## DIRECTORY

APPLICANT AND OWNER

ALPINE ENGINEERING

NOVI, MI 48377

SURVEYOR

### DRAWING INDEX

TITLE SHEET

12090 HAGGERTY RD. BELLEVILLE, MI 48111

CIVIL **ARCHITECT** HOPPE DESIGN 47032 McBRIDE BELLEVILLE, MI 48111 734-218-2492

STRUCTURAL NOTES

VAN BUREN TOWNSHIP

PARTIAL SITE PLAN, ELEVATIONS AND DETAILS PARTIAL SITE PLAN AND DETAILS PARTIAL SITE PLAN AND DETAILS

TOPOGRAPHIC SURVEY (FOR REFERENCE ONLY)

46982 WEST ROAD, SUITE 109

LIGHTING PLAN

### **DIVISION 1: GENERAL CONDITIONS**

Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the work is indicated.

Obtain a Certificate of Occupancy from the local building officials prior to owner occupancy. Upon occupancy, the Owner will assume responsibility for maintenance, security and custodial service.

The contractor shall be responsible for receiving, storing, installing and providing all necessary coordination for a complete system and installation including all necessary electrical and plumbing services and all required framing and

The General Contractor will obtain and pay for the general building permit. All other permits and fees will be obtained and paid by the individual contractors requiring same. Contractor to schedule and coordinate with all public utilities. There shall be no reimbursable charges for utility hook up services. The contractor is responsible for calling for appropriate inspections from governing authorities.

### Existing Conditions and Inspection of the Site

Before submitting his proposal, the bidder shall visit and inspect the site, examine its conditions including adjacent properties and thoroughly acquaint himself with its obstacles and advantages for performing the work. He shall also study the drawings explanatory of his contract and compare the same with the information gathered by the examination of the site, as no extra charge will be allowed him for extra work caused by his unfamiliarity with the site and the

Shop Drawings and Samples The contractor is responsible for confirmation of all dimensions and coordination of the work with all trades. Submit shop drawings to the architect for review of the following systems: mechanical, electrical, hardware, millwork, plumbing, windows, entry doors and frames, and site utilities.

# Safety Standards and Protection

Maintenance of safety standards shall be a special responsibility of the general contractor. It shall be the contractor's responsibility to assure that all work shall comply with current safety standards and regulations of the State of Michigan Contractors shall be responsible to maintain all railings, fences and barriers necessary for the protection of the public and workers and provide fire extinguishers as required by state and local code requirements during construction. Contractors shall protect all work and adjacent property from damage from the weather and construction process. All damage incurred shall be repaired promptly at the cost of the contractor. The general contractor shall obtain permission from the proper authorities for construction of barricades, bulkheads, etc. on public property and construct it as required by municipal regulations. The contractor shall be responsible to maintain temporary barricades along the right-of-way area and adjacent site and at all open excavations. It shall be the responsibility of the general contractor to provide, erect, maintain, and remove all scaffolding, staging, platforms, temporary runways, temporary flooring, guards, railings, fences, warning signs, lights, stairs, ladders, etc. as required by local and state codes of law for the protection of workmen and the public. The construction, inspection and maintenance of the above items shall comply with all safety codes and regulation as applicable to the project. It will be the responsibility of the general contractor to communicate with the adjacent property owner before beginning any work affecting his property.

The contractor shall submit to the owner all guarantees, bonds, instructions, warranties and operation instructions, bound in a building manual. All warranties are to commence on the date of substantial completion. The manual shall include: Certificate of Substantial Completion; guarantees for Architectural, mechanical, electrical and roofing work; all applicable installation, operation and maintenance instructions; mechanical system control diagrams; inspection certificates; and a list of names and addresses of all subcontractors and suppliers. In addition, the contractor shall submit to the owner a written guarantee against defective materials or workmanship for a period of one year from the date of substantial completion.

### A certificate of Insurance shall be filed with the owner prior to commencement of work and shall include the following

coverage or coverage amounts as approved by the owner: Worker's Compensation: Provide amounts compliant with state statutory requirement Public Liability and Contingent Public Liability: \$1,000,000 each occurrence, \$2,000,000 aggregate Direct and Contingent Property Damage Insurance: \$1,000,000 each occurrence, \$2,000,000 aggregate.

To cover loss due to fire, theft or malicious destruction in amount equal to the cost of replacement, the owner shall carry Builder's Risk insurance for the duration of the project up to the date of owner occupancy as established by the certificate issued by the Architect. The owner shall purchase liability insurance and property insurance not to duplicate the above coverage. The contactor shall verify and confirm in writing with the owner all of the above amounts.

Until this contract is complete and the building accepted by the owner, the contractor shall be solely responsible for and shall repair, replace or make good all loss, injury or damage to the owner's property and or adjoining property caused by or arising out of the prosecution of the work from any claim, action or cause of action.

### Special conditions

Substitutions Appropriate substitutions shall be submitted to the Architect for review. Approval of substitutions will be granted on the basis of performance, cost, appearance, and timely installation. Acceptance will not be guaranteed of substitutions not submitted and approved prior to award of contract.

# All contractors shall verify dimensions in the field. The general contractor, all subcontractors, and all suppliers involved

with the project shall verify the dimensions on the drawings to the site required on the project. Report to the Architect at once any discrepancies from those shown on the drawings, etc., to those actually at the site. The drawings are not intended to be scaled for rough or finish measurements nor to serve as field shop drawings.

### Comply with industry standards and applicable laws and regulations of authorities having jurisdiction for installation and

use of temporary facilities and services. Keep temporary services and facilities clean and neat in appearance. Do not overload facilities or permit them to interfere with progress. Take necessary fire prevention measures. Do not overload facilities or permit dangerous or unsanitary conditions or public nuisances to develop or persist on site. Provide new materials and equipment for temporary services and facilities. Provide materials and equipment suitable for use

Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110 to 120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.

Electrical Power Cords: Provide grounded extension cords. Use hard service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of separate cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length to voltage ratio.

Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination.

Provide guard cages or tempered glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture. Provide temporary lighting with local switching. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized

trade association related to the type of fuel being consumed. Select safe equipment that will not have a harmful effect

on completed installations or elements being installed. Coordinate ventilation requirements to procure the ambient

condition required and minimize consumption of energy. Use of gasoline space heaters, open flame, or salamander Fire Extinguishers: Provide hand carried, portable, UL rated, Class ABC dry chemical fire extinguishers for temporary spaces. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and

### Temporary Lighting: Provide temporary lighting with local switching.

Temporary Heat: Provide temporary heat required by construction activities for curing or drying of completed installations or for protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or on elements being installed. Coordinate ventilation equipment to produce the ambient condition required and minimize consumption of energy.

Heating Facilities: The use of gasoline burning space heaters, open flame, or salamander heating units is prohibited. Temporary Telephones: Provide temporary telephone service throughout the construction period for all personnel

### Storage of building materials for all trades on the site will be permitted in designated areas only.

The general contractor shall be responsible at all times to keep the premises clean and free from accumulation of waste materials and rubbish caused by his employees or work. At the completion of the project, remove from and about the building all the rubbish, tools, scaffolding, and surplus materials; clean all stains, dirt etc., from glass and other finished work and leave the premises ready for use. All trades for each division of work shall conduct a general clean up and remove all debris daily from his operation. Contractor to provide all dust barriers and screens as required to prevent dust from traveling to occupied areas of the building. Drop All mechanical and electrical work is to be performed in compliance to all state and local codes and regulations. Test all systems, cloths and vacuum cleaners shall be used as necessary

equipment for keeping premises clean during and after business hours. At the completion of the job, leave the entire site clean and free of any deleterious materials of any kind.

### DIVISON 2: DEMOTLITION

Contractor to review all site and building drawings to determine the extent and items to be removed including utilities and services to be removed. All items not requested to be salvaged and turned over to the owner shall be removed from the site. Sawcut and remove all existing concrete and masonry as shown to perform the work. Legally dispose of off the site. Provide all shoring and underpinning to maintain the integrity of the existing and adjacent structures. The contractor shall use extreme care in removal work and shall at all times use precautions to quard against movement or settlement of adjacent buildings. Provide shoring, and take care to prevent any damage of materials of adjacent buildings. This contractor shall be liable for any such movement or settlement and any damage or injury caused thereby or resulting thereby.

All concrete work shall comply with recommended ACI standards and applicable code requirements. All concrete placing and weather condition protection practices to comply with American Concrete Institute (ACI) standards and recommendations. No calcium chloride antifreeze admixtures shall be permitted. All other admixtures to be approved before use. Reinforced concrete footings will be installed for all bearing walls. Footings shall rest on undisturbed soil having a minimum bearing capacity of 3,000 psf. The owner shall be notified immediately if adverse soil conditions are encountered during excavation. Contractor shall provide all form work required footing and concrete work. Interior concrete finishes shall be smooth trowel finish. Exterior concrete shall be a broom finish. Provide control joints and expansion joints where shown on drawings. Strength of concrete side walks, curbs slabs sills, steps and miscellaneous concrete work, minimum 28 day strength of 3,000 psi. Footings, walls, foundations, structural framing, piers and columns to have a minimum 28 day strength of 3750 psi. Exposed concrete surfaces shall be protected from rapid

Provide all labor, materials and equipment to complete all masonry work as shown on drawings. Filling of cores, where shown, is not to exceed two-foot lifts and shall be rodded thoroughly. The masonry contractor shall be responsible for setting anchor bolts, masonry wall ties, hollow metal door frames, lintels, opening, bearing plates and all other built in work. Masonry flashing will be placed at all key points of openings, and continuously around perimeter of building at grade, with weep holes every 24 inches in full head joints. Provide all anchoring channels, anchor straps and rough hardware as required and as shown on drawings. Galvanized horizontal joint reinforcement shall be placed as shown on drawings in all concrete masonry. Wires shall be 9 gauge conforming to ASTM A-82. No chipped, stained, broken or wet units are to be incorporated in the work. All walls are to be left clean and free of mortar. All cut units are to be cut to a clean, true edge with a masonry saw. All masonry materials, stockpiles and top of unfinished walls to be covered and protected at the end of each workday. Contractor to provide all weather protection required per masonry institute recommendations. Contractor to provide all temporary bracing and shoring required.

### Structural steel shall be detailed, fabricated and erected according to the "Specification for Design, Fabrication and

Erection of Structural Steel for Building" by the American Institute of Steel Construction, latest edition. Provide all lintels, anchor bolts, bearing plates, steel pipe handrail and brackets, expansion bolts, etc. as shown on drawings and as required for a complete job. Provide all runners, bridging, bracing and fastening a shown and per manufacturers

Lumber will be sound, thoroughly seasoned and free from warp. Horizontal blocking will be installed at 8 foot height in walls over 8 feet. Firestop concealed spaces where required by codes. Provide wood bucks throughout the construction where required to support or secure work of all trades. Provide all wood nailers, blocking, plywood, etc. interior and exterior where shown on drawings or otherwise required, Install wood blocking as required to support wall. Provide blocking in wall to support pre-manufactured wall cabinets and special counter work throughout the project. Provide ply clips at all open spans where required. Provide all rough hardware required for complete installation, including though bolts, plates, washers, nuts, joist hangers, etc., as noted on drawings or required. Provide and install interior wood trim, window stools, and miscellaneous shelves as shown on drawings. Install trim plumb and level with miter cut corners throughout. Staples are not permitted. Fill all nail holes in exposed work prior to finishing. All finishes to be as selected by owner. Handrails at stairs shall be hardwood for stain finishes and supported on brackets to withstand loads required by codes. General millwork shall be prefinished. Custom built counter tops shall be provided as part of kitchen cabinets. Verify all dimensions in the fields with the reviewed shop drawings before manufacturing or installing finish millwork.

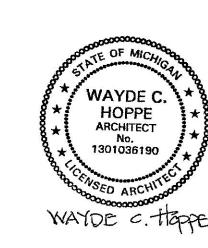
Membrane flashing and other surface material as noted on finish schedule shall not be painted.

submit all balancing reports, and make all necessary adjustments prior to occupancy. The mechanical and

electrical contractors shall coordinate and cooperate with the local utility companies and shall be responsible for acquiring all necessary permits and connections. The minimum temperature at 24" above finished floor shall be 68

### DIVISON 16: ELECTRICAL AND TELEPHONE

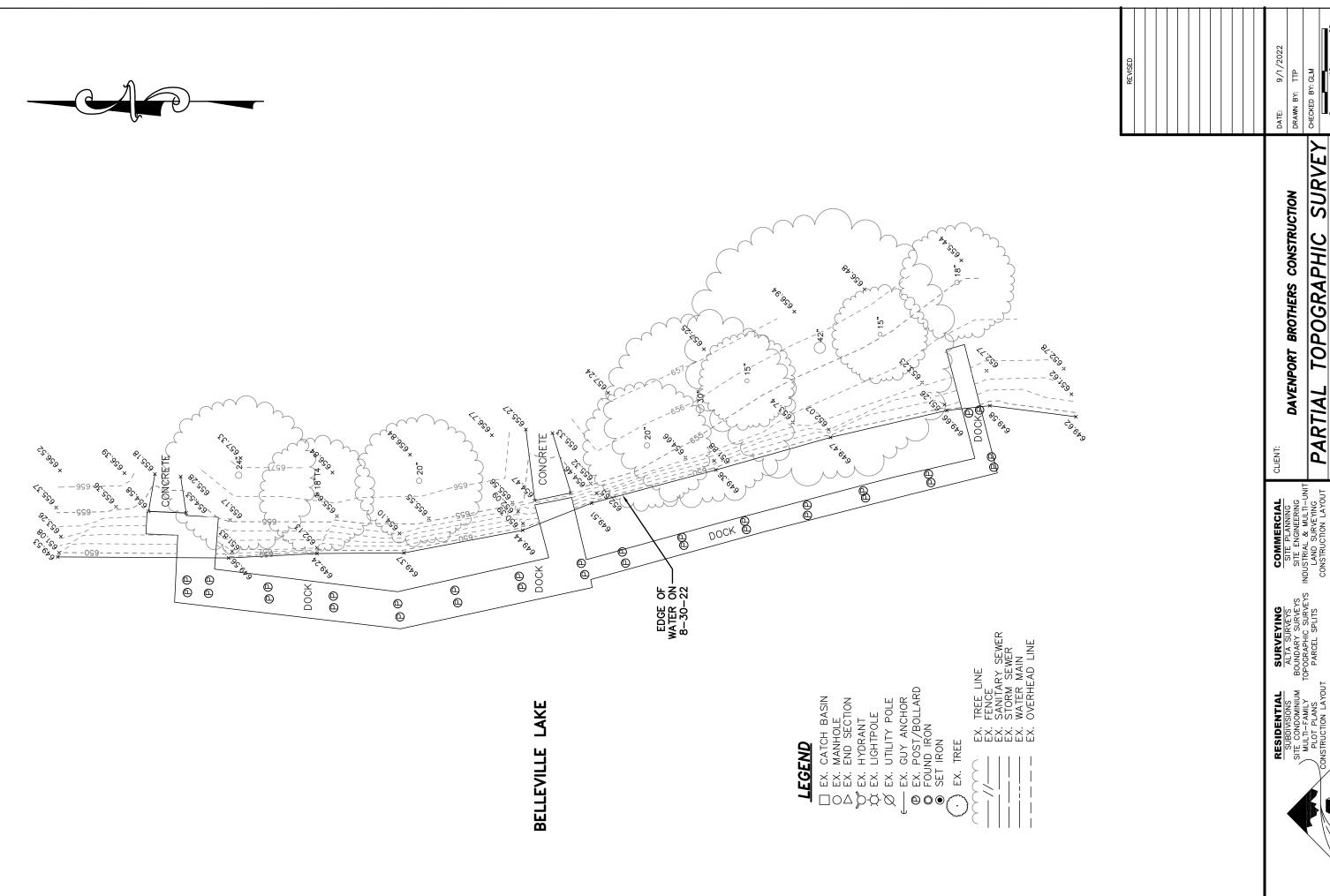
The contractor shall submit complete and detailed drawings indicating the proposed circuiting system, service distribution, control panels, meters, materials and procedures. Systems to be identifiable and accessible; requiring labeling, conduit and panel identification, full instrumentation, and access panel. The bid shall include an outline description of the proposed system. The electrical contractor shall consult the plans thoroughly to become familiar with the construction. The contractor shall visit the site and inventory the electrical items to be terminated, relocated, installed and the conditions that exist. The contractor shall connect all owner supplied equipment as shown on the drawings and per approved shop drawings. The electrical contractor is to provide all conduit, raceways, outlets, switches, boxes and disconnects required for new work. All electrical work shall conform to the National Electrical Code and to all other state and local ordinances. Grounding of equipment shall be according to NEC Article 250. Comply with required construction standards of the local utility company. Wire for general interior and exterior use, sizes No. 10AWG and smaller, single conductor, annealed copper, NEC type XHHW or THHN/THWN rated 75 degrees C, 600 volts. Cabinets shall be flush mounting type as indicated with minimum 20 inch box NEMA 1. Provide gutter space to accommodate size of cable used in accordance with NEC. Equip the panel with hinged door and flush type combination catch and lock. The electrical contractor shall provide and install all of the light fixtures shown on the lighting plan or as provided by the owner. Conform work to applicable electrical and barrier free codes.



REVISIONS

PROJECT: 2216 DATE: 10.30.22 DRAWN: WCH CHECKED: WCH

TITLE SHEET COPYRIGHT ALL RIGHTS RESERVED BY WAYDE C. HOPPE, ARCHITECT NOT TO BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION



SURVEY

PARTIAL COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
LAND SURVEYING
CONSTRUCTION LAYOUT

46892 WEST ROAD SUITE 109 NOVI, MICHIGAN 48377

ENGINEERING, INC.

(248) 926–3701 (BUS) (248) 926–3765 (FAX) WWW.ALPINE—INC.NET

SECTION: 24

12090 HAGGERTY ROAD
TOWNSHIP:3S
VAN BUREN TOWNSHIP
WAYNE COUNTY
MICHIGAN

RANGE: 8E

CHF: BAJ SCALE HOR 1"= 20 FT. VER 1"= FT.

SELECTION BY

PRESERVATIVE

DECKINGBOARDS

COMPOSITE

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 SPECIFICATIONS. STRUCTURAL MEMBERS ARE NOT SELF BRACING AND SHALL BE SHORED AND/OR BRACED BY THE CONTRACTOR AS NECESSARY UNTIL STABILIZED BY VIRTUE OF COMPLETED CONNECTIONS.

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 VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION OF FOOTING. NOTIFY ENGINEER OF ANY VARIATION FROM 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 DURING FREEZING WEATHER, ALL INTERIOR FOUNDATIONS SHALL BE DEPRESSED 3'-6" BELOW CONSTRUCTION GRADE FOR FROST PROTECTION. IF 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.

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

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.

PLUMBING AND ELECTRICAL CONTRACTORS ARE TO PROVIDE ALL REQUIRED UNDERSLAB WORK PRIOR TO POURING THE FLOOR SLAB. INSPECT ALL REINFORCING BEFORE POURING CONCRETE.

SLOPE SLABS TO FLOOR DRAINS. VERIFY DEPRESSIONS AND FLOOR FINISHES.

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.

- MINIMUM CONCRETE COVERING SHALL BE: FOOTING BOTTOM
  - COLUMNS, BEAMS AND FORMED SURFACES IN DIRECT CONTACT WITH SOIL OR EXPOSED TO THE WEATHER, EXCEPT SLABS. " DECK SLAB TO TOP
- 1 3" DECK SLAB TO BOTTOM INTERIOR FACES OF WALLS AND SLABS NOT EXPOSED TO WEATHER

INTERIOR SLABS

ACA FOR DOUGLAS FIR OR CCA FOR

SOUTHER PINE

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.

PLACE LADDER TYPE HORIZONTAL JOINT REINFORCING WITH PREFORMED LAPPED CORNER REINFORCING.

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.

AT GROUTED CELLS LIFTS OF GROUT SHALL BE KEYED 4" INTO THE COURSE OF MASONRY BELOW.

ALL CMU BOND BEAMS TO HAVE (2) #4 BARS CONTINUOUS. PROVIDE (2) #4 L BARS AT EVERY CORNER LAPPED 3'-0" WITH CONTINUOUS

VERTICAL CONTROL JOINTS IN CMU WALLS TO HAVE A MINIMUM ¾" GAP AND SHALL BE LOCATED BY THE ARCHITECT, BUT NOT MOVE THAN

BRICK TIES SHALL BE GALVANIZED ADJUSTABLE 2-PIECE WIRE TIES OF NOT LESS THAN 9 GAGE AND SHALL BE SPACED AT 16" OC VERTICALLY

WHERE MASONRY MEETS STRUCTURAL MEMBERS SUBJECT TO VERTICAL DEFLECTION, PROVIDE ALLOWANCE FOR VERITICAL MOVEMENT OF L/240 OF STRUCTURAL MEMBER.

BOND BEAM REINFORCING TO BE CONTINUOUS ACROSS CONTROL JOINTS.

PROVIDE A 24" LAP AT FOUNDATION DOWELS.

AIR TEMPERATURE AT TIME OF MASONRY INSTALLATION SHALL BE 40<T<90 DEGREES F.

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.

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

ARC SPOT WELDS (PUDDLE WELDS) TO SUPPORTS SHALL HAVE A DIAMETER OF %" MINIMUM OR AN ELONGATED WELD OF %" MINIMUM WIDTH AND 3/4" 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 TO THE STEEL SUPPORTS AT THE SIDE BOUNDARIES BY ₹ DIAMETER PUDDLE WELDS AT 12 OC. SHEAR STUDS WELDED THROUGH DECK MAY BE USED IN PLACE OF ¾" DIAMETER PUDDLE WELDS.

THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS BY BUTTON PUNCHING AT 24" OC UNO.

UNLESS OTHERWISE NOTED, ALL BEAMS AND LINTELS BEARING ON MASONRY SHALL HAVE A MINIMUM BEARING LENGTH OF 7 ½" 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 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 ₹" DIA BOLTS, E70XX ₹" WELD AND ॡ" ANGLE THICKNESS.

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.

ALL WELDING SHALL BE PERFORMED USING THE ELECTRIC ARC METHOD IN ACCORDANCE WITH THE LATEST REVISION OF THE AWS D1.1. E70XX

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 CAPACITY REQUIREMENTS LISTED ABOVE. WELD SIZES SHALL BE INCREASED AS NEEDED TO MEET THE FOLLOWING MINIMUM WELD SIZE REQUIREMENTS BASED ON THE SMALLER MATERIAL THICKNESS OF THE PIECES OF STEEL BEING WELDED TOGETHER:

MATERIAL THICKNESS MIM FILLET WELD SIZE (PROVIDE LARGER WELD IF REQUIRED FOR STRESS) ¼" AND UNDER OVER ¼" TO ½" OVER ½" TO 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 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.

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.

PRESSURE FROM THE DESIGNED WIND SPEEDS.

OVER ¾"

ALL ROOF RAFTERS ARE TO BE 24" ON CENTER UNLESS OTHERWISE NOTED.

ROOF DESIGN NOTES: A. VERTICAL WEB MEMBERS FOR ALL GABLE END TRUSSES SHALL BE DESIGNED TO RESIST A HORIZONTAL WIND LOAD RESULTING FROM THE

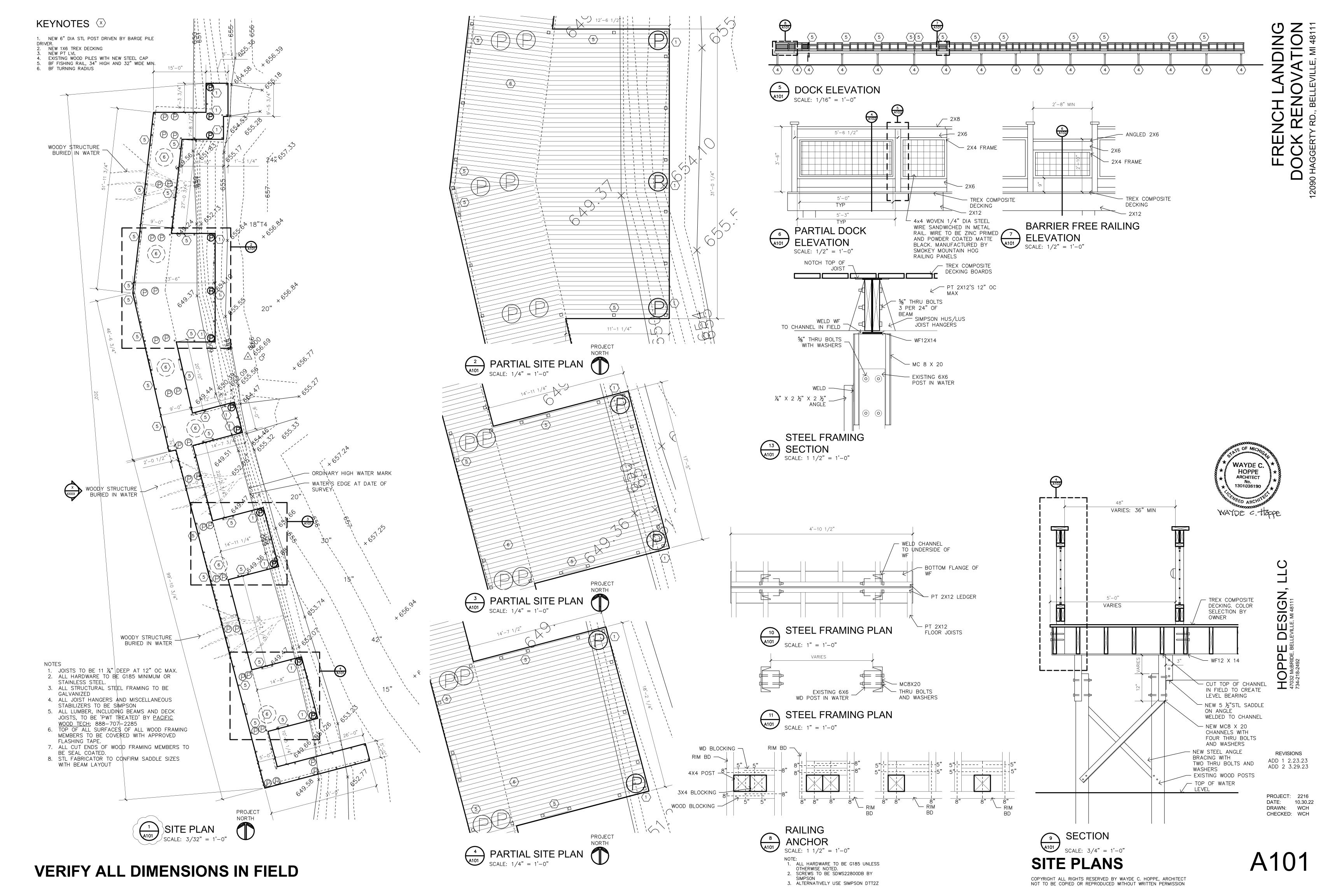
DESIGNED WIND SPEED WITHOUT EXCEEDING THE DEFLECTION LIMIT OF L/600 OF THEIR RESPECTIVE VERTICAL SPANS. BRIDGING FOR BOTTOM CHORDS SHALL BE DESIGNED TO DISTRIBUTE THÉ HORIZONTAL WIND LOAD PROPOSED ON THE COMPLETE BUILDING TO THE SHEAR WALLS AND SHALL BE DESIGNED FOR A TOTAL IMPOSED WIND LOAD ON BUILDING INCLUDING WINDWARD AND LEEWARD

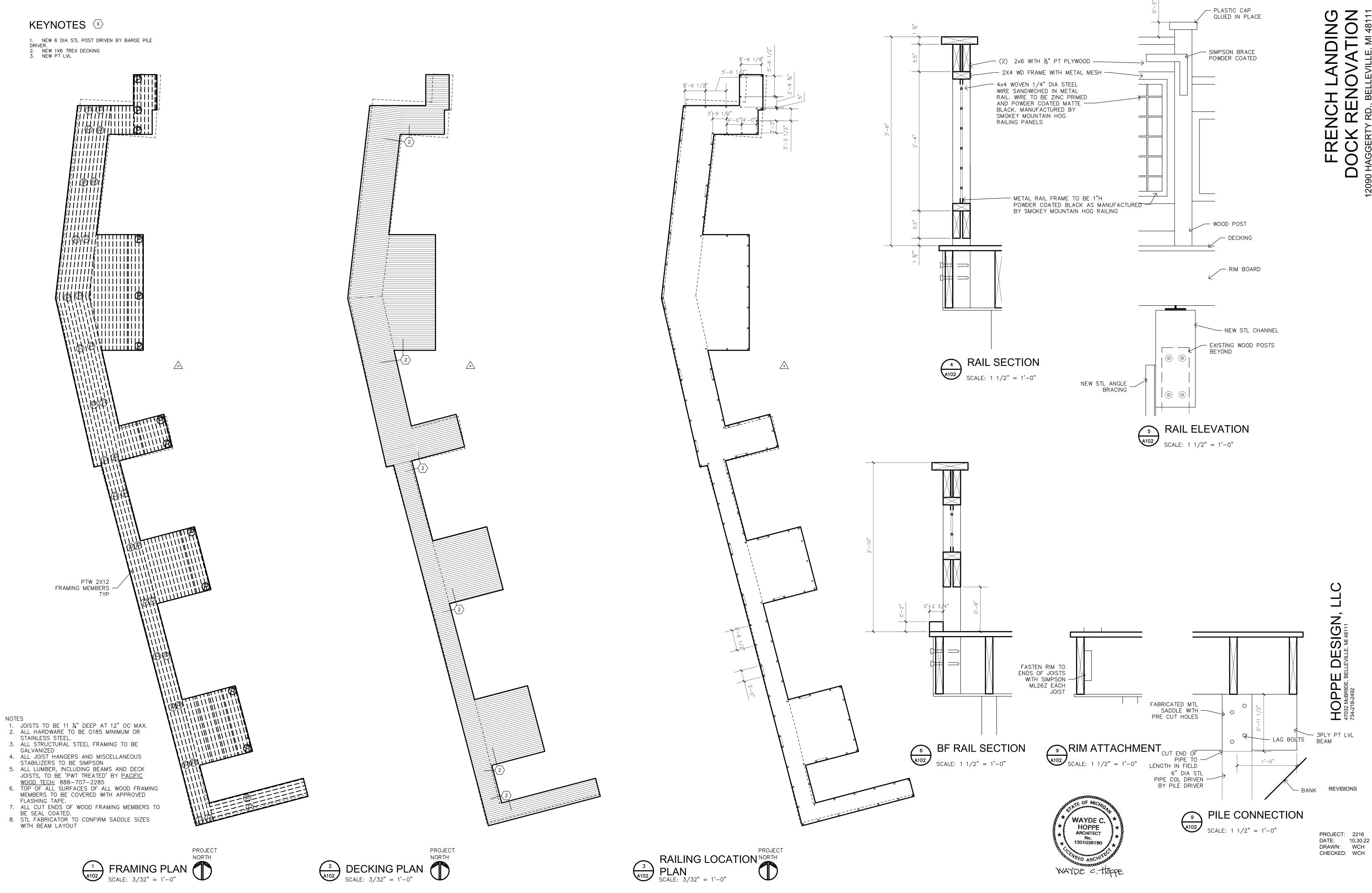
-	DO	AND REFERENCES	
		DESIGNAL CARS	
TABLE 4004 5		DESIGN LOADS  OCCUPANCY CATEGORY	- 11
TABLE 1604.5		OCCUPANCY CATEGORY	II
		WIND	
FIGURE 1609.3.1	V	BASIC WIND SPEED (MPH)	115
SECTION 1609.4.3	v	EXPOSURE CATEGORY	B
3ECTION 1009.4.3	lw	IMPORTANCE FACTOR	1
	144	ADJUSTMENT FACTOR	1.12
		SNOW	
FIGURE 1608.2	Pg	GROUND SNOW (PSF)	25.00
	ls	IMPORTANCE FACTOR	1.00
	Се	EXPOSURE FACTOR	1.00
	Ct	THERMAL FACTOR	1.00
		ROOF DEAD LOAD (PSF)	20.00
		CEILING DEAD LOAD (PSF)	5.00
		TOTAL UNFACTORED DESIGN ROOF	
		LOAD (PSF)	
		25 + 20 + 5 =	50
		REFERENCES	
STRUCTURAL LOADS		ASCE-7	2010
CONCRETE		ACI 301	2046
		ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED	2010
		CONCRETE	
		IACLSP 66	
		ACLISP 66 PORTLAND CEMENT ASSOCIATION	201
		ACI SP 66  PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF	2011
		PORTLAND CEMENT ASSOCIATION	2011
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF	
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"	
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE" ACI 530/ASCE 5	2013
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE" ACI 530/ASCE 5 ACI 530.1/ASCE 6	2013
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE" ACI 530/ASCE 5 ACI 530.1/ASCE 6 NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"	2013
MASONRY		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK	2013
BRICK		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"	2013
		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR	2013 2008 13Th
BRICK STEEL		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMATEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"	2005 2005 13TH EDITIO
BRICK		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMATEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS	2005 2005 13TH EDITIO
BRICK STEEL WELDING		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMATEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS D1.1/D1.1M	2005 2005 13TH EDITIO
BRICK STEEL WELDING		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMATEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS	2005 2005 13TH EDITIO
BRICK STEEL WELDING STEEL JOISTS		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS D1.1/D1.1M  STEEL JOISTS INSTITUTE "STANDARD	2013 2005 13TH EDITIO 2015
BRICK STEEL		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS D1.1/D1.1M  STEEL JOISTS INSTITUTE "STANDARD SPECIFICATION"	2013 2005 13TH EDITIO 2015 2015
BRICK STEEL WELDING STEEL JOISTS METAL DECK		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS D1.1/D1.1M  STEEL JOISTS INSTITUTE "STANDARD SPECIFICATION"  STEEK DECK INSTITUTE	2013 2005 13TH EDITIO 2015 2015
BRICK STEEL WELDING STEEL JOISTS METAL DECK		PORTLAND CEMENT ASSOCIATION "DESIGN AND CONTROL OF CONCRETE MIXTURE"  ACI 530/ASCE 5  ACI 530.1/ASCE 6  NCMA TEK 3-4B " BRACING CONCRETE MASONRY WALLS DURING CONSTRUCTION"  BIA "TECHNICAL NOTES ON BRICK CONSTRUCTION"  AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"  AMERICAN WELDING SOCIETY AWS D1.1/D1.1M  STEEL JOISTS INSTITUTE "STANDARD SPECIFICATION"  STEEK DECK INSTITUTE "NATIONAL DESIGN SPECIFICATION	2011 2013 2005 13TH EDITIO 2015 2015 1987 2015

HOPPE ARCHITECT 1301036190 WAYDE c. Happe REVISIONS

PROJECT: 2216 DATE: 10.30.22 DRAWN: WCH CHECKED: WCH

STRUCTURAL NOTES





SITE PLANS

NOT TO BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION

	LIGHT FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATOLOG NUMBER	LAMPS	NO-WATTS	MOUNTED	REMARKS				
Α	LAKE LITE	SOLAR DECK LIGHTS	LED	0.4	FLOOR	WHITE, 8 LUMENS				

### **ELECTRICAL** KEYNOTES 1. X

### LEGEND

# SD SWITCH ON RHEOSTAT

- S THREE WAY SWITCH
- S SWITCH WITH PILOT
- **S** switch
- SPECIAL OUTLET
- DUPLEX OUTLET
- QUAD OUTLET
- WEATHERPROOF OUTLET
- GROUND FAULT INTERUPTER
- TELEPHONE/ COMPUTER
- **3** SMOKE DETECTOR
- TELEVISION/ CABLE
- CEILING MOUNTED LIGHT FIXTURE
- CEILING MOUNTED LIGHT FIXTURE RECESSED
- WALL MOUNTED LIGHT FIXTURE
- SCONCE
- MOTOR, ONE PHASE
- 2x4 LAY IN LIGHT FIXTURE
- PENDANT MOUNTED OVERSIZED FIXTURE

1 X 4 LIGHT FIXTURE

- EXIT SIGN/
  EMERGENCY LIGHT

EXIT SIGN

- FIRE ALARM
  PS PULL STATION
- HORN/ STROBE
- RATE OF RISE HEAT DETECTOR

COMPUTER JACK

- DISCONNECT SWITCH
- DISCONNECT SWITCH WITH
- AUDIO JUNCTION BOX-PRE-WIRE PER DIRECTION OF OWNER

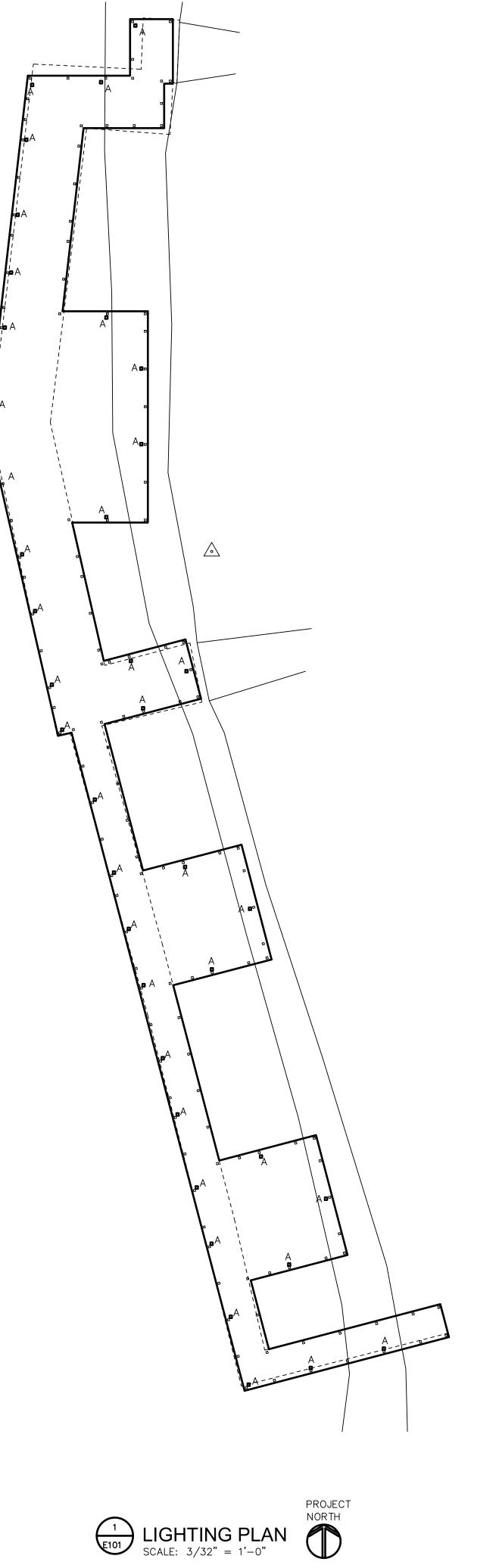
# **ELECTRICAL NOTES**

- 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
  - 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
  - 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.
    - 16. VERIFY LOCATION OF ALL POWER, PHONE, AND DATA JUNCTION BOXES WITH THE
- ALL TERMINATION CODE REQUIREMENTS. GROUND MNTD EXT. LIGHTING
  - 22. EC TO SIZE ALL WIRING, CIRCUITING, JB'S, BREAKERS, SUB PANELS, ETC., TO PROVIDE A COMPLETE SYSTEM.

21. ELECTRICAL CONTRACTOR TO COMPLY WITH NEC SECTION 110-C(A) AND (B) AND

23. ELECTRICAL DRAWINGS ARE SCHEMATIC ONLY. EC IS RESPONSIBLE TO DETERMINE THE FINAL CONDUIT AND WIRING LAYOUT.



REVISIONS

PROJECT: 2216 DATE: 10.30.22 DRAWN: WCH CHECKED: WCH

LIGHTING PLAN

COPYRIGHT ALL RIGHTS RESERVED BY WAYDE C. HOPPE, ARCHITECT NOT TO BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION

WAYDE C HOPPE

ARCHITECT No. 1301036190