



PLANNING COMMISSION
At Marshall Township Hall
13551 Myron Avery Drive. Marshall, MI. 49068
Monday, May 13, 2024, at 7:00 P.M.
AGENDA

- I. Call to order.
- II. Roll Call
- III. Pledge of Allegiance
- IV. Approval of Agenda – Items can be added or deleted by Commission action.
- V. Public Comment – **Persons addressing the Commission must give their name and address for the record when called upon by the Chair. Public members shall be limited to speaking for a maximum of five (5) minutes.**
- VI. Approval of minutes – March 5, 2024
- VII. Old Business
 - a. Approval of the Planning Commission By-Laws
 - b. Discussion of Master Plan
- VIII. New Business
 - a. Public Hearing, Site Plan Review for Marshall Area Economic Development Alliance, the applicant, is requesting a Site Plan Review for the property commonly known as 13550 15 Mile Road, Marshall, MI 49068 16-272-003-00 and 16-273-009-01. They are requesting to be allowed to have a Site Plan Review of a New Marshall Township Fire Station as defined in Table 4.2 Schedule of Uses: Commercial and Industrial Districts, Community Public Safety, which is a permitted use in the Township Ordinance.
 - b. Road Access, Private Roads, and Other Private Means Of Access – PC Discussion
- IX. Public comment - **Persons addressing the Commission are required to give their name and address for the record when called upon by the Chair. Public members shall be limited to speaking for a maximum of five (5) minutes.**
- X. Zoning Administrators Report
- XI. Commissioner comments
- XII. Adjournment

Next Meeting June 3, 2024



Township of Marshall
Minutes of a Planning Commission Regular Meeting
Held on March 5, 2024

A regular meeting of the Marshall Township Planning Commission was conducted on March 5, 2024, commencing at 7:00 p.m., at the Marshall Township Hall.

Call to Order:

Chairman Egnatuk called the meeting to order at 7:00 p.m. and welcomed those in attendance.

Roll Call:

Present were:

Alec Egnatuk- Chair
Robert Lyng
Steve Riggs
Joanna Johnson
David Boshears
Duane Sly, Jr.

Absent was:

Kevin Hoffman

Egnatuk noted that the absence of Hoffman was excused.

Approval of the Agenda

A copy of the agenda was contained in the Commissioner's agenda packet. Upon motion of Lyng, supported by Sly, the Commission approved the agenda 6-0.

Public Comment

Glenn Kowalske discussed the initiative to repeal the renewable energy preemption statute and well-head protection areas within the Township. Barry Adams discussed the initiative to overturn the solar preemption legislation and issues regarding the City Marshall City Council meetings. Mick Woods discussed well-head protection areas and the fire station.

Approval of Minutes – January 24, 2024

The next item on the agenda was consideration of the minutes of the January 24, 2024, Planning Commission meeting. Several revisions were recommended.



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Upon motion of Lyng, supported by Riggs, and 6-0 vote, the minutes of the January 24, 2024, Planning Commission meeting were approved, as revised.

Old Business.

A. Review the Letter of Understanding - David Brown Auto Collision.

Attorney Seth Koches summarized the Letter of Understanding, which was included in the agenda packet for the Commissioners. The Commissioners reviewed the Letter and discussed parking spaces, fencing and surface materials. The Commissions discussed the lawful non-conforming aspect of Mr. Brown's business as it relates to parking spaces. It was noted that the site plan amendment did not expand any existing structures.

Upon motion of Johnson, supported by Riggs, and 6-0 vote, approved the Letter of Understanding and directed the Chairman to execute it with the following conditions:

1. That the surface area consists of crushed asphalt or crushed concrete; and,
2. That the amended site plan depicts the location of the five additional parking spaces and include measurements to confirm adequate access flow throughout the site.

B. Discussion of the Master Plan.

Egnatuk discussed several updates regarding the Master Plan including areas of focus. Johnson discussed Chapter 6 "Land Use" of the Township Zoning Ordinance. Egnatuk discussed future meeting dates and established a schedule for discussing the updating the Master Plan. Egnatuk discussed renewable energy updates and ramifications regarding preemption. Johnson asked the Commission to more efficiently on renewable energy ordinances.

New Business

None.

Public Comment

Glenn Kowalske discussed an on-going Court of Appeals case involving Blue Oval and briefing schedules. Kowalske asked that the Planning Commission meet monthly. Barry Adams discussed the pending Court of Appeals case involving Blue Oval and discussed City of Marshall City Council



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meetings. Julie Bryant asked that all Commissioners utilize the microphones so everyone can hear. Mick Woods discussed the Master Plan and Planning Commission Bylaws.

Zoning Administrator's Report

None.

Planning Commissioner Comments

Planning Commissioners provided general updates.

Adjournment

Upon motion by Johnson, supported by Lyng, and a 6-0 vote, the Planning Commission meeting was adjourned at 8:12 p.m.

s/ T. Seth Koches
Seth Koches, Township Attorney

DRAFT

**MARSHALL TOWNSHIP PLANNING COMMISSION
BY-LAWS AND RULES OF PROCEDURE**

1. NAME PURPOSE

- a. The name shall be the Marshall Township Planning Commission, hereafter known as the "Commission."

2. AUTHORITY

- a. These rules of procedures are adopted by the Commission pursuant to the [Michigan Planning Enabling Act Public Act \(PA\) 33 of 2008](#) as amended, and the [Open Meetings Act \(OMA\) PA 267 of 1976](#) as amended.
- b. These Bylaws are also adopted to facilitate the duties of the Commission for administration of a zoning ordinance as outlined in the [Michigan Zoning Enabling Act PA 110 of 2006](#) as amended hereinafter "the Zoning Act."

3. MEMBERSHIP

- a. Members of the Commission (Commissioners) are appointed by the Township (Township) Supervisor and affirmed by the Township Board pursuant to the [Marshall Township Zoning Ordinance](#) as amended.
- b. First priority, each Commissioner shall represent and advocate what is best for the Township as a whole, putting aside personal or special interests.
- c. Second priority, each Commissioner shall represent a separate important segment of the community, as appointed by the Township Supervisor, and affirmed by the Township Board.
- d. One (1) Commissioner shall be a Township Board Representative.
- e. One (1) Commissioner shall be the Commission representative to the Zoning Board of Appeals.
- f. Three (3) Commissioners and one (1) Alternate shall be the Township representatives on the City of Marshall and Township Joint Planning Commission.

4. ATTENDANCE

- a. If Commissioner is absent from three (3) consecutive regularly scheduled meetings without an excusal, then that Commissioner shall be considered delinquent. The Commission Secretary shall keep attendance records and shall immediately notify the Township Supervisor whenever any Commissioner is absent from 3 consecutive regularly scheduled meetings, so the Township Supervisor can consider further action or excuse the absences. Delinquency may be grounds for the Township Board to remove a Commissioner for nonperformance of duty, or misconduct, after holding a public hearing on the matter.

5. TRAINING

- a. Each Commissioner shall have attended at least four (4) hours per year of training in planning and zoning during the Commissioner's current term of office. Failure to meet the training requirements may result in the member not being considered for reappointment to the Commission. Training may be provided by one or more of the following organizations: Michigan Association of Planning, Michigan State University Extension, Michigan Townships Association, Michigan Municipal League, continuing education programs of Michigan State University, University of Michigan, Northern Michigan University, Central Michigan University, or Wayne State University.

6. OFFICERS

- a. **SELECTION.** At the organizational meeting in January, the Commission shall select officers including a Chairperson, Vice Chairperson, Secretary and representatives to the Zoning Board of Appeals and Joint Planning Commission who shall serve for a twelve (12) month period and who shall be eligible for another term. Nominations shall be made from the floor, and the vote shall be held immediately thereafter. A Commissioner receiving a majority vote shall be selected.
- b. **DUTIES.** A Chairperson shall preside at all meetings and shall conduct all meetings in accordance with the rules provided herein. The Vice Chairperson shall act in the capacity of the Chairperson in the absence of the Chairperson and shall succeed to the office of the Chairperson in the event of a vacancy in that office, in which case the Commission shall select a Commissioner to the office of Vice Chairperson at the earliest practicable time. The Secretary shall perform such duties as the Commission may determine and shall coordinate these responsibilities with Township staff members, such as the Clerk and/or Zoning Administrator.

7. MEETINGS

- a. **MEETING NOTICES.** All meetings shall be posted at the Township Hall and posted on the Township website according to the [OMA](#). The notice shall include the reason for the meeting, the date, time, and location of the meeting.
- b. **REGULAR MEETINGS.** Regular meetings of the Commission shall be held monthly if there is business to conduct. Meetings shall be in the Township Hall on the first Tuesday of each month unless scheduled for another date.
- c. **SPECIAL MEETINGS.** A special meeting may be called by the Chairperson or by two (2) Commissioners upon written request to the Secretary. The Secretary shall send written notice of a special meeting to Commissioners not less than 48 hours in advance of the meeting.
- d. **QUORUM.** In order for the Commission to conduct business or take any official action, a quorum of Commissioners shall be present. When a quorum is not present, no official action, except for adjournment of the meeting may take place. The Commissioners may discuss matters of interest but can take no action until the next regular meeting or special meeting. All public hearings without a quorum shall be scheduled for the next regular meeting or special meeting.
- e. **PUBLIC HEARINGS.** Public hearings shall be scheduled and due notice given in accordance with Commission Bylaws, OMA, provisions of the State Acts and Ordinances of the Township.

f. ORDER OF BUSINESS. The general order of business at regular meetings shall be as follows:

- I. Call to order
- II. Roll Call
- III. Pledge of Allegiance
- IV. Approval of Agenda – Items may be added or deleted by Commission action.
- V. Public Comments on Agenda Items Only
- VI. Approval of minutes of previous meetings
- VII. Noticed Public Hearings
 1. Presentation by petitioner as necessary.
 2. Public Comment
 3. Commission discussion and action.
- VIII. Unfinished Business
 1. Commission discussion and action.
- IX. New Business
 1. Commission discussion and action.
- X. Public Comments
- XI. Zoning Administrator’s Report
- XII. Commissioner Comments
- XIII. Adjournment

g. VOTING. An affirmative vote of a majority of the Commissioners shall be required for the approval of any requested action or motion placed before the Commission. Voting shall ordinarily be by voice vote, provided however that a roll call vote shall be required if requested by any Commissioner or directed by the Chairperson. All Commissioners including the Chairperson shall vote on all matters, but the Chairperson shall vote last. Commissioners may be excused from voting only if the Commissioner has a conflict of interest as recognized by the Commission Bylaws.

h. RULES OF ORDER. All meetings of the Commission shall be conducted in accordance with generally accepted parliamentary procedure, as governed by “[Robert’s Rules of Order](#).”

i. PUBLIC COMMENT. Members of the public shall have an opportunity at Public Comment, to address the Commission for up to five (5) minutes. Minutes will not be allowed to be donated to others to increase time limitations. Only after being acknowledged by the Chairperson shall a member of the public initiate their comments. If physically able, public comment shall be from the podium and be seated when finished speaking.

Any member of the public wishing to present statements, correspondence, comments, or questions to the Commission under these provisions, shall identify themselves by name, address, and if they represent an organization. While all the comments, statements, and questions will be received by the Commission, it will be at the discretion of the Commission and Commissioners to respond or to refer items to staff for response at a later time or to the Commission’s future agenda.

j. RULES FOR CONDUCT AT MEETINGS. To promote open meetings, it is expected that all present will conduct themselves respectfully and without disruptions to the Commission’s performance of its function.

8. MINUTES

Commission minutes shall be prepared by the Secretary. The minutes shall contain a brief synopsis of public comments and Commission discussion of an item, including a complete restatement of all motions and recording of votes, complete statement of the conditions or recommendations made on any action and recording of attendance.

9. AMENDMENTS

These Bylaws and Rules of Procedure may be amended by the Commission by a majority vote at any regular meeting, provided that all Commissioners have received advanced notice of the proposed amendments by at least three (3) Township business days prior to the regular meeting at which such amendments are to be considered on the agenda.

10. CONFLICT OF INTEREST

Before casting a vote on a matter on which a Planning Commission member may reasonably be considered to have a conflict of interest, the member must disclose the potential conflict of interest to the Planning Commission. The member is disqualified from voting on a matter if a conflict of interest exists or if a majority vote of the Planning Commission members concludes that a conflict exists. Failure of a member to disclose a potential conflict of interest as required under these bylaws and Michigan law constitutes malfeasance in office. For purposes of these bylaws, a Planning Commission member has a "conflict of interest" if Michigan law otherwise requires disqualification or when:

- a. The request for which the Commission is asked to make a decision:
 1. that involves a spouse, children, step-children, grandchildren, parents, brothers, sisters, grandparents, parents-in-law, grandparents-in-law or members of their household;
 2. that involves a Commissioner who signed a non-disclosure agreement (NDA).
- b. The Commissioner has a business or financial interest in the:
 1. property involved in the request or has a potential business or financial interest in the applicant's company, organization, agency, or association;
- c. The Commissioner owns or has a financial interest in the:
 1. adjoining property. For purposes of this section, property separated only by an abutting public or private road, street or highway shall be deemed an adjoining property; or
- d. There is a reasonable appearance of a conflict of interest, as determined by a majority vote of the remaining Commissioners.

Failure of a Commissioner to disclose a potential conflict of interest shall constitute malfeasance in office and grounds for the Township Board to remove a Commissioner after holding a public hearing on the matter.

11. VACANCIES.

If a vacancy occurs on the Planning Commission during the term for reasons including, but not limited to death, disability, resignation or removal, the vacancy shall be filled for the unexpired term in the same manner as provided for an original appointment. Other than a vacancy occurring during a term, a member shall hold office until his or her successor is appointed.

12. Removal From Office

The Township Board may remove a Planning Commission member for misfeasance, malfeasance, or nonfeasance in office upon written charges and after a public hearing.

Commission Approval 1/21/19
Commission Revised TBD

From: [Paul Anderson](#)
To: "[Alec Egnatuk](#)"; "[Bob Lyng](#)"; "[David Boshears \(boshearsford@aol.com\)](#)"; "[Duane Sly \(ds1289@myyahoo.com\)](#)"; "[Joanna Johnson](#)"; "[Kevin Hoffman \(msathreesixtytransportllc@gmail.com\)](#)"; "[Steve Riggs](#)"
Subject: FW: April 2, 2024 PC Meeting
Date: Tuesday, March 26, 2024 8:03:00 PM
Attachments: [Land Use Definitions.pdf](#)

Good Evening,

I texted Seth again today and am still waiting for a response. I have to take fiduciary responsibility for the Township budget. It is not necessary to have a meeting for one item. That item is for land use in the Master Plan. I have attached Section 20 of the Marshall Township Zoning Ordinance that defines land use. I would ask that you, as a Planning Commissioner, if you have questions about the Township land use, be sent to me so I can possibly add some clarity. I will compile the questions and respond to the group.

This CAN NOT be a joint discussion as it would be a violation of the Open Meeting Act.

I would suspect that the May meeting could be a lengthy one.

An application has been made, and a site plan has been turned in for the New Fire Station. In my initial look at the application, they will have to satisfy items before I allow it to go to the Planning Commission. There must be a deposit to an escrow account, the completed environment, and a review by the Township Engineer.

In the upcoming days, I will have finished a change to the Zoning Ordinance for "ROAD ACCESS, PRIVATE ROADS AND OTHER PRIVATE MEANS OF ACCESS." It will be a rough draft for you to review and discuss at the May meeting. I want to make changes at that meeting and send the draft to the Township Attorney for review. There will be a public hearing in the June meeting. At that meeting, I will also ask the PC to change all references in the ZO to the Calhoun County Road Commission and change them to the Calhoun County Road Department.

In closing, I am asking that you keep this confidential as all the pieces of the Fire Station are incomplete, and there is a possibility they might not meet the deadline for the May meeting. I will share all the parts with you and the public as soon as they come together. It will prevent speculation.

Best Regards,

Paul Anderson

Marshall Township
Zoning Administrator

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Marshall, MI 49068
(269) 781-7976 Fax (269) 781-4403
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Email: paul@marshalltownship.org

Office Hours Mon~Wed 9 AM to 3:30 PM and closed a half an hour for lunch. All Payments can be dropped off at the dropbox in the front of the office or paid online (a 3% fee applies)

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From: Paul Anderson
Sent: Friday, March 22, 2024 6:12 PM
To: Alec Egnatuk <aegnatuk.pc@gmail.com>; Robert Lyng <Robert@marshalltownship.org>
Subject: April 2, 2024 PC Meeting

Good Evening,

I just had a text conversation with Seth. He said he would look at the By-Laws this weekend or Monday. I hope he has finished the letter of understanding for David Brown so Alec can sign it. I believe that Carl is a notary. If not, I know Sue is.

I am sure it is too early to discuss alternate energy as there are still meetings at the state level defining the requirement.

So, the reason for the email is that if by-laws are not ready, the only thing to discuss at the meeting would be the Master Plan.

I will put the PC packet together with both items on it, but if it only ends up with the Master Plan discussion, will that warrant the costs of a PC meeting?

I am also halfway through the ZO update "ROAD ACCESS, PRIVATE ROADS AND OTHER PRIVATE MEANS OF ACCESS." There should be a "rough" draft. That "rough draft" will be sent to the PC for input and discussion at a future meeting.

I will be back in Michigan for a few days Saturday through next Wednesday morning.

Paul Anderson

Marshall Township

Zoning Administrator
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Land Use Definitions

Article 20

Section 20-1 Accessory Uses

ACCESSORY USE means a use naturally and normally incidental to, subordinate to, and devoted exclusively to the principal use of the land or buildings located on the same lot.

- A. **AMATEUR RADIO SERVICE** means a federally licensed radio-communication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest particularly with respect to providing emergency communications. (As per Code of Federal Regulations, Title 47, Part 97)
1. **AMATEUR RADIO ANTENNA** means any combination of materials or equipment used exclusively for the purpose of sending and/or receiving electromagnetic waves for Amateur Radio Services.
 2. **AMATEUR RADIO ANTENNA SUPPORT STRUCTURE** means any structure, such as a mast, pole, tower or any combination thereof, whether ground or roof mounted, freestanding or guyed, used exclusively for supporting Amateur Radio Antenna(e).
 3. **GROUND MOUNTED AMATEUR RADIO ANTENNA AND/OR AMATEUR RADIO ANTENNA SUPPORT STRUCTURES** means amateur Radio Antenna and/or Amateur Radio Antenna Support Structures that are not fixed to any building or accessory structure.
 4. **ROOF MOUNTED AMATEUR RADIO ANTENNA AND/OR AMATEUR RADIO ANTENNA SUPPORT STRUCTURES** means amateur Radio Antenna and/or Amateur Radio Antenna Support Structures that are fixed to any building or accessory structure.
- B. **BANQUET BARN** means an accessory use which provides rental space in a barn or accessory building for functions such as, but not limited to: wedding parties, conferences, service club meetings and other similar gatherings, along with the catering of food services off the premises.
- C. **GARAGE AND YARD SALES** means sales event conducted on a temporary basis from a principal residential use.
- D. **HOME BASED BUSINESS** means a business operated at a dwelling that because of its nature, intensity, scope, characteristics, activities and equipment is not customary for a residential property. A home based business is operated by the occupants of the dwelling and is clearly an incidental and secondary use of the property. A hobby or activity pursued for enjoyment and not for financial gain, provided it is conducted in a manner which complies with the provisions of the zoning ordinance, is not considered a home based business.
- E. **HOME OCCUPATION** means a use which includes any activity which is clearly secondary to a residential use and carried out for economic gain. It is conducted within a dwelling, carried out by its occupants utilizing equipment typically found in a home and is not evident from the outside.
- F. **MOBILE FOOD UNIT** means a food service establishment operating from a vehicle, trailer, or watercraft which is not fully equipped for full food service.
- G. **OUTDOOR DISPLAY, SALES** means the outdoor placement, storage or keeping, for display purposes, of equipment, vehicles, trailers and other similar goods for sale on a premises.
- H. **OUTDOOR DONATION COLLECTION FACILITY** means a donation collection bin or mobile donation collection equipment located in an outdoor setting that provides the general public with the opportunity to voluntarily donate items for which no valuable consideration is given in exchange.
1. **MOBILE DONATION COLLECTION EQUIPMENT** means a mobile type of equipment placed or parked outdoors that is designed with a door, slot, or other opening that is intended to accept donated items from the public, such as clothing and other household or office goods, and store them for a temporary period of time.
 2. **DONATION COLLECTION BIN** means an unattended outdoor receptacle designed with a door, slot, or other opening that is intended to accept donated items from the public, such as clothing and other household or office goods, and store them for a temporary period of time at a semi-permanent location.

- I. **OUTDOOR STORAGE** means the outdoor placement of goods such as, building or construction materials, equipment, vehicles, trailers and other supplies, for future use, production, assembly, preservation or disposal.
- J. **OVER-THE-AIR RECEPTION DEVICE** means antennas and dish antennas designed to receive direct broadcast satellite service, including direct-to-home satellite service, to receive or transmit fixed wireless signals via satellite, receive video programming services via broadband radio service (wireless cable), receive or transmit fixed wireless signals other than via satellite, or receive local television broadcast signals.
- K. **SOLAR ENERGY COLLECTOR** means a panel or panels and/or other devices or equipment, or any combination thereof, that collect, store, distribute and/or transform solar, radiant energy into electrical, thermal or chemical energy for the purpose of generating electric power or other form of generated energy for use in or associated with a principal land use on the parcel of land on which the solar energy collector is located and, if permitted, for the sale and distribution of excess available electricity to an Authorized Public Utility For Distribution To Other Lands.
 - 1. **BUILDING-MOUNTED SOLAR ENERGY COLLECTOR** means a solar energy collector attached to the roof or wall of a building, or which serves as the roof, wall or window or other element, in whole or in part, of a building.
 - 2. **GROUND-MOUNTED SOLAR ENERGY COLLECTOR** means a solar energy collector that is not attached to and is separate from any building on the parcel of land on which the solar energy collector is located.

Section 20-2 Accommodations, Hospitality, Entertainment

- A. **BANQUET HALL** means a use which provides rental space for such functions as, but not limited to: wedding parties, conferences, service club meetings and other similar gatherings, along with the catering of food services off the premises.
- B. **BED AND BREAKFAST** means a house, or portion of a house, where short-term lodging rooms and breakfast and light snacks are provided to overnight guests and where the operator lives on the premises or in adjacent premises.
- C. **DISTILLERY, SMALL** means a facility operated by a small distiller duly licensed by the State of Michigan Liquor Control Commission (MLCC) to manufacture spirits within the limits established by the State of Michigan for a small distiller.
- D. **HOTEL/MOTEL** means a building under single management that provides rooms or suites intended primarily as sleeping accommodations for public rental on a daily basis for registered guests. Other supportive facilities may also be included such as, but not limited to, meeting rooms, incidental retail sales, restaurants, lounges, swimming pools, recreational and fitness facilities and similar facilities/services intended principally to serve registered guests.
- E. **MICRO-BREWERY** means a facility operated by a micro brewer duly licensed by the State of Michigan Liquor Control Commission (MLCC) to brew ales, beers, meads, and/or similar beverages within the limits established by the State of Michigan for a micro brewer.
- F. **RECREATION FACILITY: CAMPGROUND** means a form of lodging where guests bring tents, travel trailers, campers, or other similar forms of shelter to experience natural environments. Campgrounds rent pads or spaces to guests. May also include accessory uses such as a camp store, shower/bathroom facilities, and recreational facilities.
- G. **RECREATION FACILITY: COMMERCIAL INDOOR** means an establishment providing indoor amusement and entertainment services, often for a fee or admission charge, including, but not limited to: bowling alleys, commercial health and fitness facilities, coin-operated amusement arcades, movie theaters, electronic game arcades (video games, pinball, etc.), indoor ice skating and roller skating rinks, pool and billiard rooms as primary uses. Does not include adult-oriented businesses. May include bars and restaurants as accessory uses. Any establishment with four or more electronic games or amusement devices (e.g., pool or billiard tables, pinball machines, etc.) or a premise where 50 percent or

more of the floor area is occupied by electronic games or amusement devices is considered an indoor recreation facility; three or fewer machines or devices are not considered a use separate from the primary use of the site.

- H. **RECREATION FACILITY: COMMERCIAL OUTDOOR** means a facility for outdoor recreational activities where a fee is often charged for use. Examples include, but are not limited to, amusement and theme parks; go-cart tracks; golf driving ranges; miniature golf courses; marinas; watercraft rentals; and water parks. May also include commercial facilities customarily associated with the above outdoor commercial recreational uses, including bars and restaurants, video game arcades, etc. Marinas may include marine-related retail (bait and tackle, boat supplies), fuel sales, minor boat repair, and boat storage. This use does not include golf courses or campgrounds.
- I. **RECREATION FACILITY: GOLF COURSE** means a use consisting of regulation and par 3 golf courses having nine or more holes, and accessory facilities and uses, including driving ranges, clubhouses with bar and restaurant; locker and shower facilities; "pro shops" for on-site sales of golfing equipment and clothing; and golf cart storage facilities.
- J. **RESTAURANT** means a business establishment whose method of operation involves either the delivery of prepared food by servers to customers seated at indoor or outdoor areas, or prepared food is acquired by customers at a counter or cafeteria line and consumed at tables within a completely enclosed building, but does not include drive-through services, which are separately defined and regulated. Service of alcoholic beverages by the drink is incidental to the service of food and food receipts exceed 50 percent of sales.
1. **RESTAURANT WITH DRIVE-THROUGH** means a business establishment whose method of operation involves the delivery of prepared food to the customer in a motor vehicle, typically through a drive-through window, for consumption off the premises. A drive-through restaurant may also have indoor or outdoor seating.
 2. **RESTAURANT WITH MICRO-BREWERY OR SMALL WINERY** means a restaurant that serves and brews handcrafted beer or wine intended for retail consumption on the premises and on any premises that has a license as a standard full-service restaurant owned and operated in its entirety by the same corporate ownership and management.
 3. **RESTAURANT WITH OUTDOOR DINING** means a restaurant with seating on a sidewalk, patio, deck or other on-site outdoor location.
- K. **TAVERN** means a commercial establishment licensed to sell at retail and serve beer, wine, liquor or other alcoholic beverages for consumption on the premises and where the service of food is incidental to the sales and consumption of such beverages. Taverns include nightclubs, lounges and bars.
- L. **THEATER** means a building or part of a building use to show motion pictures or a facility used for drama, dance, musicals or other live performances.
- M. **WINERY, SMALL** means a facility operated by a small wine maker duly licensed by the State of Michigan Liquor Control Commission (MLCC) to manufacture, bottle and sell wine within the limits established by the State of Michigan for a small wine maker.

Section 20-3 Agricultural

- A. **AGRIBUSINESS** means a business and/or commercial use operated primarily for the support of agricultural needs. It may consist of products, materials, and equipment servicing and sales; storage and/or processing of agricultural products and/or animals (but not including slaughtering, rendering or tanning); veterinarian and/or technical support facilities.
- B. **AGRITOURISM** means the practice of visiting an agribusiness, horticultural, or agricultural operation, including, but not limited to, a farm, orchard, winery, greenhouse, hunting reserve, a companion animal or livestock show, for the purpose of recreation, education, or active involvement in the operation, other than as a contractor or employee of the operation.
- C. **COMMERCIAL STABLE** means a structure or land use in or on which equines are kept for sale or hire to the public. Breeding, boarding, or training equines may also be conducted.

- D. **FARM** means the land, plants, animals, buildings, structures, including ponds used for agricultural or aquacultural activities, machinery, equipment, and other appurtenances used in the commercial production of farm products.
- E. **FARMERS MARKET** means a building or structure designed or used for the seasonal sale of farm or home grown agricultural products, or agriculturally related products, directly to the consumer from a designated area.
- F. **FARM OPERATION** means the operation and management of a farm or a condition or activity that occurs at any time as necessary on a farm in connection with the commercial production, harvesting, and storage of farm products, and includes, but is not limited to:
1. Marketing produce at roadside stands or farm markets.
 2. The generation of noise, odors, dust, fumes, and other associated conditions.
 3. The operation of machinery and equipment necessary for a farm including, but not limited to, irrigation and drainage systems and pumps and on-farm grain dryers, and the movement of vehicles, machinery, equipment, and farm products and associated inputs necessary for farm operations on the roadway as authorized by the Michigan vehicle code, Act No. 300 of the Public Acts of 1949, being sections 257.1 to 257.923 of the Michigan Compiled Laws.
 4. Field preparation and ground and aerial seeding and spraying.
 5. The application of chemical fertilizers or organic materials, conditioners, liming materials, or pesticides.
 6. Use of alternative pest management techniques.
 7. The fencing, feeding, watering, sheltering, transportation, treatment, use, handling and care of farm animals.
 8. The management, storage, transport, utilization, and application of farm by-products, including manure or agricultural wastes.
 9. The conversion from a farm operation activity to other farm operation activities.
 10. The employment and use of labor.
- G. **GREENHOUSE AND NURSERY** means a retail or wholesale business whose principal activity is the display and sales of plants grown on the site within an enclosed building (greenhouse) or outdoors (nursery).
- H. **ROADSIDE STAND** means an accessory structure for the seasonal retail sale of products grown on the site only, with no space for customers within the structure itself.

Section 20-4 Industrial

- A. **MANUFACTURING, PROCESSING, AND PACKAGING – LIGHT** means a facility accommodating manufacturing processes involving less intense levels of fabrication and/or production such as the assembly, fabrication, and conversion of already processed raw materials into products, where the operational characteristics of the manufacturing processes and the materials used are unlikely to cause significant impacts on surrounding land uses or the community. The premises may include secondary retail or wholesale sales. Examples of light manufacturing uses include: artisan / craft product manufacturing; clothing and fabric product manufacturing; furniture and fixtures manufacturing, cabinet shop, media production, photo/film processing lab not accessory to a retail business, printing & publishing, food preparation and packaging, winery, brewery.
- B. **MANUFACTURING, PROCESSING, AND PACKAGING – HEAVY** means a facility accommodating manufacturing processes that involve and/or produce basic metals, building materials, chemicals, fabricated metals, paper products, machinery, textiles, and/or transportation equipment, where the intensity and/or scale of operations may cause significant impacts on surrounding land uses or the community. Examples of heavy manufacturing uses include the following: chemical product manufacturing; concrete, gypsum, and plaster product manufacturing; glass product manufacturing;

paving and roofing materials manufacturing; petroleum refining and related industries; plastics, other synthetics, and rubber product manufacturing; primary metal industries; pulp and pulp product manufacturing; textile and leather product manufacturing; food products manufacturing.

- C. **SALVAGE OR IMPOUND OPERATIONS** means any land or structure used for storing, dismantling, reconditioning, collecting, purchasing or selling of scrap metal or other discarded goods and materials, including the collection, dismantlement and salvage of two or more inoperative vehicles, boats, trucks, or other types of machinery or equipment, or the impounding of any operable or inoperable vehicle associated with towing or wrecker services.
- D. **WAREHOUSING** means facilities for the storage of furniture, household goods, or other commercial goods of any nature. May include an outdoor storage component, provided that the outdoor storage is not the primary use. Does not include mini-storage facilities offered for rent or lease to the general public (see “Mini-Warehouse/Self-Storage”) or warehouse facilities primarily used for wholesaling and distribution (see “Wholesaling and Distribution”).
- E. **WHOLESALING AND DISTRIBUTION** means an establishment engaged in selling merchandise in bulk quantities to retailers; to contractors, industrial, commercial, agricultural, institutional, or professional business users; to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.
- F. **MINI-WAREHOUSE/SELF-STORAGE** means a building or group of buildings in a controlled access and/or fenced compound that contains varying sizes of individualized, compartmentalized and controlled access rooms, stalls or lockers for the storage of customer’s goods or wares.

Section 20-5 Infrastructure, Transportation, Communications

This category encompasses land uses that provide the underlying infrastructure, utilities, and systems that allow a community to function.

- A. **AIRSTRIP** means a runway without normal airport facilities.
- B. **COMMERCIAL SOLAR ENERGY SYSTEM** means a utility-scale facility of solar energy collectors with the primary purpose of wholesale or retail sales of generated electricity. Also known as a solar farm.
- C. **ESSENTIAL SERVICE** mean the erection, construction, alteration, or maintenance by a public utility, or municipal department, of underground, surface or overhead gas, communication, telephone, electrical, steam, fuel or water, transmission, distribution collection, supply, or disposal systems. This includes related poles, wires, pipes, conduit, cables, public safety alarm and communication equipment, traffic signals, hydrants and similar accessories that are necessary to furnish adequate service, addressing general public health, safety, convenience, or welfare. These do not include wireless telecommunication towers (unless located on public property and used as part of a municipal emergency communications network); wind energy conversion systems (WECS); offices, utility buildings, substations, or structures that are enclosures or shelters for service equipment; or maintenance depots.
- D. **HELICOPTER LANDING PAD** means a designated area on a roof or on the ground used by helicopters or steep-gradient aircraft for the purpose of picking up and discharging of passengers or cargo.
- E. **INFRASTRUCTURE AND UTILITIES: REGIONAL** means utility facilities that provide County-wide or regional service. Examples include public utility substations; water towers; waste treatment plants; and electrical substations.
- F. **PARKING FACILITY, PUBLIC OR COMMERCIAL** means a public or commercial parking lot or structure providing parking either for free or for a fee. Does not include towing impound and storage facilities.
- G. **WASTE MANAGEMENT FACILITY** means a site used for collecting waste and recyclables, sorting and transferring materials.
- H. **WIND ENERGY CONVERSION SYSTEM (WECS)** means a system which converts wind energy into electricity through the use of a wind turbine generator and includes the turbine, blades, tower, and related equipment.

1. **ANEMOMETER TOWER OR MET** means temporary meteorological tower that is used for the measurement of wind speed.
2. **LARGE TURBINE OR UTILITY GRID SYSTEM** means a WECS that is designed to generate electricity from one (1) or more towers (within an array) and is intended to serve institutions, residential communities, or larger cooperatives, including public and private utility systems.
3. **SMALL TURBINE OR ON-SITE SYSTEM** means a WECS that is intended to primarily serve the needs of the customer, with a single tower, that may or may not be connected to the utility grid.

I. **WIRELESS COMMUNICATIONS**

1. **WIRELESS COMMUNICATIONS FACILITY** means the plant, equipment and property including, but not limited to, cables, wires, conduits, ducts, pedestals, antennas, electronics and other appurtenances used or to be used to transmit, receive, distribute, provide or offer wireless communications services. Wireless communication facilities shall be specifically excluded from the definition of “essential services.”
2. **WIRELESS COMMUNICATION TOWER** means any structure, such as a mast, pole, monopole, guyed tower, or lattice tower which is designed and constructed primarily for the purpose of supporting one or more antennas. Wireless communication tower shall be specifically excluded from the definition of “essential services.”

Section 20-6 Institutional/Civic

This category includes not-for-profit and for-profit recreation, education, safety, and public assembly functions that benefit the citizens of the community used or operated by government, quasi-governmental and service organizations.

- A. **COMMUNITY ORIENTED CULTURAL FACILITY** means a public or non-profit facilities that provide educational and cultural experiences for the general public, examples of which include: aquariums, arboretums, art galleries, botanical gardens, libraries, museums, planetariums, civic centers and theaters predominantly used for live performances, and zoos. May also include accessory retail uses such as a gift/book shop, restaurant, etc.
- B. **COMMUNITY PUBLIC SAFETY FACILITY** means a public safety facility operated by a public agency including fire stations, other fire preventive and fire fighting facilities, police and sheriff substations and headquarters, including interim holding facilities. May include ambulance dispatch on the same site.
- C. **GOVERNMENTAL FACILITY** means buildings, structures and facilities that may include administrative offices, public works services, libraries, museums, cemeteries, recreational centers and storage areas for public equipment and materials for local, county, state and federal public adjacencies.
- D. **MEETING FACILITY** means a facility for public or private meetings, including: community centers, meeting halls for clubs and other membership organizations, etc.
- E. **PARKS, PLAYGROUNDS, OUTDOOR RECREATION AREAS** means an outdoor recreation facility that may provide a variety of recreational opportunities including playground equipment, playing fields, outdoor tennis and basketball courts, outdoor swimming pools, boat ramps and fishing piers; and areas for passive recreation such as hiking trails, picnic areas and bird blinds.
- F. **PLACE OF WORSHIP** means a building or structure or group of buildings or structures that, by design and construction, are primarily intended for conducting organized religious worship services. Associated accessory uses include, but are not limited to, classrooms, meeting halls, indoor and outdoor recreational facilities, day care, counseling and kitchens.
- G. **RECREATION FACILITY: COMMUNITY-BASED** means a community recreation center that may include one or more of the following: gymnasium; indoor swimming pool; indoor tennis, racquetball, and/or handball courts, and other indoor sports activities. This use includes all not-for-profit organizations chartered to provide community-based recreation services. Does not include commercial health/fitness facilities, which are included under “Recreation Facility, Commercial Indoor.”

- H. **SCHOOL, COLLEGE OR UNIVERSITY** means a facility for post-secondary education that grants associates, bachelors, masters, or doctoral degrees, and may include research functions. Includes professional schools (law, medicine, etc.) and technical colleges.
- I. **SCHOOL, PUBLIC OR PRIVATE** means a public or private academic educational institution, including elementary (kindergarten through 6th grade), middle and junior high schools (7th and 8th grades), secondary and high schools (9th through 12th grades), and facilities that provide any combination of those levels. May also include any of these schools that also provide room and board.
- J. **SCHOOL, SPECIALIZED TRAINING** means small-scale facilities that provide individual and group instruction, education and/or training, including tutoring and vocational training in limited subjects, including, but not limited to: the arts, dance, photography, martial arts training, gymnastics instruction, production studios for individual musicians, painters, sculptors, photographers, and other artists, business and vocational schools, and driver education schools.

Section 20-7 Offices and Services

This category encompass activities, without outdoor storage needs, that are primarily oriented towards office and service functions.

- A. **ANIMAL SERVICES, ANIMAL CLINIC / HOSPITAL** means an establishment used by a veterinarian where animals are treated. This use may include boarding and grooming as accessory uses.
- B. **ANIMAL SERVICES, KENNEL** means a commercial facility for the boarding, breeding, and/or maintaining of animals for a fee that are not owned by the operator. This use includes pet day care facilities, animal training facilities, and may include grooming as an accessory use. This use includes the breeding of animals in outdoor structures, cages or pens for sale, but does not include animals for sale in pet shops (see "General Retail").
- C. **ANIMAL SERVICES, RESCUE OR SHELTER** means a facility that keeps four (4) or more impounded stray, homeless, abandoned, or unwanted animals.
- D. **BODY BRANDING, PIERCING AND TATTOO FACILITIES** means an establishment whose principal business is the one or more of the following: any invasive procedure in which a permanent mark is burned into or onto the skin using either temperature, mechanical or chemical means; creation of an opening in the body for the purpose of inserting jewelry or other decorations (not including ear piercing); and/or placing designs, letters, figures, symbols or other marks upon or under the skin of any person using ink or other permanent coloration.
- E. **CHILD CARE CENTER** means a facility other than a private residence in which one or more preschool or school age children are given care and supervision for periods of less than twenty 24 hours per day, and where the parents or guardians are not immediately available to the child. A child care center or day care center includes a facility that provides care for not less than two consecutive weeks, regardless of the number of hours of care per day. The facility is generally described as a child care center, day care center, day nursery, nursery school, parent cooperative preschool, play group, before- or after-school program or drop-in center.
- F. **CREMATORIUM** means a facility consisting of one or more cremator furnaces or cremation retorts for the ashes.
- G. **GENERAL OFFICES AND SERVICES**
1. **BANK/FINANCIAL SERVICES** means financial institutions, including, but not limited to: banks, credit agencies, investment companies, security and commodity exchanges, ATM facilities.
 2. **BUSINESS SERVICES** means establishments providing direct services to consumers, including, but not limited to: employment agencies, insurance agent offices, real estate offices, travel agencies, landscaping and tree removal companies, exterminators, carpet cleaners, and contractors' offices without exterior storage.

3. **BUSINESS SUPPORT SERVICES** means establishments providing services to other businesses, including, but not limited to: computer rental and repair, copying, quick printing, mailing and mailbox services.
 4. **PERSONAL SERVICES** means establishments providing non-medical services to individuals, including, but not limited to: barber and beauty shops, dry cleaners, small appliance repair, laundromats, massage therapists, pet grooming with no boarding, shoe repair shops, tanning salons and funeral homes (not including crematory services). These uses may include incidental retail sales related to the services they provide.
 5. **PROFESSIONAL AND ADMINISTRATIVE SERVICES** means office-type facilities occupied by businesses or agencies that provide professional or government services, or are engaged in the production of intellectual property.
- H. **GENERAL OFFICES & SERVICES: WITH A DRIVE THROUGH FACILITY** means facilities where services may be obtained by motorists without leaving their vehicles. Examples of drive-through services include bank teller windows and drive-up ATMs, dry cleaners, etc.
- I. **MEDICAL SERVICES**
1. **CLINIC** means facility other than a hospital where medical, mental health, surgical and other personal health services are provided on an outpatient basis. Examples of these uses include: Medical offices with five (5) or more licensed practitioners and/or medical specialties, outpatient care facilities, urgent care facilities, other allied health services. These facilities may also include incidental medical laboratories and/or pharmacies. Counseling services by other than medical doctors or psychiatrists are included under "Professional and Administrative Services."
 2. **MEDICAL OFFICE** means a facility other than a hospital where medical, dental, mental health, surgical, and/or other personal health care services are provided on an outpatient basis, and that accommodates no more than four (4) licensed primary practitioners (for example, chiropractors, medical doctors, psychiatrists, etc., other than nursing staff) within an individual office suite. A facility with five (5) or more licensed practitioners is classified under "Clinic." Counseling services by other than medical doctors or psychiatrists are included under "Professional and Administrative Services."
 3. **HOSPITAL** means an institution licensed by the State, where people, including inpatients, receive medical, surgical or psychiatric treatment and nursing care.
- J. **VEHICLE REPAIR, MAJOR** means the repair, rebuilding or reconditioning of motor vehicles or parts thereof, including collision service, painting and steam cleaning.
- K. **VEHICLE REPAIR, MINOR** means a building or premises used primarily to provide general maintenance on automobiles such as oil changes and lubrication; servicing an repair of spark plugs, batteries, pumps, belts, hoses, air filters, windshield wipers and distributors; replacement of mufflers and exhaust systems, brakes and shock absorbers; radiator cleaning and flushing; sale and installation of automobile accessories such as tires, radios and air conditioners; wheel alignment and balancing; but, excluding tire recapping or grooving or any major mechanical repairs, collision work or painting.
- L. **VEHICLE WASH** means a building or portion of a building with machine or hand- operated facilities used principally for the cleaning, washing, polishing or waxing of motor vehicles.
- M. **VEHICLE WASH, TRUCKS AND HEAVY EQUIPMENT** means a building or portion of a building with machine or hand- operated facilities used principally for the cleaning, washing, polishing or waxing of trucks and heavy equipment.

Section 20-8 Residential

A. DAY CARE

1. **DAY CARE, FAMILY DAY CARE HOME** means a private home in which one (1), but fewer than seven (7) minor children are received for care and supervision for periods of less than 24 hours a day, unattended by a parent or legal guardian, except children related to an adult member of the

family by blood, marriage or adoption. Family day care homes include a home in which care is given to an unrelated minor child for more than four (4) weeks during a calendar year.

2. **DAY CARE, GROUP DAY CARE HOME.** A private home in which more than six (6), but not more than 12 minor children are given care and supervision for periods of less than 24 hours a day, unattended by a parent or legal guardian, except children related to an adult member of the family by blood, marriage or adoption. A group day care home includes a home in which care is given to an unrelated minor child for more than four (4) weeks during a calendar year.

B. DWELLING

1. **DWELLING, ATTACHED ACCESSORY** means an attached dwelling subordinate to the principal single-family dwelling that contains an independent living area, including sleeping quarters, a bathroom, living area and kitchen facilities, but can be internally accessed through the principal dwelling. The inclusion of a secondary kitchen or kitchenette within the principal dwelling does not alone result in classification as an attached accessory dwelling unit.
2. **DWELLING, MULTI-FAMILY** means a structure containing three (3) or more dwelling units on a single lot designed for occupancy by three (3) or more families living independently of one another.
3. **DWELLING, SINGLE-FAMILY** means a freestanding dwelling unit that is physically separate from any other dwelling.
4. **DWELLING, SINGLE-FAMILY ATTACHED** means a structure containing one dwelling unit on a single lot and connected along a property line to another dwelling unit on an adjoining lot by a common wall or other integral part of the principal building such as a breezeway or carport.
5. **DWELLING, TEMPORARY** means a manufactured home or recreational vehicle that may be permitted for a limited time and that may be subject to specific requirements or restrictions.
6. **DWELLING, TEMPORARY ACCESSORY** means a manufactured home, secondary to a principal single-family dwelling, that may be permitted for a limited time and that may be subject to specific requirements or restrictions.
7. **DWELLING, TWO-FAMILY** means a structure containing two (2) dwelling units on a single lot designed for or used by two (2) families living independently of one another, may also be referred to as a duplex.

C. FOSTER CARE

1. **FOSTER CARE, ADULT FOSTER CARE FAMILY HOME** means a private residence with an approved capacity of six (6) or fewer adults, where foster care is provided 24 hours per day, five (5) or more days per week, and for two (2) or more consecutive weeks. It is licensed and regulated under the Adult Foster Care Facility Licensing Act, Act 218 of the Public Acts of 1979, MCL 400.701 et seq., as amended. The person issued the adult foster care family home license is a member of the household and an occupant of the residence.
2. **FOSTER CARE, ADULT FOSTER CARE GROUP HOME** means private residence where adults are provided with foster care 24 hours a day, five (5) or more days per week, and for two (2) or more consecutive weeks. A foster care group home with an approved capacity of at least seven (7), but not more than 12 adults is a "small group home". A group home with an approved capacity of at least 13, but not more than 20 adults is a "large group home". An adult foster care facility is licensed under the Adult Foster Care Facility Licensing Act, Act 218 of the Public Acts of 1979, MCL 400.701 et seq., as amended, and the person issued the adult foster care group home license is a member of the household and an occupant of the residence.
3. **FOSTER CARE, FOSTER FAMILY HOME** means a private home, licensed under Act 116 of the Public Acts of 1973, in which at least one (1), but not more than four (4) minor children who are not related to an adult member of the house by blood or marriage, or who are not placed in the household pursuant to the Adoption Code (Act 288 of the Public Acts of 1939, as amended), are given care and supervision 24 hours per day, four (4) or more days per week for two (2) or more

consecutive weeks, unattended by a parent or guardian. The person issued the license is a permanent resident of the home.

4. **FOSTER CARE, FOSTER FAMILY GROUP HOME** means a private home, licensed under Act 116 of the Public Acts of 1973, in which more than four (4), but fewer than seven (7) minor children, who are not related to an adult member of the house by blood or marriage, or who are not placed in the household pursuant to the Adoption Code (Act 288 of the Public Acts of 1939, as amended), are given care and supervisions 24 hours per day, four (4) or more days per week for two (2) or more consecutive weeks, unattended by a parent or guardian. The person issued the license is a permanent resident of the home.
- D. **HOUSING, INDEPENDENT AND ASSISTED LIVING** means a building or buildings containing individual dwelling units designed for and restricted to occupancy by persons of a specified age who are retired or are nearing retirement and wish to live in a community environment, but do not require nursing or medical supervision. Group dining facilities and non-medical personal care services may also be provided. Such housing does not include a nursing or convalescent home.
- E. **HOME, CONVALESCENT OR NURSING HOME** means a facility licensed as a “nursing home” by the State Department of Public Health under Article 17 of the Public Health Code, Act No. 368 of the Public Acts of Michigan of 1978 (MCL 333.2010 et seq., MSA 14.15 (20101) et seq.), as amended. A “nursing home” shall include an extended care facility, hospice and convalescent home.
- F. **MANUFACTURED HOME COMMUNITY** means a single parcel of land that contains two (2) or more manufactured homes for use as dwelling units where home sites are leased to individuals who retain customary leasehold rights.

Section 20-9 Retail

- A. **RETAIL, GENERAL (INDOOR)** means stores and shops that sell and/or rent goods and merchandise to the general public.
- B. **GENERAL RETAIL (OUTDOOR)** means a retail sales establishment operated substantially in the open air including, but not limited to: flea markets, monument sales, beach recreation rentals, and the like. Does not include “Vehicle Sales and Rental”, agricultural equipment sales and rental, plant nurseries, or roadside stands and farmers markets.
- C. **GENERAL RETAIL WITH A DRIVE THROUGH FACILITY** means stores and shops where products may be purchased by motorists without leaving their vehicles.
- D. **LIQUEFIED PETROLEUM GAS (LPG) SALES** means an establishment providing LPG dispensing and bulk containers for sale.
- E. **SERVICE STATION** means an establishment where motor vehicle fuel is dispensed for retail sale. This use may also collectively include minor vehicle repair services (see Vehicle Repair, Minor); retail sales of convenience items (see General Retail- Indoor), restaurant (see Restaurant and Restaurant with Drive-Through) and a single bay vehicle wash (see Vehicle Wash), but not overnight vehicle storage.
- F. **VEHICLE SALES AND RENTAL: AUTOMOBILES, LIGHT TRUCKS, BOATS** means a retail or wholesale establishment selling and/or renting automobiles, light trucks (less than 2-ton load capacity), vans, trailers, boats, and/or any other motorized or non-motorized vehicles (e.g. scooters, jet skis, golf carts, motorcycles) that includes outdoor display. May also include repair shops and the sales of parts and accessories incidental to vehicle dealerships. Does not include businesses dealing exclusively in selling used parts, auto wrecking and/or salvage (see “Salvage Operations”); the sale of auto parts/accessories separate from a vehicle dealership (see “General Retail”); or service stations (see “Service Stations”).
- G. **VEHICLE SALES AND RENTAL: HEAVY EQUIPMENT, HEAVY TRUCKS, RVS, MANUFACTURED HOMES** means a retail or wholesale establishment selling and/or renting heavy equipment and/or trucks, RVs, or mobile homes. May also include accessory repair shops.

Section 20-10 Other

- A. **SEXUALLY ORIENTED BUSINESS** means an “adult book store or adult video store,” and “adult cabaret,” an “adult motion picture theater,” a “semi-nude model studio,” or a “sexual device shop,” as each term is defined in the Township’s Sexually Oriented Business Licensing Ordinance.
- B. **TEMPORARY OFFICE**
1. **CONSTRUCTION OFFICE** means an office, typically mobile, established at a permitted construction site to accommodate personnel. A location for outdoor storage of materials and equipment is commonly associated with the use.
 2. **TEMPORARY SALES OFFICE** means an office, either mobile or located in a model home, used to accommodate real estate agents and associated administrative staff for the purposes of selling or renting real property in subdivisions or other housing developments.



Site Plan Review

I. Application

A. PROPERTY AND PROJECT INFORMATION

Property Address 13550 15 Mile Road, Marshall, MI 49068
 Parcel Number 16-272-003-00; and 16-273-009-01 Zoning District B-2, Highway Commercial
 Lot Size Frontage: ~334' ft Depth: ~265' ft Area: 1.75/76,339 Acres/Sq Ft Rectangle Irregular
 Current use of property Tire City Tire Pros - Tire shop
 Proposed use of property Marshall Fire Station #1
 Number of existing parking spaces on site Approx. 10-20 spaces

Will the proposed use include any of the following activities? (Check all that apply)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Construction of a new building | <input type="checkbox"/> Increase in residential density |
| <input type="checkbox"/> Expansion of an existing building | <input checked="" type="checkbox"/> Construction/expansion of new parking area |
| <input type="checkbox"/> New/expanded use within an existing building | <input type="checkbox"/> Construction of an accessory building |
| <input checked="" type="checkbox"/> Demolition of an existing building | <input type="checkbox"/> Other _____ |

B. Applicant Information

Applicant

Identify the person or organization responsible for the application:

Name James Durian Title Chief Executive Officer
 Organization Marshall Area Economic Development Alliance (MAEDA) Cell Phone 269.781.5163
 Mailing Address 323 West Michigan Avenue Business Phone _____
 City Marshall State MI Zip 49068 E-Mail james@choosemarshall.com

The applicant must have a legal interest in the subject property:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Property Owner | <input type="checkbox"/> Purchaser by Option or Purchase Agreement |
| <input type="checkbox"/> Purchaser by Land Contract | <input type="checkbox"/> Lessee/Tenant |

Property Owner Check here if Applicant is also Property Owner

Identify the person or organization that owns the subject property:

Name _____ Title _____
 Organization _____ Cell Phone _____
 Mailing Address _____ Business Phone _____
 City _____ State ____ Zip ____ E-Mail _____

C. REQUIRED APPLICATION ATTACHMENTS

- 1. **Description of Project** (Use letterhead if possible.)
Written description of the proposed site and/or building layout, building and structure design information, floor plans, parking calculations, current environmental conditions, and other pertinent information.
- 2. **Site Plans, Building Elevations and Floor Plans**
Enclose site plans, building elevations and floor plans required on the Site Plan Review Checklist.

D. REQUEST AND AFFIDAVIT

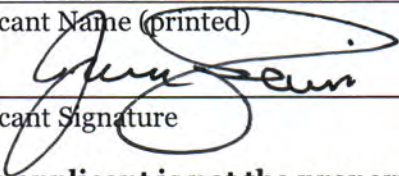
The applicant must read the following statement carefully and sign below:

The undersigned requests that Marshall Township review this application and related required documents and site plans as provided in Article 12 of the Marshall Township. The applicant further affirms and acknowledges the following:

- That the applicant has legal interest in the property described in this application.
- That the answers and statements contained in this application and enclosures are in all respects true and correct to the best of his, her or their knowledge.
- That the approval of this application does not relieve the undersigned from compliance with all other provisions of the Zoning Ordinance or other codes or statutes, and does not constitute the granting of a variance.
- That the applicant will comply with any and all conditions imposed in granting approval of this application
- If also the owner, the applicant grants Marshall Township staff and the Planning Commission the right to access the subject property for the sole purpose of evaluating the application.

James Durian

Applicant Name (printed)



Applicant Signature

3-6-24

Date

If the applicant is not the property owner, the property owner must read and sign below:

The undersigned affirms and acknowledges that he, she, or they are the owner(s) of the property described in this application, and:

- Is/are aware of the contents of this application and related enclosures.
- Authorizes the applicant to submit this application and represent the undersigned in the matter being reviewed by Marshall Township.
- Grants Marshall Township staff and the Planning Commission the right to access the subject property for the sole purpose of evaluating the application.

Property Owner Name (printed)

Property Owner Signature

Date

Deadline 21 days prior to scheduled meeting.

Pre-Application Meeting Prior to submitting a formal application, a landowner or project applicant is encouraged schedule a pre-application meeting with the Zoning Administrator. A site development sketch plan shall be provided for review during this meeting. The purpose of this meeting will be to discuss the proposed development project as it relates to the zoning requirements and review standards. Additionally, the Zoning Administrator shall outline the site plan review and approval process.

Submittal

1. Content. The applicant shall submit a site plan application along with fees and all materials required as part of the site plan.
2. Deadline. All materials shall be submitted to the Zoning Administrator by the deadline for Planning Commission consideration, a schedule of meeting dates and deadlines published annually.
3. Copies. Three (3) copies of full size, sealed prints and an electronic version of the file (PDF) that can be printed in smaller formats are required at the initial submittal deadline. A final set of up to 12 full sized, sealed prints and an electronic version are required at a secondary deadline.

Review The Zoning Administrator and all applicable reviewing authorities, including but not limited to the township's attorney, planner, engineer, fire marshal and building official, shall review the application and associated materials and the Zoning Administrator shall prepare final report for Planning Commission's review. The staff report and application materials shall be distributed to the Planning Commission prior to the meeting.

Planning Commission Action The Planning Commission shall review the application against the requirements of this ordinance, the review standards of this article, and the review standards for special land use permits, if applicable. Except for condominium projects, the Planning Commission shall table, deny, approve or approve with conditions, all plans received. The Planning Commission shall provide recommendations on condominium developments.

Township Board Action If applicable the township board shall review condominium developments against the requirements of this ordinance, the review standards of this article if applicable. The Township Board shall table, deny, approve or approve with conditions, all condominium plans received.

Required Content Site plans shall be professionally prepared by a licensed engineer. If approved by the Zoning Administrator, site plans may be prepared by a professional architect, surveyor, or landscape architect. Section 12-8 D.

1. Information

- Name and firm address of the professional individual responsible for preparing site plan and professional seal.
- Name and address of the property owner or petitioner.
- Scale, north arrow and date.
- Acreage, gross and net.
- Zoning of adjacent properties.
- Legal property description.

2. Existing Conditions

- Boundary survey lines and required setbacks.
- Location sketch showing site, adjacent streets, and properties within 200 feet
- Location, width and purpose of all existing easements.
- Abutting street right-of-way and width.
- Topography with contour intervals of no more than two (2) feet.

3. Site Planning

- Proposed buildings, structures, fences, light poles, driveways, parking lots, landscaped areas, and other physical infrastructure, as applicable.
- Recreation areas, common use areas, dedicated open space, and areas to be conveyed for public use.
- Layout and typical dimensions of proposed parcels and lots, of applicable.
- Parking calculations.
- Landscape and lighting plans.
- Proposed landscape materials, location, size, type, and calculations.
- Photometric plan.

1. Infrastructure and Site Development

- Water, sewer, well, and septic, as applicable. Connections to existing lines, as applicable.
- Location, connections, and spacing of fire hydrants.
- Location and type of all proposed surface water drainage and stormwater facilities.
- Grading plan at no more than two (2) foot contour intervals.
- Proposed streets, parking areas, and driveways, including cross-sections with pavement width, materials, and easement or right-of-way dimensions, as applicable.

5. Building Details

- Exterior elevations, showing building height and describing building materials.
- Gross and usable floor area and floor plans.

6. Supplemental Information

- Project description and brief narrative description of the project including proposed use, existing floor area (square feet), size of proposed expansion (square feet), and any change in the number of parking spaces.
- Any other information required by the Zoning Administrator or Planning Commission to demonstrate compliance with other applicable provisions of this ordinance.

Approval of the site plan shall be granted only if the site plan meets all applicable requirements set forth in this ordinance (Section 12-9). Unless a more specific design standard is provided for in this ordinance, all uses, sites and structures subject to plan review shall comply with the following standards:

Standard #1 Master Plan Proposed uses and development activity shall be substantially consistent with the Marshall Township Master Plan.

Standard #2 Connectivity Pathways for bicycles and pedestrians shall be incorporated throughout the development and along all perimeter streets to ensure connectivity between uses and with adjacent properties.

Standard #3 Traffic Circulation The number, location, size of access and entry points, and internal vehicular and pedestrian circulation routes shall be designed to promote safe and efficient access to and from the site, and circulation within the site. In reviewing traffic features, the number, spacing, and alignment of existing and proposed access points shall be considered relative to their impact on traffic movement on abutting streets and adjacent properties.

Standard #4 Interior Street Connectivity Public or private streets may be required to be extended to exterior lot lines to allow connection to existing or planned streets on adjacent parcels, to provide for secondary access, continuity of the circulation system and to reduce traffic and impact to the transportation network.

Standard #5 Natural Resource Protection

- a. Natural Features. Site design shall prioritize the preservation of natural features, such as steeper slopes, wetlands, significant hardwood tree stands, streams and other significant site characteristics. Applicants must demonstrate how alternatives were considered during the planning process.
- b. Connections. If the development site contains high quality natural areas that connect to other off-site areas of a similar nature, the development plan shall preserve such connections. Such connections shall be maintained to allow for the continuance of existing wildlife movement between natural areas and to enhance the opportunity for the establishment of new connections between areas for the movement of wildlife. Breaks or gaps in wildlife movement corridors should be minimized and when possible re-established using appropriate native vegetation.
- c. Surface Water Features. If the development site contains a lake, pond or stream, the development plan shall include such enhancements and restoration as are necessary to provide wildlife habitat and improve aesthetic quality in areas of shoreline transition and areas subject to wave or streambank erosion. The development plan shall also include a design that requires uniform and ecologically and aesthetically compatible treatment among the lots or tracts surrounding a lake, reservoir, pond or stream with regard to the establishment of erosion control protection and shoreline landscaping on or adjacent to such lots or tracts.
- d. Site Disturbance. Site disturbance shall be minimized and shall be demonstrated by the applicant in the following manner:
 - I. Identify minimal disturbance areas and no disturbance areas on site plan and construction drawings. Minimal and no disturbance areas must be protected by having the limits delineated, flagged and fenced in the field. Notes to this effect must be included on construction drawings. Areas to prioritize include significant stands of mature trees, notable wildlife habitat, sensitive or

protected plant life or natural features, significant viewsheds, and other resources deemed by the township, county, state, or federal government as unique, significant, and/or protected.

- II. No disturbance areas must not be subject to grading or movement of existing soils. Existing vegetation must be present in a healthy condition. Invasive vegetation may be removed.
- III. Minimal disturbance areas must not be subject to excessive equipment movement. Vehicle traffic and storage of equipment and/or materials is not permitted.
- IV. Pruning or other required maintenance of vegetation is permitted. Additional planting with site appropriate plants, including turf grass is permitted.
- V. No work shall occur until protective fencing is set up and until a pre-clearing inspection and/or written township approval is provided.

Standard #6 Natural Flow Pathways Natural flow pathways shall be avoided to the maximum extent practical. The applicant shall demonstrate the following:

- a. Identify all existing natural flow pathways on site plan. Site plans must include existing topography and natural features so that these areas can be identified.
- b. Natural flow pathways to be protected must have the limits delineated/flagged/ fenced in the field. Notes to this effect must be included on construction drawings.

Standard #7 Stormwater Stormwater detention and drainage systems shall be designed so the removal of surface waters will not adversely affect neighboring properties or public stormwater drainage systems and shall mimic predevelopment conditions. H. Landscaping. The landscape shall be preserved in its natural state, insofar as practicable, by minimizing unnecessary tree and soil removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas. Provision or preservation of landscaping may be required to ensure that the proposed uses will be adequately buffered from one another and from surrounding property.

Standard #8 On-Site Treatment Land use intensity shall be scaled appropriately based on the capability of on-site systems to adequately accommodate usage. On-site treatment systems shall be designed to protect groundwater and surface water quality to the maximum extent possible.

Standard #9 Utility Service All utility service shall be underground, unless impractical.

Standard #10 Exterior Uses Exposed storage areas, machinery, heating and cooling units, service areas, loading areas, utility buildings and structures, and similar accessory areas shall be located to have a minimum negative effect on adjacent properties, and shall be screened, if reasonably necessary, to ensure compatibility with surrounding properties.

Standard #11 Emergency Access All buildings and structures shall be readily accessible to emergency vehicles. Prior to approval or as a condition of approval, building layouts, internal circulation and other site characteristics that affect life safety shall be reviewed and approved by the appropriate public safety official or fire marshal.

Standard #12 Water and Sewer Water and sewer installations shall comply with all township, county and state specifications and requirements.

Standard #13 Building Design To the maximum extent reasonable, new or substantially remodeled buildings shall be reasonably compatible in appearance with, or shall enhance, the established general character of other buildings in the immediate vicinity or development.



3301 Tech Circle Drive
Kalamazoo, MI 49008-5611

T (269) 323-3555

www.sme-usa.com

May 3, 2024

Mr. Paul Anderson
Zoning Administrator
Marshall Township
13551 Myron Avery Dr.
Marshall, Michigan 49068

Via E-Mail: paul@marshalltownship.org

RE: Project Narrative
Proposed Marshall Township Fire Station
13550 15 Mile Road
Marshall, Michigan 49068

The Marshall Area Economic Development Alliance (MAEDA) is proposing to build Marshall Township a new fire station. The area being considered for the new fire station is located on 15 Mile Road, opposite of the existing Town Hall, at address 13550 15 Mile Road. The area consists of two adjacent parcels, 16-272-003-00 and 16-273-009-01. The two parcels are occupied by an existing building that was previously used as an automotive repair shop. The building is surrounded by existing pavements and maintained grass lawn areas.

OVERALL PROJECT DESCRIPTION

The proposed fire station building is currently planned to measure about 60 feet by 160 feet, and will be a pre-engineered, "post-frame" structure, to be designed and constructed by Morton Buildings, Inc. The building will consist of two major parts, a garage area for fire equipment, and a common area for staff members consisting of restrooms, offices and other varying spaces. The proposed site layout plans consist of two entrances along 15 Mile Road and one connection to the north along M-96, which will provide thru access for fire equipment. Twelve parking spaces have been provided on site based on preliminary architectural plans. Parking is proposed adjacent to the building with sidewalks for pedestrian building access. The proposed building will utilize a proposed on-site wastewater treatment system with on-site septic tanks and septic field. Stormwater management will be provided using underground storm sewer, surface sheet drainage, and a proposed stormwater retention pond. These have been preliminarily designed based on the proposed site area and building floor plans. The systems have currently been designed to maintain stormwater runoff and sanitary wastewater on-site as limited existing utilities are available. The proposed site will utilize an on-site well for water supply. Connection to a public sanitary sewer system and watermain may be considered at future date as a public utility systems are developed in the future. Prior to a building permit being issued, the two parcels will be combined into a single parcel.

DESIGN CONSIDERATIONS

PARKING

Per the township ordinance, one parking stall is required per 300 square feet of usable building area. This would equate to twelve parking stalls based on 3,600 square feet of usable building space (excluding the garage bay area). The current site plan design calls for twelve parking spaces. This determination was made based on the anticipated use of the proposed fire station, the ordinance, and approval from the Marshall Township Fire Chief.

STORMWATER

Stormwater calculations are provided on sheet C-700. The site has been preliminarily designed to allow the stormwater to travel across the site to the retention basin located in the Southeast corner through a storm sewer system located on the West side of the proposed building and within swales located on the East and South side of the proposed building. The retention basin has been sized based on the proposed site area and has the capacity to hold a 100-year storm event. If a storm event occurs greater than the designed 100-year event, stormwater will overflow through a controlled spillway consisting of rip-rap on the south side of the retention basin out letting excess stormwater to the South and Southeast per existing drainage patterns.

SANITARY

A sanitary septic system is proposed within the greenbelt on the east side of the project site. The proposed septic system shall be approved by the Calhoun County Health Department. The septic system is based on design criteria contained within the Onsite Wastewater Treatment Manual, MDEQ - Michigan Criteria for On-site Wastewater Treatment, and Calhoun County Sanitation Code.

LIGHTING

Exterior lighting is proposed as depicted on Sheet E-004. The Township ordinance requires lumens not exceed 1.0 at the property line, 2.0 at the road right-of-way, and 10.0 anywhere on the property. The current plan sheets depict a design where luminaires exceed 2.0 along the east side of the 15 Mile Road right-of-way. The primary reason for this exceedance being the location of the right-of-way not being centered on the roadway centerline. The eastern right-of-way of 15 Mile Road as monumented is approximately 45 feet east of the centerline of the current roadway alignment. This resulted in four proposed light poles being located within the road right-of-way. After discussion with the township's engineer, it was requested any light poles within the monumented roadway right-of-way be moved to either outside of the right-of-way or eliminated altogether. SME is currently in the process of revising the lighting plan to depict the changes shown on the provided plan set. This revised design will eliminate any light poles within the monumented road right-of-way, and ensure luminaires do not exceed 2.0 at the road right-of-ways.

LANDSCAPING

Proposed landscaping is shown on Sheet L-100. Per the township ordinance, for every 100 linear feet of road frontage along the right-of-way line, requirements 10-4-B-1 and 10-4-B-2 must be followed. The proposed property will have right-of-way frontage along the north, west, and south sides totaling just over 800 linear feet. This results in the requirement that a minimum of 40 trees and 48 bushes be placed along these three sides of the property. Within minimal space along the western side of the property due to the roadway right-of-way issues discussed above, it was determined, with input from the township engineer, that these trees could be placed around the north, east, and south sides of the property following the spacing requirements within the ordinance.

ADDITIONAL EVALUATIONS

ENVIRONMENTAL DUE DILIGENCE

Prior to purchasing the 13550 15 Mile Road parcel (the Site), MAEDA completed their required due diligence. This included a Phase I Environmental Site Assessment (ESA). The Phase I ESA identified the following recognized environmental conditions (RECs) based on the historical uses of the Site:

- The known presence of arsenic, cadmium, cobalt, copper, iron, molybdenum, nickel, selenium, silver, vanadium and zinc in soil and/or groundwater at concentrations exceeding applicable Part 201 generic residential cleanup criteria.
- The potential for the release of contaminants associated with the former machine shop and plating works.

SME then completed a Phase II ESA at the Site to evaluate potential impact associated with the RECs. Based on the results of the Phase II ESA, arsenic, cobalt, copper, iron, selenium, and zinc were measured in soil samples at concentrations above the Michigan Part 201 Generic Residential Cleanup Criteria. Specifically, the metals are present in soil at concentrations above drinking water protection and groundwater surface water interface protection criteria. In addition, arsenic is present at concentrations above the residential direct contact criterion; the arsenic concentrations are below the nonresidential direct contact criterion. Based on these results, the Site is a “facility” as defined by Part 201, and according to Part 201, a new owner can complete a Baseline Environmental Assessment (BEA) to receive liability protection from the impact existing at a site at the time of purchase. SME completed a BEA Report dated June 29, 2023 (SME Project No. 091884.00) for the Site on behalf of MAEDA and submitted it to EGLE as required by Part 201.

Based on the results of the Phase II ESA, the known soil impact does not pose an exposure risk for construction/redevelopment activities on the Site or future use as the Site as fire station (nonresidential use). If additional signs of impact are observed during construction activities, they would need to be evaluated/assessed and MAEDA would support this additional work. If an onsite drinking water well will be installed on the Site, additional assessment could be completed to evaluate if the soil impact could leach to groundwater and/or, once installed, the water well could be tested to verify that metals are not present in the water. MAEDA is currently in discussions with the Calhoun County Health Department on what additional testing or information would need to be provided in order for a well permit to be issued.

HAZARDOUS MATERIALS ASSESSMENT REPORT

SME completed a Hazardous Materials Assessment Report dated February 9, 2024 (SME Project No. 095143.00) of the current structure that occupies 13550 15 Mile Road. The building was assessed for the presence of asbestos containing materials and potential lead-bearing and cadmium-bearing paints.

GEOTECHNICAL EVALUATION REPORT

SME completed a Geotechnical Evaluation Report dated February 8, 2024 (SME Project No. 094551.01) for the project. The report contained geotechnical recommendations related to the design and construction of the proposed fire station. The report also included the results of infiltration tests that were used to design the on-site stormwater basins.

PERMITTING

The following permits will be obtained as part of the overall project.

- A soil erosion and sediment control (SESC) will be obtained from the Calhoun County Road Department.
- Well and septic permits will be obtained from the Calhoun County Health Department.
- A Building permit will be obtained from Marshall Township.
- Driveway permits will be obtained from MDOT (M-96) and the Calhoun County Road Department (15 Mile).

SIGNATURES

If you have any questions, please do not hesitate to contact us.

Sincerely,

SME

PREPARED BY:



Aaron J. Reed, PE
Senior Consultant

REVIEWED BY:



Jayson W. Graves, PE
Senior Consultant

Attachments: Marshall Township Fire Station No. 1 Plan Set dated May 3, 2024
(SME Project No. 094551.00)
Baseline Environmental Assessment Report dated June 29, 2023
(SME Project No. 091884.00)
Hazardous Materials Assessment Report dated February 9, 2024
(SME Project No. 095143.00)
Geotechnical Evaluation Report dated February 8, 2024
(SME Project No. 094551.01)



May 3, 2024
1316

Via Email: paul@marshalltownship.org

Mr. Paul Anderson, Zoning Administrator
Marshall Township
13551 Myron Avery Drive
Marshall, MI 49068

RE: MAEDA – Marshall Township Fire Station No. 1 Site Plan Review
Marshall Township, Calhoun County, Michigan

Dear Paul:

We have reviewed the plans dated May 3, 2024 submitted by MAEDA for the proposed new fire station for Marshall Township on the corner of 15 Mile Road and M-96 in Marshall Township. We have reviewed this application for civil engineering related items only, and we provide the following comments for the consideration of the Applicant and the Planning Commission:

1. We recommend the site plan be reviewed and approved by the Marshall Township Fire Department.
2. A right-of-way permit shall be obtained from the Calhoun County Road Commission for any work in the 15 Mile Road right-of-way prior to construction.
3. A right-of-way permit shall be obtained from the Michigan Department of Transportation for any work in the M-96 right-of-way prior to construction.
4. A soil erosion and sedimentation control permit shall be obtained from Calhoun County prior to construction.
5. A well and septic permit shall be obtained from Calhoun County Health Department prior to construction.
6. Lighting. The Marshall Township Zoning Ordinance requires a maximum of 10.0 foot candles anywhere onsite, 2.0 foot candles at the road right-of-way, and 1.0 foot candle at property lines shared with a non-residential use. This standard is met on the east, north, and south property lines. The applicant has communicated to us that the planned light poles that show up on many plan pages on the west side are to be deleted or moved as shown on L-004. We request a revision of the plans once these poles are deleted and an updated photometric plan reflecting these changes. However, with the notes supplied on

Mr. Paul Anderson

May 3, 2024

Page 2

page L-004 the plan does meet Marshall Township standards. We also reviewed the light pole height which is planned to be 17' which will be of sufficient height to not conflict with fire department truck heights.

7. The parking lot on the westerly side of the project goes over the 15 Mile Road monumented right-of-way. However, this layout of building and parking is an improvement from the existing conditions of the current building and parking lot. This is a unique condition in that the road is not centered in the right-of-way. The planning commission should review the drive aisle across from the 7 parking spaces on the west side of the building to verify if this is acceptable.
8. Landscaping has been shown around the perimeter of the property and does meet the ordinance requirements. Additionally, one interior parking lot island is required and due to the proposed storm sewer, the tree required for that area has been proposed in the southeast corner of the building which is acceptable.
9. We reviewed the grading of the site on page C600 and find it to be satisfactory.
10. We reviewed the storm calculations for the site and they have designed the pond to a 100 year storm. These calculations were also conservative in that they did not incorporate the infiltration rate into the calculations that were observed in the geotechnical report. These calculations exceed industry standards and are acceptable.
11. Parking. The narrative supplies the description of the rationale used to establish the 12 proposed parking spaces. We agree that this is in alignment with the requirements of the ordinance.
12. All demolition of commercial buildings requires an asbestos survey prior to demolition. This survey was conducted and copy of the report was supplied. No asbestos was found in the existing building.

Thank you for the opportunity to review these plans on behalf of Marshall Township. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,
VK Civil



Dan Lewis, P.E.

PROPERTY TRANSFER AND CONSTRUCTION AGREEMENT

This Property Transfer and Construction Agreement (the "Agreement") is entered into on April 2, 2024 (the "Effective Date"), by and between **Marshall Township**, a Michigan governmental unit, of 13551 Myron Avery Drive, Marshall, Michigan 49068, ("Township") and the **Marshall Area Economic Development Alliance**, of 323 West Michigan Avenue, Marshall, Michigan 49068 ("MAEDA"), on the terms and conditions set forth below.

RECITALS:

A. **Township Property.** Township is the owner of a parcel of real property located in Marshall Township, Calhoun County, Michigan, commonly known as 13661 15 Mile Road, Marshall, Michigan 49068 and as depicted on Sheet 1 of Exhibit A (the "Township Old Property"). To support the realignment of M-96 and the location of sewer and other infrastructure to support the BlueOval Battery Park Project and the adjoining Marshall Area Jobs, Opportunity, and Recreation ("MAJOR") campus, MAEDA wishes to purchase a portion of the Township Old Property, depicted as the "New MAEDA Parcel .65 acres", on Sheet 2 of Exhibit A, together with all improvements, easements, rights, hereditaments and appurtenances (collectively, the "MAEDA New Premises").

B. **MAEDA's Property.** MAEDA is the owner of a parcel of real property located in Marshall Township, Calhoun County, Michigan, commonly known as 13550 15 Mile Road, Marshall, Michigan 49068 and as depicted on Sheet 1 on Exhibit B (the "MAEDA Old Property"). To support the realignment of M-96 and the location of sewer and other infrastructure to support the BlueOval Battery Park Project and the adjoining MAJOR campus, MAEDA wishes to sell a portion of the MAEDA Old Property to Township as depicted as "Proposed Parcel 1.75 acres" on Sheet 2 of Exhibit B, together with all improvements, easements, rights, hereditaments and appurtenances and excluding any personal property (the "New Fire Station Premises").

AGREEMENT:

NOW, THEREFORE, in consideration of the mutual covenants, promises and agreements contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which is acknowledged, Township and MAEDA agree as follows:

1. **Purchase and Sale of MAEDA New Premises.** Township agrees to sell to MAEDA, and MAEDA agrees to purchase from Township, the MAEDA New Premises, upon the terms and conditions set forth in this Agreement.

2. **Purchase Price of MAEDA New Premises.** The purchase price for the MAEDA New Premises shall be Three Million and 00/100 Dollars (\$3,000,000.00) (the "MAEDA New Premises Purchase Price").

3. **Diligence of New MAEDA Premises.**

a. **Title and Survey Review.**

(i) Within ten (10) business days after the Effective Date, MAEDA will, at MAEDA's cost and expense, obtain a commitment for an owner's policy of title insurance (the "MAEDA New Premises Title Commitment") issued by Chicago Title (the "Title Company") with respect to the MAEDA New Premises, together with copies of all instruments described in Schedule B of the MAEDA New Premises Title Commitment, in the amount of the MAEDA New Premises Purchase Price and bearing a date later than the date of this Agreement. At the Closing, MAEDA shall cause the Title Company to issue a marked-up MAEDA New Premises Title Commitment or proforma for an ALTA Owner's Policy of Title Insurance without the standard exceptions (except for the survey exception), provided, however, that MAEDA may provide the Title Company with a current ALTA survey certified to the Title Company and otherwise acceptable to the Title Company for removal of the survey exception. Any endorsements requested by MAEDA to the owner's policy of title insurance will be paid by MAEDA at its sole cost and expense.

(ii) Prior to expiration of the Due Diligence Period (as defined herein), MAEDA will review and may make written objections ("MAEDA Objections") to the form and contents of the MAEDA New Premises Title Commitment and the ALTA survey. MAEDA's failure to make MAEDA Objections within such time period will constitute a waiver of all title and survey matters. Any matter shown on such MAEDA New Premises Title Commitment or ALTA survey and not objected to by MAEDA or waived by MAEDA shall be deemed to be a MAEDA Permitted Exception. Township will have fourteen (14) business days after receipt of the MAEDA Objections (the "Township Cure Period") to cure such MAEDA Objections. If the MAEDA Objections are not cured within such period, MAEDA will have the option to do any of the following:

1. Immediately terminate this Agreement; or
2. Waive the objection and proceed to Closing.

b. MAEDA shall notify Township of its election with respect to Section 3.a.(ii)1 or 3.a.(ii)2 above no later than five (5) business days following the expiration of the Township Cure Period. MAEDA's failure to notify Township of such election within the foregoing five (5) business day period shall be deemed MAEDA's election to waive the MAEDA Objections pursuant to Section 3.a.(ii)2 above and proceed to Closing.

c. The MAEDA New Premises shall be sold and conveyed by Township to MAEDA, subject to the following matters (collectively hereinafter referred to as the "MAEDA Permitted Exceptions"): those liens, encumbrances, easements and other matters which are not objected to by MAEDA or are waived by MAEDA in accordance with

Section 3 above or any additional exceptions added by the Title Company after the delivery of the MAEDA New Premises Title Commitment to MAEDA that are approved by MAEDA in its reasonable discretion.

d. **Environmental Review and Diligence.** MAEDA will have until 5:00 p.m. Eastern Time on the date that is forty-five (45) days after the Effective Date (the "Due Diligence Period") to complete its due diligence inspection of the MAEDA New Premises, to enter upon the MAEDA New Premises to undertake, at MAEDA's cost and expense, structural and engineering inspections of the MAEDA New Premises to satisfy itself that it wishes to proceed with the purchase of the MAEDA New Premises, subject to and upon the terms and conditions set forth in this Agreement. MAEDA and its agents and representatives shall be permitted to make a complete investigation and physical inspection of the MAEDA New Premises, including without limitation, (i) obtaining an appraisal, (ii) soil testing, (iii) testing for any material defined as a hazardous substance under the Comprehensive and Recovery Act, or any laws, statutes, codes, acts, ordinances, orders, judgments, decrees, injunctions, rules, regulations, permits, licenses, authorizations, directions and requirements of all governmental authorities regulating the storage, dumping or other disposition of hazardous material, as any of those laws may have been amended to the date hereof, and the administrative regulations promulgated thereunder prior to the date hereof, (iv) determining whether existing sewer lines and other utilities are of sufficient size for the operation of MAEDA's business, and (v) conducting engineering studies, building inspections, and such other investigations as MAEDA desires. MAEDA agrees to repair any damages to the MAEDA New Premises caused by the testing and inspection and to indemnify and hold Township harmless from any claim, cost or expense arising from any such entry by MAEDA on the MAEDA New Premises. MAEDA shall have the option, in its sole discretion, to extend the Due Diligence Period an additional thirty (30) business days to complete a Phase II investigation upon written notice to Township.

e. **Access.** As of the Effective Date and until the Closing or the earlier termination of this Agreement, MAEDA and its respective employees, agents, contractors, and invitees, along with representatives of MDOT shall have reasonable access, with prior written notice to Township, to the MAEDA New Premises for the purpose of inspecting and evaluating the MAEDA New Premises and performing any activities related to future road or utility planning, including access to directionally bore under the existing fire barn structure on the MAEDA New Premises for placement of sewer and other infrastructure. While MAEDA or its employees, agents, contractors, or invitees are on the MAEDA New Premises, (a) they shall not unreasonably interfere with any use of the MAEDA New Premises or the Township Old Property by Township; (b) Township shall not be liable for any damage, loss, or injury caused by MAEDA, its employees, agents, contractors or invitees; and (c) MAEDA shall indemnify, defend, protect and hold Township harmless from any and all claims, suits, damages, loss, or injury to person or property, including, without limitation, costs and expenses of investigating, defending, and settling or litigating any claim, including reasonable attorney fees, arising out of the presence or activities of MAEDA, its employees, agents, contractors or invitees on the MAEDA New Premises or the Township Old Property before the date of Closing. On completion of all such

inspections and evaluations, MAEDA shall return the MAEDA New Premises to its prior condition, not including any directional boring under the MAEDA New Premises.

f. **Termination Right.** If MAEDA determines that MAEDA does not desire to proceed with the purchase of the MAEDA New Premises for any reason or no reason at all, then MAEDA will have the right to cancel and terminate this Agreement by notifying Township in writing on or before expiration of the Due Diligence Period in which event, the Title Company will promptly deliver the Deposit to MAEDA and neither party to this Agreement will thereafter have any further liability, obligation or responsibility to the other under this Agreement, except as otherwise provided under this Agreement. In the event that MAEDA terminates this Agreement after boring occurs, MAEDA, at its sole cost and expense shall abandon in place [plug and seal] the sewer and/or water infrastructure that was installed in the New MAEDA Premises.

4. **Purchase and Sale of New Fire Station Premises.** MAEDA agrees to sell to Township, and Township agrees to purchase from MAEDA, the New Fire Station Premises, upon the terms and conditions set forth in this Agreement.

5. **Purchase Price of New Fire Station Premises.** The purchase price for the New Fire Station Premises shall be One and 00/100 Dollar (\$1.00) (the "New Fire Station Premises Purchase Price").

6. **Diligence of New Fire Station Premises.**

a. **Title and Survey Review.**

(i) Within ten (10) business days after the Effective Date, MAEDA will, at MAEDA's cost and expense, obtain and deliver to Township a commitment for an owner's policy of title insurance (the "New Fire Station Premises Title Commitment") issued by the Title Company with respect to the New Fire Station Premises, together with copies of all instruments described in Schedule B of the New Fire Station Premises Title Commitment, in the amount of the MAEDA New Premises Purchase Price and bearing a date later than the date of this Agreement. At the Closing, MAEDA shall cause the Title Company to issue a marked-up New Fire Station Premises Title Commitment or proforma for an ALTA Owner's Policy of Title Insurance without the standard exceptions (except for the survey exception), provided, however, that MAEDA or Township may provide the Title Company with a current ALTA survey certified to the Title Company and otherwise acceptable to the Title Company for removal of the survey exception. Any endorsements requested by Township to the owner's policy of title insurance will be paid by MAEDA at its sole cost and expense.

(ii) Prior to expiration of the Due Diligence Period, Township will review and may make written objections ("Township Objections") to the form and contents of the New Fire Station Title Commitment and the ALTA survey. Township's failure to make Township Objections within such time period will

constitute a waiver of all title and survey matters. Any matter shown on such New Fire Station Title Commitment or ALTA survey and not objected to by Township or waived by Township shall be deemed to be a Township Permitted Exception. MAEDA will have fourteen (14) business days after receipt of the Township Objections (the "MAEDA Cure Period") to cure such Township Objections. If the Township Objections are not cured within such period, Township will have the option to do any of the following:

1. Immediately terminate this Agreement; or
2. Waive the objection and proceed to Closing.

b. Township shall notify MAEDA of its election with respect to Section 6.a.(ii)1 or 6.a.(ii)2 above no later than five (5) business days following the expiration of the MAEDA Cure Period. Township's failure to notify MAEDA of such election within the foregoing five (5) business day period shall be deemed Township's election to waive the Township Objections pursuant to Section 6.a.(ii).2 above and proceed to Closing.

c. The New Fire Station Premises shall be sold and conveyed by MAEDA to Township, subject to the following matters (collectively hereinafter referred to as the "Township Permitted Exceptions"): those liens, encumbrances, easements and other matters which are not objected to by Township or are waived by Township in accordance with Section 6 above or any additional exceptions added by the Title Company after the delivery of the New Fire Station Premises Title Commitment to Township that are approved by Township in its reasonable discretion.

d. **Environmental Review and Diligence.** Township will have until expiration of the Due Diligence Period to complete its due diligence inspection of the New Fire Station Premises, to enter upon the New Fire Station Premises to undertake, at MAEDA's cost and expense, structural and engineering inspections of the New Fire Station Premises to satisfy itself that it wishes to proceed with the purchase of the New Fire Station Premises, subject to and upon the terms and conditions set forth in this Agreement. Township and its agents and representatives shall be permitted to make a complete investigation and physical inspection of the New Fire Station Premises, including without limitation, (i) obtaining an appraisal, (ii) soil testing, (iii) testing for any material defined as a hazardous substance under the Comprehensive and Recovery Act, or any laws, statutes, codes, acts, ordinances, orders, judgments, decrees, injunctions, rules, regulations, permits, licenses, authorizations, directions and requirements of all governmental authorities regulating the storage, dumping or other disposition of hazardous material, as any of those laws may have been amended to the date hereof, and the administrative regulations promulgated thereunder prior to the date hereof, (iv) determining whether existing sewer lines and other utilities are of sufficient size for the operation of Township's business, and (v) conducting engineering studies, building inspections, and such other investigations as Township desires. Township agrees to repair any damages to the New Fire Station Premises caused by the testing and inspection and to indemnify and hold MAEDA harmless from any claim, cost or expense arising from any such entry by

Township on the New Fire Station Premises. Township shall have the option, in its sole discretion, to extend the Due Diligence Period an additional thirty (30) business days to complete a Phase II investigation upon written notice to MAEDA.

e. **Access.** As of the Effective Date and until the Closing or the earlier termination of this Agreement, Township and its respective employees, agents, contractors, and invitees, along with representatives of Township shall have reasonable access, with prior written notice to MAEDA, to the New Fire Station Premises for the purpose of inspecting and evaluating the New Fire Station Premises. While Township or its employees, agents, contractors, or invitees are on the New Fire Station Premises, (a) they shall not unreasonably interfere with any use of the New Fire Station Premises or the MAEDA Old Property by MAEDA; (b) MAEDA shall not be liable for any damage, loss, or injury caused by Township, its employees, agents, contractors or invitees; and (c) Township shall indemnify, defend, protect and hold MAEDA harmless from any and all claims, suits, damages, loss, or injury to person or property, including, without limitation, costs and expenses of investigating, defending, and settling or litigating any claim, including reasonable attorney fees, arising out of the presence or activities of Township, its employees, agents, contractors or invitees on the New Fire Station Premises or the MAEDA Old Property before the date of Closing. On completion of all such inspections and evaluations, Township shall return the New Fire Station Premises to its prior condition.

f. **Termination Right.** If Township determines that Township does not desire to proceed with the purchase of the New Fire Station Premises for any reason or no reason at all, then Township will have the right to cancel and terminate this Agreement by notifying MAEDA in writing on or before expiration of the Due Diligence Period in which event, the Title Company will promptly deliver the Deposit to MAEDA and neither party to this Agreement will thereafter have any further liability, obligation or responsibility to the other under this Agreement, except as otherwise provided under this Agreement.

7. **Funding Contingency.** The Closing and obligations of MAEDA contained herein are contingent upon the availability of funding from the Michigan Economic Development Corporation/Michigan Strategic Fund/State of Michigan to fund the MAEDA New Premises Price along with all Closing Costs.

8. **MAEDA Representations and Warranties.** MAEDA makes the following representations and warranties to Township:

a. MAEDA has reviewed the location of the MAEDA New Premises and the location of the New Fire Station Premises with an authorized representative of the Michigan Department of Transportation (“MDOT”), and pursuant to an email dated December 12, 2023 and attached hereto as Exhibit C, that representative has approved the location of the MAEDA New Premises to be acquired and the New Fire Station Premises to be sold as consistent with the proposed realignment of M-96.

b. MAEDA has the full power and authority to execute and deliver this Agreement and all other documents or instruments that this Agreement obligates MAEDA

to execute or deliver (collectively, the "MAEDA Documents") and to perform and carry out all covenants and obligations arising under this Agreement and the MAEDA Documents.

c. This Agreement and the MAEDA Documents do not and will not conflict with or contravene any provision of any present judgment, order, decree, writ, or injunction, or any provision of any currently applicable law or regulation affecting MAEDA. The conveyance of the New Fire Station Premises and the execution, delivery and performance of this Agreement and the MAEDA Documents by MAEDA will not result in a breach of, constitute a default under, interfere with, or require consent pursuant to any credit agreement, lease, indenture, mortgage, deed of trust, purchase agreement, guaranty, security agreement, or other instrument to which MAEDA is presently a party or by which MAEDA or MAEDA's assets are bound or affected.

d. MAEDA has good and marketable title to the New Fire Station Premises, free and clear of all mortgages, liens, pledges, charges or encumbrances other than as shown on the New Fire Station Premises Title Commitment or identified as Township Permitted Exceptions.

e. MAEDA has not received any written notice of any proposed or pending condemnation proceedings.

f. Except as otherwise provided in this Agreement, from and after the Effective Date, MAEDA shall:

(i) Refrain from transferring any part of the New Fire Station Premises or creating on the New Fire Station Premises any easements, liens, mortgages, encumbrances or other interests which would adversely affect the New Fire Station Premises or MAEDA's ability to comply with the terms of this Agreement;

(ii) Refrain from entering into any contracts or other commitments regarding the New Fire Station Premises not terminable upon thirty (30) days' notice;

(iii) Refrain from entering into any lease, option, right of first refusal or agreement of sale regarding the New Fire Station Premises that is not subject to this Agreement;

(iv) Keep in effect MAEDA's existing policies of public liability and hazard extended coverage insurance insuring the New Fire Station Premises; and

(v) Refrain from committing any action that materially damages the New Fire Station Premises or constitutes waste of the New Fire Station Premises.

The foregoing representations and warranties made by MAEDA will be true and correct (i) on the Effective Date, and (ii) on the date of Closing as though made at and as of the date of

Closing. MAEDA's representations, warranties and covenants made in this Agreement, including, but not limited to, in this Section 8 and in any of the Closing Documents, as applicable, will survive the Closing for a period of six (6) months after the Closing (the "Limitation Period").

9. **Township Representations and Warranties.** Township makes the following representations and warranties to MAEDA:

a. Township has the full power and authority to execute and deliver this Agreement and all other documents or instruments that this Agreement obligates Township to execute or deliver (collectively, the "Township Documents") and to perform and carry out all covenants and obligations arising under this Agreement and the Township Documents.

b. This Agreement and the Township Documents do not and will not conflict with or contravene any provision of any present judgment, order, decree, writ, or injunction, or any provision of any currently applicable law or regulation affecting Township. The conveyance of the MAEDA New Premises and the execution, delivery and performance of this Agreement and the Township Documents by Township will not result in a breach of, constitute a default under, interfere with, or require consent pursuant to any credit agreement, lease, indenture, mortgage, deed of trust, purchase agreement, guaranty, security agreement, or other instrument to which Township is presently a party or by which Township or Township's assets are bound or affected.

c. Township has good and marketable title to the MAEDA New Premises, free and clear of all mortgages, liens, pledges, charges or encumbrances other than as shown on the MAEDA New Premises Title Commitment or identified as MAEDA Permitted Exceptions.

d. Township has not received any written notice of any proposed or pending condemnation proceedings.

e. Except as otherwise provided in this Agreement, from and after the Effective Date, Township shall:

(i) Refrain from transferring any part of the MAEDA New Premises or creating on the MAEDA New Premises any easements, liens, mortgages, encumbrances or other interests which would adversely affect the MAEDA New Premises or Township's ability to comply with the terms of this Agreement;

(ii) Refrain from entering into any contracts or other commitments regarding the MAEDA New Premises not terminable upon thirty (30) days' notice;

(iii) Refrain from entering into any lease, option, right of first refusal or agreement of sale regarding the MAEDA New Premises that is not subject to this Agreement;

(iv) Keep in effect Township's existing policies of public liability and hazard extended coverage insurance insuring the MAEDA New Premises; and

(v) Refrain from committing any action that materially damages the MAEDA New Premises or constitutes waste of the MAEDA New Premises.

The foregoing representations and warranties made by Township will be true and correct (i) on the Effective Date, and (ii) on the date of Closing as though made at and as of the date of Closing. Township's representations, warranties and covenants made in this Agreement, including, but not limited to, in this Section 9 and in any of the Closing Documents, as applicable, will survive the Closing for the Limitation Period.

10. **Closing.** The closing on the sale of the MAEDA New Premises and the New Fire Station Premises (the "Closing") will occur within fifteen (15) business days after expiration of the Due Diligence Period. The Closing will take place at the offices of the Title Company or through an escrow arrangement with the Title Company acting as escrow agent, or at such other mutually acceptable location to MAEDA and Township, at a date and time to be mutually agreed upon by MAEDA and Township.

a. **Prorations; Costs.** MAEDA shall pay the following at Closing:

(i) The MAEDA New Premises Purchase Price;

(ii) Township's attorney fees incurred in negotiating and reviewing the Agreement and the documents related to Closing;

(iii) The expenses associated with Township having its engineer review the construction plans and site plan; obtaining an ALTA survey; and conducting environmental testing;

(iv) Any expense associated with third party review of the environmental reports provided by MAEDA to Township and any expense associated with Township obtaining a baseline environmental assessment relative to the New Fire Station Premises before Township takes possession of said Premises;

(v) Fees required by Chicago Title to disburse the construction payments as set forth herein;

(vi) Any required closing fees;

(vii) Title insurance for both the New Fire Station Premises and the MAEDA New Premises;

(viii) Any required county or state transfer tax; and

(ix) Any recording fees.

b. **Taxes and assessments.** Current real estate taxes shall be prorated as of the date of Closing between Township and MAEDA based on the due date of the respective taxing authority. However, for purposes of this proration, taxes shall be deemed paid in advance. Township and MAEDA understand and acknowledge that the amount of any past due real estate taxes on the applicable premises not paid by the date of Closing may be deducted from the applicable purchase price paid at Closing and be paid to the respective taxing authority at Closing.

11. **Closing Deliveries.** At the Closing, MAEDA will execute and deliver to Township (as required) and Township will execute and deliver to MAEDA (as required) the following (collectively, the "Closing Documents");

a. The MAEDA New Premises Purchase Price will be held by the Title Company pursuant to a Construction Document Review and Disbursing Agreement in the form set forth on Exhibit G. The MAEDA New Premises Purchase Price shall be held by the Title Company in an interest-bearing account. All interest shall be applied to the costs of the project as set forth herein.

b. MAEDA will execute and deliver to Township a warranty deed in a form acceptable to Township, subject only to the Township Permitted Encumbrances (the "Township Deed"), conveying to Township title to the New Fire Station Premises, together with a Real Estate Transfer Tax Valuation Affidavit executed on behalf of MAEDA;

c. Township will execute and deliver to MAEDA a warranty deed in a form acceptable to MAEDA, subject only to the MAEDA Permitted Encumbrances (the "MAEDA Deed"), conveying to MAEDA title to the MAEDA New Premises, together with a Real Estate Transfer Tax Valuation Affidavit executed on behalf of Township;

d. MAEDA and Township will execute and deliver to each other a closing statement setting forth the purchase prices and reflecting all prorations, credits, adjustments and other disbursements and payments (the "Closing Statement");

e. MAEDA will furnish Township with an affidavit stating that MAEDA is not a "**Foreign Person**" within the meaning of Internal Revenue Code Section 1445(f)(3) or Township will be entitled to withhold appropriate amounts as required by the Internal Revenue Code;

f. Township will furnish MAEDA with an affidavit stating that Township is not a "**Foreign Person**" within the meaning of Internal Revenue Code Section 1445(f)(3) or MAEDA will be entitled to withhold appropriate amounts as required by the Internal Revenue Code;

g. MAEDA will execute and deliver an affidavit(s) which is required by the Title Company to remove the standard exceptions from the New Fire Station Premises Title Commitment;

h. Township will execute and deliver an affidavit(s) which is required by the Title Company to remove the standard exceptions from the MAEDA New Premises Title Commitment;

i. MAEDA and Township will execute and deliver to each other a lease for the MAEDA New Premises from MAEDA to Township (the "Lease") for the rental price One and 00/100 (\$1.00) Dollars and which term shall expire upon completion of the new fire station as set forth in Section 12.

j. MAEDA shall deliver an executed copy of the Proposal to Develop a Project Delivery System as set forth on Exhibit F.

k. MAEDA and Township agree to execute and deliver to the other any additional documents and instruments (provided such documents and instruments will not create any obligations, liabilities or expense in addition to those otherwise created or provided for under this Agreement), which may be reasonably requested by the other party or the Title Company in order to effectuate the purposes of this Agreement and the consummation of the transaction contemplated hereby;

l. MAEDA shall deliver possession of the New Fire Station Premises to Township at the Closing; and

m. Township shall deliver possession of the MAEDA New Premises to MAEDA at the Closing subject to the Lease.

12. Post-Closing Covenants.

a. **Construction of New Fire Station.** MAEDA will construct a new five (5) stall fire station on the New Fire Station Premises as set forth in plans attached as Exhibit D (the "Site Plan") and Exhibit E (the "Preliminary Construction Drawings"), and together with the Site Plan, the "Plans") for the benefit of Township. The Plans were submitted to and approved by the Marshall Township Fire Board on January 9, 2024. The Site Plan will be submitted by MAEDA to the Township Planning Commission for review and consideration at the May 2024 meeting or as soon thereafter as can be scheduled. The Plans shall include any revisions or updates required by the Township Planning Commission for its approval of such Plans. MAEDA will, prior to the date of Closing, execute the Proposal to Develop a Project Delivery System with Morton Building attached as Exhibit F. MAEDA will be the signatory to the construction agreement with Morton Buildings, Inc. which will be created as a result of the process set forth in Exhibit F. MAEDA will promptly begin and diligently complete the construction of the fire station as set forth in the Plans to be constructed on the New Fire Station Premises. Upon issuance of a certificate of occupancy, and final inspection by Township, the new fire station will

be transferred to Township. If a certificate of occupancy cannot be issued, MAEDA shall comply with the requirements for such issuance of a certificate of occupancy, at MAEDA's sole cost and expense, in order to deliver the new fire station to the Township in compliance with the Plans and this Agreement.

b. **Construction Draws.** During construction of the new fire station pursuant to the Plans, the MAEDA New Premises Purchase Price, held by the Title Company pursuant to a Construction Document Review and Disbursing Agreement in the form set forth on Exhibit G, shall be used to pay for the construction of the fire station and associated site work and shall be released upon written approval of the Township Representative and the Chief Executive Officer of MAEDA, pursuant to the draw schedule to be created by Morton Buildings, Inc.

c. **Project Costs in Excess of MAEDA New Premises Purchase Price.** Any constructions costs for the fire station and site work, to be constructed pursuant to the Plans, in excess of the MAEDA New Premises Purchase Price of \$3,000,000, plus any accrued interest, shall be paid by MAEDA.

d. **Township Representative.** Township appoints David VanArman to be the "Township Representative" to review the status of the construction on an as-needed basis. The final design will be subject to the approval in writing of the Township Representative in consultation with the Township Fire Chief. Any changes to the Plans that require a change order of Five Thousand Dollars (\$5,000.00) or less can be executed by the Township Representative who will report any such change orders to the Township Board at the next regular township board meeting.

e. **Septic and Water.** The parties anticipate that Township will enter into an Interlocal Agreement with the City of Marshall to provide sewer and water to the new fire station and the existing township hall. The parties acknowledge that based on the timing of the construction of the sewer and water, the fire station may be completed before the sewer and water services are available. If the services are unavailable, the fire station construction shall include the installation of a septic tank and well sufficient to support the new fire station, in compliance with environmental expert recommendations and all required permits and approvals from the Michigan Department of Environment, Great Lakes and Energy and the Calhoun County health department. MAEDA shall pay to connect Township to sewer and/or water infrastructure if sewer and/or water infrastructure is available by January 1, 2027. Notwithstanding the foregoing, if the new fire station and the existing township hall must be connected to city water infrastructure in order for a certificate of occupancy to be issued for the new fire station, MAEDA shall pay to connect Township to said water infrastructure within four (4) months of the Closing.

f. **Warranties.** MAEDA shall transfer and assign any warranties relative to the construction of the fire station to Township upon completion of the construction and the transfer of the fire station to Township. MAEDA excludes any other warranties relative to the construction of the fire station and Township agrees to accept the fire station upon completion in as is, where is, condition.

g. **Demolition of Existing Fire Barn.** Upon issuance of a certificate of occupancy for the new fire station, Township shall at its cost remove all existing equipment from the existing fire barn and transfer it to the new fire station. MAEDA, at its sole cost, will demolish and remove the existing fire barn and take other necessary actions to prepare the MAEDA New Premises for the relocation and realignment of M-96 and sewer, water and other utilities for the BlueOval Battery Park project and the MAJOR campus.

13. **Defaults.**

a. **Township's Default.** In the event of any default by Township that continues without cure for ten (10) days after delivery by MAEDA of written notice to Township, MAEDA shall have the right (but not the obligation) to terminate this Agreement by notice to Township within fifteen (15) days after the end of the cure period allowed to Township. MAEDA may enforce this agreement as provided for by applicable law.

b. **MAEDA's Default.** In the event of any default by MAEDA that continues without cure for ten (10) days after the delivery by Township of written notice to MAEDA, Township shall have the right (but not the obligation) to terminate this Agreement by notice to MAEDA within fifteen (15) days after the end of the cure period allowed to MAEDA. Township may enforce this agreement as provided by applicable law.

14. **Notices.** Except as otherwise provided, all notices required under this Agreement shall be effective only if in writing and shall be deemed to be given (i) when personally served; (ii) one (1) day after delivery to Federal Express or similar, reputable national overnight delivery service; (iii) three (3) days after being sent via certified mail; or (iv) on the day of transmission when sent via email if such transmission is immediately followed by any of the other methods for giving notice to the appropriate party at its address as set forth in the introductory paragraph of this Agreement.

15. **Miscellaneous.**

a. **Real estate broker.** Township and MAEDA represent and warrant to each other that no real estate broker is entitled to a commission as a result of the transactions contemplated by this Agreement. To the extent a commission or fee is claimed by any individual or entity as a result of its contacts with either Township or MAEDA, the party against and through whom the commission or fee is claimed will indemnify the other party and be responsible for the payment of all costs of defending that claim and, to the extent it is to be paid, the liability for the payment of that commission or fee.

b. **Entire agreement.** This Agreement and its exhibits constitute the entire agreement between the parties regarding the subject matter of this Agreement, and all prior agreements regarding these transactions between the parties, whether written or oral, shall be of no further force and effect. This Agreement may not be modified except by a written document signed by Township and MAEDA.

c. **Applicable law.** This Agreement shall be applied, construed, and enforced in accordance with the laws of the state of Michigan, without giving effect to conflicts of law principles. Venue for any disputes under this Agreement shall lie in Calhoun, Michigan.

d. **Binding Effect.** This Agreement shall be binding on and inure to the benefit of the parties and their respective successors and permitted assigns. Township and MAEDA are permitted to assign this Agreement to affiliated business entities that are owned in total by either Township or MAEDA; but neither party may assign or otherwise transfer its interest under this Agreement to any other third party without the prior approval of the other party to this Agreement, which approval shall not be unreasonably withheld.

e. **Modifications; counterparts; electronic signatures.** No modification, alteration, or amendment to this Agreement shall be binding unless in writing and signed by both MAEDA and Township. This Agreement may be executed electronically in pdf form and/or in counterparts, and all counterparts together shall constitute one integrated agreement and be deemed an original document.

f. **Exhibits.** The following are exhibits to this Agreement:

- (i) Exhibit A – Survey of Old Township Property and MAEDA New Premises
- (ii) Exhibit B – Survey of Old MAEDA Property and New Fire Station Premises
- (iii) Exhibit C – MDOT Email
- (iv) Exhibit D – Site Plan for new Fire Station to be constructed
- (v) Exhibit E – Construction Plans for Fire Station to be constructed
- (vi) Exhibit F – Proposal to Develop a Project Delivery System
- (vii) Exhibit G – Construction Document Review and Disbursement Agreement

[Signatures on next page.]

This Agreement has been executed as of the Effective Date.

TOWNSHIP:

Marshall Township

By: _____

David Bosserd

Its: Supervisor



MAEDA:

Marshall Area Economic Development Alliance

By: _____

Jean Dvirian

Its: Chief Executive Officer



NOTICE OF HEARING

Marshall Township
Calhoun County, Michigan

The Marshall Township Planning Commission will hold a hearing on Monday, May 13, at 7:00 p.m. at the Marshall Township Hall at 13551 Myron Avery Drive in Calhoun County, Michigan, to hear all persons interested in the following issue:

Public Hearing, Site Plan Review for Marshall Area Economic Development Alliance, the applicant, is requesting a Site Plan Review for the property commonly known as 13550 15 Mile Road, Marshall, MI 49068 16-272-003-00 and 16-273-009-01. They are requesting to be allowed to have a Site Plan Review of a New Marshall Township Fire Station as defined in Table 4.2 Schedule of Uses: Commercial and Industrial Districts, Community Public Safety, which is a permitted use in the Township Ordinance.

16-272-003-00

MSH. TWP. SEC. 27 W 165 FT. OF SW 1/4 OF NW 1/4 LYING S OF OLD US-12 EXC. N 33 FT. 1.25 A.

16-273-009-01

MSH TWP. SEC. 27 E 100 FT. OF W 265 FT. OF SW 1/4 OF NW 1/4 LYING S OF OLD US-12 HWY. 0.65 A.

The Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting upon reasonable advance notice by contacting the Township Clerk.

Copies of the Marshall Township Zoning Ordinance and Zoning Map are available for inspection from Jeff Albaugh, Marshall Township Clerk (781-7976), upon request to the Township call and leave message or email info@marshalltownship.org, prior to said meeting.

Dated: April 27, 2024, MARSHALL TOWNSHIP PLANNING COMMISSION

By: Alec Egnatuk, Marshall Township Planning Commission Chair

Please publish the above Notice in the Advisor/ Chronicle on April 27, 2024. Please forward Proof of Publication and bill to Marshall Township at the Marshall Township Hall, 13551 Myron Avery Drive, Marshall, MI 49068.

NOTICE OF HEARING

Marshall Township
Calhoun County, Michigan

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Dated: April 27, 2024, MARSHALL TOWNSHIP PLANNING COMMISSION

By: Alec Egnatuk, Marshall Township Planning Commission Chair



Parcel Buffer

- Buffer
- Buffer Affected Parcel



16-272-003-00

Mailing Buffer



Map Publication:
04/03/2024 4:33 PM



Disclaimer: This map does not represent a survey or legal document and is provided on an "as is" basis. Calhoun County expresses no warranty for the information displayed on this map document.



PERCIVAL SHIRLEE
6261 20 MILE RD
HOMER, MI 49245

DOUGLAS BOSHEARS TRUST
757 N KALAMAZOO AVE
MARSHALL, MI 49068

MDC OF ALBION, LLC
PO BOX 56
ALBION, MI 49224

JENNINGS MICHAEL & LISA
230 HIGHFIELD RD
MARSHALL, MI 49068

MUMAW PHYLLIS/ LIVINGSTON LOWELL
PO BOX 226
MARSHALL, MI 49068

MDC OF ALBION, LLC
PO BOX 56
ALBION, MI 49224

SEARLES STEVEN D & KATHRYN
14932 W MICHIGAN AVE
MARSHALL, MI 49068

GILLIAM JUSTIN & CYRSTAL
14969 C DRIVE NORTH
MARSHALL, MI 49068

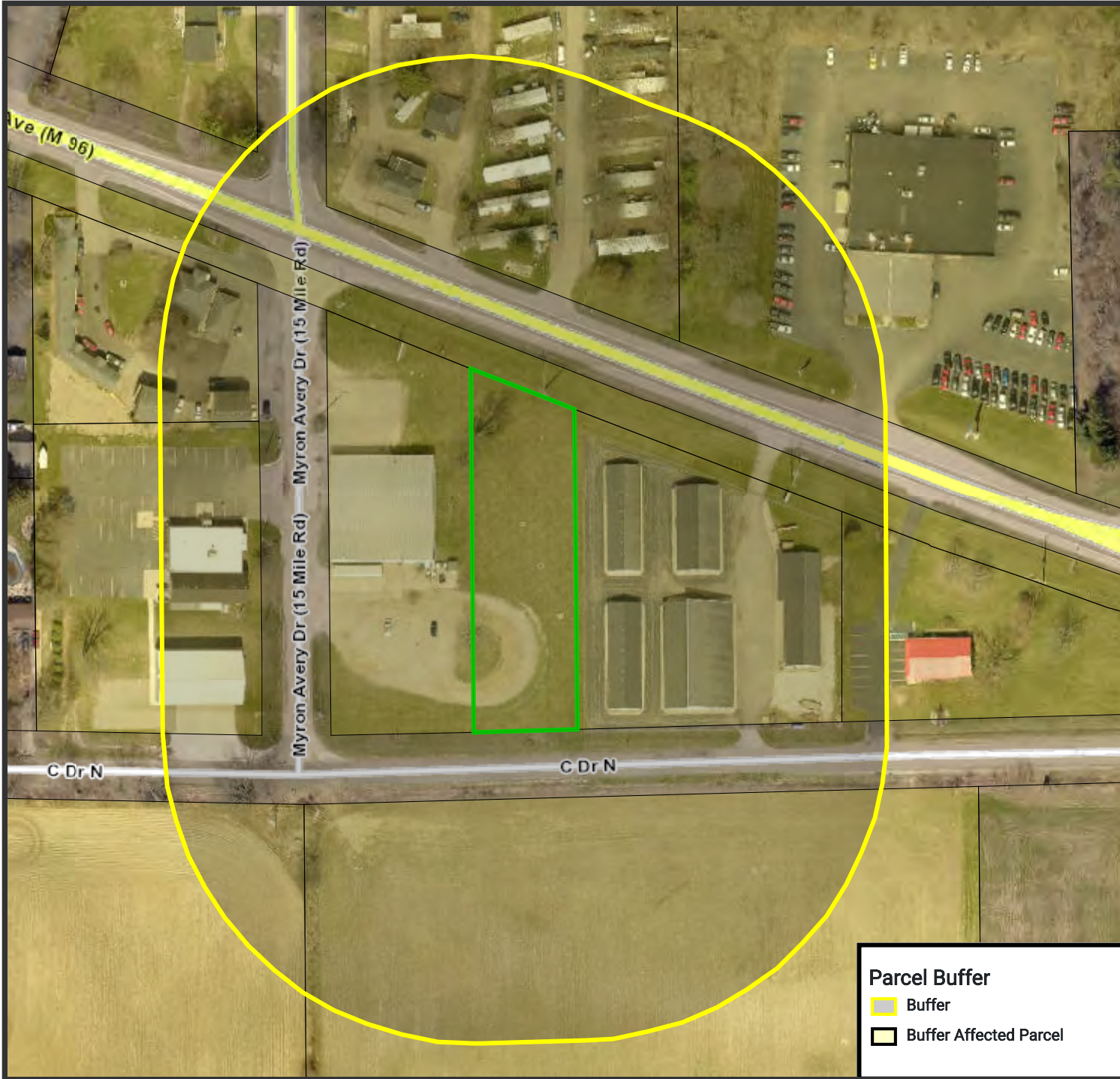
LAPP ANDREW JR TRUST
12425 14 MILE RD
CERESCO, MI 49033

CALHOUN COUNTY ROAD COMMISSIO
13300 15 MILE RD
MARSHALL, MI 49068

HOLM JUSTIN & BRITTANY
14971 W MICHIGAN AVE
MARSHALL, MI 49068

IYUGA COMPANY, LLC
13153 WORTHINGTON CT
CHELSEA, MI 48118

MARSHALL TOWNSHIP
13551 15 MILE RD
MARSHALL, MI 49068



16-273-009-01

Mailing Buffer



Map Publication:
04/03/2024 4:40 PM



Disclaimer: This map does not represent a survey or legal document and is provided on an "as is" basis. Calhoun County expresses no warranty for the information displayed on this map document.



PERCIVAL SHIRLEE
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ALBION, MI 49224

FARM BUREAU OF CALHOUN COUNTY
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MARSHALL, MI 49068

JENNINGS MICHAEL & LISA
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MARSHALL, MI 49068

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CHELSEA, MI 48118

MARSHALL TOWNSHIP
13551 15 MILE RD
MARSHALL, MI 49068

Marshall Township Fire Station No. 1 13550 15 Mile Road Marshall, MI 49068

UTILITY COMPANIES

TELEPHONE
AMERITECH
54 NORTH MILL STREET
PONTIAC, MICHIGAN
PH: 248.456-0809

CABLE
MARSHALL INTERNET DEPARTMENT
323 WEST MICHIGAN AVE,
MARSHALL, MI 49068
PH: 269.781.5163

ELECTRICAL
MARSHALL PUBLIC POWER
323 WEST MICHIGAN AVE,
MARSHALL, MI 49068
PH: 269.781.5163

GAS
CONSUMERS ENERGY COMPANY
1030 FEATHERSTONE RD.
PONTIAC, MI 48342
PH: 858.4448

WARNING!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.



Orientation	Scale
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Project
**MARSHALL TOWNSHIP
FIRE STATION NO. 1**

Project Location
**13550 15 MILE RD
MARSHALL, MI 49068**

Engineer's Seal

**PRELIMINARY - NOT
FOR CONSTRUCTION**

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	03/04/2024	JWG
02	SITE PLAN RE-SUBMITTAL	04/15/2024	JWG
03	SITE PLAN RE-SUBMITTAL	04/29/2024	JWG
04	SITE PLAN RE-SUBMITTAL	05/03/2024	JWG

Date
12/15/2023

SME Project No.
094551.00

Project Manager:
J. GRAVES

Designer:
A. REED

CADD:
J. RIOS

Checked By:
A. REED

Reviewed By:
J. GRAVES

Sheet Name:
COVER SHEET

Sheet No.
C-100

LEGAL DESCRIPTION

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF CALHOUN, TOWNSHIP OF MARSHALL.

THE WEST 165 FEET OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 27, TOWN 2 SOUTH, RANGE 6 WEST, LYING SOUTH OF OLD U.S. 12, EXCEPT THE NORTH 35 FEET.

OWNER

MR. JAMES DURIAN
CEO
MARSHALL AREA ECONOMIC DEVELOPMENT ALLIANCE
323 WEST MICHIGAN AVENUE
MARSHALL, MICHIGAN 48068

ENGINEER

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SME PROJECT NO. 094551.00

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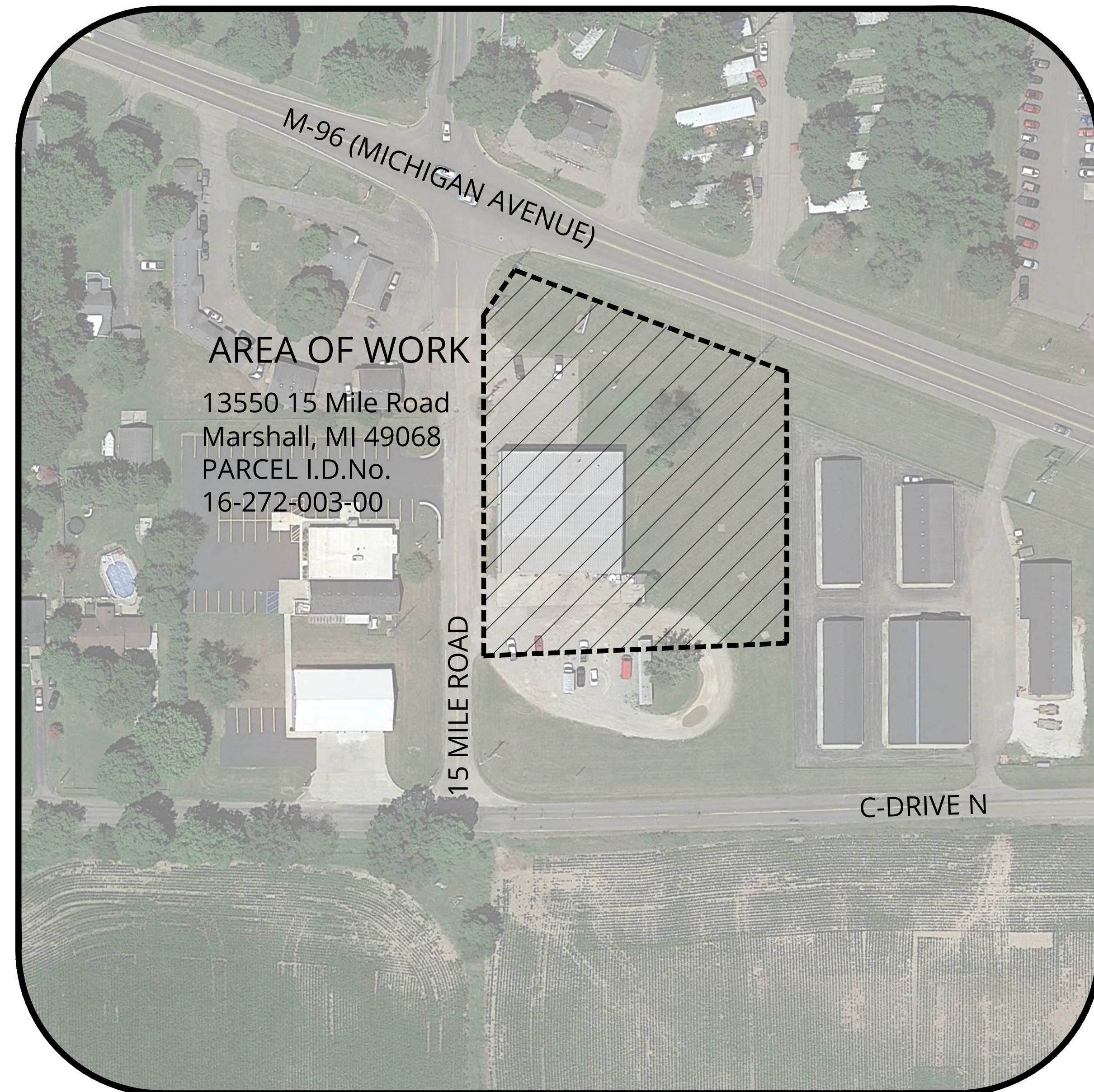
ARCHITECT

ALLIED DESIGN ARCHITECTURAL &
ENGINEERING GROUP, P.C.
100 S. PERSHING P.O. BOX 110
MORTON, IL 61550

CONTACT: MR. MARK BRININGER
SALES CONSULTANT

LIST OF DRAWINGS

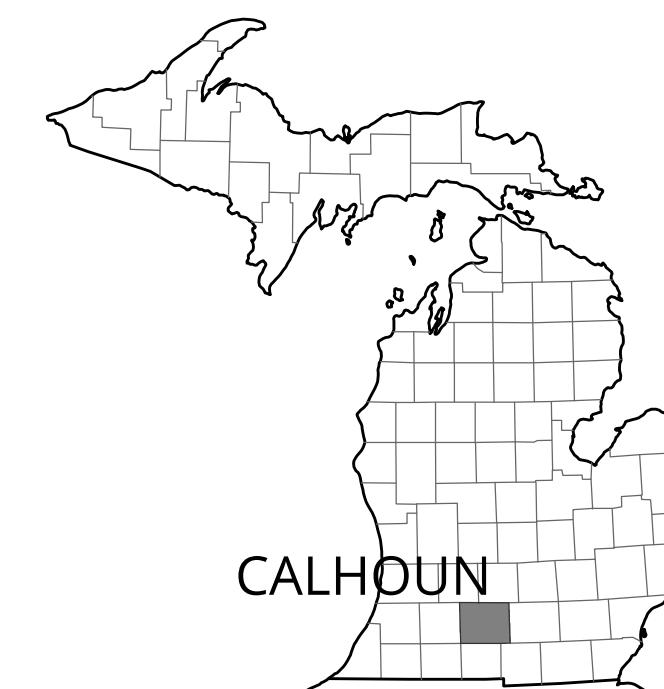
SHEET No.	SHEET TITLE
C-100	COVER SHEET
C-101	GENERAL PROJECT NOTES
C-200	EXISTING SITE CONDITIONS
C-300	SESC AND SITE PREPARATION PLAN
C-400	REMOVAL PLAN
C-500	SITE LAYOUT PLAN
C-600	INSTALLATION, PAVING AND GRADING PLAN
C-700	STORM CALCULATIONS AND STAGE STORAGE
L-100	LANDSCAPE LAYOUT PLAN
D-100	DETAILS
D-101	DETAILS
E-001	ELECTRICAL STANDARDS AND DRAWING INDEX
E-002	ELECTRICAL STANDARD SCHEDULES AND DETAILS
E-004	ELECTRICAL NEW WORK SITE PLAN
L-004	SITE LIGHTING CALCULATIONS
NO. 1	ALTA/NSPS LAND TITLE SURVEY



OVERALL SITE PLAN
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



CALHOUN COUNTY MAP
NOT TO SCALE

GENERAL NOTES

- MATERIAL AND CONSTRUCTION METHODS SHALL FOLLOW THE PRACTICE DEFINED BY THE LATEST EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND APPLICABLE SPECIAL PROVISIONS UNLESS OTHERWISE MODIFIED HEREWITHIN OR IN THE PROJECT SPECIFICATIONS.
- THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM AVAILABLE DATA. OWNER WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 174 OF THE PA OF 2019 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. CALL 811.
- FOR PRIVATE UTILITIES, CONTRACTOR SHALL RETAIN THE SERVICES OF A PRIVATE UTILITY LOCATOR TO LOCATE ALL PRIVATE UTILITIES OWNED BY OWNER.
- CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE A MINIMUM OF 72 HOURS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES OR DISRUPTION OF ANY UTILITY.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR UTILITIES DAMAGED DURING CONSTRUCTION. SPRINKLER SYSTEMS SHALL BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES FOR NOISE LEVELS, VIBRATIONS, OR ANY OTHER RESTRICTIONS WHILE REMOVING PAVEMENT OR FOR ANY OTHER CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT TO BE INCLUDED IN THE RESPECTIVE ITEM OF WORK.
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROTECTION OF PROPERTY.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. ALL TRAFFIC CONTROL ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST VERSION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SHALL SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE AREAS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND CONFORMING TO ALL APPLICABLE PERMIT REQUIREMENTS.
- CONTRACTOR SHALL SUBMIT ALL MATERIAL SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS INCLUDING ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE MIX DESIGNS TO ENGINEER A MINIMUM OF 14 DAYS PRIOR TO BEGINNING FIELD WORK.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND FIELD VERIFICATION. ADJUST CATCHBASINS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE. DRAINAGE ISSUES SHALL BE BROUGHT TO THE ATTENTION OF SME PRIOR TO PLACEMENT OF ANY PAVEMENT STRUCTURE LAYERS. AREAS OF PONDING WATER SHALL BE REPAIRED BY FULL DEPTH PATCHING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL PERFORM WALKTHROUGH WITH OWNER AND SME BEFORE PLACEMENT OF ASPHALT CONCRETE LEVELING COURSE TO REVIEW PROPOSED GRADES.
- OBJECTS DESIGNATED TO REMAIN INCLUDING SIDEWALKS, PAVEMENT, CURB, LIGHT POLES, TRAFFIC SIGNS, LANDSCAPE AREAS, ETC. SHALL BE PROTECTED. IF DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED TO OWNER SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF EACH DAY OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE WORK AREA FREE OF HAZARDS AND SHALL PROVIDE ALL NECESSARY TEMPORARY SIGNS, WARNING DEVICES, AND BARRICADES.
- THE CONTRACTOR SHALL HAVE AN APPROVED SET OF FINAL PLANS MARKED "ISSUED FOR CONSTRUCTION" ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL KEEP ACCURATE AND LEGIBLE RECORDS OF ALL CHANGES OF WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON "AS-BUILT" CONDITIONS. DOCUMENTATION OF CHANGES AND AS-BUILT INFORMATION SHALL BE RECORDED ON AN APPROVED SET OF FINAL PROJECT PLANS AND DELIVERED TO SME AFTER COMPLETION OF WORK.
- THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTING THAT RESULT FROM THE CONSTRUCTION BY APPROPRIATE MEANS UNTIL SUCH TIME THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY OWNER.

SURVEY NOTE

- THE SITE PLANS WERE DEVELOPED BASED ON DRAWINGS PROVIDED BY THE OWNER AND A TOPOGRAPHICAL SURVEY BY SME. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF EXISTING STRUCTURES AND VERIFYING QUANTITIES. THE CONTRACTOR IS RESPONSIBLE FOR FINAL LAYOUT AND PROVIDING POSITIVE DRAINAGE.

EARTHWORK NOTES

- ALL NATURAL SOIL LEFT IN PLACE, IN CUT SECTIONS, SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY OF THE MATERIAL AS DETERMINED BY THE MODIFIED PROCTOR TO A MINIMUM DEPTH OF 12 INCHES.
- THE LIMIT OF EARTH DISTURBANCE SHALL BE THE SLOPE STAKE LINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ALL SLOPES SHALL BE CLASS A SLOPES.
- AREAS DISTURBED BY THE CONTRACTOR OR SUBCONTRACTOR SHALL BE RESTORED AS SPECIFIED IN THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN, RESTORATION PLAN OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR AREAS DISTURBED OUTSIDE THE SLOPE STAKE LINE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE GRADING LIMITS, INCLUDING EXISTING FENCING, LAWN, TREES, SHRUBBERY, AND SIDEWALKS.

EARTH EXCAVATION NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY STORAGE AREAS FOR EXCAVATED MATERIAL WHICH MAY BE USED AS EMBANKMENT MATERIAL IN OTHER AREAS IF IT IS SUITABLE MATERIAL AS DETERMINED BY THE ENGINEER. ANY EXTRA HANDLING OF EXCAVATED MATERIAL IS CONSIDERED INCLUDED IN THESE PAY ITEMS.
- EXCAVATION DROP-OFFS GREATER THAN 8 INCHES SHALL BE PROTECTED BY 4 FT TALL ORANGE PLASTIC SAFETY FENCE (SNOW FENCE) SECURELY ATTACHED TO GROUND DRIVEN STAKES WHEN LEFT OVERNIGHT. SAFETY FENCING SHALL BE MAINTAINED UNTIL AREA IS WITHIN 8 INCHES OF ADJACENT GRADE. PAYMENT FOR THIS WORK IS INCLUDED IN TRAFFIC CONTROL LUMP SUM UNIT PRICE.

SOIL BORING NOTES

- THE SOIL BORINGS LOGS DEPICT POINT LOCATIONS AND DO NOT INFER THAT THE SURFACE CONDITIONS ARE THE SAME IN OTHER AREAS. BORING LOCATIONS ARE SHOWN ON THE PLANS, SOIL BORING LOGS ARE AVAILABLE UPON REQUESTOR INCLUDED WITH THE SPECIFICATIONS.

SITE GRADING NOTES

- PROPOSED ELEVATIONS ARE SHOWN WHERE SIGNIFICANT GRADE CHANGES ARE ANTICIPATED. IF PROPOSED GRADES ARE NOT SHOWN THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE WITH MIN. SLOPE OF 1.5% LONGITUDINAL SLOPE ALONG GUTTER LINES SHALL BE 0.5% MIN.
- PRIOR TO INSTALLING ANY PAVEMENT LAYERS, THE CONTRACTOR SHALL REVIEW THE PROPOSED SITE GRADES WITH THE ENGINEER TO IDENTIFY AND RECTIFY ANY COMPLICATIONS.
- PROPOSED SIDEWALKS SHALL HAVE MIN. 1.0% AND MAX. 2.0% CROSS SLOPE.
- CONTRACTOR SHALL ADJUST ALL UTILITY RIMS LOCATED WITHIN THE WORK LIMITS AS NECESSARY TO BE FLUSH WITH THE PROPOSED FINISHED SURFACE. THIS INCLUDES ALL STORM MANHOLES, CATCH BASINS, CLEANOUTS, SANITARY MANHOLES AND CLEANOUTS, WATER MAIN MANHOLES, GATE VALVES, AND BOXES OR ANY OTHER UTILITY RIMS OR BOXES.
- WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT DESIGNATED TO REMAIN, MATCH ELEVATIONS UNLESS INDICATED OTHERWISE ON THE PLANS.
- ADJUST GUTTER PAN FROM SPILL IN TO SPILL OUT AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- ADJUST ELEVATION OF CURB REPAIRS AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE.
- TAPER CURB HEIGHT TO 0" IN 10' WHEN ABUTTING TO EX. PAVEMENT WITHOUT CURB.

GENERAL PAVING NOTES

- NEW PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS-SECTION INDICATED ON THE PLANS.
- MATCH EXISTING ELEVATIONS WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENTS OR OTHER FIXED OBJECTS.
- CONTRACTOR SHALL MATCH EXISTING STRIPING PATTERNS UNLESS OTHERWISE SHOWN ON THE PLANS. CONTRACTOR SHALL DOCUMENT EXISTING STRIPING PATTERN PRIOR TO REMOVAL OF ANY PAVEMENT.
- CONTRACTOR IS RESPONSIBLE FOR LAYOUT TO PROVIDE POSITIVE SITE DRAINAGE. WATER PONDING AND BIRD BATHS SHALL BE CORRECTED AS DIRECTED BY THE BEGINNER AT NO ADDITIONAL COST TO THE OWNER.
- NEW AGGREGATE BASE REQUIRED SHALL BE MDOT 21AA CRUSHED LIMESTONE MATERIAL.
- SUBGRADE SOIL FOUND TO BE UNSUITABLE SHALL BE RECONDITIONED OR REPLACED AS DIRECTED BY THE ENGINEER, INCLUDING THE NECESSARY FINE GRADING TO ENSURE THAT MINIMUM SPECIFIED PAVEMENT THICKNESS IS ACHIEVED.

TRAFFIC CONTROL NOTES

- OBTAIN WRITTEN PERMISSION FROM OWNER'S REPRESENTATIVE WHEN ROADS, SIDEWALKS AND PARKING LOTS NEED TO BE CLOSED PRIOR TO CLOSING ANY PAVED AREA.
- SUBMIT ALL REQUESTS TO OWNER'S REPRESENTATIVE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED NEED TO CLOSE ANY PAVED AREA.
- PROVIDE ALTERNATE TRAFFIC ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC ROUTES AS NECESSARY OR REQUIRED BY OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, PLACING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES ACCORDING TO THE LATEST EDITION OF THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

DEMOLITION/REMOVAL NOTES

- SAWCUT FULL DEPTH THE PAVEMENT, SIDEWALK AND CURB DESIGNATED TO BE REMOVED AT THE LIMITS OF WORK SHOWN ON THE PLANS OR MARKED IN THE FIELD.
- REMOVE ONLY THE STRUCTURES AND PAVEMENTS WITHIN THE LIMITS OF WORK AS DETAILED ON THE PLANS AND CROSS SECTIONS. ALL OTHER STRUCTURES AND PAVEMENT SHALL BE PROTECTED AS REQUIRED.
- ALL EXISTING UNDERGROUND UTILITIES WITHIN THE AREA OF WORK SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION, UNLESS, OTHERWISE DESIGNATED TO BE REMOVED. CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF DEMOLITION OPERATIONS.
- CONTRACTOR SHALL DISPOSE OF ALL CONCRETE, ASPHALT, AGGREGATE BASE AND SUBGRADE SPOILS AT LEGAL DISPOSAL SITE. CONTRACTOR SHALL PAY FOR ALL TRUCKING AND DISPOSAL COSTS.
- MATERIAL AND SITE FEATURES HAVING SALVAGE VALUE SHALL BECOME THE PROPERTY OF THE OWNER UNLESS SPECIFIED OTHERWISE. ALL OTHER MATERIAL AND DEBRIS ACCUMULATED AS A RESULT OF DEMOLITION/REMOVAL/REPAIR ACTIVITIES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A LEGAL MANNER.
- EXISTING WIRING AND ELECTRICAL OUTLETS SHALL BE CONSIDERED INCIDENTAL TO ELECTRICAL FEATURE DEMOLITION/REMOVAL.

CURB REPAIR NOTES

- SAWCUT THE CURB AREAS DESIGNATED FOR REPAIR AT THE LIMITS MARKED IN THE FIELD BY OWNER'S REPRESENTATIVE.
- REMOVE EXISTING CONCRETE WITHOUT CAUSING DAMAGE OR SPALLING TO ADJACENT SIDEWALK OR CURBS WHICH ARE DESIGNATED TO REMAIN. DAMAGED AREAS SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.
- DRILL AND EPOXY GROUT TWO (2) #5 (18 INCH LONG EPOXY COATED) DEFORMED BARS A MINIMUM OF 6 INCHES INTO EXISTING CONCRETE CURBS (TWO FACES) WHICH ARE DESIGNATED TO REMAIN.
- MATCH EXISTING CURB GEOMETRY.
- PLACE AND CONSOLIDATE CONCRETE IN THE REPAIR AREA TO MATCH THE ELEVATION OF ADJACENT CURB AND SIDEWALK AREAS TO MAINTAIN POSITIVE DRAINAGE. FINISH CURBS TO MATCH FINISH OF ADJACENT AREAS WHICH ARE DESIGNATED TO REMAIN.
- VOID/HOLES (HONEYCOMB AREAS) ON THE CURB BACK/FACE SHALL BE REPAIRED WITH CEMENT MORTAR PASTE TO THE SATISFACTION OF THE OWNER.

CLEANUP AND RESTORATION NOTES

- PROTECT ADJACENT AREAS OUTSIDE OF PROJECT LIMITS DURING CONSTRUCTION. RESTORE ALL DISTURBED AREAS TO MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED ON THE PROJECT PLANS. RESTORE GRASS AREAS WITH MINIMUM 4" OF TOPSOIL AND SOO UNLESS OTHERWISE NOTED ON THE PLANS. HYDRO SEED MAY BE USED WITH ENGINEERS APPROVAL. INSTALL SLOPE RESTORATION TYPE AS INDICATED ON PLAN.
- UPON COMPLETION OF WORK, THE ENTIRE SITE SHALL BE CLEARED OF EQUIPMENT, UNUSED MATERIALS, AND RUBBISH AND ANY DISTURBED AREAS RESTORED TO THE SATISFACTION OF THE OWNER.
- FINAL PAYMENT WILL NOT BE MADE UNTIL THE SITE IS CLEARED, RESTORED AND CLEANED PER THE PROJECT SPECIFICATIONS.

ABBREVIATIONS USED IN DRAWINGS

THE FOLLOWING ABBREVIATIONS ARE USED ON THESE PLANS:

@	AT (RATE OF)
&	AND
"	INCH
#	FOOT
AC	NUMBER
ADA	ASPHALT CONCRETE = ASPHALT PAVEMENT/HOT MIX ASPHALT PAVEMENT
AGG	AMERICANS WITH DISABILITIES ACT (BARRIER FREE ACCESS)
ALT	AGGREGATE BASE
APPROX.	ALTERNATE
ARCH.	APPROXIMATE/APPROXIMATELY
ASTM	ARCHITECT
AVG	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	AVERAGE
BDY	BORING
BIT	BOUNDARY
BF	BITUMINOUS
BFF	BARRIER FREE
BLDG	BANK FULL FLOOD
BM	BUILDING
BOLL	BENCHMARK
BOT	BOLLARD
BRG	BOTTOM
BSMT	BEARING
BOW	BASEMENT
C	BOTTOM OF WALL
CAP	CORE
CB	CAPACITY
CENTL	CATCH BASIN
CF	CENTERLINE
CHANN.	CUBIC FEET
CJ	CHANN.
CLS	CONTROL JOINT
CL	CRUSHED LIMESTONE
CMP	CENTERLINE
CMU	CORRUGATED METAL PIPE
CO	CONCRETE MASONRY UNIT
COEF	CLEAN OUT
COL	COEFFICIENT
COMM/COMM.	COLUMN
CONC	COMMUNICATIONS
CONN.	CONCRETE
COV.	CONNECTION
CULV.	COVER
CYP	CULVERT
CY	CORRUGATED PLASTIC PIPE
DIAM/DIA.	CUBIC YARD
DI	DIAMETER
DIM/DIM.	DUCTILE IRON
DEG/DEG.	DIMENSION
DEMO/DEMO.	DEGREE
DEPT.	DEG/DEG.
DMH	DEMOLITION
DS	DEPARTMENT
E	DROP MANHOLE
EE	DOWNSPOUT
EG	EACH
EHH	EAST
ELEV.	EACH END
EM	EDGE OF GRAVEL
ENG/ENG.	ELECTRICAL HAND HOLE
ENT.	ELEVATION
EQUIP.	EDGE OF METAL
ES	ENGINEER
EXCAV/EXCAV.	ENTRANCE
EXFEX	EQUIPMENT
EXP	END SECTION
FD	EXCAVATE
FDC	EXISTING
FDN	EXPANSION
FDR	FLOOR DRAIN
FF	FIRE DEPARTMENT CONNECTION
FG	FOUNDATION
FURN.	FULL DEPTH RECLAMATION
FP	FINISH FLOOR
FT	FINISH GRADE
FTG	FURNISH
ELEV.	FLOOD PLAIN
EQUIP.	FEET/FOOT
GAL/GAL.	FOOTING
GEN.	ELEVATION
GIS	EQUIPMENT
GU	GALLON
GV/GVA	GENERAL
GVL	GEOGRAPHIC INFORMATION SYSTEM
HD	GUTTER
HDPE	GATE VALVE
HH	GRAVEL
HP	HEAVY DUTY
HGL	HIGH DENSITY POLYETHYLENE
HMA	HANDHOLE
HORIZ/HORIZ.	HIGH POINT
HYD	HYDRAULIC GRADE LINE
INT	HOT MIX ASPHALT PAVEMENT
LD	HORIZONTAL
LF	HYDRANT
LP	INSTALL
MAX/MAX.	LIGHT DUTY
ME	LINEAR FEET
MDOT	LOW POINT
MH	MAXIMUM
MIN/MIN.	MATCH EXISTING
N	MICHIGAN DEPARTMENT OF TRANSPORTATION
NIC	MANHOLE
NO	MINIMUM
NFV	NORTH
NTS	NOT IN CONTRACT
OC	NUMBER
OD	NOT FIELD VERIFIED
OD	NOT TO SCALE
PCC	ON CENTER
PVC	OUTSIDE DIAMETER
PR	PORTLAND CEMENT CONCRETE = CONCRETE
RCP	POLYVINYL CHLORIDE
RY	PROPOSED
S	REINFORCED CONCRETE PIPE
SAN	REAR YARD
SB	SOUTH
SESC	SANITARY SEWER
SF	STABILIZED BASE COURSE
SG	SOIL EROSION AND SEDIMENT CONTROL
STM	SQUARE FEET
SY	SUBGRADE
TA	STORM SEWER
TC	SQUARE YARD
TERS	TOP OF HMA PAVEMENT ELEVATION
TOP	TOP OF PROPOSED CURB
TOW	TEMPORARY EARTH RETENTION SYSTEM
TP	TOP OF PAD (CONCRETE)
TP/TP.	TOP OF WALL
TW	TEST PIT
VB	TYPICAL
VCP	TOP OF SIDEWALK
VERT/VERT.	VAPOR BARRIER
VIF	VERTIFIED CLAY PIPE
VLT	VERTICAL
VOL	VERIFY IN FIELD
W	VAULT
WM	WEST
WTR	VOLUME
WWF	WEST
	WATER MAIN
	WATER
	WELDED WIRE FABRIC

DEFINITIONS USED IN DRAWINGS

THE FOLLOWING DEFINITIONS ARE USED ON THESE PLANS:

ENGINEER	SME
CITY	MARSHAL TOWNSHIP
COUNTY	CALHOUN
OWNER	MARSHAL TOWNSHIP



Orientation	Scale
-------------	-------

Project
MARSHALL TOWNSHIP
FIRE STATION NO. 1

Project Location
13550 15 MILE RD
MARSHALL, MI 49068

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

REV	ISSUED FOR	DATE	BY
01	SITE PLAN SUBMITTAL	03/04/2024	JWG
02	SITE PLAN RE-SUBMITTAL	04/15/2024	JWG
03	SITE PLAN RE-SUBMITTAL	04/29/2024	JWG
04	SITE PLAN RE-SUBMITTAL	05/03/2024	JWG

Date
12/15/2023

SME Project No.
094551.00

Project Manager:
J. GRAVES

Designer:
A. REED

CADD:
J. RIOS

Checked By:
A. REED

Reviewed By:
J. GRAVES

Sheet Name:
GENERAL PROJECT NOTES

Sheet No.
C-101

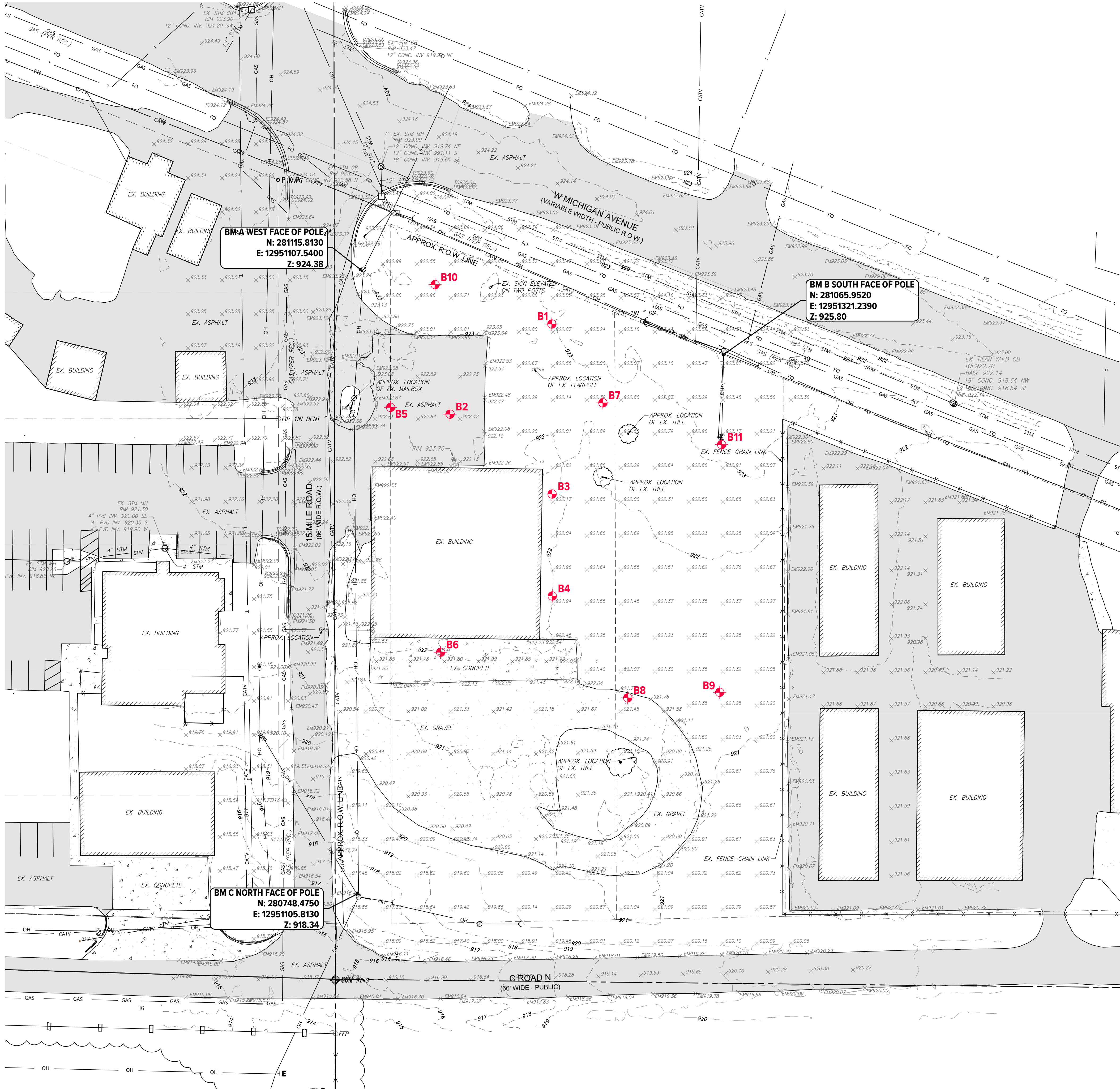


Know what's below.
 Call before you dig.

WARNING!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF NEARBY STRUCTURES, NOR OF OTHER PERSONS.

DRAWING NOTE: SCALE SPECIFIED IS MEANT FOR 24" X 36" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA.
 NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME.
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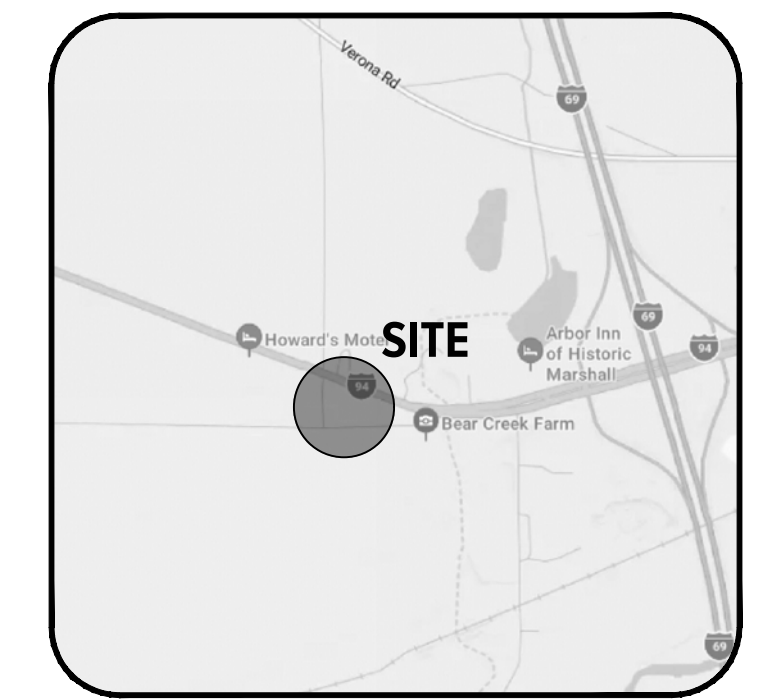


BENCHMARK DATA

BM A
WEST FACE OF POWER POLE
N: 281115.8130
E: 12951107.5400
ELEVATION = 924.38
(NAVD88 DATUM)

BM B
SOUTH FACE OF POWER POLE
N: 281065.9520
E: 12951321.2390
ELEVATION = 925.80
(NAVD88 DATUM)

BM C
NORTH FACE OF POWER POLE
N: 280748.4750
E: 12951105.8130
ELEVATION = 918.34
(NAVD88 DATUM)



LOCATION MAP
NOT TO SCALE

EXISTING LEGEND

- CONTOUR
- INDEX CONTOUR
- WATER MAIN
- STORM SEWER
- SANITARY SEWER
- CATV
- OVERHEAD UTILITY
- FIBER OPTIC
- GAS
- UGE
- PIV
- POST INDICATOR VALVE (PIV)
- WATER MAIN MANHOLE
- SQUARE CATCH BASIN
- ROUND CATCH BASIN
- BEEHIVE CATCH BASIN
- END SECTION
- STORM MANHOLE
- CLEANOUT
- SANITARY MANHOLE
- UTILITY POLE
- POWER POLE
- LIGHT POLE
- GUY WIRE
- ELECTRICAL CONTROL BOX
- VAULT
- ELECTRICAL MANHOLE
- TRANSFORMER
- TELEPHONE PEDESTAL
- FLAG POLE
- MAILBOX
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- 999.99
- TC
- CU
- EM
- TW
- BW
- CONCRETE
- ASPHALT PAVEMENT
- GRAVEL
- RIP-RAP
- WETLAND

NOTES

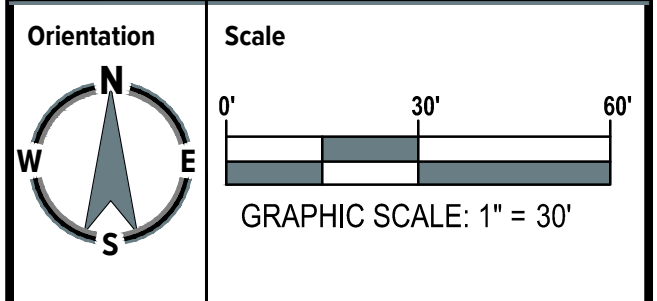
- DRAWING BASED ON MICHIGAN STATE PLAN COORDINATES SYSTEM, SOUTH ZONE, INTERNATIONAL FEET.
- THIS SURVEY WILL NOT SHOW ALL EASEMENTS OF RECORD UNTIL AN UPDATED TITLE POLICY HAS BEEN FURNISHED TO THE SURVEYOR BY THE OWNER.
- ALL ELEVATIONS ARE EXISTING ELEVATIONS
- THE LOCATION OF THE EXISTING UTILITIES AS SHOWN WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANIES RECORDS. NO GUARANTEE CAN BE MADE REGARDING THE COMPLETENESS OR EXACTNESS OF THE UTILITIES LOCATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD THE LOCATION OF ALL UTILITIES.
- BOUNDARY SURVEY PERFORMED BY OTHERS.

DIRECTION	ZONED	ADDRESS
East	HS - Highway Service Commercial	15100 W. Michigan Ave, Marshall, MI 49068
West	ROW	Michigan Avenue
	HS - Highway Service Commercial	14978 W. Michigan Ave, Marshall, MI 49068
North	ROW	15 Mile Road
	MHP - Manufactured Home Park	15011 W. Michigan Ave, Marshall, MI 49068
South	ROW	Future Roadway
	P.A 425 Agreement	



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FIRE STATION NO. 1

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Engineer's Seal

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Revisions

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02	SITE PLAN RE-SUBMITTAL	04/15/2024	JWG
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04	SITE PLAN RE-SUBMITTAL	05/03/2024	JWG

Date
12/15/2023

SME Project No.
094551.00

Project Manager:
J. GRAVES

Designer:
A. REED

CADD:
J. RIOS

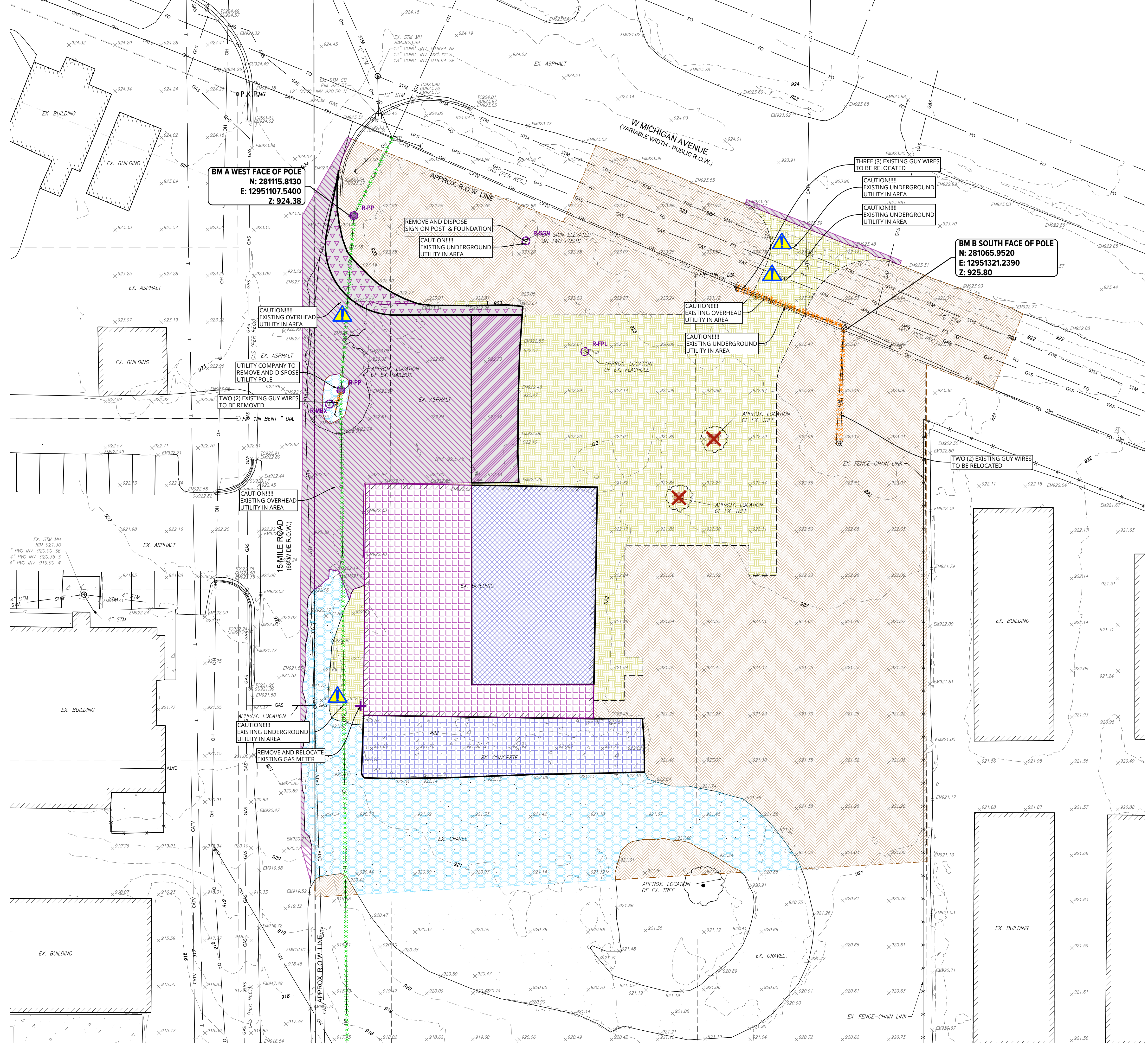
Checked By:
A. REED

Reviewed By:
J. GRAVES

Sheet Name:
EXISTING SITE CONDITIONS

Sheet No.
C-200

FILE LOCATION: \\sme-inc\p\MP\094551.00\CADD\Design\Final\CIV2-SPAR\04/04/24/094551.00-ESCC.dwg PLOT DATE: May 03, 2024, 1:56pm - samantha.paradise

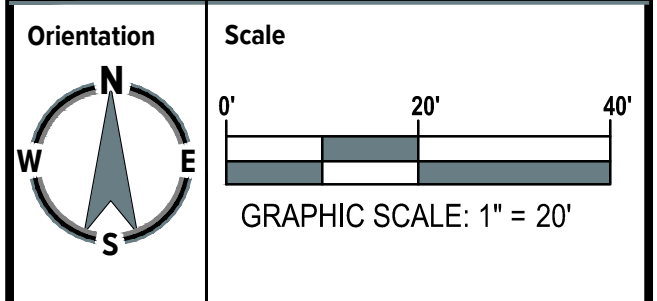


REMOVAL LEGEND

- NOTE: REMOVAL SHALL INCLUDE SURFACE ITEMS NOTED BELOW IN ADDITION TO UNDERLYING BASE, SUBBASE, SUBGRADE AND DELETERIOUS MATERIAL TO ACCOMMODATE PROPOSED IMPROVEMENTS.
- REMOVE/EXCAVATE EXISTING ASPHALT TO ACCOMMODATE PROPOSED BUILDING
 - SAWCUT AND REMOVE EXISTING ASPHALT TO ACCOMMODATE PROPOSED ASPHALT PAVEMENT SECTION
 - SAWCUT AND REMOVE EXISTING PAVEMENT TO ACCOMMODATE PROPOSED GREENBELT
 - DEMOLISH/REMOVE EXISTING BUILDING TO ACCOMMODATE PROPOSED BUILDING
 - REMOVE/DEMOLISH EXISTING BUILDING FOR PROPOSED IMPROVEMENTS
 - REMOVE/EXCAVATE EXISTING GRAVEL TO ACCOMMODATE PROPOSED IMPROVEMENTS
 - SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO ACCOMMODATE PROPOSED IMPROVEMENTS
 - REMOVE/EXCAVATE EXISTING GREENBELT TO ACCOMMODATE PROPOSED IMPROVEMENTS
 - AREA OF GRADING/EARTHWORK
 - REMOVE EXISTING OVERHEAD UTILITY LINES
 - EXISTING UTILITY POLE GUY WIRES TO BE REMOVED OR RELOCATED
 - CAUTION!!! EXISTING UTILITY IN AREA (SEE EXISTING/RECORD UTILITIES NOTE, THIS SHEET)
 - R-SGN REMOVE AND DISPOSE OF EXISTING SIGN, POST AND FOUNDATION.
 - R-FPL REMOVE AND DISPOSE OF EXISTING FLAGPOLE, POST AND FOUNDATION.
 - R-MBX REMOVE AND DISPOSE OF EXISTING MAILBOX, POST AND FOUNDATION.
 - R-PP REMOVE AND DISPOSE OF EXISTING POWER POLE, GUY WIRES, AND ASSOCIATED ITEM.
 - REMOVE/RELOCATE EXISTING MISC. ITEM AS NOTED.
 - REMOVE AND DISPOSE OF EXISTING TREE.

EXISTING/RECORD UTILITIES NOTE

THE LOCATION OF THE EXISTING UTILITIES AS SHOWN WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANY RECORDS, FIELD OBSERVATIONS AND OWNER PROVIDED DRAWINGS. NO GUARANTEE CAN BE MADE REGARDING THE COMPLETENESS OR EXACTNESS OF THE UTILITIES LOCATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES SHOWN, REFERENCED OR MARKED IN THE FIELD. CONTRACTOR TO REPORT ANY CONFLICTS IN THE FIELD TO THE ENGINEER. CONTRACTOR METHODS FOR UTILITY LOCATING SHALL AT A MINIMUM INCLUDE UTILIZING A UTILITY LOCATING COMPANY, HYDRO EXCAVATION, SOFT DIG AND POT HOLING.



Project
**MARSHALL TOWNSHIP
FIRE STATION NO. 1**

Project Location
**13550 15 MILE RD
MARSHALL, MI 49068**

Engineer's Seal

**PRELIMINARY - NOT
FOR CONSTRUCTION**

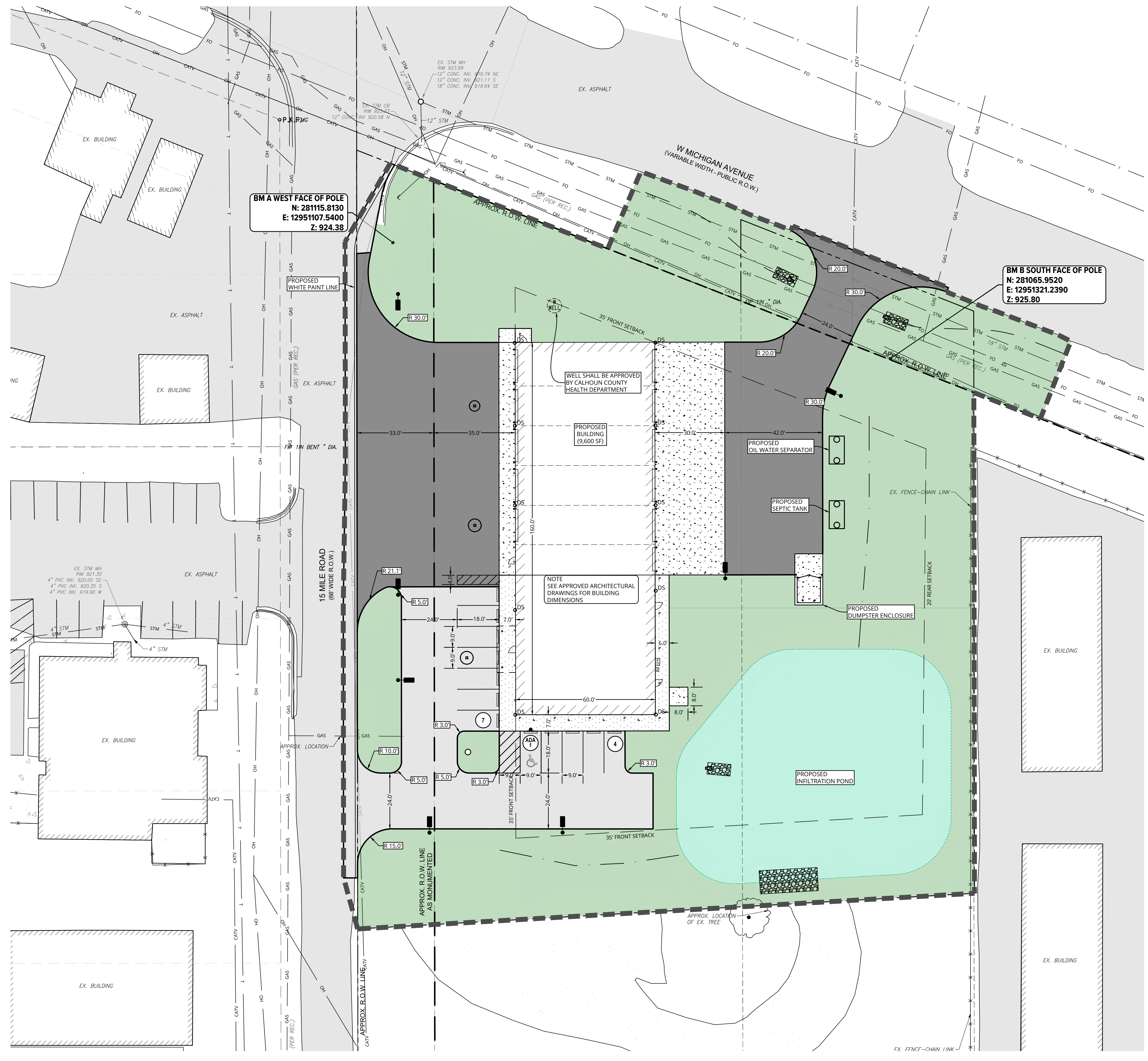
Revisions

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04	SITE PLAN RE-SUBMITTAL	05/03/2024	JWG

Date	12/15/2023
SME Project No.	094551.00
Project Manager:	J. GRAVES
Designer:	A. REED
CADD:	J. RIOS
Checked By:	A. REED
Reviewed By:	J. GRAVES
Sheet Name:	REMOVAL AND EXCAVATION PLAN
Sheet No.	C-400



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BM A WEST FACE OF POLE
N: 281115.8130
E: 12951107.5400
Z: 924.38

BM B SOUTH FACE OF POLE
N: 281065.9520
E: 12951321.2390
Z: 925.80

WELL SHALL BE APPROVED
BY CALHOUN COUNTY
HEALTH DEPARTMENT

PROPOSED
BUILDING
(9,600 SF)

PROPOSED
OIL/WATER SEPARATOR

PROPOSED
SEPTIC TANK

PROPOSED
DUMPSTER ENCLOSURE

PROPOSED
INFILTRATION POND

NOTE
SEE APPROVED ARCHITECTURAL
DRAWINGS FOR BUILDING
DIMENSIONS

PROPOSED LEGEND

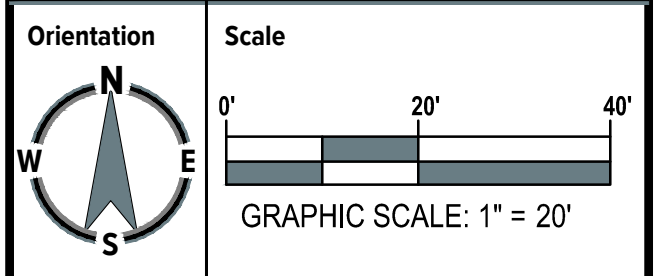
- PROPOSED PROJECT LIMITS
- PROPOSED MD HMA PAVEMENT SECTION
- PROPOSED HD HMA PAVEMENT SECTION
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT SECTION
- PROPOSED GREENBELT
- PROPOSED INFILTRATION POND
- PROPOSED CONCRETE CURB AND GUTTER
- PROPOSED CONCRETE CURB AND GUTTER (REVERSE OR SPILLOUT)
- PROPOSED ADA RAMP (TYPE SPECIFIED PER PLAN) WITH TRUNCATED DOME
- PROPOSED SWALE
- PROPOSED 6' HIGH CHAIN LINK FENCE
- PROPOSED END SECTION
- PROPOSED SQUARE CATCH BASIN
- PROPOSED ROUND CATCH BASIN
- PROPOSED REAR YARD CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED LOWHEAD CATCH BASIN
- PROPOSED 2" DIA. INLET
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED BLUE PAINT ADA COMPLIANT BARRIER FREE PARKING LOGO
- PROPOSED ADA SIGN ON POST IN GREENBELT
- PROPOSED WHEEL STOP
- PROPOSED BOLLARD
- PROPOSED 4" WIDE PAINT STRIPES
- PROPOSED STRIPING @ 36" O.C.
- PROPOSED CROSS-WALK STRIPING
- PROPOSED PAINTED ARROWS
- PROPOSED STD./ADA COUNT

SITE LAYOUT NOTE

SEE PAVING AND GRADING PLAN FOR FURNISH AND INSTALL NOTES AND REFERENCES TO SPECIFIC PAVEMENT SECTIONS

PROPOSED PARKING DATA :

STD STALLS = 11
ADA STALLS (STD) PROVIDED = 0
ADA VAN ACCESSIBLE PROVIDED = 1



Project
**MARSHALL TOWNSHIP
FIRE STATION NO. 1**

Project Location
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MARSHALL, MI 49068**

Engineer's Seal

**PRELIMINARY - NOT
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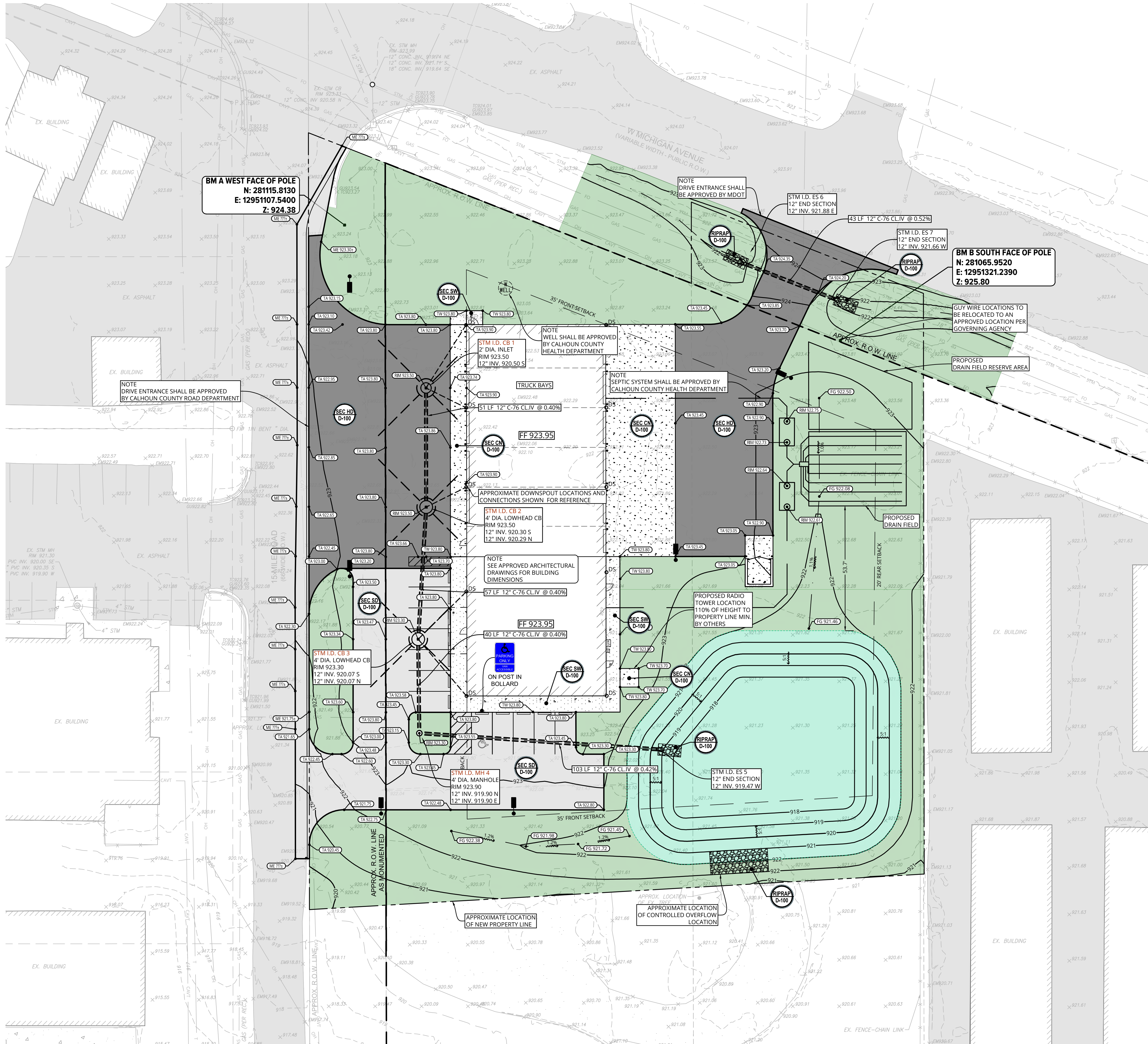
Revisions

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SME Project No.	094551.00
Project Manager:	J. GRAVES
Designer:	A. REED
CADD:	J. RIOS
Checked By:	A. REED
Reviewed By:	J. GRAVES
Sheet Name:	SITE LAYOUT PLAN
Sheet No.	C-500



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 N: 281115.8130
 E: 12951107.5400
 Z: 924.38

BM B SOUTH FACE OF POLE
 N: 281065.9520
 E: 12951321.2390
 Z: 925.80

NOTE
 DRIVE ENTRANCE SHALL BE APPROVED
 BY CALHOUN COUNTY ROAD DEPARTMENT

NOTE
 WELL SHALL BE APPROVED
 BY CALHOUN COUNTY
 HEALTH DEPARTMENT

NOTE
 SEPTIC SYSTEM SHALL BE APPROVED BY
 CALHOUN COUNTY HEALTH DEPARTMENT

NOTE
 GUY WIRE LOCATIONS TO
 BE RELOCATED TO AN
 APPROVED LOCATION PER
 GOVERNING AGENCY

STM I.D. CB 3
 4" DIA. LOWHEAD CB
 RIM 923.30
 12" INV. 920.07 S
 12" INV. 920.07 N

STM I.D. CB 2
 4" DIA. LOWHEAD CB
 RIM 923.50
 12" INV. 920.30 S
 12" INV. 920.29 N

STM I.D. MH 4
 4" DIA. MANHOLE
 RIM 923.90
 12" INV. 919.90 N
 12" INV. 919.90 E

STM I.D. ES 5
 12" END SECTION
 12" INV. 919.47 W

SEC. I.D. INSTALL/PAVING LEGEND

(SEE SHEET D-100 FOR PAVEMENT SECTION DETAILS)

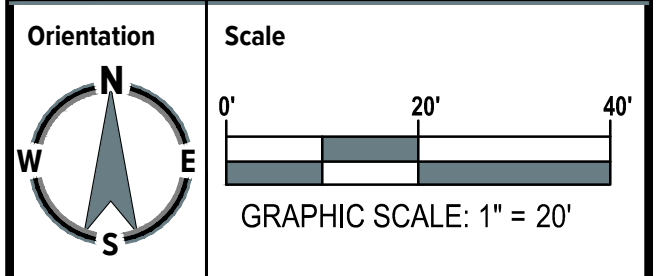
- FURNISH AND INSTALL SD HMA PAVEMENT SECTION
- FURNISH AND INSTALL HD HMA PAVEMENT SECTION
- FURNISH AND INSTALL CONCRETE PAVEMENT SECTION
- FURNISH AND INSTALL CONCRETE SIDEWALK
- FURNISH AND INSTALL RIP RAP
- PROPOSED RETENTION AREA
- PROPOSED GREENBELT
- FURNISH AND INSTALL ADA SIGN ON POST ON BOLLARD
- FURNISH AND INSTALL 6" UNDERDRAINED DRAIN
- FURNISH AND INSTALL SWALE
- FURNISH AND INSTALL STORM SEWER PIPE
- FURNISH AND INSTALL END SECTION
- FURNISH AND INSTALL SQUARE CATCH BASIN
- FURNISH AND INSTALL ROUND CATCH BASIN
- FURNISH AND INSTALL REAR YARD CATCH BASIN
- FURNISH AND INSTALL STORM MANHOLE
- FURNISH AND INSTALL LOWHEAD CATCH BASIN
- FURNISH AND INSTALL 2" DIA. INLET
- FURNISH AND INSTALL DOWNSPOUT
- FURNISH AND INSTALL SANITARY CLEANOUT
- FURNISH AND INSTALL SANITARY MANHOLE
- FURNISH AND INSTALL SANITARY SEWER
- FURNISH AND INSTALL STD. HYDRANT ASSEMBLY
- FURNISH AND INSTALL GATE VALVE AND WELL
- FURNISH AND INSTALL WHEEL STOP
- FURNISH AND INSTALL BOLLARD

BENCHMARK DATA

BM A
 WEST FACE OF POWER POLE
 N: 281115.8130
 E: 12951107.5400
 ELEVATION = 924.38
 (NAVD88 DATUM)

BM B
 SOUTH FACE OF POWER POLE
 N: 281065.9520
 E: 12951321.2390
 ELEVATION = 925.80
 (NAVD88 DATUM)

BM C
 NORTH FACE OF POWER POLE
 N: 280748.4750
 E: 12951105.8130
 ELEVATION = 918.34
 (NAVD88 DATUM)



Project
 MARSHALL TOWNSHIP
 FIRE STATION NO. 1

Project Location
 13550 15 MILE RD
 MARSHALL, MI 49068

Engineer's Seal

PRELIMINARY - NOT FOR CONSTRUCTION

Revisions

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Date	12/15/2023
SME Project No.	094551.00
Project Manager:	J. GRAVES
Designer:	A. REED
CADD:	J. RIOS
Checked By:	A. REED
Reviewed By:	J. GRAVES
Sheet Name:	INSTALLATION, PAVING AND GRADING PLAN
Sheet No.	C-600



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FILE LOCATION: \\sme-inc\p\094551.00\CADD\Design\Final\CIV2-SPAR\094551-00-Install-Paving-Grading-DPT-L.dwg



PROPOSED LEGEND

- PROPOSED PROJECT LIMITS
- PROPOSED MD HMA PAVEMENT SECTION
- PROPOSED HD HMA PAVEMENT SECTION
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT SECTION
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- PROPOSED 4" WIDE PAINT STRIPES
- PROPOSED STRIPING @ 36" O.C.
- PROPOSED CROSS-WALK STRIPING
- PROPOSED PAINTED ARROWS

LANDSCAPE NOTES

- REFER TO MARSHAL TOWNSHIP ZONING ORDINANCE ARTICLE 10 LANDSCAPING, SCREENING, AND LIGHTING SECTION FOR LANDSCAPE REQUIREMENTS ON SITE.
- ALL PROPOSED TREES ON SITE SHALL BE INSTALLED AT THE MINIMUM INSTALLATION SIZE REQUIREMENTS PER TABLE 10.2A PER SECTION 10-2 ITEM D.
- ALL TREES SHALL BE INSTALLED PER TABLE 10.5 BUFFER AREA LANDSCAPE REQUIREMENTS PER SECTION 10-5 ITEM B.

LANDSCAPE CALCULATIONS

NORTH (ROW) RIGHT-OF-WAY FRONTAGE = 249.34 ft.
 WEST (ROW) RIGHT-OF-WAY FRONTAGE = 319.69 ft.
 SOUTH (ROW) RIGHT-OF-WAY FRONTAGE = 232.22 ft.
TOTAL ROADWAY (ROW) RIGHT-OF-WAY FRONTAGE = 801.25 ft.

TREES*
 FIVE (5) TREES PER EACH 100 LINEAR FEET OF ROAD FRONTAGE
 TOTAL NUMBER OF TREES REQUIRED = 800/100 = 8 x 5 = **40 TREES**

SHRUBS*
 SIX (6) SHRUBS PER EACH 100 LINEAR FEET OF ROAD FRONTAGE
 TOTAL NUMBER OF SHRUBS REQUIRED = 800/100 = 8 x 6 = **48 SHRUBS**

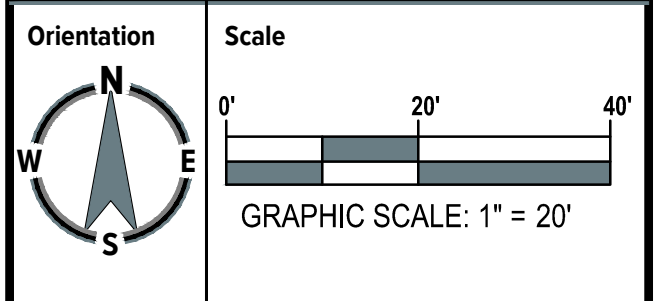
*SEE SECTION 10-4 FRONT YARD LANDSCAPING SECTION B FOR REQUIREMENTS

ID	Common Name	Scientific Name	Qty.	Installation Size (Min.)	Mature Height	Mature Spread
	Eastern red-cedar	<i>Juniperus virginiana</i>	16	Six (6) ft. high	40-50 ft.	8-20 ft.
	Hop-Hornbeam/tranwood	<i>Ostrya virginiana</i>	12	2 1/2 in. at DBH	25-40 ft.	15-40 ft.
	Eastern Redbud	<i>Cercis canadensis L.</i>	13	1 1/2 in. at DBH	40-50 ft.	25-35 ft.
	New Jersey tea	<i>Ceanothus americanus</i>	15	24" wide	Small Shrub 3-5 ft.	
	Bush-honeysuckle	<i>Diervilla lonicera</i>	24	24" wide	Low 3 ft Small Shrub 3-5 ft.	
	Red chokeberry	<i>Aronia arbutifolia</i>	19	24" wide	Med. Shrub 5-8 ft. Large Shrub +8 ft.	



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Project
MARSHALL TOWNSHIP
FIRE STATION NO. 1

Project Location
13550 15 MILE RD
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Engineer's Seal

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Revisions

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Date
12/15/2023

SME Project No.
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Project Manager:
J. GRAVES

Designer:
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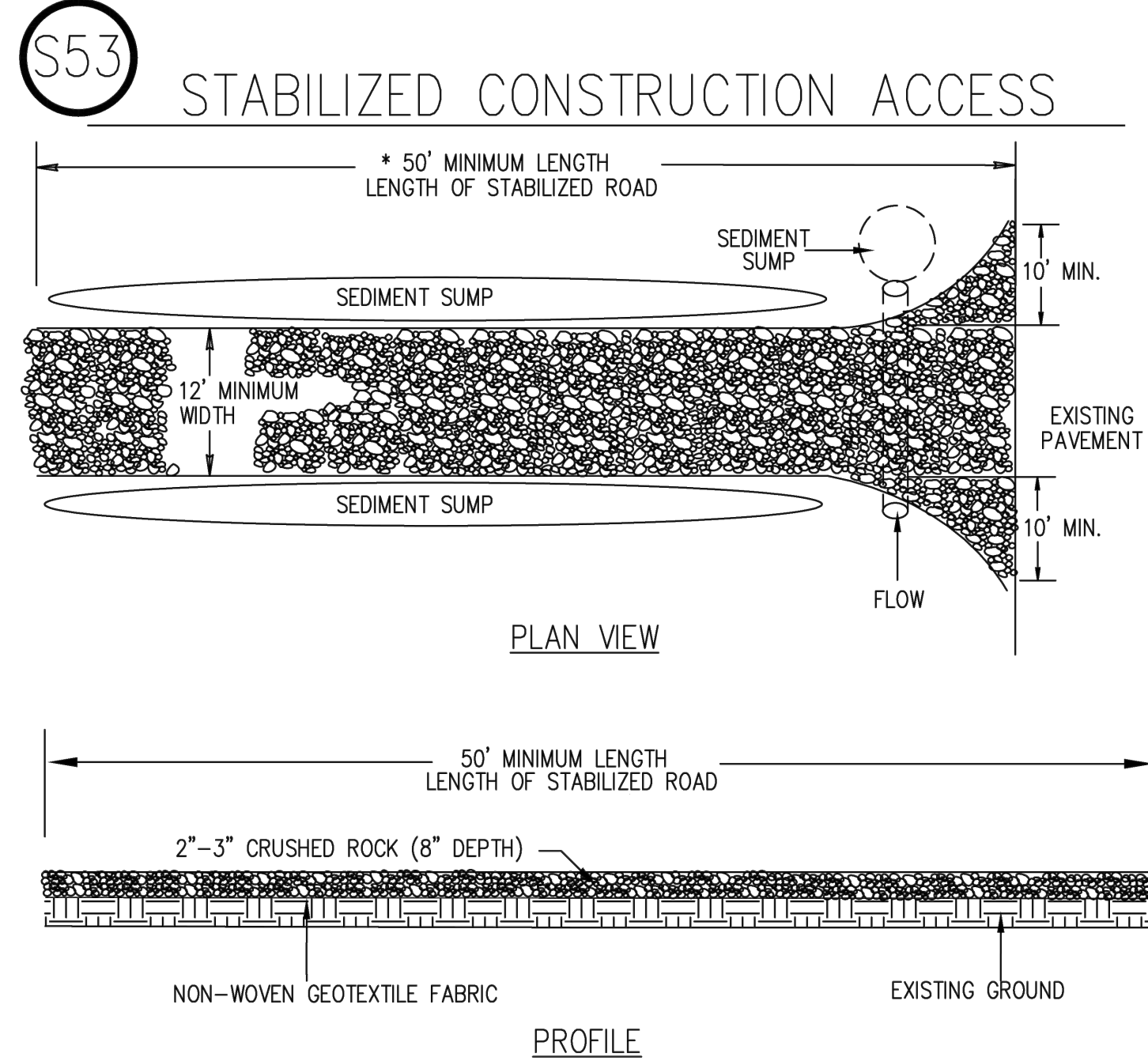
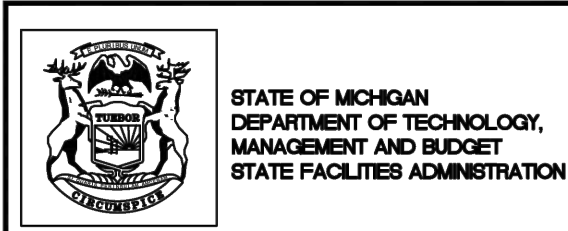
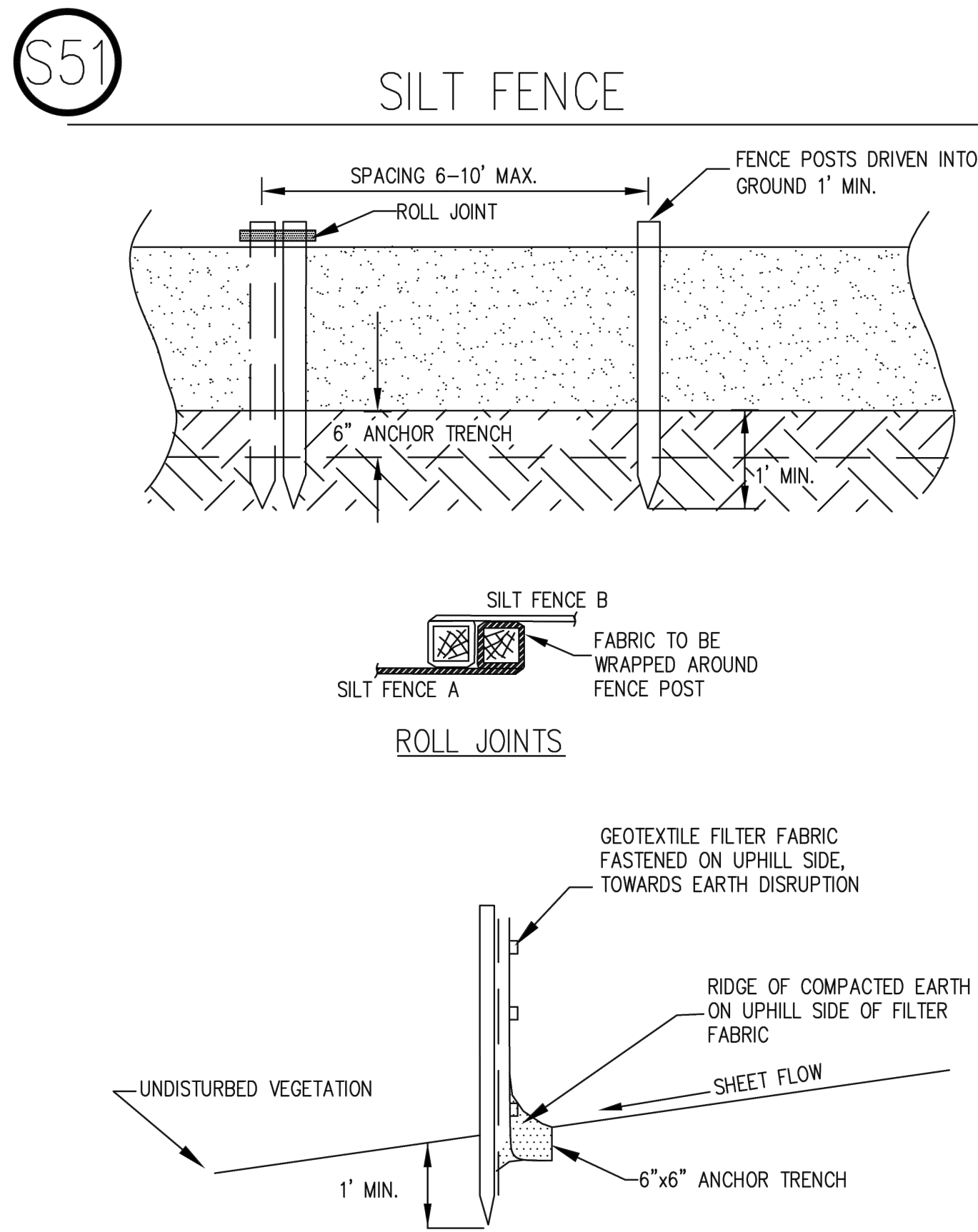
Checked By:
A. REED

Reviewed By:
J. GRAVES

Sheet Name:
LANDSCAPE LAYOUT PLAN

Sheet No.
L-100

DRAWING NOTE: SCALE DEPicted IS MEANT FOR 24" X 36" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA.
 NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME
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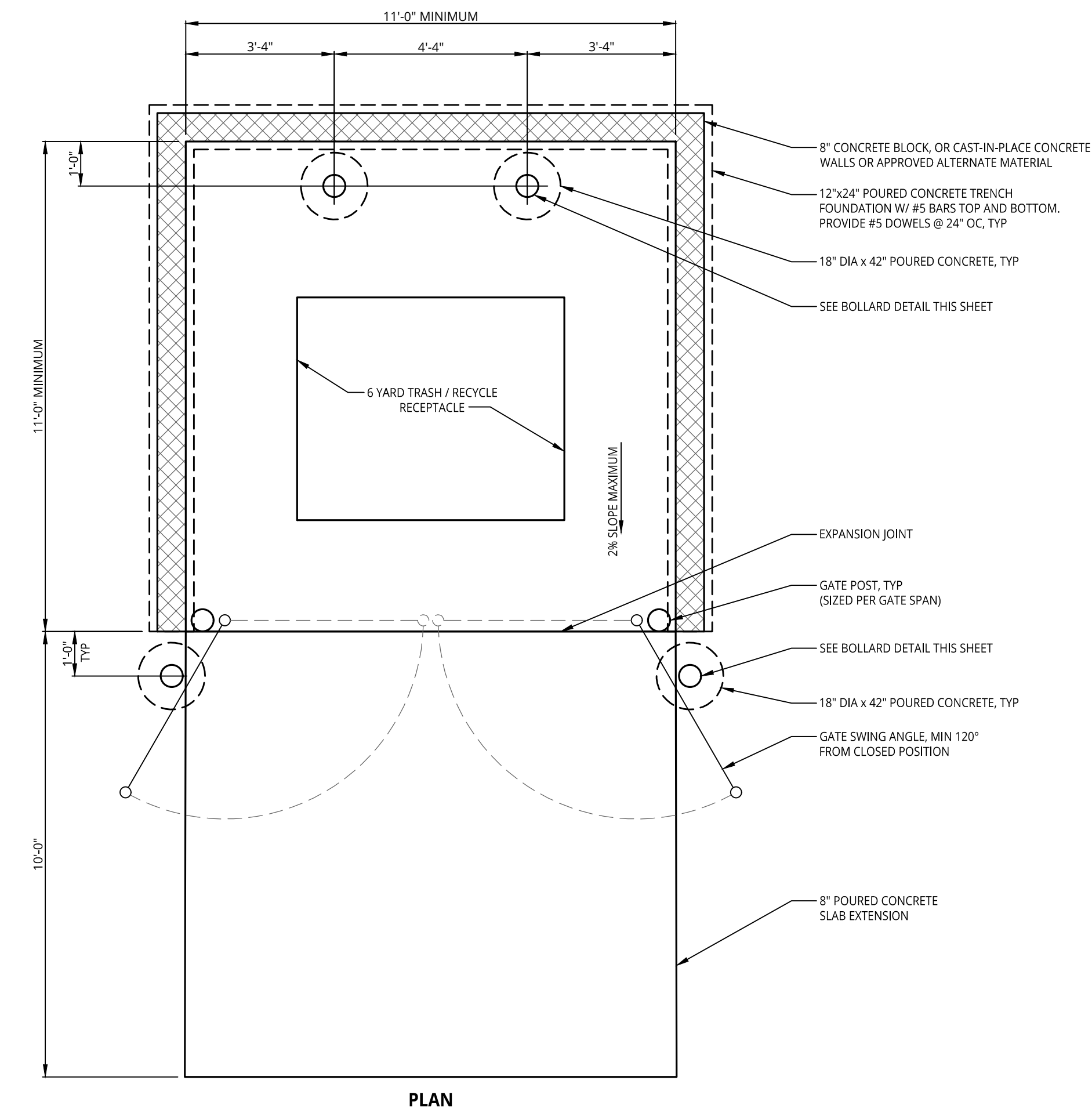
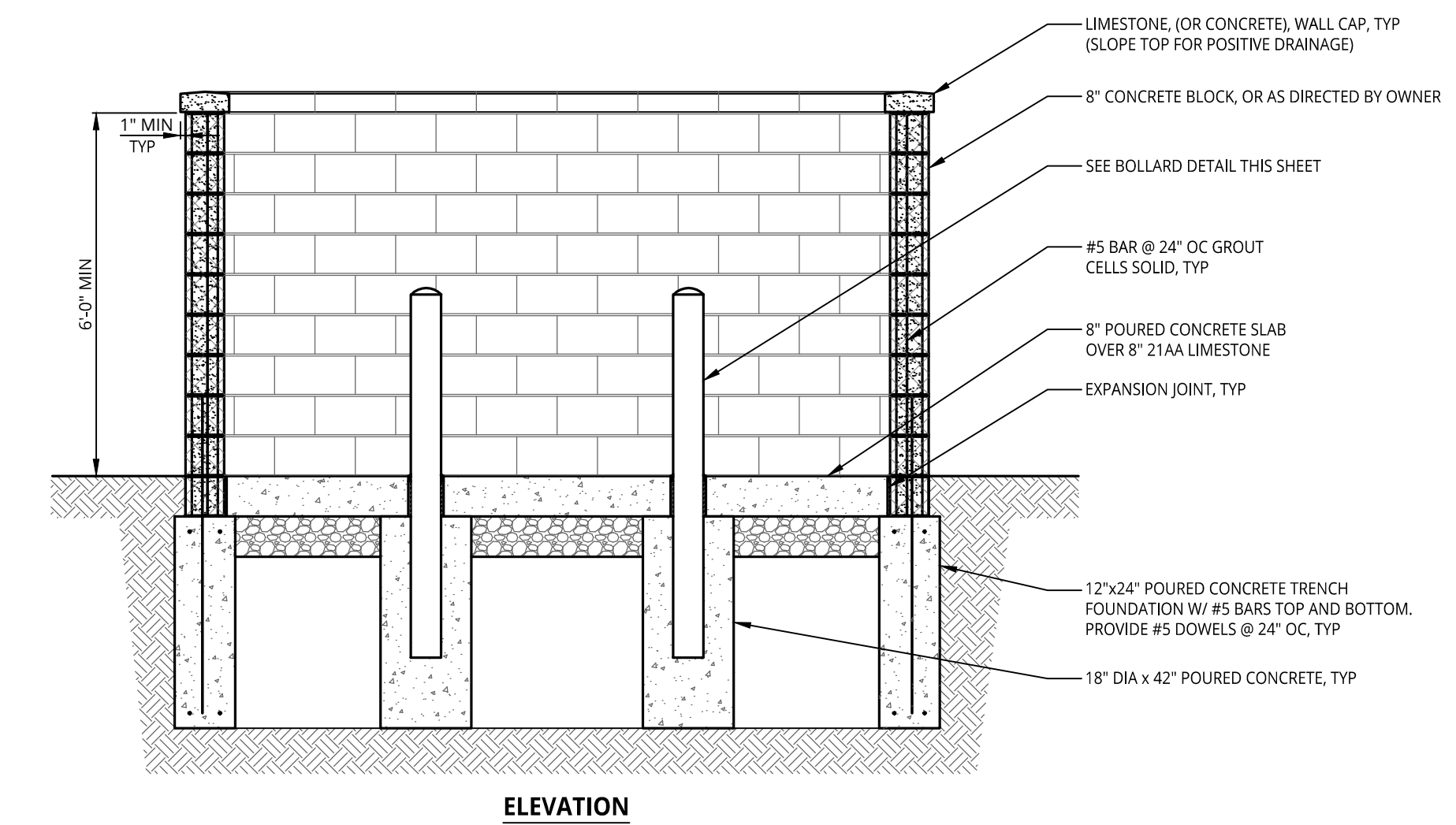
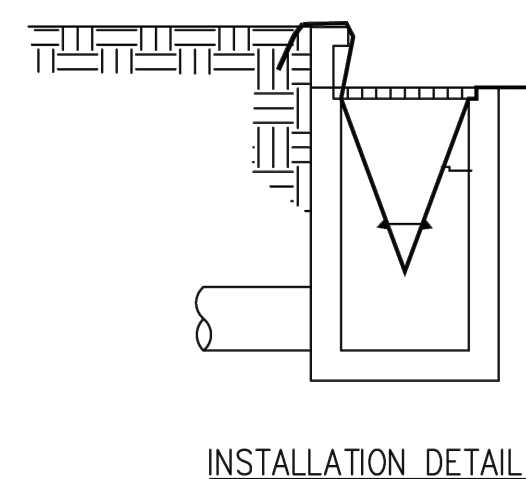
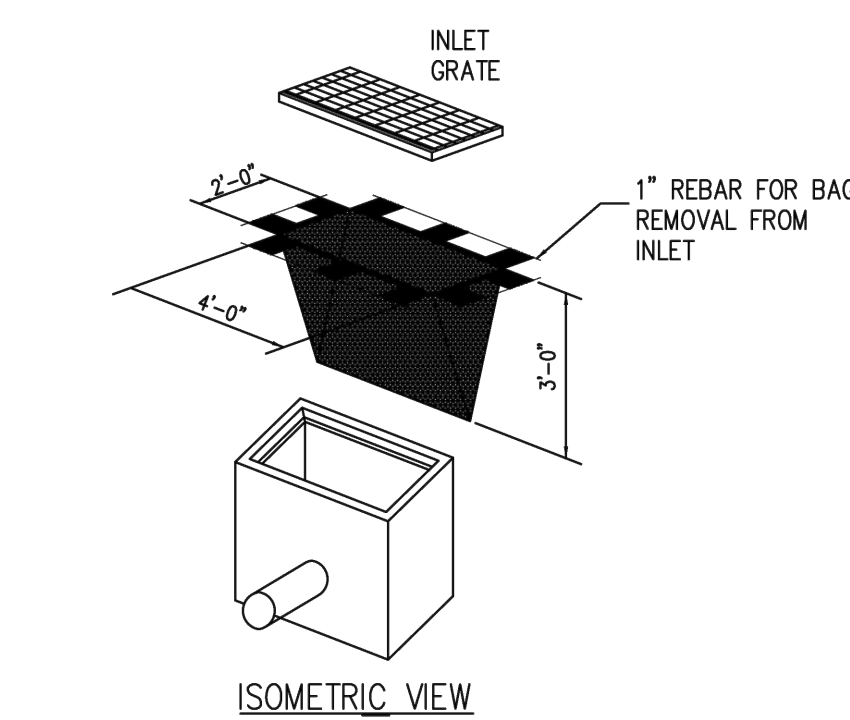


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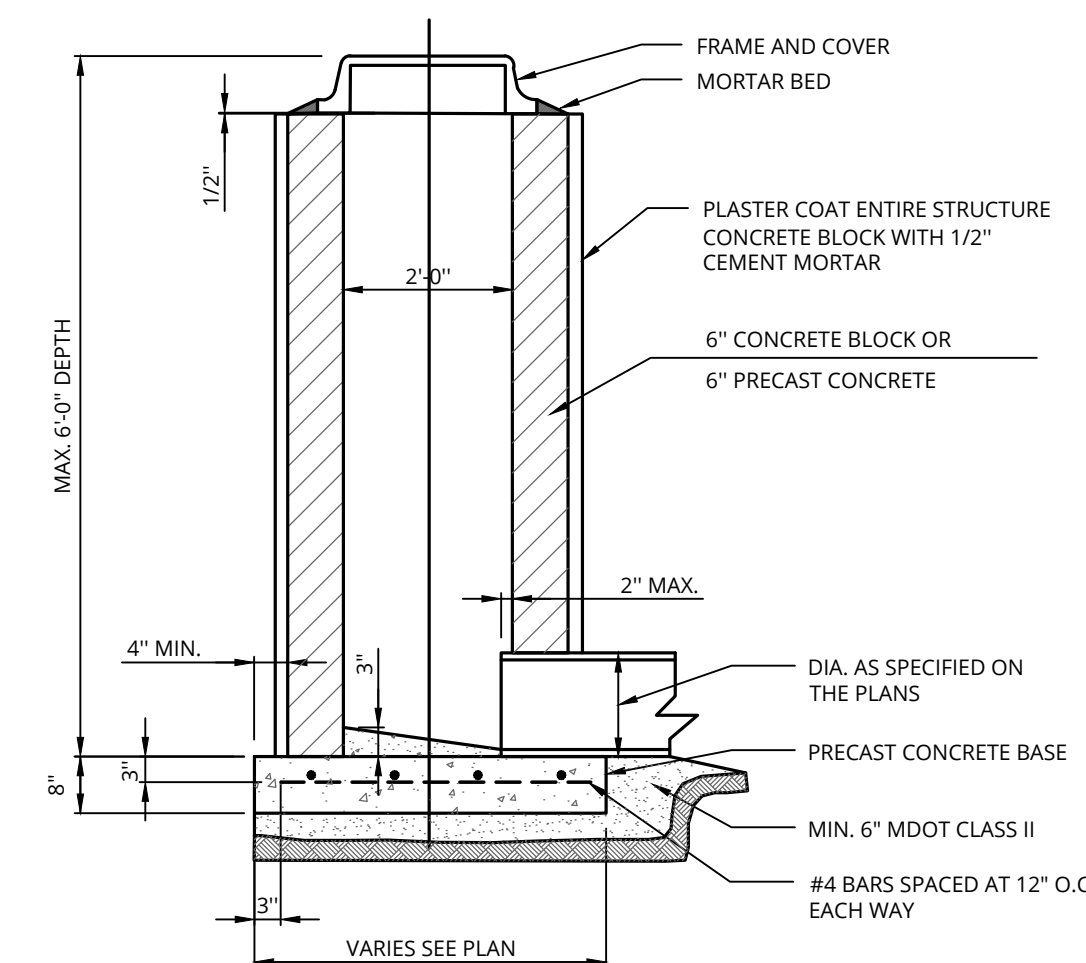
1. Establish stabilized construction entrance prior to the initiation of site construction activities.
2. Care should be taken to prevent material movement into adjacent wetlands/waterbodies.
3. Care should be taken to maintain existing roadside drainage via culvert installation, with sediment sump placed downflow of culvert.



S58 INLET PROTECTION - FABRIC DROP



DUMPSTER ENCLOSURE - SINGLE
NOT TO SCALE



NOTE:
STRUCTURE SHALL CONFORM WITH MDOT R-1-E UNLESS NOTED OTHERWISE



Orientation	Scale
-------------	-------

Project
MARSHALL TOWNSHIP
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CADD:	J. RIOS
Checked By:	A. REED
Reviewed By:	J. GRAVES
Sheet Name:	DETAILS
Sheet No.	D-101

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FILE LOCATION: \\Sme-hcp\p\WP\094551.00\CAD\Design Files\CIVIL\SPAR\Rev\094551.00-Details.dwg
PLOT DATE: May 03, 2024, 11:32am - chng.roth@son

ELECTRICAL SYMBOL LIST

(NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

	X DENOTES FIXTURE TYPE (NL INDICATES NIGHT LIGHT)		TWO-WAY COMMUNICATION SYSTEM CALL STATION		CONTROL PANEL
	FILL DENOTES EMERGENCY FIXTURE		TWO-WAY COMMUNICATION SYSTEM AUTO DIALER		VARIABLE FREQUENCY CONTROLLER
	TROFFER LIGHT		TWO-WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL		MANUAL CONTROLLER
	STRIP LIGHT		TWO-WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK-UP		DOOR CONTACT
	LINEAR LIGHT		TWO-WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK-UP		KEY PAD
	MULTIHEAD ADJUSTABLE LIGHT		REMOTE GENERATOR ANNUNCIATOR PANEL		CARD READER
	DOWN LIGHT		UNINTERRUPTIBLE POWER SUPPLY		DURESS PUSH BUTTON STATION
	DIRECTIONAL DOWN LIGHT		LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE		DELAYED EGRESS
	DECORATIVE LIGHT		SINGLE/DUPLICATION RECEPTACLE OUTLET "X" INDICATES TYPE		REQUEST TO EXIT STATION
	DECORATIVE LIGHT		SINGLE/DUPLICATION RECEPTACLE OUTLET CONTROLLED BY AUTOMATIC CONTROL DEVICE/SYSTEM		DOOR ACTUATOR
	WALL MOUNTED LIGHT		QUAD RECEPTACLE OUTLET		ACCESS CONTROL STATION
	WALL SCONCE		ABOVE COUNTER DUPLEX RECEPTACLE OUTLET (SIMILAR FOR TAMPER RESISTANT, CONTROLLED, QUADS, EMERGENCY, UPS, USB, AND GFCI RECEPTACLE OUTLETS)		ACCESS CONTROL CONTROL PANEL
	ARM MOUNTED LIGHT		DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE OUTLET		ACCESS CONTROL POWER SUPPLY
	LIGHTING TRACK		DEAD FRONT GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE OUTLET		CIRCUIT BREAKER
	TRACK LIGHT		DUPLEX EMERGENCY RECEPTACLE OUTLET		DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED
	ADJUSTABLE FLOOD LIGHT		DUPLEX TAMPER RESISTANT RECEPTACLE OUTLET		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE
	STEP LIGHT		QUAD TAMPER RESISTANT RECEPTACLE OUTLET		FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	LED TAPE		DUPLEX RECEPTACLE OUTLET WITH 2 USB PORTS		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	REMOTE DRIVER		4 PORT USB CHARGING STATION		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	HIGH BAY LIGHT		CEILING MOUNTED DUPLEX/QUAD RECEPTACLE OUTLET		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	POLE MOUNTED LIGHT		WALL/CEILING MOUNTED SPECIAL RECEPTACLE OUTLET - REFER TO ELECTRICAL STANDARD SCHEDULES		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	POST TOP LIGHT		TELECOMMUNICATION CEILING MOUNTED OUTLET "X" INDICATES TYPE		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	BOLLARD LIGHT		TELECOMMUNICATION BACKBOARD		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	IN GROUND LIGHT		TELECOMMUNICATION GROUNDING BUS BAR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	EMERGENCY LIGHT		TELECOMMUNICATION MAIN GROUNDING BUS BAR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	EXIT LIGHT WITH DIRECTIONAL ARROWS (FILLED AREA INDICATES FACE)		INTERCOM OUTLET		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	EXIT LIGHT WITH DIRECTIONAL ARROWS (FILLED AREA INDICATES FACE)		SPEAKER		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	EXIT/EMERGENCY LIGHT COMBO - WALL MOUNTED (FILLED AREA INDICATES FACE)		SPEAKER - WALL MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH		MICROPHONE		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	AUTOMATIC LOAD CONTROL RELAY		VOLUME CONTROL/STATION SELECTOR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	LIGHTING CONTROL DEVICE - REFER TO LIGHTING CONTROL SCHEDULE		SIGNALING BELL		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	ROOM CONTROL DESIGNATION - REFER TO LIGHTING CONTROL SCHEDULE		SINGLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	SINGLE POLE TOGGLE SWITCH		SINGLE FACE CLOCK - WALL MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	TWO POLE TOGGLE SWITCH		DOUBLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	3 WAY TOGGLE SWITCH		DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	4 WAY TOGGLE SWITCH		DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	KEY OPERATED SWITCH		TIME CLOCK		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	3 WAY KEY OPERATED SWITCH		CONTACTOR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	4 WAY KEY OPERATED SWITCH		PHOTOCELL		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	DIMMER SWITCH		OCCUPANCY SENSOR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	3 WAY DIMMER SWITCH		OCCUPANCY SENSOR REFER TO ELECTRICAL STANDARD SCHEDULES		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	DIMMER OCCUPANCY SENSOR SWITCH		OCCUPANCY SENSOR "X" INDICATES TYPE		FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	LOW VOLTAGE DIMMER SWITCH				FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	PILOT SWITCH				FIRE ALARM VISUAL NOTIFICATION APPLIANCE CEILING MOUNTED "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd

	SECURITY CAMERA		MANUAL FIRE ALARM BOX
	MOTION DETECTOR		SMOKE DETECTOR
	SECURITY KEY SWITCH		DUCT SMOKE DETECTOR
	DOOR CONTACT		CARBON MONOXIDE DETECTOR
	KEY PAD		REMOTE TEST STATION (FOR DUCT DETECTOR)
	CARD READER		HEAT DETECTOR
	DURESS PUSH BUTTON STATION		PROJECTED BEAM DETECTOR
	DELAYED EGRESS		FIRE ALARM BELL
	REQUEST TO EXIT STATION		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE
	AUTOMATIC DOOR PUSH PAD OPERATOR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE
	DOOR OPERATOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOOR ACTUATOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL STATION		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL CONTROL PANEL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL POWER SUPPLY		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CIRCUIT BREAKER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DRAWOUT CIRCUIT BREAKER ELECTRICALLY/ OPERATED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	FIREFIGHTERS PHONE JACK		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SWITCH		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	AUTOMATIC OR MANUAL TRANSFER SWITCH		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	FUSE		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CURRENT TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	POTENTIAL TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	LIGHTNING ARRESTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	PANELBOARD		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TELECOMMUNICATION GROUNDING BUS BAR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TELECOMMUNICATION MAIN GROUNDING BUS BAR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	INTERCOM OUTLET		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SPEAKER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SPEAKER - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	MICROPHONE		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	VOLUME CONTROL/STATION SELECTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SIGNALING BELL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SINGLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SINGLE FACE CLOCK - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE CLOCK - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TIME CLOCK		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CONTACTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	PHOTOCELL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TWST TIMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SECURITY CAMERA		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	MOTION DETECTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SECURITY KEY SWITCH		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOOR CONTACT		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	KEY PAD		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CARD READER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DURESS PUSH BUTTON STATION		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DELAYED EGRESS		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	REQUEST TO EXIT STATION		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	AUTOMATIC DOOR PUSH PAD OPERATOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOOR OPERATOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOOR ACTUATOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL STATION		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL CONTROL PANEL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	ACCESS CONTROL POWER SUPPLY		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CIRCUIT BREAKER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DRAWOUT CIRCUIT BREAKER MANUALLY/ OPERATED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DRAWOUT CIRCUIT BREAKER ELECTRICALLY/ OPERATED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	FIREFIGHTERS PHONE JACK		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SWITCH		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	AUTOMATIC OR MANUAL TRANSFER SWITCH		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	FUSE		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CURRENT TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	POTENTIAL TRANSFORMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	LIGHTNING ARRESTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	PANELBOARD		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TELECOMMUNICATION GROUNDING BUS BAR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TELECOMMUNICATION MAIN GROUNDING BUS BAR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	INTERCOM OUTLET		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SPEAKER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SPEAKER - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	MICROPHONE		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	VOLUME CONTROL/STATION SELECTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SIGNALING BELL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SINGLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	SINGLE FACE CLOCK - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE CLOCK - CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE CLOCK - WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TIME CLOCK		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	CONTACTOR		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	PHOTOCELL		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE
	TWST TIMER		FIRE ALARM VISUAL/AUDIBLE NOTIFICATION APPLIANCE

ELECTRICAL DRAWING INDEX

SHEET NO.	SHEET TITLE
E-001	ELECTRICAL STANDARDS AND DRAWING INDEX
E-002	ELECTRICAL STANDARD SCHEDULES AND DETAILS
E-004	ELECTRICAL NEW WORK SITE PLAN



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Project
**MARSHAL TOWNSHIP
FIRE STATION NO. 1**

Project Location
**13550 15 MILE RD
MARSHALL, MI 49068**

Engineer's Seal

Preliminary - Not For Construction

REV	ISSUED FOR	DATE	BY
01	CITY REVIEW	04-24-2024	WGH

Date	12/15/2023
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OVERCURRENT DEVICE RATING (AMPERES)	FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE						KEYED NOTES
	COPPER CONDUCTORS						
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE				
PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G, 2PH, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1N, 1G)	THREE PHASE 4 WIRE+G (3PH, 1N, 1G)		
15-20	12	12	3/4"	3/4"	3/4"	3/4"	
25-30	10	10	3/4"	3/4"	3/4"	3/4"	
35-40	8	10	3/4"	3/4"	3/4"	3/4"	
45-50	8 (6)	10	3/4"	3/4"	3/4"	3/4"	1
60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1" (1 1/4")	1
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"	
80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"	1
90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1
110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1
125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	1
150	1/0	6	-	1 1/2"	1 1/2"	1 1/2"	
175	2/0	6	-	2"	2"	2"	
200	3/0	6	-	2"	2"	2 1/2"	
225	4/0	4	-	2"	2"	2 1/2"	
250	250	4	-	2 1/2"	2 1/2"	2 1/2"	
300	350	4	-	2 1/2"	2 1/2"	3"	
350	500	3	-	3"	3"	3"	
400	500	3	-	3"	3"	3"	

GENERAL NOTES:
 1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
 2. CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
 3. CONDUCTORS ARE BASED ON THHN/THWN UP TO AND INCLUDING #4/0. LARGER THAN #4/0 ARE BASED ON TYPE XHHW.
 4. CONDUIT SIZES ARE VALID FOR ENT OR RSC. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
 5. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE REQUIRED WIRE SIZES TO ACCOMMODATE MECHANICAL EQUIPMENT LUG SIZES.
 6. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
 7. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.
 8. SPLICE FROM ALUMINUM TO COPPER PRIOR TO ENTERING EQUIPMENT LISTED FOR USE WITH COPPER CONDUCTORS ONLY OR USE COPPER CONDUCTORS FOR THE ENTIRE LENGTH OF FEEDER.

KEYED NOTES:
 1. CONDUCTORS ARE BASED ON 90°C, 600V, INSULATED WIRE APPLIED AT 75°C FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED AT 60°C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.

RACEWAY / CONDUCTOR / CABLE APPLICATION SCHEDULE	WIRE		RACEWAY			
	COPPER, TYPE XHHW-2	RIGID STEEL CONDUIT (RSC)	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-40	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-80	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 40	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 80
BRANCH CIRCUITS EXTERIOR						
CONCEALED IN RETAINING WALL OR SIMILAR ELEMENT	X		X	X		
BELOW PARKING LOTS AND ROADWAYS	X		X	X	X	
BELOW GREEN SPACE	X		X			
WITHIN 5' OF FOUNDATION WALL	X	X				

GENERAL NOTES:
 1. TRANSITION FROM PVC/HDPE AND PROVIDE RIGID STEEL SWEEPS WHERE CONDUITS PENETRATE WALLS, CONCRETE SLABS, CONCRETE BASES, AND ASPHALT.

BRANCH CIRCUIT RATING (A)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET)				
		120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

GENERAL NOTES:
 1. THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD POWER FACTOR OF 0.85 PER NEC CHAPTER 9, TABLE 9.
 2. PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
 3. CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
 4. LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3 PERCENT VOLTAGE DROP TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

LUMINAIRE SCHEDULE						
TYPE	DESCRIPTION	MANUFACTURER(S)	WATTAGE	VOLTAGE	LIGHT CHARACTERISTICS	REMARKS
OL1	POLE LIGHT FIXTURE	LITHONIA	68	MVOLT	LED, 4000K, 70CRI, TYPE IV MEDIUM	BUILDING CONTACTOR / TIME CLOCK DARK BRONZE
OL2	POLE LIGHT FIXTURE	LITHONIA	68	MVOLT	LED, 4000K, 70CRI, TYPE I MEDIUM	BUILDING CONTACTOR / TIME CLOCK DARK BRONZE
OL3	POLE LIGHT FIXTURE	LITHONIA	68	MVOLT	LED, 4000K, 70CRI, LEFT CORNER CUTOFF	BUILDING CONTACTOR / TIME CLOCK DARK BRONZE
OL4	POLE LIGHT FIXTURE	LITHONIA	68	MVOLT	LED, 4000K, 70CRI, RIGHT CORNER CUTOFF	BUILDING CONTACTOR / TIME CLOCK DARK BRONZE
OLX - POLE	ROUND STRAIGHT STEEL 17'-0" POLE	LITHONIA	-----	-----	-----	----- DARK BRONZE

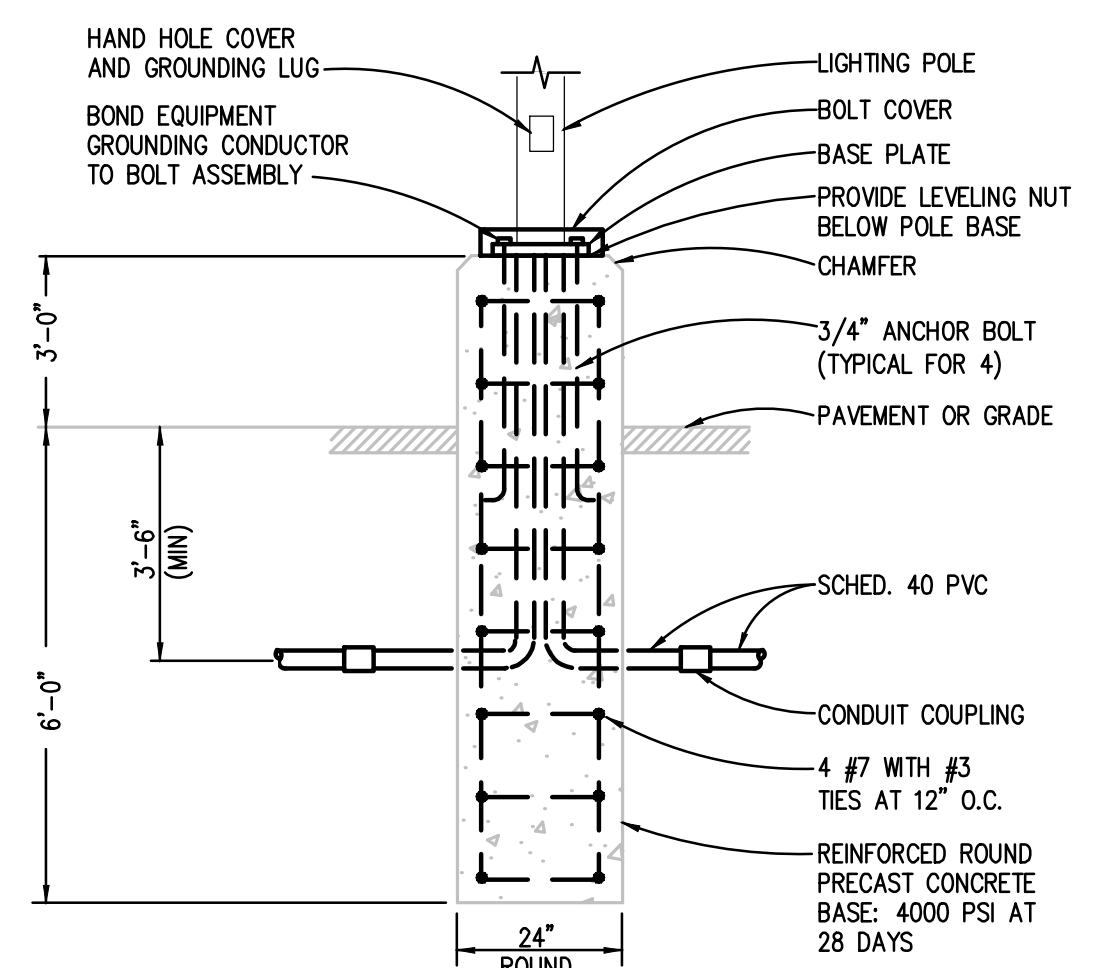
GENERAL NOTES:
 1. REFER TO SPECIFICATIONS FOR DETAILED LIGHT FIXTURE CUT SHEETS.
 2. WATTAGE LISTED IS FROM THE BASIS OF DESIGN MANUFACTURER.
 3. FINISH TO BE APPROVED BY INTERIOR DESIGNER, ARCHITECT OR CLIENT.
 4. ALL LUMINAIRES TO BE AS SPECIFIED OR EQUAL APPROVED BY PBA AND/OR ILLUMINART.

D-Series Size 1 LED Area Luminaire

Specifications:
 EPA: 0.69 ft² (0.16 m²)
 Length: 32.71" (831.1mm)
 Width: 14.26" (363.0mm)
 Height H1: 7.88" (200.0mm)
 Height H2: 2.73" (69.0mm)
 Weight: 34 lbs (15.4kg)

Ordering Information:
 EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAR2 PIRHN DDBX2

Series	SP	Color Temperature	Color Rendering Index	Distribution	Voltage	Mounting	Shipped Included
DSX1 LED	P1	3000K	90CRI	AFR Automotive front row	TSM Type IV medium	MVOLT (120V-277V)¹	SPRA Square pole mounting (R5 drilling)
	P2	4000K	90CRI	T1S Type I slim	TSLG Type IV low glare	MVOLT (120V-480V)²	SPR1 Round pole mounting (R5 drilling)
	P3	5000K	90CRI	T3M Type III medium	T3W Type IV wide	MVOLT (120V-480V)²	RPA Round pole mounting (R5 drilling)
	P4	3000K	90CRI	T3LG Type III low glare¹	BLCA Type IV backlight control¹	208V¹,³	SPAS Square pole mounting (R5 drilling)
	P5	3000K	90CRI	TAM Type IV medium	BLCA Type IV backlight control¹	240V¹,³	RPA5 Round pole mounting (R5 drilling)
	P10¹	2700K	80CRI	TALG Type IV low glare¹	LECO Left corner cutoff¹	277V¹,³	SPANB Square narrow pole mounting (R5 drilling)
	P11¹	3000K	80CRI	TTFM Forward throw medium	RECO Right corner cutoff¹	277V¹,³	WBA Wall bracket¹
	P12¹	3500K	80CRI				MA Max arm adjuster (mounts on 2.31" OD horizontal tenon)
	P13¹	4000K	80CRI				
	P14¹	5000K	80CRI				



LIGHTING POLE BASE DETAIL
 NO SCALE

NOTE:
 1. PROVIDE PRECAST CONCRETE BASE AS MANUFACTURED BY NORTHERN CONCRETE PIPE, INC. OR APPROVED EQUAL.
 2. CONCRETE REINFORCEMENTS SHALL BE BARE, ZINC GALVANIZED, OR ELECTRICALLY CONDUCTIVE COATED STEEL BOND ALL CONCRETE REINFORCEMENTS AND ANCHOR BOLTS TOGETHER SO THAT SYSTEM IS ELECTRICALLY CONTINUOUS.

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

SME
www.sme-usa.com

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48068-3276
Tel: 248-678-9668 Fax: 248-678-9237
www.PeterBassoAssociates.com
PBA Project No. 20240045

Project
**MARSHAL TOWNSHIP
FIRE STATION NO. 1**

Project Location
**13550 15 MILE RD
MARSHALL, MI 49068**

Engineer's Seal

Preliminary - Not For Construction

REV	ISSUED FOR	DATE	BY
01	CITY REVIEW	04-24-2024	WGH

Date: 12/15/2023

SME Project No. 094551.00

Project Manager: WGH

Designer: WGH

CADD: WGH

Checked By: WGH

Reviewed By: WGH

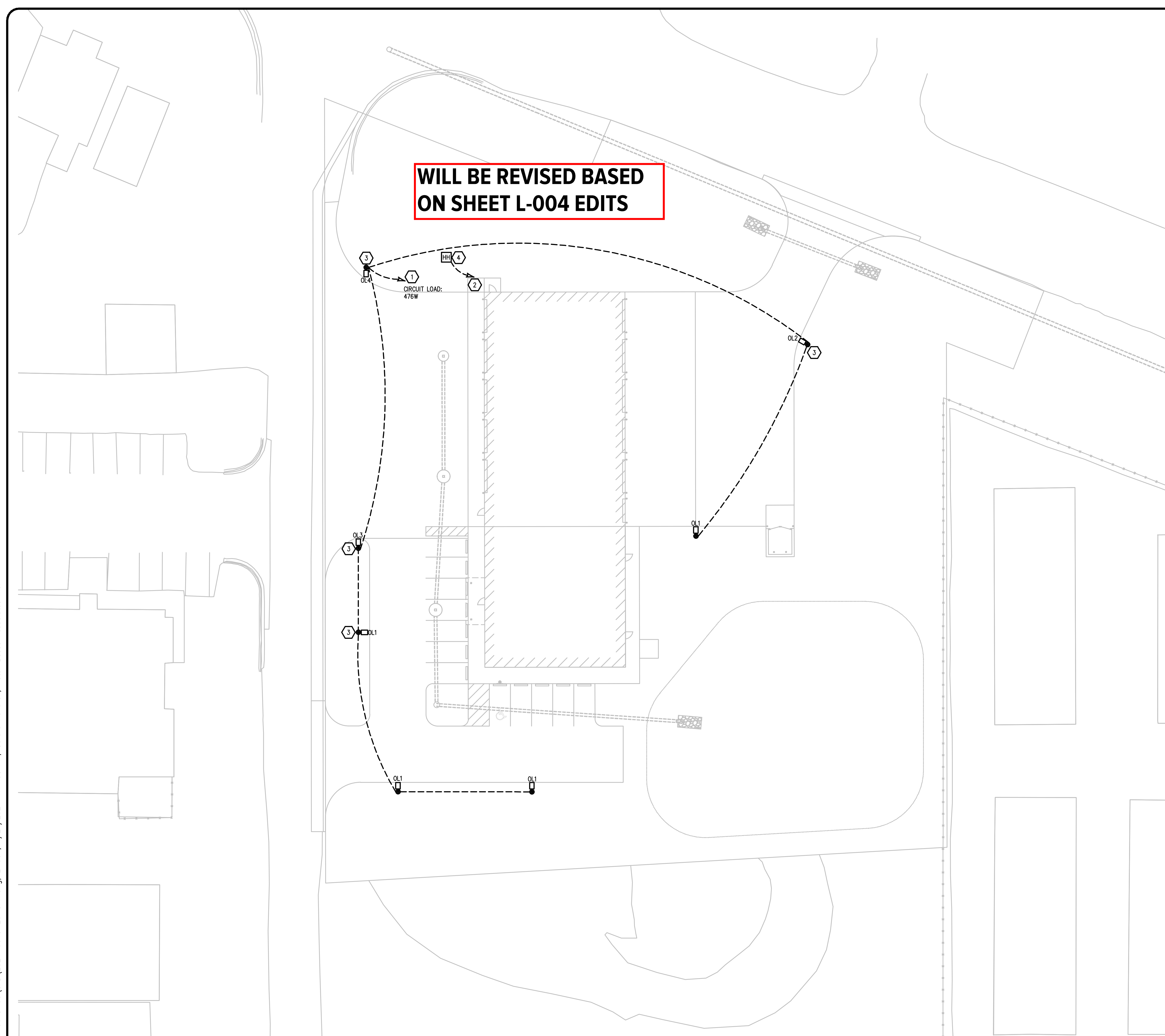
Sheet Name: **ELECTRICAL STANDARD SCHEDULES AND DETAILS**

Sheet No. **E-002**

DRAWING NOTE: SCALE DELETED BY REWANT FOR 24" X 36" AND WILL BE PRINTED IN FULL SIZE. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME.

FILE LOCATION: G:\2024\2024-0045-00\CAD\2024-0045-E0-IND.dwg PLOT DATE: Apr 24, 2024 - 12:58pm - Generated

**WILL BE REVISED BASED
ON SHEET L-004 EDITS**



SITE PLAN GENERAL NOTES:

1. THESE NOTES ARE GENERIC GUIDELINES ONLY. ELECTRICAL CONTRACTOR'S PERSONNEL ON SITE SHALL BE THOROUGHLY FAMILIAR WITH THE PUBLISHED SPECIFICATIONS FOR EXACT DESCRIPTIONS OF SCOPE, METHODS, AND MATERIAL.
2. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
3. CONDUCT A SURVEY TO IDENTIFY ALL UNDERGROUND UTILITIES. CALL 811 PRIOR TO EXCAVATION.
4. UTILITIES SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. COORDINATE EXACT LOCATION OF ALL EXISTING UTILITIES, AND ROUTING OF ALL NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
5. DEWATER TRENCHES PRIOR TO INSTALLATION OF CONDUITS. PROVIDE WATER TIGHT FITTINGS ON ALL UNDERGROUND CONDUITS.
6. COORDINATE DEMOLITION WORK, AND ELECTRICAL AND TELEPHONE SERVICES TO THE SITE, WITH THE RESPECTIVE LOCAL UTILITY COMPANY REPRESENTATIVES PRIOR TO COMMENCEMENT OF WORK. INCLUDE ALL ASSOCIATED COST/FEE'S BY THE UTILITY COMPANIES IN THE BID PRICE.
7. INSTALL UNDERGROUND CONDUITS 42" BELOW FINISHED GRADE, MINIMUM, UNLESS NOTED OTHERWISE.
8. COORDINATE SERVICE SHUT-DOWNS WITH ALL TRADES INVOLVED ON SITE AND OBTAIN WRITTEN AUTHORIZATION FROM OWNER 72 HOURS PRIOR TO ANY ELECTRICAL AND/OR TELEPHONE SHUT-DOWN.
9. REMOVE ALL DE-ENERGIZED CONDUCTORS FROM SITE AT COMPLETION OF THE PROJECT.
10. OUTDOOR LIGHTING BRANCH CIRCUIT WIRING SHALL BE MINIMUM #8 AWG CONDUCTORS (XHHW-2), IN MINIMUM 1" DIA. CONDUIT, UNLESS NOTED OTHERWISE.
11. SPARE CONDUITS SHALL INCLUDE PULL STRING AND SHALL BE TERMINATED WITH A CAP.
12. EXCAVATE THE ENTIRE LENGTH OF TRENCH TO PROPERLY SET DUCT ELEVATIONS.

CONSTRUCTION KEY NOTES:

1. EXTERIOR LIGHTING BRANCH CIRCUIT TO PANEL INSIDE BUILDING. COORDINATE FINAL LOCATION OF PANEL AND PANEL NAME WITH BUILDING ELECTRICAL DRAWINGS.
2. PROVIDE SPARE 1" C FROM BUILDING ELECTRICAL ROOM TO EXTERIOR HANDHOLE AS SPARE, USE FOR FUTURE.
3. LOCATE EXTERIOR POLE MOUNTED FIXTURE A MINIMUM OF 10 HORIZONTAL FEET AWAY FROM OVERHEAD LINES. COORDINATE FINAL LOCATION ON SITE.
4. INSTALL HANDHOLE PER MANUFACTURES INSTALLATION REQUIREMENTS.



Project
**MARSHAL TOWNSHIP
FIRE STATION NO. 1**

Project Location
**13550 15 MILE RD
MARSHALL, MI 49068**

Engineer's Seal

**Preliminary - Not
For Construction**

REV	ISSUED FOR	DATE	BY
01	CITY REVIEW	04-24-2024	WGH

Date
12/15/2023

SME Project No.
094551.00

Project Manager:
WGH

Designer:
WGH

CADD:
WGH

Checked By:
WGH

Reviewed By:
WGH

Sheet Name:
**ELECTRICAL NEW WORK
SITE PLAN**

Sheet No.
E-004



**Know what's below.
Call before you dig.**

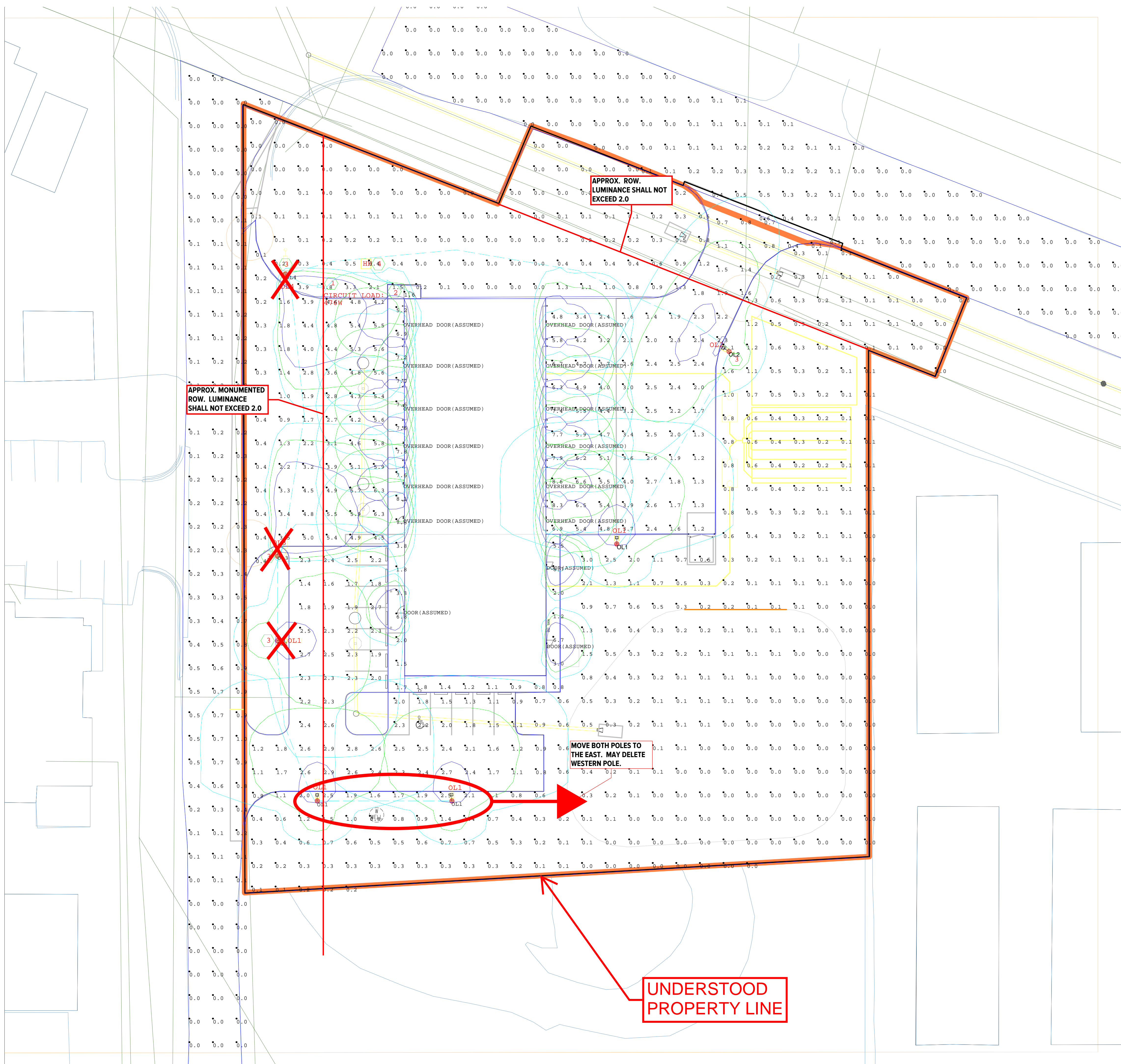
THE FOLLOWING DIMENSION EQUALS ONE INCH WHEN PRINTED TO SCALE.

ELECTRICAL NEW WORK SITE PLAN
SCALE: 1" = 20'

DRAWING NOTE: SCALE DERIVED BY MEANT FOR 24" X 36" AND SHALL SCALE INCREASING 1/8" IF PRINTED IN ANY OTHER SIZE MEDIA. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SME. © 2024

g:\2024\2024-0045-00\CAD\2024-0045-E0-SPN.dwg, E-004, 4/24/2024 1:14:38 PM, Gerard Henrich, Peter Basso Associates Inc.

FILE LOCATION: G:\2024\2024-0045-00\CAD\2024-0045-E0-SPN.dwg PLOT DATE: Apr 24, 2024 - 11:50am - G:Henrich



NOTES:
 1. STANDARD LIGHT REFLECTANCE VALUES: 80% CEILING, 50% WALLS, 20% FLOORS.
 2. TYPICAL CALCULATION PLANE HEIGHTS ARE INDICATED BY GRADE BEING AT 0'-0".
 3. LUMINAIRES SHOWN ARE BASIS OF DESIGN.

Tag	QTY	LLF	WATTS	LUMENS	DESCRIPTION	ISSUE DATE
OVERHEAD DOOR(ASSUMED)	12	0.900	32 1262	4426	TWX2 LED P2 40K	1/13/2021
DOOR(ASSUMED)	3	0.900	11 3583	1642	TWX1 LED P1 40K	1/13/2021
OL1	4	0.900	67.79	9908	DSX1 LED P2 40K 70CRI T4M	11/10/2022
OL2	1	0.900	67.79	9650	DSX1 LED P2 40K 70CRI T2M	11/10/2022
OL4	1	0.900	67.79	7166	DSX1 LED P2 40K 70CRI RCCO	11/10/2022
OL3	1	0.900	67.79	7166	DSX1 LED P2 40K 70CRI LCCO	11/10/2022

CALCULATION SUMMARY					
LABEL	UNITS	AVG	MAX	MIN	MAX/MIN
15 Mile Road_Planar	Fc	0.20	1.0	0.0	N.A.
East Drive_Planar	Fc	3.26	8.6	0.1	86.00
East Walk_Planar	Fc	3.99	8.7	0.8	10.88
North Walk_Planar	Fc	1.60	1.6	1.6	1.00
North Boundary_Planar	Fc	0.30	3.9	0.0	N.A.
South Parking Lot_Planar	Fc	2.02	2.9	0.8	3.63
South Walk_Planar	Fc	1.20	1.8	0.8	2.25
South_West Boundary_Planar	Fc	0.34	3.0	0.0	N.A.
W Michigan Avenue_Planar	Fc	0.05	0.6	0.0	N.A.
West Drive_Planar	Fc	3.28	6.3	0.1	63.00
West Walk_Planar	Fc	5.49	8.1	1.5	5.40

date

REVISION
X

5145 Livernois, Suite 100
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 T: 248-879-5666 F: 248-879-007
 www.PeterBassoAssociates.com
 PBA Project #

PBA
 Peter Basso Associates Inc
 CONSULTING ENGINEERS

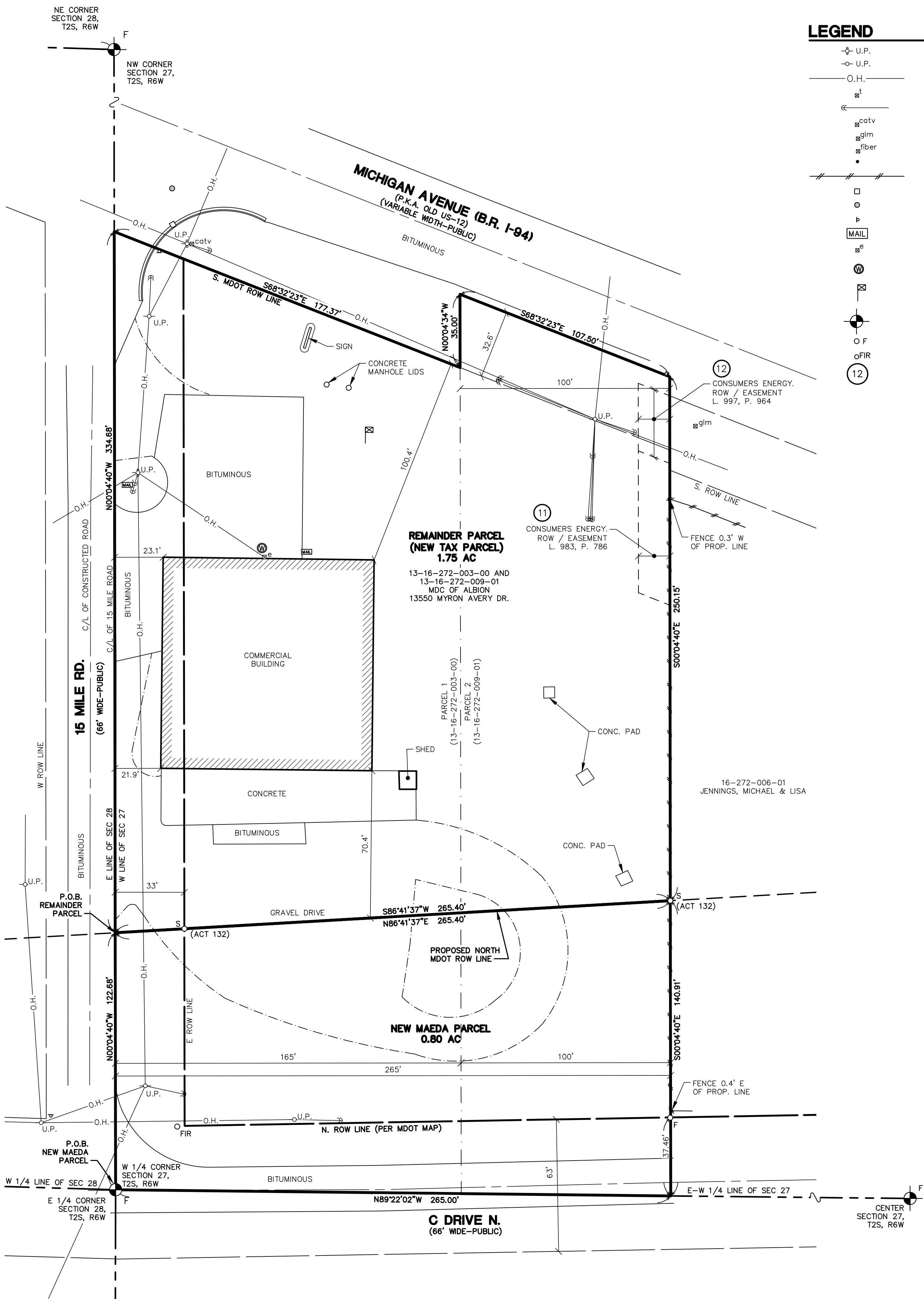
PROJECT TITLE
 MARSHAL TOWNSHIP
 FIRE STATION NO.1
 13550 15 MILE RD
 MARSHALL, MI 49068

SHEET TITLE
 SITE LIGHTING CALCULATIONS

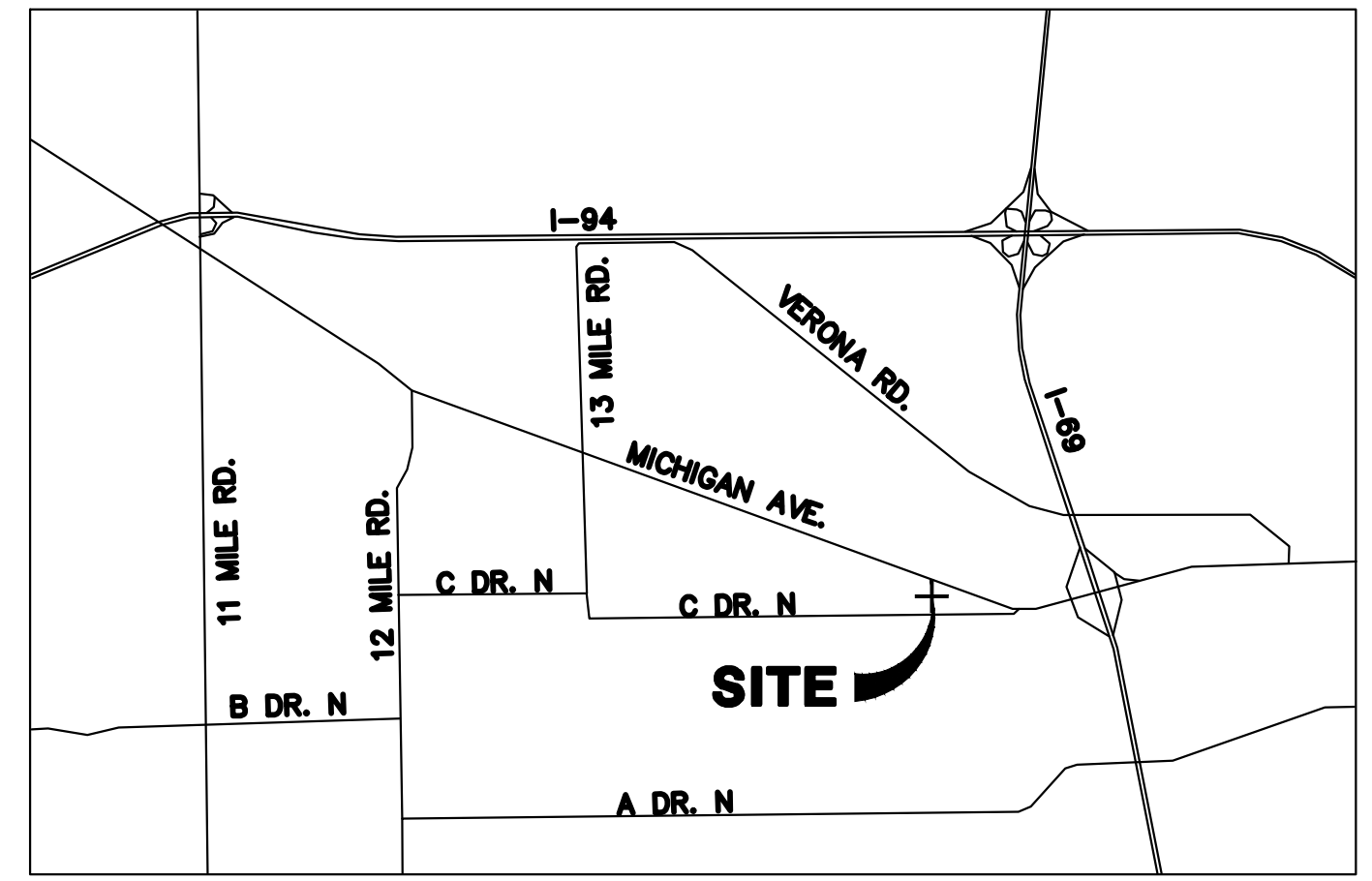
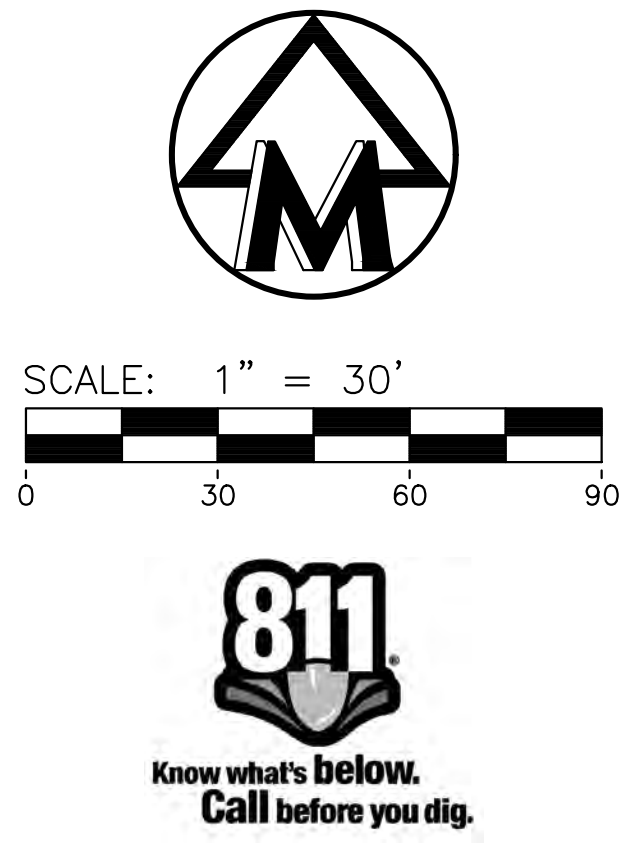
DATE
 2024-02-24
 BY:
 WGH
 SHEET NO.

L-004

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- LEGEND**
- U.P. EXIST. UTILITY POLE W/ TRANS.
 - U.P. EXIST. UTILITY POLE
 - O.H. EXIST. OVERHEAD UTILITY LINE
 - TELEPHONE RISER
 - GUY WIRE
 - CABLE TELEVISION RISER
 - GAS LINE MARKER
 - FIBER OPTIC MARKER
 - POST
 - FENCE
 - EXIST. CATCH BASIN OR INLET
 - EXIST. INLET
 - SIGN
 - MAILBOX
 - ELECTRIC METER
 - WELL
 - EXIST. FLAG POLE
 - SECTION CORNER
 - FOUND IRON PIPE
 - FOUND IRON ROD
 - EXCEPTION EASEMENT



EXCEPTIONS

- (PER CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 13120411CTM, DATED APRIL 28, 2023)
- Right(s) of Way and/or Easement(s) and rights incidental thereto, as granted to Consumers Power Company (now known as Consumers Energy) in a document recorded as Liber 983, Page 786. (PLOTTED)
 - Right(s) of Way and/or Easement(s) and rights incidental thereto, as granted to Consumers Power Company (now known as Consumers Energy) in a document recorded as Liber 997, Page 964. (PLOTTED)
 - Rights of the public to any portion of the land lying within the bounds of West Michigan Avenue (M 96) (as to Parcels 1 and 2), C Drive North (as to Parcels 1 and 2), and Myron Avery Drive (15 Mile Road) (as to Parcel 1).
 - Grant of Rights Agreement between the Michigan Economic Development Corporation (the "MEDC"), whose address is 300 N Washington Square, Lansing, MI 48933, and Marshall Area Economic Development Alliance, a Michigan non-profit corporation ("MAEDA"), whose address is 323 West Michigan Avenue, Marshall, Michigan 49068, dated _____, recorded on _____ in Liber _____, Page _____.

BASIS OF BEARINGS

MICHIGAN STATE PLANE COORDINATE SYSTEM SOUTH ZONE, INTERNATIONAL FEET

SURVEYOR NOTE

EXISTING MICHIGAN AVE. (B.R. I-94) RIGHT OF WAY LINES WERE TAKEN FROM PROVIDED MDOT ALIGNMENT SURVEY

LEGAL DESCRIPTION

REMAINDER PARCEL (NEW TAX PARCEL)

Commencing at the West 1/4 corner of Section 27, T2S, R6W, Marshall Township, Calhoun County, Michigan; thence N00°04'40"W 122.68 feet along the West line of said Section 27 and the centerline of 15 Mile Rd. to the POINT OF BEGINNING;

thence continuing N00°04'40"W 334.68 feet along said West line of Section 27 and said centerline of 15 Mile Rd.;

thence S68°32'23"E 177.37 feet along the Southerly right-of-way line of Michigan Avenue (Variable Width);

thence N00°04'40"W 35.00 feet;

thence S68°32'23"E 107.50 feet;

thence S00°04'40"E 250.15 feet;

thence S86°41'37"W 265.40 feet to the POINT OF BEGINNING. Being a part of the NW 1/4 of said Section 27, containing 1.75 acres of land, more or less. Being subject to the rights of the public over the Northerly 32.56 feet of the Easterly 100.00 feet thereof, as occupied by Michigan Avenue and the Westerly 33.00 feet thereof, as occupied by 15 Mile Rd. Also being subject to any easements and restrictions of record, if any.

NEW MAEDA PARCEL

BEGINNING at the West 1/4 corner of Section 27, T2S, R6W, Marshall Township, Calhoun County, Michigan;

thence N00°04'40"W 122.68 feet along the West line of said Section 27 and the centerline of 15 Mile Rd.;

thence N86°41'37"E 265.40 feet;

thence S00°04'40"E 140.91 feet;

thence N89°22'02"W 265.00 feet along the E-W 1/4 line of said Section 27 to the POINT OF BEGINNING. Being a part of the NW 1/4 of said Section 27, containing 0.80 acres of land, more or less. Being subject to the rights of the public over the Westerly 33.00 feet thereof, as occupied by 15 Mile Rd. and the Southerly portion thereof, as occupied by C Drive N. Also being subject to any easements and restrictions of record, if any.

LEGAL DESCRIPTION

(PER CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NO. 13120411CTM, DATED APRIL 28, 2023)

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF CALHOUN, TOWNSHIP OF MARSHALL.

PARCEL 1:

THE WEST 165 FEET OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 27, TOWN 2 SOUTH, RANGE 6 WEST, LYING SOUTH OF OLD U.S. 12, EXCEPT THE NORTH 35 FEET.

PARCEL ID: 13-16-272-003-00

PARCEL 2:

THE EAST 100 FEET OF THE WEST 265 FEET OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 27, TOWN 2 SOUTH, RANGE 6 WEST, LYING SOUTH OF OLD U.S. 12 NORTHWESTERLY.

PARCEL ID: 13-16-273-009-01

NOTES

- THIS SURVEY WAS PREPARED USING CHICAGO TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. 13120411 CTM WITH AN EFFECTIVE DATE OF APRIL 28, 2023.
- THE LEGAL DESCRIPTION DESCRIBES THE SAME PROPERTY AS INSURED IN THE TITLE COMMITMENT AND ANY EXCEPTIONS HAVE BEEN NOTED HEREIN.
- PROPERTY ADDRESS: 13550 MYRON AVERY DR., MARSHALL, MI 49068
- SAID DESCRIBED PROPERTY IS NOT LOCATED WITHIN A 100-YEAR FLOOD PLAIN ZONE PER FLOOD INSURANCE RATE MAP NO. 26025C0220C WITH AN EFFECTIVE DATE OF APRIL 4, 2011. FOR COMMUNITY NUMBER 260642, IN CALHOUN COUNTY, STATE OF MICHIGAN, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.
- THERE IS NO EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS.
- THERE IS NO OBSERVED EVIDENCE OF PROPOSED CHANGES IN STREET RIGHT OF WAY LINES.
- THERE IS NO OBSERVED EVIDENCE OF PLOTTABLE OFFSITE EASEMENTS OR SERVITUDES, AS SHOWN ON THIS SURVEY.
- THERE IS NO OBSERVED EVIDENCE OF THIS BEING USED AS A SOLID WASTE DUMP, SUMP, OR SANITARY LANDFILL.
- THERE IS NO OBSERVED EVIDENCE INDICATING ANY CEMETERIES ARE LOCATED ON THE PARCEL HEREIN DESCRIBED.

SURVEYORS CERTIFICATE

To: Michigan Economic Development Corporation, The Michigan Strategic Fund, Michigan Land Bank Authority, Marshall Area Economic Development Alliance, Chicago Title Insurance Company;

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 2, 3, 4, 8, 13, 16, 17, 18, and 19 of Table A thereof. The fieldwork was completed on April 8, 2024

MIDWESTERN CONSULTING, L.L.C.

By: *Mark Vander Veen*
Mark Vander Veen, P.S. No. 4001056788

Date: 04/26/2024



The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

MIDWESTERN CONSULTING
3815 Plaza Drive Ann Arbor, Michigan 48108
(734) 995-0200 • www.midwesternconsulting.com
Land Development • Land Survey • Institutional • Municipal
Wireless Communications • Transportation • Landfill Services

CLIENT
CALHOUN COUNTY

MDC of ALBION, LLC
ALTA/NSPS LAND TITLE SURVEY OF A PARCEL OF LAND LOCATED IN THE NW 1/4 OF SECTION 27, T2S, R6W, MARSHALL TOWNSHIP, CALHOUN COUNTY, MICHIGAN

DATE: 04/26/24
SHEET 1 OF 1
JOB No. **22367**
REVISIONS:

Use	CS	HS	LI	IP	Other
Wind energy conversion systems (WECS), large turbine systems					8-35
Wind energy conversion systems (WECS), small turbine or on-site system, anemometer tower or MET (meeting setback and height requirements for principal buildings in applicable district)	P	P	P	P	8-35
Wind energy conversion systems (WECS), small turbine or on-site system, anemometer tower or MET (exceeding height requirements for principal buildings in applicable district)	S	S	S	S	8-35
Wireless communications		P	P		8-36
Wireless communications, collocation	P	P	P	P	8-36
Institutional/Civic					
Community oriented cultural facility	P				
Community public safety	P	P	P	P	
Governmental facility	P	P	P	P	
Meeting facility	P				
Parks, playgrounds, outdoor recreation	P				
Place of worship	P				
Recreation facility, community-based	P				
School, college or university	P	P			
School, private	P	P			
School, specialized/training		S	S		8-28
Offices and Services					
Animal services, animal clinic/hospital, kennel, rescue or shelter	S	P	P		8-4
Body branding, piercing and tattoo facility		P	P		
Child care center	P	P			
Crematorium			P	P	
General offices and services	P	P			
General offices and services with a drive through facility	S	P			
Offices and services, such as a landscaping and tree removal company, exterminator, carpet cleaner, contractors' office.		S	P		
Medical services, clinics and medical offices	P	P			
Medical services, hospital	S	P			
Vehicle repair, major			S		8-33
Vehicle repair, minor		S	P		8-33
Vehicle wash		S	P		
Vehicle wash, trucks and heavy equipment			P	P	
Residential					
Day care, adult day care home	S				
Day care, family day care (children)	S				
Day care, group day care home (children)	S				
Dwelling, accessory	S				8-7
Dwelling, multi-family/single-family attached					8-22
Dwelling, multi-family/single-family attached, over commercial or office use	S				
Dwelling, single-family	S				8-8
Dwelling, temporary	S				8-9
Dwelling, two-family	S				

when adjacent to public right-of-way and abutting Agricultural and Residential zoned properties.

1. Height. Two and a half (2 ½) to three (3) feet tall.
2. Type. The screen shall consist of shrubs, hedges, evergreens, berms, walls, fences, or any combination of these elements.

Section 10-7 Parking Lot Landscaping

- A. *Purpose*. To provide shade and to break up the visual appearance of large paved areas, parking lot landscaping is required.
- B. *Canopy Trees*. Parking lots with 12 or more spaces shall be landscaped with one (1) tree for every 12 parking spaces.
- C. *Islands and Peninsulas*. Parking lots shall contain landscape islands or peninsulas. Each shall be a minimum of 10 feet wide. Each island or peninsula shall be planted with a minimum of one (1) tree.
- D. *Design and Placement*.
 1. Visibility. Landscaping shall be arranged so as not to obscure traffic signs or fire hydrants, or obstruct drivers' sight distance within the parking area and at driveway entrances.
 2. Protection. All landscape areas shall be protected by raised curbs, parking blocks or other similar methods to prevent damage. Notwithstanding this requirement, alternative Low Impact Design solutions shall be encouraged, such as areas for stormwater infiltration, with incorporation of methods to prevent damage.
 3. Placement. Trees shall be planted at least three (3) feet from curbs or the edge of pavement.

Section 10-8 Exterior Lighting Requirements

- A. *General Requirements*. Outdoor light fixtures shall be subject to the following regulations:
 1. Shielding and Fixture Specifications.
 - a. Direct or directly reflected light shall be confined on-site.
 - b. Under-canopy lighting shall be mounted flush or recessed.
 - c. Wall pack and pole-mounted light fixtures shall be a down-lighted type and 100 percent cut off. Light fixtures shall be constructed and installed in such a manner that all light emitted, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the lowest light-emitting part.
 - d. Light from any illuminated source shall be so shaded, shielded, or directed that the light intensity or brightness will not be objectionable to surrounding areas.
 2. Flag Lighting. Government flag lighting shall only illuminate the flag and shall be placed so lighting or glare is not directed toward streets or adjacent properties.
- B. *Prohibited Lighting*. The following lighting types and methods are prohibited:
 1. Laser lights, searchlights or any similar high intensity light for outdoor advertisement or entertainment.
 2. Any lighting where the light source creates glare and is a hazard to travelers on an adjacent street.
 3. Lighting that flashes, moves, or is intermittent.
 4. Lighting that is similar to that used for traffic control devices or emergency vehicles.
- C. *Non-Residential Requirements*.
 1. Applicability. Lighting shall be provided throughout any non-residential parking lot. Lights to illuminate parking lots shall not be attached to any building, except for the lighting of parking rows immediately adjacent to buildings. This requirement does not apply to home occupations and home

based businesses.

2. **Height.** Light poles shall have a maximum height of 20 feet when in or adjacent to an Agricultural or Residential Zoning District. All other light poles shall have a maximum height of 25 feet. The maximum height shall be measured from the parking lot grade at the base of the pole to the top of the pole. No portion of any light fixture mounted on a light pole may extend more than one (1) additional foot higher than the maximum light pole height.
3. **Illumination Levels.** Light levels on commercial sites shall meet the requirements in *Table 10.8* for the developed portion of the site containing buildings, drives and parking lots.
 - a. Sites are not subject to minimum lighting levels during closed hours.
 - b. *Table 10.8* shall not apply to ornamental street lighting, public street lights or driveway/intersection lighting necessary for pedestrian and traffic safety.
 - c. The light level along a non-residential lot line may be increased to the parking lot maximum in cases where there are shared access/vehicular connections or the adjacent use is a similar use.

Table 10.8 Required Site Illumination		
Location on Site	Minimum Footcandles	Maximum Footcandles
Parking Lots and Building Entrances	0.5 (at any point) 2.0 (average)	10.0
Walkways	0.2 (at any point) 1.0 (average)	10.0
Along Front Lot Line Adjacent to the Street Frontage	0.0	2.0
Along a Lot line Adjoining a Non-Residential Use or District	0.0	1.0
Along a Lot line Adjoining a Residential Use or District	0.0	0.5

- D. **Demonstration of Compliance.** Compliance with the lighting design criteria shall be demonstrated by submitting the following information as part of the required site plan:
 1. Lighting plan showing light fixture locations, height, and type designations.
 2. Lighting equipment specifications and data sheets.
- E. **Photometric Plans.** The Zoning Administrator or Planning Commission may require a photometric plan to ensure that the intent and requirements of this section are met. When required, a photometric plan with a lighting grid shall be prepared by an electrical engineer. The photometric plan shall show horizontal luminance levels (footcandles) in a point-by-point format.

lands served by the private road and other parties in interest, which includes the following:

- a. Provisions that assure that the private road will be maintained, repaired, and snowplowed for the full width of the roadway in accordance with the standards of this section and in a manner to assure that the private road is safe for travel and accessible by emergency vehicles at all times.
- b. Provisions that assure that the costs of maintenance of the private road and its easement are paid for in an equitable manner.
- c. A legal description of the private road easement and a legal description of the individual parcels of land to be served by the private road. All properties served by the private road shall be subject to the private road maintenance agreement.
- d. Provisions authoring the township, in its sole discretion, to perform reasonably necessary maintenance of the private road, subject to reimbursement by the owners of the properties served by the private road.
- e. Provisions declaring that the private road maintenance agreement constitutes a restrictive covenant, running with the benefitted lands, and binding on all current and future owners and other parties in interest as to the respective obligations stated therein.
- f. Provisions authorizing the township, in its sole discretion, to enforce the terms of the private road maintenance agreement, by any lawful means, in addition to such enforcement by any of the owners of the lands served by the private road, or by another interested party.
- g. Provisions to indemnify, save and hold the township, and its officers, employees, and agents, harmless from any and all claims for personal injury and/or property damage arising out of the failure to properly construct, maintain, repair, or replace the private road.

Section 7-12 Setbacks, Yards, Lots & Parcels

A. Setback Requirements.

1. Minimum Requirement. Unless otherwise stated, principal and accessory buildings are subject to a minimum required horizontal separation from right-of-way lines or property lines as required by the UDC.
2. Exemption. Structures such as mailboxes, fences, planters, landscaping beds, flagpoles, yard decorations, and other elements determined by the Zoning Administrator to be similar, are not subject to setbacks.

B. Projections into Setback Areas.

1. Architectural Features. Certain architectural features, such as cornices, bay windows, windows without foundations, window wells, gutters, chimneys, pilasters, and other elements determined by the Zoning Administrator to be similar, may project no further than three (3) feet into a front or rear setback area.
2. Covered and Enclosed Additions. Any permanently constructed porch, patio, carport, terrace, addition, deck, or balcony that is covered by a roof or trellis, or enclosed by a barrier, wall or screen, shall meet the minimum setback requirements of the principal building or accessory building to which it is attached. Any other similar covering or enclosing structural element shall be subject to the same requirement.
3. Open and Uncovered Elements. An open, uncovered, and unenclosed porch or paved terrace and other structural elements determined by the Zoning Administrator to be similar, may project into a required setback no more than 10 feet.

C. *Yards and Setbacks by Lot Type.*

1. Interior Lots.

- a. **Yards and Lot Lines.** Interior lots shall have one (1) front lot line, one (1) front yard, two (2) side lot lines, two (2) side yards, one (1) rear lot line, and one (1) rear yard.
- b. **Setbacks.** Buildings on interior lots shall be subject to one (1) front setback, one (1) least side setback, one (1) greater side setback, and one (1) rear setback.

2. Corner Lots.

- a. **Yards and Lot Lines.** A corner lot with street frontage on two (2) connecting sides shall have the following yards and lot lines:
 - i. A corner lot shall have one (1) primary front lot line, one (1) secondary front lot line (side street), one (1) interior side lot line, and one (1) rear lot line. A corner lot has one (1) primary front yard, one (1) secondary front yard, one (1) side yard, and one (1) rear yard.
 - ii. On lots with existing structures, the primary front lot line and primary front yard shall be the location of the traditional front entrance of the structure.
 - iii. For undeveloped lots or lots to be redeveloped, the narrower front lot line shall be the primary front lot line and location of the primary front yard.
 - iv. Where the lot lines are of equal length, and/or the primary front lot line is not evident, the Zoning Administrator shall determine the primary front lot line and primary front yard.
- b. **Setbacks.** On a corner lot with street frontage on two (2) sides, buildings shall be subject to the following setbacks: two (2) front setbacks, one (1) least side setback, and one (1) rear setback.

3. Multi-Frontage Lots.

- a. **Yards and Lot Lines.** A multi-frontage lot with street frontage on three (3) sides shall have the following yards and lot lines:
 - i. If the dwelling is oriented toward one (1) of the two (2) parallel streets, the lot shall have two (2) front lot lines and two (2) front yards, one (1) secondary front lot line and one (1) secondary front yard (street side), one (1) interior side lot line and one (1) interior side yard, and no rear lot line and rear yard.
 - ii. If the dwelling is oriented toward the middle street, the lot shall have three (3) primary front lot lines and three (3) primary front yards abutting the streets, and one (1) rear lot line and one (1) rear yard.
- b. **Setbacks.** On a multi-frontage lot with street frontage on three (3) sides, buildings shall be subject to the following setbacks:
 - i. If the dwelling is oriented toward one of the two (2) parallel streets, buildings shall be subject to three (3) front yard setbacks and a least side setback.
 - ii. If the dwelling is oriented toward the middle street, buildings shall be subject to three (3) front setbacks and a rear setback.

4. Through Lots.

- a. **Yards and Lot Lines.** Through lots shall have two (2) front lot lines, two (2) front yards, two (2) side lot lines, and two (2) side yards.
- b. **Setbacks.** Buildings shall be subject to two (2) front setbacks, one (1) least side setback, and one (1) greater side setback.

5. Cul-De-Sac Lots. The front yard setback shall follow the curve of the front lot line.
- D. *Orientation of Structures*. The Zoning Administrator shall consider the following when determining orientation of the dwelling:
1. Location and orientation of existing or proposed buildings on the through lot in relation to existing buildings on properties in the same general neighborhood, historic development patterns, and existing developed through lots.
 2. Location and impact of existing vegetation, water, or other natural features affecting the location of buildings or structures on the lot in question.
- E. *Lot and Parcel Dimensional Requirements*.
1. Lot Width. Lot width shall be the horizontal distance between side lot lines, measured between the two points where the required setback intersects with the side lot lines.
 2. Lot Depth. Lot depth shall be the average distance between the front lot line and the rear lot line. The average shall include measurements of the side lot lines, if extending from front lot line to rear lot line, and the shortest measurement from the front lot line to the farthest point of the rear lot line.
 3. Depth to Width Ratio. If under 10 acres in area, a lot or parcel shall not be more than four (4) times deeper than its width.
 4. Frontage. All lots shall have a minimum road frontage on a public or private road that is at least equal to the minimum width required by the applicable zoning district and shall be in conformance with the requirements of Calhoun County Road Commission. Cul-de-sac lots or lots on the outside edge of curved streets shall have a minimum of 40 feet of street frontage.
 5. Nonconforming Lots and Parcels.
 - a. Buildings may be permitted on nonconforming lots and parcels as long the building can comply with required setbacks.
 - b. A nonconforming lot or parcel without frontage on a public street or approved private street shall not be occupied except where access to a street is provided by a public or private easement or other right-of-way no less than 20 feet in width.
 6. Duplex Lots. Duplex development may be platted so that two (2) units are placed on one lot in accordance with the requirements of the dimensional table of the district in which the duplex is located, or so that the units are placed on pairs of lots with the lot line through the common wall between the units. If lots are platted so that each unit is on an individual lot, the plat shall indicate which lots are paired. Paired lots shall each provide half of the required minimum size and width, but may together meet other requirements of the applicable dimensional standards.

Section 7-13 Special Events

- A. *Approval Authority*. The Zoning Administrator shall consider and approve a temporary structure, use, or event if it complies with all requirements of this section. The Zoning Administrator may also, at their sole discretion, forward an application to the Planning Commission for consideration. The Zoning Administrator or Planning Commission shall review the application and other submitted materials and shall approve, deny or approve it with conditions.
- B. *Requirements*. A special event may take place outdoors, notwithstanding any limitation or prohibition against outdoor activity otherwise provided by this ordinance. A special event shall meet all the following requirements:
1. Impact. The use or structure does not have an unreasonable detrimental effect upon adjacent properties and does not affect the nature of the surrounding neighborhood.



3301 Tech Circle Drive
Kalamazoo, MI 49008-5611

T (269) 323-3555

www.sme-usa.com

February 9, 2024

Mr. James Durian
Chief Executive Officer
Marshall Area Economic Development Alliance
323 West Michigan Avenue
Marshall, Michigan 49068

Via E-mail: james@choosemarshall.com

RE: Hazardous Materials Assessment Report
13550 15 Mile Road
Marshall, Michigan
SME Project No. 095143.00

Dear Mr. Durian:

We prepared this summary letter to document the results of our hazardous materials assessment of the structure located at the above referenced address. We conducted the assessment activities to assist with identification of asbestos-containing materials (ACMs) and potential lead-bearing and cadmium-bearing paints prior to planned demolition of the structure.

This assessment will provide information to assist in complying with the United States Environmental Protection Agency (USEPA) requirements for inspection of commercial buildings prior to renovation or demolition under the National Emission Standards for Hazardous Air Pollutants asbestos regulation (NESHAP, 40 CFR Part 61). The assessment also provides information to assist in complying with: the Occupational Safety and Health Administration (OSHA) Asbestos Construction Standard (29 CFR Part 1926.1101); the OSHA Lead Exposure in Construction Standard (29 CFR Part 1926.62); and the OSHA Cadmium Construction Standard (29 CFR 1926.1127), regarding communication of hazards. The Michigan Occupational Safety and Health Administration (MIOSHA) adopted the OSHA standards by reference.

STRUCTURE DESCRIPTION

The site was located on the east side of 15 Mile Road. The site was developed with an approximately 10,000 square-foot commercial structure that previously operated as Marshall Tire. The structure was unoccupied at the time of our assessment.

ASSESSMENT

On January 22, 2024, SME staff members Jacob Lindsay (Accreditation No. A61410) and Percy Richards (Accreditation No. A45410) trained in accordance with the USEPA requirements for asbestos assessment and accredited under the requirements of Michigan Act 440 as Asbestos Building Inspectors, visited the site and assessed for the presence of ACMs and potential lead-bearing and cadmium-bearing paints.

ACM ASSESSMENT

We assigned unique homogeneous area (HA) designations to the suspect materials identified and collected representative bulk-samples in accordance with the USEPA's Asbestos Hazard Emergency Response Act (AHERA, 40 CFR 763) assessment protocol. A homogeneous area, as defined by AHERA is an area of thermal system insulation (TSI), surfacing material, or miscellaneous material that appears uniform in color and texture.

We submitted the samples to International Asbestos Testing Laboratories (iATL), a laboratory accredited by the National Institute of Standards and Technology (NIST) under the requirements of the National Voluntary Laboratory Accreditation Program (NVLAP), for asbestos analyses via Polarized Light Microscopy (PLM). A summary of the descriptions of suspect ACMs identified during our assessment, the RACM, ACM, trace asbestos, or non-ACM categorizations; and the estimated quantities, friability, conditions, and locations of the materials sampled is presented on Table 1 in Attachment A. The Chain-of-Custody form and Certificate of Analysis for the samples are presented in Attachment B. Refer to Attachment C for additional information regarding federal and state regulatory requirements regarding notification of work operations and asbestos work practices relative to the demolition activities.

According to the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants asbestos regulation (NESHAP, 40 CFR Part 61, M), Regulated Asbestos-Containing Materials (RACMs) must be removed from a building prior to demolition. RACMs include thermal system insulation (TSI), surfacing materials, friable ACMs, and Category I¹ and Category II² nonfriable ACMs that are considered friable or likely to become friable if subjected to demolition forces. According to the OSHA Asbestos Construction Standard (29 CFR Part 1926.1101), ACMs must be removed by appropriately trained and accredited staff, and in accordance with the asbestos work requirements included in the standard. Category I and Category II nonfriable ACMs, which are in good condition, can remain in a building during demolition provided that they are not rendered friable by the work activities. If one or more nonfriable ACMs will remain in the building during demolition, the demolition activities must be conducted by staff trained to conduct demolition involving those ACMs, the work must be reviewed by a 40-hour trained asbestos supervisor accredited by the Michigan Department of Labor and Economic Opportunity (LEO), and conducted in accordance with the OSHA Asbestos Construction Standard.

Although not considered ACMs or RACMs by the USEPA and OSHA, materials containing less than or equal to 1% asbestos are considered trace asbestos materials. According to the OSHA Asbestos Construction Standard, work involving materials containing trace concentrations of asbestos is considered "unclassified" asbestos work. Unclassified asbestos work is subject to the engineering and work practice requirements contained within paragraphs (g)(1), (g)(2), and (g)(3) of the standard with the exception of (g)(1)(i). These requirements include:

- Use of wetting agents and wet methods.
- Prompt cleanup of waste and disposal of waste within leak-tight containers.
- Use of local exhaust ventilation equipped with high-efficiency particulate air (HEPA) filtration.
- Enclosure or isolation of the work area or process.
- Ventilation of the work area to move contaminated air from the breathing zone of employees towards the HEPA filtered ventilation source.

¹ USEPA defines Category I Nonfriable ACMs as packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos.

² USEPA defines Category II Nonfriable ACMs as any material other than those designated as Category I Nonfriable ACM's that contains more than one percent asbestos and that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Work involving this material may also be subject to other requirements contained within the standard including, but not limited to: exposure assessment/monitoring of personnel working with these materials, use of personal protective equipment, and hazard communication requirements.

PAINT ASSESSMENT

We conducted a visual assessment to identify painted surfaces suspected to be lead-bearing or cadmium-bearing coatings and collected representative chip-samples of the identified paints. We submitted the paint-chip samples to iATL, which is accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP), for lead and cadmium analysis of the paint chip samples via atomic absorption spectrophotometry (AAS).

The OSHA Lead Exposure in Construction Standard (29 CFR Part 1926.62) and OSHA Cadmium Construction Standard (29 CFR Part 1926.1127) are applicable to construction activities involving impact to paints with detectable concentrations of lead or cadmium, regardless of their concentrations in the paints. If lead-bearing or cadmium-bearing paints are subjected to forces that may cause paint particles to become airborne, unacceptable levels of lead and cadmium exposure to on-site personnel and environmental contamination could result. These paints could pose inhalation or ingestion exposure hazards if subjected to torch cutting, welding, and burning or if pulverized and converted to dust.

If lead-bearing and cadmium-bearing coatings or paints are to be removed by manual demolition of structural surfaces, manual scraping, manual sanding, heat gun applications, power tool cleaning, torch cutting, or welding, then the employees must be trained, and exposures must be assessed, in accordance with the OSHA Lead Exposure in Construction Standard and OSHA Cadmium Construction Standard. When lead or cadmium is present at any concentration, employers are required to assess their workers' exposures to airborne lead dust/fumes. The employer must perform an employee exposure assessment to determine if any employee is exposed at or above the action level of 30 micrograms of lead per cubic meter ($\mu\text{g}/\text{m}^3$) or 2.5 $\mu\text{g}/\text{m}^3$ cadmium of air sampled calculated as a time-weighted average (TWA).

This exposure assessment is typically performed by conducting air monitoring in the workers' breathing zones during activities that would disturb surfaces containing lead or cadmium. In lieu of air monitoring, OSHA allows employers to use other objective data to assess their workers' exposures. Until an exposure assessment is completed and results demonstrate that employee exposures are consistently below the action level, the employer must provide interim protection in accordance with the standard.

A summary of the descriptions of lead-bearing and cadmium-bearing paints, the paint locations, as well as lead and cadmium content of the paint chip samples are presented on Table 2 in Attachment D. The Chain-of-Custody forms and analytical data for the paint chip samples are included in Attachment E.

LIMITATIONS AND GENERAL COMMENTS

Our project team conducted limited destructive assessment of wall cavities, ceilings, floor surfaces, and other interstitial spaces of the building. However, we did not assess every wall cavity and ceiling space within the building or demolish floor surfaces. Additional ACMs may exist in concealed spaces that were not assessed. We recommend selective demolition to expose concealed spaces, such as these, prior to initiation of demolition activities to assess for the presence of concealed ACMs. If suspect ACMs are encountered for which no analytical data exists, we recommend the material(s) remain undisturbed until the asbestos content of the material(s) is determined in accordance with USEPA and OSHA regulations.

The quantities presented in our report are intended to be "Order of Magnitude" estimates and the estimated quantities and other information in this report should not be used as an exclusive source of information for bid formulation or for notification to regulatory agencies.

Laboratory descriptions of materials analyzed by PLM method for asbestos content were based upon the microscopists' perceptions of bulk samples that were pulverized and prepared with dispersion oils for PLM analysis. Due to the preparation of the sampled materials and the minute level of observation by the

laboratory personnel, the descriptions on the Certificates of Analysis may not match the sample descriptions recorded by SME's project team in the field. Our sample descriptions and locations should be used to identify materials that were sampled, and our sample numbers should be used to correlate analytical results for the sampled materials.

We based the conclusions and recommendations submitted in this report upon the scope of services noted herein. In the process of obtaining the field information presented in this report, we followed procedures that represent reasonable and accepted industrial hygiene practices and principles, in a manner consistent with that level of care and skill ordinarily exercised by members of this profession currently practicing under similar conditions. We understand that Marshall Area Economic Development Alliance Calhoun will rely upon the professional opinions and representations contained in this report. However, the information and opinions contained within this report are not to be construed a warranty of the conditions of this site in any way, implied or explicit. No other party may rely upon our opinions, conclusions, or reports unless we have agreed to such reliance in writing.

Should you have questions regarding this report, or wish to further discuss your project needs, please contact us.

Sincerely,

SME

PREPARED BY:



Anthony J. Hosbein
Senior Environmental Technician

REVIEWED BY:



Jason C. Lafayette
Senior Project Consultant

Attachments: Attachment A – Table 1: Asbestos Bulk Sampling Results Table
Attachment B – Bulk Asbestos Sample Laboratory Certificate of Analysis and Chain of Custody Form
Attachment C – Regulatory Information Regarding Asbestos Notifications and Work Practices
Attachment D – Table 2: Paint Chip Sampling Results Table
Attachment E – Paint Chip Sample Laboratory Certificate of Analysis and Chain of Custody Form

ATTACHMENT A

TABLE 1: BULK ASBESTOS BULK SAMPLING RESULTS TABLE

**TABLE 1: ASBESTOS BULK SAMPLING RESULTS**

Project: Marshall MAJOR Campus HMAs

Site: 13550 15 Mile Road

Marshall Michigan, 49068

Project No: 095143.00

HA #	MATERIAL DESCRIPTION	ACM/ CATEGORIZATION	ESTIMATED QUANTITY*	FRIABILITY	CONDITION	LOCATIONS
1	Concrete floor, gray	NON-ACM	10,000 sq. ft.	Nonfriable	Good	Throughout
2	Block, gray	NON-ACM	6,500 sq. ft.	Nonfriable	Good	Exterior walls
	Mortar, gray	NON-ACM				
3	Wallboard wall system		2,300 sq. ft.	Nonfriable	Good	North offices, NW restroom
	Wallboard, white	NON-ACM				
	Joint compound, white	NOM-ACM				
4	2'x4' ceiling tile, white, pinhole, worm track	NON-ACM	900 sq. ft.	Friable	Good	North offices, NW restroom
5	Cove base, gray	NON-ACM	50 sq. ft.	Nonfriable	Good	North offices, NW restroom
	Mastic, yellow	NON-ACM				
6	Brick mortar, white	NON-ACM	50 sq. ft.	Nonfriable	Good	NW office area
7	Cove base, light gray	NON-ACM	10 sq. ft.	Nonfriable	Good	Auto repair shop NW corner
	Mastic, off-white	NON-ACM				
8	Exterior caulk, black	NON-ACM	2 sq. ft. 3'x4' window	Nonfriable	Good	Exterior windows, east overhead door
9	Exterior window caulk, white	NON-ACM	<1 sq. ft. 2'x3' window	Nonfriable	Good	Exterior west wall north window

NOTES:

HA = Homogenous Area.

RACM = Regulated Asbestos-Containing Material as defined by USEPA. RACM must be removed prior to demolition.**ACM** = Asbestos-Containing Material as defined by USEPA and OSHA definition. These materials are permitted by USEPA to remain in the building during demolition. However, if not removed from the building prior to demolition, demolition activities must be conducted by properly trained and licensed personnel in accordance with the OSHA Asbestos Construction Standard.**TRACE ASBESTOS** = less than or equal to 1% asbestos detected. If remaining in the building during demolition, the work activities must be conducted in accordance with applicable OSHA Asbestos Construction work and employee protection requirements.

Non-ACM = Asbestos was not detected by the laboratory

Friable = Material that can be crumbled or reduced to powder by hand pressure.

NQ = Not quantified

Material conditions are described as defined in AHERA, 40 CFR Part 763.

In. ft. = linear feet

sq. ft. = square feet

cu. ft. = cubic feet

* = Estimate of visible, accessible materials. Additional quantities and materials may be present in concealed spaces not assessed.

ATTACHMENT B
ASBESTOS BULK SAMPLE LABORATORY CERTIFICATE OF ANALYSIS AND CHAIN
OF CUSTODY FORM



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719316
Client No.: HA1A

Analyst Observation: Grey Concrete
Client Description: Concrete Floor

Location: Auto Repair Shop SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719317
Client No.: HA1B

Analyst Observation: Grey Concrete
Client Description: Concrete Floor

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719318
Client No.: HA2A

Analyst Observation: Grey Concrete
Client Description: Block And Mortar

Location: Auto Repair Shop SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719318(L2)
Client No.: HA2A

Analyst Observation: Lt Grey Mortar
Client Description: Block And Mortar

Location: Auto Repair Shop SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719319
Client No.: HA2A

Analyst Observation: Grey Concrete
Client Description: Block And Mortar

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719319(L2)
Client No.: HA2A

Analyst Observation: Lt Grey Mortar
Client Description: Block And Mortar

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100


Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024

Date Analyzed: 02/05/2024

Signature: 
Analyst: Maxamillian Roselli

Approved By:



Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719320
Client No.: HA3A

Analyst Observation: White Drywall
Client Description: Wallboard Wall

Location: NW Office Area, In SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7719320(L2)
Client No.: HA3A

Analyst Observation: White Joint Compound
Client Description: Wallboard Wall

Location: NW Office Area, In SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719321
Client No.: HA3B

Analyst Observation: White Drywall
Client Description: Wallboard Wall

Location: NW Restroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7719321(L2)
Client No.: HA3B

Analyst Observation: White Joint Compound
Client Description: Wallboard Wall

Location: NW Restroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719322
Client No.: HA3C

Analyst Observation: White Drywall
Client Description: Wallboard Wall

Location: NE Office Area, Along N. Wall
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7719322(L2)
Client No.: HA3C

Analyst Observation: White Joint Compound
Client Description: Wallboard Wall

Location: NE Office Area, Along N. Wall
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100


Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024

Date Analyzed: 02/05/2024

Signature: 
Analyst: Maxamillian Roselli

Approved By:



Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719323
Client No.: HA3D

Analyst Observation: White Drywall
Client Description: Wallboard Wall

Location: NE Office NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7719323(L2)
Client No.: HA3D

Analyst Observation: White Joint Compound
Client Description: Wallboard Wall

Location: NE Office NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719324
Client No.: HA3E

Analyst Observation: White Drywall
Client Description: Wallboard Wall

Location: NW Restroom NE Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
3 Cellulose

Percent Non-Fibrous Material:
97

Lab No.: 7719324(L2)
Client No.: HA3E

Analyst Observation: White Joint Compound
Client Description: Wallboard Wall

Location: NW Restroom NE Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719325
Client No.: HA4A

Analyst Observation: White Ceiling Tile
Client Description: 2'x4' Ceiling Tile, White PH Wormtrack

Location: North Offices SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
50 Cellulose
40 Fibrous Glass

Percent Non-Fibrous Material:
10

Lab No.: 7719326
Client No.: HA4B

Analyst Observation: White Ceiling Tile
Client Description: 2'x4' Ceiling Tile, White PH Wormtrack


Location: North Offices NW Corner
Facility:

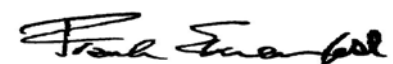
Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
50 Cellulose
40 Fibrous Glass

Percent Non-Fibrous Material:
10

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024
Date Analyzed: 02/05/2024
Signature: 
Analyst: Maxamillian Roselli

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719327
Client No.: HA5A

Analyst Observation: Grey Cove Base
Client Description: Cove Base, Gray W/ Associated Mastic

Location: North Offices SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719327(L2)
Client No.: HA5A

Analyst Observation: Yellow Mastic
Client Description: Cove Base, Gray W/ Associated Mastic

Location: North Offices SW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719328
Client No.: HA5B

Analyst Observation: Black Cove Base
Client Description: Cove Base, Gray W/ Associated Mastic

Location: NW Restroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719328(L2)
Client No.: HA5B

Analyst Observation: Yellow Mastic
Client Description: Cove Base, Gray W/ Associated Mastic

Location: NW Restroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719329
Client No.: HA6A

Analyst Observation: White/Grey Mortar
Client Description: Brick Mortar, White

Location: NW Office Area
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719330
Client No.: HA6B

Analyst Observation: White/Grey Mortar
Client Description: Brick Mortar, White


Location: NW Office Area
Facility:

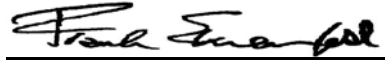
Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024
Date Analyzed: 02/05/2024
Signature: 
Analyst: Maxamillian Roselli

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719331
Client No.: HA7A

Analyst Observation: Grey Cove Base
Client Description: Cove Base, Light Gray W/ Associated Mastic

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719331(L2)
Client No.: HA7A

Analyst Observation: Off-White Mastic
Client Description: Cove Base, Light Gray W/ Associated Mastic

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719332
Client No.: HA7B

Analyst Observation: Grey Cove Base
Client Description: Cove Base, Light Gray W/ Associated Mastic

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719332(L2)
Client No.: HA7B

Analyst Observation: Off-White Mastic
Client Description: Cove Base, Light Gray W/ Associated Mastic

Location: Auto Repair Shop NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719333
Client No.: HA8A

Analyst Observation: Black/White Caulk
Client Description: Exterior Caulk, Black

Location: Exterior NW Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719334
Client No.: HA8B

Analyst Observation: Black/White Caulk
Client Description: Exterior Caulk, Black

Location: Exterior NE Corner
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024

Date Analyzed: 02/05/2024

Signature: 

Analyst: Maxamillian Roselli

Approved By: 

Frank E. Ehrenfeld, III
Laboratory Director



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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695381 - PLM
Project: 13550 15 Mile Rd - Marshall MA
Project No.: 095143.00

Client: SOI102

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7719335
Client No.: HA9A

Analyst Observation: White Caulk
Client Description: Exterior Window Caulk, White

Location: Exterior West Wall North
Window
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 7719336
Client No.: HA9B

Analyst Observation: White Caulk
Client Description: Exterior Window Caulk, White

Location: Exterior West Wall North
Window
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024
Date Analyzed: 02/05/2024
Signature:
Analyst: Maxamillian Roselli

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director



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 Mt. Laurel, New Jersey 08054
 Telephone: 856-231-9449
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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
 43980 Plymouth Oaks Blvd
 Plymouth MI 48170

Report Date: 2/5/2024
 Report No.: 695381 - PLM
 Project: 13550 15 Mile Rd - Marshall MA
 Project No.: 095143.00

Client: SOI102

Appendix to Analytical Report

Customer Contact: Jason Lafayette

Method: 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, USEPA 600, R93-116 and NYSDOH ELAP 198.1 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: wchampion@iatl.com

iATL Account Representative: Shirley Clark

Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Bulk Building Materials

Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB) See additional information at the end of this appendix.



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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
 43980 Plymouth Oaks Blvd
 Plymouth MI 48170

Report Date: 2/5/2024
 Report No.: 695381 - PLM
 Project: 13550 15 Mile Rd - Marshall MA
 Project No.: 095143.00

Client: SOI102

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
 Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.



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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
 43980 Plymouth Oaks Blvd
 Plymouth MI 48170

Report Date: 2/5/2024
 Report No.: 695381 - PLM
 Project: 13550 15 Mile Rd - Marshall MA
 Project No.: 095143.00

Client: SOI102

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

*With advance notice and confirmation by the laboratory.

**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

New York State Department of Health requires that samples originating from NYS that they categorize as Non-friable Organically Bound materials can only be confirmed as None Detected for asbestos by method 198.4. See the table below for a list of those materials. (ENVIRONMENTAL LABORATORY APPROVAL PROGRAM CERTIFICATION MANUAL - ITEM No. 198.1, Revision Date 5/6/16)

*Asphalt Shingles, Caulking, Ceiling Tiles with Cellulose, Duct Wrap, Glazing, Mastic, Paint Chips, Resilient Floor Tiles, Rubberized Asbestos Gaskets, Siding Shingles, Vinyl Asbestos Tile, NOB materials (other than SM-V) with <10% vermiculite, Any material (Friable or NOB other than SM-V) with >10% vermiculite.

Statistically derived uncertainty with any measure should be taken into consideration when reviewing and interpreting all reported data and results. A more comprehensive listing of accuracy, precision, and uncertainty as it impacts this method is available upon request.



9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

-Bulk Asbestos -

Contact Information	
Client Company: <u>SME</u>	Project Number: <u>095143.00</u>
Office Address: <u>43980 PLYMOUTH OAKS BLVD</u>	Project Name: <u>13550 15 Mile Rd - Marshall MA</u>
City, State, Zip: <u>PLYMOUTH, MICHIGAN</u>	Primary Contact: <u>Davin Ojala</u>
Fax Number: _____	Office Phone: _____
Email Address: <u>Davin.Ojala@sme-usa.com</u>	Cell Phone: <u>(269) 207-0009</u>

PLM Instructions:	
<input checked="" type="checkbox"/> PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993	
<input type="checkbox"/> PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982	
<input type="checkbox"/> PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985	
<input type="checkbox"/> PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002	
<input type="checkbox"/> PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010	
<input type="checkbox"/> TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009	
<input type="checkbox"/> PLM: Point Counting	<input type="checkbox"/> PLM: Analyze Until Positive (Positive Stop)
<input type="checkbox"/> PC: via ELAP 198.1	<input type="checkbox"/> AUP: by Homogenous Area as Noted
<input checked="" type="checkbox"/> PC: 400 Points	<input type="checkbox"/> AUP: by Material Type as Noted
<input type="checkbox"/> PC: 800 Points *	<input type="checkbox"/> PLM: NOB via 198.6
<input type="checkbox"/> PC: 1600 Points *	<input type="checkbox"/> PLM: Friable via EPA 600 2.3
<input type="checkbox"/> PLM: Instructions for Multi-Layered Samples	<input type="checkbox"/> If <1% by PLM, to TEM via 198.4 *
<input type="checkbox"/> Analyze and Report All Separable Layers per EPA 600	<input type="checkbox"/> If <1% by PLM, Hold for Instructions
<input type="checkbox"/> Report Composite for Drywall Systems per NESHAP	<input type="checkbox"/> PLM: Non-Building Material *** (Dust, Wipe, Tape)
<input type="checkbox"/> Report All Layers and Composite Where Applicable	<input type="checkbox"/> Soil or Vermiculite Analysis *
<input type="checkbox"/> Only Analyze and Report Specifically Noted Layer	<input type="checkbox"/> CARB 435
Special Instructions: <u>REFER TO ATTACHED SME CHAIN OF CUSTODY FOR ANALYSIS INSTRUCTIONS</u>	
* Additional charge and turnaround may be required ** Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory	

Turnaround Time	
Preliminary Results Requested Date: _____	<input type="checkbox"/> Verbal <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax
_____ Specific date / time <input type="checkbox"/> 10 Day <input checked="" type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day* <input type="checkbox"/> 12 Hour** <input type="checkbox"/> 6 Hour** <input type="checkbox"/> RUSH**	
* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***	

Chain of Custody			
Relinquished (Name/Organization):	<u>Jacob Lindsay SME</u>	Date: <u>1/26/24</u>	Time: <u>9:50 h</u>
Received (Name / iATL):	_____	Date: _____	Time: _____
Sample Login (Name / iATL):	_____	Date: _____	Time: _____
Analysis(Name(s) / iATL):	_____	Date: _____	Time: _____
QA/QC Review (Name / iATL):	_____	Date: _____	Time: _____
Archived / Released: _____	QA/QC InterLAB Use: _____	Date: _____	Time: _____

MIR-2/15/24

**CHAIN OF CUSTODY LOG**

Project No: 095143.00

Project: Marshall MAJOR campus HMAs
 Site: 12350 E Michigan Avenue Marshall Michigan 49068

Default Site Location

Marshall Major Campus HMAs, 13550 15 Mile Rd, Marshall, MI

Date sampled: 01/22/2024

Note: Multiple samples of each homogeneous area may have been collected. If asbestos is detected at greater than 1% in first sample, DO NOT analyze subsequent samples from that area with exception of plaster samples, wallboard system samples, and spray applied fireproofing (SAFP) samples. Please analyze all plaster, wallboard, and SAFP samples, and provide individual layer analysis for each sample. If asbestos is detected at a concentration greater than 1% in an individual layer of a wallboard system sample, please provide composite analysis for that sample. Please provide mastic analysis for floor tile samples. Treat mastic as a separate homogeneous area. For each thermal system insulation sample, please analyze the insulation portion(s) of each sample first. If asbestos is detected at 1% or greater do not analyze the insulation covering layer of the sample. Please provide the insulation covering analysis for thermal system insulation samples where asbestos is not detected in insulation layer(s) or where asbestos is detected at less than 1%.

Sample ID	Description	Sample Location	#
HA1A	Concrete floor	Auto repair shop SW corner	7719316
HA1B	Concrete floor	Auto repair shop NW corner	7719317
HA2A	Block and mortar	Auto repair shop SW corner	7719318
HA2B	Block and mortar	Auto repair shop NW corner	7719319
HA3A	Wallboard wall	NW office area, in SW corner	7719320
HA3B	Wallboard wall	NW restroom	7719321
HA3C	Wallboard wall	NE office area, along N. wall	7719322
HA3D	Wallboard wall	NE office NW corner	7719323
HA3E	Wallboard wall	NW restroom NE corner	7719324
HA4A	2'x4' ceiling tile, white PH wormtrack	North offices SW corner	7719325
HA4B	2'x4' ceiling tile, white PH wormtrack	North offices NW corner	7719326
HA5A	Cove base, gray w/ associated mastic	North offices SW corner	7719327
HA5B	Cove base, gray w/ associated mastic	NW restroom	7719328
HA6A	Brick mortar, white	NW office area	7719329
HA6B	Brick mortar, white	NW office area	7719330
HA7A	Cove base, light gray w/ associated mastic	Auto repair shop NW corner	7719331
HA7B	Cove base, light gray w/ associated mastic	Auto repair shop NW corner	7719332
HA8A	Exterior caulk, black	Exterior NW corner	7719333
HA8B	Exterior caulk, black	Exterior NE corner	7719334
HA9A	Exterior window caulk, white	Exterior west wall north window	7719335
HA9B	Exterior window caulk, white	Exterior west wall north window	7719336

Inspector(s) (License Number): Percy Richards III (MI-A45410); Jacob Lindsay (MI-A61410)

Relinquished by (Signature and Printed Name): Date / Time	Received by (Signature and Printed Name): Date / Time
<i>Jacob S. Lindsay</i> 1/26/24 9:50	

ATTACHMENT C
REGULATORY INFORMATION REGARDING ASBESTOS NOTIFICATIONS AND
WORK PRACTICES

REGULATORY INFORMATION REGARDING ASBESTOS NOTIFICATIONS AND WORK PRACTICES

Information regarding federal and state requirements for notification or work operations and the required work practices for activities involving ACMs and trace asbestos materials is presented below. Assumed ACMs are considered ACMs relative to regulatory notification and work requirements.

ASBESTOS REMOVAL

According to the United States Environmental Protection Agency (USEPA) National Emission Standard for Hazardous Air Pollutants asbestos regulation (NESHAP, 40 CFR Part 61 M), friable ACMs and nonfriable ACMs which could be expected to be disturbed and become friable must be removed prior to demolition activities. A 10 calendar-day notification to the Michigan Department of Labor and Economic Opportunity (LEO) Asbestos Program is required when greater than 10 linear feet or 15 square feet of regulated asbestos material will be removed.

If greater than 160 square-feet, 260 linear-feet, or 35 cubic-feet of regulated asbestos material will be removed, a ten working-day (14 calendar-day) notification to the Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) is also required. The *Notification of Intent to Renovate/Demolish* form is used for both the LEO and EGLE-AQD notifications. This form can be submitted online or downloaded from EGLE's website.³

The *Notification of Intent to Renovate/Demolish* form required by the USEPA NESHAP regulation must also be prepared and submitted to EGLE-AQD at least 10 working-days (14 calendar-days) prior to demolition of a building, regardless of whether or not ACMs are present in the building. The contractor is responsible for submitting the notification prior to demolition activities.

According to the OSHA Asbestos Construction Standard (29 CFR 1926.1101), removal or demolition involving thermal system insulation (TSI) or surfacing ACMs is considered Class I asbestos work. Removal or demolition involving ACM that is not TSI or surfacing material is considered Class II asbestos work. All Class I asbestos work activities must be conducted by a licensed and accredited asbestos contractor and in accordance with the standard. Work activities defined as Class II asbestos work must be conducted by appropriately trained or accredited staff under the supervision of an accredited Asbestos Contractor Supervisor in accordance with the standard.

According to the USEPA NESHAP asbestos regulation, nonfriable ACMs, if in good condition and not subjected to forces that would render them friable, need not be removed from a building prior to demolition. However, if a building contains one or more ACM during demolition, the demolition workers are required to have eight hours of asbestos training with specific "hands-on" instruction for each asbestos material present during demolition. An individual who has completed a 40-hour asbestos supervisor training course must also supervise the work. Specific OSHA asbestos work practices including, but not limited to, the use of respirators and personal protective equipment, and restrictions related to the material(s) would apply. Personal exposure monitoring of the personnel on site would be required during demolition. In addition, hazard communication requirements contained in the OSHA Asbestos Construction Standard related to multiple employer work sites would apply.

40 CFR Part 763 requires asbestos abatement project design by an Asbestos Project Designer that is trained in accordance with USEPA requirements and accredited by LEO. All ACM waste generated during asbestos abatement activities should be placed in doubled, appropriately labeled waste bags, affixed with a waste generator location label, and disposed in a landfill licensed to accept asbestos waste in the State of Michigan. All ACM waste generated during asbestos abatement activities that is removed from the site should be inventoried on a Waste Shipment Record that complies with NESHAP regulations, 40 CFR Part 61.

³ Notification of Intent to Renovate/Demolish Form: https://www.michigan.gov/egle/0,9429,7-135-3310_4106-11856--,00.html

Paragraph (k) of the OSHA Asbestos Construction Standard (29 CFR Part 1926.1101) and paragraph (j) of the OSHA Asbestos Standard for General Industry (29 CFR Part 1910.1001) require that building owners communicate to their employees, tenants, and building contractors information regarding the presence, quantity, and location of ACMs in a building.

MATERIALS CONTAINING TRACE ASBESTOS

According to the OSHA Asbestos Construction Standard, work involving materials containing trace concentrations of asbestos is considered “unclassified” asbestos work. Unclassified asbestos work is subject to the engineering and work practice requirements contained within paragraphs (g)(1), (g)(2), and (g)(3) of the standard with the exception of (g)(1)(i). These requirements include:

- Use of wetting agents and wet methods.
- Prompt cleanup of waste and disposal of waste within leak-tight containers.
- Use of local exhaust ventilation equipped with high-efficiency particulate air (HEPA) filtration.
- Enclosure or isolation of the work area or process.
- Ventilation of the work area to move contaminated air from the breathing zone of employees towards the HEPA filtered ventilation source.

Work involving this material may also be subject to other requirements contained within the standard including, but not limited to: exposure assessment/monitoring of personnel working with these materials, use of personal protective equipment, and hazard communication requirements.

ATTACHMENT D

TABLE 2: PAINT CHIP SAMPLING RESULTS TABLE


TABLE 2: PAINT CHIP SAMPLING RESULTS

Project: Marshall MAJOR Campus

Address: 13550 15 Mile Rd

Marshall, MI

Project No: 095143.00

PAINT ID	MATERIAL DESCRIPTION, LOCATION	LEAD % BY WEIGHT	CADMIUM % BY WEIGHT
P1	White (Interior), Throughout	<0.0068	<0.0017
P2	Blue (Interior), Throughout	0.038	<0.0016
P3	Black (Interior), Auto repair shop NE portion	1.2	<0.0022
P4	Yellow (Interior), Auto repair shop columns, NW portion	2.7	<0.0018
P5	Light blue (Interior), North offices, NW restroom	<0.0052	<0.0013

NOTES (if applicable):

* Matrix/Substrate interference possible

** Insufficient sample to provide QC reanalysis

*** Not enough sample for analysis

ATTACHMENT E
PAINT CHIP LABORATORY CERTIFICATE OF ANALYSIS AND CHAIN OF CUSTODY
FORM



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695371 - Lead Paint
Project: 13550 15 Mile Rd - Marshall Major Campus
Project No.: 095143.00

Client: SOI102

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 7719193	Description: White (Interior)	Result (% by Weight): <0.0068
Client No.: P1	Location: North Offices Lobby	Result (ppm): <68
Comments:		


Lab No.: 7719194	Description: Blue (Interior)	Result (% by Weight): 0.038
Client No.: P2	Location: Auto Repair Shop SE Corner	Result (ppm): 380
Comments:		

Lab No.: 7719195	Description: Black (Interior)	Result (% by Weight): 1.2
Client No.: P3	Location: Auto Repair Shop SW Corner	Result (ppm): 12000
Comments:		


Lab No.: 7719196	Description: Yellow (Interior)	Result (% by Weight): 2.7
Client No.: P4	Location: Auto Repair Shop NW Column	Result (ppm): 27000
Comments:		

Lab No.: 7719197	Description: Light Blue (Interior)	Result (% by Weight): <0.0052
Client No.: P5	Location: NE Office NE Corner	Result (ppm): <52
Comments:		

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024
Date Analyzed: 02/05/2024
Signature: 
Analyst: Chad Shaffer

Approved By:



Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
 Mt. Laurel, New Jersey 08054
 Telephone: 856-231-9449
 Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
 43980 Plymouth Oaks Blvd
 Plymouth MI 48170

Report Date: 2/5/2024
 Report No.: 695371 - Lead Paint
 Project: 13550 15 Mile Rd - Marshall Major Campus
 Project No.: 095143.00

Client: SOI102

Appendix to Analytical Report:

Customer Contact: Jason Lafayette

Method: ASTM D3335-85a, US EPA SW846 3050B:7000B

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: wchampion@iatl.com

iATL Account Representative: Shirley Clark

Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Paint

Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by ASTM D3335-85a by AAS

Certification:

- National Lead Laboratory Program (NLLAP): AIHA-LAP, LLC No. 100188

- NYSDOH-ELAP No. 11021

This report meets the standards set forth in the EPA's National Lead Laboratory Accreditation Program (NLLAP) through the Laboratory Quality System Requirements (LQSR) Revision 3.0 November 5, 2007. All Environmental Lead Proficiency Analytical Testing (ELPAT) is through the AIHA-PAT established program.

Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Appendix B.

Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies.

LSD=0.2 ppm MDL=0.006% by weight. RL= 0.010% by weight (based upon 100 mg sampled).

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.



9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695371 - Lead Paint
Project: 13550 15 Mile Rd - Marshall Major Campus
Project No.: 095143.00

Client: SOI102

- * Insufficient sample provided to perform QC reanalysis (<200 mg)
- ** Not enough sample provided to analyze (<50 mg)
- *** Matrix / substrate interference possible.

< less than sign, signifies none-detected below the empirical value based upon sub-sampled mass. This is often below the Reporting Limit (see above).



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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695371 - Cadmium Paint
Project: 13550 15 Mile Rd - Marshall Major Campus
Project No.: 095143.00

Client: SOI102

CADMIUM PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 7719193
Client No.: P1

Description: White (Interior)
Location: North Offices Lobby

Result (% by Weight): <0.0017
Result (ppm): <17
Comments:

Lab No.: 7719194
Client No.: P2

Description: Blue (Interior)
Location: Auto Repair Shop SE Corner

Result (% by Weight): <0.0016
Result (ppm): <16
Comments:

Lab No.: 7719195
Client No.: P3

Description: Black (Interior)
Location: Auto Repair Shop SW Corner

Result (% by Weight): <0.0022
Result (ppm): <22
Comments:

Lab No.: 7719196
Client No.: P4

Description: Yellow (Interior)
Location: Auto Repair Shop NW Column


Result (% by Weight): <0.0018
Result (ppm): <18
Comments:


Lab No.: 7719197
Client No.: P5

Description: Light Blue (Interior)
Location: NE Office NE Corner

Result (% by Weight): <0.0013
Result (ppm): <13
Comments:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/29/2024
Date Analyzed: 02/05/2024
Signature: 
Analyst: Chad Shaffer

Approved By: 
Frank E. Ehrenfeld, III
Laboratory Director



9000 Commerce Parkway Suite B
 Mt. Laurel, New Jersey 08054
 Telephone: 856-231-9449
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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
 43980 Plymouth Oaks Blvd
 Plymouth MI 48170

Report Date: 2/5/2024
 Report No.: 695371 - Cadmium Paint
 Project: 13550 15 Mile Rd - Marshall Major Campus
 Project No.: 095143.00

Client: SOI102

Appendix to Analytical Report:

Customer Contact: Jason Lafayette
Analysis: ASTM D3335-85a

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Paint
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

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iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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Information Pertinent to this Report:

Analysis by ASTM D3335-85a by AAS

Certification:

- National Lead Laboratory Program (NLLAP): AIHA-LAP, LLC No. 100188
 - NYSDOH-ELAP No. 11021

Recommend multiple sampling for all samples less than regulatory limit for confirmation.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Appendix B.

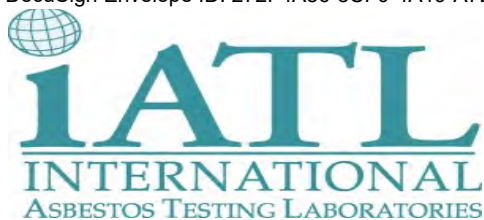
Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies.

LSD=0.05 ppm MDL=0.00038% by weight. RL= 0.0050% by weight (based upon 100 mg sampled).

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

* Insufficient sample provided to perform QC reanalysis (<200 mg)



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CERTIFICATE OF ANALYSIS

Client: Soil and Materials Engineers Inc.-102
43980 Plymouth Oaks Blvd
Plymouth MI 48170

Report Date: 2/5/2024
Report No.: 695371 - Cadmium Paint
Project: 13550 15 Mile Rd - Marshall Major Campus
Project No.: 095143.00

Client: SOI102

** Not enough sample provided to analyze (<50 mg)

*** Matrix / substrate interference possible.



9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

– Environmental Lead –

Contact Information

Client Company: <u>SME</u>	Project Number: <u>095143.00</u>
Office Address: <u>43980 PLYMOUTH OAKS BLVD</u>	Project Name: <u>13550 15 Mile Rd - Marshall MA</u>
City, State, Zip: <u>PLYMOUTH, MICHIGAN</u>	Primary Contact: <u>Davin Ojala</u>
Fax Number: _____	Office Phone: _____
Email Address: <u>Davin.Ojala@sme-usa.com</u>	Cell Phone: <u>(269) 207-0009</u>

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

Matrix/Method:

- Paint by AAS: ASTM D3335-85a, 2009
- Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010
- Air by AAS: NIOSH 7082, 1994
- Soil by AAS: EPA SW 846 (Soil)
- Water by AAS-GE: ASTM D3559-03D, USEPA 40CFR 141.11B, 2010
- Other Metals Cd, Mn, Cr by AAS
- Toxicity Characteristic Leaching Procedure (TCLP) by AAS: USEPA 1311
- Other _____

Special Instructions:

REFER TO ATTACHED SME CHAIN OF CUSTODY FOR ANALYSIS INSTRUCTIONS

Turnaround Time

Preliminary Results Requested Date: _____ Verbal Email Fax
Specific date / time
 10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization): <u>Jacob Lindsay SME</u>	Date: <u>1/26/24</u>	Time: <u>9:50</u>
Received (Name / iATL): _____	Date: _____	Time: _____
Sample Login (Name / iATL): _____	Date: _____	Time: _____
Analysis(Name(s) / iATL): <u>Carl Lindsay</u>	Date: _____	Time: <u>JAN 26 2024</u>
QA/QC Review (Name / iATL): <u>Lindsay</u>	Date: _____	Time: _____
Archived / Released: _____ QA/QC InterLAB Use: _____	Date: _____	Time: _____



Paint Chip Sample Chain of Custody

Project No: 095143.00

Project: Marshall MAJOR campus HMAs

Address: 13550 15 Mile Rd Marshall, MI

Default Site Location

Date Sampled: 01/22/2024

Lead|Cadmium in Paint ASTM D3335-85a

Sample ID	Description	Sample Location	#
P1	White (Interior)	North offices lobby	7719193
P2	Blue (Interior)	Auto repair shop SE corner	7719194
P3	Black (Interior)	Auto repair shop SW corner	7719195
P4	Yellow (Interior)	Auto repair shop NW column	7719196
P5	Light blue (Interior)	NE office NE corner	7719197

INSPECTOR(S): Jacob Lindsay

Relinquished by (Signature and Printed Name): Date / Time <i>Jacob S. Lindsay</i> 1/26/24 9:50	Received by (Signature and Printed Name): Date / Time
---	---

average high and low point of the pre-existing natural grade shall be used when calculating building height on waterfront lots.

- E. *Exceptions.* The following shall be exempt from height regulations in all zoning districts: parapet walls not exceeding four (4) feet in height from the adjoining roof, chimneys, cooling towers, elevator bulkheads, fire towers, stage towers, scenery lofts, monuments, cupolas, domes, spires, penthouses housing necessary mechanical appurtenances, and other similar architecture or structural elements and appurtenances.

Section 7-10 Principal Buildings and Uses

- A. *Principal Buildings.* On residential lots and parcels in the AG, R-2, R-2, R-3, OC and CS Districts, no more than one (1) principal building shall be placed on a parcel. In the case of residential condominium projects, each building site shall be limited to one principal building.
- B. *Principal Use Collectively.* Non-residential lots and parcels in the Commercial and Industrial Districts shall not be devoted to more than one (1) principal use, or contain more than one (1) principal building, except for mixed uses where permitted, or groups of retail, industrial, or agricultural buildings which are determined by the Zoning Administrator to be a principal use collectively, based on the following considerations:
1. Individual buildings share common parking areas.
 2. Access to the buildings/uses is provided via shared access drives or streets.
 3. Buildings are under single ownership.
 4. Individual activities support one another (such as auto dealership/vehicle repair or a convenience store/restaurant/gas station), unless it is a mixed commercial and residential use allowed by this ordinance.
 5. The buildings are architecturally consistent and compatible.

Section 7-11 Private Roads

- A. *Applicability.* All parcels of land which are not part of a recorded plat shall have access to a dedicated public road or access to a private road as described in this section.
- B. *Required Approval.* No person shall commence construction of a private road or commercial driveway within the township without prior approval by the Township Board. Applications for approval shall conform to the rules of procedure as promulgated by the township and/or Calhoun County Road Commission and as adopted by the township. A construction permit for a private road as approved by the Township Board shall be valid for a period of not more than two (2) years. The developer of a private road shall be responsible for maintenance of the private road until such time a dwelling is built and occupied or a maintenance agreement is in effect.
- C. *Deed Restrictions/Covenants.* Prior to the approval of the proposed private road, the applicant shall submit to the township a set of deed restrictions/covenants in a form acceptable to the township which shall provide for the creation of the private road easement and the creation of a homeowner's association whose members shall be the property owners abutting the road. The association shall be responsible for the upkeep and maintenance of the road. No more than one (1) association shall be responsible for any one (1) private road.
- D. *Review Procedures.*
1. Completeness Review. An application for a private road shall be submitted to the Zoning Administrator. If the application is complete, application and plans shall be forwarded to the Planning Commission together with comments from township staff. If the application is incomplete, the Zoning Administrator shall return it to the applicant with a written explanation of the deficiencies that must be corrected.

2. Review Meeting. A complete application shall be considered by the Planning Commission at a public meeting. If the private road is part of a planned unit development, special land use, site development plan review or other application requiring Planning Commission consideration, it may consider private road approval as part of the other development review.
3. Department Review. The Planning Commission may consult with the Township Planner, Fire Chief, Attorney, Engineer, and Zoning Administrator when considering a private road application.

E. *General Requirements*.

1. Design. Private roads shall comply with the road design and construction standards and requirements of the Calhoun County Road Commission.
2. Dead Ends. No private roads may dead end without the creation of a cul-de-sac, with such meeting the Calhoun County Road Commission standards for a cul-de-sac.
3. Right-of-Way. Width of right-of-way shall be no less than 66 feet.
4. Easements. For any parcel of land not fronting on an established public road, an easement for the construction and maintenance of various public utilities including natural gas, electric telephone, sewer, water, storm sewer, or similar improvement shall be provided. No building permit shall be granted for any parcel fronting on the private road until such easement has been provided by the applicant.
5. Access. No private road or street shall provide access to another private road.
5. Names. The applicant shall submit at least two (2) proposed names for a private road.
6. Secondary Access. Developments that consist of 75 or more dwelling units shall have at least two (2) separate access/egress points to protect residents in the event of an emergency or in the event of blockage of an access point and to promote safer traffic flow. In such instances where two (2) access/egress points are not possible for developments of 75 or more dwelling units, suitable alternatives which substantially achieve the purpose of this section may be accepted by the Planning Commission, if the applicant demonstrates all the following conditions apply. Additionally, the Planning Commission may require a wider boulevard design if one (1) point of access is approved.
 - a. The spacing of existing adjacent driveways or environmental constraints prohibit adherence to the access requirements.
 - b. There is no other reasonable means to achieve two (2) points of access/egress.
7. Submittal Requirements. The applicant shall submit an engineered plan of the private road, as well as a letter of intent stating general specifications for the private road, including total proposed length

F. *Review Standards*. The Planning Commission shall review the application and base its approval on compliance with the following standards:

1. The private road complies with all requirements of this section and other applicable provisions of this ordinance.
2. The private road would not create hazardous or potentially hazardous situations.

G. *Conditions for Issuing a Permit*. Except as provided in this ordinance, no building/zoning permits shall be issued for parcels abutting private roads until the road has been approved. No certificate of occupancies will be issued for dwellings and buildings until final road completion and approval by the Township Engineer.

H. *Easement and Maintenance Agreement*. Applications for private roads shall include the following recordable legal instrument and agreement for a review prior to approval of a private road.

1. Recordable Legal Instrument. For a private road providing access to lots or units under separate ownership, a copy of the recordable legal instrument(s) describing and granting private road easement(s).
2. Content. A copy of a recordable private road maintenance agreement, signed by all owners of the

lands served by the private road and other parties in interest, which includes the following:

- a. Provisions that assure that the private road will be maintained, repaired, and snowplowed for the full width of the roadway in accordance with the standards of this section and in a manner to assure that the private road is safe for travel and accessible by emergency vehicles at all times.
- b. Provisions that assure that the costs of maintenance of the private road and its easement are paid for in an equitable manner.
- c. A legal description of the private road easement and a legal description of the individual parcels of land to be served by the private road. All properties served by the private road shall be subject to the private road maintenance agreement.
- d. Provisions authoring the township, in its sole discretion, to perform reasonably necessary maintenance of the private road, subject to reimbursement by the owners of the properties served by the private road.
- e. Provisions declaring that the private road maintenance agreement constitutes a restrictive covenant, running with the benefitted lands, and binding on all current and future owners and other parties in interest as to the respective obligations stated therein.
- f. Provisions authorizing the township, in its sole discretion, to enforce the terms of the private road maintenance agreement, by any lawful means, in addition to such enforcement by any of the owners of the lands served by the private road, or by another interested party.
- g. Provisions to indemnify, save and hold the township, and its officers, employees, and agents, harmless from any and all claims for personal injury and/or property damage arising out of the failure to properly construct, maintain, repair, or replace the private road.

Section 7-12 Setbacks, Yards, Lots & Parcels

A. Setback Requirements.

1. Minimum Requirement. Unless otherwise stated, principal and accessory buildings are subject to a minimum required horizontal separation from right-of-way lines or property lines as required by the UDC.
2. Exemption. Structures such as mailboxes, fences, planters, landscaping beds, flagpoles, yard decorations, and other elements determined by the Zoning Administrator to be similar, are not subject to setbacks.

B. Projections into Setback Areas.

1. Architectural Features. Certain architectural features, such as cornices, bay windows, windows without foundations, window wells, gutters, chimneys, pilasters, and other elements determined by the Zoning Administrator to be similar, may project no further than three (3) feet into a front or rear setback area.
2. Covered and Enclosed Additions. Any permanently constructed porch, patio, carport, terrace, addition, deck, or balcony that is covered by a roof or trellis, or enclosed by a barrier, wall or screen, shall meet the minimum setback requirements of the principal building or accessory building to which it is attached. Any other similar covering or enclosing structural element shall be subject to the same requirement.
3. Open and Uncovered Elements. An open, uncovered, and unenclosed porch or paved terrace and other structural elements determined by the Zoning Administrator to be similar, may project into a required setback no more than 10 feet.

ROAD ACCESS, PRIVATE ROADS, AND OTHER PRIVATE MEANS OF ACCESS

A. Road access.

Any lot created after the effective date of this Ordinance shall have frontage upon and shall take access from a public road under the jurisdiction of the Calhoun County Road Department or the Michigan Department of Transportation or from an approved private road, back lot access private drive or shared driveway meeting the requirements of this Section.

B. General regulations apply to all private roads, back lot access private drives, and shared driveways.

1. **Definitions.** See Figure 1 for examples. For the purposes of this Section, the following shall apply:

a. **As used in this Section,** the term “road” also includes “street,” “avenue,” “drive,” “place,” “way,” “lane,” “boulevard,” “court,” “highway,” or other thoroughfare, except an alley.

b. **Public road:** A public thoroughfare located within a public road right-of way and dedicated to public use, which affords traffic circulation and provides access to abutting property.

c. **Back lot access private drive.** A private access drive that meets the following conditions:

The drive initially provides access to one (1) but no more than two (2) lots, split from a parent parcel, that are not otherwise contiguous to a public or private road (commonly referred to as “back lots”).

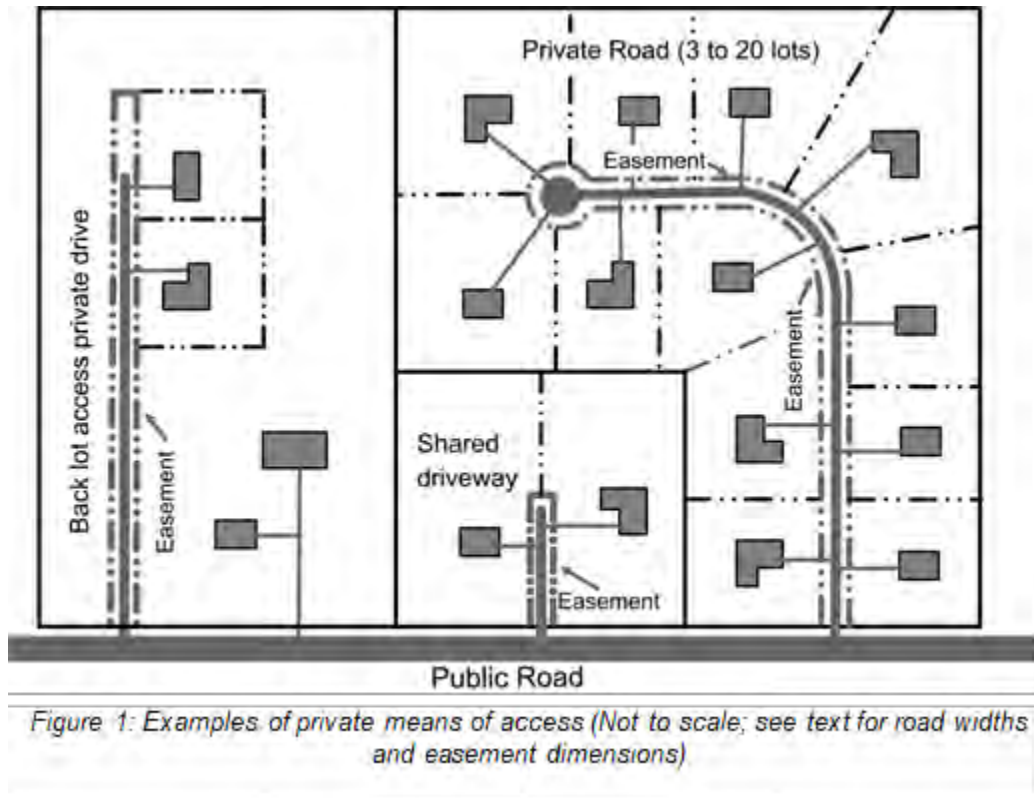
d. **Shared driveway:** A driveway that provides the primary access from a public road to two (2) contiguous lots which, because of their zoning, configuration, or other element related to the land, cannot be or are unlikely to be split into future additional lots.

e. **Private road:** A privately owned and maintained thoroughfare, located within a private road right-of-way easement, which is not a public road, which affords traffic circulation and provides access to abutting property.

f. **Lot:** A tract of land that can be legally described with certainty and is capable of being located by survey. This definition also includes “parcel” or “site condominium unit.”

ROAD ACCESS, PRIVATE ROADS, AND OTHER PRIVATE MEANS OF ACCESS

- g. **Safe and unimpeded route of travel:** A road surface of adequate width to accommodate the safe, two-way passage of vehicles, and of sufficient construction to accommodate any fire, police, rescue, or other emergency vehicle.



2. **Scope.** The Township recognizes that, as large tracts of land are divided, sold, transferred and developed, private roads, back lot access private drives and shared driveways are being created to provide access to the newly divided properties. The Township determines that it is in the best interest of the public health, safety and welfare to regulate the construction, improvement, extension, relocation and use of private roads and other private means of access. Private roads, back lot access private drives and shared driveways shall meet the requirements of this Ordinance. These regulations shall be enforced to ensure that:
- Private roads, back lot access private drives and shared driveways shall be designed and located to be consistent with the Master Plan and long term development policies of Marshall Township.
 - Private roads, back lot access private drives and shared driveways and other private means of access shall be designed with sufficient width, surface, and grade to

ROAD ACCESS, PRIVATE ROADS, AND OTHER PRIVATE MEANS OF ACCESS

assure safe passage and maneuverability of private vehicles, police, fire, ambulance and other safety vehicles.

- c. Private roads, back lot access private drives and shared driveways shall be constructed and maintained to be passable in all weather conditions and shall readily afford emergency access to the dwellings, buildings or other structures serviced by the private road.
 - d. Private roads, back lot access private drives and shared driveways shall be constructed of suitable materials to ensure minimal maintenance and safe passage.
 - e. Private roads, back lot access private drives and shared driveways shall be constructed to protect against or minimize soil erosion and prevent damage to lakes, streams, wetlands, and other significant natural features of the Township.
3. **Permit Required.** No individual, association, corporation or entity, either public or private, shall construct or extend a private road, back lot access private drive or shared driveway without first having obtained approval from the Township.
4. **Lots with multiple frontages.** A lot that has frontage on both a public road and a private road or shared driveway shall take its access from the private road or shared driveway if the lot has rights to the easement; however, the Township may approve access from the public road if the property does not have rights to the easement or it can be shown that access to the public road provides a safer or more efficient means of access, and the access has been approved by the appropriate road jurisdiction.
5. **Jurisdiction.** For any proposed private road, back lot access private drive or shared driveway that intersects a public road or State trunk highway, permits from the appropriate agency shall be submitted. If the private road, back lot access private drive or shared driveway intersects an existing private road, written permission from the owners, private road association or other entity that owns the private road shall be submitted. However, in no case shall a private road serve more than twenty (20) lots.
6. **Lot area, width and setback requirements.** All setbacks required by this Ordinance shall be measured from the easement right-of-way line. Minimum lot area and lot width requirements shall exclude any private road easements. For corner lots which are bound on two sides by intersections of a public road and private road or back lot access private drive, corner lot setback requirements of Section 7-12 C2 apply and spatial requirements, Section 3-3 and 4-3.

ROAD ACCESS, PRIVATE ROADS, AND OTHER PRIVATE MEANS OF ACCESS

7. **Land divisions, subdivisions and site condominiums.** No land division, subdivision or site condominium that creates lots accessed by a private road, back lot access private drive or shared driveway shall be approved or recorded unless and until the private means of access has been approved according to this Section.
8. **Legal documentation requirements.** Any application for a private road, back lot access private drive or a shared driveway shall be accompanied by a private easement and maintenance agreement, in recordable form, that meets the following minimum standards:
 - a. The private easement and maintenance agreement shall require the property owner(s) served by the private road, back lot access private drive or shared driveway to be responsible for the ownership and maintenance of the private road, back lot access private drive or shared driveway.
 - b. The agreement shall contain the method for apportioning costs of construction, maintenance and repair of the private road, back lot access private drive, or shared driveway among all of the benefitting property owners. The agreement shall also include provisions for a performance guarantee, if required.
 - c. The agreement shall contain a detailed legal description of the private road, back lot access private drive or shared driveway easement.
 - d. The agreement shall bind all of the benefitting lots and owners to the required maintenance of the private road, back lot access private drive or shared driveway, including all succeeding owners.
 - e. The agreement shall contain a clause stating that the applicant(s)/ owner(s) of the private road, back lot access private drive or shared driveway agree that by applying for or securing a permit to construct the private means of access that they shall indemnify and will hold the Township harmless from any and all claims for personal injury and/or property damage arising out of the use of the private road, back lot access private drive or shared driveway or of the failure to properly construct, maintain, use, repair, and replace the private road, back lot access private drive or shared driveway.
 - f. A private easement and maintenance agreement for a private road serving three (3) to twenty (20) lots shall contain a provision to permit the Township Board to authorize the repair of any private road that is not being maintained adequately to permit safe and unimpeded route of travel by users and emergency vehicles, and to assess the cost of such repair, including the costs of engineering and administration, to the benefitting owners of the Agreement on an equitable basis. The decision to authorize repair of a

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private road shall be at the Township Board's sole discretion in accordance with its legislative powers.

- g. The Township shall review the private easement and maintenance agreement for the private road, back lot access private drive or shared driveway, as submitted by the applicant, as part of the review and approval process to determine if Township requirements are met.
- h. After final approval of the private road, back lot access private drive or shared driveway, the applicant shall record the private easement and maintenance agreement with the Calhoun County Register of Deeds. After recording the private easement and maintenance agreement, a copy of the recorded documents shall be submitted to the Township Clerk.

9. Application.

- a. All applications for a private road, back lot access private drive or shared driveway permit shall be on a form or forms established by the Township and shall include any required fees, the required plans, the private easement and maintenance agreement and any other submittals as outlined below.
- b. The Zoning Administrator shall determine the number of plan sets required to accompany the application.
- c. Application fees for the permits required hereunder shall be set by the Township Board from time to time by resolution. Additionally, the Township Board may require that the applicant(s) put sufficient funds in escrow to cover the costs of having the Township attorney, engineer, planner, or other professional review the private road plans, specifications, and maintenance agreements, and to do the necessary inspections. Any funds remaining in escrow after the project has been inspected and approved shall be returned to the applicant.

10. Approval Authority.

- a. Shared driveway. A shared driveway shall be reviewed and approved by the Zoning Administrator. If an application does not meet the requirements of this Section and is not approved, the Zoning Administrator shall provide a written explanation of the denial.
- b. Back lot access private drive. A back lot private access drive shall be reviewed and approved by the Planning Commission.

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- c. Private road. A private road shall be reviewed by the Planning Commission, who shall make a recommendation to the Township Board, according to Subsection E.3, below.
 - d. In making a recommendation and/or a decision, the Zoning Administrator, or the Planning Commission and Township Board, as applicable, may impose such conditions necessary to ensure compliance with this Section and ensure protection of the public health, safety and welfare.
11. **Occupancy permits.** No occupancy permit for a structure on a lot accessed by a private road, back lot access private drive, or shared driveway shall be approved until the road, drive or driveway has been approved and inspected according to this Section.
- C. **Specific requirements: shared driveway.**
- 1. Design and construction requirements.
 - a. The shared driveway shall be located within an easement with a minimum width of forty (40) feet.
 - b. The shared driveway shall have a minimum width of ten (10) feet of travelled surface; however, any shared driveway that exceeds four hundred (400) feet in length shall provide a passing lane that is sixty (60) feet long by twenty (20) feet wide to permit passage by emergency vehicles. An additional passing lane shall be provided for each additional four hundred (400) feet of length. The location of the passing lane(s) shall be determined by the Zoning Administrator. The passing lanes shall be compacted, but need not be paved, and if unpaved shall be planted with turf and kept mowed.
 - c. The road surface may be paved with a hard surface or may be aggregate (gravel).
 - d. Shared driveways shall have a clear height of fourteen (14) feet to assure a safe and unimpeded route of travel for motor vehicle traffic and emergency vehicles in all weather conditions.
 - 2. Extension of shared driveway or increase in the number of lots served. A shared driveway may not be extended, nor may land accessed by the Shared Driveway be divided by any means, so that more than two (2) lots are served by the shared driveway, unless the shared driveway is upgraded as required for private roads serving three (3) to twenty (20) lots and is approved according to the

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requirements for a private road, or is dedicated to the public, meets the requirements for a public road and is accepted by the applicable road jurisdiction.

3. Application and approval. A shared driveway may be approved by the Zoning Administrator upon review of an application accompanied by the following:
 - a. The required private easement and maintenance agreement;
 - b. A plan drawn and sealed by a surveyor and/or civil engineer licensed by the State of Michigan, showing:
 - (1) all lots to be served, with dimensions and lot area;
 - (2) the location and width of the private road easement;
 - (3) the width of the proposed pavement;
 - (4) the materials to be used for pavement;
 - (5) the frontage and width of all lots served by the private road; and
 - (6) any drainage or utility structures to be located in the easement.

D. **Specific requirements: back lot access private drive**

1. Design and Construction Requirements.
 - a. Easement. A back lot access private drive shall be located within an easement that is sixty-six (66) feet wide.
 - b. Required improvements. A back lot access private drive shall, at minimum, be improved in the same manner as a shared driveway.
 - c. Back lot access private drives shall have a clear height of fourteen (14) feet to assure a safe and unimpeded route of travel for motor vehicle traffic, and emergency vehicles in all weather conditions.
2. Extension of a back lot access private drive or increase in the number of lots served. back lot access private drive may serve a maximum of two (2) lots. A back lot access drive may not serve more than two (2) lots unless plans for the road are reviewed and approved in the manner required for private roads serving three (3) to twenty (20) lots

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as outlined by Subsection E, below, or shall be dedicated to the public, meet the requirements for a public road and be accepted by the applicable road jurisdiction.

3. Application and approval.

a. The application for a back lot access private drive shall include:

(1) The required private easement and maintenance agreement;

(2) a plan drawn and sealed by a surveyor licensed by the State of Michigan, showing:

(a) The back lot or lots served by the private drive, with dimensions and lot area of the parent parcel and the back lot(s);

(b) the location and width of the private road easement;

(c) the width of the proposed pavement; and

(d) the materials to be used for the road surface.

b. Approval process. An application for a back lot access private drive shall be approved by the Planning Commission. In order to be approved the proposed back lot access private drive must meet the following standards:

(1) Meets the standards of the Zoning Ordinance.

(2) Will be constructed to assure a safe and unimpeded route of travel for motor vehicles, pedestrians and emergency vehicles in all weather conditions.

(3) Will be constructed so as to protect against or minimize soil erosion and prevent damage to lakes, streams, wetlands and the natural environment of the Township.

(4) On a case-by-case basis, the Planning Commission may waive certain review requirements, as site conditions warrant.

E. Specific requirements: private roads

1. Design requirements:

a. A private road, or any combination of interconnected private roads, shall not provide access to more than twenty (20) lots. Roads proposed to provide access to more than twenty (20) lots must be dedicated as a public road, meet the

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requirements for a public road and be accepted by the applicable road jurisdiction.

- b. A private road with only one (1) access to a public road shall not exceed two thousand five hundred (2,500) feet in length, as measured along the centerline of the private road. Any private road exceeding this length shall provide for at least one (1) additional access to a public road.
 - c. The specifications for surface and base materials, longitudinal grade, drainage, method of construction, and signs shall conform to the Calhoun County Department standards for local paved or gravel roads, as applicable.
 - d. The private road surface shall have a minimum width of fourteen (14) feet if serving 3 lots and twenty four (24) feet if serving four (4) to twenty (20) lots.
 - e. Right-of-way/easement width: All private roads constructed after the effective date of this Ordinance shall have a recorded permanent right-of-way and easement with a minimum width of sixty-six (66) feet. The right-of-way shall expressly permit public or private utilities to be installed within the right-of-way.
 - f. The private road shall terminate at a dead-end that is extendable into adjacent, undeveloped lots, designed to allow emergency or maintenance vehicles to turn around safely, or a cul-de-sac with a right-of-way radius that meets the road development standards of the Calhoun County Road Department. The Road Department (if applicable) and the Fire Department shall review and comment on the design of an extendable dead-end.
 - g. Private roads shall have a height of fourteen (14) feet to assure a safe and unimpeded route of travel for motor vehicle traffic, pedestrians, and emergency vehicles in all weather conditions.
2. **Application.** An application for a private road shall include the following:
- a. Completed application form, provided by the Township, along with any fees and escrow established for review.
 - b. The required private easement and maintenance agreement.
 - c. A detailed written description of the development to be served by the private road, including a description of the private road association or other party to be responsible for the ownership, operation and maintenance of the private road.

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- d. Road construction plans drawn by an engineer registered in the State of Michigan.
- e. A survey of the right-of-way by a registered land surveyor, together with surveys for each parcel to be served by the private road.
- f. The location of all public utilities, including, but not limited to, water, sewer, telephone, gas, electricity, and television cable to be located within the private road right-of-way. Copies of the instruments describing and granting such easements shall be submitted with the application.
- g. The location of any lakes, streams, wetlands and drains within the proposed right-of-way or within one hundred (100) feet thereof.
- h. The location of any other buildings and structures located within one hundred (100) feet of the private road right-of-way.
- i. An approved Soil Erosion and Sedimentation Permit.
- j. A narrative (shown on the site plan or submitted separately) describing in general terms the overall description of the proposal and the proposed method of providing sanitary sewer, water service, storm sewers and surface water drainage facilities, as well as other public and private utilities, including details of structures, light fixtures, etc.
- k. The Planning Commission may require that the plans be reviewed and commented upon by the Calhoun County Drain Commissioner, Calhoun County Road Department, the Fire Department or any other agency deemed affected by the proposed private road.
- l. All private roads shall be named on the site plan and the name(s) shall be approved by the Administrator of the Calhoun County Road Department. Road identification signs meeting the requirements of the Calhoun County Road Department shall be shown to be installed at intersections.

3. Approval process

- a. Planning Commission Review and approval. The Planning Commission shall review the application and plans. In order to recommend approval , the Planning Commission must find that the proposed private road:
 - (1) Meets the standards of the Zoning Ordinance.
 - (2) Will be constructed to assure a safe and unimpeded route of travel for motor vehicles, pedestrians and emergency vehicles in all weather conditions.

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- (3) Will be constructed so as to protect against or minimize soil erosion and prevent damage to lakes, streams, wetlands and the natural environment of the Township.
- b. On a case-by-case basis, the Planning Commission may waive certain review requirements, as site conditions warrant.
- c. Township Board Action. Upon receipt of the recommendation by the Planning Commission, the Township Board shall approve, approve with conditions, or deny the application. The record shall include the basis of the Township Board's decision.
4. Performance guarantee. The Township shall require, as a condition of the permit for a private road serving three (3) to twenty (20) lots, that the applicant provide a performance guarantee in accordance with Section 13.07 of this Ordinance. The performance guarantee shall be released upon inspection and approval of the completed private road.
5. "As-built" drawings. After approval, the applicant, at the applicant's expense, shall provide the Township with a set of "as built" drawings bearing a certificate and statement from a registered engineer certifying that the private road has been completed in accordance with the requirements of the permit and the Road Commission.

F. Inspections/Certificate of Compliance

1. Inspection required. Upon completion of construction of the private road, back lot access private drive or shared driveway, the Township shall inspect the completed construction to determine if it complies with the approved plans, specifications, permit, and this Ordinance. A Certificate of Compliance shall be issued if all requirements are met.
2. Failure of inspection. If the completed private road, back lot access private drive or shared driveway does not satisfy the requirements of the permit or this Ordinance, the applicant(s) shall be notified of the noncompliance in writing and shall be given a reasonable period of time within which to correct the deficiencies. Failure to correct the deficiencies within the time provided shall constitute a violation of this Ordinance.

G. Maintenance and Repairs

1. Maintenance required. Private roads, back lot access private drives and shared driveways shall be maintained in a manner that complies with the provisions of this Section.

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2. Safe and unimpeded route assured. All private roads, back lot access private drives and shared driveways shall be continuously maintained at the proper widths and be clear of brush or trees and branches to a height of fourteen (14) feet to assure a safe and unimpeded route of travel for motor vehicle traffic, pedestrians, and emergency vehicles in all weather conditions.
3. Responsibility. All costs for maintenance and repair of the private road, back lot access private drive or shared driveway shall be the responsibility of the benefitting property owners or any property owners association.

H. Existing nonconforming private roads, back lot access private drives or shared driveways:

1. Nonconforming use may continue. A nonconforming private road, back lot access private drive or shared driveway existing on the effective date of this Ordinance may continue and be maintained and used, even though it may not comply with the provisions of this Section. Any such private means of access shall be continuously maintained so as to provide a safe and unimpeded route of travel for motor vehicle traffic, pedestrians, and emergency vehicles in all weather conditions.
2. Extension. As of the date of this Ordinance, an existing private road, back lot access private drive or shared driveway that is nonconforming may not be extended to include additional lands and/or additional lots, unless the entire private means of access is upgraded to meet the requirements of this Section.
3. Existing vacant lots. A structure may be constructed upon an existing vacant lot of record that takes its primary access from an existing nonconforming private road, back lot access private drive or shared driveway, provided that the structure and all other development thereon meets the requirements of this Ordinance.
4. Inadequate easement width. Existing private roads, back lot access private drives or shared driveways that are nonconforming due to inadequate easement width may be improved without requiring the existing easement to be made conforming to the width requirements, provided that the pavement and any other improvements meet the requirements of this Section, and that the width of the easement is not further reduced.

Plans for improvement; process. Plans to improve an existing nonconforming private road, back lot access private drive, or shared driveway shall be reviewed and approved in the same manner as a new private road or back lot access private.



13551 Myron Avery Drive
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(269)781-7976 Fax (269)781-4403
Hours: Monday ~ Wednesday, 9 AM to 3:30 PM

For PC May 13, 2024, Staff Report

By-Laws

The By-Laws have been reviewed by the Township Attorney, and their recommendations are highlighted.

Master Plan, Discussion

Email April 2, 2024, Master Plan, Land Uses.

Fire Station

You should have all the files that you need for your research attached.

In the Site Plan Review, the proposed Fire Station is permitted by right.

There have been environmental land concerns in the discussion about the Fire Station. I have attached the signed agreement between MAEDA and the Township Board. In that agreement, the environmental issues were presented to the Township Board. The Township voted collectively to sign the property transfer and construction contract. What this should mean to the PC is that the Township Board has fully vetted the environmental concerns on the property. In the site Plan Review, there is no mention of environmental review (see that application). I would recommend that this not be the focal point of your deliberations. You could make it part of your condition that all environmental studies be done before construction.

In "2024-05-03 MAEDA Marshall Twp Fire Station Eng Review."

I recommend that items 1 through 5 be put into any approval motion.

Item 6 photometric: The lighting exceeds the minimum allowed. Please look at page 14 (L004) of the site plan review. SME has agreed to modify the lighting site plan, which would be also be a condition of approval, that the light poles be moved and a new photometric print be submitted before construction.

Items 7 and 11: The parking lot on the western side. The PC should consider the drive aisle in the road right-of-way, which does not contain any obstructions.



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I have requested the attendance of Dan Lewis of VK and the Township Attorney at the meeting. Their expertise and insights will be invaluable to our discussions. SME and the applicant will also be present to answer any questions, ensuring a comprehensive understanding of the project.