchors, 30" long, @ 16" o.c. along top of lintel as shown in MS-17.

Galvanizing

All shelf angles, lintels, plates and beams supporting within exterior walls shall be G-90 hot dip galvanized. After installation, touch up all members with galvanic paint to restore complete coverage.

Veneer Loose Lintel Schedule (use with masonry or stone veneers up to 4" thick)

lintel tag	description	graphic	bearing	clr opening	notes
LL-1	L4x4x3/8		8" min	up to 4'-0"	
LL-2	L6x4x3/8		8" min	up to 6'-0"	
LL-3	L7x4x1/2		8" min	up to 7'-0"	provide (3) layers of 9 gage galv. deformed ladder-type joint reinf. in full mortar beds, extend 24" past opening ea side
LL-4	L8x4x3/4		8" min	up to 9'-4"	

Brick must be lipped where angle is thicker than 3/8"

Steel Lintel Schedule (for use where indicated on plan or elevation)

lintel tag	description	graphic	bearing plate	notes
L-1	HSS8x8x3/8" + 3/8" plate		PL7x7x1/2"	
L-2	W8x24		PL7x7x1/2"	

see MS-17 and MS-24 for required deformed bar anchors.

all steel lintels to have (3) courses of 24" long ladder type 9 ga. joint reinf. at each end of lintel adjacent to opening

Masonry Lintel Schedule

lintel tag	grouted lintel depth	reinforcement	schematic section	use
ML-1	16"	(2) #5 bar, bottom	6" CMU; 8" to 12" CMU; 2-1/4" clr to bottom of bars	openings up to 4'-0" uno
ML-2	24"	(2) #5 bar, bottom	6" CMU; 8" to 12" CMU; 2-1/4" clr to bottom of bars	where tagged on plan or elevation
ML-3	full height of wall above opening	(2) #5 bar, bottom	solid grout to top of wall; 8" to 12" CMU; 2-1/4" clr to bottom of bars	openings up to 10 ft uno

Provide min 8" bearing each end

Extend lintel reinforcing 16" min. beyond each end of opening

Continuously solid grout full height of lintel (no cold joints permitted)

Reference detail MS-05 for typical bond beam lintel detail.

No bond beam reinforcing laps are permitted over openings

MASONRY NOTES

CMU WALL NOTES AND SCHEDULES

General

Masonry construction and materials shall conform to the more stringent provisions of chapter 21 of the 2015 Michigan Building Code and the requirements of "Specification for Masonry Structures (TMS602-13) published by the Masonry Society.

All work shall be laid true to a line, plumb and level in keeping with the tolerances defined in "Specifications for Masonry Structures (TMS602-13).

The contractor shall employ hot or cold weather construction practices defined in "Specifications for Masonry Structures (TMS602-13). No work shal be done subject to freezing temperatures or on a frozen substrate.

Masonry construction conformance with the construction documents shall be verified in accordance with IBC level 1 quality assurance by an ICC certified structural masonry special inspector.

Coordinate dimensions of all CMU block with architectural drawings. Verify top of CMU elevations with architecture.

All masonry shall be laid in a running bond unless specifically noted otherwise.

All grout shall be placed or supervised by a masonry certified in grout placement by the International Masonry Institute or approved alternate. Grout placement and consolidation shall conform with section 3.5 of the "Specifications for Masonry Structures (TMS602-13).

Provide ladder type horizontal joint reinforcing with preformed lapped corner reinforcing at 16" c/c vertically in all masonry walls (unless noted otherwise). Joint reinforcing shall be galvanized and have side wires of 9-gauge minimum conforming to ASTM A-82. Joint reinforcement shall be lapped a minimum of 8".

Masonry joints shall be fully filled for solid units and face shell bedded with head joint depth equal to the face shell or greater for hollow units unless otherwise noted.

Position vertical bars per MS-02 solid grout all reinforced cores and all cores below grade. in lieu of lapping reinforcing bars, reinforcing bar splice couplers can be provided that have a tensile capacity of 125% the tensile capacity of the reinforcing bar being spliced.

See typical detail MS-03 for control joints in masonry walls and detail MS-05 for bond beams. Continue vertical reinforcement through bond beams. See MS-51 for typical control joint diagram unless otherwise shown on plan.

All CMU door jambs, window jambs, and all CMU cores below beam or lintel bearing locations are to be solid grouted w/ (1) additional #5 vertical reinforcing bar.

Where masonry meets structural members subject to vertical deflection, provide allowance for vertical movement of L/240 of structural member.

Masonry walls are to be adequately braced during construction until floor and wall systems are complete. Design loads for temporary wall bracing at minimum shall be based on ASCE 37. Where masonry walls are constructed adjacent occupied spaces including but not limited to: existing buildings or pedestrian walkways, design loads for temporary wall bracing shall be taken from ASCE 7. Construction bracing shall be designed by the contractor and sealed by a PE licensed in the state that has jurisdiction over the project.

See details for bond beam locations. Bond beams shall continue for full length of walls unless noted otherwise, and have #4 corner bars (30"x30") lapping 24" with bond beam bars (see MS-06). Except for MW-P, Provide additional bond beams every 8' o.c. for the full height of all walls. See MS-05

See MS-50 for typical CMU wall elevation

Masonry Reinforcement

Detailing, bending and placement of steel reinforcement shall be in accordance with "Specification for Masonry Structures (TMS602-13).

All steel reinforcement shall be placed and supported as necessary to maintain proper position as defined in "Specification for Masonry Structures (TMS602-13).

All horizontal steel reinforcement shall be continuous around corners and lapped as shown in MS-06.

Where vertical steel reinforcement terminates at a bond beam, provide a standard 90 degree hook.

Bar Splicing (laps)

At base of all walls provide dowels to match and lap vertical wall reinforcing.

See MS-01 for required bar splice lengths.

Continuous vertical bars may be spliced where desired by contractor.

Horizontal bars in lintels must remain continuous and are not permitted to be spliced.

Horizontal bond beam reinforcing may be spliced where desired by contractor.

M.E.P. Openings

Submit all M.E.P. openings not specifically shown on the structural drawings for review and approvall - a lintel is required over all openings. See lintel schedule on this sheet for typical lintels that can be used for estimating purposes, final lintels must come from SDI.

Below grade M.E.P. penetrations should be located beneath doorways unless speciically approved be SDI. All penetrations below doors must have 4" clear spacing between.

Masonry Exposed to Weather and/or Corrosive Enviroments

Where structural masonry walls and/ or interior CMU partition walls are directly exposed to weather or corrosive environments, the following additional requirements apply:

1. The masonry unit and mortar shall be produced using an intergral water repellant (IWR) like RainBloc GP, or an approved alternative which meets ASTM E514 testing.
2. The exposed face of the masonry wall shall have a surface applied water repellant applied after construction directly to the exposed face of the masonry.

Examples of Exposed Walls or Corrosive Environments include:

- single wythe exterior walls
- indoor pools with exposed CMU
- garages, labs, or workshops with exposed CMU
- loading docks

A maintenence plan shall be put in place for the owner for the surface applied water repellant to be re-applied every 5-7 years for the life of the building.

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Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator

Project Designer
Designer

Project Architect / Engineer

Drawn By
Author

Q.M. Review

Approved

Drawing Scale

Issued for	Issue Date
Design Development	2024.06.24

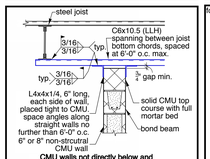
IDS Drawing Title

Typical Masonrt Notes, Details and Schedules

IDS Project Number
20111-3008

Drawing Number
S0.2

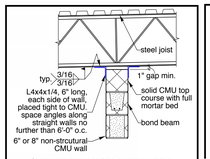
STEEL JOIST DETAILS



CMU walls not directly below and parallel to joists

typical non-structural CMU wall bracing at joists

no scale — typical detail **JS-08**



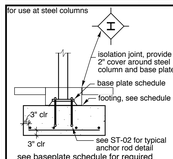
CMU walls below and not parallel to joists

typical non-structural CMU wall bracing at joists

no scale — typical detail **JS-08**

FOUNDATION DETAILS

for use at steel columns

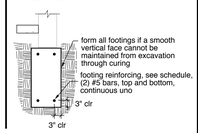


see baseplate schedule for required embedment depth to nut on anchor rod

anchor rods at steel columns

no scale — typical detail **FN-01**

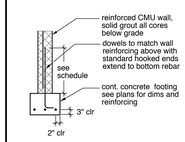
for use where approved by architect and soil conditions permit



trench footing

no scale — typical detail **FN-02**

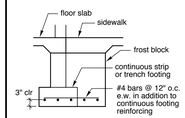
for use at continuous footing locations



masonry dowels at continuous footing

no scale — typical detail **FN-03**

for use at exterior-outswing doors



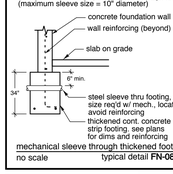
see architectural plan for dimensions

match bottom of ftg, min 42" below exterior grade

frost block

no scale — typical detail **FN-04**

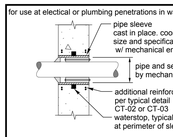
for use at mechanical penetrations through footing (maximum sleeve size = 10" diameter)



mechanical sleeve through thickened footing

no scale — typical detail **FN-08**

for use at electical or plumbing penetrations in walls

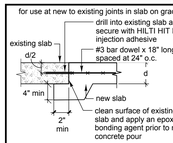


verify penetration size and location of penetrations with architect and mechanical/plumbing

sensitive mep penetrations in concrete walls

no scale — typical detail CT-04

for use at new to existing joints in slab on grade



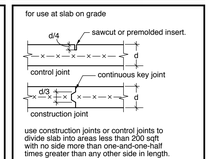
use at construction joints where new slab on grade meets existing slab on grade.

new to existing joints in slab on grade

no scale — typical detail SL-13

SLAB DETAILS

for use at slab on grade

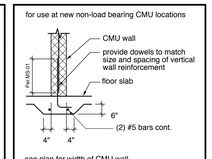


use construction joints or control joints to divide slab into areas less than 200 sqft with no side more than one-and-one-half times greater than any other side in length.

joints in slab on grade

no scale — typical detail **SL-01**

for use at new non-load bearing CMU locations



see plan for width of CMU wall

thickened slab under new CMU

no scale — typical detail **SL-03**

for use locating reinforcing bars in concrete structure (see ACI 7.7.1 for further info)

condition	concrete cover
cast against & perm. exposed to earth	3"
exposed to earth or weather:	
#6 bar thru #18 bar	2"
#5 bars or smaller	1 1/2"
not exposed to weather or earth	
slabs/wall/joists: (#11 bars and smaller)	3/4"
beams/cimns: (primary reinf/ ties/stirrups)	1 1/2"

typical clear cover for reinforcing bars (non-prestressed)

no scale — typical detail **CT-08**

for use with normal weight concrete and fy = 60 ksi (non-epoxy coated) reinforcing bars

bar size	f'c= 3000psi	f'c= 4000psi	f'c= 5000psi	f'c= 6000psi
#3	29"	25"	23"	21"
#4	38"	33"	30"	27"
#5	47"	41"	37"	34"
#6	57"	49"	44"	40"
#7	66"	57"	51"	47"
#8	75"	65"	58"	53"
#9	84"	73"	66"	60"
#10	94"	81"	73"	66"
#11	103"	89"	80"	73"

lap

concrete reinforcing lap schedule

no scale — typical detail CT-20

for use with normal weight concrete and fy = 60 ksi (non-epoxy coated) reinforcing bars

bar size	f'c= 3000psi	f'c= 4000psi	f'c= 5000psi	f'c= 6000psi
#3	22"	19"	18"	16"
#4	29"	26"	23"	21"
#5	37"	32"	29"	26"
#6	44"	38"	34"	31"
#7	51"	44"	40"	36"
#8	58"	50"	45"	41"
#9	65"	56"	51"	46"
#10	72"	63"	56"	51"
#11	79"	69"	62"	56"

location of measurement

dev. length

concrete reinforcing development length schedule

no scale — typical detail CT-21

bar size	D	l_{hbt} 180˚ hooks	l_{hbt} 90˚ hooks
#3	2-1/4"	2-1/2"	4-1/2"
#4	3"	2-1/2"	6"
#5	3-3/4"	2-1/2"	7-1/2"
#6	4-1/2"	3"	9"
#7	5-1/4"	3-1/2"	10-1/2"
#8	6"	4"	12"
#9	9"	4-1/2"	13-1/2"
#10	10"	5"	15"
#11	11"	5-1/2"	16-1/2"

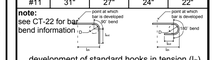
standard hooks schedule (l_{dh})

no scale — typical detail CT-22

for use with normal weight concrete and fy = 60 ksi (non-epoxy coated) reinforcing bars

bar size	f'c= 3000psi	f'c= 4000psi	f'c= 5000psi	f'c= 6000psi
#3	9"	8"	7"	7"
#4	12"	10"	9"	9"
#5	15"	13"	12"	11"
#6	17"	15"	14"	13"
#7	20"	18"	16"	15"
#8	23"	20"	18"	16"
#9	26"	22"	20"	18"
#10	28"	25"	22"	20"
#11	31"	27"	24"	22"

note: see CT-22 for bar bend information



development of standard hooks in tension (l_{dh})

no scale — typical detail CT-23

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Project Title

Van Buren Public Schools

Tyler Elementary School Secured Entry Renovation

42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator

Project Designer
Designer

Project Architect / Engineer

Drawn By
Author

Q.M. Review

Approved

Drawing Scale

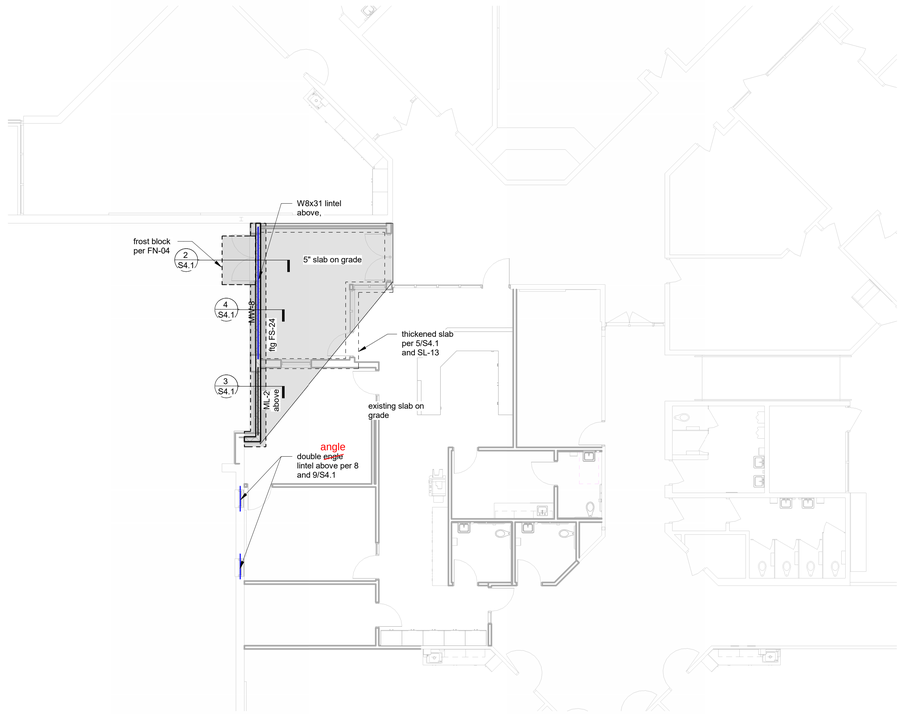
Issued for	Issue Date
Design Development	2024.06.24

IDS Drawing Title

Typical Details

IDS Project Number
20111-3008

Drawing Number
S0.3



Foundation Plan

scale 1/8" = 1'-0"

Foundation Plan Notes

Footing Label Conventions: **FS-24T(24")**

- footing type, see schedule
- "T" indicates additional top bars are required at this location
- indicates a non-standard thickness of footing required at this location

Slab on Grade
Typical top of slab elevation = XX'-X", u.n.o.
See architectural plans for areas with depressed or sloping slabs.

Slab on grade to be 5" thick, u.n.o.

Foundations
Typical top of footing elevation = XX'-X", u.n.o.

Place footings on soil compacted to a minimum of X,XXX psf allowable bearing capacity, verified by an on site testing agency prior to footing placement.

The bottom of all footings which will be exposed to freezing temperatures permanently or during construction shall be lowered to at least 42" below grade.

Provide a thickened slab below all interior cmu walls per SL-03/S002 unless a footing is shown. See architectural for cmu wall locations.

See **Slab on Grade Notes** and **Foundation Notes and Schedule** on S001 and typical details on S002 and project specifications for more information and requirements.

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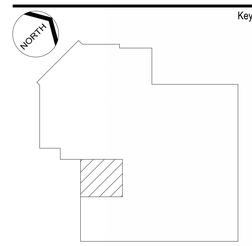
Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan



Project Administrator

Project Designer
Designer
Project Architect / Engineer

Drawn By
Author
Q.M. Review

Approved

Drawing Scale

Issued for	Issue Date
Design Development	2024.06.24

IDS Drawing Title

IDS Project Number
20111-3008

Drawing Number
S1.1

Foundation Section Notes:
1. All footings to bear on native soil, prepared according to recommendations in soils report, testing agency to inspect and verify prior to footing placement

2. See CT-08 for required concrete cover unless otherwise indicated

3. Lap continuous bars per CT-20

INTEGRATED design SOLUTIONS
architecture engineering interiors & technology

1441 west long lake, suite 200
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5211 cascade road SE, suite 300
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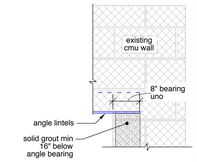
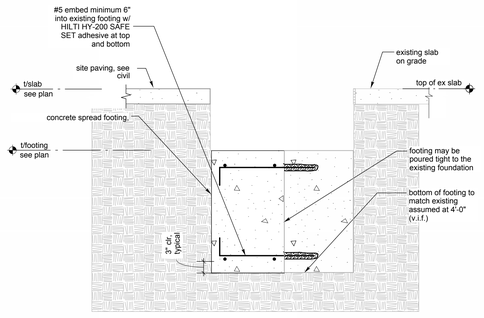
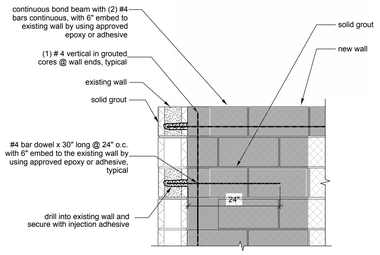
9 S4.1 double angle lintel at non-bearing wall
note: provide temporary shoring of existing CMU wall during installation of lintel
3/4" = 1'-0"



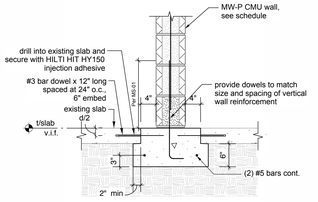
8 S4.1 double angle lintel at non-bearing wall
note: provide temporary shoring of existing CMU wall during installation of lintel
3/4" = 1'-0"



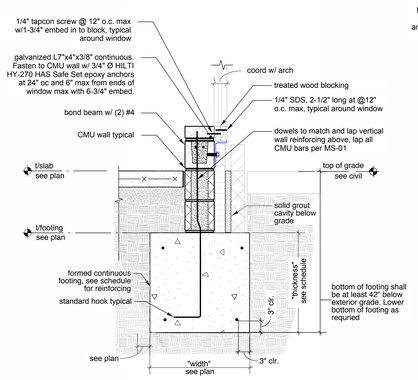
7 S4.1 typical exterior footing to new footing connection
3/4" = 1'-0"



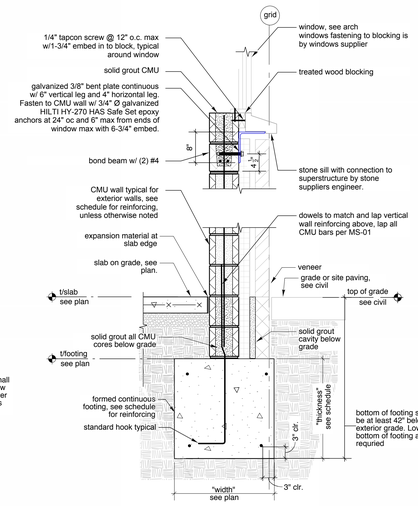
6 S4.1 new wall to existing wall connection
3/4" = 1'-0"



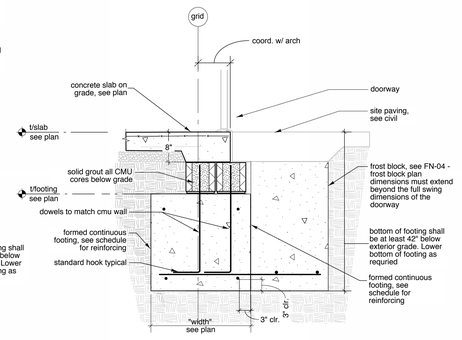
5 S4.1 thickened slab at existing slab on grade
3/4" = 1'-0"



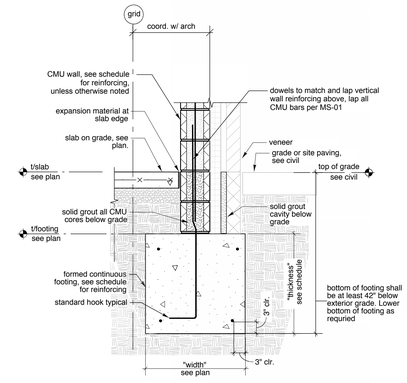
4 S4.1 exterior wall
3/4" = 1'-0"



3 S4.1 exterior wall
3/4" = 1'-0"



2 S4.1 exterior doorway
3/4" = 1'-0"



1 S4.1 exterior wall
3/4" = 1'-0"

Project Administrator

Project Designer
Designer

Project Architect / Engineer

Drawn By
Author

Q.M. Review

Approved

Drawing Scale

Issued for	Issue Date
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Structural Details

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Drawing Number
S4.1

ABBREVIATIONS

A	
AB	ABUSE RESISTANT
ABRSV	ABRASIVE
ACOUS	ACOUSTIC, ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AC PNL	ACOUSTICAL PANEL
ACS PNL	ACCESS PANEL
ACU	AIR CONDITIONING UNIT
ADJ	ADJACENT, ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATELY
ARCH	ARCHITECT, ARCHITECTURAL
AUTO	AUTOMATIC
B	
BD	BOARD
BEV	BEVEL, BEVELED
BF	BARRIER FREE
BLDG	BUILDING
BLKG	BLOCKING
BN	BULLNOSE
BOTT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BUR	BUILT UP ROOFING SYSTEM
B/D	BOTTOM OF DECK
C	
CAB	CABINET
CB	CATCH BASIN
CBB	CEMENT BACKER BOARD
CC	COLOR CODE
CCT	CUBICLE CURTAIN TRACK
CEM PLAS	CEMENT PLASTER
CG	CORNER GUARD
CHBD	CHALKBOARD
CHKD PL	CHECKERED PLATE
CJ	CONTROL OR CONSTRUCTION JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPACTED
COMPO	COMPOSITION
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECT, CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
CONV	CONVERTOR
CORR	CORRIDOR/CORRUGATED
COORD	COORDINATE
CPT	CARPET
CSWK	CASEWORK
CT	CERAMIC TILE
CSK	COUNTERSINK (SUNK)
CUH	CABINET UNIT HEATER
D	
D	DEPTH
DBL	DOUBLE
DWTR	DUMBWAITER
DT DR	DUTCH DOOR
DEMO	DEMOLISH, DEMOLITION
DEPR	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DIR	DIRECTORY
DEFS	DIRECT APPLIED EXT FINISH SYSTEM
DMPF	DAMPPROOFING SYSTEM
DMT	DEMOUNTABLE
DN	DOWN
DR OPNG	DOOR OPENING
DR	DOOR
DWG	DRAWING
DT	DRAIN TILE
DWL	DOWEL
DWR	DRAWER
E	
EA	EACH
EF	EXHAUST FAN
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
ENCL	ENCLOSURE
ENTR	ENTRANCE, ENTRY
ENTER MAT	ENTRY MAT SYSTEM
EP	ELECTRICAL PANEL
EPT	EPOXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRICAL WATER COOLER
(E)	EXISTING FINISH/DOOR (PER SCHEDULE)
EXIST	EXISTING
EXP	EXPOSED
EXP BT	EXPANSION BOLT
EXP CONST	EXPOSED CONSTRUCTION
EXT	EXTERIOR
F	
FAC	FACTORY
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEB	FIRE EXTINGUISHER AND BRACKET
FEC	FIRE EXTINGUISHER CABINET
FIN FLR	FINISH FLOOR
F (CONT)	
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIN	FINISH, FINISHED
FLASH	FLASHING
FLR	FLOOR
FPRFG	FIREPROOFING
FR	FRAME
FRGM	FIRE RATED GLAZING MARKINGS
FRP	FIBERGLASS REINFORCED PANEL
FT	FEET, FOOT
FTG	FOOTING
FTR	FIN TUBE RADIATION
FVC	FIRE VALVE CABINET
FWC	FABRIC WALL COVERING
G	
GA	GAGE, GAUGE
GALV	GALVANIZED
GF CMU	GROUND FACE CONCRETE MASONRY...
GRFC	GLASS FIBER REINFORCED CONCRETE
GRFG	GLASS FIBER REINFORCED GYPSUM
GI	GALVANIZED IRON
GL	GLASS/GLAZED
GL CMU	GLAZED CONCRETE MASONRY UNIT
GR	GRADE
GRG	GLASS REINFORCED GYPSUM
GRL	GRILLE
GYP BD	GYPSUM BOARD
H	
H	HIGH, HEIGHT
HB	HOSE BIBB
HC	HOLLOW CORE
HDWD	HARDWOOD
HDWE	HARDWARE
HD/SLR	HARDENER SEALER
HM	HOLLOW METAL
HORIZ	HORIZONTAL, HORIZONTALLY
HORIZB	HORIZONTAL BLINDS
HP	HIGH POINT
HPC	HIGH PERFORMANCE COATING
HR	HOUR
I	
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INCL	INCLUDE, INCLUDING
INFO	INFORMATION
IN	INCH, INCHES
INSUL	INSULATE, INSULATION
INT	INTERIOR
IR	IMPACT RESISTANT
IR GYP BD	IMPACT RESISTANT GYPSUM BOARD
J	
JC	JANITOR CLOSET
JT	JOINT
JST	JOIST
K	
KD	KNOCK DOWN
L	
L	LONG, LENGTH
LAB	LABORATORY
LAM	LAMINATE, LAMINATED
LAV	LAVATORY
LBL	LABEL
LBS	POUNDS
LF	LINEAR FOOT
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LIMEST	LIMESTONE
LINO	LINOLEUM
LKR	LOCKER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOUVER OPENING
LP	LOW POINT
LPRF	LIGHT PROOF
LT WT	LIGHT WEIGHT
LVT	LUXURY VINYL TILE
M	
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MCC	MULTI COLOR COATING
MDS	METAL DIVING STRIP
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MKBD	MARKERBOARD
MLDG	MOULDING
MO	MASONRY OPENING
MRT	MARBLE THRESHOLD
MTD	MOUNTED
MTL	METAL OR METALLIC
MT	METAL THRESHOLD
MTL PNL	METAL PANEL
MULL	MULLION
N	
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOICE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
O	
OC	ON CENTER
OD	OUTISDE DIAMETER
O/H	OVERHEAD
OPNG	OPENING
OPP HD	OPPOSITE HAND
ORN	ORNAMENTAL
OZ	OUNCE
P	
PA	PUBLIC ADDRESS
PAVERT	PAVER TILE
PBD	PARTICLEBOARD
P/C	PRECAST
PC	PIECE
PERF	PERFORATED
PERIM	PERIMETER
PH PNL	PORCELAIN ENAMEL
PLBG	PLUMBING
PLAS	PLASTER
P LAM	PLASTIC LAMINATED
PLYWD	PLYWOOD
POL	POLISH, POLISHED
POL...	POLISHED CONCRETE
POC	POROUS
PORC	PORCELAIN
PORC EN	PORCELAIN ENAMEL
PORC T	PORCELAIN TILE
PR	PAIR
PREFAB	PREFABRICATION
PRKG	PARKING
PS	PROJECTION SCREEN
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT
PTN	PARTITION
PVC	POLYVINYLCHLORIDE
PVF	POLYVINYL FLUORIDE COATING (KYNAR)
PVW	PROTECTIVE VINYL WALL COVERING
Q	
QT	QUARRY TILE
R	
R	RISER
RAD	RADIUS
RAF	RESILIENT ATHLETIC FLOORING
RC	RAIN CONDUCTOR
REF	REFER, REFERENCE
REFL	REFLECTED, RELECTIVE
REFRIG	REFRIGERATOR
REINF	REINFORCE, REINFORCEMENT, REINFORCING
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISED, REVISION
RFG	ROOFING
R (CONT)	
RH	RIGHT HAND
RHR	RIGHT HAND REVERSE
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RAILROAD
RS	ROOF SUMP
RSD	ROLLER SHADE
RT	RUBBER TILE
S	
SC	SOLID CORE
SCHED	SCHEDULE
SCR	SHOWER CURTAIN ROD
SECT	SECTION
SF	SQUARE FEET (FOOT)
SGFT	STRUCTURAL GLAZED FACING TILE
SHIP	SHELF AND POLE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	SERVICE SINK
STAG	STAGGERED
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
ST STL	STAINLESS STEEL
STN	STAIN
SURF	SURFACE
SUSP	SUSPEND, SUSPENSION
SYM	SYMBOL
SYMM	SYMMETRICAL
T	
T	TREAD
T & B	TOP AND BOTTOM
T & G	TONGUE AND GROOVE
TC	TOP OF COVER OR CURB
TEL	TELEPHONE
TEMP GL	TEMPERED GLASS
TERR	TERRAZZO
THK	THICK, THICKNESS
TKBD	TACKBOARD
TKSP	TACK STRIP
TOC	TOP OF COVER OR CURB
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSOM
TURF	INDOOR TURF
TV	TELEVISION
TYP	TYPICAL
U	
UC	UNDERCUT
UL	UNDERWRITERS LABORATORIES,INC.
UON	UNLESS OTHERWISE NOTED
V	
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL, VERTICALLY
VERTB	VERTICAL BLINDS
VEN...	VENEER PLASTER
VIF	VERIFY IN FIELD
VIT	VITREOUS
VR	VAPOR RETARDER
VRS	VINYL REDUCER STRIP
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	
W	WIDE, WIDTH
WBR	WALL BUMPER RAIL
WC	WAINSCOTT
WI	WITH
WD	WOOD
WM	WIRE MESH
WO	WINDOW OPENING
W/O	WITHOUT
WP	WATERPROOF
WPF	WEATHERPROOF
WP	WORKING POINT
WSCT	WATERSTOP
WSTPG	WEATHERSTRIPPING
WTTPG	WATERSTOP
WWF	WELDED WIRE FABRIC
L	ANGLE
X	BY
℄	CENTERLINE
[	CHANNEL
°	DEGREE OR DEGREES
Ø	DIAMETER
'	FEET, FOOT
"	INCH, INCHES
#	NUMBER OR POUND
PL	PLATE
T	TEE

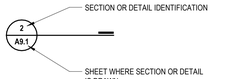
MATERIAL LEGEND

- SOIL
- GRANULAR FILL
- GRAVEL
- CONCRETE
- CONCRETE MASONRY UNIT
- BRICK
- GLAZED CMU
- STRUCTURAL GLAZED FACING TILE
- STONE
- MARBLE
- METALS
- FINISH WOOD
- PLYWOOD
- PREMOLDED EXPANSION JOINT OR COMPRESSIBLE FILLER STRIP
- GLASS OR PLASTIC GLAZING
- PLASTER OR GYPSUM BOARD
- CERAMIC OR QUARRY TILE
- TERRAZZO
- ACOUSTICAL PANEL OR ACOUSTICAL TILE
- BATT INSULATION
- RIGID INSULATION
- CAVITY WALL INSULATION
- ROOF INSULATION

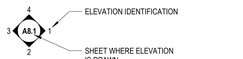
SYMBOL LEGEND

SECTION OR DETAIL TITLE

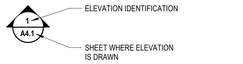
SECTION OR DETAIL LOCATOR



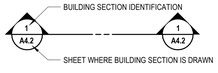
INTERIOR ELEVATION SYMBOL



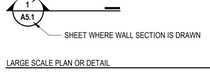
EXTERIOR ELEVATION SYMBOL



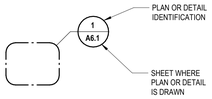
BUILDING SECTION LOCATOR



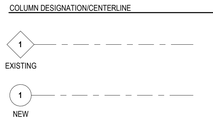
EXTERIOR WALL SECTION LOCATOR



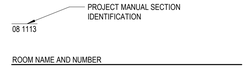
LARGE SCALE PLAN OR DETAIL



COLUMN DESIGNATION/CENTERLINE

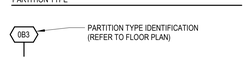


MATERIAL KEYNOTE

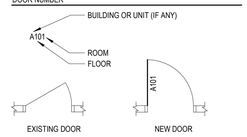


ROOM NAME AND NUMBER

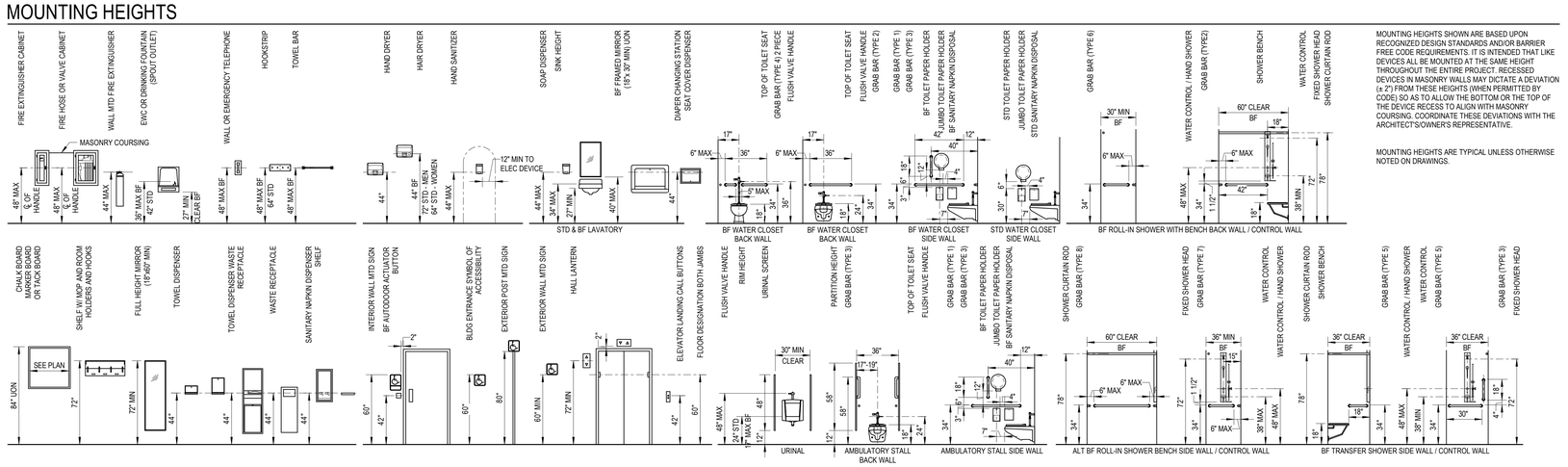
PARTITION TYPE



DOOR NUMBER



MOUNTING HEIGHTS



MOUNTING HEIGHTS SHOWN ARE BASED UPON RECOGNIZED DESIGN STANDARDS AND/OR BARRIER FREE CODE REQUIREMENTS. IT IS INTENDED THAT LIKE DEVICES ALL BE MOUNTED AT THE SAME HEIGHT THROUGHOUT THE ENTIRE PROJECT. RECESSED DEVICES IN MASONRY WALLS MAY DICTATE A DEVIATION (± 2") FROM THESE HEIGHTS (WHEN PERMITTED BY CODE) SO AS TO ALLOW THE BOTTOM OR THE TOP OF THE DEVICE RECESS TO ALIGN WITH MASONRY COURSING. COORDINATE THESE DEVIATIONS WITH THE ARCHITECT'S/OWNER'S REPRESENTATIVE.

MOUNTING HEIGHTS ARE TYPICAL UNLESS OTHERWISE NOTED ON DRAWINGS.

iDS
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Key Plan

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

Project Administrator	A. Maurer
Project Designer	A. Pelfrey
Project Architect / Engineer	C. King
Drawn By	A. Pelfrey
Q.M. Review	-
Approved	-
Drawing Scale	As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Architectural Reference Information

IDS Project Number: 20111-3008

Drawing Number: AR.0

MEANS OF EGRESS

	MBC			NFPA			MRCEB	
Education Occupancy								
Exit Access Travel Distance	200	ft	Table 1016.2	150	ft	Section 15.2.6.2		
Common Path of Egress Travel	75	ft	Table 1006.2.1	75	ft	Section 15.2.5.3.2		
Dead End Corridors	20	ft	Section 1020.4	20	ft	Section 15.2.5.2	35	ft Section 805.6

Egress width per occupant	MBC			NFPA		
Stairways	0.3	in	Section 1005.3.1	0.3	in	Table 7.3.3.1
Other Egress Components	0.2	in	Section 1005.3.2	0.2	in	Table 7.3.3.1

Maximum Floor Area Allowances Per Occupant	MBC			Section 1004.1	NFPA			Section 7.3.1.2
Educational: Classroom area	20	sf	Net		20	sf	Net	
Educational: Shops and other vocational areas	50	sf	Net		50	sf	Net	
Business areas	100	sf	Gross		100	sf	Gross	
Exercise Rooms	50	sf	Gross		50	sf	Gross	
Assembly: Unconcentrated	15	sf	Net		15	sf	Net	
Library: Reading Rooms	50	sf	Net		50	sf	Net	
Library: Stack Area	100	sf	Gross		100	sf	Gross	
Stages and Platforms	15	sf	Net		15	sf	Net	
Accessory Storage Areas/Mechanical Room	300	sf	Gross		500	sf	Gross	
		sf	Net/Gross			sf	Net/Gross	
		sf	Net/Gross			sf	Net/Gross	

Tabular Occupant Loads

First Floor	2,883
Total	2,883

Exit Egress Capacity	Quantity		Width		MBC Capacity	NFPA Capacity
First Floor						
Doors	43	@	32	in	6,880	6,880
Stairs	0	@	0	in	0	0
Total					**6,880**	**6,880**

LIFE SAFETY SYSTEMS

High-Rise Buildings	
Applicability MBC Section 403.1	☐ Yes ☒ No
Fire Protection System Requirements	
Automatic Sprinkler Systems MBC Section 903 NFPA - See Occupancy Chapters & 9.7.1	☐ Full ☐ Partial ☐ None
Standpipe Systems MBC Section 905 NFPA - See Occupancy... NFPA 45	☐ Required ☒ Not Required
Fire Pumps	☐ Required ☒ Not Required
Fire Hazard Occupancy	☐ Light (Low) ☒ Ordinary (Moderate) ☐ Extra (High)
Portable Fire Extinguishers MBC Section 906 IFC Section 906 NFPA See Occupancy Chapters & 9.7.4	☒ Required ☐ Not Required ☐ Special Hazard Areas Only
Fire Alarm and Detection System Requirements	
Manual Fire Alarm System MBC Section 907 NFPA See Occupancy Chapters & 9.6	☒ Required ☐ Not Required
Emergency Voice/Alarm Communication System MBC Section 907.2.1.1 MBC Section 907.5.2.2	☐ Required ☒ Not Required Per MRCEB Section 804.4.1, Exception #1
Elevator Requirements	
Ambulance Strecther Compliance MBC Section 3002.4	☐ Yes ☒ No
Accessible Means of Egress MBC Section 1007.2.1	☐ Yes ☒ No
Emergency and Standby Power System MBC Section 2702	☒ Required Emergency Lighting and Exit Signs ☐ Not Required

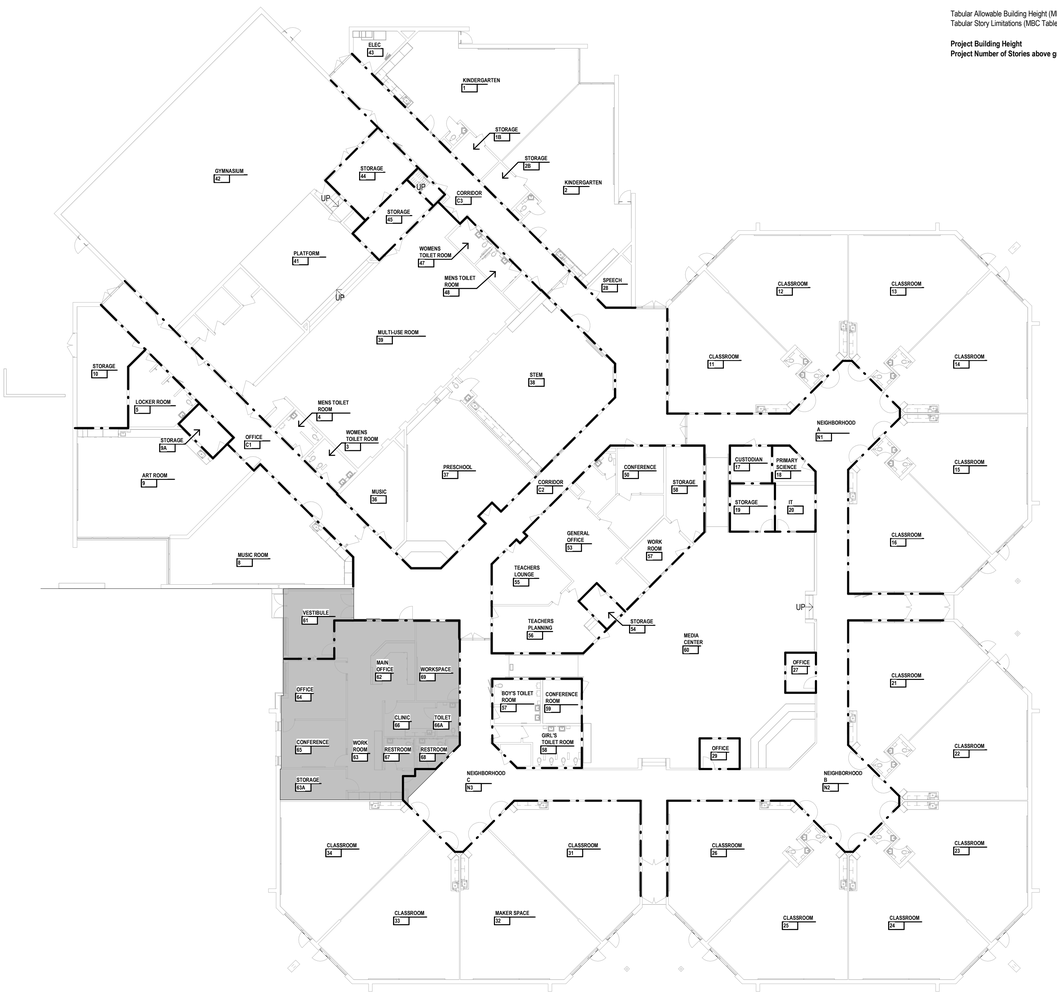
FIRE RATINGS AND SEPARATIONS

	MBC			NFPA		
Primary Structural Frame	0	hr	Table 601	0	hr	NFPA 220
Bearing Walls						
Exterior	0	hr	Table 601	0	hr	NFPA 220
Interior	0	hr	Table 601	0	hr	NFPA 220
Nonbearing Walls and Partitions						
Exterior >10 feet Fire Separation Distance	0	hr	Table 602	0	hr	NFPA 220
Interior	0	hr	Table 601	0	hr	NFPA 220
Floor Construction and Associated Secondary Members	0	hr	Table 601	0	hr	NFPA 220
Roof Construction and Associated Secondary Members	0	hr	Table 601	0	hr	NFPA 220
Separation of Occupancies	N/A	hr	Table 508.3.3	N/A	hr	See Occupancy Chapters
Allowable Area Separations (Fire Walls)	2	hr	Section 705	N/A	hr	Section 8.2.1.3
Fire Area Separations (Fire Barriers)	1	hr	Section 706	2	hr	Section 8.3
Corridors (Fire Partitions) ☐ Smoke Tight	1	hr	Section 1018	1	hr	See Occupancy Chapters
Shaft Enclosures	1	hr	Section 707	1	hr	Section 8.3
Smoke Compartments (Smoke Barriers)	0	hr	Section 709	1	hr	Section 8.4
Incidental Use Areas	MBC Section 509			NFPA See Occupancy Chapters		
Furnace Room	1	hr		1	hr	
Boiler Room	1	hr		1	hr	
Refrigerant Machinery Room	1	hr				
Hydrogen Cutoff Room	2	hr				
Incinerator Room	2	hr				
Paint Shops	1	hr				
Laboratories and Vocational Shops	1	hr		1	hr	
Laundry Room >100sf	1	hr		1	hr	
Waste and Linen Collection Room	1	hr				
Stationary storage batter systems	2	hr				
Storage and Janitor...				1	hr	
Maintenance Shops				1	hr	

INTERIOR FINISH REQUIREMENTS

	MBC Table 803.11	NFPA See Occupancy Chapters
Interior Wall and Ceiling Finish Requirements		
Interior exit stairways, ramps and passageways	A	A
Corridors and exit access stairways and ramps	B	B
Rooms and Enclosed Spaces	C	C

	MBC Section 804.4	NFPA See Occupancy Chapters
Interior Floor Finish Requirements	Class II	N/A



CODE INFORMATION

APPLICABLE CONSTRUCTION CODES AND STANDARDS

Building:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2015 Michigan Rehabilitation Code for Existing Buildings, Incorporating the 2015 Edition of the International Existing Building Code
	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2015 Michigan Building Code, Incorporating the 2015 Edition of the International Building Code as referenced by the 2015 Michigan Rehabilitation Code for Existing Buildings
	Michigan Department of Licensing and Regulatory Affairs, Bureau of Fire Services, 2016 Fire Safety Rules for Schools, Colleges and Universities, Incorporating the 2012 Edition of the NFPA 101 Life Safety Code
Barrier Free:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2015 Michigan Building Code, Incorporating the 2015 Edition of the International Building Code
	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2009 ICC A117.1 - Accessible and Usable Buildings and Facilities
	U.S. Department of Justice and Architecture and Transportation Barriers Compliance Board, American with Disabilities Act (ADA) 2010 - Standards for Accessible Design
Energy:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, Part 10a - Michigan Energy Code for Buildings and Structures, Not Including Residential Buildings, Incorporating the 2013 Edition of the ANSI/ASHRAE/IESNA Standard 90.1
Mechanical:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, Mechanical Division, 2018 Michigan Mechanical Code, Incorporating the 2018 Edition of the International Mechanical Code
Plumbing:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, Plumbing Division, 2015 Michigan Plumbing Code, Incorporating the 2015 Edition of the International Plumbing Code
Electrical:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, Electrical Division, 2017 Michigan Electrical Code, Incorporating the 2017 Edition of the National Electrical Code
Fire Alarm:	Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, Electrical Division, Incorporating the 2013 Edition of NFPA 72 - National Fire Alarm and Signaling Code

BUILDING INFORMATION

SINGLE USE AND OCCUPANCY

		MBC	NFPA
Type of Construction		IIB	II(000)
Occupancy Group		E	E
Tabular Building Area (MBC Table 506.2) (At)	NS	14,500 SF/story	
	S (1 or M)	58,000 SF/story	
Frontage Increase (MBC Section 506.3) (If)		0.58	
Building Perimeter that fronts a public way or open space		1,859 feet	
Perimeter of entire building		2,250 feet	
Width of public way or open space		30 feet	
Allowable Area (Aa)	**Non-sprinklered**	**22,855 SF/story**	
	Fully Sprinklered	**66,355 SF/story**	

Project Floor Area	Existing	Proposed	Level 2 Alteration		Total
First Floor	47,181 SF	0 SF	2,217 SF	3%	47,181 SF
Sub-total	47,181 SF	0 SF	2,217 SF	3%	47,181 SF

	MBC
Tabular Allowable Building Height (MBC Table 504.3)	55 Feet
Tabular Story Limitations (MBC Table 504.4)	2 Stories above grade plane
Project Building Height	**24 Feet**
Project Number of Stories above grade plane	**1 Stories above grade plane**

LEGEND

LIFE SAFETY
NOTE: NOT ALL SYMBOLS MAY BE USED

- EMERGENCY RESCUE/VENTILATION WINDOW OPENING
- EXISTING FIRE-RATED PARTITION
- 1-HR FIRE-RATED PARTITION
- 2-HR FIRE-RATED PARTITION
- 3-HR FIRE-RATED PARTITION
- SMOKE TIGHT PARTITION
- AREA OF LEVEL 2 ALTERATION
- AREA COVERED BY EXISTING AUTOMATIC SPRINKLER SYSTEM

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Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation

42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator A. Maurer
Project Designer A. Pelfrey
Project Architect / Engineer C. King
Drawn By A. Pelfrey
Q.M. Review -
Approved -
Drawing Scale 1/16" = 1' - 0"

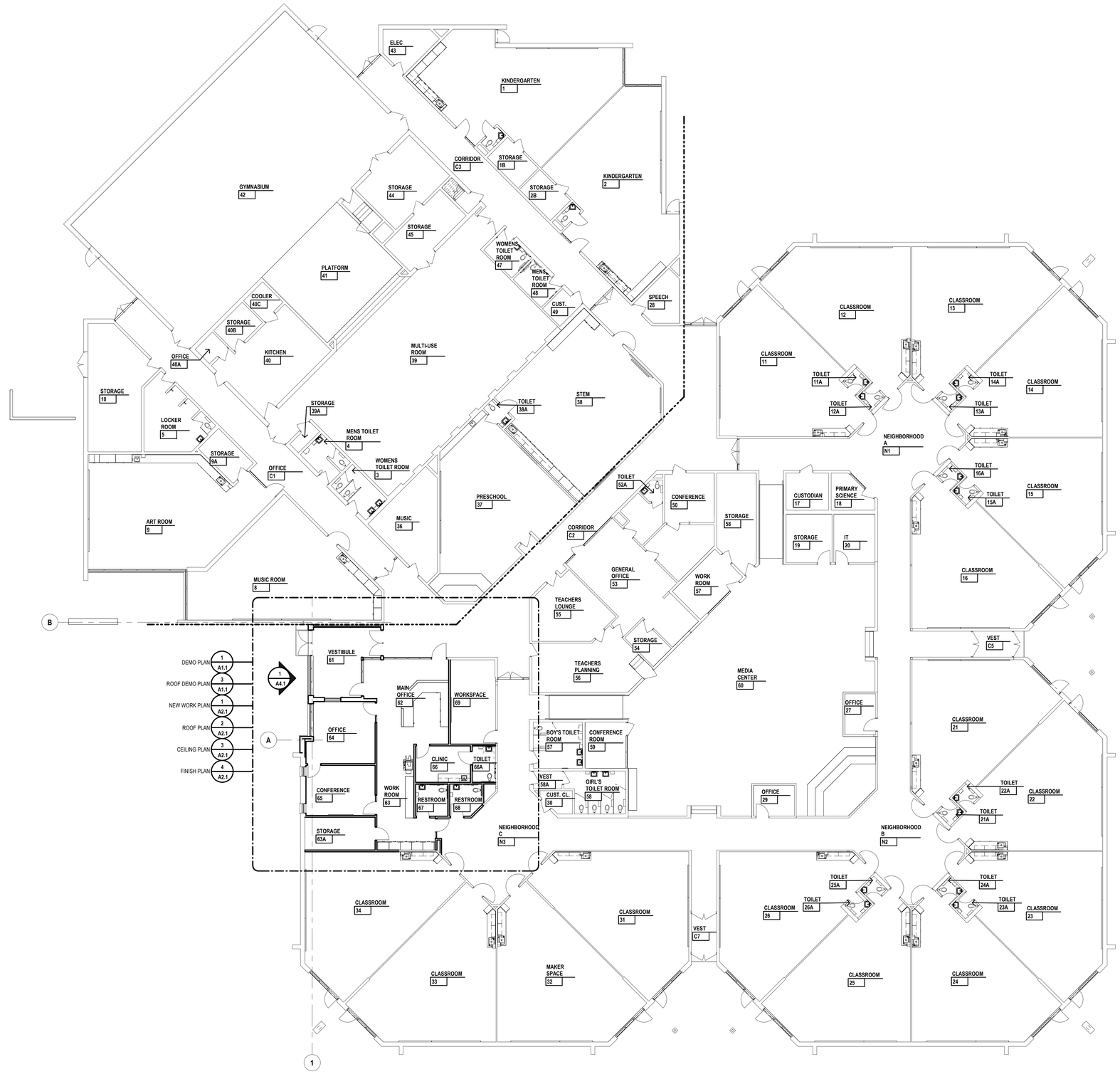
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

First Floor Composite Life Safety Plan

IDS Project Number: **20111-3008**

Drawing Number: **LS0.1**



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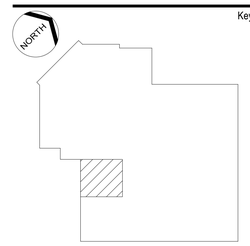

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Drawing Scale
3/32" = 1' - 0"

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

First Floor Composite Plan

IDS Project Number
20111-3008

Drawing Number
A0.1

GENERAL NOTES

DEMOLITION PLAN

A. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.

B. CONTRACTOR SHALL PROVIDE TEMPORARY DUSTPROOF PARTITIONS WITH DOORS AT LOCATIONS INDICATED AND/OR AS REQUIRED TO ADEQUATELY SEPARATE OCCUPIED AREAS FROM CONSTRUCTION HAZARDS, NOISE AND/OR DUST. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL LOCATIONS WITH ARCHITECTS/OWNER'S REPRESENTATIVE.

C. CONTRACTOR SHALL PROVIDE DUST MATS AT ALL CONSTRUCTION AREA ENTRANCES AND EXIT LOCATIONS. COORDINATE ALL LOCATIONS WITH ARCHITECTS/OWNER'S REPRESENTATIVES.

D. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL MEANS OF EGRESS AND ALL FIRE PROTECTION FEATURES FOR PORTIONS OF THE BUILDING THAT REMAIN OCCUPIED DURING CONSTRUCTION.

E. COORDINATE SCOPE AND EXTENT OF DEMOLITION WITH NEW WORK PLANS AND DETAILS.

F. REFER TO MECHANICAL AND ELECTRICAL DEMOLITION SHEETS FOR ADDITIONAL INFORMATION.

KEYNOTES

DEMOLITION PLAN

SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS

NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

D1 REMOVE COLUMN IN ITS ENTIRETY

D2 REMOVE PORTION OF MASONRY WALL. COORDINATE WITH NEW WORK PLANS.

D3 REMOVE PORTION OF GYPSUM BOARD / METAL STUD PARTITION. COORDINATE WITH NEW WORK PLANS.

D4 REMOVE DOORS, STOREFRONT FRAMING, GLAZING, SILL, SEALANT, ANCHORS, WOOD BLOCKING, AND ASSOCIATED SOFFIT / CEILING ELEMENTS AS REQUIRED FOR INSTALLATION OF NEW WORK.

D5 REMOVE DOOR, FRAME, AND SILL IN ITS ENTIRETY.

D6 REMOVE OPERABLE PARTITION WALL AND FRAMING IN ITS ENTIRETY.

D7 SAW CUT AND REMOVE PORTION OF CONCRETE FLOOR SLAB. COORDINATE WITH NEW WORK PLANS.

D8 REMOVE ACOUSTICAL CEILING TILES AND GRID.

D9 REMOVE CARPET, BASE AND ADHESIVE DOWN TO TOP OF STRUCTURAL SLAB.

D10 REMOVE AND SALVAGE CLASSROOM PROJECTOR, PROJECTOR SCREEN, AND CEILING SPEAKERS, AND RETURN TO OWNER.

D11 REMOVE AND SALVAGE WALL-MOUNTED PAPER TOWEL DISPENSER AND SOAP DISPENSER FOR REINSTALLATION FOLLOWING NEW CASEWORK.

D12 REMOVE CERAMIC TILE, TILE BASE, MARBLE SILL, AND GROUT DOWN TO TOP OF STRUCTURAL SLAB.

D13 REMOVE BASE CABINETS, SINK, COUNTERTOP, BACKSPLASH AND/OR WALL MOUNTED CABINETS IN THEIR ENTIRETY.

D14 REMOVE MARKERBOARD / TACKBOARD / WHITEBOARD IN ITS ENTIRETY.

D15 REMOVE ACRYLIC PLASTER ON METAL LATH AND SUSPENSION SYSTEM IN ITS ENTIRETY

D16 REMOVE VENTED DRIP SCREED

D17 REMOVE EXTERIOR GLAZED FACE BRICK

D18 REMOVE AND SALVAGE METAL PARAPET FLASHING OR METAL COPING CAP AS NEEDED TO COMPLETE SOFFIT/FASCIA REMOVAL.

D19 REMOVE GYPSUM BOARD WALL AS REQUIRED TO PERFORM PLUMBING WORK.

D20 REMOVE PORTION OF METAL ROOF DECK OR INSULATING ROOF DECK AS REQUIRED FOR MECHANICAL PENETRATIONS. COORDINATE WITH NEW WORK AND MECHANICAL DRAWINGS.

D21 REMOVE ROOF SYSTEM (MEMBRANE AND RIGID INSULATION) AS REQUIRED FOR NEW MECHANICAL EQUIPMENT CURB. METAL DECK OR INSULATING ROOF DECK TO REMAIN UON. COORDINATE WITH NEW WORK AND MECHANICAL DRAWINGS.

D22 REMOVE PORTION OF ROOF MEMBRANE AS SHOWN. COORDINATE WITH NEW WORK.

LEGEND

DEMOLITION PLAN

NOTE: NOT ALL SYMBOLS MAY BE USED

EXISTING TO BE REMOVED

EXISTING TO REMAIN

(X) EXISTING CEILING TO BE REMOVED AS NOTED BY KEYNOTE

(X) EXISTING FLOOR/FINISH TO BE REMOVED AS NOTED BY KEYNOTE

(X) SAWCUT AND REMOVE PORTION OF CONC SLAB AS NOTED BY KEYNOTE

LEGEND

ROOF DEMOLITION PLAN

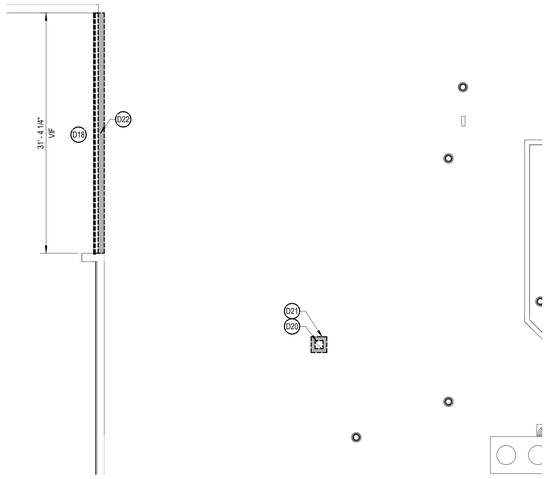
NOTE: NOT ALL SYMBOLS MAY BE USED

EXISTING TO BE REMOVED

EXISTING TO REMAIN

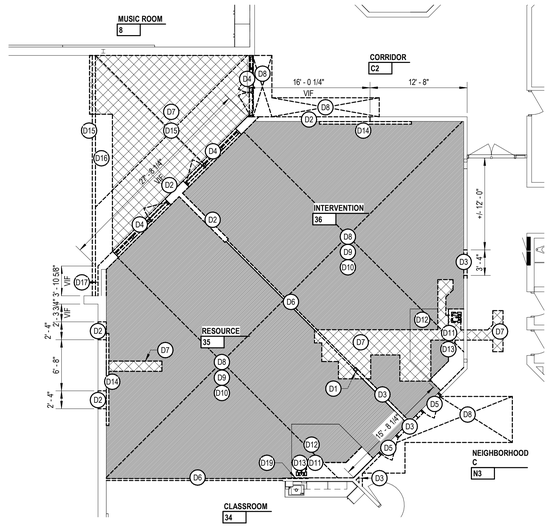
(X) EXISTING ROOF MATERIAL TO BE REMOVED AS NOTED BY KEYNOTE

(X) CUT AND REMOVE PORTION OF METAL DECK AS NOTED BY KEYNOTE



3 A0.2 ENLARGED ROOF DEMO PLAN

1/8" = 1'-0"



1 A0.1 ENLARGED DEMO PLAN

1/8" = 1'-0"

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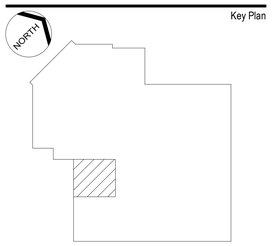

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Drawing Scale
As Noted

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IDS Drawing Title

Demolition Plans

IDS Project Number
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Drawing Number
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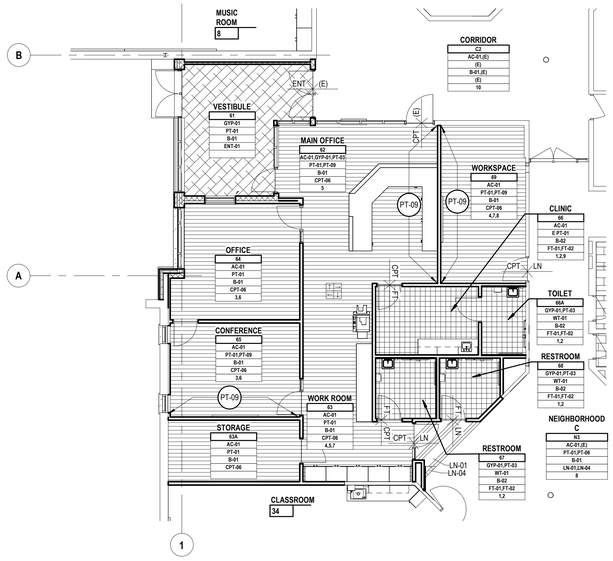


4 A0.1 ENLARGED FLOOR FINISH PLAN

1/8" = 1'-0"

GENERAL NOTES

FINISH PLAN

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

LEGEND

FINISH PLAN
NOTE: NOT ALL SYMBOLS MAY BE USED

- 09 6543 LINOLEUM TILE FLOORING LN-01
- 09 6543 LINOLEUM TILE FLOORING LN-04
- 09 3000 PORC FLOOR TILE 75% FT-01, 25% FT-02 IN RANDOM INSTALLATION
- 09 6813 CARPET TILE CPT-06
- X X — FLOOR MATERIAL TRANSITION TAG REFER TO A9.2 FOR TRANSITION/ SILL DETAILS
- XX-XX — FLOOR COLOR CODE TAG - REFER TO ROOM FINISH SCHEDULE SHEET A9.1
- FLOORING INSTALLATION DIRECTION
- XX-XX — ACCENT MATERIAL, REFER TO COLOR CODES
- FLOORING INSTALLATION METHOD - ASHLAR
- FLOORING INSTALLATION METHOD - MONOLITHIC
- FLOORING INSTALLATION METHOD - QUARTER TURN
- FLOORING INSTALLATION METHOD - NON-DIRECTIONAL
- FLOORING INSTALLATION METHOD - HERINGBONE

ROOM NAME
'x' ROOM #
Ceiling Finish
Wall Finish
Base Finish
Floor Finish
Comments

NOTE: FINISHES INDICATED IN ROOM FINISH TAGS ARE GENERAL OVERALL FINISHES FOR ROOM UNLESS OTHERWISE INDICATED BY NOTE, REMARK, DETAIL AND/OR ELEVATION

ROOM SPECIFIC FINISH REMARKS, REFER TO REMARKS LEGEND FOR ADDITIONAL INFORMATION

GENERAL NOTES

REFLECTED CEILING PLAN

A. CEILING HEIGHT 9'-0" AFF UNLESS OTHERWISE NOTED.

B. ACOUSTICAL CEILING PANELS AND/OR TILES SHALL BE CENTERED WITHIN THE ROOM OR BORDER UNLESS OTHERWISE NOTED.

C. REFER TO FLOOR PLANS FOR PARTITION TYPE DESIGNATION.

D. COORDINATE CEILING SUSPENSION SYSTEMS WITH OTHER CEILING SPACE EQUIPMENT SUPPORTING DEVICES.

E. UNLESS OTHERWISE NOTED LOCATION OF ITEMS SHOWN IN AREAS WITHOUT FINISH CEILINGS IS APPROXIMATE. COORDINATE EXACT LOCATION BETWEEN TRADES.

F. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

LEGEND

REFLECTED CEILING PLAN
NOTE: NOT ALL SYMBOLS MAY BE USED

- LAY-IN CEILING
- EXISTING LAY-IN CEILING
- GYPSUM BOARD CEILING
- ACOUSTIC METAL DECK
- RECESSED DOWNLIGHT
- RECESSED LINEAR LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- PENDANT LINEAR LIGHT FIXTURE
- LIGHT FIXTURES
- INDUSTRIAL LIGHT FIXTURE
- LINEAR RETURN DIFFUSER
- LINEAR SUPPLY DIFFUSER
- EXHAUST AIR DIFFUSER
- RETURN AIR REGISTER/GRILLS
- SUPPLY AIR REGISTER/GRILLS
- ACCESS PANEL (24X24 UON)
- RADIANT CEILING PANEL
- SPRINKLER HEAD
- SENSORS
- FIRE ALARM DEVICES
- SPEAKERS
- MICROPHONE
- EXIT SIGNS
- JUNCTION BOX
- RECEPTACLES
- WIRELESS ACCESS POINT
- CAMERA
- PROJECTOR
- FLAT PANEL MONITOR

KEYNOTES

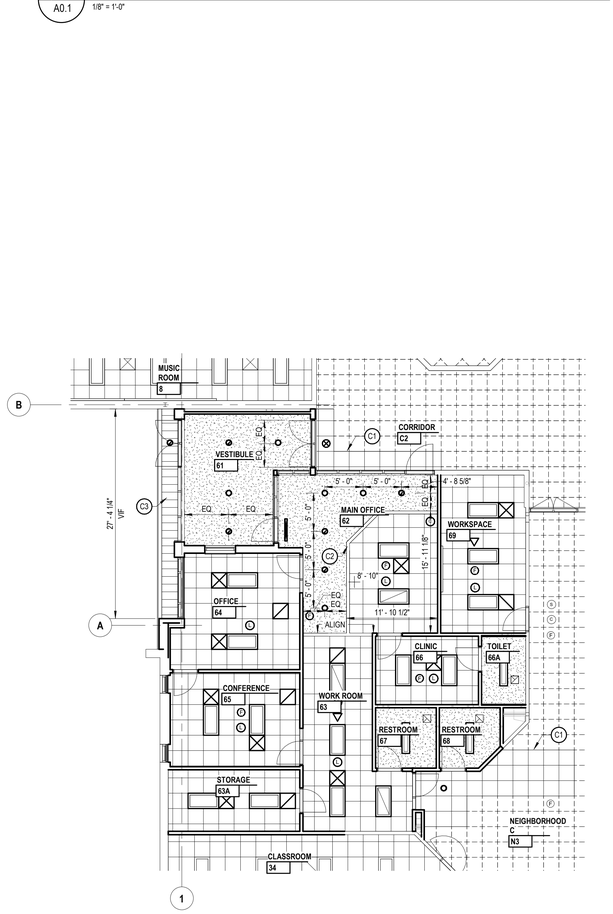
REFLECTED CEILING PLAN
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

C1 09 5113 PATCH ACOUSTIC LAY-IN CEILING PANEL

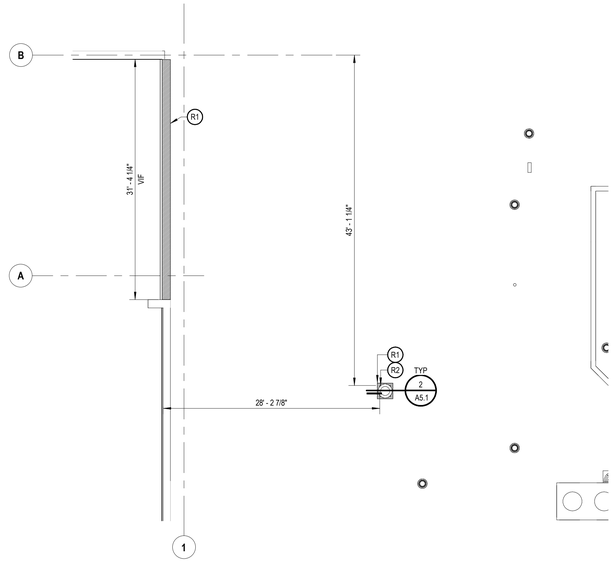
C2 09 2900 GYPSUM BOARD BULK HEAD. REFER TO TYPICAL DETAIL 3/A5.1

C3 07 4213 METAL PANEL SOFFIT



3 A0.1 ENLARGED REFLECTED CEILING PLAN

1/8" = 1'-0"



2 A0.2 ENLARGED ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES

ROOF PLAN

A. REFER TO SHEET A5.1 FOR TYPICAL ROOFING DETAILS.

B. COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS WITH INFORMATION PROVIDED BY THE APPROPRIATE EQUIPMENT MANUFACTURER AND TRADE CONTRACTORS.

C. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTS FOR ALL PIPES, CURBS, VENTS, DUCTS, CONDUITS, LIGHTNING PROTECTION, AND OTHER FEATURES EXTENDING THROUGH THE ROOF SURFACES WHICH REQUIRE FLASHING AND COORDINATE SIZE AND LOCATION OF SAME.

D. PROVIDE POSITIVE SLOPE TO ALL ROOF DRAINS.

E. VERIFY EXACT LOCATIONS OF ROOFING CONTROL JOINTS (IF REQUIRED) WITH ROOFING MANUFACTURER.

LEGEND

ROOF PLAN
NOTE: NOT ALL SYMBOLS MAY BE USED

- SLOPE — ROOF SLOPE INDICATION
- ROOF SUMP
- OVERFLOW ROOF SUMP
- ROOF HATCH
- ROOF WALKWAY
- EJ — BUILDING EXPANSION JOINT
- TAPERED INSULATION
- EQUIPMENT RAIL
- CURB MOUNTED EQUIPMENT
- STACK

KEYNOTES

ROOF PLAN
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

R1 07 5300 PATCH SINGLE-PLY ROOFING TO MATCH EXISTING ON RIGID INSULATION ON EXISTING METAL ROOF DECK.

R2 23 0000 MECHANICAL EQUIPMENT MOUNTED TO ROOF CURB.

GENERAL NOTES

NEW WORK PLAN

A. REFER TO SHEET A9.2 FOR DOOR SCHEDULE AND COLORS.

B. REFER TO SHEET A9.1 FOR FINISH SCHEDULE AND COLORS.

C. REFER TO LIFE SAFETY PLANS FOR PARTITION RATINGS.

D. PARTIAL WALL POCHEING IS SHOWN THROUGHOUT THIS PLAN AND THE TERMINATION OF SAME SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE IN WALL MATERIAL. VERIFY WALL MATERIALS WITH PARTITION TYPES AND SCHEDULES.

E. PATCH AND/OR REPAIR ALL EXISTING FLOOR, WALL AND OR CEILING FINISHES AS REQUIRED TO MATCH EXISTING OR TO ACCEPT NEW FINISHES AS SCHEDULED AT ALL AREAS AFFECTED BY THE DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL SCOPE OF WORK.

F. INFILL ALL OPENINGS IN EXISTING WALLS ABOVE CEILINGS THAT ARE THE RESULT OF MECHANICAL OR ELECTRICAL DEMOLITION. OPENINGS IN MASONRY WALLS SHALL BE FILLED WITH MASONRY OF SIMILAR TYPES AND THICKNESS AS EXISTING. OPENINGS IN OTHER TYPES OF WALL CONSTRUCTION SHALL MATCH EXISTING MATERIALS. FINISHES AND WALL THICKNESS. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR SCOPE OF WORK.

G. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE.

H. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

LEGEND

NEW WORK PLAN
NOTE: NOT ALL SYMBOLS MAY BE USED

- EXISTING CONSTRUCTION
- NEW CONSTRUCTION
- XXX — PARTITION TYPE - REFER TO PARTITION DETAILS SHEET A9.4
- SHALL COMPLY WITH BARRIER FREE REQUIREMENTS
- XXXX — CASEWORK/ MILLWORK TAG
- XXXX — SIGN NUMBER
- XXXX — 10 1100 VISUAL DISPLAY SURFACE MK= MARKERBOARD, TK=TACKBOARD XXXX INDICATES BOARD SIZE
- XXXX — 12 3553 LABORATORY EQUIPMENT & 11 5313 LABORATORY FUME HOODS
- W1.1 — 12 2413 ROLLER WINDOW SHADE
- CORNER GUARD

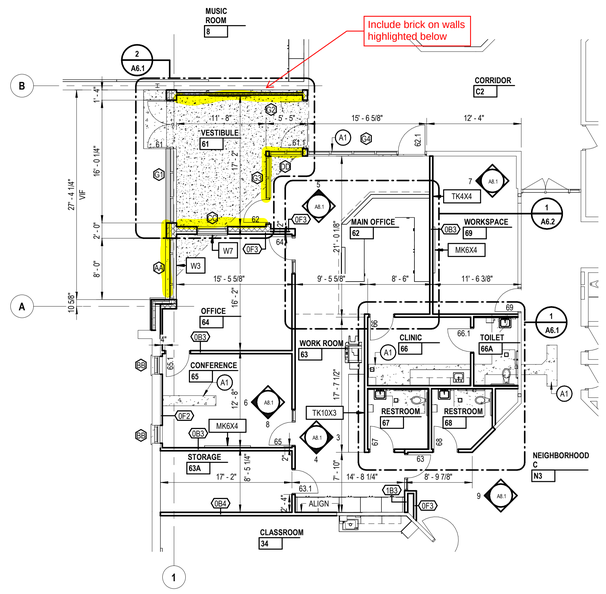
KEYNOTES

NEW WORK FLOOR PLAN
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

A1 03 3000 PATCH AND REPAIR CONCRETE FLOOR AT LOCATION OF REMOVED WALL OR REMOVED SLAB PORTION. REFER TO TYPICAL DETAIL 1/A5.1

A2 03 3000 CONCRETE SLAB ON GRADE. REFER TO FOUNDATION PLAN S1.1.



1 A0.1 ENLARGED NEW WORK PLAN

1/8" = 1'-0"

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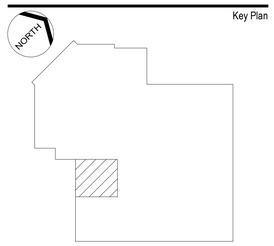
Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation

42200 Tyler Rd
Belleville, MI 48111

Key Plan



Project Administrator	A. Maurer
Project Designer	A. Pelfrey
Project Architect / Engineer	C. King
Drawn By	A. Pelfrey
Q.M. Review	-
Approved	-
Drawing Scale	As Noted

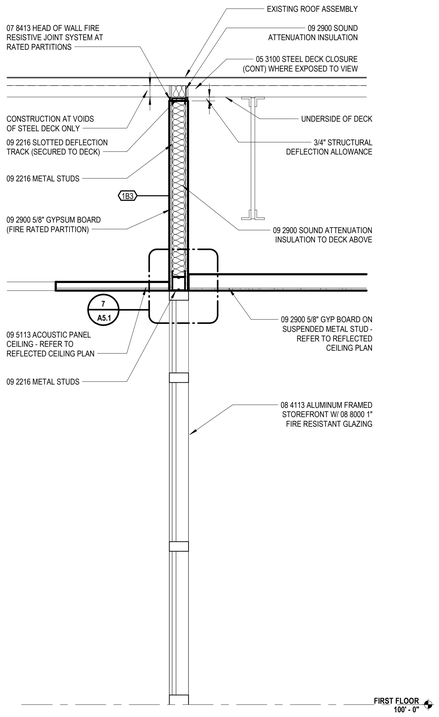
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

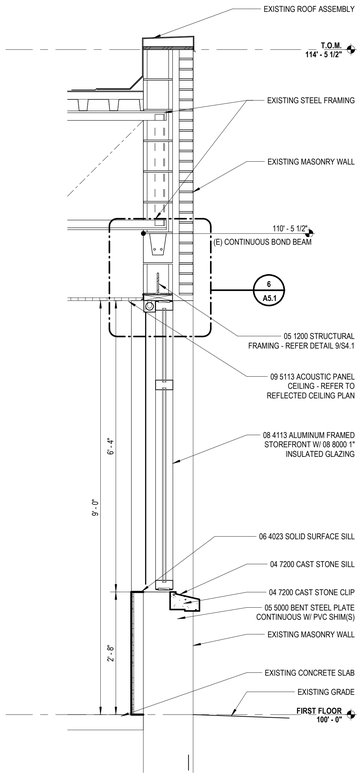
New Work Plans

IDS Project Number: 20111-3008

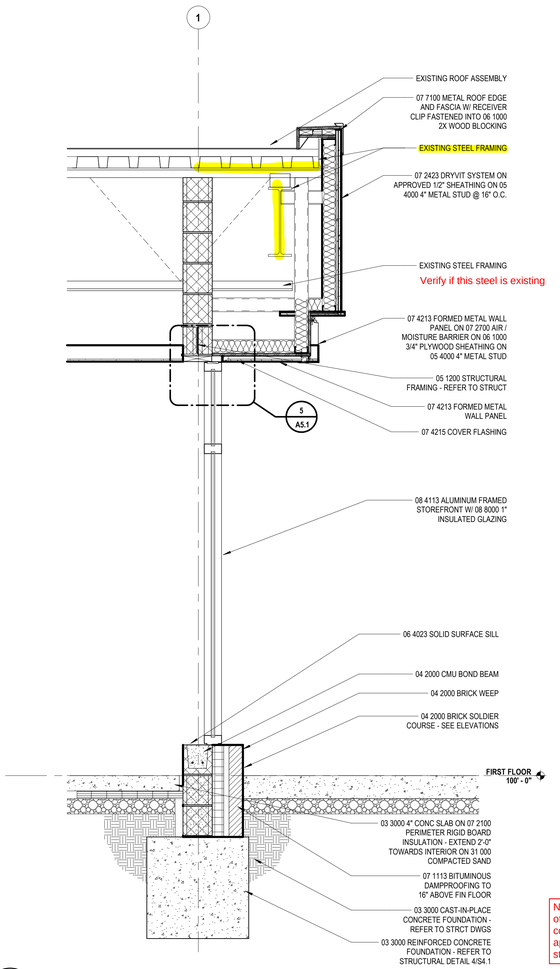
Drawing Number: A2.1



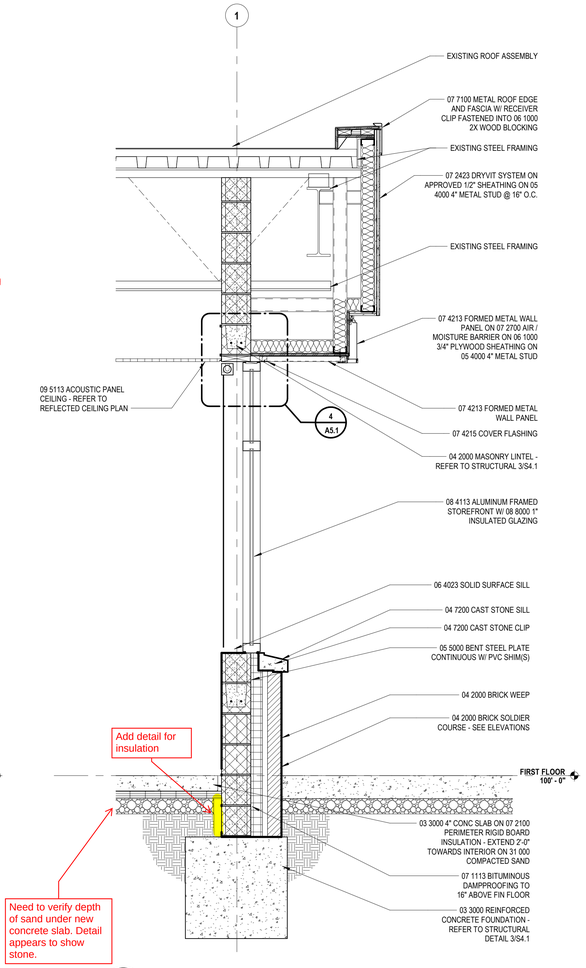
6 A8.1 WALL SECTION
3/4" = 1'-0"



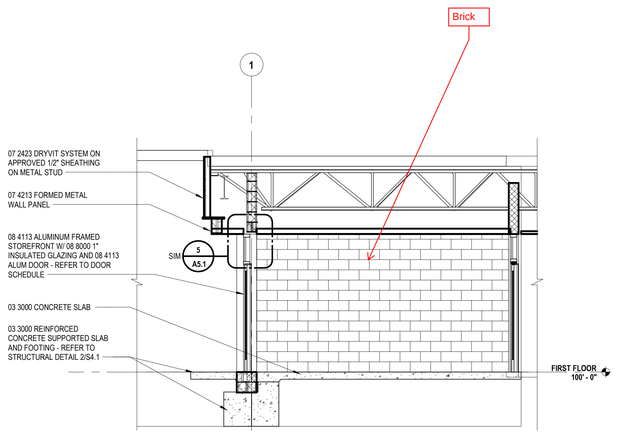
5 A4.1 WALL SECTION
3/4" = 1'-0"



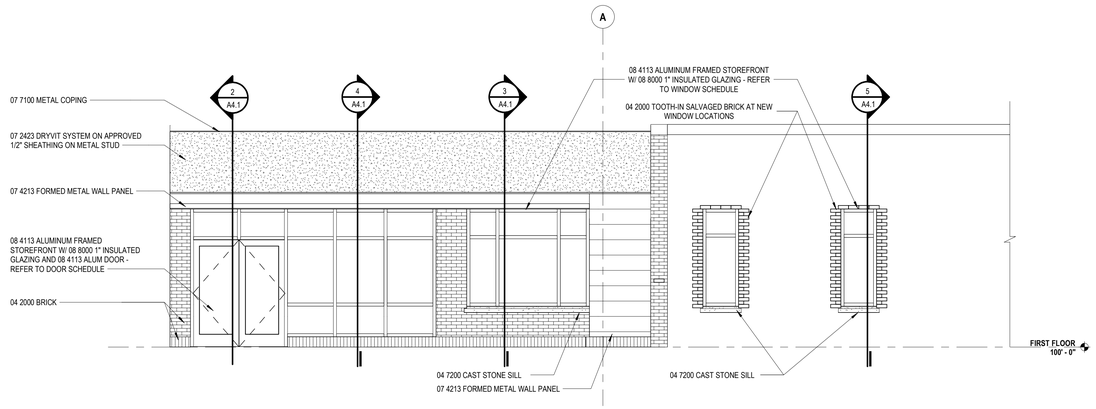
4 A4.1 WALL SECTION
3/4" = 1'-0"



3 A4.1 WALL SECTION
3/4" = 1'-0"



2 A4.1 SECTION THRU VESTIBULE
1/4" = 1'-0"



1 1.A2.1A EXTERIOR ELEVATION
1/4" = 1'-0"

LEGEND

ELEVATION MATERIALS
NOTE: NOT ALL SYMBOLS MAY BE USED

- 04 2000 CMU BLOCK
- 04 2000 BRICK MASONRY
- EXISTING BRICK MASONRY
- 09 2900 GYP BOARD

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Key Plan

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Project Designer
A. Pelfrey
Project Architect / Engineer
C. King
Drawn By
A. Pelfrey
Q.M. Review
-
Approved
-
Drawing Scale
As Noted

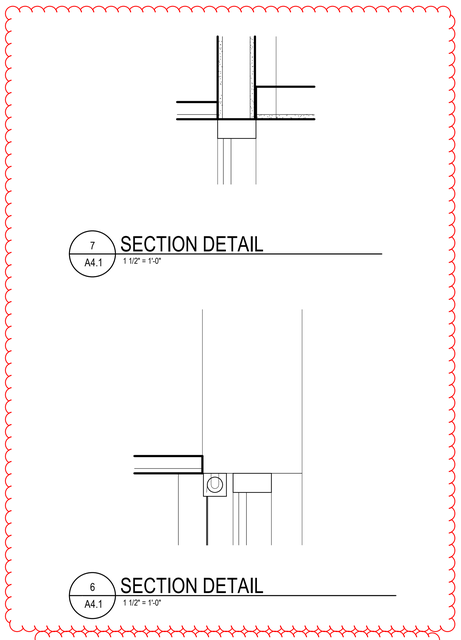
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Elevations and Sections

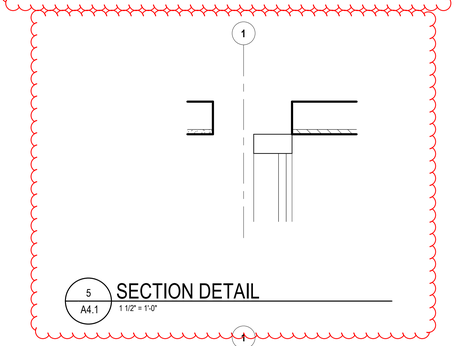
IDS Project Number
20111-3008

Drawing Number
A4.1

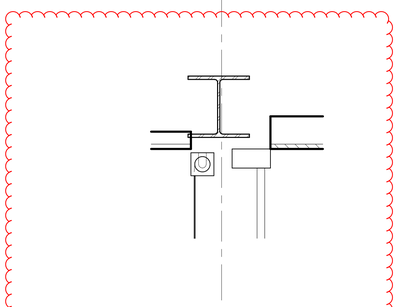


7 A4.1 SECTION DETAIL
1 1/2" = 1'-0"

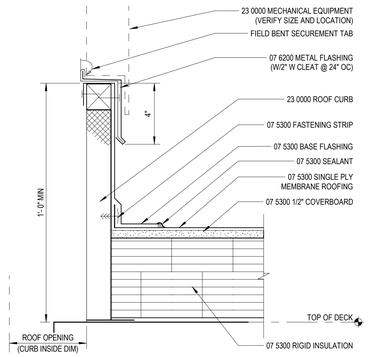
6 A4.1 SECTION DETAIL
1 1/2" = 1'-0"



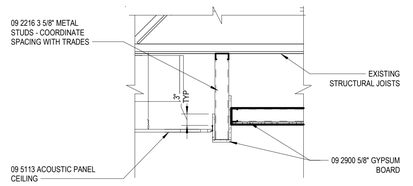
5 A4.1 SECTION DETAIL
1 1/2" = 1'-0"



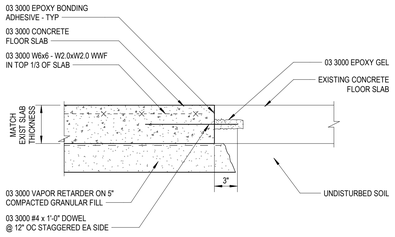
4 A4.1 SECTION DETAIL
1 1/2" = 1'-0"



2 A2.1 ROOF CURB (SINGLE PLY MEMBRANE ROOFING)
3" = 1'-0"



3 A2.1 SECTION DETAIL
3/4" = 1'-0"



1 A2.1 CONCRETE FLOOR SLAB INFILL
1 1/2" = 1'-0"

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C. King
Drawn By
A. Pelfrey
Q.M. Review
-
Approved
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Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Sections Details

IDS Project Number
20111-3008

Drawing Number
A5.1

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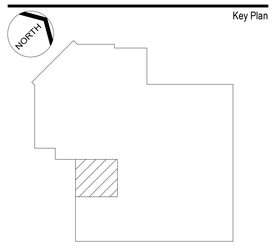


Project Administrator
A. Maurer
Project Designer
A. Pelfrey
Project Architect / Engineer
C. King
Drawn By
A. Pelfrey
Q.M. Review
-
Approved
-
Drawing Scale
1/4" = 1' - 0"

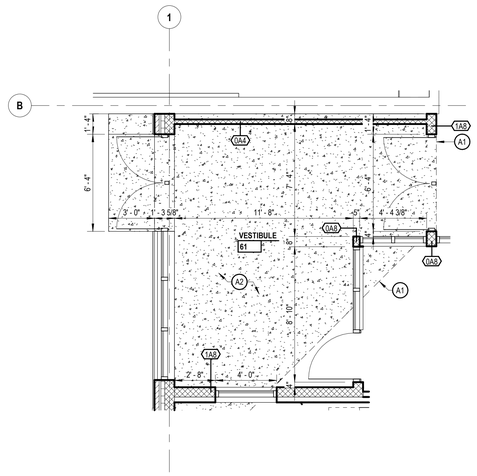
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Enlarged Plan Details

IDS Project Number
20111-3008

Drawing Number
A6.1



2 A2.1 ENLARGED VESTIBULE PLAN
1/4" = 1'-0"

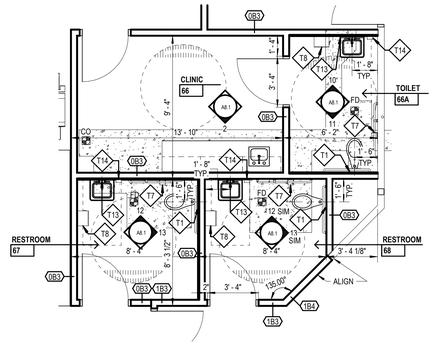
KEYNOTES

NEW WORK FLOOR PLAN
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

A1 03 3000 PATCH AND REPAIR CONCRETE FLOOR AT LOCATION OF REMOVED WALL OR REMOVED SLAB PORTION. REFER TO TYPICAL DETAIL 1/A5.1

A2 03 3000 CONCRETE SLAB ON GRADE. REFER TO FOUNDATION PLAN S1.1.



1 A2.1 ENLARGED TOILET ROOM PLANS
1/4" = 1'-0"

LEGEND

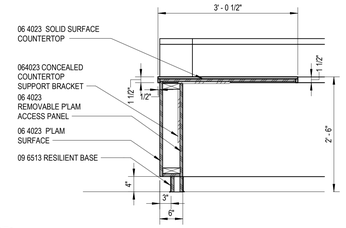
TOILET ACCESSORIES
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

REFER TO SPECIFICATION SECTION 10 2800 FOR ADDITIONAL INFORMATION ALL TOILET ACCESSORIES ARE CONTRACTOR FURNISHED AND INSTALLED UON.
(OF/OI): OWNER FURNISHED/OWNER INSTALLED
(OF/CI): OWNER FURNISHED/CONTRACTOR INSTALLED
REFER TO DRAWING AR.0 FOR TYPICAL MOUNTING HEIGHTS

(#) LEGEND SYMBOL INDICATOR

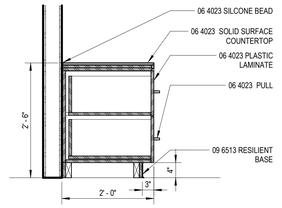
T1 GRAB BAR SET 1 (1) GRAB BAR TYPE 1, (1) GRAB BAR TYPE 2, (1) GRAB BAR TYPE 3 (CF/CI)
T7 TOILET PAPER DISPENSER (OF/OI)
T8 PAPER TOWEL DISPENSER (OF/OI)
T13 MIRROR (CF/CI)
T14 SOAP DISPENSER (OF/OI)

Owner Furnished / Contractor Installed



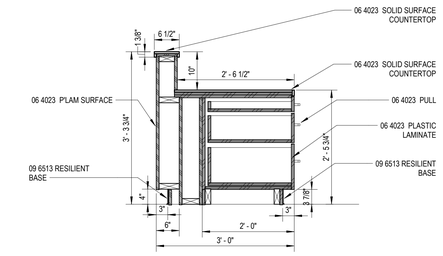
10 A6.2 RECEPTION DESK - SECTION DETAIL

3/4" = 1'-0"



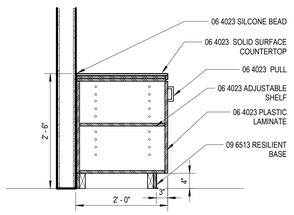
9 A6.2 RECEPTION DESK - SECTION DETAIL

3/4" = 1'-0"



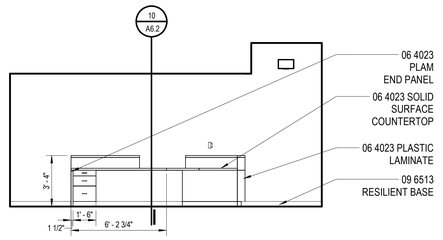
8 A6.2 RECEPTION DESK - SECTION DETAIL

3/4" = 1'-0"



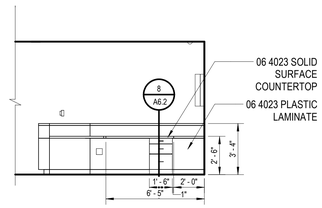
7 A6.2 RECEPTION DESK - SECTION DETAIL

3/4" = 1'-0"



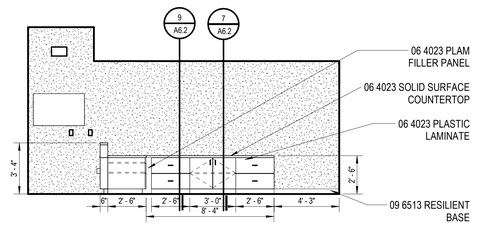
6 A6.2 RECEPTION DESK

1/4" = 1'-0"



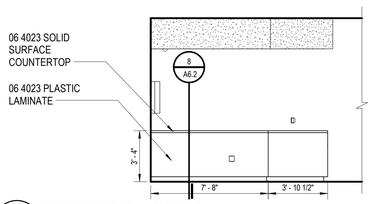
5 A6.2 RECEPTION DESK

1/4" = 1'-0"



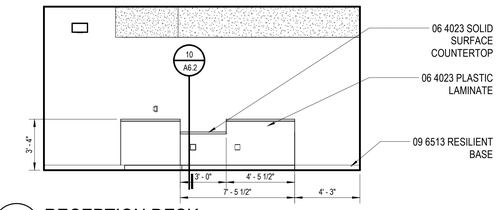
4 A6.2 RECEPTION DESK

1/4" = 1'-0"



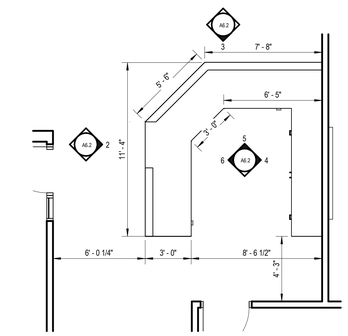
3 A6.2 RECEPTION DESK

1/4" = 1'-0"



2 A6.2 RECEPTION DESK

1/4" = 1'-0"



1 A2.1 RECEPTION DESK ENLARGED PLAN

1/4" = 1'-0"

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C. King
Drawn By
D. Sandle
Q.M. Review
Approved
-
Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Enlarged Reception Desk Plan

IDS Project Number
20111-3008

Drawing Number
A6.2

GENERAL NOTES

INTERIOR ELEVATIONS

A. ALL DIMENSIONS ARE TO FACE OF GYP BOARD UON.

B. COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FIXTURES AND EQUIPMENT

C. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.

D. COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.

E. FASTEN ALL TALL CASES TO THE ADJOINING WALL THROUGH THE BACK OR SIDE OF THE UNIT.

F. ALL COUNTERTOPS INSTALLED ALONG A WALL OR EQUIPMENT ARE TO HAVE 4" BACKSPLASH AND SIDE SPLASH UON.

G. FINISH ALL EXPOSED ENDS AND BACKS OF FREESTANDING CASEWORK/ MILLWORK.

H. PROVIDE LOCKS ON ALL CABINET DOORS AND DRAWERS UON. ALL LOCKS SHOULD BE KEYED ALIKE BY ROOM, PROVIDE MASTER KEYING.

I. REFER TO A9.1 ROOM FINISH SCHEDULE FOR COLORS AND FINISHES OF MATERIALS

J. REFER TO PLANS, SECTIONS AND DETAILS FOR CASEWORK DEPTH.

K. PROVIDE CABINET FILLERS AS NEEDED.

L. FURNITURE AND SPECIALTY EQUIPMENT BY OTHERS SHOWN FOR REFERENCE ONLY

M. FURNITURE SHOWN AT HALFTONE BY OWNER

N. PROVIDE PARTITION REINFORCEMENT AT LOCATIONS OF WALL MOUNTED EQUIPMENT. REFER TO DETAIL X/AX.X FOR TYPICAL REQUIREMENTS AT NEW CONSTRUCTION. CONDITIONS MAY VARY AT EXISTING PARTITIONS.

O. NOT ALL SIGN LOCATIONS ARE ELEVATED

P. COORDINATE LOCATIONS OF ALL REQUIRED UTILITY CONNECTIONS AND/OR REQUIREMENTS WITH THE TRADE PROVIDING THE SAME

LEGEND

INTERIOR ELEVATIONS
NOTE: NOT ALL SYMBOLS MAY BE USED

XXXX	06 4023 CASEWORK / MILLWORK TAG
XXXX	10 1100 VISUAL DISPLAY SURFACE MK= MARKERBOARD, TK=TACKBOARD XXXX INDICATES BOARD SIZE
XXXX	SPECIALTY EQUIPMENT BY OTHERS REFER TO FF&E OR TECHNOLOGY PACKAGES
XX-XX	ACCENT MATERIAL, REFER TO COLOR CODES

LEGEND

ELEVATION MATERIALS
NOTE: NOT ALL SYMBOLS MAY BE USED

	04 2000 CMU BLOCK
	04 2000 BRICK MASONRY
	EXISTING BRICK MASONRY
	09 2900 GYP BOARD

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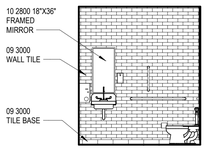
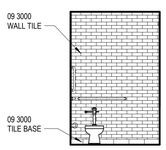
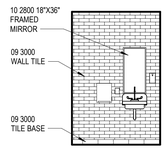
13 A6.1 TOILET ROOM
1/4" = 1'-0"



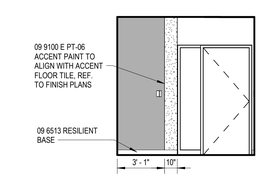
12 A6.1 TOILET ROOM
1/4" = 1'-0"



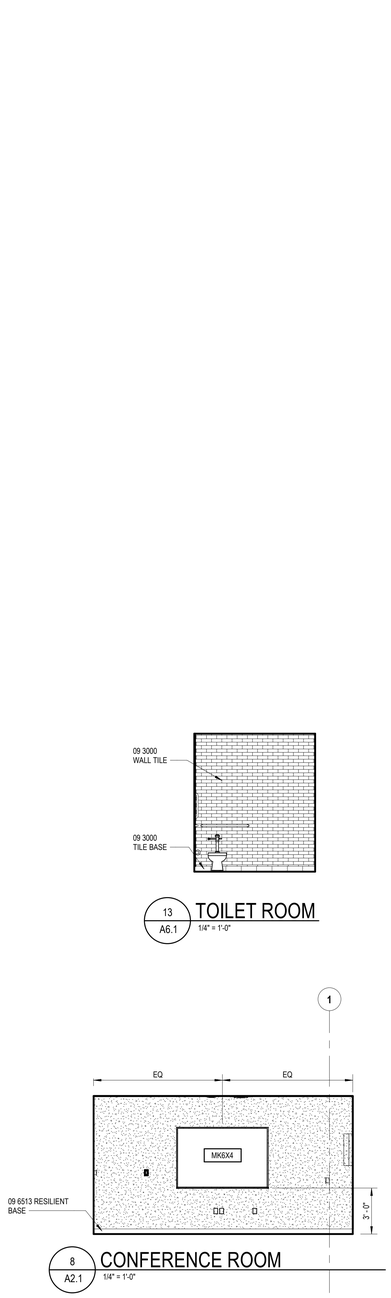
11 A6.1 CLINIC TOILET
1/4" = 1'-0"



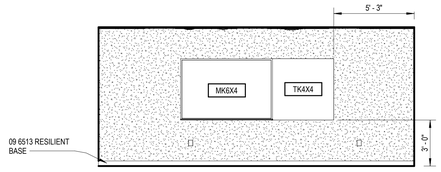
10 A6.1 CLINIC TOILET
1/4" = 1'-0"



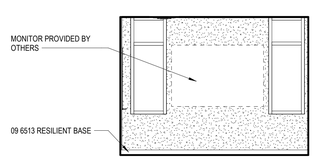
9 A2.1 CORRIDOR
1/4" = 1'-0"



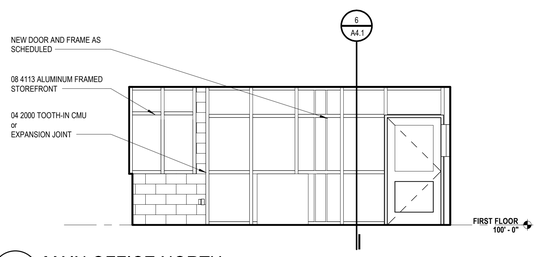
8 A2.1 CONFERENCE ROOM
1/4" = 1'-0"



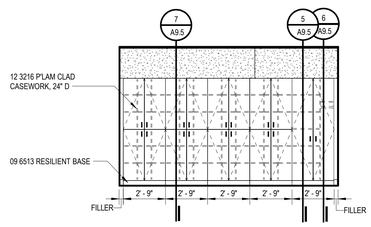
7 A2.1 WORKSPACE
1/4" = 1'-0"



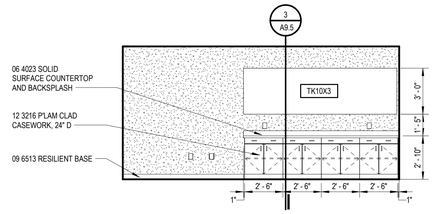
6 A2.1 CONFERENCE ROOM
1/4" = 1'-0"



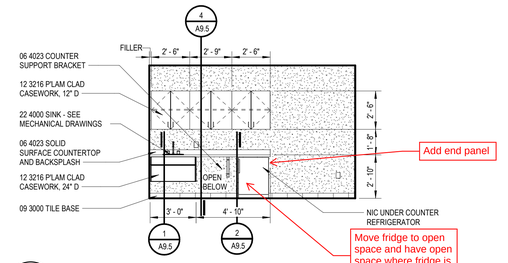
5 A2.1 MAIN OFFICE NORTH
1/4" = 1'-0"



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



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



2 A6.1 CLINIC
1/4" = 1'-0"

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C. King
Drawn By
D. Sandle
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-
Approved
-
Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Interior Elevations

IDS Project Number
20111-3008

Drawing Number
A8.1

SCHEDULE - COLOR CODES

COLOR CODES	PRODUCT / MATERIAL	MANUFACTURER	PRODUCT NAME / NUMBER	COLOR NAME / NUMBER	SIZE	FINISH	NOTES
B-01	RESILIENT BASE	ROPPE	PINNACLE RUBBER COVE BASE 4"	BLACK 100			
B-02	TILE BASE	CROSSVILLE	ARGENT	CLEAN SLATE	6"X12" COVE BASE		
CPT-06	CARPET TILE	INTERFACE	DETOURS	STEEL	50CM X 50CM		QUARTER TURN INSTALLATION METHOD
E PT-01	EPOXY PAINT	SHERWIN WILLIAMS		FROSTY WHITE SW6196			
ENT-01	ENTRY MAT/ CARPET	MANNINGTON COMMERCIAL	FRIXTION ENTRYWAY SYSTEM, CHARGE	KINETIC	18"X36"		INSTALLATION METHOD ASHLAR
FT-01	FLOOR TILE	CROSSVILLE	ARGENT	CLEAN SLATE	6"X6"	UNPOLISHED	STRAIGHT LAY INSTALLATION
FT-02	FLOOR TILE	AMERICAN OLEAN	UNGLAZED MOSAICS	LIGHT SMOKE SPECKLE A04	2"X2"	MATTE	STRAIGHT LAY INSTALLATION
LN-01	LINOLEUM	FORBO	MCT	EIGER MCT-629	13"X13"	TOPSHIELD PRO	CORRIDOR FIELD
LN-04	LINOLEUM	FORBO	MCT	LAGUNA MCT-3238	13"X13"	TOPSHIELD PRO	ACCENT
PL-01	PLASTIC LAMINATE	WILSONART		NEO WALNUT 7991-38			CLASSROOM VERTICAL SURFACE
PL-03	PLASTIC LAMINATE	WILSONART		WEATHERED CHAIR 8204K-16			
PT-01	PAINT	SHERWIN WILLIAMS		FROSTY WHITE SW6196			FIELD
PT-03	PAINT	SHERWIN WILLIAMS		HIGH REFLECTIVE WHITE SW7757		FLAT	CEILING
PT-06	PAINT	SHERWIN WILLIAMS		JAMACIA BAY SW6781			ACCENT
PT-07	PAINT	SHERWIN WILLIAMS		BLACK MAGIC SW6991			HOLLOW METAL DOORS AND FRAMES
PT-09	PAINT	SHERWIN WILLIAMS		MARIGOLD SW6664			ACCENT
SC-01	SHADE CLOTH	DRAPER MERMET	GREEN SCREEN EVOLVE 3%	NATURAL			
SS-02	SOLID SURFACE MATERIAL	CORIAN		NATURAL CONCRETE			
SS-03	SOLID SURFACE MATERIAL	LG HI-MACS		HAZE / M308			WINDOW SILLS
SS-04	SOLID SURFACE MATERIAL	LG HI-MACS		RIPE COTTON G518R			RECEPTION DESK
TK-02	TACKBOARD	MAHARAM	MESSENGER	TANGELO 053			
WD-01	WOOD DOORS	VT INDUSTRIES		WHITE OAK		CLEAR	
WT-01	WALL TILE	AMERICAN OLEAN	COLORSTORY	BALANCE 14	3"X6"		1/3RD OFFSET INSTALLATION

SCHEDULE - WINDOW SHADES

TYPE	LENGTH	WIDTH	HOUSING	MANUFACTURER	MATERIAL	MECHANISM	MOUNTING
W3	6' - 2"	8' - 0"	0"	DRAPER	SC-01	MANUAL- SINGLE ROLLER	INSIDE MOUNT, SMALL HEADBOX
W3: 1							
W6	6' - 2"	2' - 4"	0"	DRAPER	SC-01	MANUAL- SINGLE ROLLER	INSIDE MOUNT, SMALL HEADBOX
W6: 2							
W7	4' - 0"	4' - 0"	0"	DRAPER	SC-01	MANUAL- SINGLE ROLLER	INSIDE MOUNT, SMALL HEADBOX
W7: 1							

SCHEDULE - ROOM FINISH

NUMBER	NAME	FLOOR	BASE	WALL	CEILING	REMARKS
45	VESTIBULE	ENT-01	B-01	PT-01	GYP-01	
52	MAIN OFFICE	CPT-06	B-01	PT-01,PT-09	AC-01,GYP-01,PT-03	5
53	OFFICE	CPT-06	B-01	PT-01	AC-01	3,6
63	CONFERENCE	CPT-06	B-01	PT-01,PT-09	AC-01	3,6
64	WORK ROOM	CPT-06	B-01	PT-01	AC-01	4,5,7
65	CLINIC	FT-01,FT-02	B-02	E PT-01	AC-01	1,2,9
73	TOILET	FT-01,FT-02	B-02	WT-01	GYP-01,PT-03	1,2
75	RESTROOM	FT-01,FT-02	B-02	WT-01	GYP-01,PT-03	1,2
76	WORKSPACE	CPT-06	B-01	PT-01,PT-09	AC-01	4,7,8
79	CORRIDOR	(E)	B-01,(E)	(E)	AC-01,(E)	10
100	RESTROOM	FT-01,FT-02	B-02	WT-01	GYP-01,PT-03	1,2
102	NEIGHBORHOOD C	LN-01,LN-04	B-01	PT-01,PT-06	AC-01,(E)	8
112	STORAGE	CPT-06	B-01	PT-01	AC-01	

ABBREVIATIONS

ROOM FINISH SCHEDULE

AC PANEL	ACOUSTICAL PANEL
ACT	ACOUSTICAL CEILING TILE
CC	COLOR CODE
CG	CORNER GUARD
CMU	CONCRETE MASONRY UNIT
CT	CERAMIC TILE
CEM PLAS	CEMENT PLASTER
CONC	CONCRETE
DEFS	DIRECT APPLIED EXTERIOR FINISH SYSTEM
(E)	EXISTING FINISH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EPT	EPOXY PAINT
E TERR	EPOXY TERRAZZO
ENTR MAT	ENTRY MAT SYSTEM
EXP CONST	EXPOSED CONSTRUCTION
FWC	FABRIC WALL COVERING
GF CMU	GROUND FACE CONCRETE MASONRY UNIT
GL CMU	GLAZED CONCRETE MASONRY UNIT
GYP BD	GYPSUM BOARD
HD/SLR	HARDENER/ SEALER
IR GYP BD	IMPACT RESISTANT GYPSUM BOARD
LIMEST	LIMESTONE
LINO	LINOLEUM
MCC	MULTI-COLORED COATING
MTL	METAL
MTL PNL	METAL PANEL
P LAM	PLASTIC LAMINATE
PAVER T	PAVER TILE
PLAS	PLASTER
POL CONC	POLISHED CONCRETE
PORC T	PORCELAIN TILE
PT	PAINT
QT	QUARRY TILE
RAF	RAISED ACCESS FLOORING
RT	RUBBER TILE
RESIN FLR	RESINOUS FLOORING
RESIL	RESILIENT
SGFT	STRUCTURAL GLAZED FACING TILE
SHT V	SHEET VINYL
SSM	SOLID SURFACE MATERIAL
ST STL	STAINLESS STEEL
STN	STAIN
TC	TRAFFIC COATING
TERR	TERRAZZO
VCT	VINYL COMPOSITION TILE
VWC	VINYL WALLCOVERING
VEN PLAS	VENEER PLASTER
WD	WOOD

GENERAL NOTES

ROOM FINISH SCHEDULE

* REFER TO ABBREVIATIONS LIST FOR MATERIAL CODE DESCRIPTIONS

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

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

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

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

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

F. REFER TO A2.1 FOR FLOOR TILE PATTERNS AND MATERIALS.

G. REFER TO A8 SERIES FOR INTERIOR ELEVATIONS.

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

REMARKS

ROOM FINISH SCHEDULE

1. 75% FT-01, 25% FT-02 IN RANDOM MIXED INSTALLATION
2. GROUT AT FLOOR TILE TO BE TEC ACCUCOLOR EFX, COLOR: 934 SLATE GRAY. GROUT AT WALL TILE TO BE TEC ACCUCOLOR EFX, COLOR: 949 SILVERADO. TRANSITION AT CERAMIC FLOOR TILE TO BE MARBLE THRESHOLD
3. ROLLER SHADES SC-01 TO RUN FULL LENGTH OF GLAZING OPENING. VIF - FOR OPENING SIZE.
4. TACKBOARD MATERIAL TK-02
5. PLASTIC LAMINATE PL-03, SOLID SURFACE SS-04
6. SOILD SURFACE MATERIAL AT WINDOW SILLS IS SS-03
7. TRANSITION AT CARPET TO LINOLEUM OR CARPET TO EXISTING TO BE SCHLUTER RENO U AEU 100 IN SATIN ANODIZED ALUMINUM
8. TOUCH UP PAINT REQUIRED. PATCH/REPAIR/PAINT ALL LOCATIONS WHERE WALL MOUNTED ITEMS ARE REMOVED, INCLUDING BUT NOT LIMITED TO CLOCKS, ALARMS, WIREWAYS, ETC. OR WHERE SELECTIVE DEMOLITION OCCURS - COORDINATE EXTENTS WITH DEMO AND NEW WORK.
9. PLASTIC LAMINATE PL-01, SOLID SURFACE SS-02
10. PT-01 AND B-01 AT NEW WALL CONSTRUCTION ONLY

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Q.M. Review
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Approved
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Drawing Scale
As Noted

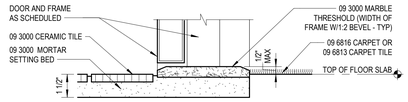
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

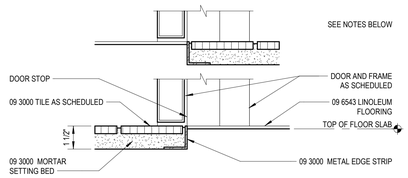
Room Finish Schedule

IDS Project Number
20111-3008

Drawing Number
A9.1



14 SILL
3" = 1'-0"



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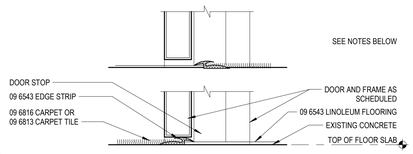

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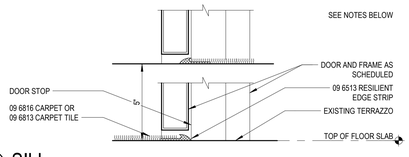

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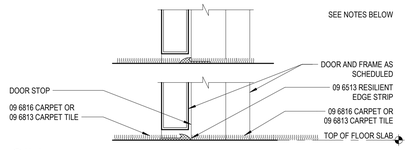

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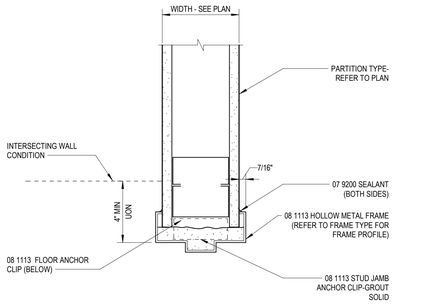
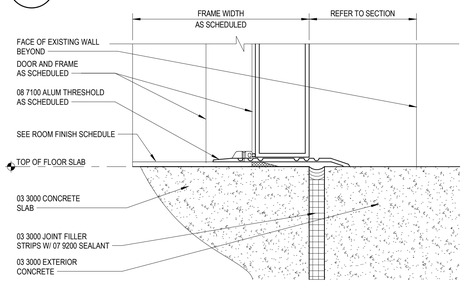
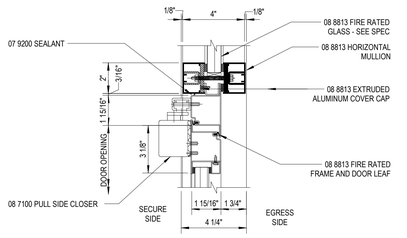


9 JAMB(HEAD SIM) - HOLLOW METAL
3" = 1'-0"

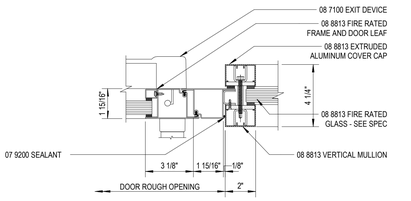


8 SILL
6" = 1'-0"

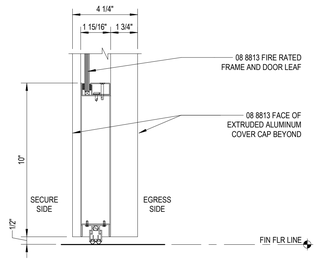
Special Lite exterior doors



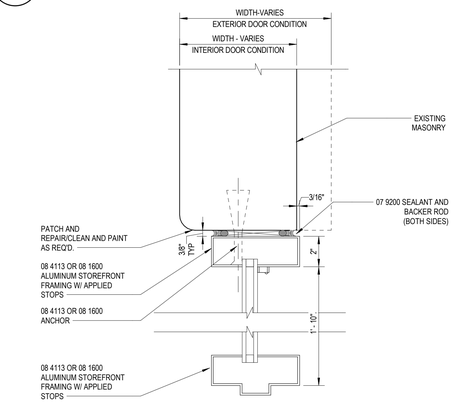
18 FRAME - ALUM/FRG DR HD
3" = 1'-0"



17 FRAME - ALUM/FR DR JAMB
3" = 1'-0"



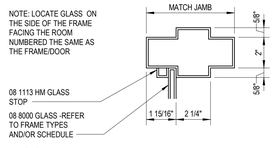
16 FRAME - ALUM/FRG DR BOTT
3" = 1'-0"



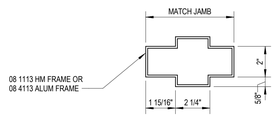
15 JAMB TRANSOM(HEAD SIM) - ALUM
3" = 1'-0"

DOOR SCHEDULE

DOOR NUMBER	DOOR SIZE WIDTH	SIZE LEAF 1	SIZE LEAF 2	SIZE HEIGHT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH/ CC	DOOR FRGM	FRAME TYPE	FRAME MATERIAL	FRAME FINISH / CC	FRAME FRGM	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HARDWARE SET	DOOR ASSEMBLY RATING	WALL RATING	REMARKS
61	6' - 0"	3' - 0"	3' - 0"	7' - 0"	FG2	AL	ANOD-BL	-	SEE ELEV.	AL	ANOD-BL	-	5/A5.1		8/A9.2				1, 3
61.1	6' - 0"	3' - 0"	3' - 0"	7' - 0"	FG2	AL	ANOD-BL	D-20, FRG-01	SEE ELEV.	AL	ANOD-BL	D-H-W-60, FRG-03	15/A9.2		11/A9.2		20 MIN	60 MIN	1, 10
62	3' - 0"	3' - 0"		7' - 0"	FG2	AL	ANOD-BL	-	SEE ELEV.	AL	ANOD-BL	-	7/A5.1		10/A9.2				1, 3
62.1	3' - 6"	3' - 6"		7' - 0"	FG2	AL	ANOD-BL	D-20, FRG-01	SEE ELEV.	AL	ANOD-BL	D-H-W-60, FRG-03	7/A5.1		11/A9.2		20 MIN	60 MIN	1,10
63	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	D-20, FRG-01	B	HM	PT-07	W-60, FRG-03	9/A9.2	9/A9.2	12/A9.2		20 MIN	60 MIN	1,10
63.1	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	A	HM	PT-07	-	9/A9.2	9/A9.2	-				
64	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	B	HM	PT-07	-	9/A9.2	9/A9.2	-		-	-	
65	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	B	HM	PT-07	-	9/A9.2	9/A9.2	-		-	-	
65.1	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	A	HM	PT-07	-	9/A9.2	9/A9.2	-				
66	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	A	HM	PT-07	-	9/A9.2	9/A9.2	14/A9.2				
66.1	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	A	HM	PT-07	-	9/A9.2	9/A9.2	-		-	-	
67	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	-	A	HM	PT-07	-	9/A9.2	9/A9.2	14/A9.2				
68	3' - 0"	3' - 0"		7' - 0"	F	WD	WD-01	D-20	A	HM	PT-07	W-60	9/A9.2	9/A9.2	13/A9.2		20 MIN	60 MIN	
69	3' - 0"	3' - 0"		7' - 0"	N	WD	WD-01	D-20, FRG-01	A	HM	PT-07	W-60	9/A9.2	9/A9.2	12/A9.2		20 MIN	60 MIN	



5 FRAME - HM W/ GLASS
3" = 1'-0"



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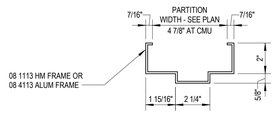
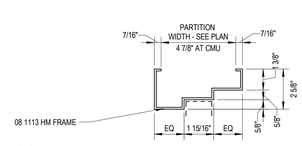
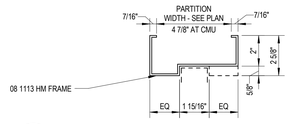


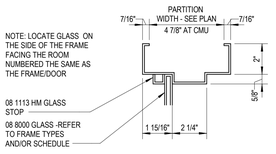
1 FRAME - HM
3" = 1'-0"



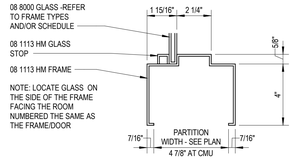
6 FRAME - DOUBLE EGRESS JAMB
3" = 1'-0"



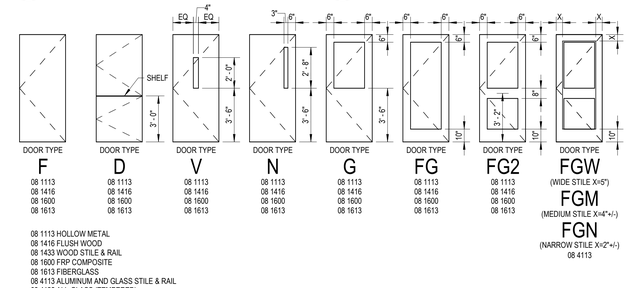
7 FRAME - DOUBLE EGRESS HEAD
3" = 1'-0"



3 FRAME - HM W/ GLASS
3" = 1'-0"



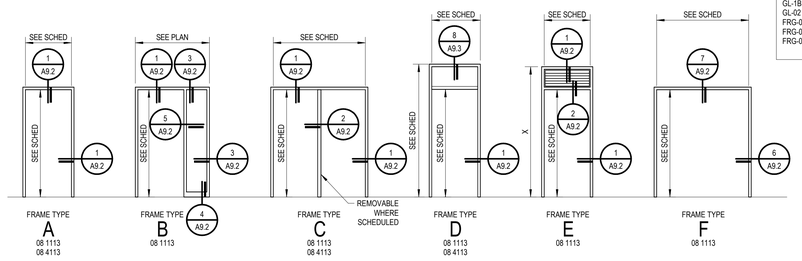
4 FRAME - HM W/ GLASS
3" = 1'-0"



DOOR TYPES

1/4" = 1'-0"

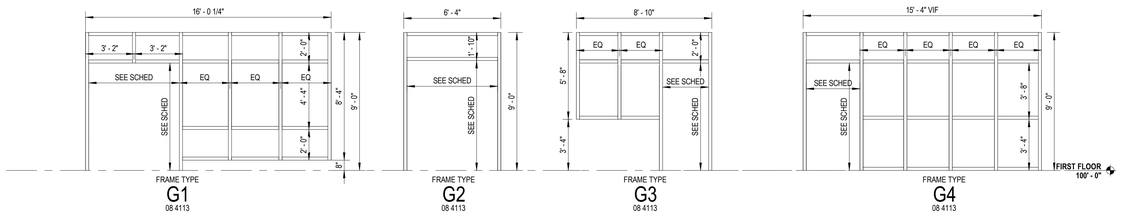
NOTE: ALL GLASS TO BE 1/4" SAFETY GLASS EXCEPT USE FIRE RATED GLASS AT FIRE RATED DOORS, SIDELITES, ETC., UON



FRAME TYPES

1/4" = 1'-0"

NOTE: ALL GLASS TO BE 1/4" SAFETY GLASS EXCEPT USE 08 8813 FIRE RATED GLASS (FRG) AT FIRE RATED DOORS, SIDELITES, ETC., UON



GENERAL NOTES

DOOR SCHEDULE

A. REFER TO THE DRAWINGS FOR DOOR LOCATIONS

B. "DOOR NUMBER" CORRESPONDS TO THE DOOR NUMBER INDICATED ON THE DRAWINGS. NOTE: AT EXISTING WALL OPENINGS, FIELD VERIFY SIZE OF DOORS AND FRAMES.

C. (DOOR) "SIZE" INDICATES THE NOMINAL WIDTH AND HEIGHT OF THE DOOR IN FEET AND INCHES. ALL DOORS ARE 1 3/4" THICK UNLESS OTHERWISE NOTED.

D. "DOOR AND FRAME TYPE/MATL/FINISH" INDICATES THE CODES FOR TYPE (INDICATED ON THE DRAWINGS), MATERIAL AND FINISH.

E. "CC" INDICATES THE COLOR CODE FOR FINISHES OF DOORS AND FRAMES, SEE "SCHEDULE - COLOR CODES".

F. "DETAILS HEAD- JAMB-SILL" INDICATES THE DETAIL NUMBER INDICATED ON THE DRAWINGS.

G. "HARDWARE SET" INDICATES HARDWARE SET NUMBERS SPECIFIED IN 08 7100 - DOOR HARDWARE.

H. "DOOR ASSEMBLY RATING" INDICATES THE MINIMUM FIRE RESISTANCE RATING FOR FIRE DOORS AND/OR SIDELITES.

I. "WALL RATING" INDICATES THE FIRE RESISTANCE RATING OF THE WALL CONTAINING THE DOOR.

J. "FRGM" INDICATES FIRE-RATED GLAZING MARKINGS.

K. "REMARKS" INDICATES ANY SPECIAL REQUIREMENTS FOR A DOOR AND FRAME - SEE "DOOR SCHEDULE - REMARKS".

REMARKS

DOOR SCHEDULE

1. ACCESS CONTROL SYSTEM
2. REMOVABLE MULLION
3. LOW ENERGY POWER OPERATED DOOR
4. POWER OPERATED DOOR PACKAGE DOOR ASSEMBLY (ALL HARDWARE BY DOOR MANUFACTURER)
5. HOLLOW METAL ASTRAGAL
6. DOOR FRAME TO REMAIN - ONLY REPLACE DOOR LEAF AND HARDWARE - PATCH, REPAIR, AND FILL HOLES ON DENTS ON THE EXISTING FRAME.
7. VERIFY DIMENSIONS IN FIELD
8. RE-CERTIFY FRAME FOR 20 MINUTE FIRE DOOR ASSEMBLY RATING.
9. 180 DEGREE SWING
10. DOOR TO RECEIVE NEW OR SALVAGED DOOR BARRICADE HARDWARE - BY OTHERS
11. BATTERY POWERED ELECTRONIC CLASSROOM HARDWARE

FIRE-RATED GLAZING ASSEMBLIES MARKING

W	MEETS WALL ASSEMBLY CRITERIA
OH	MEETS FIRE WINDOW ASSEMBLY CRITERIA INCLUDING THE HOSE STREAM TEST
D	MEETS FIRE DOOR ASSEMBLY CRITERIA
H	MEETS FIRE DOOR ASSEMBLY "HOSE STREAM" TEST
T	MEETS 450 DEG F TEMPERATURE RISE CRITERIA FOR 30 MINUTES
NT	DOES NOT MEET 450 DEG F TEMPERATURE RISE CRITERIA FOR 30 MINUTES
XXX	TIME IN MINUTES OF THE FIRE RESISTANCE OR FIRE PROTECTION RATING OF THE GLAZING ASSEMBLY

ABBREVIATIONS

DOOR SCHEDULE

ALUM	ALUMINUM
ANOD	ANODIZED
CC	COLOR CODES
(E)	EXISTING
FBR	FIBERGLASS
FRP	FIBERGLASS REINFORCED PANEL
FAC	FACTORY
GL	GLASS
180	180 MINUTES (3 HOUR)
90	90 MINUTES (1 1/2 HOUR)
60	60 MINUTES (1HOUR)
45	45 MINUTES (3/4 HOUR)
20	20 MINUTES (1/3 HOUR)
HM	HOLLOW METAL
HDWE	HARDWARE
MATL	MATERIAL
P LAM	PLASTIC LAMINATE
PT	PAINT
PVF	POLYVINYL FLUORIDE COATING (KYNAR)
STN	STAIN
ST STL	STAINLESS STEEL
STL	STEEL
WD	WOOD
WM	WIRE MESH

GLAZING TYPE LEGEND

GL-1A - LOW-E-COATED, CLEAR, INSULATING GLASS
GL-1B - LOW-E-COATED, CLEAR, INSULATING SAFETY GLASS
GL-02 - CLEAR, NON-INSULATED, SAFETY GLASS
FRG-01 - 20 MINUTE FIRE-PROTECTION-RATED GLAZING
FRG-02 - FIRE-PROTECTION-RATED GLAZING (DOOR LITES)
FRG-03 - 60 MINUTE FIRE-PROTECTION-RATED GLAZING

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Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

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Project Designer
A. Pelfrey
Project Architect / Engineer
C. King
Drawn By
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Q.M. Review
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Aproved
-
Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Door Schedule and Details

IDS Project Number
20111-3008

Drawing Number
A9.2

LEGEND

ELEVATION MATERIALS
NOTE: NOT ALL SYMBOLS MAY BE USED

04 2000 CMU BLOCK

04 2000 BRICK MASONRY

EXISTING BRICK MASONRY

09 2900 GYP BOARD

GLAZING TYPE LEGEND

GL-1A - LOW-E-COATED, CLEAR, INSULATING GLASS
GL-1B - LOW-E-COATED, CLEAR, INSULATING SAFETY GLASS
GL-02 - CLEAR, NON-INSULATED, SAFETY GLASS
GL-03 - INSULATED INFILL PANEL
FRG-01 - 20 MINUTE FIRE-PROTECTION-RATED GLAZING
FRG-02 - FIRE-PROTECTION-RATED GLAZING (DOOR LITES)
FRG-03 - 60 MINUTE FIRE-PROTECTION-RATED GLAZING

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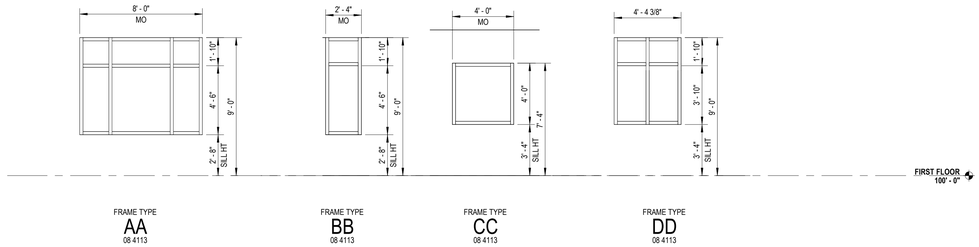

FRAME TYPE AA
08 4113

FRAME TYPE BB
08 4113

FRAME TYPE CC
08 4113

FRAME TYPE DD
08 4113

WINDOW TYPES

1/4" = 1'-0"

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C. King
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Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Window Frame Types

IDS Project Number
20111-3008

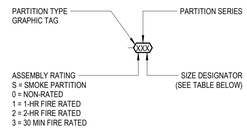
Drawing Number
A9.3

6/24/2024 6:29:05 PM Autodesk Docs://Van Buren Public Schools (2023)/VBPS Tyler Elem-A23.rvt

GENERAL NOTES

INTERIOR PARTITIONS

1. "WALL" AND "PARTITION" ARE USED TO DENOTE EITHER WALLS OR PARTITIONS INTERCHANGEABLY.
2. REFER TO SHEET AR.0 - ARCHITECTURAL REFERENCE INFORMATION FOR ABBREVIATIONS, SYMBOLS, AND GRAPHIC INDICATIONS.
3. REFER TO COMPOSITE LIFE SAFETY PLANS FOR PARTITION FIRE RATINGS.
4. REFER TO ROOM FINISH SCHEDULE FOR WALL FINISHES AND WALL BASE.



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

5. SUBSTITUTE 09 2900 - TILE BACKING BOARD AT LOCATIONS TO RECEIVE A TILE WALL FINISH.
6. ALL NON-LOAD BEARING METAL WALL FRAMING SHALL BE BASED ON TOTAL STUD HEIGHT. REFER TO SPECIFICATION SECTIONS 05 4000 - COLD-FORMED METAL FRAMING, 09 2116 - GYPSUM BOARD SHAFT WALL ASSEMBLIES AND 09 2216 - NON-STRUCTURAL METAL FRAMING FOR ADDITIONAL REQUIREMENTS.
7. WHERE ROOMS WITH DIFFERENT PARTITION REQUIREMENTS ARE ADJACENT, THE PARTITION WITH THE GREATER FIRE-RATING AND/OR STC SHALL BE USED BETWEEN THEM.
8. AT INTERSECTIONS OF DIS-SIMILAR PARTITON TYPES, THE HIGHEST RATED PARTITION IS TO RUN THROUGH THE INTERSECTION TO MAINTAIN ENCLOSURE. MAINTAIN RATING OF RATED PARTITION AT INTERSECTION WITH COLUMN ENCLOSURES BY EXTENDING RATED CLOSURE AS REQUIRED.
9. FIRE-RATED PARTITIONS SHALL BE CONSTRUCTED ACCORDING TO THE FIRE TEST INDICATED. NO SUBSTITUTIONS OF MATERIALS OR DEVIATIONS FROM CONSTRUCTION ARE ALLOWED. ADDITIONAL LAYERS MAY BE REQUIRED FOR ACOUSTICAL OR OTHER REASONS AND MUST BE EXECUTED AS SHOWN.
10. STC RATINGS ARE MINIMUM ACOUSTICAL PERFORMANCE REQUIREMENT. SPECIFIC ACOUSTICAL TESTS ARE GIVEN FOR REFERENCE ONLY. SOUND ATTENUATION BLANKET THICKNESS SHALL BE AS FOLLOWS:
    A. 1 1/2 " FOR PARTITIONS WITH 1 5/8 " AND 2 1/2 " STUDS (INCLUDING SHAFTWALLS).
    B. 3" FOR PARTITIONS WITH 3 5/8 ", 4" OR 6" STUDS.
    C. 3" FOR SHAFTWALLS WITH 4" OR 6" STUDS UNO.
    D. AS REQUIRED FOR FIRE RATING.
11. DETAILS ARE DIAGRAMMATIC - PRECISE REQUIREMENTS OF TESTS ASSEMBLIES SHALL GOVERN.

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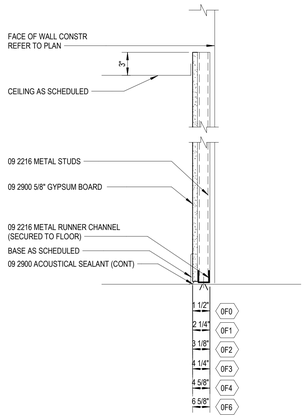
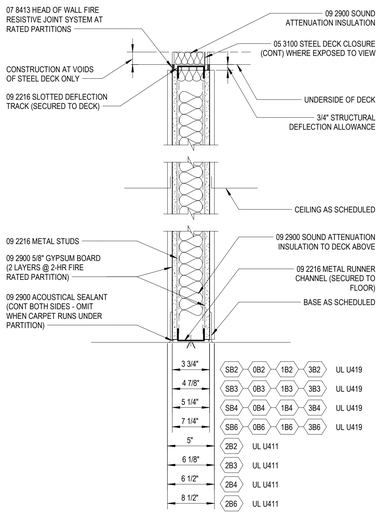
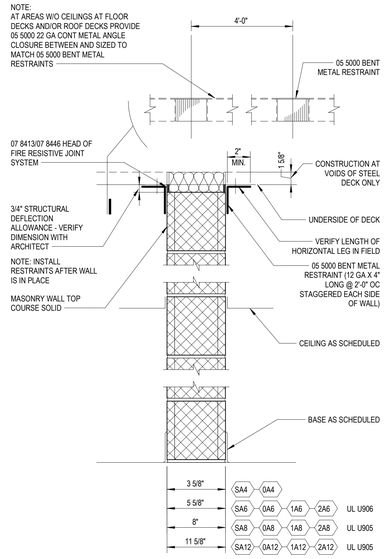


PARTITION SERIES 'F'



PARTITION SERIES 'B'



PARTITION SERIES 'A'

Project Administrator	A. Maurer
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Project Architect / Engineer	C. King
Drawn By	A. Pelfrey
Q.M. Review	
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Drawing Scale	As Noted
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Partition Types

IDS Project Number: 20111-3008

Drawing Number: A9.4

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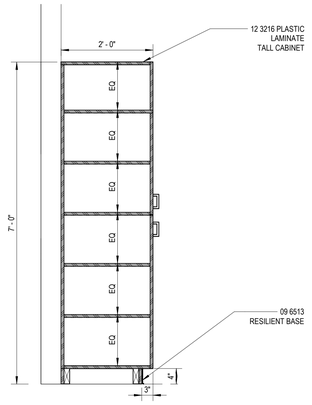
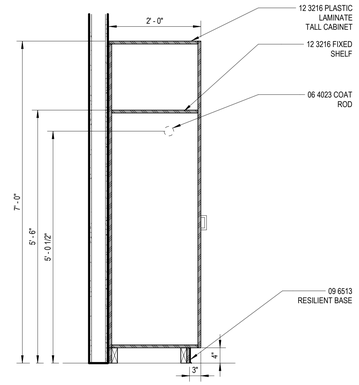
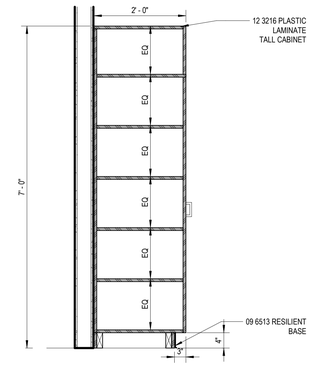


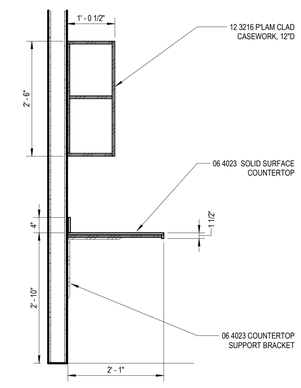
7 A8.1 TALL CABINET - SECTION DETAIL
3/4" = 1'-0"



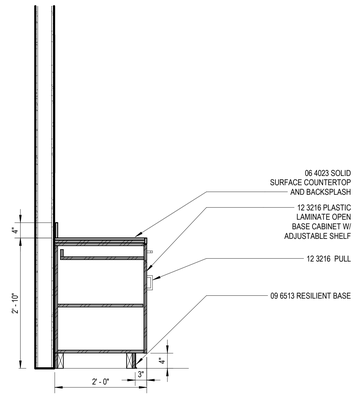
6 A8.1 TALL CABINET - SECTION DETAIL
3/4" = 1'-0"



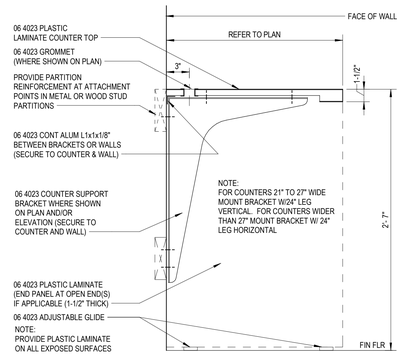
5 A8.1 TALL CABINET - SECTION DETAIL
3/4" = 1'-0"



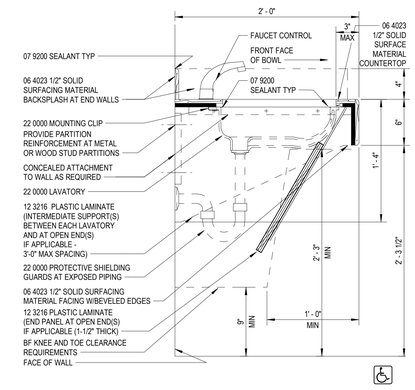
4 A8.1 BASE CABINET - SECTION DETAIL
3/4" = 1'-0"



3 A8.1 BASE CABINET - SECTION DETAIL
3/4" = 1'-0"



2 A8.1 SECTION DETAIL - COUNTER METAL BRACKET
1 1/2" = 1'-0"



1 A8.1 SECTION DETAIL @ADA SINK
1 1/2" = 1'-0"

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Drawing Scale
As Noted

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Interior Sections and Details

IDS Project Number
20111-3008

Drawing Number
A9.5

GENERAL NOTES

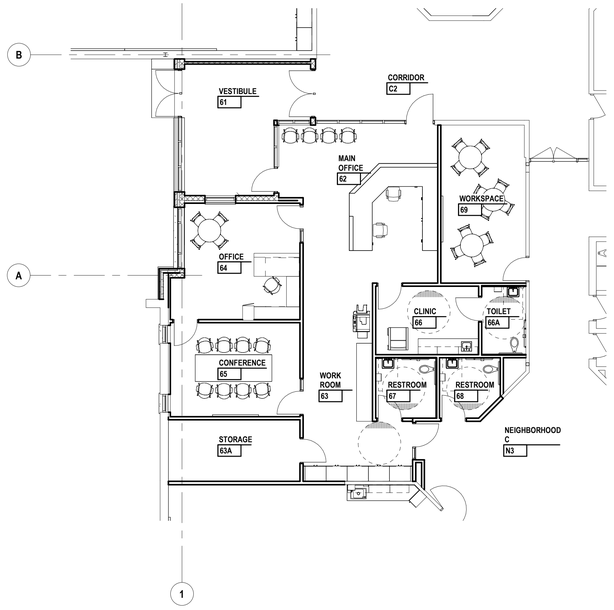
FURNITURE FIXTURE AND EQUIPMENT PLAN

A. ITEMS SHOWN IN GRAYSCALE ARE FOR REFERENCE ONLY.

B. COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FURNITURE, FIXTURES AND EQUIPMENT

C. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.

D. COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.



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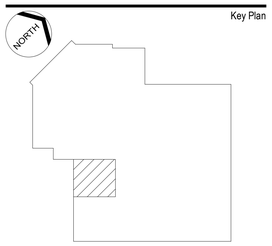

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Q.M. Review
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Approved
-

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

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

First Floor Furniture Plan

For Reference Only

IDS Project Number
20111-3008

Drawing Number
F2.1

ABBREVIATIONS

A

AAV	AIR ADMITTANCE VALVE
AC	AIR COMPRESSOR
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AE	AIR EXTRACTOR
AFF	ABOVE FINISHED FLOOR
AFT	AIR FLOW TRANSMITTED
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
AL	ACTIVE LENGTH
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
ASR	AUTOMATIC SPRINKLER RISER

B

BAS	BUILDING AUTOMATION SYSTEM
BBD	BOILER BLOWDOWN
BF	BARRIER FREE
BFP	BOILER FEEDWATER PUMP
BHP	BRAKE HORSEPOWER
BP	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BWV	BACKWATER VALVE

C

CAP	CAPACITY
CC	COILING COIL
CD	COLD DECK
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CLG	CEILING
CO	CLEANOUT
COND	CONDENSATE (COOLING)
CONN	CONNECTION
CONT	CONTINUATION
CONTR	CONTRACTOR
CONV	CONVECTOR
CPU	CENTRAL PROCESSING UNIT
CR	CONDENSATE RETURN (STEAM)
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CV	CONTROL VALVE
CW	COLD WATER

D

DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DN	DOWN
D/N	DAY/NIGHT
DPR	DAMPER
D&T	DRIP & TRAP
DTC	DRAIN TILE CONNECTION
DX	DIRECT EXPANSION

E

EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EHC	ELECTRIC HEATING COIL
EIH	ELECTRIC INFRARED HEATER
EJ	EXPANSION JOINT
ELEV	ELEVATION
ELEC	ELECTRICAL
EMCS	ENERGY MONITORING AND CONTOL SYSTEM
ENT	ENTERING
ER	EXHAUST REGISTER
ERU	ENERGY RECOVERY UNIT
ES	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
(E)	EXISTING
EXP	EXPANSION

F

F	FARENHEIT
FA	FACE AREA
F & BD	FACE AND BYPASS DAMPER
FCU	FAN COIL UNIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION

F CONT

FDAMP	FIRE DAMPER
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FL	LIGHTING PANEL
FLA	FULL LOAD AMPS
FMS	FLOW MEASUREMENT STATION
FPM	FEET PER MINUTE
FT	FOOT/FEET
F&T	FLOAT & THERMOSTATIC STEAM TRAP
FTR	FINNED TUBE RADIATION
FVC	FIRE VALVE CABINET

G

GA	GAGE/GAUGE
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
GR	GRILLE
GV	GATE VALVE

H

HUMD	HUMIDIFIER
HB	HOSE BIBB
HD	HOT DECK
HO	HUB OUTLET
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HP STM	HIGH PRESSURE STEAM
HV	HEATING AND VENTILATION UNIT
HVAC	HEATING, VENTILATION & AIR CONDITIONING

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IW	INDIRECT WASTE

L

LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LD	LINEAR DIFFUSER
LP	LIGHTING PANEL
LRA	LOCKED ROTOR AMPS
LWT	LEAVING WATER TEMPERATURE

M

MAT	MIXED AIR TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MFR	MANUFACTURER
MGV	MASTER GAS VALVE
MH	MAN HOLE
MIN	MINIMUM
MS	MOTOR STARTER
MZ	MULTI-ZONE UNIT

N

NC	NORMALLY CLOSED
NCR	NOISE CRITERION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
No.	NUMBER
NTS	NOT TO SCALE

O

OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OS&Y	OUTSIDE SCREW AND YOKE
OV	OUTLET VELOCITY

P

P	PUMP
PA	PIPE ANCHOR
PAC	PACKAGED AIR CONDITIONING UNIT
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP
PG	PIPE GUIDE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH - GAUGE
PRV	PRESSURE REDUCING VALVE
PVC	POLYVINYL CHLORIDE PLASTIC

R

RA	RETURN AIR
RAD	RADIATOR
RAG	RETURN AIR GRILLE
RCP	RADIANT CEILING PANEL
RH	RELATIVE HUMIDITY
RF	RETURN FAN
RM	ROOM
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RP	RADIANT PANEL
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	ROOF SUMP
RTU	ROOF TOP UNIT

S

SA	SUPPLY AIR
SAG	SUPPLY AIR GRILLE
SAN	SANITARY
SAT	SUPPLY AIR TEMPERATURE
SC	STEAM COIL
SD	SUPPLY DIFFUSER
SF	SUPPLY FAN
SH	SPRING HANGER
SHT	SHEET
SP	SUMP PUMP
SPECS	SPECIFICATIONS
SP HD	SPRINKLER HEAD
SPKR	SPRINKLER
SS	SERVICE SINK
SV	SOLENOID VALVE
SWS	SAFE WASTE SINK

S CONT

ST	STORM
STM	STEAM

T

TC	TEMPERATURE CONTROL
TD	TRENCH DRAIN
TV	TURNING VANES
TW	TEMPERED WATER
TYP	TYPICAL

U

UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
UR	URINAL
UV	UNIT VENTILATOR

V

V	
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VI	VIBRATION ISOLATOR
VRF	VARIABLE REFRIGERANT FLOW
VS	VENT STACK
VTR	VENT THROUGH ROOF

W

W	WASTE
W&V	WASTE AND VENT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAUGE
WH	WALL HYDRANT (FREEZE PROTECTED)
WS	WASTE STACK

NOTATION METHODS

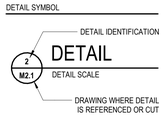
- SD-A, 10" DIA, 350 CFM — SUPPLY DIFFUSER, TYPE 'A', 10" NECK, 350 CFM
- SD-A, 10" DIA, 350 CFM — SUPPLY DIFFUSER (3-WAY)
- RR-A, 350 CFM — RETURN REGISTER, TYPE 'A', 350 CFM
- ED-A, 350 CFM — EXHAUST REGISTER, TYPE 'A', 350 CFM
- SD-A, 1200 CFM — SIDEWALL SUPPLY REGISTER, TYPE 'A', 350 CFM
- SD-A, 350 CFM — SUPPLY AIR DIFFUSER, TYPE 'A' WITH FLEXIBLE DUCT CONNECTION (TWO WAY THROW)
- BELL MOUTH AIR INLET AREA SHALL BE EQUAL TO 2' TIMES DUCT AREA
- AHU 1 — AIR HANDLING UNIT No. 1
- EF 1 — EXHAUST FAN No. 1
- SUPPLY AIR BRANCH CONNECTION SPIN-IN FITTING WITH VOLUME DAMPER
- RETURN AIR/EXHAUST AIR BRANCH CONNECTION WITH VOLUME DAMPER
- ST 1 — SOUND TRAP (ATTENUATOR)
- FTR-A, 5'-0" AL, 0.7 MBH, 0.6 GPM — FINNED TUBE RADIATION TYPE 'A', 5'-0" ELEMENT, 5.7 TOTAL MBH (REFER TO EQUIPMENT SCHEDULES)
- CUH A — CABINET UNIT HEATER, TYPE 'A'
- CONV A — CONVECTOR, TYPE 'A'
- VAV 2,1100 A — TERMINAL VARIABLE OR CONSTANT VOLUME BOX AHU OR RTU SERVING THE VAV OR CAV. ROOM NUMBER. A,B,C, ETC. IF MULTIPLE COILS SERVE THE SAME SPACE (HEATING COIL, REFER TO EQUIPMENT SCHEDULES)
- VAV 2,1100 A — TERMINAL VARIABLE OR CONSTANT VOLUME BOX AHU OR RTU SERVING THE VAV OR CAV. ROOM NUMBER. A,B,C, ETC. IF MULTIPLE COILS SERVE THE SAME SPACE (NO HEATING COIL, REFER TO EQUIPMENT SCHEDULES)
- DUAL DUCT CONSTANT VOLUME MIXING BOX (REFER TO EQUIPMENT SCHEDULES)
- RHC 1000 A — REHEAT COIL, ROOM NUMBER A,B,C, ETC. IF MULTIPLE COILS SERVE THE SAME SPACE (REFER TO EQUIPMENT SCHEDULES)
- POINT WHERE CHANGE IN DUCT SIZE OR PIPE PITCH TAKES PLACE
- POINT WHERE DEMOLITION ENDS/POINT OF NEW CONSTRUCTION
- NEW MECHANICAL
- EXISTING MECHANICAL

SYMBOLS

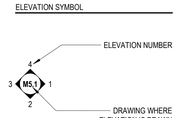
FIRE DAMPER	EXPANSION COMPENSATOR/EXPANSION JOINT	RO	REVERSE OSMOSIS WATER	PCWS	PROCESS COOLING WATER SUPPLY	T	THERMOSTAT WITH GUARD
SMOKE DAMPER	SPRING HANGER	DI	DEIONIZED WATER SUPPLY	PCWR	PROCESS COOLING WATER RETURN	T	TEMPERATURE SENSOR - DUCT MOUNTED AVERAGING ELEMENT
SMOKE DAMPER AND FIRE DAMPER	FLOOR CLEANOUT	TW	TEMPERED WATER	COND	CONDENSATE DRAIN PIPING (COOLING)	T	TEMPERATURE SENSOR W/ SUNSHIELD
VOLUME DAMPER WITH REMOTE OPERATOR	WALL CLEANOUT	G	NATURAL GAS PIPING	HPCR	HIGH PRESSURE CONDENSATE RETURN PIPING	T	TEMPERATURE SENSOR - DUCT MOUNTED RIGID ELEMENT
FLEXIBLE DUCT	MANHOLE	G(EPS)	NATURAL GAS PIPING (EMERGENCY POWER SUPPLY)	HWHS	HOT WATER HEATING SUPPLY PIPING	T	TEMPERATURE SENSOR - IMMERSION TYPE ELEMENT
CUH OR CONVECTOR (SURFACE)	FLOOR DRAIN	NIT-OX	NITROUS OXIDE PIPING	HWHR	HOT WATER HEATING RETURN PIPING	AD	AREA SMOKE DETECTOR
FINNED TUBE RADIATION	CATCH BASIN	OXY	OXYGEN PIPING	HPWS	HEAT PUMP WATER SUPPLY	DD	DUCT SMOKE DETECTOR
TERMINAL VOLUME BOX (W/O HEATING COIL)	PENDANT SP HD (FLUSH MOUNTED TYPE)	CA	COMPRESSED AIR	HPWR	HEAT PUMP WATER RETURN	F	FIRE STAT - DUCT MOUNTED
TERMINAL VOLUME BOX (W/ HEATING COIL)	SIAMESE CONNECTION	CA(#)	COMPRESSED AIR PIPING PRESSURE INDICATED	HTHWS	HIGH TEMPERATURE HOT WATER SUPPLY PIPING	FZ	FREEZE STAT - DUCT MOUNTED
FLEXIBLE PIPE CONNECTION	PRESSURE INDICATOR	CO2	CARBON DIOXIDE GAS	HTHWR	HIGH TEMPERATURE HOT WATER RETURN PIPING	FM	FLOW METER
#" / #"	INDICATES FLAT OVAL DUCT SIZE	FOR	FUEL OIL RETURN	HRR	HEAT RECOVERY RETURN PIPING	AQ	AQUASTAT (STRAP ON)
#" x #"	INDICATES RECTANGULAR DUCT SIZE	FOS	FUEL OIL SUPPLY	HRS	HEAT RECOVERY SUPPLY PIPING	AFS	AIR FLOW SENSOR
#"Ø	INDICATES ROUND DUCT SIZE	SAN	SANITARY SEWER	STM	LOW PRESSURE STEAM	LPI	LOOP POWER INDICATOR
ANGLE RELIEF VALVE	THERMOMETER	PSAN	PUMPED SANITARY SEWER	STM(#)	STEAM PIPING PRESSURE INDICATED	D/N	DAY/NIGHT MAIN AIR SWITCH
ANGLED STOP CHECK VALVE	MANUAL AIR VENT	V	VENT PIPING	VRF	VRF SYSTEM REFRIGERANT PIPING		MANOMETER
BALANCE VALVE	FLOW MEASURING DEVICE	AV	ACID VENT PIPING	TI	TEMPERATURE INDICATOR GAUGE TYPE	CR	CONTROL RELAY
BUTTERFLY VALVE (SEE SPECIFICATION FOR TYPE)	FLOW ELEMENT (ORIFICE PLATE)	VAC	VACUUM PIPING	DPT	DIFFERENTIAL PRESSURE GAUGE	CS	CURRENT SWITCH
BALL, GAS, GATE, GLOBE, PLUG VALVE (SEE SPECIFICATION FOR TYPE)	POINT OF NEW CONNECTION	AW	ACID WASTE	H	HUMIDISTAT (ROOM)	M	MOTORIZED DAMPER MOTOR
CHECK VALVE W/ ARROW INDICATING FLOW	TO BE DEMOLISHED AND REMOVED	ST	STORM SEWER	CO	CARBON MONOXIDE SENSOR	ES	END SWITCH
CONTROL VALVE	PLUMBING RISER TAG	OST	OVERFLOW STORM	H	HUMIDISTAT	FM	FLOW SWITCH - INLINE
LINEAR STOP CHECK VALVE	MASTER GAS SHUT-OFF VALVE	PST	PUMPED STORM WATER	T	THERMOSTAT	DPS	DIFFERENTIAL PRESSURE SWITCH
MIXING VALVE	PRESSURE REDUCING STATION	DT	DRAIN TILE	L	OCCUPANCY SENSOR - CEILING MOUNTED	PS	PRESSURE SWITCH
PRESSURE REDUCING VALVE	REDUCED PRESSURE BACKFLOW PREVENTER	CHWS	CHILLED WATER SUPPLY PIPING	L	OCCUPANCY SENSOR - WALL MOUNTED	M	MAIN AIR SUPPLY (MECHANICAL CONTROLS)
PRESSURE RELIEF VALVE	FIRE PROTECTION PIPING	CHWR	CHILLED WATER RETURN PIPING	PC	PHOTOELECTRIC SWITCH - CEILING MOUNTED		PNEUMATIC LINE
STRAINER	DOMESTIC COLD WATER PIPING	CWS	CONDENSER WATER SUPPLY PIPING	PC	PHOTOELECTRIC SWITCH - WALL MOUNTED		SOLENOID VALVE
UNION	HIGH PRESSURE COLD WATER	CWR	CONDENSER WATER RETURN PIPING	SP	STATIC PRESSURE SENSOR		PRESSURE GAUGE
PIPE ANCHOR	DOMESTIC HOT WATER PIPING	PCR	PUMPED CONDENSATE RETURN PIPING	C	CARBON DIOXIDE SENSOR - DUCT MOUNTED		VALVE - TWO WAY PNEUMATIC CONTROLLED
PIPE GUIDE	DOMESTIC HOT WATER RETURN PIPING	CR	CONDENSATE RETURN PIPING (GRAVITY)	H	HUMIDITY SENSOR - DUCT MOUNTED		VALVE - THREE WAY PNEUMATIC CONTROLLED
	NON-POTABLE WATER PIPING						TWO WAY MOTORIZED VALVE
	DISTILLED WATER						THREE WAY MOTORIZED VALVE
						AI	ANALOG INPUT
						AO	ANALOG OUTPUT
						DI	DIGITAL INPUT
						DO	DIGITAL OUTPUT
						DPT	DIFFERENTIAL PRESSURE TRANSMITTER
						PT	PRESSURE TRANSMITTER
					DAMPER (PARALLEL BLADE)		ELECTRICAL LINE DESIGNATION ON CONTROL DIAGRAMS AND FLOOR PLANS
					DAMPER (OPPOSED BLADE)		ELECTRICAL LINE DESIGNATION ON WIRING DIAGRAMS (VOLTAGE AS NOTED)
					ELECTRIC - PNEUMATIC RELAY		SWITCH
					START STOP (MOTOR CONTROL)		FUSE
					RELAY (ELECTRICAL)		TRANSFORMER
					TWIST TIMER		THERMAL OVERLOAD
					VELOCITY CONTROLLER		RELAY CONTACT
					MOTOR DISCONNECT SWITCH		RELAY COIL
					MOTOR STARTER, W/O HOA SWITCH		SYSTEM OR EQUIPMENT GROUND
					MOTOR STARTER, W/ HOA SWITCH		

SYMBOL LEGEND

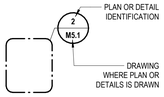
DETAIL SYMBOL



ELEVATION SYMBOL

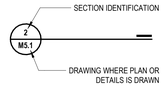


PLAN OR DETAIL ENLARGEMENT

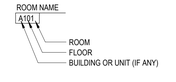


COLUMN CENTERLINE

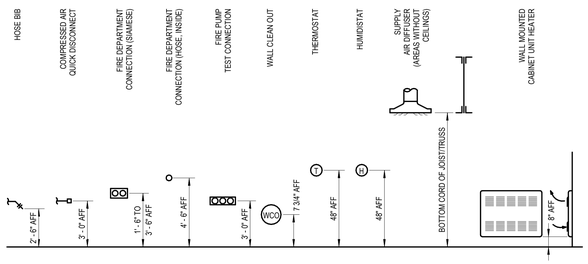
SECTION LOCATOR



ROOM NAME AND NUMBER



MOUNTING HEIGHTS



GENERAL NOTES

1. VERIFY ALL CONDITIONS IN FIELD BEFORE START OF CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS.
2. COORDINATE ALL WORK WITH APPROPRIATE TRADES.
3. COORDINATE ANY REQUIRED SHUTDOWN OF SERVICES OR EQUIPMENT WITH OWNER'S REPRESENTATIVE.
4. PROVIDE ALL MISC. STEEL AND ITEMS REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE, SHEET METAL AND EQUIPMENT.
5. COORDINATE FLOOR, WALL & ROOF PENETRATIONS ETC. WITH ARCHITECTURAL TRADES.
6. INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE IN AREA WITHOUT A CEILING UNLESS INDICATED OTHERWISE.
7. DUCT CONNECTED TO EQUIPMENT SHALL EQUAL EQUIPMENT CONNECTION SIZE UNLESS NOTED OTHERWISE.
8. MAXIMUM LENGTH ON FLEXIBLE DUCT SHALL BE 5'-0".
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT DIFFUSER LOCATIONS IN AREAS WITH A CEILING.
10. ALL HOT WATER FIN TUBE RADIATION COVERS SHALL RUN WALL TO WALL (OR COLUMN).
11. DO NOT RUN ANY PIPING OR DUCTWORK INTO AN ELECTRICAL ROOM THAT DOES NOT SERVE THAT ROOM.

MECHANICAL DRAWING INDEX

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

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www.sdistructures.com

Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator: J. Johnson
Project Designer: N. Moeggenborg
Project Architect / Engineer:
Drawn By: N. Moeggenborg
Q.M. Review: QM
Approved: App
Drawing Scale:

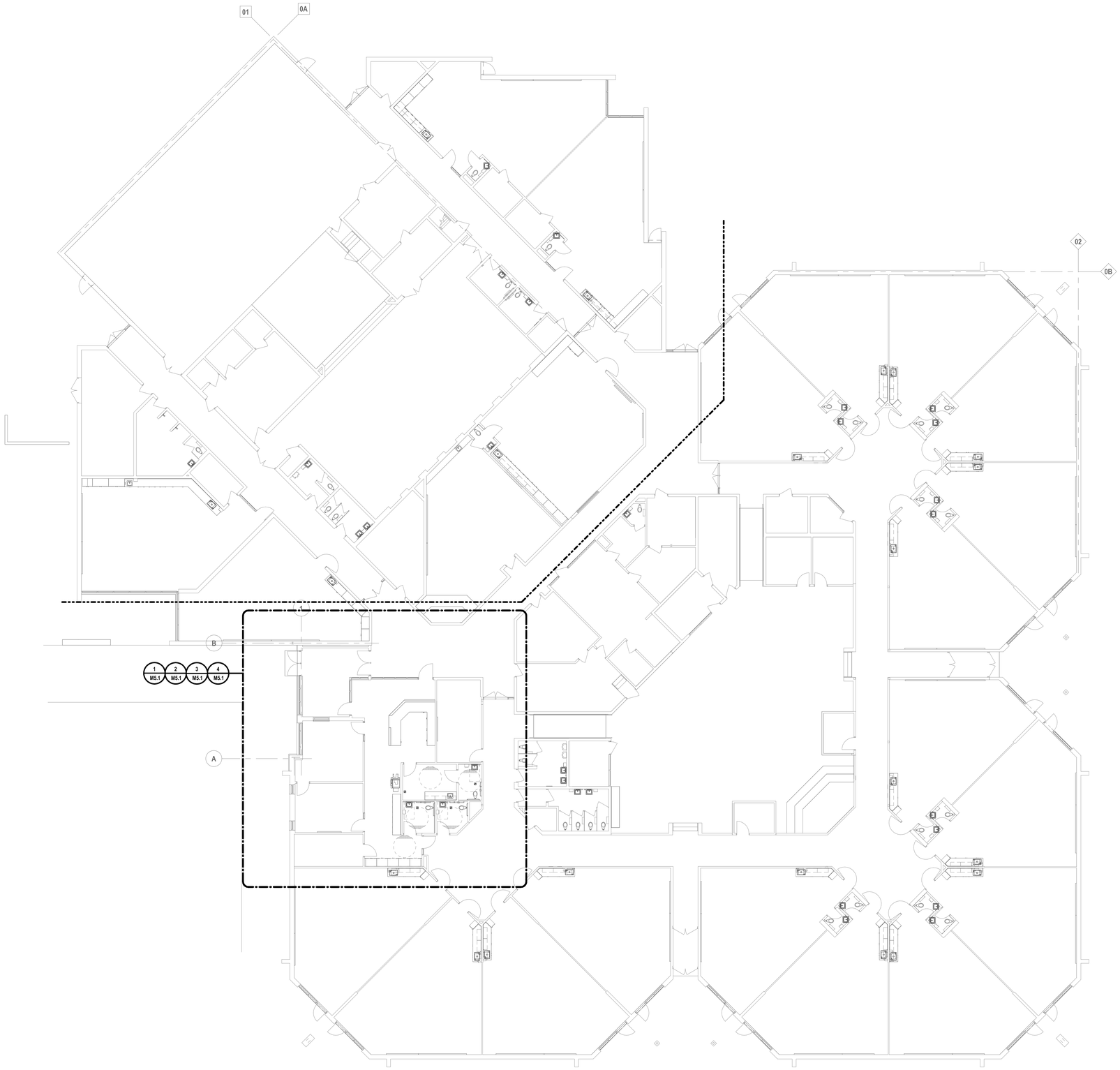
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Mechanical Reference Information

IDS Project Number: 20111-3008

Drawing Number: MR.0



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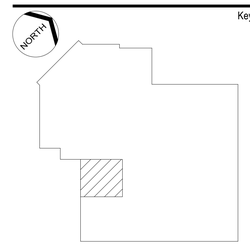

Project Administrator
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Project Designer
N. Moeggenborg
Project Architect / Engineer

Drawn By
N. Moeggenborg
Q.M. Review
QM
Approved
App
Drawing Scale
3/32" = 1'-0"

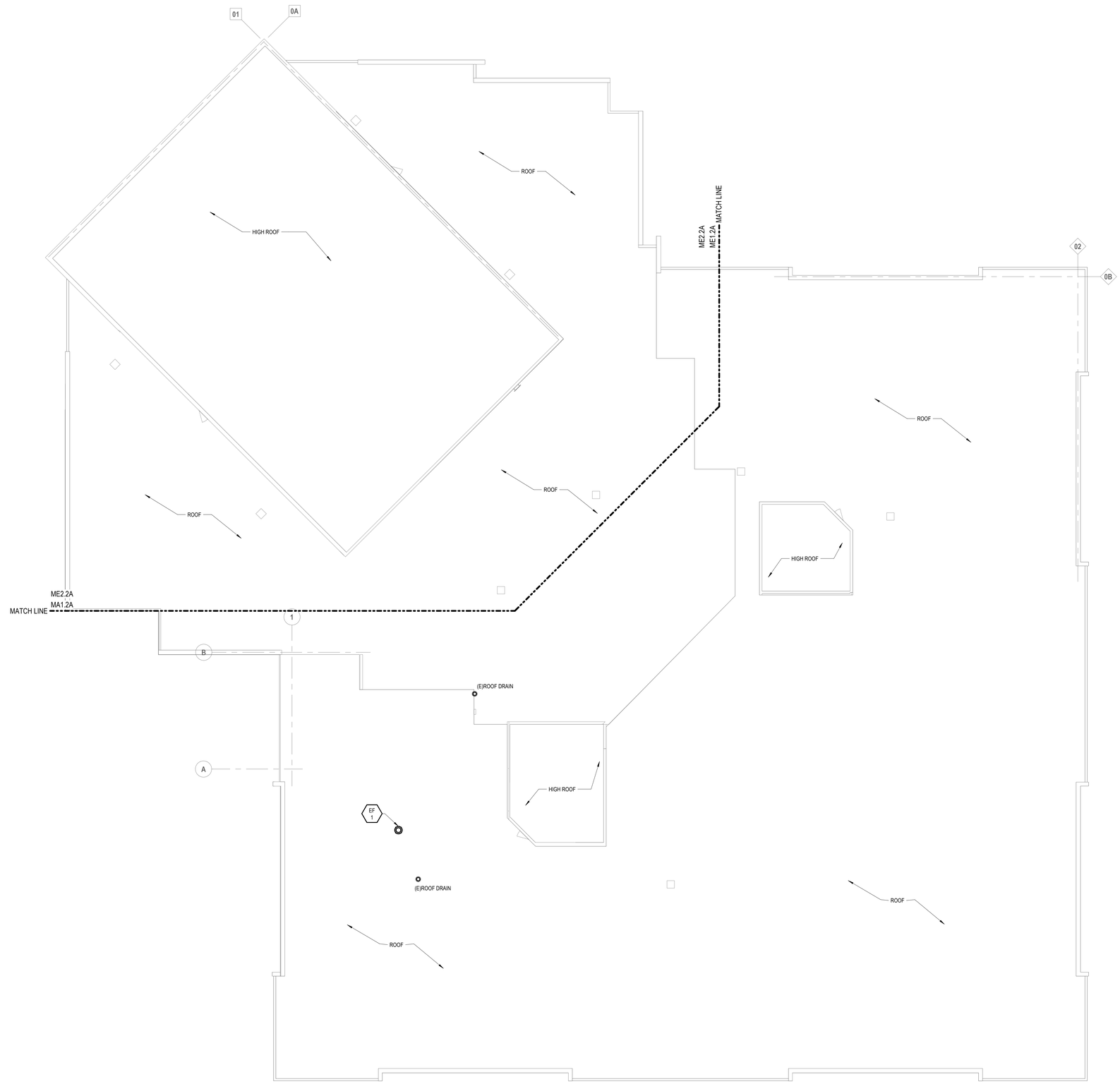
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

First Floor Composite Plan

IDS Project Number
20111-3008

Drawing Number
M0.1



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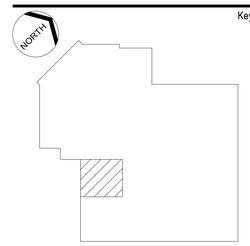

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Project Designer
N. Moeggenborg
Project Architect / Engineer

Drawn By
N. Moeggenborg
Q.M. Review
QM
Approved
App
Drawing Scale
3/32" - 1'-0"

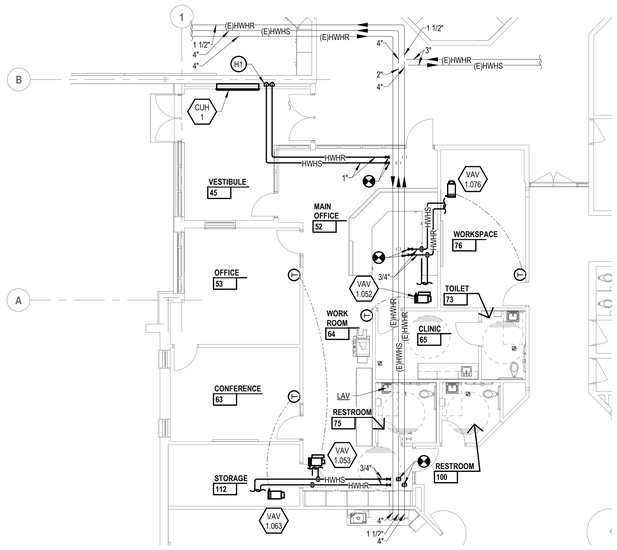
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

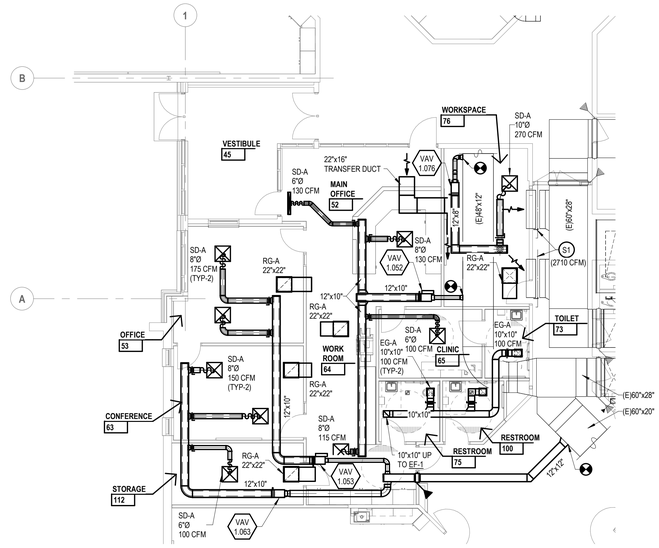
Roof Composite Plan

IDS Project Number
20111-3008

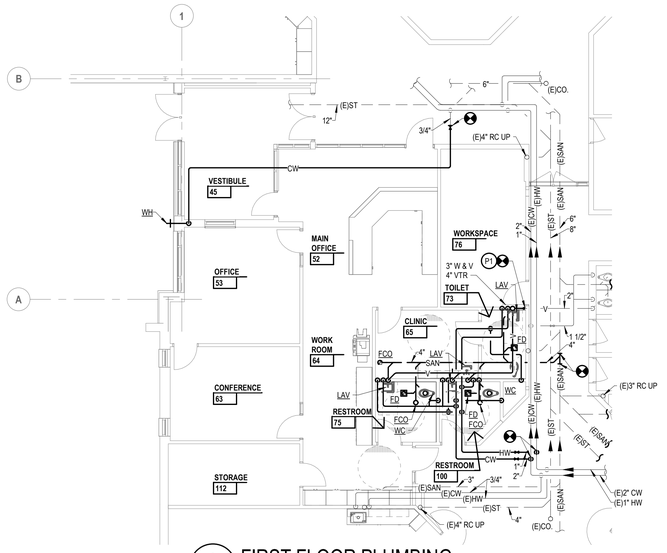
Drawing Number
M0.2



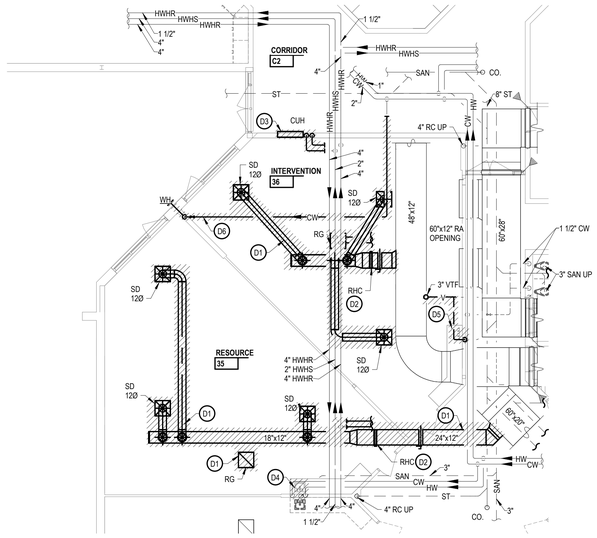
4 M0.1 FIRST FLOOR HVAC PIPING
1/8" = 1'-0"



2 M0.1 FIRST FLOOR SHEET METAL
1/8" = 1'-0"



3 M0.1 FIRST FLOOR PLUMBING
1/8" = 1'-0"



1 M0.1 FIRST FLOOR MECHANICAL DEMOLITION
1/8" = 1'-0"

KEYNOTES

DEMOLITION

NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

D1 REMOVE SUPPLY/RETURN DUCTWORK AND ASSOCIATED GRILLES, REGISTERS, AND DIFFUSERS.

D2 REMOVE HOT WATER HEATING COIL AND ASSOCIATED HEATING HOT WATER SUPPLY AND REUTRN PIPING.

D3 REMOVE CABINET UNIT HEATER AND ASSOCIATED HEATING HOT WATER SUPPLY AND RETURN PIPING.

D4 REMOVE LAV, SANITARY, HOT WATER, AND COLD WATER PIPING. RE-WORK SANITARY, HOT WATER, AND COLDER TO SERVE REMAINING SINK.

D5 REMOVE HOT WATER, COLD WATER, AND SAINITARY VENT.

D6 REMOVE COLD WATER PIPING AND WALL HYDRANT.

KEYNOTES

SHEET METAL

NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

S1 BALANCE TO CFM INDICATED.

KEYNOTES

HVAC PIPING

NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

H1 ROUTE 1" HOT WATER HEATING SUPPLY AND RETURN PIPING DOWN IN WALL CAVITY TO CUH-1.

KEYNOTES

PLUMBING

NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

P1 CONNECT EXISTING 2" VENT INTO NEW 3" VENT.

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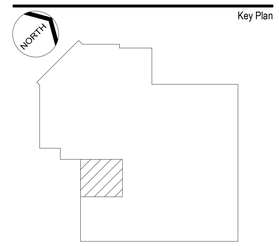

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Approved
App
Drawing Scale
As Noted

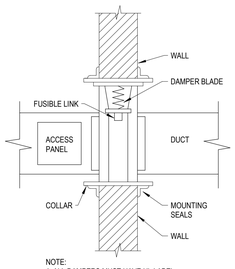
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Enlarged Plans

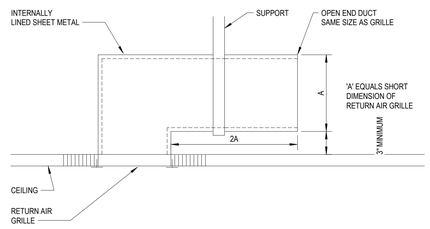
IDS Project Number
20111-3008

Drawing Number
M5.1

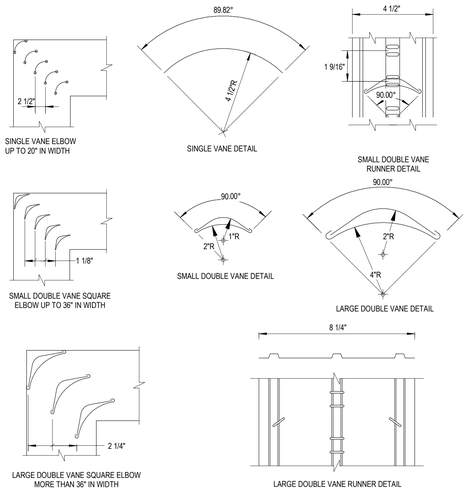


NOTE:
1. ALL DAMPERS MUST HAVE UL LABEL.
2. PROVIDE 14"X14" ACCESS PANEL IN DUCT WHEN SIZE PERMITS. FOR SMALLER DUCTS, MAKE PANEL 2" LESS THAN DUCT.

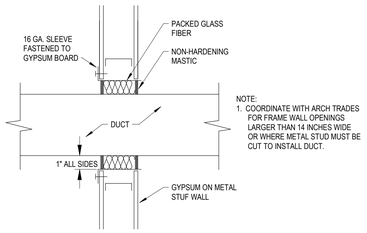
TYPICAL FIRE DAMPER CURTAIN TYPE
NO SCALE



TYPICAL CEILING RETURN AIR GRILLE SOUND TRAP
NO SCALE

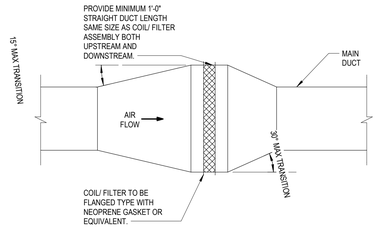


SQUARE AND RECTANGULAR ELBOWS - LOW VELOCITY
NO SCALE

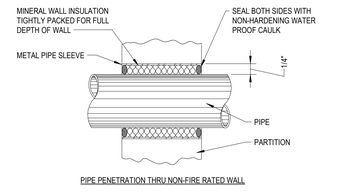


NOTE:
1. COORDINATE WITH ARCH TRADES FOR FRAME WALL OPENINGS LARGER THAN 14 INCHES WIDE OR WHERE METAL STUD MUST BE CUT TO INSTALL DUCT.

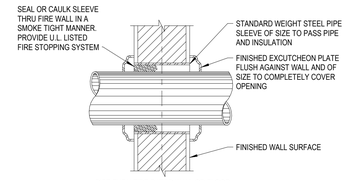
DUCT SEAL AT NON-RATED WALLS
NO SCALE



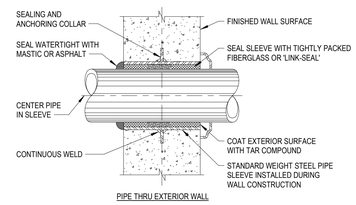
TYPICAL DUCT TRANSITION
NO SCALE



PIPE PENETRATION THRU NON-FIRE RATED WALL

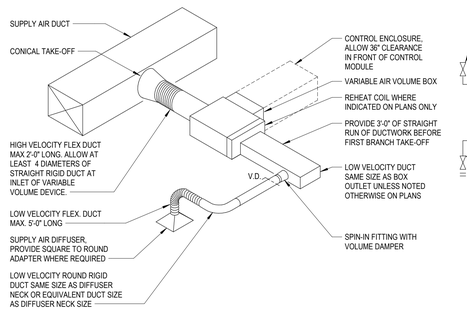


PIPE THRU FIRE RATED WALL OR FLOOR

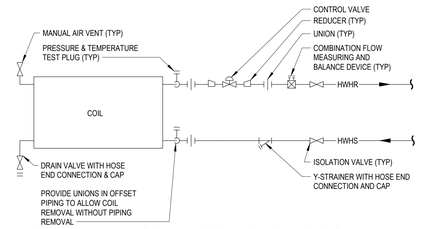


PIPE THRU EXTERIOR WALL

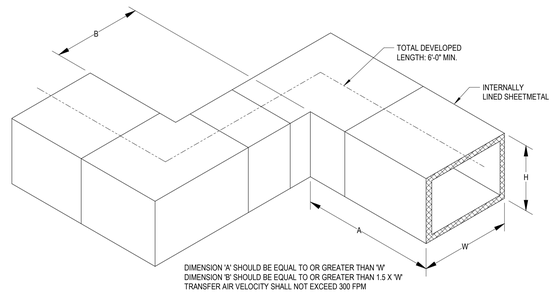
PIPE PENETRATIONS
NO SCALE



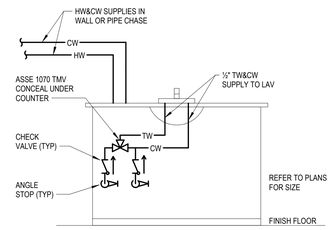
TYPICAL VAV BOX DETAIL
NO SCALE



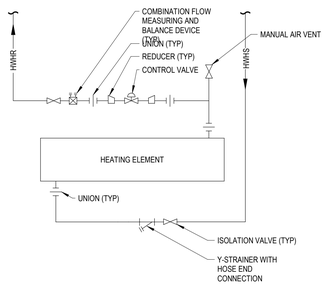
TERMINAL HOT WATER HEATING COIL WITH 2 - WAY CONTROL VALVE
NO SCALE



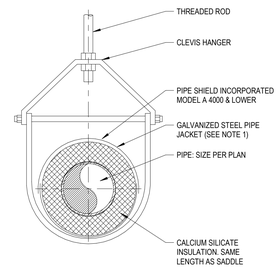
TYPICAL TRANSFER AIR 'Z-DUCT' DETAIL
NO SCALE



HAND WASHING SINK/LAV DIAGRAM
NO SCALE



HOT WATER CONVECTOR OR CABINET UNIT HEATER PIPING DIAGRAM
NO SCALE



SINGLE PIPE SUPPORT (LESS THAN 4")
NO SCALE

NOTES:
1. PROVIDE GALVANIZED SHEET METAL INSULATION JACKET AS FOLLOWS:

PIPE SIZE:	LENGTH:	GAUGE:
2" TO 4"	12"	18

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Project Designer
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Approved
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Drawing Scale

Issued for	Issue Date
Design Development	06-24-2024

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Details

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VARIABLE VOLUME TERMINAL WITH TEMPERING COIL SCHEDULE

MARK	HVAC SYSTEM	ROOM		MAX COOLING AIRFLOW (CFM)	MAX HEATING AIRFLOW (CFM)	MIN AIRFLOW (CFM)	INLET SIZE	OUTLET DUCT SIZE	MIN SP TO OPER. BOX	MAX NC	HOT WATER TEMPERING COIL								"PRICE" MODEL NO.	REMARKS
		No.	NAME								FLOW (GPM)	CAPACITY (MBH)	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	MAX PD (FT HD)	COIL RUNOUT (IN.)		
VAV - 1.052	1	52	RECEPTION	475	220	120	8"	12"x10"	0.25	27	0.5	7.1	180	140	55	85	3	1/2	SDV	
VAV - 1.053	1	53	PRINCIPAL OFFICE	350	220	70	6"	12"x8"	0.25	25	0.5	7.1	180	140	55	85	3	1/2	SDV	
VAV - 1.063	1	63	CONFERENCE ROOM	400	280	90	8"	12"x10"	0.25	27	0.5	9.1	180	140	55	85	3	1/2	SDV	BOTTOM ACCESS
VAV - 1.076	1	76	CONFERENCE ROOM	270	90	75	6"	12"x8"	0.25	25	0.5	2.9	180	140	55	85	3	1/2	SDV	BOTTOM ACCESS

NOTES:

1. MAX NC LEVEL BASED ON 1.5" INLET SP WITH NO ALLOWANCE FOR EXTERNAL ATTENUATION.
2. PROVIDE A 24"x24" CEILING MOUNTED ACCESS DOOR FOR ALL VARIABLE BOXES MOUNTED ABOVE INACCESSIBLE CEILINGS.
3. HOT WATER TEMPERING COILS SHALL BE MINIMUM 2-ROW.

FAN SCHEDULE

MARK	LOCATION	AREA SERVED	DESIGN AIRFLOW (CFM)	INITIAL CONN. AIRFLOW (CFM)	EXTERNAL STATIC PRESSURE (IN. WG.)	FAN DATA				MOTOR DATA			ELECTRICAL V/PH/HZ	"GREENHECK" MODEL No.	REMARKS
						TYPE	DRIVE	FAN CLASS	FAN RPM	HP	BHP	RPM			
EF-1	ROOF	TOILET ROOMS	300	300	0.5	CENTRIFUGAL	DIRECT		1675	1/10	0.07		208/60/1	G-080-VG	

NOTES:

1. PROVIDE ALL FANS WITH FACTORY MOUNTED AND WIRED DISCONNECT.

HOT WATER CABINET UNIT HEATER SCHEDULE

MARK	HEATING CAPACITY (MBH)	FLUID FLOW (GPM)	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	FAN			FILTER		ENCLOSURE	ELECTRICAL		"STERLING" MODEL No.	REMARKS
							CFM	HP	RPM	TYPE	AREA (SF)	L x D x H (IN.)	V/PH/Hz	AMPS		
CUH-1	37.5	2.0	180	140	65	102	1050			PERM	2.7	66 x 9-1/2 x 25	120/1/60	1.50	RWI-1130-10	

NOTES:

1. PROVIDE WITH FACTORY MOUNTED AND WIRED DISCONNECT.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

MARK	CORE STYLE	BORDER FRAME TYPE	MODULE SIZE	FINISH	ACCESSORY	CONSTRUCTION	"PRICE" MODEL No.	REMARKS
SD-A	LOUVER	NOTE 1	24"x24"	WHITE	NONE	STEEL	SCDA	DOUBLE DEFLECTION
RG-A	EGGCREATE	NOTE 1	24"x24"	WHITE	NONE	ALUMINUM	80	
EG-A	EGGCREATE	NOTE 1	24"x24"	WHITE	NONE	ALUMINUM	80	PROVIDE REMOTE OPERATED DAMPER
LD-A	LINEAR SLOT	NOTE 1	48" LONG	WHITE	SDB PLENUM	ALUMINUM	SDS100	2 SLOTS

NOTES:

1. COORDINATE MOUNTING FRAMES WITH REFLECTED CEILING PLANS.
2. ALL WALL AND DUCT MOUNTED GRILLES SHALL HAVE COUNTER-SUNK SCREWS.
3. SG-B & SG-C FRONT BLADES PARALLEL TO SHORT DIMENSION.
4. COORDINATE LENGTH OF ALL LINEAR SUPPLIES AND RETURNS WITH ARCHITECTURAL FLOOR PLANS AND REFLECTED CEILING PLANS.

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Project Designer
Designer
Project Architect / Engineer

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Approved
App
Drawing Scale

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Schedules

IDS Project Number
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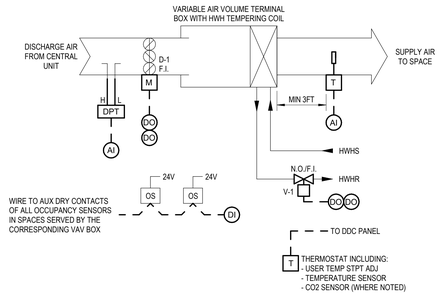
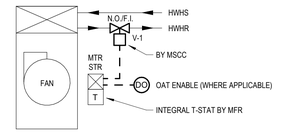
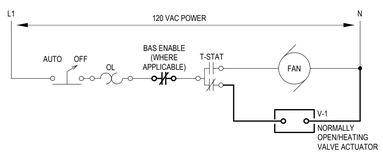


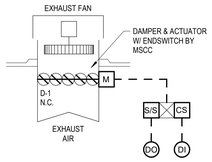
VAV TERMINAL WITH HWH TEMPERING COIL CONTROL DIAGRAM



CABINET UNIT HEATER CONTROL DIAGRAM

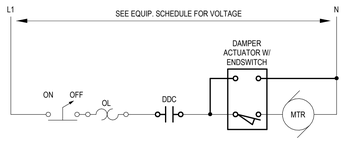


CABINET UNIT HEATER WIRING DETAIL

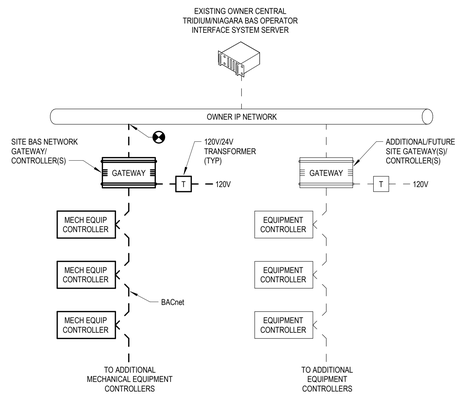


ROOF MOUNTED EXHAUST FAN CONTROL DIAGRAM

SEQUENCE OF OPERATION
1. THE EF SHALL BE SET TO ACTIVATE AND DEACTIVATE ACCORDING TO THE SET OPERATION TIME SCHEDULE FOR OCCUPIED AND UNOCCUPIED TIME PERIODS.
2. WHEN THE FAN IS ENABLED, THE ISOLATION DAMPER SHALL OPEN. ONCE THE DAMPER ENDSWITCH VERIFIES THE DAMPER HAS OPENED, THE FAN SHALL START.



TYPICAL SINGLE PHASE EXHAUST FAN WIRING DETAIL



BUILDING AUTOMATION SYSTEM NETWORK RISER DIAGRAM

NOTES
1. THE MECHANICAL SYSTEMS CONTROLS CONTRACTOR (MSCC) SHALL PROVIDE A NEW BUILDING AUTOMATION SYSTEM (BAS) CONTROLLER/GATEWAY DEVICE OR DEVICES, POWER SUPPLIES, AND NEMA 1 ENCLOSURES AS NECESSARY TO INTEGRATE ALL FIELD DEVICES AND DEVICE NETWORKS TO THE OWNER CENTRAL BAS OPERATOR INTERFACE SYSTEM (OIS) SERVER.
2. MSCC SHALL PROVIDE ETHERNET IP DATA CONNECTION(S) AND LOCATE DEVICE(S) AS NECESSARY IN COORDINATION WITH THE ELECTRICAL/TECHNOLOGY CONTRACTOR AND THE OWNER.

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Project Designer
J. Gutzeit
Project Architect / Engineer

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Q.M. Review
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App
Drawing Scale

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IDS Drawing Title

Mechanical Systems Controls

IDS Project Number
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Drawing Number
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ABBREVIATIONS

A	
A	AMPERES
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ALT	ALTERNATE
AP	AMPERE PLUG
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMPERE SENSOR
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
B	
BAS	BUILDING AUTOMATION SYSTEM
BLDG	BUILDING
BOT	BOTTOM
BSMT	BASEMENT
C	
C	COMMUNICATIONS
CAB	CABINET
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CD	CANDELA
CKT	CIRCUIT
CLG	CEILING
COMP	COMPUTER
CP	CONTROL PANEL
CT	CABLE TRAY
CUH	CABINET UNIT HEATER
CZ	CONTROL ZONE
D	
DA	DIGITALLY ADDRESSABLE
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DEMO	DEMOLISH, DEMOLITION
DEPT	DEPARTMENT
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANEL
DT	DUAL TECHNOLOGY
DWG	DRAWING
E	
EA	EACH
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING
EP	ELECTRIC PNEUMATIC SWITCH
EPT	ELECTRIC POWER TRANSDUCER
EQUIP	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
EXT	EXTERIOR
F	
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPS
FLR	FLOOR
FT	FOOT/FEET
FU	FUSE
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
FOC	FIBER OPTIC COMMUNICATIONS
G	
GA	GAGE/GAUGE
GT	GAME TIMER/CLOCK
GC	GENERAL CONTRACTOR
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
GYP BD	GYPSUM BOARD
H	
HH	HAND HOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND/AUTO/OFF
HP	HORSEPOWER
HTR	HEATER
HV	HEATING AND VENTILATION UNIT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
I	
IAC	INTERLOCKED ARMORED CABLE
IDF	INTERMEDIATE DISTRIBUTION FRAME
IN	INCHES
ITS	INTEGRATED TECHNOLOGY SYSTEMS
IR	INFRARED
J	
JB	JUNCTION BOX
JC	JANITORS CLOSET
K	
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
L	
LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LCS	LIGHTING CONTROL SYSTEM
LP	LIGHTING PANEL
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LTS/LTG	LONG TIME/SHORT TIME INSTANTANEOUS/GROUNDING
M	
MAX	MAXIMUM
MB	MARKERBOARD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOD	MODULATOR
MTD	MOUNTED
MTG	MOUNTING
N	
NACP	NOTIFICATION APPLIANCE CONTROL PANEL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT-IN-CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFE	OWNER FURNISHED EQUIPMENT
OS	OCCUPANCY SENSOR
OFS	OFFICE OF FIRE SAFETY
P	
PA	PUBLIC ADDRESS
PB	PULLBOX
PC	PHOTOCELL
PE	PNEUMATIC ELECTRIC SWITCH
PH	PHASE
PIR	PASSIVE INFRARED
PL	PILOT LIGHT
POS	POINT OF SALE
PP	POWER PANEL
PT	POKE THROUGH
PTD	POWER TRANSFER DEVICE
PVC	POLYVINYL CHLORIDE
R	
R	RELOCATE OR RELOCATED ITEM
RAF	RETURN AIR FAN
RCP	REFLECTED CEILING PLAN
REQD	REQUIRED
RF	RADIO FREQUENCY
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
RP	RECEPTACLE PANEL
S	
SAF	SUPPLY AIR FAN
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DETECTOR
SF	SQUARE FEET
SPD	SURGE PROTECTIVE DEVICE
SPECS	SPECIFICATIONS
SPKR	SPEAKER
SS	SURGE SUPPRESSION
ST	SHUNT TRIP
STD	STANDARD
SUB	SUBSTATION
SW	SWITCH
SWGR	SWITCHGEAR
T	
TC	TIME CLOCK
TEL	TELEPHONE
TELECOM	TELECOMMUNICATIONS
TERM	TERMINAL
TKBD	TACKBOARD
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BACKBOARD
TTC	TELEPHONE TERMINAL CABINET
TU	TERMINAL UNIT
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
U	
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
UV	ULTRAVIOLET
V	
VSD	VARIABLE SPEED DRIVE
VIF	VERIFY IN FIELD
VP	VAPOR PROOF
W	
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WP	WEATHER PROOF
X	
XP	EXPLOSION PROOF
MISC	
3R	NEMA 3R
4X	NEMA 4X
X	BY
°	DEGREES
Ø	DIAMETER
'	FOOT, FEET
"	INCH, INCHES

ELECTRICAL DRAWING INDEX

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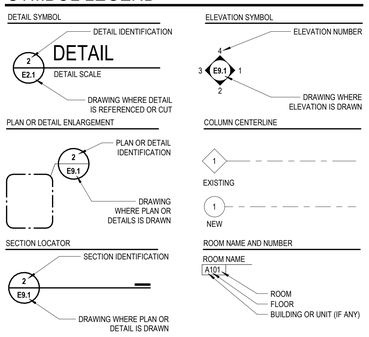
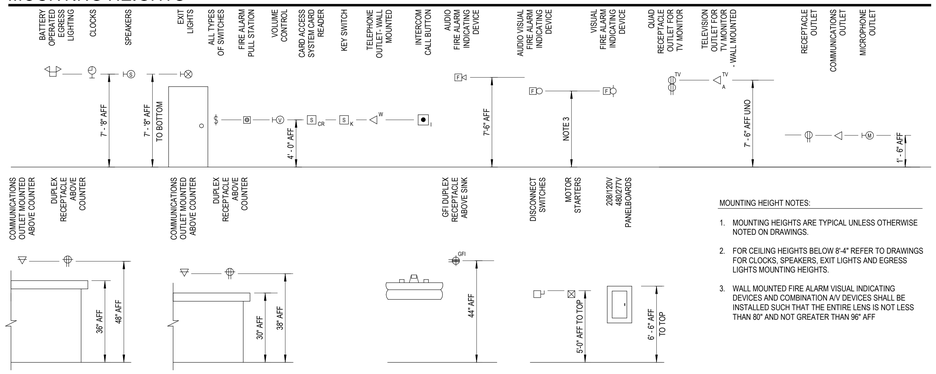
SYMBOL LEGEND



MOUNTING HEIGHTS



MOUNTING HEIGHT NOTES:

1. MOUNTING HEIGHTS ARE TYPICAL UNLESS OTHERWISE NOTED ON DRAWINGS.
2. FOR CEILING HEIGHTS BELOW 8'-4" REFER TO DRAWINGS FOR CLOCKS, SPEAKERS, EXIT LIGHTS AND EGRESS LIGHTS MOUNTING HEIGHTS.
3. WALL MOUNTED FIRE ALARM VISUAL INDICATING DEVICES AND COMBINATION A/V DEVICES SHALL BE INSTALLED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80" AND NOT GREATER THAN 96" AFF

PROJECT GENERAL NOTES

1. ALL ITEMS SHOWN HATCHED SHALL BE DISCONNECTED AND REMOVED. LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT TO REMAIN. HEAVY LINE WEIGHT INDICATES NEW.
2. ITEMS DENOTED BY THE LETTER "R" INDICATE EXISTING EQUIPMENT TO BE RELOCATED. THESE ITEMS SHALL BE DISCONNECTED, REMOVED AND STORED FOR REINSTALLATION IN NEW LOCATIONS AS INDICATED ON NEW WORK PLANS.
3. WHERE APPLICABLE AND NOT SPECIFICALLY INDICATED OTHERWISE, EXISTING IN PLACE CONDUITS, JUNCTION BOXES, PULL BOXES AND HANGERS MAY BE REUSED FOR NEW WORK PROVIDING THAT THE INSTALLATION IS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE EXISTING CONDUITS DO NOT INTERFERE WITH DEMOLITION OR NEW WORK OF ANY TRADES.
4. WHERE CONDUITS ARE ROUTED CONCEALED IN WALL CAVITIES FOR ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED, ABANDON THE CONDUIT CONCEALED IN THE WALL CAVITY. REMOVE THE CONDUIT EXITING THE WALL CAVITY INTO THE CEILING SPACE BEYOND THE FIRST FITTING OR JUNCTION BOX. REMOVE ALL SURFACE MOUNTED OUTLET BOXES ASSOCIATED WITH THE CONDUIT SYSTEM. ABANDON ALL FLUSH MOUNTED OUTLET BOXES ASSOCIATED WITH THE CONDUIT SYSTEM IN PLACE AND PROVIDE NEW BLANK COVER PLATES.
5. WHERE CONDUITS ARE ROUTED UNDERGROUND FOR ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED. REMOVE INDICATED EQUIPMENT AND WIRING BACK TO SOURCE. CUT CONDUIT BELOW FINISHED FLOOR AND REMOVE. PATCH FLOOR.
6. DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT AS INDICATED INCLUDING HANGERS. PULL BOXES. JUNCTION BOXES, CONDUIT AND WIRING FROM THE POWER SOURCE TO THE UTILIZATION EQUIPMENT.
7. WHERE REMOVAL OF CONDUIT AND WIRING AFFECTS THE OPERATION OF "UPSTREAM" AND/OR "DOWNSTREAM" UTILIZATION EQUIPMENT WHICH WAS NOT INDICATED TO BE REMOVED, PROVIDE ADDITIONAL CONDUIT AND WIRING TO RESTORE THE "UPSTREAM" AND "DOWNSTREAM" UTILIZATION EQUIPMENT TO ITS NORMAL OPERATION.
8. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SUPERVISION REQUIRED TO COMPLETE ALL DEMOLITION OF EXISTING ELECTRICAL EQUIPMENT AS SPECIFIED OR INDICATED. DISCONNECT, REMOVE AND RELOCATE ALL ITEMS AS REQUIRED TO FACILITATE THE NEW CONSTRUCTION. COORDINATE THE DEMOLITION REQUIREMENTS WITH ALL OTHER TRADES AND THE NEW WORK PLANS.
9. NEW FIRE ALARM DEVICES SHALL BE COMPATABLE WITH EXISTING FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM IS MANUFACTURED BY _____. COORDINATE ALL SYSTEMS REQUIREMENTS WITH MANUFACTURER.
10. PROVIDE A DEDICATED NEUTRAL CONDUCTOR WITHIN THE RACEWAY, ALONG WITH THE PHASE CONDUCTORS FOR ALL FEEDERS AND BRANCH CIRCUITS.
11. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITHIN THE RACEWAY, ALONG WITH THE PHASE CONDUCTORS FOR ALL FEEDERS AND BRANCH CIRCUITS.
12. ALL 120 VOLT, 20 AMPERE BRANCH CIRCUITS EXCEEDING 100'-0" IN LENGTH SHALL BE INSTALLED USING #10 AWG CONDUCTORS UNLESS OTHERWISE NOTED.
13. PROVIDE #10 AWG WIRING (MINIMUM) FOR ALL LIGHTING BRANCH CIRCUITS SERVING EXTERIOR BUILDING MOUNTED LIGHTING FIXTURES.
14. ALL ELECTRICAL DEVICES AND ASSOCIATED OUTLET BOXES SHALL BE FLUSH MOUNTED UNLESS NOTED OTHERWISE. ALL CONDUIT AND WIRING SHALL BE CONCEALED. SURFACE METAL RACEWAY SHALL BE PERMITTED ONLY WHERE NOTED.
15. MOUNTING HEIGHT OF RECESSED JUNCTION OR OUTLET BOXES IN BLOCK OR BRICK MAY BE ADJUSTED TO THE NEAREST HORIZONTAL COURSING. COVER PLATE TO CONCEAL GROUTLINE.
16. ALL WORK AND EQUIPMENT SHALL CONFORM TO THE NEC. THE MEANS AND METHODS USED BY THIS CONTRACTOR SHALL CONFORM TO NEC SECTION 110.3.
17. FIRE ALARM SHOP DRAWINGS SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR APPROVAL PRIOR TO SUBMITTING FOR ENGINEER APPROVAL.
18. RETURN UNUSED LIGHTING FIXTURE TO OWNER

SYMBOLS (LETTERS (X) INDICATES TYPE , TYPICAL)

LIGHTING

- LIGHTING FIXTURE; RECESSED OR SURFACE MOUNTED
- LIGHTING FIXTURE; RECESSED OR SURFACE MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- LIGHTING FIXTURE; PENDANT MOUNTED
- LIGHTING FIXTURE; PENDANT MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- STRIP LIGHTING FIXTURE
- STRIP LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- LIGHTING FIXTURE; RECESSED AIMABLE OR WALL WASH
- LIGHTING FIXTURE; RECESSED OR PENDANT MTD
- LIGHTING FIXTURE; RECESSED OR PENDANT MTD ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- LIGHTING FIXTURE; SURFACE MOUNTED
- LIGHTING FIXTURE; SURFACE MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- TRACK LIGHTING
- LIGHTING FIXTURE; WALL MOUNTED
- LIGHTING FIXTURE; WALL MOUNTED ON NIGHT LIGHT OR EMERGENCY CIRCUIT
- LIGHTING FIXTURE; UNDERCABINET MOUNTED
- LIGHTING FIXTURE; COVE MOUNTED
- EXIT LIGHTING FIXTURE SINGLE OR DOUBLE FACE WITH DIRECTIONAL ARROWS - CEILING OR PENDANT MOUNTED
- WALL MOUNTED EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS
- CEILING MOUNTED SELF-CONTAINED EMERGENCY LIGHTING UNIT
- WALL MOUNTED SELF-CONTAINED EMERGENCY LIGHTING UNIT
- POLE MOUNTED AREA LIGHTING FIXTURE; QUANTITY OF LUMINARIES AS INDICATED
- SITE LIGHTING; BOLLARD
- POST TOP POLE MOUNTED AREA LIGHTING FIXTURE
- SITE LIGHTING FIXTURE; ADJUSTABLE FLOOD
- LINE VOLTAGE SINGLE POLE SWITCH
- LINE VOLTAGE DOUBLE POLE SWITCH
- LINE VOLTAGE THREE WAY SWITCH
- LINE VOLTAGE FOUR WAY SWITCH
- LINE VOLTAGE KEY OPERATED SWITCH
- LINE VOLTAGE 'WALL BOX' DIMMER SWITCH
- LINE VOLTAGE LIGHTING OCCUPANCY SENSOR WITH INTEGRAL ON/OFF SWITCH - WALL MOUNTED
- LINE VOLTAGE LIGHTING OCCUPANCY SENSOR WITH INTEGRAL DIMMING - WALL MOUNTED
- LINE VOLTAGE LIGHTING OCCUPANCY SENSOR WITH INTEGRAL DUAL ZONE ON/OFF SWITCH - WALL MOUNTED
- LINE VOLTAGE SWITCH WITH PILOT LIGHT
- LINE VOLTAGE SWITCH WITH TIMER
- LINE VOLTAGE SINGLE POLE SWITCHES FOR DUAL LEVEL LIGHTING CONTROL
- LINE VOLTAGE THREE WAY SWITCHES FOR DUAL LEVEL LIGHTING CONTROL
- LOW VOLTAGE PUSH BUTTON STATION LV - SINGLE ZONE ON/OFF LVD - SINGLE ZONE DIMMING LV2 - 2 ZONE ON/OFF ONLY LV2D - 2 ZONE ON/OFF & DIMMING
- CEILING MTD OCCUPANCY SENSOR
- WALL MTD LIGHTING OCCUPANCY SENSOR
- CEILING MTD LINE VOLTAGE OCCUPANCY SENSOR
- WALL MTD LINE VOLTAGE LIGHTING OCCUPANCY SENSOR
- LIGHTING CONTACTOR
- TIME SWITCH
- LIGHTING CONTROL PANEL
- PHOTOELECTRIC SWITCH/PHOTOCELL - CEILING MOUNTED
- PHOTOELECTRIC SWITCH/PHOTOCELL - WALL MOUNTED
- EMERGENCY POWER TRANSFER DEVICE
- LIGHTING CONTROL PRESET STATION OR TOUCHSCREEN

POWER

- SINGLE RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET FLUSH MOUNTED IN CEILING
- DEAD-FRONT GROUND FAULT CIRCUIT INTERRUPTER (PROTECTION OF DOWNSTREAM CONNECTED DEVICES)
- ABOVE COUNTER DEAD-FRONT GROUND FAULT CIRCUIT INTERRUPTER (PROTECTION OF DOWNSTREAM CONNECTED DEVICES)
- FLUSH MOUNTED POWER ONLY FLOOR BOX
- DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER
- DUPLEX RECEPTACLE OUTLET WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER PROTECTION
- DUPLEX RECEPTACLE OUTLET CONNECTED TO UPSTREAM GROUND FAULT CIRCUIT INTERRUPTER PROTECTION DEVICE
- DUPLEX RECEPTACLE OUTLET WITH INTEGRAL SURGE SUPPRESSION
- DUPLEX RECEPTACLE OUTLET CONNECTED TO UPSTREAM SURGE SUPPRESSION DEVICE
- DUPLEX RECEPTACLE OUTLET SPLIT WIRED
- DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND
- QUAD RECEPTACLE OUTLET
- QUAD RECEPTACLE OUTLET MOUNTED ABOVE COUNTER
- QUAD RECEPTACLE OUTLET WITH ONE (1) INTEGRAL SURGE SUPPRESSION TYPE RECEPTACLE AND ONE (1) SURGE SUPPRESSION PROTECTED RECEPTACLE
- SPECIAL RECEPTACLE AS INDICATED
- POWER/COMMUNICATIONS POLE
- SPECIAL POWER CONNECTION
- CORD DROP
- POKE THROUGH ASSEMBLY LETTERS INDICATE TYPE (TYP)
- JUNCTION BOX - CEILING MOUNTED
- JUNCTION BOX - WALL MOUNTED
- PUSHBUTTON STATION - EMERGENCY POWER SHUTDOWN
- HORIZONTALLY MOUNTED MULTI-OUTLET RACEWAY
- VERTICALLY MOUNTED MULTI-OUTLET RACEWAY
- BUS DUCT
- EQUIPMENT MOUNTING BACKBOARD
- 208/120V PANELBOARD
- 480/277V PANELBOARD
- DISTRIBUTION OR POWER PANELBOARD
- SINGLE PHASE MOTOR
- THREE PHASE MOTOR
- MAGNETIC MOTOR STARTER
- COMBINATION MAGNETIC MOTOR STARTER & FUSED DISCONNECT SWITCH - SWITCH SIZE / FUSE SIZE
- NON-FUSED DISCONNECT SWITCH -SWITCH SIZE
- FUSED DISCONNECT SWITCH -SWITCH SIZE/FUSE SIZE
- ENCLOSED CIRCUIT BREAKER -CB RATING
- VARIABLE SPEED DRIVE
- MAGNETIC CONTACTOR
- MANUAL MOTOR STARTER
- HORSEPOWER RATED SWITCH
- PACKAGED EQUIPMENT WITH INTEGRALLY MOUNTED PREWIRED CONTROL PANEL
- FURNISHED AS INTEGRAL PART OF EQUIPMENT, OR AS INDICATED TRANSFORMER
- GROUND ROD
- LIGHTNING PROTECTION AIR TERMINAL
- GROUND BUS BAR AS INDICATED

AUXILIARY SYSTEMS

- CEILING MOUNTED SINGLE FACED CLOCK
- CEILING MOUNTED DOUBLE FACED CLOCK
- WALL MOUNTED SINGLE FACED CLOCK
- WALL MOUNTED DOUBLE FACED CLOCK
- COMBINATION WALL MOUNTED SPEAKER/CLOCK
- CEILING MOUNTED COMBINATION SPEAKER/CLOCK
- WALL MOUNTED DIGITAL CLOCK
- CEILING MOUNTED SPEAKER
- CEILING MOUNTED SPEAKER CLUSTER
- WALL MOUNTED SPEAKER
- CEILING MOUNTED MICROPHONE OUTLET
- WALL MOUNTED MICROPHONE OUTLET
- WALL MOUNTED AUXILIARY OUTLET
- WALL MOUNTED VOLUME CONTROL
- WALL MOUNTED BELL
- WALL MOUNTED CHIME
- WALL MOUNTED HORN SPEAKER
- CEILING MOUNTED HORN SPEAKER
- SECURITY SYSTEM CARD READER
- SECURITY SYSTEM DOOR CONTACT
- SECURITY SYSTEM ELECTRIC STRIKE
- SECURITY SYSTEM ELECTRIFIED HARDWARE
- SECURITY SYSTEM LOCKDOWN READER/BUTTON
- SECURITY SYSTEM KEY SWITCH
- SECURITY SYSTEM MOTION DETECTOR
- CEILING MOUNTED SECURITY CAMERA
- WALL MOUNTED SECURITY CAMERA
- FIRE ALARM PULL STATION
- WALL MOUNTED A/V FIRE ALARM INDICATING DEVICE
- CEILING MOUNTED A/V FIRE ALARM INDICATING DEVICE
- WALL MOUNTED VISUAL FIRE ALARM INDICATING DEVICE
- CEILING MOUNTED VISUAL FIRE ALARM INDICATING DEVICE
- WALL MOUNTED AUDIO FIRE ALARM INDICATING DEVICE
- CEILING MOUNTED AUDIO FIRE ALARM INDICATING DEVICE
- WALL MOUNTED VISUAL EMERGENCY MASS NOTIFICATION INDICATING DEVICE
- CEILING MOUNTED VISUAL EMERGENCY MASS NOTIFICATION INDICATING DEVICE
- WALL MOUNTED AREA SMOKE DETECTOR
- CEILING MOUNTED AREA SMOKE DETECTOR
- CEILING MOUNTED COMBINATION AREA SMOKE/CO DETECTOR
- CEILING MOUNTED TEMPERATURE DETECTOR
- DUCT SMOKE DETECTOR
- WALL MOUNTED MAGNETIC DOOR HOLDER/RELEASE
- WATER FLOW SWITCH
- TAMPER SWITCH
- FIRE FIGHTER TELEPHONE JACK
- FIRE ALARM CONTROL PANEL
- FIRE SUPPRESSION SYSTEM CONTROL PANEL
- FIRE ALARM REMOTE ANNUNCIATOR PANEL
- SINGLE BED STATION - NURSE CALL
- DOUBLE BED STATION - NURSE CALL
- BATHROOM STATION - NURSE CALL
- BATHROOM STATION PULL CORD - NURSE CALL
- CODE BLUE PUSHBUTTON - NURSE CALL
- NURSE CALL DUTY STATION
- NURSE CALL EMERGENCY STATION
- NURSE CALL MASTER STATION
- NURSE CALL POWER SUPPLY
- NURSE CALL STAFF STATION
- NURSE CALL WALL MOUNTED DOME LIGHT
- NURSE CALL CEILING MOUNTED DOME LIGHT
- NURSE CALL WALL MOUNTED DOME LIGHT WITH CODE BLUE
- NURSE CALL CEILING MOUNTED DOME LIGHT WITH CODE BLUE
- WALL MOUNTED COMMUNICATIONS OUTLET
- ABOVE COUNTER COMMUNICATIONS OUTLET
- CEILING MOUNTED COMMUNICATIONS OUTLET
- COMMUNICATIONS FLOORBOX
- MULTI-SYSTEM FLOORBOX
- INTERCOM CALL BUTTON
- INTERCOM CALL BUTTON WITH PRIVACY

ONE-LINE

- ANALOG AMPERE\VOLT METER
- ANALOG ENERGY USAGE METER
- DIGITAL MULTI-FUNCTION METER
- KIRK KEY INTERLOCK
- CIRCUIT BREAKER
- SWITCH
- FUSE
- TRANSFORMER
- TRANSFER SWITCH
- THERMAL OVERLOAD
- CONTACTS
- INDICATES WIRE SIZE AND CONDUIT SIZE
- DRAWOUT CIRCUIT BREAKER
- AIR-MAG / VACUUM CIRCUIT BREAKER
- ENGINE GENERATOR
- SYSTEM OR EQUIPMENT GROUND

MISC

- EXOTHERMIC WELD OR BRAZED CONNECTION
- CONDUIT IN OR BELOW FLOOR SLAB OR BELOW GRADE
- RACEWAY TURNED UP
- RACEWAY TURNED DOWN
- SEAL-OFF - CONDUIT SEAL
- CABLE TRAY
- UNDERFLOOR DUCT - POWER
- UNDERFLOOR HEADER DUCT - POWER
- UNDERFLOOR DUCT - COMM
- UNDERFLOOR HEADER DUCT - COMM

SITE

- FLUSH IN-GRADE HAND HOLE
- UNDERGROUND ELECTRICAL
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND FIBER OPTIC COMMUNICATIONS
- UNDERGROUND LIGHTING
- EMERGENCY "CODE BLUE" BOLLARD

Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

Project Administrator	V. Grant
Project Designer	T. Morgan
Project Architect / Engineer	T. Morgan
Drawn By	T. Morgan
Q.M. Review	T. Carron
Approved	T. Carron
Drawing Scale	No Scale

Issued for — Issue Date
Design Development — 06-24-2024

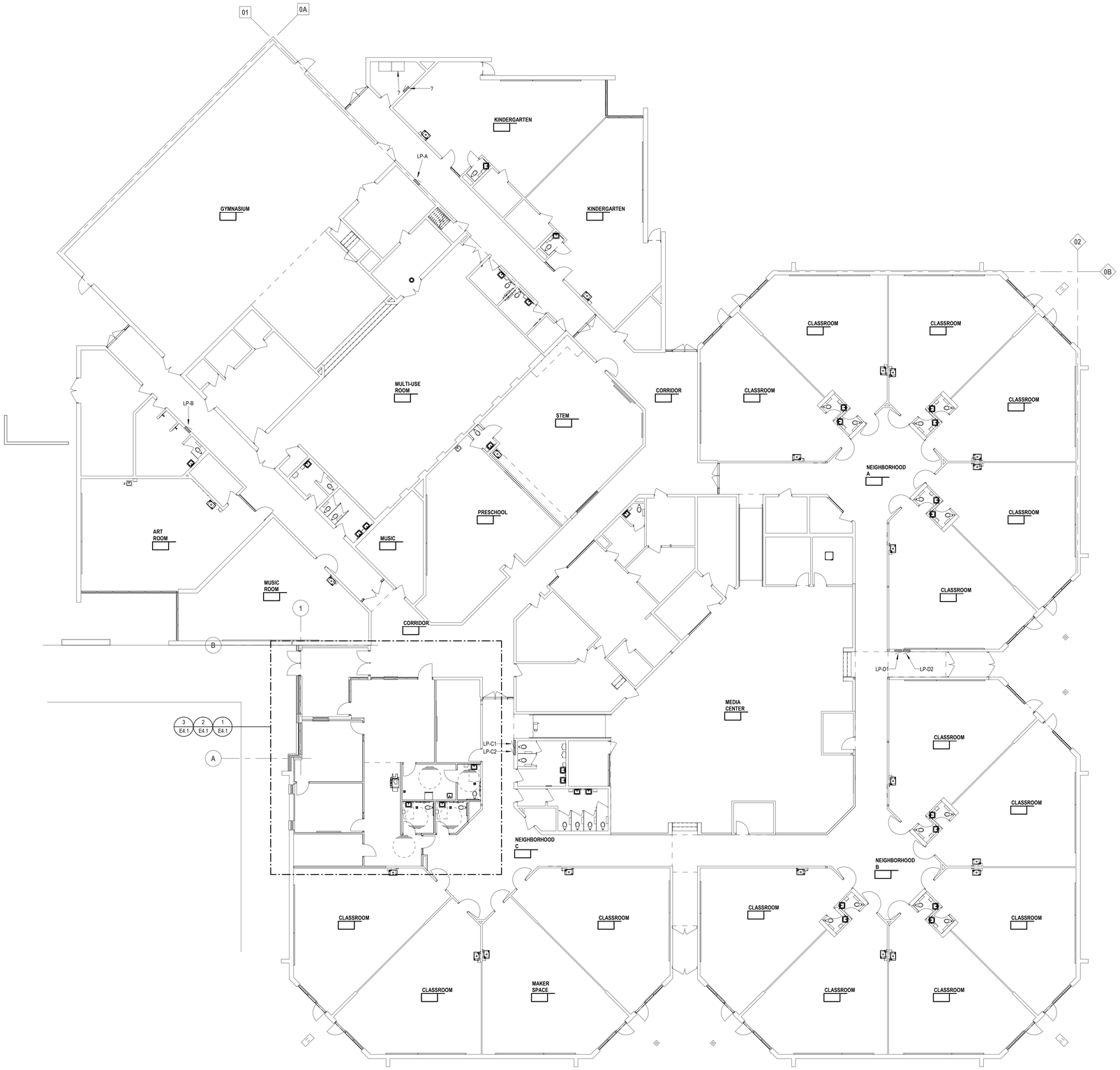
IDS Drawing Title

Electrical Reference Information

IDS Project Number: 20111-3008

Drawing Number: ER. 0

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



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Project Title

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Tyler Elementary School
Secured Entry Renovation
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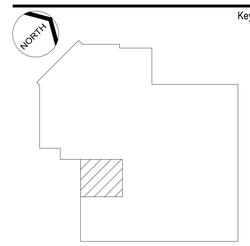
Belleville, MI 48111

Key Plan



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Project Designer
T. Morgan
Project Architect / Engineer
T. Morgan
Drawn By
T. Morgan
Q.M. Review
T. Carron
Approved
T. Carron
Drawing Scale
12" = 1'-0"

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

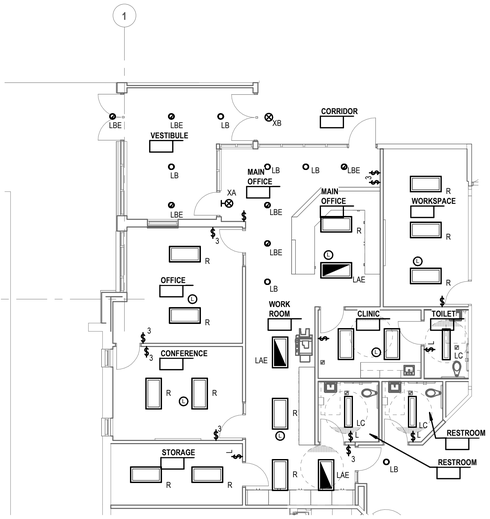
First Floor Composite Plan

IDS Project Number
20111-3008

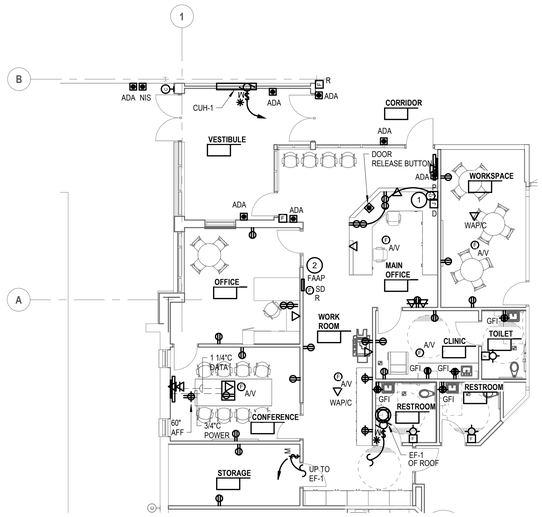
Drawing Number
E0. 1

KEY NOTES

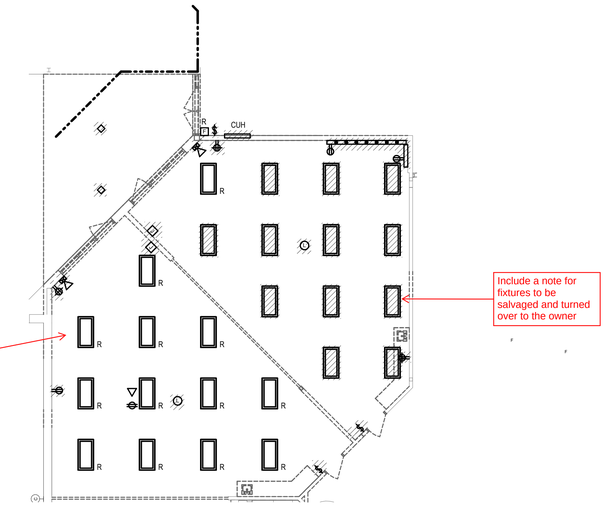
1. PROVIDE JUNCTION BOX IN WALL FOR ROUTING POWER BRANCH WIRING TO OUTLETS AND DATA CABLING WITH PULL STRINGS .
2. RELOCATE EXISTING FIRE ALARM ANNUCATOR PANEL FROM EXISTING MAIN OFFICE TO NEW SECURED ENTRY ADDITION.



2 NEW WORK LIGHTING PLAN
1/8" = 1'-0"



3 NEW WORK POWER & AUXILIARY SYSTEMS PLAN
1/8" = 1'-0"



1 DEMOLITION PLAN
1/8" = 1'-0"

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Q.M. Review	T. Carron
Approved	T. Carron
Drawing Scale	As Noted

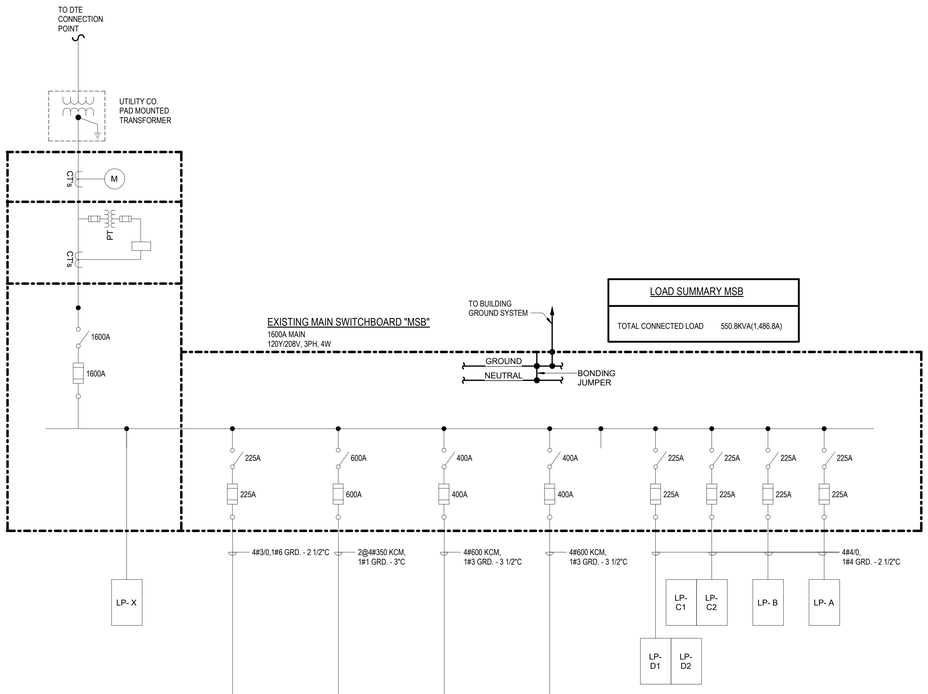
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Enlarged Plans

IDS Project Number: 20111-3008

Drawing Number: E4. 1



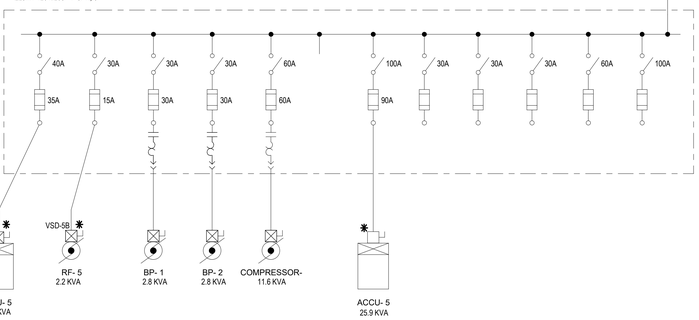
CONDUIT AND WIRE SCHEDULE

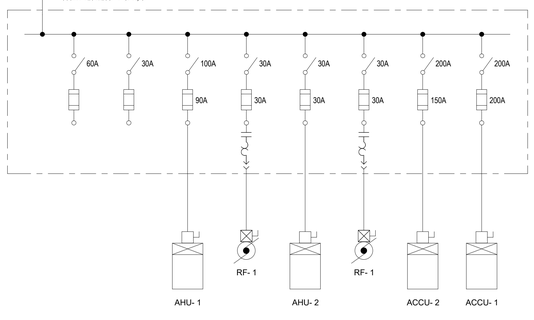
COPPER CONDUCTORS

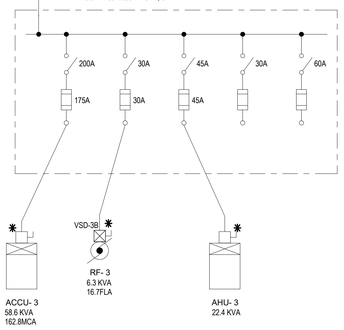
		3 PHASE, 3 WIRE WITH GROUND		3 PHASE, 4 WIRE WITH GROUND	
		TAG	FILL	TAG	FILL
THW THHW (NOTE 4)	60 DEGREE C RATING (NOTE 5)	20G	3#12,1#12 GRD. - 3/4"C	20NG	4#12,1#12 GRD. - 3/4"C
		30G	3#10,1#10 GRD. - 3/4"C	30NG	4#10,1#10 GRD. - 3/4"C
		40G	3#8,1#10 GRD - 3/4"C	40NG	4#8,1#10 GRD - 1"C
		55G	3#6,1#10 GRD. - 1"C	55NG	4#6,1#10 GRD. - 1 1/4"C
		70G	3#4,1#8 GRD. - 1 1/4"C	70NG	4#4,1#8 GRD. - 1 1/4"C
		85G	3#3, 1#8 GRD. - 1 1/4"C	85NG	4#3, 1#8 GRD. - 1 1/4"C
		95G	3#2,1#8 GRD. - 1 1/4"C	95NG	4#2,1#8 GRD. - 1 1/2"C
		110G	3#1,1#6 GRD. - 1 1/2"C	110NG	4#1,1#6 GRD. - 2"C
XHHW THHN THWN (NOTE 4)	75 DEGREE C RATING (NOTE 5)	150G	3#1/0,1#6 GRD. - 1 1/2"C	150NG	4#1/0,1#6 GRD. - 2"C
		175G	3#2/0,1#6 GRD. - 2"C	175NG	4#2/0,1#6 GRD. - 2"C
		200G	3#3/0,1#6 GRD. - 2"C	200NG	4#3/0,1#6 GRD. - 2 1/2"C
		230G	3#4/0,1#4 GRD. - 2"C	230NG	4#4/0,1#4 GRD. - 2 1/2"C
		255G	3#250 KCM,1#4 GRD. - 2"C	255NG	4#250 KCM,1#4 GRD. - 2 1/2"C
		285G	3#300 KCM,1#4 GRD - 2 1/2"C	285NG	4#300 KCM,1#4 GRD - 3"C
		310G	3#350 KCM,1#3 GRD. - 2 1/2"C	310NG	4#350 KCM,1#3 GRD. - 3"C
		380G	3#500 KCM,1#3 GRD. - 3"C	380NG	4#500 KCM,1#3 GRD. - 3 1/2"C
		420G	3#600 KCM,1#3 GRD. - 3"C	420NG	4#600 KCM,1#3 GRD. - 3 1/2"C
		510G	2@[3#250 KCM, 1#2 GRD. - 2 1/2"C]	510NG	2@[4#250 KCM, 1#2 GRD. - 2 1/2"C]
		620G	2@[3#350 KCM, 1#1 GRD. - 2 1/2"C]	620NG	2@[4#350 KCM, 1#1 GRD. - 3"C]
		760G	2@[3#500 KCM,1#1/0 GRD. - 3"C]	760NG	2@[4#500 KCM,1#1/0 GRD. - 3 1/2"C]
		800G	2@[3#600KCM, 1#1/0 GRD-3"C]	800NG	2@[4#600KCM, 1#1/0 GRD-3 1/2"C]
		1000G	3@[3#500 KCM,1#2/0 GRD. - 3"C]	1000NG	3@[4#500 KCM,1#2/0 GRD. - 3 1/2"C]
		1200G	3@[3#600 KCM,1#3/0 GRD. - 3"C]	1200NG	3@[4#600 KCM,1#3/0 GRD. - 3 1/2"C]
		1600G	4@[3#600 KCM,1#4/0 GRD. - 3"C]	1600NG	4@[4#600 KCM,1#4/0 GRD. - 3 1/2"C]
		2000G	5@[3#600 KCM,1#250 KCM GRD. - 3 1/2"C]	2000NG	5@[4#600 KCM,1#250 KCM GRD. - 3 1/2"C]

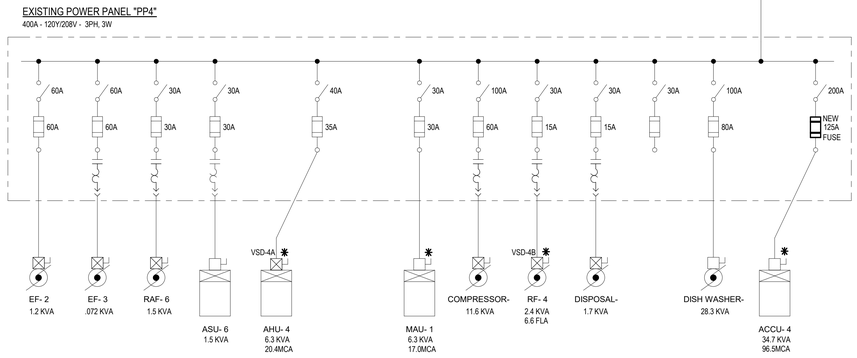
NOTES:

1. GROUND WIRES SHOWN IN CONDUIT AND WIRE SCHEDULE ARE EQUIPMENT GROUNDING CONDUCTORS SIZED PER NEC 250-122.
2. GROUNDING ELECTRODE CONDUCTORS FOR SERVICE ENTRANCE AND FOR TRANSFORMER NEUTRALS SHALL BE SIZED PER TABLE 250.66.
3. MAIN BONDING JUMPER AND SYSTEM BONDING JUMPER FOR MAIN SERVICE AND SEPARATELY DERIVED SYSTEMS SHALL BE SIZED PER NEC 250.28(D) AND TABLE 250.102(C)(1).
4. CONDUIT FILL BASED CONDUCTOR INSULATION TYPE AS INDICATED AND SHALL BE USED FOR RMC, FMC, EMT AND PVC SCHEDULE 40 ONLY. ALL OTHER CONDUITS SHALL BE SIZED PER NEC CHAPTER 9 ANNEX C.
5. CONDUCTOR AMPACITY IS BASED ON TEMPERATURE RATING INDICATED AND NEC TABLE 310.15(B)(16).









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Project Designer: T. Morgan
Project Architect / Engineer: T. Morgan
Drawn By: T. Morgan
Q.M. Review: T. Carron
Approved: T. Carron
Drawing Scale: No Scale

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

One Line Diagram

IDS Project Number: 20111-3008

Drawing Number: E5. 1

EXISTING PANELBOARD SCHEDULE LP-C1

225 AMPS MLO

CKT.	LOAD	CB	A		B		C		CB	LOAD	CKT.
1	Lighting - Corridor	20	1295	740					20	Lighting - Office	2
3	Lighting - Teachers Room	20			370	740			20	Lighting - Principle, Nurse	4
5	Lighting - Corridor	20					1295	370	20	Lighting - Conf., Storage	6
7	Lighting - Room 11	15	740	740					20	Lighting - Room 12	8
9	Lighting - Room 13	20			740	740			20	Lighting - Room 12	10
11	Lighting - Room 13	20					740	740	20	Lighting - Room 15	12
13	Lighting - Room 14	20	740	740					20	Lighting - Room 15	14
15	Lighting - Room 14	20			740	740			20	Lighting - Room 16	16
17	Lighting - Room 21	20					740	740	20	Lighting - Room 16	18
19	Lighting - Room Bathroom	20	370	740					15	Lighting - Room 22	20
21	Recept - Room 14	20			900	740			20	Lighting - Room 22	22
23	Recept - Room 12,13	20					1440	740	20	Lighting - Room 23	24
25	Recept - Room 14,15	20	900	1800					20	Heating- Preschool	26
27	Recept - Room 16	20			900	370			20	Lighting - Room 23	28
29	Recept - Room 21,22	20					1440	720	20	Recept - Storage	30
31	Recept - Room 23, Office	20	1440	100					20	VAV Control	32
33	**Projectors, A/V Ceiling Boxes**	20			**1500**	**1500**			20	**Projectors, A/V Ceiling Boxes**	34
35	Heating - Special Services	20					1800	900	15	Recept - Workroom	36

Panel Information

Volts:	208/120 Wye
Mounting:	Flush
A.I.C. (RMS Symmetrical):	10000
Phase:	3
Wire:	4
Hertz:	60

Symbols

Note: All Symbols May Not Be Used

* PROVIDE LOCK ON ATTACHMENT
\# PROVIDE SWD RATED BREAKER
@ PROVIDE GFCI TYPE BREAKER
\+ PROVIDE AFCI TYPE BREAKER

Load Classification Total Connected Load

Receptacle	11640 VA
Equipment	4440 VA
Lighting	15910 VA
Kitchen	0 VA

PHASE A	CONNECTED LOAD:	10,345 VA
PHASE B	CONNECTED LOAD:	9,980 VA
PHASE C	CONNECTED LOAD:	11,665 VA
	TOTAL CONNECTED LOAD:	**31,990 VA**
	TOTAL ESTIMATED DEMAND LOAD:	**31,170 VA**
	TOTAL ESTIMATED DEMAND AMPS:	**86.5 A**

EXISTING PANELBOARD SCHEDULE LP-C2

225 AMPS MLO

CKT.	LOAD	CB	A		B		C		CB	LOAD	CKT.
1	Ref Fan	20	667	1440					20	Recept - Office, Lounge	2
3	Water Cooler'	20			500	1440			20	Recept - Teach, Planning	4
5	Security Camer	20					100	1440	20	Recept - Teach, Planning	6
7	Exhaust Fan	15	667	1440					20	Recept - Teach, Planning	8
9	CUH - Corridor	20			1127	1440			20	Recept - Computer	10
11	**Projectors, A/V Ceiling Boxes**	20					**1500**	1440	20	Recept - Computer	12
13	VAV -	30	500	1440					20	Recept - Computer	14
15	VAV -	20			500	**750**			20	**Projectors, A/V Ceiling Boxes**	16
17	Network Switch	20					1000	**1500**	20	Recept - Conf Room	18
19	**FAAP**	20	**500**	**1500**					20	**Projectors, A/V Ceiling Boxes**	20
21	Kitchen Unit	20			916	1000			15	APS System	22
23							916	1440	30	Recept - Computer Lab	24

Panel Information

Volts:	208/120 Wye
Mounting:	Flush
A.I.C. (RMS Symmetrical):	10000
Phase:	3
Wire:	4
Hertz:	60

Symbols

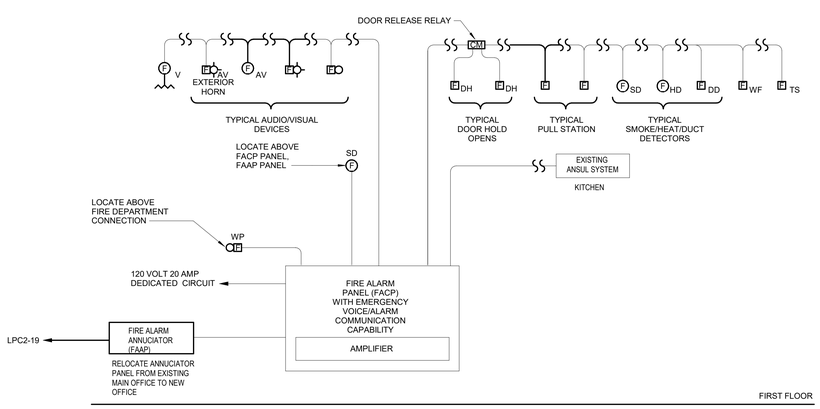
Note: All Symbols May Not Be Used

* PROVIDE LOCK ON ATTACHMENT
\# PROVIDE SWD RATED BREAKER
@ PROVIDE GFCI TYPE BREAKER
\+ PROVIDE AFCI TYPE BREAKER

Load Classification Total Connected Load

Receptacle	16770 VA
Equipment	6561 VA
Lighting	0 VA
Kitchen	1832 VA

PHASE A	CONNECTED LOAD:	8,154 VA
PHASE B	CONNECTED LOAD:	7,673 VA
PHASE C	CONNECTED LOAD:	9,336 VA
	TOTAL CONNECTED LOAD:	**25,163 VA**
	TOTAL ESTIMATED DEMAND LOAD:	**21,778 VA**
	TOTAL ESTIMATED DEMAND AMPS:	**60.4 A**

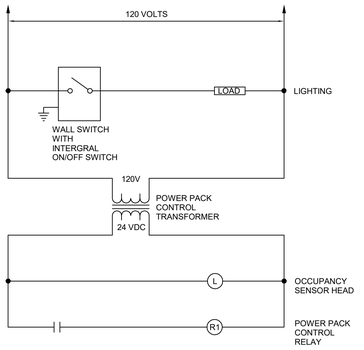


NOTES:

1. ELECTRICAL CONTRACTOR SHALL VERIFY ALL REQUIRED WIRE SIZES AND QUANTITIES WITH THE FIRE ALARM SYSTEM MANUFACTURER. ALL WIRING SHALL BE COLOR CODED AND CLEARLY TAGGED.
2. ALL WIRING INSULATION SHALL BE TYPE AS APPROVED PER THE FIRE ALARM CODE REQUIREMENTS.
3. SCHEMATIC DIAGRAM INDICATES GENERAL LAYOUT & INTENT OF SYSTEM DESIGN. REFER TO POWER & AUXILLIARY SYSTEMS PLANS FOR EXACT QUANTITIES AND LOCATIONS OF DEVICES.
4. PROVIDE AND INSTALL STAINLESS COVERPLATE OVER UNUSED BACK BOXES LEFT FROM DEMOLISH FIRE ALARM SYSTEM DEVICES.
5. PROVIDE POLYCARBONATE COVER OVER ALL PULL STATIONS.
6. PROVIDE SURFACE WIREMOLD FOR ALL WALL MOUNTED FIRE ALARM DEVICES.

FIRE ALARM DIAGRAM SECURED ENTRY

Not To Scale

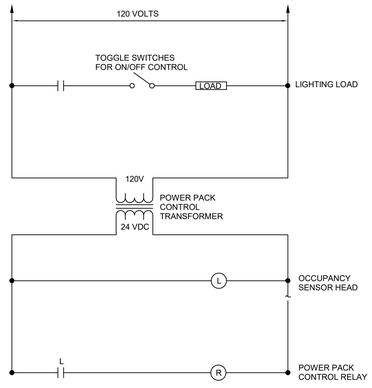


OCCUPANCY SENSOR WITH LIGHTING CONTROL

NO SCALE

NOTES:

1. ALL LOW VOLTAGE WIRING SHALL BE #18 AWG MINIMUM.
2. MULTIPLE SENSORS AND RELAY CONTROL PANEL OPERATING ONE LOAD.



CEILING OCCUPANCY SENSOR SINGLE HEAD SINGLE LEVEL LIGHTING CONTROL

NO SCALE

NOTES:

1. ALL LOW VOLTAGE WIRING SHALL BE #18 AWG MINIMUM.
2. SINGLE SENSOR AND RELAY CONTROL PANEL OPERATING ONE LOAD.

LIGHTING FIXTURE SCHEDULE

LA
DESCRIPTION: 2'x 4' RECESSED LED BACK-LIT FLAT PANEL WITH: 4800 NOMINAL LUMEN PACKAGE, 3" MAXIMUM THICKNESS, POST-PAINTED GALVANIZED STEEL HOUSING, WHITE PAINTED ALUMINUM OR 20 GA. STEEL FRAME CONSTRUCTION, FACTORY INSTALLED DIE-FORMED DRIVER BOX ACCESSIBLE ABOVE, 0.125" THICK (MIN) PMMA OPAL FORSTED LENS, 100 LPW MIN EFFICACY, INTEGRAL SURGE PROTECTION, DRIVER DISCONNECT, L70 PROJECTED LIFE OF >50K HOURS AT 25 DEGREES CELCIUS AMBIENT TEMPERATURE, 120 VOLTAGE REPLACEABLE POWER SUPPLY WITH FLICKER FREE 10% MINIMUM DIMMING, T-BAR CLIPS FOR INSTALLATION IN A LAY-IN CEILING, DLC LISTED AND UL DAMP LOCATION LISTING.
MANUFACTURER: ACUITY: SPX SERIES
SOURCE:
INPUT WATTS: MINIMUM 80 CRI, 3500K CCT, 4800 LUMENS 43

LAE
DESCRIPTION: SAME AS TYPE "LA", EXCEPT PROVIDE INTEGRAL EMERGENCY BATTERY RATED FOR 1541 LUMENS AT 10-14 W PROVIDING CONTINUOUS RATED LIGHT OUTPUT FOR 90 MINUTES.
MANUFACTURER: ACUITY: SPX SERIES
SOURCE:
INPUT WATTS: MINIMUM 80 CRI, 3500K CCT 43

LB
DESCRIPTION: 4" (NOMINAL) ROUND APERTURE, RECESSED COMMERCIAL GRADE OPEN LED DOWNLIGHT LUMINAIRE WITH: 7-1/2" MAXIMUM HOUSING DEPTH, SELF-FLANGED MATTE DIFFUSE REFLECTOR WITH WHITE PAINTED FLANGE, GENERAL DISTRIBUTION, RECESSED LENS, ACCOMMODATIONS FOR CEILING THICKNESS TO 1-1/2", LEDS AND POWER SUPPLY SERVICEABLE FROM BELOW, 0-10V FLICKER FREE DIMMABLE (TO 1%), ELECTRONIC POWER SUPPLY WIRED FOR DIMMING, OVERLOAD AND SHORT CIRCUIT PROTECTION, INTEGRAL DRIVER DISCONNECT, ENERGY STAR CERTIFIED, UL LISTING FOR DAMP LOCATIONS: MVOLT VOLT OPERATION.
MANUFACTURER: ACUITY: LDN4 SERIES
SOURCE:
MAX INPUT WATTS: MIN 80 CRI, 2000 DELIVERED LUMENS, 3500K CCT 26

LBE
DESCRIPTION: SAME AS TYPE LB, EXCEPT, INCLUDE REMOTE EMERGENCY BATTERY PACK RATED FOR 2400 LUMENS PROVIDING CONSTANT ILLUMINATION FOR 90 MINUTES.
MANUFACTURER: ACUITY: LDN4 SERIES
SOURCE:
MAX INPUT WATTS: MIN 80 CRI, 2000 DELIVERED LUMENS, 3500K CCT 26

LC
DESCRIPTION: SAME AS TYPE "LA" EXCEPT 1' X 4'; MOUNTED IN GYMSUM CEILING
MANUFACTURER: ACUITY: SPX SERIES
SOURCE: MINIMUM 80 CRI, 4800 DELIVERED LUMENS, 3500K CCT
MAX INPUT WATTS: 39 WATTS MAXIMUM

XA
DESCRIPTION: SINGLE FACE, UNIVERSAL WALL MOUNT LED EMERGENCY EXIT LUMINAIRE WITH: DIE-CAST ALUMINUM FRAME, BACK PLATE AND MOUNTING CANOPY, WHITE DIE-CAST ALUMINUM (HOUSING), DIE-CAST ALUMINUM WHITE FACE; RED STENCIL STYLE LETTERS; DIRECTIONAL ARROWS AS INDICATED ON PLAN; LED LAMPS WITH DIFFUSE POLYCARBONATE LENS;SEALED MAINTENANCE FREE NICKEL CADMIUM BATTERY; LOW VOLTAGE DISCONNECT; SOLID STATE/FULLY AUTOMATIC AND CURRENT LIMITED CHARTER; BOTTOM MOUNTED TEST-SWITCH/PILOT LIGHT; BROWNOUT PROTECTION, FILTERED POWER SUPPLY TO PROTECT LED'S FROM SURGES, AND FULL SELF-DIAGNOSTICS, DUAL 120/277 VOLT NORMAL OPERATION AND UL LISTED. PROVIDE WIRE GUARD WHERE INDICATED ON PLANS
MANUFACTURER: LITHONIA: LE SERIES
SOURCE: FURNISHED WITH FIXTURE
INPUT WATTS: 1.2W (SINGLE)

XB
DESCRIPTION: SINGLE FACE, UNIVERSAL CEILING MOUNT LED EMERGENCY EXIT LUMINAIRE WITH: DIE-CAST ALUMINUM FRAME, BACK PLATE AND MOUNTING CANOPY, WHITE DIE-CAST ALUMINUM (HOUSING), DIE-CAST ALUMINUM WHITE FACE; RED STENCIL STYLE LETTERS; DIRECTIONAL ARROWS AS INDICATED ON PLAN; LED LAMPS WITH DIFFUSE POLYCARBONATE LENS;SEALED MAINTENANCE FREE NICKEL CADMIUM BATTERY; LOW VOLTAGE DISCONNECT; SOLID STATE/FULLY AUTOMATIC AND CURRENT LIMITED CHARTER; BOTTOM MOUNTED TEST-SWITCH/PILOT LIGHT; BROWNOUT PROTECTION, FILTERED POWER SUPPLY TO PROTECT LED'S FROM SURGES, AND FULL SELF-DIAGNOSTICS, DUAL 120/277 VOLT NORMAL OPERATION AND UL LISTED.
MANUFACTURER: LITHONIA: LE SERIES
SOURCE: FURNISHED WITH FIXTURE
INPUT WATTS: 1.2W (SINGLE)

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Project Architect / Engineer	T. Morgan
Drawn By	T. Morgan
Q.M. Review	T. Carron
Approved	T. Carron
Drawing Scale	No Scale

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Panelboard Schedules, Lighting fixture Schedule, Details and Fire Alarm Diagram

IDS Project Number: 20111-3008

Drawing Number: E6. 1

ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ALS	ASSISTED LISTENING SYSTEM
ALT	ALTERNATE
ANT	ANTENNA
ARCH	ARCHITECT, ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
B	
BLDG	BUILDING
BE	BUILDING ENTRANCE
BOT	BOTTOM
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
C	
CAB	CABINET
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCP	CLASSROOM CONTROL PANEL
CCTV	CLOSED CIRCUIT TELEVISION
CHBD	CHALKBOARD
CKT	CIRCUIT
CLG	CEILING
COMP	COMPUTER
CPU	CENTRAL PROCESSING UNIT
CP	CONTROL PANEL
CT	CABLE TRAY
D	
D	DATA
DA	DIGITALLY ADDRESSABLE
DC	DIRECT CURRENT
DEMO	DEMOLISH, DEMOLITION
DEMOD	DEMODULATOR
DEPT	DEPARTMENT
DHE	DISTRICT HEADEND
DIA	DIAMETER
DMARC	DMARCATION POINT
DN	DOWN
DP	DISTTRIBUTION PANEL
DVD	DIGITAL VERSATILE DISCT
DWG	DRAWING
E	
EA	EACH
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMT	ELECTRIC METALLIC TUBING
EPT	ELECTRIC POWER TRANSDUCER
EQUIP	EQUIPMENT
ET	ETHERNET
EXIST	EXISTING
F	
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATING PANEL
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX
FIB	FIBER OPTIC
FLR	FLOOR
FT	FOOT/FEET
G	
GA	GAGE/GAUGE
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUITINTERRUPTER
GRD	GROUND
GYP BD	GYPSUM BOARD
H	
HD	HIGH DEFINITION TV
HH	HAND HOLE
HP	HORSEPOWER
HRN	HORN
HTR	HEATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HW	HARD WIRED
I	
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GRAND
I/O	INPUT / OUTPUT
IN	INCHES
IP	INTERNET PROTOCAL
IR	INFRARED
J	
JB	JUNCTION BOX
JC	JANITORS CLOSET
K	
K	KILOHERTZ
KHZ	KILOHERTZ
KVA	KILOVOLT AMPERE
KVM	KEYBOARD / VIDEO / MOUSE
KW	KILOWATT
L	
LAN	LOCAL AREA NETWORK
LAR	LINE ARRAY SPEAKER
LCD	LIQUID CRYSTAL DISPLAY
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMMITTING DIODE
LP	LIGHTING PANEL
LTG	LIGHTING
M	
MAX	MAXIMUM
MC	MASTER CLOCK
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODULATOR
MON	MONITOR
MTD	MOUNTED
MTG	MOUNTING
N	
NC	NORMALLY CLOSED
NIC	NOT-IN-CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O	
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR...
OFE	OWNER FURNISHED EQUIPMENT
OS	OCCUPANCY SENSOR
P	
PA	PUBLIC ADDRESS
PB	PULLBOX
PH	PHASE
PIR	PASSIVE INFRARED
PNL	PANEL
POS	POINT OF SALE
PROJ	PROJECTOR
PT	POKE THROUGH
PTZ	PAN / TILT / ZOOM
PVC	POLYVINYL CHLORIDE
R	
R	RELOCATE OR RELOCATED ITEM
REQD	REQUIRED
RF	RADIO FREQUENCY
RGS	RIGID GALVANIZED STEEL
RX	RECEIVER
S	
SCRN	PROJECTOR SCREEN
SD	SMOKE DETECTOR
SF	SQUARE FEET
SPECS	SPECIFICATIONS
SPKR	SPEAKER
SS	SURGE SUPPRESSION
STD	STANDARD
SW	SWITCH
T	
TC	TIME CLOCK
TEL	TELEPHONE
TELECOM	TELECOMMUNICATIONS
TERM	TERMINAL
TKBD	TACKBOARD
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BACKBOARD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TX	TRANSMITTER
TYP	TYPICAL
U	
UL	UNDERWRITERS LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBAL POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
V	
V	VOICE
VC	VOLUME CONTROL
VCR	VIDEO CASSETTE RECORDER
VIF	VERIFY IN FIELD
VOIP	VOICE OVER INTERNET PROTOCOL
W	
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WB	WHITEBOARD
WG	WIRE GUARD
WLAN	WIRELESS LOCAL AREA NETWORK
WP	WEATHER PROOF
MISC	
3R	NEMA 3R
4X	NEMA 4X
X	BY
℄ OR C	CENTERLINE
°	DEGREES
'	FOOT, FEET
"	INCH, INCHES
#	NUMBER
PH	PHASE
%	PERCENT, PERCENTAGE

TECHNOLOGY DRAWING INDEX

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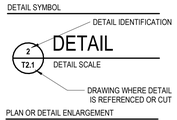
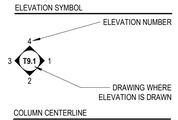
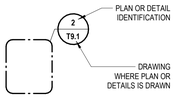
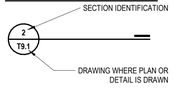
SYMBOL LEGEND

DETAIL SYMBOL


ELEVATION SYMBOL


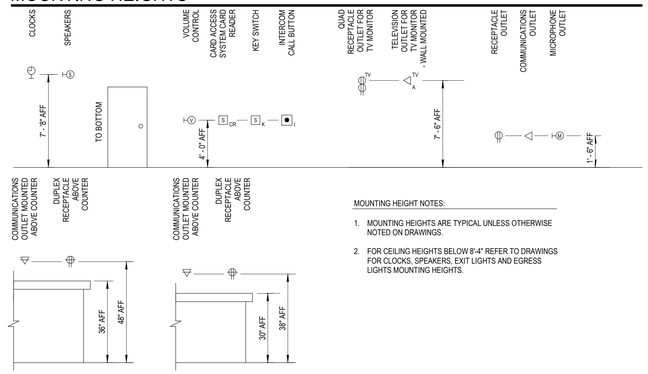
PLAN OR DETAIL ENLARGEMENT


COLUMN CENTERLINE


SECTION LOCATOR


ROOM NAME AND NUMBER


MOUNTING HEIGHTS



MOUNTING HEIGHT NOTES:

1. MOUNTING HEIGHTS ARE TYPICAL UNLESS OTHERWISE NOTED ON DRAWINGS.
2. FOR CEILING HEIGHTS BELOW 8'-4" REFER TO DRAWINGS FOR CLOCKS, SPEAKERS, EXIT LIGHTS AND EGRESS LIGHTS MOUNTING HEIGHTS.

GENERAL NOTES

1. LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT TO REMAIN OR EQUIPMENT PROVIDED BY OTHERS. HEAVY LINE WEIGHT INDICATES NEW EQUIPMENT.
2. NETWORK DEVICE PLATES AND THE CABLING FOR THESE AREAS SHALL BE PROVIDED BY THE TECHNOLOGY CONTRACTOR.
3. TECHNOLOGY CONTRACTOR SHALL COORDINATE DEVICE OUTLET LOCATIONS WITH THE ARCHITECTURAL AND CASEWORK DRAWINGS PRIOR TO ROUGH-IN. REPORT ANY CONFLICTS TO THE CONSTRUCTION MANAGER FOR RESOLUTION.
4. TECHNOLOGY CONTRACTOR SHALL COORDINATE CLOSET ROOM EQUIPMENT/DEVICE LOCATIONS WITH THE GENERAL TRADES.
5. TECHNOLOGY CONTRACTOR SHALL NOT PLACE ANY DISTRIBUTION CABLING ALONGSIDE POWERLINES, OR SHARE THE SAME CONDUIT, CHANNEL OR SLEEVE WITH ELECTRICAL APPARATUS.
6. ALL CABLES SHALL BE INSTALLED IN "J" HOOKS, CONDUITS, CABLE TRAY OR AN APPROVED RACEWAY SYSTEM. WHERE CABLE TRAY IS NOT AVAILABLE, SUPPORT HORIZONTAL CABLE EVERY FIVE FEET WITH "J" HOOKS SUFFICIENT IN SIZE TO HANDLE ALL BUNDLED CABLES WHILE MIMMIZING CRUSHING. IF CABLE SLACK EXCEEDS TWELVE (12) INCHES BETWEEN SUPPORTS, ADDITIONAL SUPPORTS SHALL BE INSTALLED TO TAKE UP SLACK AND RELIEVE CABLE STRESS. ALL CABLES SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING STEEL. ALL COMMUNICATIONS CABLES SHALL BE LOCATED AND FASTENED TO GUARANTEE THERE SHALL BE NO INTERFERENCE FROM MAGNETIC FIELDS GENERATED FROM FIXTURE BALLASTS, MOTORS OR SIMILAR ELECTRICAL LOADS.
7. INSTALL ALL CABLES MAINTAINING CABLE MANUFACTURES RADIUS OF CURVATURE AND PROTECT AT BENDS AND CORNERS. MAINTAIN MINIMUM BEND RADIUS AND TENSION LIMITATIONS, AS SPECIFIED BY EIA/TIA FOR ALL COMMUNICATION CABLES.
8. LOOSELY BUNDLE CABLES WITH VELCRO TIES SUITABLE FOR PLENUM ENVIRONMENTS, EVERY TWENTY FEET.
9. THE LOW-VOLTAGE CONTRACTOR SHALL ASSURE THAT THE COMPLETION OF CABLE INSTALLATION. CABLES ARE FREE FROM TWISTS, KINKS, SHARP BENDS, CUTS, GOUGES OR ANY OTHER PHYSICAL DAMAGE.
10. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL INCIDENTAL MATERIALS AND LABOR OR A COMPLETE, FULLY FUNCTIONAL SYSTEM AND VERIFYING FIELD RACEWAYS.
11. NOTIFY CONSTRUCTION MANAGER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND TECHNOLOGY DRAWINGS.
12. ALL WORK AND EQUIPMENT SHALL CONFORM TO NEC. THE MEANS AND METHODS USED BY TECHNOLOGY CONTRACTORS SHALL CONFORM TO NEW SECTION 110-3 (A AND B).
13. SECURITY CAMERAS AND WIRELESS ACCESS POINT LOCATIONS INDICATED ARE FOR NETWORK CABLING ONLY.
14. WIRELESS ACCESS POINTS ARE PROVIDED BY OWNER AND INSTALLED BY THE LOW-VOLTAGE CONTRACTOR. THE LOW-VOLTAGE CONTRACTOR IS TO PROVIDE 10' PATCH CORDS FOR EACH WIRELESS ACCESS POINT.
15. SECURITY CAMERAS ARE BY PROVIDED AND INSTALLED BY THE SECURITY CONTRACTOR. THE SECURITY CONTRACTOR IS TO PROVIDE 10' PATCH CORDS FOR EACH SECURITY CAMERA.

Project Title

Van Buren Public Schools

Tyler Elementary School
Secured Entry Renovation
42200 Tyler Rd
Belleville, MI 48111

Key Plan

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

SYMBOLS (LETTERS (X) INDICATE TYPE, TYPICAL)

POWER

- SINGLE RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET FLUSH MOUNTED IN CEILING
- FLUSH MOUNTED POWER ONLY FLOOR BOX
- DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER
- DUPLEX RECEPTACLE OUTLET WITH INTEGRAL GROUND FAULT PROTECTION
- DUPLEX RECEPTACLE OUTLET CONNECTED TO UPSTREAM GROUND FAULT PROTECTION DEVICE
- DUPLEX RECEPTACLE OUTLET WITH INTEGRAL SURGE SUPPRESSION
- DUPLEX RECEPTACLE OUTLET CONNECTED TO UPSTREAM SURGE SUPPRESSION DEVICE
- DUPLEX RECEPTACLE OUTLET SPLIT WIRED
- DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND
- QUAD RECEPTACLE OUTLET
- QUAD RECEPTACLE OUTLET MOUNTED ABOVE COUNTER
- QUAD RECEPTACLE OUTLET WITH ONE (1) INTEGRAL SURGE SUPPRESSION TYPE RECEPTACLE AND ONE (1) SURGE SUPPRESSION PROTECTED RECEPTACLE
- SPECIAL RECEPTACLE AS INDICATED
- POWER/COMMUNICATIONS POLE
- SPECIAL POWER CONNECTION
- CORD DROP
- POKE THROUGH ASSEMBLY LETTERS INDICATE TYPE (TYP)
- JUNCTION BOX - CEILING MOUNTED
- JUNCTION BOX - WALL MOUNTED
- PUSHBUTTON STATION - EMERGENCY POWER SHUTDOWN
- INTERCOM CALL BUTTON
- INTERCOM CALL BUTTON WITH PRIVACY
- HORIZONTALLY MOUNTED MULTI-OUTLET RACEWAY
- VERTICALLY MOUNTED MULTI-OUTLET RACEWAY
- BUS DUCT
- EQUIPMENT MOUNTING BACKBOARD
- 208/120V PANELBOARD
- 480/277V PANELBOARD

- DISTRIBUTION OR POWER PANELBOARD
- SINGLE PHASE MOTOR
- THREE PHASE MOTOR
- MAGNETIC MOTOR STARTER
- COMBINATION MAGNETIC MOTOR STARTER - SWITCH SIZE / FUSE SIZE
- NON-FUSED DISCONNECT SWITCH -SWITCH SIZE
- FUSED DISCONNECT SWITCH -SWITCH SIZE/FUSE SIZE
- ENCLOSED CIRCUIT BREAKER -CB RATING
- MAGNETIC CONTACTOR
- MANUAL MOTOR STARTER
- HORSEPOWER RATED SWITCH
- PACKAGED EQUIPMENT WITH INTEGRALLY MOUNTED PREWIRED CONTROL PANEL
- FURNISHED AS INTEGRAL PART OF EQUIPMENT
- TRANSFORMER
- GROUND ROD
- LIGHTNING PROTECTION AIR TERMINAL
- GROUND BUS BAR AS INDICATED

AUXILIARY

- CEILING MOUNTED SINGLE FACED CLOCK
- CEILING MOUNTED DOUBLE FACED CLOCK
- WALL MOUNTED SINGLE FACED CLOCK
- WALL MOUNTED DOUBLE FACED CLOCK
- COMBINATION WALL MOUNTED SPEAKER/CLOCK
- CEILING MOUNTED COMBINATION SPEAKER/CLOCK
- WALL MOUNTED DIGITAL CLOCK
- CEILING MOUNTED SPEAKER
- BIDIRECTIONAL WALL MOUNTED SPEAKER
- BIDIRECTIONAL CEILING MOUNTED SPEAKER
- CEILING MOUNTED SPEAKER CLUSTER
- WALL MOUNTED SPEAKER
- CEILING MOUNTED MICROPHONE OUTLET
- WALL MOUNTED MICROPHONE OUTLET
- WALL MOUNTED VOLUME CONTROL
- WALL MOUNTED BELL
- WALL MOUNTED CHIME
- WALL MOUNTED HORN SPEAKER
- CEILING MOUNTED HORN SPEAKER
- SECURITY SYSTEM ELECTRIC LATCH
- SECURITY SYSTEM CARD READER
- SECURITY SYSTEM DOOR CONTACT
- SECURITY SYSTEM KEY SWITCH
- SECURITY SYSTEM MOTION DETECTOR
- CEILING MOUNTED SECURITY CAMERA -ARROWS INDICATE FIELD OF VIEW
- WALL MOUNTED SECURITY CAMERA -ARROWS INDICATE FIELD OF VIEW
- FIRE ALARM CONTROL PANEL
- FIRE SUPRESSION SYSTEM CONTROL PANEL
- FIRE ALARM REMOTE ANNUNCIATOR PANEL
- SINGLE BED STATION - NURSE CALL
- DOUBLE BED STATION - NURSE CALL
- BATHROOM STATION - NURSE CALL
- BATHROOM STATION PULL CORD - NURSE CALL

- CODE BLUE PUSHBUTTON - NURSE CALL
- NURSE CALL DUTY STATION
- NURSE CALL EMERGENCY STATION
- NURSE CALL MASTER STATION
- NURSE CALL POWER SUPPLY
- NURSE CALL STAFF STATION
- NURSE CALL WALL MOUNTED DOME LIGHT
- NURSE CALL CEILING MOUNTED DOME LIGHT
- NURSE CALL WALL MOUNTED DOME LIGHT WITH CODE BLUE
- NURSE CALL CEILING MOUNTED DOME LIGHT WITH CODE BLUE
- WALL MOUNTED COMMUNICATIONS OUTLET -LETTER INDICATES FACEPLATE TYPE
- ABOVE COUNTER COMMUNICATIONS OUTLET -LETTER INDICATES FACEPLATE TYPE
- CEILING MOUNTED COMMUNICATIONS OUTLET -LETTER INDICATES FACEPLATE TYPE
- COMMUNICATIONS FLOORBOX -LETTER INDICATES FACEPLATE TYPE
- MULTI-SYSTEM FLOORBOX -LETTER INDICATES FACEPLATE TYPE
- WALL MOUNTED PROJETION SYSTEM
- CEILING MOUNTED PROJETION SYSTEM
- SHORT THROW PROJETION SYSTEM

ONE-LINE

- SYSTEM OR EQUIPMENT GROUND
- EXOTHERMIC WELD OR BRAZED CONNECTION
- CONDUIT IN OR BELOW FLOOR SLAB OR BELOW GRADE
- RACEWAY TURNED UP
- RACEWAY TURNED DOWN
- CABLE TRAY
- UNDERFLOOR DUCT - POWER
- UNDERFLOOR HEADER DUCT - POWER
- UNDERFLOOR DUCT - COMM
- UNDERFLOOR HEADER DUCT - COMM

SITE

- FLUSH IN-GRADE HAND HOLE
- UNDERGROUND ELECTRICAL
- UNDERGOUND COMMUNICATIONS
- UNDERGROUND FIBER OPTIC COMMUNICATIONS
- UNDERGROUND LIGHTING

Project Administrator	V. Grant
Project Designer	J. Brender, T. Horner
Project Architect / Engineer	T. Morgan
Drawn By	T. Horner
Q.M. Review	T. Carron
Approved	T. Carron
Drawing Scale	

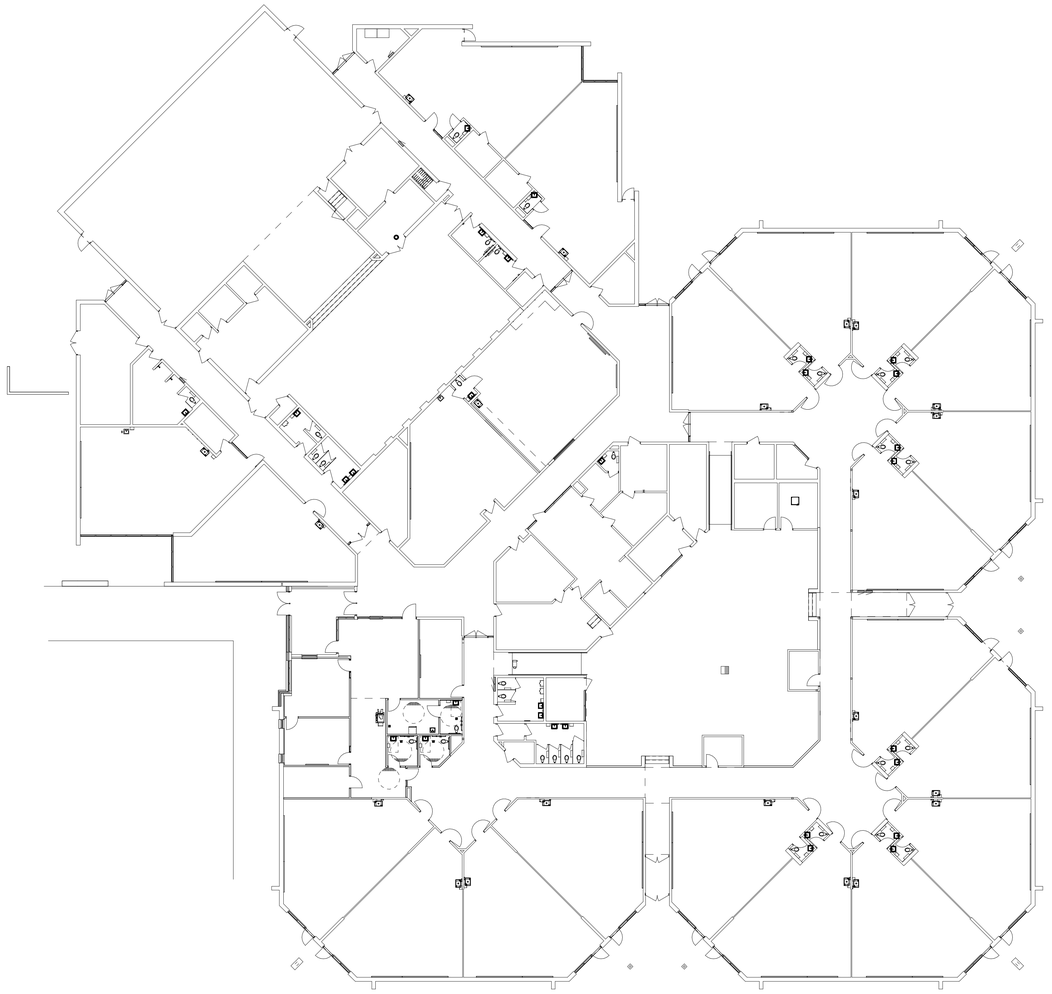
Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

Technology Reference Information

IDS Project Number: 20111-3008

Drawing Number: TR.0



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Q.M. Review
T. Carron
Approved
T. Carron
Drawing Scale
1/16" = 1'-0"

Issued for	Issue Date
Design Development	06-24-2024

IDS Drawing Title

First Floor Technology Composite Plan

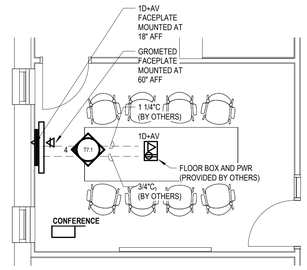
IDS Project Number
20111-3008

Drawing Number
T0.1

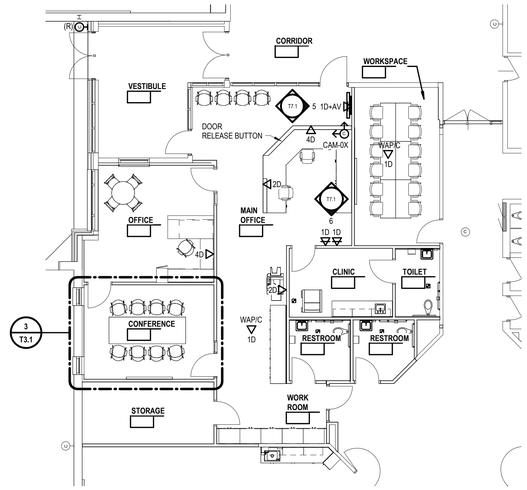
GENERAL NOTES

KEY NOTES

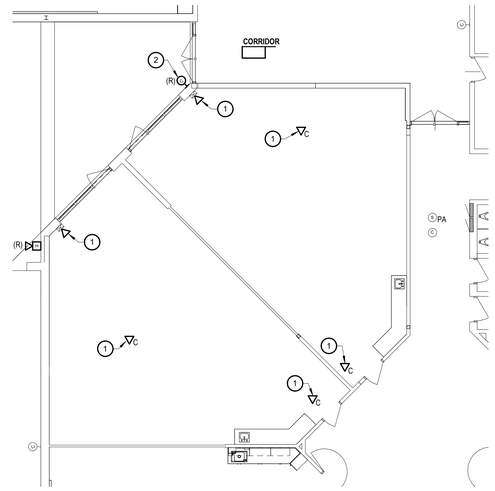
1. EXISTING V4000 RACEWAY SHALL BE REMOVED BY OTHERS. STRUCTURED CABLING CONTRACTOR SHALL COIL EXISTING CATEGORY 6 CABLE IN ABOVE CEILING SPACE FOR FUTURE USE.
2. SECURITY CONTRACTOR SHALL REMOVE EXISTING NETWORK INTERCOM CAMERA AND STORE ON SITE SECURELY FOR FUTURE USE. COIL EXISTING CATEGORY 6 CABLING IN ABOVE INTERIOR CEILING SPACE FOR FUTURE USE.



3 / T3.1 TECHNOLOGY NEW PLAN CONFERENCE ROOM
1/4" = 1'-0"



2 TECHNOLOGY NEW PLAN
1/8" = 1'-0"



1 TECHNOLOGY DEMO PLAN
1/8" = 1'-0"

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Approved: T. Carron
Drawing Scale: 1/8" = 1'-0"

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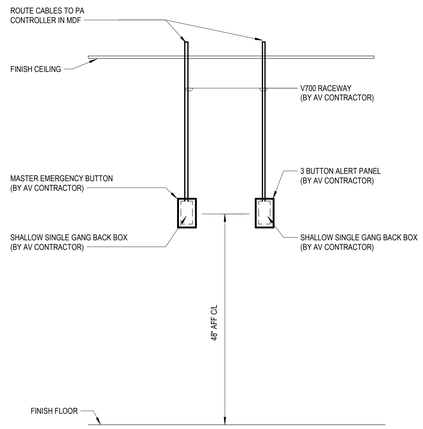
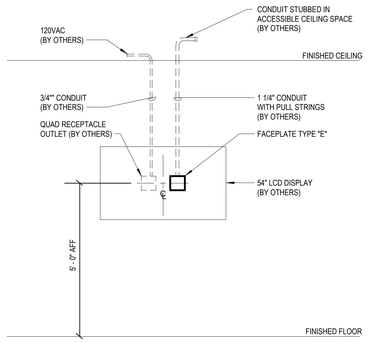
IDS Drawing Title

First Floor Technology Plan

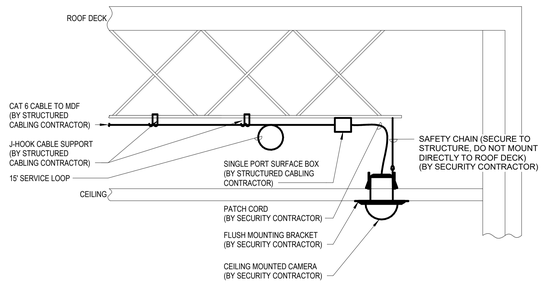
IDS Project Number: 20111-3008
Drawing Number: T3.1



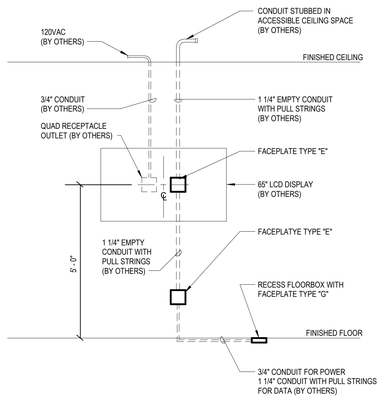
6 T3.1 MAIN OFFICE PA EMERGENCY BUTTON DETAIL
1/8" = 1'-0"



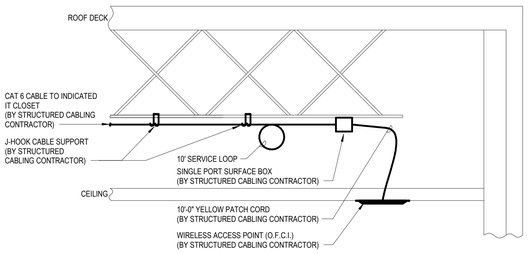
5 T3.1 LCD ROUGH DETAIL OFFICE DISPLAY
Not To Scale



2 CEILING MOUNTED CAMERA DETAIL
Not To Scale
C TYPE 1,2,4,9



4 T3.1 LCD ROUGH DETAIL LARGE CONFERENCE ROOM
Not To Scale



1 CEILING MOUNTED WAP DETAIL
Not To Scale
WAP
C

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As Noted

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IDS Drawing Title

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