

LOCATION MAP

PROJECT NORTH

OFFICE RENOVATIONS TO CONTRACTORS STEEL CO ONER DR., VAN BUREN TWP., MI 48111 48649 SCHOONER DR., VAN BUREN TWP., MI 48111

DIRECTORY	DRA
ARCHITECT HOPPE DESIGN 47032 McBRIDE	CIVIL DT
BELLEVILLE, MI 48111 734-218-2492	STRU S001
APPLICANT AND OWNER CONTRACTORS STEEL CO 48649 SCHOONER DR VAN BUREN TWP., MI	ARCH A001 A002 A101 A201 A501
	MECH M101
	PLUM P101
	ELEC ⁻ E101

AWING INDEX

TITLE SHEET

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- PLUMBING PLANS
- TRICAL
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ONER

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OFFICE

REVISIONS

PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH







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				DIVISI	DN 3			sub
CONCRETE @ FOUN DATIONS, BASEMENT WALLS, EXTERIOR WALLS, PIERS, COLUMNS, STRUCTUR AL FRAMING	3500 PSI AT 28 DAYS; .45 WATE R/CEMENT RATIO; 1" MAX COAR SE AGGREGATE; 584 LBS/CY CEMENT CONTENT; 5-7% AIR ENTR ANMENT BY VOL; 2"SI LIMP				N/A	ASTM C94 ACI318, 301	AGGREGATE MAX. NOT TO EXCEED 1/4 OF SLAB THICKNESS; NP CALCIUM CHLORIDE AD DITIVES	×
CONCRETE @ DR IVEWAYS, GAR AGE FLOOR S, PORCHES, PATIO S, STAIRS, SLABS, SILLS, SIDEWALKS, CU RBS	4000 PSI AT 28 DAYS; 45 WATER/CEMENT RATIO; 1" MAX COAR SE AGGREGATE; 564 LBS/CY CEMENT CONTENT; 5-7% AIR ENTR AINMENT BY VOL; 3"SLUMP				N/A	ASTM C94 ACI 318, 301	AGGREGATE MAX. NOT TO EXCEED 14 OF SLAB THICKNESS. FLOOR LEVEL TO BE 1/8" IN 10"MAX; NO CALCIUM CHLORIDE ADDITIVES. SAWCUT CONTROL JOINTS WITHIN 24 HOURS OF INSTALLATION OF CON CRETE	×
STEEL			GRADE 60		N/A	ACI, ASTM A615; CRSI		х
REINFORCING WELDED WIRE MESH	FLAT SHEETS; 6X8 W1.4				N/A	ASTM A185 54T	PROVIDE CHAIRS AND BOLSTERS;	
CURING COMPOUND	X W1.4 UNO SONNEBORN		FUGITIVE		N/A		STAGGER OVERLAPS 2 FULL MESH TWO COATS ON SLABS. VERIFY	
CONCRETE SEALER:	L&MCONSTRUCTION	L & MCURE	DYE		N/A	ASTM-C-309 TYPE 1	COMPATIBILITY WITH FLOOR ING.	
WATER BORNE	CHEMICALS	R/R2				AND 2		
		ļ	i	DIVISIO	DN 4	1		
CONCRETE MASONRYUNITS	NORMAL WEIGHT	GRADE N	fm 2000 PSI	8×16		ASTM C-90, C-145; M.I.M.; ACI 530.1	EXPOSED CONCAVE TOOLED JOINTS; NATURAL GREY MORTAR. GROUT SOLID CMU CORES SCHEDULED TO RECEIVE REBAR AND ALL CORES BELOW GRADE	X
MORTAR: TYPE M-	PORTLAND CEMENT				N/A	ASTM C-270, 2500 PSI	NO WELL OR LAKE WATER IN	x
MORTAR: TYPE S	PORTLAND CEMENT		fm 2000 PSI		BY OWNER	ASTM C-270	NOWELL OR LAKE WATER IN	х
MORTAR: TYPE N- BRICK	PORTLAND CEMENT				BYOWNER	ASTM C-270	NO WELL OR LAKE WATER IN MOR TAR	х
MASONRYGROUT HORIZONTAL REINFORCING	DUR-O-WALL	LADD ER TYPE	GALV.	N/A	N/A N/A	ASTM C-478, 3000 PSI ASTM A-82	ROD OR VIBRATE: LOW LIFT GROUT 9 GAUGE WIRE: PLACE AT 16" OC VERTICALLY UN O	×
REBAR POSITIONERS VAPOR BARRIER	HECKMAN OR HOLMAN AND BARNARD	376 OR RB		N/A	N/A		POLYETHYLENE, 8 MIL SLAB, 4 MIL WALLS, 2'0"OVERLAP BENEATH	
	-						SLABS	
				EW/IEW	NN 5			I
		L		DIVISI	DN 5			
STRUCTURAL STEEL		Fy= 50 KSI		DIVISK	N/A	ASTM A-36; A992	HOLES TO BE DRILLED NOT BURNED	x
STRUCTUR AL STEEL CHANNELS, ANGLES, PLATES		Fy= 50 KSI Fy= 38 KSI		DIVISI	N/A	ASTM A36; A992 ASTM A36	HOLES TO BE DRILLED NOT BURNED	×
STRUCTUR AL STEEL CHANNELS, ANGLES, PLATES BOLTS: STRUCTUR AL		Fy= 50 KSI Fy= 36 KSI		DIVIŠK	N/A N/A N/A	ASTM A38; A992 ASTM A38 ASTM A38 ASTM A325-N HIGH STREN GTH; F 1554	HOLES TO BE DRILLED NOT BURNED 3/4"UNO; PROVIDE WASHERS BENEATH TURNED ELEMENTS	× × ×
STRUCTURAL STEEL CHANNELS, ANGLES, PLATES BOLTS: STRUCTURAL NUTS BOLT WASHERS		Fy= 50 KSI Fy= 36 KSI		DIVISK	N/A N/A N/A N/A N/A	ASTM A36; A992 ASTM A36 ASTM A325-N HIGH STRENGTH; F 1554 ASTM A563 ASTM F-436; A-36	HOLES TO BE DRILLED NOT BURNED 3/4"UNO; PROVIDE WASHERS BENEATH TURNED ELEMENTS HARDENED; HOT DIPPED GAI VANJED	××××
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STRUCTUR AL STEEL CHANNELS, ANGLES, PLATES BOLTS: STRUCTUR AL NUTS BOLT WASHERS STEEL UNTELS STEEL UNTELS STEEL STUDS: 12, 14, 16 GA STEEL STUDS: 18, 20 GA STEEL STUDS: 18, 20 GA STEEL TRACS AND RUNNERS: 14, 16, 18, 20 GA STEEL HAT CHANNEL: 25 GA Z FURRING CHANNELS: 25 GA PRIMER TREATED LIMBER; BELOW GRADE TREATED LIMBER; BELOW GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE	LAM CONSTRUCTION CHEMICALS CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH TRUSCON	Fy= 50 KSI Fy= 36 KSI CRYSTEX 5000 PSI Fy= 50 KSI Fy= 33 KSI Fy= 36 KSI Fy= 36 KSI Fy= 50 KSI Fy= 5	G 60 NON- METALLIC, NON- SHRINK CP 60 COATING CP 60 COATING CP 60 COATING CP 60 COATING CATING CP 60 COATING COATING	DIVISK	N/A N/A N/A N/A N/A N/A BY OWNER N/A N/A	ASTM A36; A992 ASTM A38 ASTM A38 ASTM A325-N HIGH STRENGTH; F 1554 ASTM A563 ASTM F436; A-36 ASTM C1107 ASTM C955 ASTM C955	HOLES TO BE DRILLED NOT BURNED 3/4" UNO; PROVIDE WASHERS BENEATH TURNED ELEMENTS HARDENED; HOT DIPPED GALVANIZED ALLEXTERIOR LINTELS TO BE GALVANIZED AND PAINTED. INTERIOR LINTELS TO BE PAINTED. PRE-MIXED 16" OC UNO 16" OC U	
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STRUCTURAL STEEL CHANNELS, ANGLES, PLATES BOLTS: STRUCTURAL NUTS BOLT WASHERS STEEL UNTELS STEEL UNTELS STEEL STUDS: 12, 14, 18 GA STEEL STUDS: 18, 20 GA STEEL STUDS: 18, 20 GA STEEL STUDS: 18, 20 GA STEEL TRACS AND RUNNERS: 14, 16, 18, 20 GA. STEEL HAT CHANNEL: 25 GA Z FURRING CHANNELS: 25 GA PRIMER TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LIMBER; ABOVE GRADE TREATED LUMBER IN CONTACT WITH BOLTS FOR WOOD CONSTRUCTION PLYWOOD SUB FLOORING WOOD	LAM CONSTRUCTION CHEMICALS CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH CLARK DIETRICH TRUSCON	Fy= 50 KSI Fy= 36 KSI CRYSTEX 5000 PSI Fy= 50 KSI Fy= 50 KSI Fy= 33 KSI Fy= 34 KSI Fy= 3	G 60 NON- METALIC, NON- SH RINK CP 60 COATING COATING COATING COATING COATING COATING COATING COATING COATING	DIVISK	N/A N/A N/A N/A N/A N/A BY OWNER N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	ASTM A36; A992 ASTM A36 ASTM A38 ASTM A325-N HIGH STRENGTH; F 1554 ASTM C1107 ASTM C1107 ASTM C955 ASTM C955 AMVPA UC 4A AWPA UC 4A AWPA UC 4B AWPA C2 APA1 DOC PSI	HOLES TO BE DRILLED NOT BURNED 3/4"UNO; PROVIDE WASHERS BENEATH TURNED ELEMENTS HARDENED; HOT DIPPED GALVANIZED ALL EXTERIOR LINTELS TO BE GALVANIZED AND PAINTED. INTERIOR LINTELS TO BE PAINTED. PRE-MIXED 16"OC UNO 16"OC U	

ARC SPOT WELDS (PUDDLE WELDS) TO SUPPORTS SHALL HAVE A DIAMETER OF 5%" MINIMUM OR AN ELONGATED WELD OF 3%" MINIMUM WIDTH AND 3/2" MINIMUM LENGTH. WELD METAL SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND HAVE ADEQUATE FUSION TO THE SUPPORTING MEMBERS. WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARD "SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES" AWS D1.3. UNITS SHALL BE FASTENED TO THE STEEL SUPPORTS AT THE END OF THE UNITS AND AT INTERMEDIATE SUPPORTS AND SUPPORTS AT THE SIDE BOUNDARIES BY ${f i}$ " DIAMETER PUDDLE WELDS AT 12" OC. SHEAR STUDS WELDED THROUGH DECK I PLACE OF $\frac{3}{4}$ DIAMETER PUDDLE WELDS. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS BY BUTTON PUNCHING AT 24" OC UNO. STRUCTURAL STEEL UNLESS OTHERWISE NOTED, ALL BEAMS AND LINTELS BEARING ON MASONRY SHALL HAVE A MINIMUM BEARING LENGTH OF 7 1/2" AND SHALL HAVE A MINIMUM OF TWO BLOCK COURSES AT 32" LONG OF SOLID MASONRY UNDER THE BEARING SURFACE. WHERE STEEL CONNECTIONS ARE NOT FULLY DETAILED ON THE DESIGN DRAWINGS (WITH ALL REQUIREMENTS FOR BOLTS, PLATES, WELDS, DIMENSIONS, ETC SHOWN) CONNECTIONS SHALL BE DESIGNED BY THE STEEL CONTRACTOR UNDER THE SUPERVISION OF A P.E. LICENSED IN THE STATE THAT HAS JURISDICTION OVER THE PROJECT. WHERE TYPICAL OR INCOMPLETE CONNECTIONS ARE SHOWN ON THE DESIGN DRAWINGS, THOSE DETAILS SHALL BE USED AS A BASIS FOR CONNECTION DESIGN TO BE COMPLETED BY THE CONTRACTOR. ALTERNATE CONNECTIONS DESIGNED BY THE STEEL CONTRACTOR WILL BE PROVIDED IF REQUIRED DESIGN FORCES CANNOT BE ACHIEVED BY THE TYPICAL OR EXAMPLE CONNECTION, OR IF AUTHORIZATION TO ALTER THE DETAIL IS PROVIDED BY THE DESIGN ENGINEER. WHERE CONNECTION FORCES ARE INDICATED ON THE DRAWINGS, PROVIDE CONNECTIONS DESIGNED TO RESIST THE FORCE SHOWN. WHERE CONNECTION FORCES ARE NOT INDICATED ON THE DRAWINGS, PROVIDE CONNECTIONS DESIGNED TO RESIST FORCES AS FOLLOWS: FOR SHEAR CONNECTIONS IN NON-COMPOSITE MEMBERS, DESIGN CONNECTIONS TO RESIST 50% OF THE TOTAL ALLOWABLE UNIFORM LOAD SHOWN IN THE TABLES IN PART 3 OF THE AISC MANUAL OF STEEL CONSTRUCTION. FOR SHEAR CONNECTIONS IN COMPOSITE MEMBERS, DESIGN CONNECTIONS TO RESIST 75% OF THE TOTAL ALLOWABLE UNIFORM LOAD SHOWN IN PLUMBING AND ELECTRICAL CONTRACTORS ARE TO PROVIDE ALL REQUIRED UNDERSLAB WORK PRIOR TO POURING THE FLOOR SLAB. THE TABLES IN PART 3 OF THE AISC MANUAL OF STEEL CONSTRUCTION. FOR MOMENT CONNECTIONS, DESIGN CONNECTIONS TO RESIST 100% OF MOMENT CAPACITY OF THE MEMBER. ALL FULLY TENSIONED A490 BOLTS SHALL HAVE WASHERS BENEATH BOTH NUT AND HEAD. PROVIDE TEMPLATES TO LOCATE ANCHOR BOLTS AND BASE PLATES. SHOP AND FIELD CONNECTIONS SHALL BE MADE BY WELDING OR HIGH STRENGTH BOLTING. BOLTED CONNECTIONS SHALL CONFORM TO ASTM A325-X USING LOAD INDICATOR WASHERS (LIW) OR LOAD INDICATOR BOLTS (LIB). BEAM CONNECTIONS SHALL PROVIDE SHEAR CAPACITY TO SUPPORT A REACTION R EQUAL TO HALF THE SHEAR CAPACITY OF BEAM. USE 差" DIA BOLTS, E70XX 头" WELD AND 泰" ANGLE THICKNESS. ALL WELDING SHALL BE PERFORMED USING THE ELECTRIC ARC METHOD IN ACCORDANCE WITH THE LATEST REVISION OF THE AWS D1.1. E70XX ELECTRODES CONFORMING TO AWS A5.1 OR A5.5 SHALL BE USED FOR SHIELDED METAL ARC METHOD AND FX7-ECXX ELECTRODE CONFORMING TO AWS F5.17 FOR SUBMERGED ARC METHOD. FOOTING BOTTOM ALL WELDS SHALL BE PROVIDED AS SHOWN IN THE STRUCTURAL DETAILS UNLESS THICKER WELD IS REQUIRED DUE TO MATERIAL THICKNESSES. WHERE WELD IN NOT DETAILED, WELD SHALL BE DESIGNED BY A LICENSED ENGINEER RETAINED BY THE CONTRACTOR TO MEET CONNECTION COLUMNS, BEAMS AND FORMED SURFACES IN DIRECT CONTACT WITH SOIL OR EXPOSED TO THE WEATHER, EXCEPT SLABS. DECK SLAB TO TOP CAPACITY REQUIREMENTS LISTED ABOVE. WELD SIZES SHALL BE INCREASED AS NEEDED TO MEET THE FOLLOWING MINIMUM WELD SIZE 1 J" DECK SLAB TO BOTTOM REQUIREMENTS BASED ON THE SMALLER MATERIAL THICKNESS OF THE PIECES OF STEEL BEING WELDED TOGETHER: INTERIOR FACES OF WALLS AND SLABS NOT EXPOSED TO WEATHER ³[™] INTERIOR SLABS MATERIAL THICKNESS MIM FILLET WELD SIZE (PROVIDE LARGER WELD IF REQUIRED FOR STRESS) ¼" AND UNDER OVER ¼" TO ½" OVER ½" TO ¾" over ¾" IF PENETRATIONS THROUGH WEBS OF STEEL BEAMS WILL BE REQUIRED, CONTRACTOR TO NOTIFY ENGINEER OF RECORD. SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS AND NON-STRUCTURAL STEEL. STEEL JOISTS PROVIDE AND INSTALL BRIDGING IN ACCORDANCE WITH STEEL JOISTS INSTITUTE STANDARDS. ALL ENDS OF BRIDGING LINES TERMINATING AT MASONRY WALLS SHALL BE ANCHORED THERETO IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE BRIDGING DOES NOT TERMINATE AT A MASONRY WALL, THE FIRST AND SECOND BAYS FROM THE END OF THE BRIDGING IS TO BE DIAGONAL X-BRIDGING. MANUFACTURER TO PROVIDE ADDITIONAL BRIDGING AS REQUIRED TO SATISFY SJI UPLIFT REQUIREMENTS. WHERE STEEL JOISTS SUPPORT MOVEABLE PARTITIONS, JOIST MANUFACTURER SHALL DESIGN JOIST FOR A MAXIMUM LIVE/SNOW LOAD DEFLECTION OF THE SMALLER OF $\frac{1}{2}$ " AND L/360. JOIST MANUFACTURER SHALL LIMIT JOIST DEFLECTION DUE TO LIVE/SNOW LOAD TO L/360. THE ENDS OF STEEL JOIST SHALL BEAR A MINIMUM DISTANCE OF 2½ INCHES OVER STEEL SUPPORTS AND 4 INCHES OVER ALL OTHER SUPPORTS. THE ENDS SHALL BE FASTENED BY BOLTING AND OR WELDING. ERECTION OF JOISTS AND JOIST BRIDCING SHALL CONFORM TO ALL REQUIREMENTS OF OSHA AND JOIST MANUFACTURER. WOOD FRAMING ALL LUMBER IN CONTACT WITH MASONRY OR STEEL TO BE PRESERVATIVE TREATED. ALL FLUSH FRAMED CONNECTIONS ARE TO MADE USING JOIST HANGERS DESIGNED FOR THE SPECIFIC CONDITION UNLESS OTHER CONNECTIONS ARE PROVIDED. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL ENGINEERED WOOD MATERIAL INDICATING PRODUCTS, DETAILS, CONNECTIONS AND ACCESSORIES AS REQUIRED BY THE MANUFACTURE TO MEET PROJECT LOADING REQUIREMENTS. OBSERVE ALL CODE REQUIREMENTS FOR BRIDGING, BORING, AND NOTCHING OF STUDS AND JOISTS. FOR BRIDGING, BORING AND NOTCHING OF ENGINEERED WOOD PRODUCTS OBSERVE ALL MANUFACTURER REQUIREMENTS. BRIDGING SHALL BE PROVIDED FOR ALL ROOF RAFTERS. ALL ROOF RAFTERS ARE TO BE 24" ON CENTER UNLESS OTHERWISE NOTED.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING DURING CONSTRUCTION TO ACCOUNT FOR ALL FORCES, INCLUDING BUT NOT LIMITED TO FORCES FROM GRAVITY, EARTH, WIND AND UNBALANCED FORCES DUE TO CONSTRUCTION SEQUENCES. THE STRUCTURAL INTEGRITY OF THE BUILDING SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION ACCORDING TO PLANS AND FIELD MEASURE AND VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE FABRICATION. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL, HAVING A MINIMUM SAFE BEARING CAPACITY. THE TESTING AND INSPECTION AGENCY SHALL ANTICIPATED BEARING CAPACITY FOR APPROPRIATE RE-DESIGN OR LOWERING OF FOOTING. THE BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE 3'-6" MINIMUM BELOW FINISHED GRADE. IF THE BUILDING WILL BE UNDER CONSTRUCTION SUCH ADDITIONAL FOOTING DEPTH WILL CAUSE UNDERMINING OF ADJACENT EXISTING FOOTINGS OR STRUCTURES, PROVIDE APPROPRIATE SHORING, BRACING OR UNDERPINNING AS REQUIRED OR LEAVE FOOTING ELEVATION AS DESIGNED AND PROVIDE CONTINUED PROTECTION AND HEAT TO PREVENT FORMATION OF FROST BELOW FOOTING AND ADJACENT TO FOOTING. OF ALL SHORING, BRACING, AND DEWATERING THAT IS REQUIRED TO PROPERLY CONSTRUCT THE FOUNDATIONS AND PROTECT ADJACENT STRUCTURES, PAVEMENTS AND UTILITIES. PRETREAT EXCAVATIONS WITH TERMITICIDE AND INSPECT EXCAVATIONS PRIOR TO POURING CONCRETE. TEMPORARY BRACING MUST BE PROVIDED TO RESIST ALL LATERAL FORCES UNTIL STRUCTURAL SYSTEM IS SELF SUPPORTING. CONCRETE SLABS INSPECT ALL REINFORCING BEFORE POURING CONCRETE. PROVIDE 🖥 CONCRETE COVER MINIMUM FROM TOP OF SLAB TO SLAB REINFORCING AND LAP ALL STEEL FABRIC SPLICES 6" MIN. REINFORCING SHALL BE CENTERED IN SLAB. GRANULAR BASE TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY UNDER ALL SLABS ON GRADE. REINFORCING MINIMUM CONCRETE COVERING SHALL BE: MASONRY WALLS ARE TO BE ADEQUATELY BRACED DURING CONSTRUCTION. SEE "STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION" BY THE COUNCIL FOR MASONRY WALL BRACING AND ALSO NCMA TEK 304B "BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION" FOR RECOMMENDATIONS REGARDING BRACING. THE DISCONTINUOUS ENDS OF ALL MASONRY WALLS SHALL BE SOLIDLY GROUTED A MINIMUM OF 8" OR ONE BLOCK CELL AND REINFORCED FOR THEIR FULL HEIGHT WITH ONE #5 BAR UNO. ALL CMU BOND BEAMS TO HAVE (2) #4 BARS CONTINUOUS. PROVIDE (2) #4 L BARS AT EVERY CORNER LAPPED 3'-O" WITH CONTINUOUS. VERTICAL CONTROL JOINTS IN CMU WALLS TO HAVE A MINIMUM 3/3" GAP AND SHALL BE LOCATED BY THE ARCHITECT, BUT NOT MOVE THAN AND HORIZONTALLY. WHERE MASONRY MEETS STRUCTURAL MEMBERS SUBJECT TO VERTICAL DEFLECTION, PROVIDE ALLOWANCE FOR VERITICAL MOVEMENT OF L/240 AIR TEMPERATURE AT TIME OF MASONRY INSTALLATION SHALL BE 40<T<90 DEGREES F. METAL DECK PROVIDE REINFORCING CHANNELS, STANDARD CLOSURES, CANT STRIPS, SUMP PANS, FINISH STRIPS, POUR STOPS, AND OTHER ACCESSORIES AS REQUIRED FOR PROPERLY FINISHED JOB, EVEN IF NOT SPECIFICALLY SHOWN ON THE DRAWINGS. PROVIDE BEARING ANGLES WELDED TO COLUMNS TO SUPPORT METAL DECKS AS REQUIRED. FASTEN STEEL DECK UNITS TO STRUCTURAL SUPPORTS USING HEX WASHER HEAD TEK SCREWS OR ARC SPOT WELDS ACCORDING TO

SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF BRACING AND SHALL BE SHORED AND/OR BRACED BY THE CONTRACTOR AS NECESSARY FOUNDATIONS VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION OF FOOTING. NOTIFY ENGINEER OF ANY VARIATION FROM DURING FREEZING WEATHER, ALL INTERIOR FOUNDATIONS SHALL BE DEPRESSED 3'-6" BELOW CONSTRUCTION GRADE FOR FROST PROTECTION. IF SLOPE SLABS TO FLOOR DRAINS. VERIFY DEPRESSIONS AND FLOOR FINISHES. PLACE LADDER TYPE HORIZONTAL JOINT REINFORCING WITH PREFORMED LAPPED CORNER REINFORCING. AT GROUTED CELLS LIFTS OF GROUT SHALL BE KEYED 4" INTO THE COURSE OF MASONRY BELOW. BARS. 20**'**-0" OC. BRICK TIES SHALL BE GALVANIZED ADJUSTABLE 2-PIECE WIRE TIES OF NOT LESS THAN 9 GAGE AND SHALL BE SPACED AT 16" OC VERTICALLY BOND BEAM REINFORCING TO BE CONTINUOUS ACROSS CONTROL JOINTS. PROVIDE A 24" LAP AT FOUNDATION DOWELS. UNLESS OTHERWISE NOTED. ALL METAL DECK HAS BEEN DESIGNED TO BE CONTINUOUS OVER 3 SPANS MINIMUM AND SHALL BEAR AT LEAST 2" ON STEEL SUPPORTS. FOR ONE OR TWO SPAN CONDITIONS, THE CONTRACTOR SHALL PROVIDE SHORING AS REQUIRED OR FURNISH HIGHER GAGE DECK AS REQUIRED TO SUPPORT ALL THE APPLICABLE LOADS. CONTRACTOR SHALL SUBMIT ALTERNATE FOR APPROVAL.

UNTIL STABILIZED BY VIRTUE OF COMPLETED CONNECTIONS. 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 STRUCTURAL MEMBER.

MANUFACTURER'S SPECIFICATIONS AND IN CONFORMANCE WITH THE STEEL DECK INSTITUTES SPECIFICATION SECTION 4.4.

METAL STUD SIZING

ALLOWABLE HEIGHTS STUD SIZE 3 $\frac{1}{2}^{"}$ OR 4" X 20 GA 3 $\frac{1}{2}^{"}$ OR 4" X 18 GA 3 $\frac{1}{2}^{"}$ OR 4" X 16 GA	16" OC/ 33 KSI ** 13'-11" 18'-2" 19'-6"	
5 $\frac{1}{2}$ " OR 6" X 20 GA 5 $\frac{1}{2}$ " OR 6" X 18 GA 5 $\frac{1}{2}$ " OR 6" X 16 GA	23'-11" 27'-2" 30'-0"	
** HEIGHTS BASED ON LOAD, L/240 DEFLED BRIDGING AT MIDPOI	16" OC STUD SPACI CTION, NON-STRUCT NTS OR 8'-0" MAX	NG, 5 PSF LATERAI URAL APPLICATION.
STUD SIZE $3 \frac{1}{2}$ OR 4" X 20 GA $3 \frac{1}{2}$ OR 4" X 18 GA $3 \frac{1}{2}$ OR 4" X 16 GA	16"OC/33 KSI*** 11'-0" 12'-0" 13'-0"	12" OC/33 KSI*** 12'-3" 13'-3" 14'-3"
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16'-4" 18'-0" 19'-3" 22'-9"	18'-0" 19'-8" 21'-3" 28'-0"
8" X 20 GA 8" X 18 GA 8" X 16 GA 8" X 12 GA	20'-6" 22'-6" 24'-3" 28'-9"	22'-8" 24'-9" 26'-8" 31'-8"
STUD SIZE $3 \frac{1}{2}^{1}$ OR 4" X 20 GA $3 \frac{1}{2}^{1}$ OR 4" X 18 GA $3 \frac{1}{2}^{1}$ OR 4" X 16 GA	16" OC/50 KSI*** 12'-0" 13'-3" 14'-3"	12" OC/50 KSI*** 13'-6" 14'-8" 15'-8"
5 $\frac{1}{2}$ " OR 6" X 20 GA 5 $\frac{1}{2}$ " OR 6" X 18 GA 5 $\frac{1}{2}$ " OR 6" X 16 GA 5 $\frac{1}{2}$ " OR 6" X 16 GA 5 $\frac{1}{2}$ " OR 6" X 12 GA	18'-0" 19'-8" 21'-3" 28'-0"	20'-0" 21'-8" 23'-4" 31'-0"

*** HEIGHTS BASED ON 20 PSF LATERAL LOAD, L/240 DEFLECTION, STRUCTURAL APPLICATION. BRIDGING AT $\frac{1}{3}$ POINTS OR 8'-0" MAX.

22'-6"

24'–9"

26'-8"

31'–8"

8"X 20 GA

8"X 18 GA

8"X 16 GA

8"X 12 GA

ROOF DESIGN NOTES: A. VERTICAL WEB MEMBERS FOR ALL GABLE END TRUSSES SHALL BE DESIGNED TO RESIST A HORIZONTAL WIND LOAD RESULTING FROM THE DESIGNED WIND SPEED WITHOUT EXCEEDING THE DEFLECTION LIMIT OF L/600 OF THEIR RESPECTIVE VERTICAL SPANS.

BRIDGING FOR BOTTOM CHORDS SHALL BE DESIGNED TO DISTRIBUTE THE HORIZONTAL WIND LOAD PROPOSED ON THE COMPLETE BUILDING TO THE SHEAR WALLS AND SHALL BE DESIGNED FOR A TOTAL IMPOSED WIND LOAD ON BUILDING INCLUDING WINDWARD AND LEEWARD PRESSURE FROM THE DESIGNED WIND SPEEDS.

MASONRY LINTEL SCHEDULE

PROVIDE 8" MIN. BEARING EA. END WITH (3) COURSES BENEATH BEARING GROUTED SOLID

- ALL LINTELS TO BE 3/8" MIN. AND EXTERIOR LINTELS ARE TO BE GALVANIZED AND PAINTED

ATERAL CATION.

HORIZONTAL LEGS 4" MASONRY: ONE 3 1/2" 6" MASONRY: TWO 2 1/2' 8" MASONRY: TWO 3 1/2" 10" MASONRY: TWO 4" 12" MASONRY: TWO 5"

VERTICAL LEGS SPANS LESS THAN 4'-0'': 3 1/2'' MIN. SPANS 4'-0" TO 6'-8": 5" MIN.

SPANS OVER 6'-8" SEE PLANS OR CONTACT ARCHITECT FOR SIZING NOTES: PROVIDE BRICK SOLIDS AT ALL SILL ENDS.

RETURN BRICK AT WINDOWS ADJACENT TO SIDING ALL BRICK LINTELS TO BE GALVANIZED.

25'-0"

27'–3"

29'-4"

34'–9"

TO THE STEEL	
MAY BE USED	IN

LOA	DS .	AND REFERENCES	
	Г		
TABLE 1604.5		OCCUPANCY CATEGORY	11
			25.00
			25.00
			125.00
		LOAD (DSE)	
		LOAD (PSF)	450
		25 + 125 =	150
			0000
		SELF SUPPORTING FOUNDATION	3000
		PRESSURE IN PSF)	
		SEISMIC	
TABLE 1604.5		RISK CATEGORY	
	e	SEISMIC IMPORTANCE FACTOR	1.00
FIGURE 1613.3.1(1)		MAPPED TWO SECOND SPECTRAL	
	S _S	RESPONSE ACCELERATION	.1g
FIGURE 1613.3.1(2)		MAPPED ONE SECOND SPECTRAL	
	S ₁	RESPONSE ACCELERATION	.04g
SECTION 1613.3.2		SITE CLASS	D
SECTION 1613.3.4		SHORT PERIOD DESIGN SPECTRAL	
	Sne	RESPONSE ACCELERATION	0.1
SECTION 1613.3.4	00	ONE SECOND DESIGN SPECTRAL	
	S⊓₁	RESPONSE ACCELERATION	0.08
SECTION 1613.3.3.			
TABLE 1613.3.3(2)	F۵		1.6
SECTION 1613 3.3	·A		
TABLE 1613 3 3(2)	F.,		24
17 BEE 1010.0(E)	۹	F.S.	0.16
	SMS		0.10
SECTION 1613 3 1			0.12
SECTION 1015.5.1	SDC	SEISIMIC DESIGN CALEGORY	A
		NO SPECIAL ANALYSIS REQUIRED FOR	
		OF ASCE 7	
		OF ASCE-7	
	F	REFERENCES	
STRUCTURAL LOADS		ASCE-7	2010
CONCRETE		ACI 301	
		ACI 318 BUILDING CODE	2010
		REQUIREMENTS FOR REINFORCED	
		CONCRETE	
		ACI SP 66	
		PORTLAND CEMENT ASSOCIATION	2011
		"DESIGN AND CONTROL OF	•
		CONCRETE MIXTURE"	
MASONRY		ACI 530/ASCE 5	2013
		ACI 530.1/ASCE 6	
		NCMATEK 3-4B "BRACING CONCRETE	2005
		MASONRY WALLS DURING	2000
		CONSTRUCTION"	
BRICK		BIA "TECHNICAL NOTES ON BRICK	
		CONSTRUCTION"	
STEEL		AISC "SPECIFICATION FOR	13TH
		STRUCTURAL STEEL BUILDINGS"	EDITION
WELDING		AMERICAN WELDING SOCIETY AWS	2015
		D1 1/D1 1M	2010
STEEL JOISTS		STEEL JOISTS INSTITUTE "STANDARD	2015
		SPECIFICATION"	2010
			1087
			2015
** 000			2015
			
SOILS REPORT		TO BE PROVIDED BY DEVELOPER	

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DESIGN, ILEVILLE, MI 48111

REVISIONS

PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH

STRUCTURAL NOTES

WAYDE C HOPPE ARCHITECT

130103619

WAYDE C. HAPPE

STATEMENT OF SPECIAL INSPECTIONS

STATEMENT OF SPECIA	L INS	PEC	LIONS		3) SHEAR REINFORCEMENT	Х			
	FREQ	UENCY	REFERENCE CRITI	ERIA	4) OTHER REINFORCING		Х		
STEEL CONSTRUCTION (TABLE 1704.3) 1. MATERIAL VERIFICATION OF	CONT- INOUS	PERI- ODIC	REFERENCED STANDARD	IBC REF'RENCE	6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE		Х		
HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:					DOCUMENTS: A DETAILS SUCH AS		Х		
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		Х	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360, SECTION A3.3		BRACING AND STIFFENING B. MEMBER LOCATIONS C. APPLICATION OF JOINT DETAILS AT EACH		X X		1704.3.2
B. MANUFACTURER'S		Х							
REQUIRED 2. INSPECTION OF HIGH- STRENGTH BOLTING					REQUIRED VERIFICATION AND INSPECTION OF CONCRETE	FREQ CONT- INOUS	UENCY PERI- ODIC	REFERENCE CRIT REFERENCED STANDARD	ERIA IBC SECTION
A. SNUG TIGHT JOINTS		Х			1. INSPECTION OF REINFORCING STEEL AND PLACEMENT		Х	ACI 318: 3.5, 7.1-7.7	1913.4
B. SLIP-CRITICAL CONNECTIONS WITH MATCHMARKING, TWIST OFF	Х	Х			2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B			AWS D1.4 ACI 318: 3.5.2	
INIDICATOR C. SLIP-CRITICAL CONNECTIONS WITHOUT MATCHMARKING OR	Х		AISC 360, SECTION M2.5	1704.3.3	3. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED	Х		ACI 318: 8.13, 21.2.8	1911.5, 1912.1
CALIBRATED WRENCH METHODS 3. MATERIAL VERIFICATION OF STRUCTURAL STEEL					4. INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE		Х	ACI 318;3.8.6, 8.1.3, 21.2.8	1912.1
A. IDENTIFICATION MARKINGS TO CONFORM TO AISC 360		Х	AISC 360, SECTION M5.5		5. VERIFYING USE OF REQUIRED DESIGN MIX		Х	ACI 318: CH. 4, 5.2-5.4	1904.3, 1913.2,
B. FOR OTHER STEEL INDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		Х	APPLICABLE ASTM MATERIAL STANDARDS		6. AT THE TIME FRESH CONRETE IS SAMPLED TO FABRICATE SPECIFIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE	Х		ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.3 1913.1
C. MANUFACTURER'S CERTIFIED MILL TEST REPORTS 4. MATERIAL VERFICATION OF WELD FILLER MATERIALS		Х			CONCRETE 7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	Х		ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION		Х	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS		8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		Х	ACI 318: 5.11-5.13	1913.9
DOCUMENTS MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED		х			9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		Х	ACI 318: 6.1.1	
5. INSPECTION OF WELDING A. STRUCTURAL STEEL AND						FREQ		REFERENCE CRIT	ERIA
COLD FORMED STEEL DECK 1) COMPLETE AND	Х				LEVEL 1 SPECIAL INSPECTION (TABLE 1704.5.1) INSPECTION TASK	CONT- INOUS	PERI- ODIC	OBC ACI 530/ SECTION ASCE 5/ TMS 402	ACI 530.1/ ASCE 6/ TMS 602
PARTIAL PENETRATION GROOVE WELDS 2) MULTIPASS FILLET	Х				1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE				1110 002
3) SINGLE-PASS FILLET WELDS < 5/16"	Х		AWS D1.1	1704.3.1	COMPLIANCE: A. PROPORTIONS OF SITE-		Х		ART. 2.6a
4) PLUG AND SLOT WELDS	Х				PREPARED MORTAR B. CONSTRUCTION OF		Х		ART. 3.3B
5) SINGLE-PASS FILLET WELDS < 5/16"		Х			MORTAR JOINTS C. LOCATION OF		Х		ART. 3.4,
5) FLOOR AND ROOF DECK WELDS B. REINFORCING STEEL:		Х	AWS D1.3		REINFORCEMENT, CONNECTORS AND ANCHORAGES				3.6A
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL		Х			2. THE INSPECTION PROGRAM SHALL VERIFY: A. SIZE AND LOCATION OF		Х		ART. 3.3F
OTHER THAN ASTM A 706 2) REINFORCING STEEL- RESISTING FLEXURAL AND	Х				STRUCTURAL ELEMENTS B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING		Х	SEC. 1.2.2(E),	
AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE			AWS D1.4 ACI 318: 3.5.2		OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION C SPECIFIED SIZE GRADE		X	1.16.1 SFC 1.15	ART 24 3
SHEAR WALLS AND SHEAR REINFORCEMENT					AND TYPE OF REINFORCEMENT				

EMENT REINFORCING	X 	 X			
F STEEL FRAME R COMPLIANCE CONSTUCTION		Х			
UCH AS STIFFENING		Х		1704.3.2	
OCATIONS		Х			
ON OF JOINT ACH		Х			

D. WELDING OF REINFORCING BARS	Х
 E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEG F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEG F) 3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE: 	
A. GROUT SPACE IS CLEAN B. PLACEMENT OF REINFORCEMENT AND CONNECTORS	
C. PROPORTIONS OF SITE- PREPARED GROUT	
D. CONSTRUCTION OF MORTAR JOINTS	
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	Х
 5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED 6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND 	
THE APPROVED SUBMITTALS SHALL BE VERIFIED	
THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704 7)	FREQ CONT- INOUS
THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7) VERIFICATION AND INSPECTION 1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING	FREQ CONT- INOUS
 THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7) VERIFICATION AND INSPECTION 1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL 	FREQ CONT- INOUS
 THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7) VERIFICATION AND INSPECTION 1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL 3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIAL 	FREQ CONT- INOUS
 THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7) VERIFICATION AND INSPECTION 1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL 3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS 4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF 	FREQ CONT- INOUS
 THE APPROVED SUBMITTALS SHALL BE VERIFIED REQUIRED VERIFICATION AND INSPECTION OF SOILS (TABLE 1704.7) VERIFICATION AND INSPECTION VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY 	FREQ CONT- INOUS

VERIFY ALL DIMENSIONS IN FIELD

3.4

— X	 SEC. 2104.3, 2104.4	SEC. 2.1.9.7.2, 3.3.3.4(B) 	–– ART. 1.8C, 1.8D
X X		 SEC. 1.13	ART. 3.2D ART 3.4
Х			ART. 2.6B
Х			ART . 3.3B
			ART 3.5
	SEC. 2105.2.2, 2105.3		ART. 1.4
Х			ART. 1.5

QUENCY PERI-ODIC

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Х Х

Х

SPECIAL INSPECTIONS

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PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH

REVISIONS

S002

OFFICE RENOVATIONS TO CONTRACTORS STEEL 48649 SCHOONER DR., VAN BUREN TWP., MI 48111



					DIVIENCE				TY	
		AIA A101			LIVISION					
	AGREEMENT GENERAL	AIA A201								APPLIES TO ALL CONT. AND SUBS
	CONDITIONS SUBSTITUTIONS									NONE ACCEPTED FOR
(T E				FOR A COMPLE		NIL FOR OTH			ED CONTACT I	
	IS LISTED SHALL BE PI	ROVIDED AND INSTALLET	D BY THE CONTR.	FOR A COMPLE	IE SYSIEM	JNLESS OT H		CIED. THE LIST	ED CONTACT I	SARECOMMENDED SUPPLIER ONLY.
STED					A PRODUCT			E CONTRACTOR		
	ADDITIONAL	DUCT AS APPROVED BY	THE ARCHITECT.	INACCURACIE	SINTHEFR			SHALL BE REPU	RIEDIOTHE	ARCHITECT DURING THE BIDDING
OMPE RELIS	NSATION SHALL NOT BE	ALLOWED FOR THE CO	NTRACTOR FOR I	NACCURACIES	OR OMMISSI	ONS REPORT	FED AFTER	AWARD OF COM	ITRACT. ALLO	WANCES FOR SELECTED PRODUCTS
RITTE	N SPECIFICATION.				DUURION					
	TOPSOIL			4" DEPTH	N/A	z N/A	N/A		1	STOCKPILE/ RE-USE EXISTING/
	GRASS SEED	MICHIGAN STATE SEED	PRO SPORTS	80%	N/A	N/A	N/A	800-647-8873		SUPPLEMENT WITH NEW 85% PURITY, 80% GERMINATION, 1%
		SOLUTIONS	TURF MIXTURE	KENTUCKY BLUEGRASS						WEED: 150 LBS PER ACRE, 4 LBS PER 1000SF
				20% PERENNIAL						
	PVC CEMENT				N/A	N/A N/A	N/A	800-348-7671	D - 1785	
	SOLVENT WELD				1900	1965	1305	0000101011	SDR - 35	
		I			DIVISION	3	_	10. 		-
SS-1	SOLID SURFACE	CORIAN		1	DITIS IOIT		N/A		AWI 400	1 1/2" FULL BULL NOSE EDGE AT
PL-1	PLASTIC LAMINATE		DAINITEO		<u> </u>	BYOWNER	N/A	800-638-4380		
	ONEL VING- WOOD	VENEER WITH 1 1/2"	FAINTED			WITH E	DWA			1/2" HARDWOOD EDGE- PAINTED
	METAL COAT ROD	STANLEY	DVOMAIS S	Weee	PEENED		N/A	79.4 700	MAD 4551	PROVIDE BRACKETS
	CADINETS-KITCHEN	MARTERPIECE	DI OWNER	WOOD	FACTORY	DT OWNER	DWA .	104-/08-/669	KCMA	
		WHOTERFIECE	200 MULLS		FAULURY	CHROME	INVA.	104-109-1089		
				I	DIVISION	7			I	
	EPDM	CARLISLE OR FIRESTONE	45 MIL REINFORCED			BLACK	NA			
	FIBERGLASS INSUL - WALL	OWENS CORNING		4"	N/A	N/A	N/A		[
	FIBERGLASS INSUL - CEILING	OWENS CORNING		6"	N/A	N/A	N/A			PROVIDE STYROFOAM VENT BAFFLES
	RIGID INSUL - PERIMETER	STYROFOAM FOAMULAR 400	RIGID	SEE DRAWINGS	N/A	N/A	N/A		1	
	ana ang ang ang ang ang ang ang ang ang	And a state of the second		FOR DIMENSIONS						
	SEALANT-EXTERIOR			and the second sec			N/A		PFAS FREE	TWO COMPONENT POLYSULFIDE W BACKER ROD
	SEALANT-INTERIOR			LATEX	N/A	N/A	N/A N/A		PFAS FREE	
			PC SCLOP CT/		DIVISION	BY OWNER	N/A	-	ı	
	OFFICE	SUCTINE DOUK	SOLID CORE	CHERRY	STAIN	UT OWNER	19962			CHEERY, PLAIN SLICED, COLOR TO
	EXT WINDOW	PPG	CLEAR SOLAR				N/A		PFAS FREE	
	DOOR: COMMERCIAL	STEELCRAFT	INSULATED	18 GAUGE	PAINT	BYOWNER	N/A			16 GAUGE STEEL FRAMES WITH
	METAL			STEEL						REINFORCEMENT, ALL JOINTS
										WELDED AND GROUND SMOOTH. THREE FRAME ANCHORS MIN. PER
	DOOR HARDWARE					BYOWNER				JAMB
FFICE	FINISH HARDWARE	SCHLAGE	AL50PD	JUPITER	LIFETIME	BYOWNER	N/A			
TORA		SCHLAGE				BYOWNER	N/A			
GE			AL 10C	LEVER	LIEETIME	BY OWNED	1963			
E			AL 100	LEVER	LIFETIME	BY OWNER				
NYAGI			AL 100	LEVER	LICORD	DIOWNER	51/4			
		VON DUPRIN	aastroo		05200	SATIN	NWA			
	HARDWARE CLOSER	LCN	4013/4113		ALUM	BYOWNER	N/A			
	HARDWARE HINGES	HAGER	BB1279NRP	4 1/2 X 4 1/2	US26D	BYOWNER	N/A			
	HARDWARE SWEEPS	NATIONAL GUARD	001A			BYOWNER	NVB			
	HARDWARE ASTRAGAL	NATIONAL GUARD				BYOWNER	N/A			
	HARDWARE WEATHERSTRIPPING	NATIONAL GUARD	190V		N/A	BYOWNER	N/A			
	HARDWARE STRIKE	LOCKSET PROVIDER	EXTENDED	MATCH	MATCH	BYOWNER	N/A			EXTENDED STRIKE PLATE AT DEEP
	ALUMINUM WINDOW	KAWNEER OR EQUAL	4 1/2"	TRIFAB	COLORBY	BYOWNER	N/A			JAMB THERMALLYBROKEN
					OWNER	9				
	GYPSUM BOARD	US GYPSUM		1	PRIME	BYOWNER	N/A			GLUE AND SCREW
	GYPSUM	US GYPSUM				BYOWNER	N/A			GLUE AND SCREW
CT-2	GREENBOARD	USG	CLIMAPLUS	24" X 48"	AND PAINT	WHITE	N/A			
T-1	LAY-IN CEILING GRID	USG ARMSTRONG	DONN CROSSVILLE	DX-DXL-24 BY OWNER	BYOWNER	WHITE BYOWNER	N/A N/A			LATEX ADHESIVE
	T-1 GROUT	POLYBLEND			BYOWNER	BYOWNER	N/A			LATEX GROUT
T-2	TILE	ARMSTRONG	CROSSVILLE	BYOWNER	BYOWNER	BYOWNER	N/A			LATEX ADHESIVE
	T-2 GROUT	POLYBLEND			BYOWNER	BYOWNER	N/A			LATEX GROUT
VB-1 P-1	VINYL BASE PAINT	ROPPE SHERWIN WILLIAMS	BYOWNER	BYOWNER	BYOWNER	BY OWNER BY OWNER	N/A N/A		PFAS FREE	LATEX DRYWALL PRIMER. STAIN
										BLOCKING PRIMER ON STAINS, AND TWO COATS LOW LUSTER LATEX
	DAINE DI OCIZ INTE	DEVOS	DV/OWANE D	PY OWNER	DVOM	DV OWNER	N144		DEAD CORE	EGGSHELL
	STUCCO	DETUE	BIOWNER	BTOWNER	OTOWNER		1997		T CAO FREE	ONE COAT FILLER AND SEALER, AND ONE COAT LATEX SATIN SHEEN.
	PAINT	SHERWIN WILLIAMS				CEILING WHITE	N/A		PFAS FREE	THOROUGHLY CLEAN WITH WIRE BRUSH AND RINSE, THEN OIL
										BASED RUST INHIBITIVE METAL PRIMER, ALLOW TO DRY 24 HOURS,
-										TWO COATS LOW LUSTER ACRYLIC
P-7	PAINT- ZINC COATED	DEVOE				BYOWNER	N/A		PFAS FREE	THOROUGHLY CLEAN AND REMOVE POWDERY OXIDE, GALVANIZED
										METAL PRIMER, TWO COATS LOW LUSTER ACRYLIC
	PAINT- ALUMINUM					BYOWNER	NA		PFAS FREE	THOROUGHLY CLEAN AND REMOVE POWDERY OXIDE, ALUMINUM
										PRIMER, TWO COATS SEMI-GLOSS ACRYLIC ENAMEL
		BOBRICK	4282 282	1	DIVISION 1		N/A			
	PAPER TOWEL	BOBRICK	9202,202 B-369	+	-	CHROME	N/A		+	LUGATE IN ALL BATHROOMS
	DISPENSER/ DISPOSAL	Pop System	070				L I I I			
	SOAP DISPENSER	BOBRICK	270 822			CHROME	N/A N/A			
	MIRROR GRAB BARS	BOBRICK	BEVELED EDGE 550 SERIES			CHROME CHROME	N/A N/A			
					N/A N/A		N/A N/A			
	PHONE JACK COMPUTER JACK					· · · · · · · · · · · · · · · · · · ·				
	PHONE JACK COMPUTER JACK FIRE EXTINGUISHER	LARSON		2A; 10BC	DVISION	1	N/A			
	PHONE JACK COMPUTER JACK FIRE EXTINGUISHER DISHWASHER	LARSON BY OWNER		2A; 10BC	DIVISION		N/A 15A			
	PHONE JACK COMPUTER JACK FIRE EXTINGUISHER DISHWASHER MICROWAVE REFRIGERATOR	LARSON BYOWNER BYOWNER		2A; 10BC	DIVISION 1	1 BYOWNER BYOWNER BYOWNER	N/A 15A			DEDICATED CIRCUIT ICE MAKER, WATER DISPENSER, WATER SI IDDI V

FURNACE FILTER	HONEYWELL	F25F MEDIA		N/A	1			
THERMOSTAT	CARRIER	ELECTRONIC/ DIGITAL	TSTAT CCP	WHITE				
DUCTWORK		GALV. STEEL		N/A	N/A		SMACNA	
DUCT INSULATION		2"	.76 LB DENSITY	N/A	N/A			FACTORY AT TACHED VINYL JACKE
DUCT INSULATION		1"	1.5 LB DENSITY	N/A	N/A			SEMI RIGID: FIRE RESISTANT COATING ON AIR SIDE
BACKFLOW PREVENTERS	BEECO			N/A	N/A			
GAS PIPING	REPUBLIC X-TRUCOAT WITH POLYETHYLENE SHEATH BELOW		SCHED 40 BLACK STEEL	N/A	N/A		LOCAL CODE	SCREWED MALLEABLE IRON FITTINGS.
PUMBING ACCESS PANEL	12"X 12"	STEEL	PAINTED	BYOWNER	N/A			
SANITARYPIPING			PVC SCHED. 40 DWV	N/A	N/A		CURRENT CODE	INSULATED CAST IRON IN RETUR! AIR PLENUM; WASTELINES SHALL NOT BE CELLULAR PVC
POTABLE WATER AND CONDENSATE DRAIN PIPING			TYPE L HARD COPPER	N/A	N/A			
WATER VALVE	CRANE	440 GATE		N/A	N/A	1	1	
PIPE INSULATION	MANVILLE	MICRO-LOK 650		N/A	N/A			•
DRAIN AND VENT PIPING			DWVHARD COPPER	N/A	N/A			OR SCHED. 40 PVC: JOSAM 88902 THREADED AIR GAP
BALL VALVE				N/A	N/A	1		•
POTABLE WATER PIPING 1/2"		TYPE L COPPER TYPE M COPPER			N/A			
POTABLE WATER	3	TYPE K COPPER			N/A			UNDERSLAB PIPING
TIMOL TOUT		i www.t		VISION 16	Į	8.	<u>I</u>	:
CONDUIT	1		3/4" FMT	N/A	N/A			1
EXPOSED WIRING	WIREMOLD	V500		posters.	N/A	588-530-8253	·	<u>.</u>
DUPLEX	HUBBEI	5382		WHITE	20A/1201/			STRAIGHT BLADE 2 POLE 3
RECEPTACLE					1P			WIRE,NEMA CONFIGURATION 5-20 125V SPEC GRADE
FACE PLATES			Ì	WHITE	N/A			
GFI	HUBBELL	GF5362-1		WHITE	20A/ 125V			2 POLE, 3 WIRE, GROUNDING TYP NEMA CONFIGURATION 5-20 R
WALL SWITCHES	HUBBELL			WHITE	20 A/		Ι	TOGGLE OPERATED

OFFICE RENOVATIONS TO CONTRACTORS STEEL 48649 SCHOONER DR., VAN BUREN TWP., MI 48111



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PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH







	APPLICABLE CODES		
	BUILDING	2015 MICHIGAN REHABILITATION CODE	
		FOR EXISTING BUILDINGS	
	ACCESSIBILITY	2009 ICC/ANSI A 117.1 - ACCESSIBLE	
		AND USABLE BUILDINGS AND FACILITIES	
		2010 AMERICANS WITH DISABILITIES	
	ENERGY CODE	ASHRAE 90.1 2013; IECC 2015	
	M ECHANICAL PLUM BING	2015 INTERNATIONAL MECHANICAL 2015 INTERNATIONAL PLUM BING CODE	
	ELECTRICAL	2017 NFPA 70 NATIONAL ELECTRICAL	
		CODE	
SECTION #			
107.3.4	RESPONSIBLE CHARGE		WATBENGTTE
107.3.4.1	THE FOLLOWING ITEMS ARE DEFERRED		NON REQUIRED
	BE SUBMITTED AFTER THE AWARD OF		
	CONTRACT		
SECTION #	CHAPTER 3		
	USE AND OCCUPANCY CLASSIF	CATION	
303.4		FACTORY INDUSTRIAL	
	USE CLASSIFICATION	LOW HAZARD: METAL PRODUCTS	
304	OCCUPANCY CLASSIFICATION	BUSINESS	
		PROFESSIONAL SERVICE	
SECTION #		REQUIRED	PROVIDED
SECTION #		REQUIRED	PROVIDED
TABLE 508.4	OCCUPANCY SEPARATION	NONE REQUIRED	NONE PROVIDED
503.1.1	SPECIAL INDUSTRIAL OCCUPANCIES	EXEMPT FROM HEIGHT AND AREA	
	AREA OF SUITE	RESTRICTIONS	2785 SF
SECTION #	CHAPTER 6	REQUIRED	PROVIDED
	BUILDING CONSTRUCTION TYPE	a second of the ball	
	CONSTRUCTION TYPE	IIB	IIB
TABLE 601 TABLE 601	FIRE RESISTANCE RATINGS STRUCTURAL FRAME	0 HOURS	0 HOURS
TABLE 601	EXTERIOR BEARING WALLS	0 HOURS	0 HOURS
TABLE 601 TABLE 601	INTERIOR BEARING WALLS EXTERIOR NON-BEARING WALLS/PARTITIIONS	0 HOURS 0 HOURS	0 HOURS 0 HOURS
TABLE 601	INTERIOR NON-BEARING WALLS/PARTITIONS	0 HOURS	0 HOURS
TABLE 601 TABLE 601	FLOOR CONSTRUCTION ROOF CONSTRUCTION	0 HOURS 0 HOURS	0 HOURS 0 HOURS
TABLE 602	EXTERIOR WALL FIRE RATING	0 HOURS	0 HOURS
SECTION #	CHAPTER 7	REQUIRED	PROVIDED
	FIRE AND SMOKE PROTECTION	FEATURES	
SECTION 705.8.1	FIRE-RESISTANCE RATED CONSTRUCTION		
EXCEPTION 2			
TABLE 706.4			
THE FOLS TO	SHAFT ENCLOSURES	NOTAPPLICABLE	NOTAPPLICABLE
SECTION 708	FIRE PARTITIONS SMOKE BARRIERS	NOT A PPLICABLE	NOT APPLICABLE
	SMOKE PARTITIONS	NOTAPPLICABLE	NOTAPPLICABLE
		NOTAPPLICABLE	NOTAPPLICABLE
SECTION #		REQUIRED	PROVIDED
	OCCUPANCY	В	
	-EXIT ENCLOSURES/ PASSAGEWAYS	CLASS A (0-25 FLAME SPREAD INDEX:	CLASS A (0-25 FLAME SPREAD INDEX:
		0-450 SMOKE DEVELOPED INDEX)	0-450 SMOKE DEVELOPED INDEX)
	-CORRIDORS	INDEX: 450 SMOKE DEVELOPED	INDEX: 450 SMOKE DEVELOPED
		INDEX)	INDEX)
	-ROOMS AND ENCLOSED SPACES	CLASSIC (76-200 FLAME SPREAD	CLASS C (76-200 FLAME SPREAD
		INDEX)	INDEX)
	INTERIOR FLOOR FINISH	GROUP B TO HAVE MINIMUM CRITICAL	
		2	
SECTION #	CHAPTER 9	REQUIRED	PROVIDED
	FIRE PROTECTION SYSTEMS		
SECTION 906 1	FIRE EXTINGUISHERS	NO SPRINKLER SYSTEM REQUIRED	NONE PROVIDED
SECTION #	CHAPTER 10	REQUIRED	PROVIDED
	OCCUPANT LOAD		
	B USE GROUP	400 00000	0705 / 100 00
TABLE 1004.1.1		100 GRU22	2100 / 100 = 28
	EGRESS TYPES	В	
	STAIRWAYS		N/A 72"
TABLE 1017.2	TRAVEL DISTANCE B NON SPRINKLED	200' 200' 200'	163
SECTION 1020.2	CORRIDOR WIDTH WITH OCCUPANT LOAD <50	36 INCHES (MIN.)	NA
TAULE IVZV.T	< 30	0	NA
TABLE 1006.3.1	NUMBER OF EXITS	2	2
SECTION #	CHAPTER 11	REQUIRED	PROVIDED
	ACCESSIBILITY		
			IS ACCESSIBLE
SECTION #	MICHIGAN PLUMBING CODE	REQUIRED	PROVIDED
	B BUSINESS		2
	REMAINDER		-
	LAV: 1:40 FOR FIRST 50 AND 1:80 FOR THE	(28/40) + (0/80) = 2	2
	REMAINDER		

	MICHIGAN REHABILITATION CODE FOR EXISTING		
SECTION #	BUILDINGS	REQUIRED	PROVIDED
SECTION #	CHAPTER 4	REQUIRED	PROVIDED
	PRESCRIPTIVE METHOD		
403	ALTERATIONS SHALL COMPLY WITH THE MBC		SEE MBC REVIEW ABOVE
SECTION #	CHAPTER 5	REQUIRED	PROVIDED
	WORK AREA METHODS		
SECTION #	CHAPTER 8	REQUIRED	PROVIDED
	ALTERATIONS LEVEL 2		
803.4	MEET THE INTERIOR FINISH REQUIREMENTS OF THE MBC		PROVIDED
804	FIRE PROTECTION	NONE REQUIRED	
805.3	THE NUMBER OF EXITS IS TO BE DETERMINED BY THE OCCUPANT LOAD PER THE MBC		PROVIDED
805.4	WORK AREAS WITH OCCUPANT LOADS GREATER THAN 50 AND TRAVEL DISTANCE GREATER THAN 75 FEET PROVIDE TWO MEANS OF EGRESS		NA
805.6	DEAD ENDS LIMITED TO 35'		NO DEAD ENDS PROVIDED
805.8	EXIT SIGNS		PROVIDED

VERIFY ALL DIMENSIONS IN FIELD

3" MAX MEASURED FROM FRONT OF COUNTER TO DROP-OFF POINT OF SINK -----



TP DISPENSER -



PROJECT NORTH





DIMENSIONS FROM FINISHED FLOOR UNLESS NOTED OTHERWISE

BARRIER FREE FIXTURE HEIGHTS



REVISIONS

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HOPPE DESIGN, I 47032 McBRIDE, BELLEVILLE, MI 48111 734-218-2497

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4864

PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH

WAYDE C

HOPPE

ARCHITECT No. 130103619

WAYDE C. HAPPE



CODE REVIEW



REFLECTED CEILING PLAN SCALE: 1/8" = 1'-0"	PROJECT NORTH	
	OPEN TO BELOW	-11,-0,







17'-5 1/2" PROJECT NORTH 1 A101 FLOOR PLAN SCALE: 3/16" = 1'-0"











KEYNOTES 🐼

- ELECTRIC HAND DRYER
 SOAP DISPENSER
 GRAB BAR
 FEMININE NAPKIN DISPOSAL FLOOR DRAIN TOILET PAPER DISPENSER MOP HOLDER MIRROR TOILET
 LAVATORY

- 10. LAVATORY 11. SLOP SINK

- SLOP SINK
 ELECTRIC TANKLESS WATER HEATER
 SOUND ATTENUATION INSULATION ABOVE CEILING
 ELECTRIC PANEL
 2A:10B WALL HUNG FIRE EXTINGUISHER
 PLYWOOD BACKING
 ROD AND SHELF
 WOOD SHELVING: 5 HIGH, PAINTED
 SHIPS LADDER
 METAL RAILING

WALL TYPES

1

‰" GWB ON 6" METAL STUDS 16" O.C. W∕ 5" ACOUSTICAL FIBERGLASS INSULATION W∕ ‰" GWB. U419 1 HR RATING

- 5%" GWB ON 35%" METAL STUDS 16" O.C. W∕ 5%" GWB.

3

 $\frac{5}{8}$ "GWB ON 35%" METAL STUDS 16" O.C. W/ 3½" FIBERGLASS ACOUSTICAL INSUL W/ 5%" GWB.



4 5√7 GWB ON VB ON 3 5√7 16 GA MTL STUD 16″ OC WITH FIBERGLASS INSUL ON EXISTING CMU

5 5% GWB ON 2" RESILIENT HAT CHANNEL WITH 2" RIGID INSULATION ON 8" REINFORCED CMU

6 8" REINFORCED CMU



REVISIONS

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WAYDE C HOPPE

No. 1301036190

WAYDE C. HAPPE



VERIFY ALL DIMENSIONS IN FIELD

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NO	→ 3'-0" X 7'-0" X 1 3/4"	o (2) 3'-0" X 7'-0" X 1 3/4"	(2)2'-6" X 7'-0" X 1 3/4"	Z'-6" X 6'-8" X 1 3/8"	л 16' Х 16' О.Н.	YPE	AODEL.	WOOD STAINED		HOLLOW METAL PAINTED		, FRP	WOOD STAINED	WOOD PAINTED	HOLLOW METAL PAINTED		5	-	AMB		IEAU	SILL	DOOR AND FRAME FIRE RATING								VALE CARD KEY ACCESS: MATCH	EXISTING	PA SSAGE	PRIVACY	TOREROOM		JFFICE NAME PITE			11/2 PAIK 0 DAID	DAIR: SELECLOSING		LCN 4011_H_I BWWS PULL VERIFT HANDING	CN 4111 H TBWMS PUSH VERIFY	HANDING	2" BRONZE	8" BRONZE	VALL BALDWIN 4045	LI OOR BALDWIN 4510		0USH PLATE IVES 8200 3" X 12"	01LL IVES 8103-0	DEADBOLT	THRESHOLD	3I-FOLD	CYLINDER	VEATHERSTRIPPING	OCKET
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NO.	RM. NAME
101	TOILET
102	TOILET
103	HALL
104	KITCHEN
105	HALL
106	ELECTRICAL CLOSET
107	OFFICE
108	CONFERENCE
109	OFFICE
110	OFFICE
111	OFFICE
112	STATIONS
113	STATIONS
114	STORAGE
115	STORAGE

X

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Α DOOR TYPES SCALE: 1/4" = 1'-0"ALL WINDOW GLAZING TO BE TEMPERED.

VERIFY ALL DIMENSIONS IN FIELD



REMARKS

8-4" 8-4" 8-4" 8-4"

8-4"

8'-4"

 \rightarrow



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

CYLINDER. EQUAL, 0.188" WALL THICKNESS. BE 1" INSULATED GLASS. DOORS AND FRAMES. FIRE RATING AND AS FOLLOWS: MAX GLASS SIZE.

MAX GLASS SIZE. STEEL BALL BEARING HINGES.

HARDWARE SET #1 CAPABILITY DEVICE- MATCH KEYING SYSTEM

NOTES

В

LITE @ DOORS W/ RATING AT 60 MIN OR GREATER 1. 4" X 24" LITE DIMENSION MAXIMUM 2. FIRE RESISTANCE RATED GLAZING TO BE D-H-W-240 CERAMIC GLAZING 3. TO BE LABELED BY INTERTEK OR UL





NS TO TEEL ATIONS ORS STE VР Ζ TICE RENOVATION CONTRACTORS SCHOONER DR., VAN BUREN O S O OFF 48649

1. SIGN MATERIAL SHALL BE MAPLE AS MANUFACTURED AND SUPPLIED BY MODA: 248-306-0677. 2. LETTERS SHALL BE RAISED $\frac{1}{32}$ ": DIMENSIONS SHALL BE 7" H X 9.75" W. 3. PICTOGRAMS AND LETTERS SHALL BE CONTRASTING COLOR. 4. COMPLY WITH CABO/ANSI A117.1-1998 SECTION 703 SIGNAGE. 5. RESTROOM SIGNAGE TO BE MODEL SA64 BY MODA



SIGN MOUNTING LOCATION





HINGE SIDE APPROACH

BOTH A CLOSER AND A LATCH HINGE SIDE APPROACH

FRONT APPROACH

FRONT APPROACH

BARRIER FREE DOOR APPROACH

1. ALL HARDWARE @ ALUM DOORS BY ALUM DOOR SUPPLIER. HARDWARE BASED ON "KAWNEER"; MFG TO SUPPLY

- 2. ALUM DOOR HARDWARE SHALL MATCH DOOR FINISH. 3. ALUM DOORS AND DOOR FRAMES SHALL BE KAWNEER "HEAVY WALL" OR
- 4. ALUM DOORS AND FRAMES SHALL BE GLAZED WITH TEMPERED GLASS.
- EXTERIOR DOORS AND FRAMES SHALL 5. ALL HM OR WOOD DOORS AND
- FRAMES SHALL BE GLAZED WITH TEMPERED GLASS, EXCEPT FIRE RATED
- 6. FIRE RATED DOORS AND FRAMES SHALL BE GLAZED WITH LABELED
- FIRE/SAFETY RATED GLASS TO MATCH
 - 20 & 45 MIN 1296 SQ IN
 - 60 & 90 MIN 100 SQ IN
- 7. FIRE RATED DOORS TO HAVE
- 8. WOOD DOORS TO BE 13/4" THICK.

3 HINGES: HAGAR, BB1279 US26D 4 ½" X 4 ½" 1 CLOSER: LCN, RW-PA TB 689 ALUM 1 EXIT DEVICE: VON DUPRIN, 997SL-L-M-03-4-US26D 1 THRESHOLD: NATIONAL GUARD, 513 ALUM WEATHERSTRIP: NATIONAL GUARD, 190V 1 SWEEP: NATIONAL GUARD, 601A W/ ADJUSTING 1 CYLINDER: SAME AS MANUFACTURER OF EXIT

1. PROVIDE DENS SHIELD BOARD BEHIND ALL TILE APPLICATIONS. 2. PROVIDE WATER RESISTANT GREEN BOARD AT ALL BATHROOM APPLICATIONS.





REVISIONS

PROJECT: 2212 DATE: 8.31.22 DRAWN: WCH CHECKED: WCH









KEYNOTES

LEGEND

—¥—	GATE VALVE
$-\infty$	GLOBE VALVE
δ	BALL VALVE
	CHECK VALVE
—Ķ—	2-WAY CONTROL VALVE
— <u>&</u> —	3-WAY CONTROL VALVE
5	LUBRICATED PLUG VALVE
{&} MS	BAL. BALL VALVE W/ MEMORY STOP
	CIRCUIT SETTER
	PRESSURE REDUCING VALVE
<u>T</u> PT	PRESSURE TEMP. TEST PORT
Ŷ	PRESSURE GAUGE
Q	THERMOMETER
	EXPANSION JOINT W/ GUIDES
AV	
	AIR VENT
	AIR VENT Y–STRAINER
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST.
 	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER NEW FIRE DAMPER
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER NEW FIRE DAMPER EXIST. SMOKE DAMPER
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER NEW FIRE DAMPER EXIST. SMOKE DAMPER NEW SMOKE DAMPER
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER EXIST. SMOKE DAMPER NEW SMOKE DAMPER NEW SMOKE DAMPER EXIST. COMB. FIRE SMOKE
	AIR VENT Y-STRAINER PIPE FLEXIBLE CONNECTOR CONN. TO EXIST. DUCT FLEXIBLE CONNECTOR EXIST. FIRE DAMPER NEW FIRE DAMPER EXIST. SMOKE DAMPER NEW SMOKE DAMPER EXIST. COMB. FIRE SMOKE DMPR

RETURN GRILLE

EXHAUST GRILLE

	NOTEO
MECHANICAL	NOTES

1. ALL WORK IS TO BE PROVIDED AND PERFORMED ACCORDING TO ALL STATE AND SHEET METAL SCREWS MAY BE LOCAL CODES. OMITTED IF HANGER STRAPS ARE 2. ALL EXHAUST OUTLETS AND OUTSIDE AIR INLETS SHALL BE A MINIMUM OF 15' CONTINUOUS UNDER BOTTOM OF APART. DUCT 3. EQUIPMENT NOISE SHALL NOT EXCEED 55 DECIBELS AT THE LOT LINE. 4. ALL DUCT WORK SHALL BE FABRICATED OF SHEET METAL AND IN ACCORDANCE WITH SMACNA STANDARDS. 5. ALL FLEX DUCT WORK SHALL BE THE INSULATED TYPE AND RUNS SHALL NOT EXCEED 6' MAXIMUM LENGTH. CONTRACTOR MAY USE FLEX DUCT TO CONNECT TO SUPPLY GRILLES. 6. PROVIDE MANUAL VOLUME DAMPER IN EACH BRANCH FOR BALANCING. 7. PROVIDE FIRE DAMPER WHERE THE DUCT PENETRATES THROUGH FIRE WALL.

NEW HVAC SYSTEM TO PROVIDE COMPLETE SYSTEM THAT IS IN COMPLIANCE WITH ALL CODES AND REGULATIONS.







VERIFY ALL DIMENSIONS IN FIELD

			EXHA	UST FAN	SCHEDULE						
TYPE	MA	NUFACTURER	CATALOG NO.	CFM	EST E.S.F	P. PH/	LTS/ ASE I	MOTOR		ACCES	SORIES
EF-1		COOK	GC144	150	0.5	12	0/1	98W	DM,	GBD, C	CG, RC, HK
EF2		COOK	GC75	75		12	0/1		D	M, GBD), <mark>CB, HK</mark>
CG	WHITE AL	UMINUM CEILING	GRILLE	GK	GREASE TE	RMINATI					
DM	DISCONN	ECT MEANS		HB	HINGED BA	SE					
GBD	GRAVITY	BACKDRAFT DAM	PER	RC	18" INSULA	TED ROO	F CURB				
VSC	VARIABLI	E SPEED CONTROL	LLER	HK	HANGING K	UT WITH N	/IBRATIO	N INSUL	ATOR		
	ТҮРЕ	MANUFACTURER	GRILLI CATALOG NO.		P FINISH	FRAME TYPE	UOLUME DAMPER	MAX NC (DB)	MIN THROW (FT)	MAX THROW (FT)	MAX PRESS. DROP
	A	TITUS		SUF	WHITE	T-BAR/ FLANGE	YES	30	8	24	0.1
	В	TITUS		REI	r WHITE	T-BAR/ FLANGE	NO	30	-	-	0.1
	С	TITUS		SUF	P WHITE	FLANGE	NO	30	23	60	0.1
	EXH 1 2 3	EXHAUST THROWS ARE BASED ON OPPOSED BLADE DAMPE PROVIDE T-BAR OR FLAN	50 FEET PER MINUTE VEL RS SHALL BE PROVIDED (GE FRAME AS NOTED BY /	RET OCITY DN ALL DIFFU T OR 'F' DES		G BOLUME E	DAMPERS	SUP	SUPPLY		

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IAX ROW FT)	MAX PRESS. DROP		D BUR
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	SPLIT SYSTEM	SCHEDU	LE							
			BLOV	VER		HEATER	ELE	CTRICA	۱L	
URER	CATOLOG NUMBER	CFM	OA CFM	*E.S.P.	HP	MBH/EFF	VOLT/PH			
	TUHMD120ACV5VA	2000	300	0.5	1	120	120/1			
Ξ	TUHMD120ACV5VA	2000	300	0.5	1	120	120/1			
ATER										
ONTROL										
R										
7 DAY PRO	GRAMMABLE THERMOSTAT									

١R	TEN	1PE	RA	rur	E

5	EVA	PORATO	R/ CONDE	N SING UN	IT		63.
		COOLI	NG EAT	CLG CA	PCITY	CONDENSING	UNIT
TYPE	MANUFACTURER	DB	WB	SENS	TOTAL	MODEL NUMBER	VOLT/PH
CU1	TRANE					4TTVOX36A1000A	208/230/1
CU2	TRANE					4TTVOX36A1000A	208/230/1
CH	CRANKCASE HEATER						
LA	LOW AMBIENT CONTROL						
CB	CIRCUIT BREAKER						
Т	WALL MOUNTED 7 DAY PRO	GRAMMA	BLE THER	MOSTAT			
EFF	EFFICIENCY						
OA	OUTSIDE AIR						
EAT	COIL ENTERING AIR TEMPER	RATURE					
EST	DOES NOT INCLUDE FILTER	LOSS					

M101



LEGEND

- GLOBE VALVE
- —___^ठ—___ BALL VALVE

- ——送—— 3-WAY CONTROL VALVE
- ____<mark>ぁMS_</mark>___BAL. BALL_VALVE_W∕ MEMORY_STOP
- PRESSURE REDUCING
- _____T PT PRESSURE TEMP. TEST PORT
- PRESSURE GAUGE
- ------ EXPANSION JOINT W/ GUIDES

_____AV_____AIR_VENT

- DUCT FLEXIBLE CONNECTOR
- ───── EXIST. FIRE DAMPER
- NEW FIRE DAMPER
- ───── EXIST. SMOKE DAMPER

- ─── NEW COMB. FIRE/SMOKE

SUPPLY DIFFUSER

DMPR

MARK CFM

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- RETURN GRILLE
- EXHAUST GRILLE





VERIFY ALL DIMENSIONS IN FIELD

PLU	MBING	FIXTURE SCHEDULE		tu.		s int			- 100 - 100	-101	-ni		-14 · · ·
TAG	MFR	MODEL NAME AND DESCRIPTION	FITTINGS	FLOW	WSF	U'S	DFU'S	MIN P	IPE CON	NECTION	SIZES	REMARKS	COLOR
					С	H		W	V	CW	HW		002011
WC1	KOHLER	K-84325-L WALL HUNG ELONGATED WATER CLOSET WITH EXPOSED	K-7531 EXPOSED HY BRID	1.28 GPF	A							BARRIER FREE COMPLIANT; EXPOSED TOP SPUD CONNECTION;	WHITE
		BATTERY SENSOR FLUSH VALVE WITH OVER-RIDE, WHITE OPEN FRONT	TOUCHLESS BATTERY POWERED		10		4	4"	2ª	1	-	ZURN Z1201 SERIES CLOSET CARRIER, 500 LB SEAT CAPACITY	
		TOILET SEAT, LESS COVER, WITH STAINLESS STEEL CHECK HINGE.	FLUSH VALVE										
SK-1	ELKAY	LR3319	K-15571 FAUCET, LK-35									3 FAUCET HOLES	
			STRAINER, CR-19 STOPS AND										
_			SUPPLIES, 17 GA C.P. P. TRAP										
LAV1	KOHLER	K-1721 WALL HUNG SINK WITH GRID DRAIN; P-TRAP; STOP SUPPLY KIT; TRAP	K-13460 TOUCHLESS FAUCET, CR-	0.5 GPM								BARRIER FREE COMPLIANT; BARRIER FREE TRAP, TRUEBRO LAV	WHITE
		WRAP AND ASSE 1070 THERMOSTATIC MIXING VALVE	19 STOPS, AND SUPPLIES,		4 5	1 5	4	4.472	4 4 /2	1/2"	1/2"	GUARD HW INSUL. KIT; SOLID BRASS FAUCET; Z1231 LAV	
			OFFSET GRID DRAIN, 17 GA C.P. P-		1.5	1.5		1 1/2	1 1/2	112	112	CARRIER WITH UPRIGHTS	
			TRAP										
CO	ZURN	Z415-SZ1											
FD-1	ZURN	Z415-BZ	5" DIA. N.B. STRAINER	a.						N			
GARB										N.			
AGE													
DISPO													
SAL	ISE	PRO-333									5	1/ HP, 120/1/60	



WATER HEATER B TANKLESS ELECTRIC WATER HEATER RHEEM RTEX-06, 1 GPM AT 37 DEGREES TEMPERATURE RISE, 220V/6KW/25A/10AWG ½"NPT

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PLUMBING NOTES

- 1. PLUMBING CONTRACTOR RESPONSIBLE TO SIZE ALL WASTE, SUPPLY, VENTS, DRAINS, TRAPS, ETC TO PROVIDE COMPLETE SYSTEM THAT IS IN COMPLIANCE WITH ALL CODES AND REGULATIONS.
- 2. THE PLUMBING DRAWINGS ARE SCHEMATIC ONLY. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE FINAL LAYOUT AND ROUTING OF PIPING.
- NO PLUMBING PIPING SHALL BE ROUTED OVER ELECTRICAL PANELS.
 PLUMBING CONTRACTOR SHALL CONTACT THE SERVICE PROVIDER
- AND ARRANGE FOR NEW GAS SERVICE CONNECTION. 5. PLUMBING CONTRACTOR SHALL CONTACT THE MUNICIPAL
- AUTHORITY TO ARRANGE FOR NEW WATER SERVICE CONNECTION. 6. PROVIDE CLEANOUTS AT THE BASE OF ALL BASE STACKS, CHANGES IN DIRECTION GREATER THAN 45 DEGREES, AND 50
- FEET ON CENTER FOR STRAIGHT RUNS. 7. ALL PLUMBING SHALL COMPLY WITH BARRIER FREE REQUIREMENTS.

AND INDIRECT WASTEWATER CONNECTIONS.

- 8. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS. 9. WRAP ALL WATER PIPING WITH INSULATED PIPE WRAP.
- 10. ALL LAMBS TONGUE DISCHARGE TO BE 36" ABOVE ADJACENT GRADE. 11. PLUMBING CONTRACTOR TO VERIFY MICHIGAN PLUMBING CODE AND COUNTY HEALTH DEPARTMENT REQUIREMENT FOR BACKFLOW PREVENTERS, CHECK VALVES, VACUUM BREAKERS,

PLUMBING PIPING REQUIREMENTS

	HW	CW	WASTE
WATER CLOSET TANK	_	$\frac{1}{2}$ "	3"
WATER CLOSET FLUSH VALVE	_	ī"	3"-4"
URINALS	_	<u>3</u> " 4	2"
SERVICE SINK	<u>3</u> " 4	<u>3</u> " 4	3"
ELECTRIC WATER COOLER	_	1" 2	$1 \frac{1}{2}$ "
WASH BASIN	<u>3</u> " 4	<u>3</u> "	$1 \frac{1}{2}$ "
SINKS/LAVATORIES	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$1 \frac{1}{2}$ "
SHOWER STALLS	<u>3</u> " 4	<u>3</u> " 4	3"
FLOOR DRAIN			3"

NOTE: PIPE SIZES SHOWN ARE MINIMUM STANDARD. PC SHALL VERIFY VARIANCES ON PLAN.



ELECTRICAL **KEYNOTES**

1. OCCUPANCY SENSOR EQUAL TO WATTSTOPPER ST-200

LEGEND

- SWITCH ON RHEOSTAT
- THREE WAY SWITCH
- S SWITCH WITH PILOT
- S SWITCH
- SPECIAL OUTLET
- **DUPLEX OUTLET**
- QUAD OUTLET

← WEATHERPROOF OUTLET

GROUND FAULT INTERUPTER

▼ TELEPHONE / COMPUTER

- SMOKE DETECTOR
- TELEVISION/ CABLE
- -O- CEILING MOUNTED LIGHT FIXTURE

- CEILING MOUNTED LIGHT FIXTURE RECESSED

-ዮ WALL MOUNTED LIGHT FIXTURE

SCONCE 0 MOTOR, ONE PHASE

 ∇ GROUND MNTD EXT. LIGHTING

2x4 LAY IN LIGHT

FIXTURE

1 X 4 LIGHT FIXTURE

- O PENDANT MOUNTED OVERSIZED FIXTURE
- EXIT SIGN
- EXIT SIGN/
- EMERGENCY LIGHT FIRE ALARM
- PS PULL STATION HORN/ STROBE
- COMPUTER JACK
- RATE OF RISE HEAT DETECTOR
- DISCONNECT SWITCH
- DISCONNECT SWITCH WITH FUSE
- AUDIO JUNCTION BOX-PRE-WIRE PER DIRECTION OF OWNER

-	LIGHT FIXTURE SCHEDULE							
TYPE	MANUFACTURER	CATOLOG NUMBER	LAMP S	NO-WATTS	MOUNTED	REMARKS		
A	LITHONIA	2BLT2BA4 EZ1 ADSM 40L	LED	120	LAYIN	LP835 82CRI, 3500K 2'X2'		
					SUSPENDE			
					D, LAYIN,			
В	LITHONIA	EPANL 2X2 3400 LMHE 80 CRI 35K MIN1	LED		SURFACE	POLYCARBONATE LENS		
C	LITHONIA	LDN6 35 10 LW6 AR LSS MVOLT EZ1	LED	10.44-120	RECESSED			
D	LITHONIA	6JBK ADJ 30K 90CRI MW	LED	10.8-120	RECESSED			
Е	BRUCK	MAGNUM 2 CHROME 1100 CRI 98 3000K	LED	11.9-120	SURFACE			
EM	LITHONIA	ELM4L 120V/3.15W/.032AMPS						
XEM	LITHONIA	ECRGHO RD M6 120V/2.8W/.05AMPS 3.6V BATTERY						
F	LITHONIA	WF8 LED 30K MVOLT 90CRI MW						
G	LITHONIA	WPX1 LED P2 40K MVOLT DDBXD M4						
Н	LITHONIA	EPANL 1X4 3000LM 80CRI 35K MCOLT E10WCP 1X4SMKSH						
J	EATON	DSI-WS-2L35-LD2-1D-UNV-AC-T9-STD-SW-W	LED		PENDANT			





VERIFY ALL DIMENSIONS IN FIELD

ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE N.E.C., COUNTY AND LOCAL CODES, ORDINANCES, AND REGULATIONS INCLUDING MIOSHA.

2. COORDINATE ALL UNDERGROUND WORK WITH NEW AND EXISTING UNDERGROUND UTILITES BEFORE INSTALLATIONS.

3. THE SECONDARY UNDERGROUND CONDUIT AND WIRE SHALL MEET THE REQUIREMENTS OF THE ELECTRIC UTILITY COMPANY.

4. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A 1/4" DIA. POLYPROPYLENE FISH LINE.

5. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED 24" MINIMUM BELOW GRADE (UNLESS OTHERWISE SHOWN ON PLAN).

6. ALL EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL, INSTALLED WITH WATERTIGHT CONDUIT FITTINGS. EXPANSION FITTINGS SHALL BE PROVIDED AT ALL TRANSITIONS FROM UNDERGROUND TO EXPOSED CONDUIT.

8. ALL THREADED ELECTRICAL EQUIPMENT (CONDUIT, FITTINGS, BOLTS, SCREWS, ETC.) INSTALLED AT EXTERIOR SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

9. ALL WEATHERPROOF (W.P.) DUPLEX RECEPTACLES SHALL BE INSTALLED SUCH THAT COVER DOORS OPEN UPWARD.

10. HAND DIG WHERE REQUIRED TO LOCATE EXISTING UTILITES PRIOR TO INSTALLATION OF NEW UNDERGROUND CONDUITS FOR POWER AND LIGHTING. 11. PROVIDE A GREEN GROUND CONDUCTOR IN ALL SYSTEM CONDUITS, EXCEPT

INSTRUMENT SIGNAL AND ALARM CONDUITS, INCLUDING BRANCH CIRCUIT CONDUITS FOR LIGHTING AND RECEPTACLES. GROUND CONDUCTOR SIZING SHALL BE PER N.E.C. TABLE 250.122 (MINIMUM) WHERE NOT SIZED ON THE DRAWINGS.

12. WIRE SIZE SHALL BE #12 (MINIMUM) AND CONDUIT SIZE SHALL BE 3/4" (MINIMUM) FOR ALL POWER AND LIGHTING CIRCUITS WHERE NOT SIZED ON THE DRAWINGS. 13. INSTALL SEPARATE GROUNDING CONDUCTOR TO ALL ISOLATED GROUND RECEPTACLES.

14. LOCATE JUNCTION BOXES PER MANUFACTURER'S REQUIREMENTS.

15. EXHAUST FANS TO BE PROVIDED WITH SPEED CONTROL LOCATED ABOVE THE CEILING. PROVIDE A SWITCH WITH A PILOT LIGHT. 16. VERIFY LOCATION OF ALL POWER, PHONE, AND DATA JUNCTION BOXES WITH THE

OWNER. 17. PROVIDE $\frac{3}{4}$ " METAL CONDUIT AT ALL DATA BOXES, STUBBED INTO PLENUM SPACE. PROVIDE PULL WIRE.

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- 20. INTERLOCK COMBUSTION AIR FANS OF FURNACE WITH HEATING CYCLE OF FURNACES. EACH FURNACE CIRCUIT SHALL POWER THE FURNACE MOTOR, THE COMBUSTION AIR FAN AND THE HUMIDIFIER. PROVIDE ALL SWITCHES, CONDUIT, WIRING, ETC., FOR A COMPLETE SYSTEM.
- 21. ELECTRICAL CONTRACTOR TO COMPLY WITH NEC SECTION 110-C(A) AND (B) AND ALL TERMINATION CODE REQUIREMENTS.
- 22. EC TO SIZE ALL WIRING, CIRCUITING, JB'S, BREAKERS, SUB PANELS, ETC., TO PROVIDE A COMPLETE SYSTEM.
- 23. ELECTRICAL DRAWINGS ARE SCHEMATIC ONLY. EC IS RESPONSIBLE TO DETERMINE THE FINAL CONDUIT AND WIRING LAYOUT.



