SPRINGFIELD CHARTER TOWNSHIP

PLANNING COMMISSION
REGULAR MEETING
August 25, 2026 l 7:00 P.M.

AGENDA

CALL TO ORDER

AGENDA APPROVAL

CONSENT AGENDA

1. Approve minutes of July 28, 2026 Regular Meeting

OLD BUSINESS

1. Sheetz Final Site Plan – 8500 Dixie Hwy – 07-24-201-019
2. Draft Data Center Zoning Ordinance Amendments

NEW BUSINESS

1. Clawson Tank Storage Preliminary Site Plan – 4634 Clawson Tank Dr – 07-36-401-011
2. Zoning Ordinance Amendments
   a. Draft Zoning Ordinance Amendments for Accessory Buildings and Structures and Uses
   b. Draft Zoning Ordinance Amendments for outdoor seating and outdoor café Service
   c. Draft Zoning Ordinance Amendments for ground signs in Residential Zoning Districts

COMMUNICATION

- Levy Updates and Project Status

PUBLIC COMMENT

Public Comment is the time for audience members to comment on items not on the agenda. This is not a question-answer period. Please keep comments to no more than three minutes. Comments may be submitted in advance of the meeting to the Township Clerk at clerk@springfield-twp.us or 248-846-6510.

ADJOURNMENT

Next Meeting: September 22, 2026 Regular Meeting 7:00 p.m.

Minutes of

PLANNING COMMISSION
REGULAR MEETING
July 28, 2026

SPRINGFIELD CHARTER TOWNSHIP

Sean R. Miller, Clerk

Call to Order: Chairperson Galley called the July 28, 2026 Regular Meeting of the Springfield Township Planning Commission to order at 7:00 p.m. at the Springfield Township Civic Center, 12000 Davisburg Rd., Davisburg, MI 48350.

Commissioners
In Attendance:

Brian Galley, Chair
Ruth Ann Hines
Kevin Sclesky
Steve Felix
Andrew Donato
Jason Price

Absent:

Mark Yovich

Consultants' Present:

Benny Bono, Township Planner
David Scurto, Township Planner
Jason Mayer, Township Engineer

Approval of Agenda:

Commissioner Hines moved to approve the agenda as presented. Commissioner Felix supported. Vote. Yes: Galley, Hines, Sclesky, Felix, Donato, Price, No: None. Absent: Yovich. Motion approved.

Approval of Consent Agenda:

1) Approve Minutes of June 23, 2026 Regular Meeting

Commissioners Felix moved to approve the Planning Commission Meeting Minutes dated June 23, 2026 as presented. Supported by Commissioner Hines. Vote. Yes: Galley, Hines, Sclesky, Felix, Donato, Price, No: None. Absent: Yovich. Motion approved.

Public Hearing:

1. Huffmaster Racing – Class B License – 10375 Dixie Hwy – 07-03-451-005 (M1)

Chairperson Galley began with a brief introduction that Huffmaster Racing is proposing to occupy an existing building and expand its operations to include the sale and dismantling of vehicles. He explained that Michigan requires a used vehicle dealer license which triggers the special land use process and public hearing under the Township's zoning ordinance.

Township Planner Benny Bono stated that Huffmaster has submitted an application that requested a preliminary site plan and special land use approval for a vehicle repair and sales facility that sits on a 4.59-acre parcel in the M-1 Light Industrial zoning district. He explained that the existing business operates as a major automobile repair facility and proposes to expand its operations to include dismantling and salvaging automobiles under Class B used vehicle dealership and Class C used vehicle parts dealer licenses. Planner Bono went through the review highlighting the existing site, proposed vehicle and parts handling procedures, hazardous material disposal, and applicable zoning requirements. He concluded with explaining that the Planning Commission makes a recommendation on the preliminary site plan and special land use to the Township Board.

Chairperson Galley thanked Planner Bono and opened the public hearing at 7:00 p.m.

A member of the public asked whether an oil-water separator is located on the property.

Chairperson Galley stated that such equipment is required for this type of operation and indicated that the matter would be addressed further during the new business item discussion.

A second member of the public asked whether Dixie Highway would be used as a test area for vehicle performance.

Chairperson Galley asked if there were any additional comments, seeing none he closed the public hearing for at 7:06 p.m.

2. Heather Highlands – Prelim/Final Site Plan – 11450 E. Holly Rd – 07-04-376-006 (RC)

Chairperson Galley began the second public hearing item which is the Heather Highlands application. He explained that the property is under new ownership and is undergoing significant changes and investment. He stated that the existing clubhouse has been removed and will be reconstructed in the same location.

Planner Bono stated that Heather Highlands is requesting preliminary and final site plan approval for the redevelopment of the Heather Highlands Golf Club clubhouse and additional amenities on a 169.94-acre parcel zoned as PR (Parks and Recreation) zoning district. He shared that the proposal includes a new approximately 4,727-square-foot clubhouse with a bar, restaurant, pro shop, parking lot and patio, together with a 3,750-square-foot pavilion capable of hosting events.

Chairperson Galley opened the public hearing at 7:07 p.m.

A member of the public questioned the size and traffic impacts of the proposed restaurant and expressed concern regarding the potential impacts of the operation on nearby residents.

Chairperson Galley explained that the proposed clubhouse would be approximately half the size of the existing clubhouse.

Member of the public asked for clarification regarding the additional Carlisle Wortman Associates representative present at the meeting and where our original Township Planner Megan Masson-Minock was.

Chairperson Galley shared Planner Masson-Minock was out of town and could not attend and sent her associates to assist. He introduced Planner Dave Scurto and Planner Bono. Planner Bono was assisting with site plan reviews while Mr. Scurto was assisting with the data center zoning ordinance discussion.

A member of the public asked whether the proposed parking area would have approximately 243 spaces, and whether an additional entrance would be provided or a traffic signal would be considered at Dixie Highway and East Holly Road.

Chairperson Galley explained that the existing entrances and exits are expected to remain and reiterated that the proposed operation would be smaller than the previous clubhouse operation.

There being no further public comment, Chairperson Galley closed the public hearing at 7:10 p.m.

Old Business:

1. Draft Data Center Zoning Ordinance Amendments

Chairperson Galley moved onto the old business section and introduced the continued discussion regarding proposed data center zoning ordinance amendments. He noted that the matter has been under extensive review by the Planning Commission and is expected to continue into future meetings.

Planner Scurto stated that he was assisting Planner Masson-Minock in reviewing the June 15, 2026 memo and presented the proposed amendments for Planning Commission consideration. He shared that the proposed amendments include provisions addressing accessory, minor and major, large-scale industrial developments, equipment enclosure, closed-loop circulation systems, noise studies, post-construction noise testing, increased setbacks, energy demands, hazardous materials, decommissioning, fire and emergency response, noise and vibration, air quality, battery energy storage systems, substations and switchyards, maximum IT loads, natural resource protection, screening walls, vehicle stacking, and definitions.

Commissioner Felix began the discussion and focused on the proposed closed-loop circulation language and expressed concern regarding the potential use of groundwater for cooling systems.

Commissioner Donato explained that closed-loop systems could include refrigerant or cooler systems and recommended that the language should be clarified to address the different systems.

Commissioner Felix also raised concern regarding the requirements for increased setbacks.

Planner Scurto agreed that the Township should establish specific setback standards rather than leave the requirement open to interpretation. He stated that he is reviewing ordinances from other communities and would provide comparative setback information and recommendations.

Discussion continued with decommissioning requirements and the need to ensure that financial security remains adequate as costs increase over time.

Commissioner Felix explained the importance of maintaining sufficient escrow funding over the life of a facility.

Planner Scurto stated that an escalation provision could be considered and that he would review the issue with the Township Attorney.

Commissioner Price raised questions regarding noise standards, including decibel levels, frequency, pulse characteristics, and timing limitations.

Planner Scurto reviewed the draft provisions that outlined the 50 dBA nighttime limits and lower limits adjacent to residential properties.

Chairperson Galley further raised the issue of backup generator testing and whether the ordinance should establish specific hours for generator operation and testing.

Planner Scurto stated that the ordinance could establish specific testing hours.

Commissioner Donato emphasized that the ordinance should address mitigation policies in addition to post-construction noise studies. He continued with discussing the need for specific corrective timelines if a facility fails to comply with approved noise ordinances and standards.

Planner Scurto explained that failure to comply with an approved site plan would constitute an enforcement matter and that the ordinance could establish a timeframe for corrective action.

Chairperson Galley questioned about the possibility of allowing the Township to test sound levels on a regular or as-needed basis rather than allowing facilities to anticipate testing dates.

Commissioner Sclesky highlighted the importance of addressing the electricity demand and ensuring that the costs associated with high level of energy usage are not shifted to Township residents. He stated that energy costs represent a significant issue that must be addressed in the ordinance.

Commissioner Price referred to House Bills 5882, 5881 and 5846 and suggested reviewing the status and substance of those proposals in relation to the Township's proposed ordinance. He discussed the importance of maintaining strong local protections while reviewing potential changes at the state level.

Commissioner Hines raised questions about lighting, particularly given the potential for data centers to operate continuously. She highlighted the need for photometric standards, property-line requirements, screening, and the use of landscaping to mitigate lighting and noise impacts.

Chairperson Galley emphasized that the proposed ordinance should be comprehensive while remaining concise and defensible. He discussed the importance of developing a strong ordinance that protects the community without creating unnecessary provisions that could become vulnerable to legal challenge.

Further discussion led to the Township's moratorium and the timeline for completing the ordinance. Planner Scurto explained that active work on the ordinance could support continued consideration of the moratorium, subject to legal review.

Commissioner Sclesky emphasized the importance of maintaining the item on the Planning Commission and Township Board agendas so that the Township demonstrates continued progress.

Chairperson Galley stated that the Commission is approaching the one-year timeframe and that the ordinance would ultimately need to proceed through a public hearing and Township Board review.

Planner Scurto discussed the possibility of establishing a subcommittee to work directly with the planning consultants on the technical details of the ordinance. He stated that a smaller working group could be efficient, subject to proper establishment of the committee and consultation with the Township Attorney regarding Open Meetings Act requirements.

Chairperson Galley directed Commissioners and members of the public to continue submitting additional comments and recommendations so that Township Planner's can incorporate them into the next draft.

The discussion was concluded with revisiting the decommissioning escrow requirements, including the possibility of requiring more than 100 percent of projected costs and periodic reassessment of those costs. It was emphasized the importance of protecting the Township from future financial liability associated with large-scale facilities.

New Business:

1. Huffmaster Racing – Class B License – 10375 Dixie Hwy – 07-03-451-005 (M1)

Chairperson Galley moved to New Business by inviting the applicant Rob Huffmaster to give an overview of their proposed expansion.

Applicant Rob Huffmaster explained that the business is currently operating as a race shop, speed shop and traditional automotive repair business and is seeking Class B used vehicle dealer and Class C used vehicle parts dealer licenses to allow the business to purchase salvage vehicles, repair selected vehicles for resale and dismantle other vehicles for parts reclamation. He explained that the proposed operation would be conducted primarily indoors within the existing building. He stated that the salvage operation would be limited in scale, with approximately one or two salvage vehicles on site at any given time, and that vehicles would be de-polluted promptly, with fluids and hazardous components safely removed and recycled.

Planner Bono began to review the detailed site plan and special land use requirements. He stated that the submitted plan was in substantial compliance with the Township Zoning Ordinance. He reviewed parking, access, screening, landscaping, safety path requirements, waste and recycling storage, vehicle storage, lighting, and the standards applicable to dismantling and salvaging automobiles. He identified several items for Planning Commission to consider, including whether a safety path requirement should be waived, existing screening was sufficient, an alternative dumpster screening method should be accepted, and if the special land use standards for dismantling and salvaging automobiles had been met.

Chairperson Galley noted that the existing well, septic and stormwater systems would continue to be used and that the Township Fire Department had identified only minor items to be addressed prior to final approval.

Commissioner Sclesky stated that the state licensing requirement was the primary reason the application was subject to Township Board review and noted that the proposed use is a clear business use within the M-1 district. He questioned if there is a need for restricting the business to 8:00 a.m. to 5:00 p.m. if the proposed operations would occur indoors. He stated that he was not inclined to restrict the hours of an indoor industrial business and suggested recommending approval to the Township Board.

Chairperson Galley supported Commissioner Sclesky's comments and emphasized that the property is located within an industrial district along a major highway.

Commissioner Felix agreed, noting that restricting the business to traditional daytime hours could conflict with the schedules of its customers and employees.

The Commission discussed the proposed dumpster screening. It was noted that the existing dumpster is screened from the roadway and that the existing conditions appear sufficient for this particular industrial operation.

Commissioner Felix moved to recommend to the Township Board the approval of the special land for Huffmaster Racing at 10375 Dixie Highway, pursuant to Section 40-145, for a Class B used vehicle dealer and Class C used parts dealer, subject to waiving the safety path requirement; accepting the existing screening and landscaping, both to remain intact and adequate; prohibiting a showroom or outdoor vehicle display; accepting the existing dumpster screening; updating the preliminary site plan to correctly identify the applicant and address; and not imposing additional hours-of-operation restrictions given the industrial zoning and indoor nature of the use. Supported by Commissioner Price. Vote. Yes: Galley, Hines, Sclesky, Felix, Donato, Price, No: None. Absent: Yovich. Motion approved

2. Heather Highlands – Prelim/Final Site Plan – 11450 E. Holly Rd – 07-04-376-006 (RC)

Chairperson Galley recused himself from consideration of the Heather Highlands application due to a personal relationship with the property owner and asked Commissioner Sclesky to lead the discussion.

Commissioner Sclesky introduced the preliminary and final site plan review for Heather Highlands Golf Club and noted that the property has historically operated as a golf course. He emphasized the significance of redevelopment and the opportunity to restore and substantially improve the property.

Planner Bono reviewed the special land use and site plan requirements. He stated that the proposal is substantially compliant with the Township Zoning Ordinance and reviewed building height, setbacks, natural resources, parking, access, safety path requirements, well and septic service, landscaping, parking lot trees and islands, lighting, signage, outdoor seating, and architectural standards.

Planner Bono identified several items requiring Planning Commission action, including waivers for parking lot trees and parking lot islands, the landscape plan, outdoor seating regulations, building height dimensions, lighting, signage, and final site plan requirements.

Commissioner Sclesky outlined the existing ordinance language concerning outdoor seating as an area requiring clarification and directed the planning consultant to return at the next meeting with proposed

language to correct the inconsistency in the ordinance. He also addressed the landscape plan and requested confirmation that the plan could be reviewed administratively while still meeting the intent and requirements of the Township ordinance.

Commissioner Hines questioned the need for parking lot islands and trees given the existing character of the property and the extensive amount of natural vegetation.

Commissioner Donato raised a question on how the landscaping requirement should be measured given the substantial existing tree coverage.

The Commission discussed the proposed landscape plan and agreed that the plan should address the immediate clubhouse and parking areas rather than require landscaping across the entire golf course. The Commission supported administrative review of the landscape plan provided that the plan satisfies the intent and requirements of the Township ordinance. Proposed architectural uplighting was also discussed.

Planner Bono explained that uplighting is prohibited by Section 40-888.

Commissioner Price noted that appropriately designed, low-level uplighting could enhance the appearance of the building and suggested that the issue could potentially be addressed through the zoning variance process.

Commissioner Felix expressed concern regarding future development across Holly Road and the potential impact of lighting.

Commissioner Hines noted that a photometric lighting plan would be necessary and that a variance from the prohibition on uplighting would be a matter for the Zoning Board of Appeals.

The Commission agreed that the applicant should pursue the Zoning Board of Appeals process if the proposed uplighting remained important to the project.

Chairperson Galley stated that he had discussed the uplighting issue with the property owner and that the owner was willing to accommodate any requirements presented by the Township.

Commissioner Hines moved to recommend that the Township Board approve the special land use permit and site plan for Heather Highlands Golf Club at 11450 East Holly Road, subject to the following conditions: a landscape plan and photometric lighting plan be submitted and reviewed administratively by the planning consultant and Administrative Review Committee prior to issuance

of a certificate of occupancy; the required parking lot trees and parking lot islands be waived; building height dimensions be provided on the building elevations to demonstrate compliance with the ordinance; and no outdoor seating or café service be permitted until Section 40-646 of the Zoning Ordinance is amended to allow such use in the PR zoning district; Non-compliant lighting be replaced to comply with standards in Section 40-888. Vote. Yes: Galley, Hines, Sclesky, Felix, Donato, Price, No: None. Absent: Yovich. Motion approved

3. Sheetz Gas Station – Prelim/Final Site Plan – 8500 Dixie Hwy – 07-24-201-019 & 07-24-201-003 (C2)

Chairperson Galley introduced the next item, which is the preliminary and final site plan review for Sheetz, which proposes redevelopment of the existing BP gas station at Dixie Highway and Lavon Street, together with an adjacent parcel.

Mr. David Brucklemeyer, a Sheetz representative, provided an overview of the company and the proposed redevelopment. He stated that the project would include a 6,139-square-foot convenience store and restaurant, mobile pickup service, fuel pumps with 16 fuel positions, approximately 30 indoor seats and 18 outdoor seats, and approximately 30 to 35 employees.

Mr. Brucklemeyer reviewed the proposed site circulation, including the relocation of the Dixie Highway access farther from the Lavon Street intersection, the proposed turn lane, and a requested modification to allow a 36-foot drive aisle to accommodate delivery vehicles and customer traffic. The proposal outlines land banking 11 parking spaces, explaining that the current parking supply is adequate for expected demand. It also proposed a loading area behind the store and agreed to address additional landscaping identified during staff review.

Mr. Brucklemeyer reviewed the proposed architectural design, including brick, stone, prairie/craftsman elements, split-rail fencing, and the proposed fuel canopy.

Planner Bono reviewed the site plan and supplemental information and stated that the applicant had addressed many of the items identified in the initial review. He reviewed parking, loading, circulation, landscaping, lighting, signage, architectural design, outdoor seating, traffic impacts, driveway width, utilities, and other site plan requirements. He noted that the applicant had provided a traffic study and that neither the Township Engineer Jason Mayer nor the planning consultants identified significant traffic concerns.

The Commission conducted an extensive review of the proposed site plan and provided direction regarding pedestrian safety, landscaping, parking, lot combination, crosswalks, signage, architectural elements, lighting, and the Dixie Highway Overlay District.

Commissioner Sclesky noted that a significant number of concerns had been addressed by the applicant and Planners shortly before the meeting. He stated that the Township Planners had done a strong job working with the applicant to resolve many of the outstanding issues and emphasized the importance of ensuring that remaining conditions were clearly documented.

The Commission discussed the proposed architectural design and consistency with the Dixie Highway Overlay District. Commissioner Sclesky emphasized that the site should remain consistent with improvements previously required along the corridor, including appropriate stonework and pedestrian improvements.

Mr. Brucklemeyer agreed to modify the proposed masonry as necessary.

Chairperson Galley strongly supported inclusion of the safety path and discussed the Township's long-term goal of creating a connected pedestrian pathway along the Dixie Highway corridor. The Commission discussed the possibility of providing an easement for future pathway construction where immediate construction is not practical.

The Commission reviewed the proposed parking land bank. Chairperson Galley stated that he was comfortable relying on the applicant's experience and judgment regarding the amount of parking necessary for the operation while maintaining the Township's ability to require additional parking if circumstances change.

The Commission discussed the proposed lot combination and agreed that the parcels should be combined as part of the overall development process.

Mr. Brucklemeyer stated that the lot combination would be pursued once the necessary property and lease arrangements were completed as they do not own the land yet.

The Commission discussed the proposed septic system, which would be located on the rear portion of the property. The applicant stated that the existing septic field would be removed and replaced. They also reviewed the existing stormwater feature and stream and confirmed that the applicant does not intend to disturb those areas.

The proposed crosswalks and community features were discussed next. Those items include bike racks and a potential bench associated with a future safety path.

Mr. Brucklemeyer confirmed that a flagpole is included as a standard feature at Sheetz locations.

Commissioner Sclesky stated that the preliminary site plan review had progressed substantially and that the applicant had presented a strong business model for the Township. He recommended that the remaining conditions be consolidated and addressed administratively where appropriate, with the applicant returning to the Planning Commission for final site plan review.

Commissioners agreed that the project should proceed to another review with the outstanding conditions clearly identified on the plans.

Chairperson Galley thanked the applicant and stated that the Commission looked forward to reviewing the final site plan at the next available meeting.

Communication:

1. Levy/Burroughs Materials Corporation Application Update

Chairperson Galley reported that there had been no meetings with Township officials or consultants regarding the Edward C. Levy update since the previous meeting. He stated that the only anticipated activity was the possibility of another exploratory well, although no definite schedule had been established.

Public Comment:

Chairperson Galley opened Public Comment and stated that members of the public would have three minutes to address the Commission.

Ms. Stephanie Nahas addressed noise associated with the proposed Levy gravel mining operation. Ms. Nahas referenced documents obtained through FOIA and stated that a prior consent judgment allows noise levels significantly higher than the Township's current residential noise standards. She discussed the potential impacts of noise and truck traffic on surrounding residents and noted concerns regarding the proposed number of gravel trucks traveling through the Township. Ms. Nahas also compared the proposed mining noise standards with the stricter standards being considered for data centers and requested that her comments be included in the official minutes.

A member of the public submitted a written comment but elected not to read it aloud.

A member of the public raised concerns regarding the opportunity to establish baseline environmental conditions before any mining activity occurs. They suggested that additional environmental sampling and well testing be completed before further development so that baseline conditions would be documented.

Chairperson Galley noted that the property has reportedly been owned since approximately 1975 and that numerous wells already exist on the property.

The member of the public expressed concern that existing monitoring may not address contaminants such as PFAS, PCBs, dioxins and TPH and emphasized concern regarding potential impacts associated with the proposed mining operation.

Mr. Eric Keydel, 13580 French Lane, Davisburg, addressed potential impacts of the proposed gravel mine on residential property values. Mr. Keydel referenced a market study prepared for the Levy Corporation and questioned its methodology. He discussed alternative valuation methodologies, including hedonic pricing models, and stated his belief that additional studies should be conducted regarding the potential effect of mining activity on nearby residential property values.

Mr. Dave Okonewski, a resident of Rusty Lane, addressed the proposed data center zoning ordinance. He stated that the ordinance is highly technical and requested that the Planning Commission direct the Planners to respond to questions submitted by residents before further action is taken. He referenced nearly 200 questions he had previously identified and stated that he believed an in-person working session with Commissioners, Planners, and Residents would be more productive than simply submitting a large volume of written questions. He emphasized the importance of ensuring that the proposed ordinance is thoroughly vetted before being recommended for adoption.

Ms. Ann Mauro-Vetter addressed concerns regarding groundwater and the proposed gravel mining operation. She referenced a hydrogeologic evaluation and stated that the proposed operation could require groundwater withdrawals to replace water lost through evaporation and product moisture. Ms. Mauro-Vetter questioned the assumptions and methodology used to estimate potential drawdown and expressed concern that shallow residential wells could be affected. She expressed concern regarding the long-term groundwater impacts associated with creation of a mining lake and requested that the applicant fund baseline testing of potentially affected residential wells, including testing for arsenic and nitrate.

A member of the public commented on potential effects of the proposed gravel mine on residential property values. They described a nearby home that had been listed for sale following the application of the proposed mine and stated that the owner had experienced difficulty selling. They expressed hope that the proposed mine would not proceed and urged the Commission to consider the concerns of affected residents.

Linda Belair, 7674 Devons Ridge, commented on the proposed data center ordinance and potential impacts on aviation and cellular service. Ms. Belair also expressed concern regarding the proposed Sheetz development, stating that she lives approximately one-half mile from the site. She expressed concern about the proposed 24-hour operation, increased traffic, truck noise, and potential light pollution and

emphasized that developments in Springfield Township can affect neighboring residents outside the Township.

Chairperson Galley closed Public Comment at 9:38 PM.

Commissioner Hines moved to adjourn the meeting at 9:39 PM. Supported by Commissioner Felix. Vote. Yes: Galley, Hines, Sclesky, Felix, Donato, Price, No: None. Absent: Yovich. Motion approved

_____

Danielle Sink, Recording Secretary

Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Springfield Charter Township Planning Commission

FROM: Megan A. Masson-Minock, AICP

DATE: August 18, 2026

RE: Draft Zoning Ordinance Amendments for Data Centers and Large-Scale Industrial Developments

Please find attached revised zoning ordinance amendments to define the application process and where and how data centers and large-scale industrial developments could be allowed in Springfield Township.

We have made the following updates based on the Planning Commission's input:

- Updated the definition of data center to include a better description of types of data centers including colocation centers, cloud-computing facilities, hyperscale computing facilities, cryptocurrency mining facilities, artificial intelligence training facilities, and similar high-intensity information technology operations. We recognize that additional definitions may be needed.
- Replaced the setbacks as follows:
    - On-site accessory data centers: 100 feet from any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center and 75 feet from all property lines.
    - Major data center: 400 feet from any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center and 200 feet from all property lines.
    - Minor data center: 100 feet from any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center and 75 feet from all property lines.
    - Large-scale industrial developments: Not allowed on any parcel within 500 feet of any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center and minimum setback on allowed parcels of 200 feet.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

- Replaced the greenbelt requirements for data centers and large-scale industrial developments with a minimum 50 foot landscaped greenbelt shall be provided along all property lines planted with the minimum requirements for a Screen No. 3 in the landscaping section. The township body responsibility for approval may require a combination of berming, landscaping, or a solid wall as needed. The waiver is proposed to be deleted.
- For Large-Scale Industrial Developments
    - Added an applicability section that has these regulations override others in the Zoning Ordinance and that a facility cannot avoid compliance by diving operations over multiple buildings, parcels or phases.
    - Added a lighting section
    - Added requirement for post-construction noise study
    - Cross referenced the requirement for an environmental permits checklist in Section 40-890, which includes a review by the Fire Department of all hazardous materials.
    - Removed waiver from secondary containment for fuel containers.
    - Added fire protection requirements.
    - Added continuous thermal monitoring requirements for Battery Energy Storage Systems.
    - Added noise requirements for transformers and substations.
    - Added to annual report a requirement to break out water usage by process water, cooling water, domestic water and irrigation water.
    - Added to the impact analysis that portions of the report be done by an independent, industry-recognized third-party.
    - Added to the environmental performance requirements an ecosystem services plan describing how the facility will minimize and/or improve local ecological performance, air quality, soil quality, and biodiversity.
    - Increased the performance guarantee to 150% of decommissioning and site restoration, certified by a third party, and to be updated and adjusted every 5 years.
    - Added specification that the guarantee runs with the land, and if the owner fails to complete decommissioning, the Township can use the performance guarantee and any costs exceeding the guarantee are the responsibility of the property owner.

Please come prepared to discuss:

- What additional definitions are needed?
- What requirements or regulations are needed?
- What needs to occur for the Planning Commission to feel comfortable calling a public hearing on the draft zoning ordinance amendments?

I will be in attendance at the June 23, 2026 Planning Commission meeting. Please let us know if you have any questions.

Respectfully submitted,



CARLISLE/WORTMAN ASSOC.,INC
Megan Masson-Minock, AICP
Principal

Section 40-2 Definitions

Data Center: A facility used for the centralized storage, management, processing, and transmission of digital information, typically containing computer servers, data storage systems, telecommunications equipment, power distribution systems, cooling and ventilation systems, uninterruptible power supplies, backup generators, and associated support infrastructure. The term includes colocation centers, cloud-computing facilities, hyperscale computing facilities, cryptocurrency mining facilities, artificial intelligence training facilities, and similar high-intensity information technology operations. The term does not include small server rooms, IT closets, or similar equipment rooms that are clearly accessory and subordinate to another lawful principal use. ~~A building or portion of a building primarily used to house computer servers, data storage systems, networking equipment, and associated infrastructure for the processing, storage, transmission, or management of digital data. A data center may include power distribution equipment, cooling systems, emergency backup power generation, fire suppression systems, and security features. Only areas of the building specifically dedicated to the storage of physical goods, materials, or merchandise shall be classified as "storage" or "warehouse" uses; all other areas shall be considered part of the data center use.~~ Data Centers shall include the following types of developments:

(1) Data Center, Accessory. A data center that is clearly incidental and subordinate to a principal permitted use on the same lot (e.g., hospital, university, large employer), operated to support the on-site activities of that principal use, does not provide data storage and processing services to parties off-site, and is less than 10,000 square feet in gross floor area.

(2) Data Center, Minor. A principal use data center facility that serves local or regional data processing needs and meets the all following criteria: (1) the data center contains 25,000 square feet or less of floor area devoted to the processing, storage, transmission, or management of digital data; and (2) the data center has an electrical load not exceeding one megawatt; and (3) the data center is located on a lot that is 10 acres or less.

(3) Data Center, Major. A principal use data center facility designed to support colocation or regional cloud computing operations, typically serving multiple clients or large users, and meets any of the following criteria: (1) the data center contains greater than 25,000 square feet of floor area devoted to the processing, storage, transmission, or management of digital data, (2) the data center has an electrical load greater than one megawatt, or the data center is located on a lot that is greater than ten acres.

(4) Large-Scale Industrial Development: A principal nonresidential facility, campus, or group of buildings under common ownership or control that is characterized by continuous or near-continuous operation, and significant mechanical, electrical, or cooling infrastructure. A large-scale industrial development, does not include general warehousing/distribution, general manufacturing, or office uses unless the Zoning Administrator determines, based on operational characteristics and supporting documentation, that the facility is substantially similar in operational profile to a large-scale industrial development (e.g., high-reliability power demand and continuous environmental control serving electronic/process loads) and meets subsections a and b. Multiple buildings, modules, or phases located on the same site or on contiguous parcels under common ownership or control shall be aggregated for purposes of determining if this definition is met and whether thresholds in subsections a and b are exceeded. A large-scale industrial development meets both of the following:

a. Operational Characteristics. The facility includes one or more of the following operational characteristics that are integral to the primary use: central plant or large-scale mechanical

cooling and/or ventilation systems serving process loads or IT/electronic equipment; on-site emergency generation with an aggregate nameplate capacity exceeding 2,000 kW or 2 MW; on-site fuel storage exceeding 10,000 gallons; dedicated electrical transformation/switchgear yard, substation, or similarly intensive electrical infrastructure primarily serving the facility; and/or 24-hour operations and/or operational necessity requiring uninterrupted environmental control (temperature/humidity) or high-reliability power systems.

b. Resource/Infrastructure Thresholds. The facility exceeds one or more of the following thresholds, as demonstrated by applicant-prepared estimates and utility/service provider documentation, including any phased expansion approved or constructed within five (5) years: average daily water demand > 100 gpm; average daily sanitary discharge > 50,000 gallons/day; maximum contracted electric demand or designed peak demand > 10 MW (or equivalent documented kW); storage, use, or generation requiring reporting under [EPCRA Tier II and/or applicable state hazardous materials reporting] and/or generation of hazardous waste at a level regulated under [state/federal hazardous waste generator requirements], as documented on a materials inventory submitted with the application.

(5) Battery Energy Storage System (BESS). One or more electrochemical energy storage containers, inverters, switchgear, and associated equipment, which may be co located with a Large-Scale Industrial Development to provide resiliency or load management.

(6) On site Substation/Switchyard. Electric utility facilities (e.g., transformers, breakers) necessary to serve a data center.

Section 40-136.g.2.c.1 (Site plan review requirements)

(xiii) For phased developments, a phasing plans and schedule, meeting the requirements in Section 40-598.

Section 40-455 M-1 Principal Uses – Permitted subject to special conditions

(9) Data Center, Minor

Section 40-485 M-2 Uses Permitted Subject to Special Conditions

(10) Data Center, Minor, subject to the provisions of section 40-599.

(11) Data Center, Major, subject to the provisions of section 40-599.

(12) Large-Scale Industrial Development, subject to the provisions of section 40-600.

Section 40-519 (PUD) Phasing; Commencement and Completion of Construction

(a) Phasing. Where a project is proposed for construction in phases, the application shall meet the requirements of 40-598 for Phasing.

(b) Commencement and completion of construction. Construction shall be commenced within one year following final approval of a planned unit development. In the event a site plan has expired,

the township shall be authorized to rezone the property in any reasonable manner, and, if the property remains classified as PUD, a new application shall be required, and shall be reviewed in light of then existing and applicable law and ordinance provisions.

Section 40-572 Schedule of Regulations

Change M-1 Height to 35'; Change M-2 Height to 55'. (Subject to PC Discussion)

Section 40-681 (g) (Parking Schedule)

- Large-Scale Industrial: Parking shall be determined in accordance with a Parking Study that addresses the needs of the development for the basis of determining sufficient parking.
- All Other Industrial Uses: 1 per each 200 sq. ft. of office area, plus 1 per each 1,500 sq. ft. of warehouse/ floor area, or 1 space per employee during the peak shift, whichever is greater.

(New Section) 40-598- Phasing

1. Where a project is proposed for construction in phases, the planning and designing shall be such that, upon completion, each phase shall be capable of standing on its own in terms of the presence of services, facilities, and open space, and shall contain the necessary components to ensure protection of natural resources and the health, safety, and welfare of the users of the development and the residents of the surrounding area. The scheduled completion of construction for each phase shall be disclosed and determined to be reasonable in the discretion of the township board after recommendation from the planning commission.
2. Each phase of the project shall be commenced within one year of the schedule established for same in the application submitted. If construction is not commenced within such time, any approval of a site plan on the project shall expire and be null and void, provided extensions for a specified period may be granted by the Zoning Administrator upon good cause shown if such request is made to the board prior to the expiration of the initial period, or any approved extension of the initial period.

Section 40-685 Data Centers as an Accessory Use

Data centers as an accessory use may be permitted, subject to the following requirements:

1. On-site accessory data centers shall be permitted in the O-S, C-1, C-2, M-1, and M-2 Districts.
2. The data center may only be used to serve the principal use of the property and may not be used to provide data storage and processing services to parties off-site.
3. The data center may not be housed in a separate, standalone building.
4. Additional areas used for data center storage and processing shall not be included in parking calculations when accessory to a permitted principal use.
4. 5. On-site accessory data centers must be have a minimum of 100 feet setback from any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center. 75 feet from all property lines.

Proposed additional text from July draft (example)
Proposed deletions from July draft (~~example~~)

(New Section) Section 40-599 Data Centers

1. All data centers (minor or major) shall comply with the following requirements:

   a. Any equipment necessary for cooling, ventilating, or otherwise operating the facility, including power generators or other power supply equipment, must be fully enclosed, except where determined by the Building Official not to be mechanically feasible based on the manufacturer specifications. In these circumstances, all equipment shall be screened by an eight-foot masonry wall.

   ~~a.~~b. A minimum 50 foot landscaped greenbelt shall be provided along all property lines planted with the minimum requirements for a Screen No. 3 under Section 40-721(b)(3)b.5.(iii). The township body responsibility for approval may determine that screening may be achieved through a combination of berming, landscaping, or a solid wall as needed.

   ~~b.~~c. Where water-based cooling systems are utilized, such systems shall employ a closed-loop circulation method. Alternative cooling methods may be approved by the Approving Body upon a demonstration that the proposed system will result in equal or lower net water consumption.

   ~~c.~~d. Prior to site plan approval, a noise study must be submitted demonstrating to the Planning Commission that the operation of the data center will comply with the Performance Standards for Noise in section 40.883. A post-construction noise study may be required by the zoning administrator to verify ongoing compliance.

   ~~d.~~e. ~~When adjacent sensitive existing uses, defined as any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center, the~~Data centers must comply with the following setbacks ~~shall be~~:

      i. Major data center: 400 feet from ~~the property lines adjacent to the sensitive adjacent existing use(s), and 200 feet from all other property lines~~ any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center. 200 feet from all other property lines.

      ii. Minor data center: 100 feet from ~~the property lines adjacent to the sensitive adjacent existing use(s), and 200 feet from all other property lines~~ any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center. 75 feet from all property lines.

2. Any data center that meets the definition of a large-scale industrial development shall comply with the requirements of Section 40-600, in addition to the requirements of this Section. In addition, any data center that meets the thresholds for a risk mitigation plan under Section 40-600.2.o.ii must provide a risk mitigation plan detailed in Section 40-600.2.o.

3. Any data center as an accessory use shall comply with requirements of Section 40-685.

(New Section) Section 40-600 Large-Scale Industrial Developments

1. Purpose. The purpose of this section is to establish additional development standards for large-scale industrial developments in order to ensure that such developments are designed and operated in a manner that protects the public health, safety, and welfare and is compatible with surrounding land uses. Due to the scale and intensity of these developments, additional regulations are necessary to address potential impacts related to building size, operational intensity, and infrastructure demand.

2. Applicability. This section applies to large-scale industrial developments, as defined by this ordinance, including major data centers.

    a. Approval is contingent upon the applicant demonstrating conformance to the requirements of this ordinance and other standards of the Zoning Ordinance.
    b. Where conflicts exist between this section and other provisions, this section governs. Where silent, other applicable provisions apply (e.g., lighting, landscaping, stormwater, and performance standards).
    c. A facility shall not avoid applicability by dividing operations among multiple buildings, modules, tenants, parcels, or phases under common ownership or control.

~~2.~~3. Large-scale industrial developments, as defined by this ordinance, shall be subject to the following standards, as well as any additional standards applicable to the specific land use that is proposed.

    a. Application materials. Applications for large-scale industrial developments shall include the following information in addition to the information required for site plans as described in Section 40-136.g.2.

        i. A traffic impact analysis for the proposed development meeting the requirements of Section 40-682;

        ii. A parking study that addresses the parking needs of the development for the basis of determining sufficient parking;

        iii. If a phased development is proposed, phasing information as described in Section 40-598;

        iv. Energy and sustainability information meeting the requirements of sub-section h below.

        v. A hazardous materials storage and waste plan meeting the requirements of sub-section k below;

        vi. A refuse handling plan meeting the requirements of Section 40-885;

        vii. A decommissioning plan meeting the requirements of sub-section q below;

        viii. A performance guarantee meeting the requirements of Section 40-35;

        ix. A fire and emergency response plan meeting the requirements of sub-section k below;

        x. A risk mitigation plan meeting the requirements of sub-section o below

xi. A hold harmless agreement to hold the Township harmless from any costs or liability arising from the proposed use, construction, repair or removal.

b. Procedures. All large-scale industrial developments shall be reviewed in accordance with the Special Land Use procedures described in Section 40-145.

c. Siting. All large-scale industrial developments , including but not limited to a Large Scale Data Center, shall not be located on any parcel that is within 500 feet of any residential zoned or used property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center.

~~c.~~d. Setbacks. Setbacks ~~along~~ from all property lines shall be a minimum of 200 feet. ~~as follows:~~

~~i. When adjacent to an M-1, M-2, or E-1 Zoning District: The setback requirement along all property lines shall be equal to the required setback for the district or 55 feet, whichever is greater, except when adjacent to sensitive existing uses. For each additional 25,000 Square Feet of floor area, an additional 5 feet of distance shall be added to the setback requirement.~~

~~ii. When adjacent to property zoned RC, PR, PS, C-1, C-2, or O-S: The setback requirement along all property lines shall be equal to the required setback for the district or 75 feet, whichever is greater, except when adjacent to sensitive existing uses. For each additional 25,000 Square Feet of floor area, an additional 5 feet of distance shall be added to the setback requirement.~~

~~iii. When adjacent sensitive existing uses, defined as any residentially used or zoned property, primary/secondary school, medical clinic, park, day-care center and preschool, hospital or medical center: The setback requirement shall be 400 feet from the property lines adjacent to the sensitive adjacent existing use(s), and 200 feet from all other property lines.~~

~~d.~~e. Building separation. All principal buildings within a large-scale industrial development shall be separated by a distance no less than 50 feet. Equipment and accessory structures shall be separated from principal buildings by a distance no less than 30 feet.

~~e.~~f. Parking. The number of parking spaces required shall be based upon the number of spaces recommended in the parking study. The Approving Body may require a greater or lesser number of parking spaces upon a finding that such adjustment is necessary to ensure the safe and efficient movement of vehicles and pedestrians, prevent congestion on adjacent streets, and adequately serve the proposed use based on its operational characteristics.

~~f.~~g. Any equipment necessary for cooling, ventilating, or otherwise operating the facility, including power generators or other power supply equipment, must be fully enclosed, except where determined by the Building Official not to be mechanically feasible based on the manufacturer specifications. In these circumstances, all equipment shall be screened by a masonry wall.

~~g.~~h. Screening. All large-scale industrial uses shall ~~comply~~ provide a minimum 50 foot landscaped greenbelt shall be provided along all property lines planted with the minimum requirements for a Screen No. 3 under Section 40-721(b)(3)b.5.(iii). ~~with the provisions~~

~~for screening described in Section 40-721.b.3.~~ In addition to any required berms or landscaping, the masonry wall described in Section 40-721.~~(~~b~~).~~(3)b.5.(v) shall be required around the perimeter of the site for all large-scale industrial developments. ~~A waiver from the wall requirement may be provided by the approving body upon an affirmative determination of the following findings:~~

~~i. A sufficient alternative screening method has been provided that provides equal or greater protection to adjacent properties from~~

~~ii. The alternative screening method is durable, permanent, and capable of being maintained over the life of the facility~~

~~iii. Granting of the waiver will not result in adverse impacts to adjacent properties~~

i. Lighting.

i. Security and area lighting shall comply with the Section 40-888 – Exterior Lighting. All lighting must be full cutoff fixtures, down-directed, and shielded to prevent glare and light trespass beyond property lines.
ii. Warm-colored LED bulbs must be used to approximate a natural light source: color temperature less than or equal to 3000 Kelvin and Color Rendering Index greater than or equal to 80.
iii. Maximum maintained illuminance at the property line shall not exceed 0.1 foot-candles adjacent to residential and 0.3 foot-candle elsewhere.
iv. The approving body may require screening and landscaping to mitigate the lighting and visual impacts from a continuous, 24-hour operation.

~~h.~~j. Energy and Sustainability.

i. Efficiency Target. Applicants shall design for Power Usage Effectiveness (PUE) of 1.2 or lower, or demonstrate the highest efficiency reasonably achievable given site constraints; documentation shall be provided at the time for Site Plan review and post-occupancy.
ii. Renewable Energy. The applicant shall demonstrate that on-site renewable energy generation will meet at least 90 percent of the project's projected annual energy demand. If the applicant demonstrates, to the Township's satisfaction, that this standard cannot reasonably be achieved through on-site generation alone, the Township may approve compliance through a combination of power purchase agreements, renewable energy credits, or utility green power programs. Any approved renewable energy source or procurement method shall not include nuclear energy.
iii. Heat Reuse. Applicant shall provide a feasibility analysis for waste-heat recovery or district-energy interconnection.
iv. Reporting. See sub-section n for annual reporting requirements.
v. Water Conservation.
    1. Cooling shall be designed as a closed-loop / closed-cycle system with no routine discharge of noncontact cooling water to the sanitary sewer/publicly owned treatment works (POTW) or to surface waters, in order to comply with applicable local sewer use ordinances (including prohibitions/limitations on noncontact cooling water and heat to the POTW) and EGLE discharge/withdrawal permitting requirements

(including NPDES authorization and Michigan Water Quality Standards, and large-quantity withdrawal registration/review where applicable

~~i.~~k. Noise and Vibration

i. Prior to site plan approval, a noise study must be submitted demonstrating to the Planning Commission that the operation of the data center will comply with the Performance Standards for Noise in section 40-883 and the requirements below. A post-construction noise study ~~may~~ shall be required ~~by the zoning administrator~~ to verify ongoing compliance.

ii. Noise Limit. Routine operations (including cooling equipment) shall not exceed 50 dBA Leq at the property line. Nighttime (10 p.m.–7 a.m.) limits adjacent to residential shall be no greater than 40 dBA Leq. In addition, the development shall comply with all requirements the Performance Standards for Noise in section 40-883.

iii. Generator Testing. Routine testing shall only occur between 8:00 a.m.–6:00 p.m. weekdays. Testing shall comply with the noise limits as set forth in section 40-833.

iv. Measurement Protocol. Compliance shall be demonstrated via pre- and post-occupancy sound studies by a qualified acoustical engineer. Noise measurements or predictions should be adjusted for special sound characteristics consistent with ANSI/ASA S12.9 methods, including a +5 dB adjustment for prominent discrete tones and applicable adjustments for impulsive noise. The adjusted sound level should be used for compliance evaluation.

v. Vibration. Operations shall not cause perceptible vibration at the property line per ANSI/ISO criteria.

~~j.~~l. Air Quality and Emissions

i. All stationary engines, cooling towers, and emission sources shall comply with the federal Clean Air Act and the Michigan Department of Great Lakes and Energy (“EGLE”) rules. Required Air Use Permits to Install (PTI) must be obtained and kept current.

ii. Generators. New generators shall meet EPA Tier 4 Final standards. Dispersion modeling may be required when generators are placed within 500 feet of residential, schools, parks, or hospitals.

iii. Cooling Towers. Cooling towers shall include drift eliminators and be managed to prevent particulate emissions or microbial contamination.

iv. Thermal Emissions. The facility shall be designed and operated so that thermal emissions do not cause a sustained increase in ambient air temperature at any property line beyond the limits below, measured at 5 feet above grade:

1. Residential or mixed-use property line: not more than +2°F above ambient background, averaged over any 15-minute period.
2. Nonresidential property line: not more than +4°F above ambient background, averaged over any 15-minute period.
3. No thermal emission shall create unsafe conditions on sidewalks, trails, roadways, or public spaces due to icing, fogging, or thermal plume interaction with winter conditions.

~~k.~~m. Public Safety.

Proposed additional text from July draft (example)
Proposed deletions from July draft (~~example~~)

i. The storage of any hazardous materials on site shall comply with the requirements of Section 40-890, including the filing an environmental permits checklist.

ii. Fuel containers shall be stored aboveground with secondary containment in accordance with Section 40-890(3)a. ~~A waiver from this standard may be provided by the Building Official upon a finding that physical constraints on the property, such as topography or utility conflicts, prevent aboveground storage~~.

iii. Fire Protection. Sites shall be equipped with an automatic fire detection and suppression system designed to protect both building occupants and sensitive equipment. Suppression systems shall comply with National Fire Protection Association (NFPA) standards and be approved by the Fire Marshal.

~~iii.~~iv. Fire and Emergency Response Plan. An Emergency Response Plan and a Fire Response Plan developed in consultation with the Fire Department shall be submitted and contain the following:

a. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan);

b. Emergency response measures, evacuation control measures, and community notification measures by contingency;

c. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles;

d. A commitment to review and update the plan with the Fire Department at least once every 5 years.

e. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity;

f. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies;

g. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency, including evacuation control measures and community notification measures;

h. The results of a toxic and flammable gas plume dispersion analysis for the anticipated equipment in a severe fire emergency scenario to assess potential impacts on surrounding communities.

i. A commitment to offer to conduct, or provide funding to conduct, site-specific training drills with the local fire Department before commencing operation, and at least once per year while the facility is in operation, at the expense of the project owner. Training should familiarize the Fire Department with the project, hazards, procedures, and current best practices.

j. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific

equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.

k. Other information the applicant finds relevant.

~~l.~~n. Battery Energy Storage Systems (if provided).

i. Battery Energy Storage Systems (BESS) shall be an accessory component to the principal use of the property.

ii. BESS shall comply with NFPA 855, the Michigan Building/Fire Codes, and manufacturer's specifications.

iii. Setbacks. Outdoor BESS containers shall be set back a minimum of 100 feet from property lines and 300 feet from residential districts/uses, unless a greater distance is required by NFPA 855 based on technology and aggregate capacity.

iv. Protection. Applicant shall provide vehicle impact protection, fire rated separation where required, gas detection, ventilation, and emergency shut offs.

v. Applicant shall include a BESS specific emergency response plan and data sheet package.

vi. Battery Energy Storage Systems shall include continuous thermal monitoring capable of detecting abnormal cell temperatures and thermal runway conditions.

~~v.~~vii. The system shall include remote emergency shutdown capability accessible by emergency responders in accordance with NFPA 855 and Fire Department requirements.

~~m.~~o. On Site Substation/Switchyard (if provided)

i. On-site substations or switchyards shall be located to minimize visual and noise impacts; and shall provide evergreen screening and security fencing consistent with utility standards.

ii. Transformers shall include integral secondary containment sized per state rules.

iii. Transformer noise shall comply with the noise standards established in sub-section k, regardless of utility ownership.

~~ii.~~iv. Transformers and substations shall incorporate acoustical shielding to comply with property line noise limits.

~~n.~~p. Monitoring and Reporting.

i. Commissioning Documentation: Prior to Certificate of Occupancy, Applicant shall submit commissioning results for mechanical/electrical systems and acoustical compliance.

ii. An Annual Report (by March 31) is required and shall include:

1. Actual annual energy consumption (MWh) and calculated PUE;
2. Renewable energy procurement and percentage of total load;
3. Water usage (gallons) metered by process water, cooling water, domestic water and irrigation water~~and cooling method~~;
4. Generator testing/operating hours and emissions compliance statement with current EGLE permits;

Proposed additional text from July draft (example)
Proposed deletions from July draft (~~example~~)

5. Sound level monitoring summary; and
6. Summary of efficiency/cooling/security upgrades implemented.

iii. A robotic camera inspection of drain tiles every three (3) years.

iv. Failure to monitor and report may be grounds to revote any Township approvals.

~~o.~~q. **Risk Mitigation**

i. Purpose and intent. Large-Scale Industrial Developments can generate community impacts and service demands related to energy consumption, water use, stormwater, noise, traffic/road wear, visual impacts and aesthetics, public safety coordination, and long-term site management. The purpose of this sub-section is to require a Risk Mitigation Plan for Large-Scale Industrial Developments and Data Centers that:

1. Mitigates impacts that are reasonably attributable to the facility;
2. Provides transparent, measurable commitments that support Township goals; and
3. Establishes clear enforcement and reporting mechanisms.

ii. Applicability. A Risk Mitigation Plan is required for any new Large-Scale Industrial Development, Data Center, or expansion that meets one or more of the following thresholds:

1. Gross floor area of 25,000 square feet or more; or
2. IT load of 10 MW or more (nameplate/critical IT load).

iii. Plan Submittal Timing. The applicant shall submit the Risk Mitigation Plan concurrently with the Site Plan and Special Use application. The Planning Commission may deem an application incomplete until the Plan is provided in a form sufficient to evaluate compliance with this Section.

iv. Required contents of the Risk Mitigation Plan. The Risk Mitigation Plan shall include, at minimum:

1. Project overview. Site plan summary; construction phasing; expected operational date; anticipated employment (construction and permanent); and a description of on-site infrastructure (including electrical and water systems as applicable).
2. Impact analysis. A concise, plain-language description of expected impacts on:

a. Public utilities and infrastructure (electric, water, sewer as applicable, and prepared by an independent, industry-recognized third-party);

~~a.~~b. Stormwater and groundwater protection and prepared by an independent, industry-recognized third-party;

~~b.~~c. Traffic and roadway wear (construction and operations);

d. Noise, lighting, and hours/character of operations;

~~c.~~e. Local ecology, biodiversity, air quality, and soil quality (prepared by an independent, industry-recognized third-party);

Proposed additional text from July draft (example)
Proposed deletions from July draft (~~example~~)

~~d.~~f. Public safety coordination (fire, EMS, police); and

~~e.~~g. Long-term site management and decommissioning (if applicable).

3. Risk mitigation commitments. The applicant shall provide commitments meeting all baseline requirements in subsection v. Each commitment must include:
    a. A measurable deliverable (e.g., dollar amount, number of trainees, percentage, kwh, gallons, acres, etc.);
    b. A timeline/milestones;
    c. The responsible party;
    d. Reporting method; and
    e. Proposed remedies if the commitment is not met.

v. Requirements. As a condition of approval, the applicant shall commit to the following requirements, in a form acceptable to the Township:
    1. Local workforce and procurement.
        a. Good-faith local hiring and contracting plan, including outreach to Oakland County unions/trades, community colleges, and workforce programs; and
        b. Annual reporting of construction hours and permanent jobs by residency (to the extent permitted by law) and contracting spend by geography.
    2. Public safety coordination and preparedness.
        a. Pre-occupancy coordination meeting(s) with Township fire/EMS and code officials;
        b. Facility emergency response information provided to Township (site contact list, shutoffs, hazard inventory, access plan).
    3. Environmental performance.
        a. A water stewardship plan (efficiency, leak detection, and, if applicable, reuse/recycling strategies);
        b. A noise and lighting management plan demonstrating ongoing compliance and complaint response procedures; and
        c. A sustainability/energy plan describing how the facility will minimize emissions and peak-load impacts (e.g., efficiency measures, demand response participation, renewable procurement strategy), to the extent within the applicant's control.
        d. An ecosystem services plan describing how the facility will minimize and/or improve local ecological performance, air quality, soil quality, and biodiversity.
        ~~c.~~

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Proposed deletions from July draft (~~example~~)

4. Community access and transparency. Public-facing reporting dashboard; community advisory meetings during construction; neighborhood hotline with response times; complaint resolution program; third-party audits of key metrics (energy, water) where feasible.
5. Infrastructure improvements. Roadway, non-motorized, transit, or signal improvements proportionate to traffic and construction impacts; utility upgrades directly serving or mitigating impacts;
6. Environmental enhancements. On-site habitat restoration, tree canopy targets, native landscaping, green infrastructure, carbon reduction commitments, or renewable energy support.
7. Review standards and findings. The Township Board shall approve, approve with conditions, or deny the application based on whether the Risk Mitigation Plan:
    a. Contains all required elements in this sub-section;
    b. Provides clear, measurable commitments;
    c. Demonstrates that commitments are reasonably related to anticipated impacts and Township objectives; and
    d. Includes enforceable mechanisms for implementation and reporting.

    Approval may include conditions to ensure commitments are proportional and administratively feasible, consistent with the standards specified in the zoning ordinance.
8. Development agreement; security; enforcement
    a. Incorporation into approval. All commitments in the approved Risk Mitigation Plan shall be conditions of approval and shall be incorporated into a Development Agreement and/or recorded document, as determined by the Township.
    b. Annual reporting. The operator shall submit an annual report to the Township documenting compliance with each commitment for the prior calendar year. Reports shall be made publicly available except for proprietary or security-sensitive information.
    c. Noncompliance. If the Township determines a material commitment is not being met, the Township may:
        i. Require a corrective action plan with a defined cure period;
        ii. Draw upon performance security where applicable;
        iii. Pursue civil remedies authorized by the zoning ordinance; and/or
        iv. Initiate permit/approval enforcement consistent with the ordinance.
9. Modification. A material modification to an approved Risk Mitigation Plan (e.g., reduction in deliverables, extended timelines, or removal of a

commitment) shall require Township approval in the same manner as the original Plan, unless the approving body determines the modification is minor.

~~p.~~r. Outside agency approvals; violations. The applicant shall provide evidence of all approvals required by County, State, or Federal agencies before any building permits may be issued. The Owner or Operator shall notify the Township of any violations or enforcement actions by outside agencies within one week of the violation notice or enforcement action

~~q.~~s. Decommissioning. All large-scale industrial developments shall submit and obtain approval of a decommissioning plan in accordance with this section. The decommissioning plan shall apply only to exterior equipment, accessory structures, and infrastructure that are specifically associated with the operation of the industrial use and that would not reasonably be reused by a subsequent occupant of the building or site. Buildings and principal structures shall not be subject to the decommissioning requirements of this section.

i. Purpose. The purpose of the decommissioning plan is to ensure that, upon cessation of industrial operations, specialized equipment and accessory infrastructure are safely deactivated, removed, repurposed, or disposed of in a manner that protects public health, safety, and welfare and facilitates future redevelopment.

ii. Approval. The decommissioning plan shall be reviewed and approved as part of the final site plan for the development. Amendments to the approved decommissioning plan may be reviewed administratively by the Site Plan Review Committee.

iii. The decommissioning plan shall be implemented upon abandonment or permanent cessation of the industrial use at the site. For the purposes of this section, an industrial facility shall be considered to have ceased operations if the primary industrial activity has been discontinued for a period of twelve (12) consecutive months, or if the equipment and infrastructure necessary to conduct the use has been removed, disconnected, or rendered inoperable for that period of time. A facility shall not be considered to have ceased operations if the property owner demonstrates to the satisfaction of the Zoning Administrator that the cessation is temporary and that active efforts are underway to resume operations or transition ownership.

iv. Plan contents. The decommissioning plan shall include, at a minimum, the following information:

1. Equipment and infrastructure inventory. A description of all exterior equipment, accessory structures, and infrastructure subject to decommissioning, including but not limited to backup generators, fuel storage tanks, fuel delivery systems, cooling towers, mechanical equipment, substations, transformers, battery systems, process equipment, or other specialized infrastructure associated with the industrial operation. Buildings and principal structures shall not be included in the decommissioning scope.

2. A description of the proposed methods for deactivation, removal, recycling, reuse, or disposal of equipment and materials, including fuels,

batteries, coolants, oils, chemicals, and other regulated substances, in compliance with all applicable local, state, and federal regulations.

3. A description of any site restoration activities necessary following removal of equipment or accessory structures, which may include removal of equipment pads, fuel infrastructure, or utility connections; regrading; stabilization; or other improvements necessary to allow continued use or redevelopment of the property.

4. A proposed schedule for completion of decommissioning activities, which shall not exceed twelve (12) months from the date the decommissioning requirement is triggered, unless extended by the Zoning Administrator for good cause

5. Responsible Party. Identification of the property owner and any operator or entity responsible for implementing the decommissioning plan.

6. The applicant shall furnish a performance guarantee to cover 150% of the estimated cost of decommissioning and site restoration~~, as described in Section 40-35~~. An estimate cost certified by a third party with expertise must be submitted with the decommissioning plan.

7. Failure to Decommission: If the owner fails to complete decommissioning in accordance with the approved plan, Springfield Township may draw upon the financial guarantee to complete the work. Any costs exceeding the financial guarantee shall remain the responsibility of the property owner, per Section 40-35.

t. Performance Guarantee. Prior to issuance of a building permit, the applicant shall post a financial guarantee in compliance with Section 40-35 that is equivalent to 150% of the estimated decommissioning and site restoration costs. The performance guarantee is subject to the following:

i. The obligation to provide and maintain a financial guarantee is a continuing covenant that runs with the land and binds the owner, applicant, operator (if different), and all successors and assigns. No sale, conveyance, assignment, foreclosure, lease, or other transfer of any interest in the property shall impair or release the obligation to maintain the financial guarantee. Springfield Charter Township shall not release any financial guarantee unless the Township has confirmed in writing that the obligations secured thereby have been fully performed or that an acceptable substitute financial guarantee has been provided. The amount shall equal 150% of the estimated decommissioning cost, as determined by a qualified engineer and approved by the Township.

ii. Estimates must be updated and verified via independent third-party review every 5 years and adjusted for inflation. The Township may request additional financial guarantees based on the change in estimated cost. Costs associated with third-party verification and review of decommissioning cost estimates shall be borne solely by the operator.

~~v.~~iii. The Township may request verification of guarantor solvency on an annual basis.

Section 40-721.b.3.v

Solid wall as needed. Where there is a need, in the opinion of the township body responsible for site plan

Proposed additional text from July draft (example)
Proposed deletions from July draft (~~example~~)

approval, to provide a greater noise or dust barrier or to screen more intense development, a solid wall shall be required and installed prior to the commencement of any above-grade construction on the property. Such wall shall be eight feet in height as measured on the side of the proposed wall having the higher grade, and shall be constructed on both sides with face brick, poured-in-place simulated face brick, pre-cast brick face panels having simulated face brick, or stone. If vegetative screening is determined necessary in combination with a wall by the township body responsible for site plan approval, the landscaping will generally be located between the wall and the contiguous land use. The township body responsible for site plan approval shall determine the extent of landscaping and final location.

Section 40-781.9

Entranceway structures, including but not limited to walls, columns, and gates may be permitted and may be located in a required yard, except as provided in section 40-636, obstruction to visibility, provided that such entranceway structures shall comply with all codes and ordinances of the township. When a gate is proposed on a non-residential property, sufficient room shall be provided in front of the gate for the queueing of emergency vehicles and vehicles used for loading and unloading.

MEMO

Old Business

SPRINGFIELD CHARTER TOWNSHIP

TO: Springfield Township Planning Commission

FROM: Danielle Sink, Building Admin

DATE: August 25, 2026

RE: Sheetz Final Site Plan Review – 8500 Dixie Hwy – 07-24-201-019

Summary:

At the last Planning Commission meeting on July 28, 2026, the Planning Commission reviewed the preliminary set of plans for 8500 Dixie Hwy for a proposed Sheetz gas station.

Enclosed in this packet are the following documents:

1. Comments from applicant regarding revised site plan 8/11/26
2. Revised site plans 8/11/26
3. Opposition letter 8/11/26
4. CWA Revised Plan Review 8/18/26
5. GW Engineering Review and Plan Markup 8/17/26

Outlook

[EXTERNAL] RE: Springfield Sheetz - 8500 Dixie Highway

From Delmotte, Joe <jdelmotte@stonefieldeng.com>
Date Tue 8/11/2026 4:34 PM
To Danielle Sink <dsink@springfield-twp.us>
Cc Williams, Eric <ewilliams@stonefieldeng.com>; Heffernan, Kevin <kheffernan@stonefieldeng.com>; Bauer, Nik <nbauer@stonefieldeng.com>; Ric Davis <rdavis@springfield-twp.us>

Caution: This email originated from outside of Springfield Township's email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon, Danielle,

Please use this LINK to download our site plan set, revised per the comments below along with our responses in red. Please note, we've incorporated the architectural floor plan and building / canopy elevations as additional sheets to the site plans.

- *A note that shows they intend to pursue a lot combination – a note has been added indicating that a lot combination will be pursued. Please refer to Sheet C-3.0.*
- *A note that states no tow truck will be permanently parked on site – a note has been added. Please refer to Sheet C-3.0.*
- *A memo that states they will comply to the standards in Section 40-628 – a note has been added listing the standards of Section 40-628 for outdoor sales areas and confirming that the proposed sales area will comply with these requirements. Please refer to Sheet C-3.0. Additionally, Sheets A200 and A201 illustrate the proposed sales areas located around the building perimeter.*
- *The 11 banked parking spaces – 11 land banked parking spaces have been shown and labeled on the west side of the property. Please refer to Sheet C-3.0.*
- *The safety path along Dixie – a 5 FT safety path has been provided along the Dixie Highway ROW. Please refer to Sheet C-3.0.*
- *The additional buffering trees and shrubs required – 24 additional shrubs and 1 additional tree have been proposed to comply with the requirements listed in CWA's review. Please refer to Sheet C-6.0.*
- *Striping for crosswalks – crosswalk striping has been proposed for the parking on the west and east sides of the building as well as for the sidewalk across the Dixie Highway driveway. Please refer to Sheet C-3.0.*
- *Striping for a loading space – striping for a loading space has been shown on the north side of the drive-thru lane at the rear of the building. Please refer to Sheet C-3.0.*
- *A label for the drive-through escape lane – the drive aisle on the north side of the drive-thru lane will serve as an escape lane for any car that needs to exit while stacked in the drive-thru lane. A label has been added indicating this on Sheet C-3.0.*
- *Revised fencing – a revised fencing detail has been provided. Please refer to detail #1 on Sheet C-7.2.*
- *A sign plan – a monument sign detail has been provided. Please refer to detail #5 on Sheet C-7.2. All additional building / canopy signage is shown on Sheets A200 – AWNING.*
- *A demo/ existing conditions plan – a demolition plan has been provided. Please refer to Sheet C-2.0.*
- *In terms of the lighting, I would have them use the acorn lights provided on pages 41 & 42 of the overlay design standards for now – proposed pedestrian acorn lighting has been shown along the ROW per pages 41 & 42 of the Dixie Highway Design Guidelines. Please refer to Sheet C-3.0.*

Similar to our previous submission, can you please confirm 8 hard copies will be required? Let us know if there's any additional information you may need.

Thank you!

Joe Delmotte
STONEFIELD

SITE DEVELOPMENT PLANS

FOR

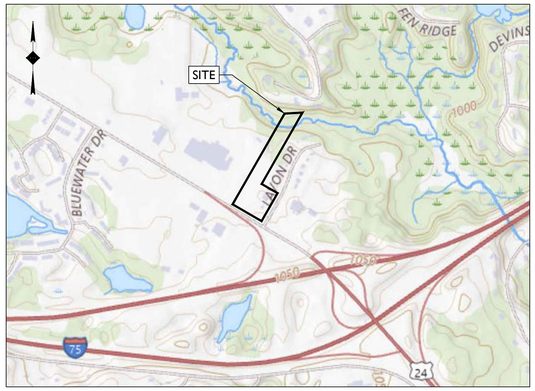
SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, & FAST FOOD RESTAURANT WITH PICKUP

PID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD, OAKLAND COUNTY, MI

APPLICANT

SKILKEN GOLD
4270 MORSE ROAD
COLUMBUS, OHIO 43230
248.752.3331
ARIBA@SKILKENGOLD.COM



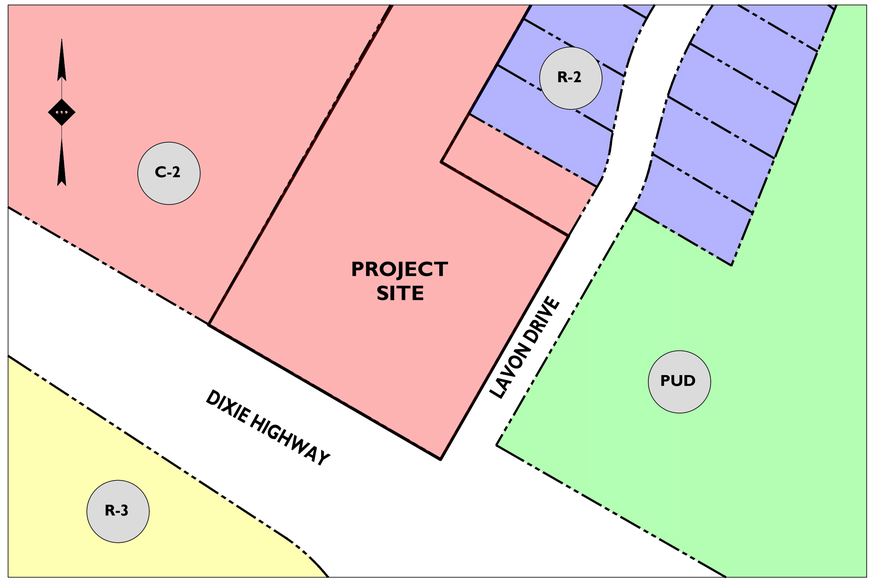
SOURCE: USGS TOPOGRAPHICAL MAPPER

LOCATION MAP
SCALE: 1" = 800'±



SOURCE: NEARMAPS ONLINE MAPPING SYSTEM

AERIAL MAP
SCALE: 1" = 100'±



SOURCE: SPRINGFIELD TOWNSHIP ZONING MAP

- C-2: GENERAL BUSINESS DISTRICT
- R-2: ONE-FAMILY RESIDENTIAL (1.0 AC.)
- PUD: PLANNED UNIT DEVELOPMENT
- R-3: ONE FAMILY RESIDENTIAL (0.5 AC.)

ZONING MAP
SCALE: 1" = 100'±

PLANS PREPARED BY:

STONEFIELD engineering & design

Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com

555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

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

PLAN REFERENCE MATERIALS:

1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
   - ALTA / NSPS LAND TITLE SURVEY PREPARED BY STONEFIELD ENGINEERING & DESIGN, DATED 06/01/2026
   - WETLAND DELINEATION PREPARED BY BARR, DATED 05/27/2026
   - AERIAL MAP PROVIDED BY NEARMAPS ONLINE MAPPING SYSTEM, DATE RETRIEVED 05/29/2026
   - LOCATION MAP PROVIDED BY USGS TOPOGRAPHICAL MAPS, DATE RETRIEVED 05/29/2026
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1.0
DEMOLITION PLAN	C-2.0
SITE PLAN	C-3.0 & C-3.1
TRUCK TURNING PLAN	C-3.2
GRADING & STORMWATER MANAGEMENT PLAN	C-4.0
UTILITY PLAN	C-5.0
LANDSCAPING PLAN	C-6.0
LANDSCAPING DETAILS	C-6.1
CONSTRUCTION DETAILS	C-7.0 - C-7.3

ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	SHEETS 1, 2, 3 OF 3
ARCHITECTURAL FLOOR PLAN	A140
ARCHITECTURAL ELEVATIONS	A200 & A201
CANOPY ELEVATIONS	AWNING

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ
PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — JONATHAN R. DICKEY — LICENSED PROFESSIONAL ENGINEER — 6201062104

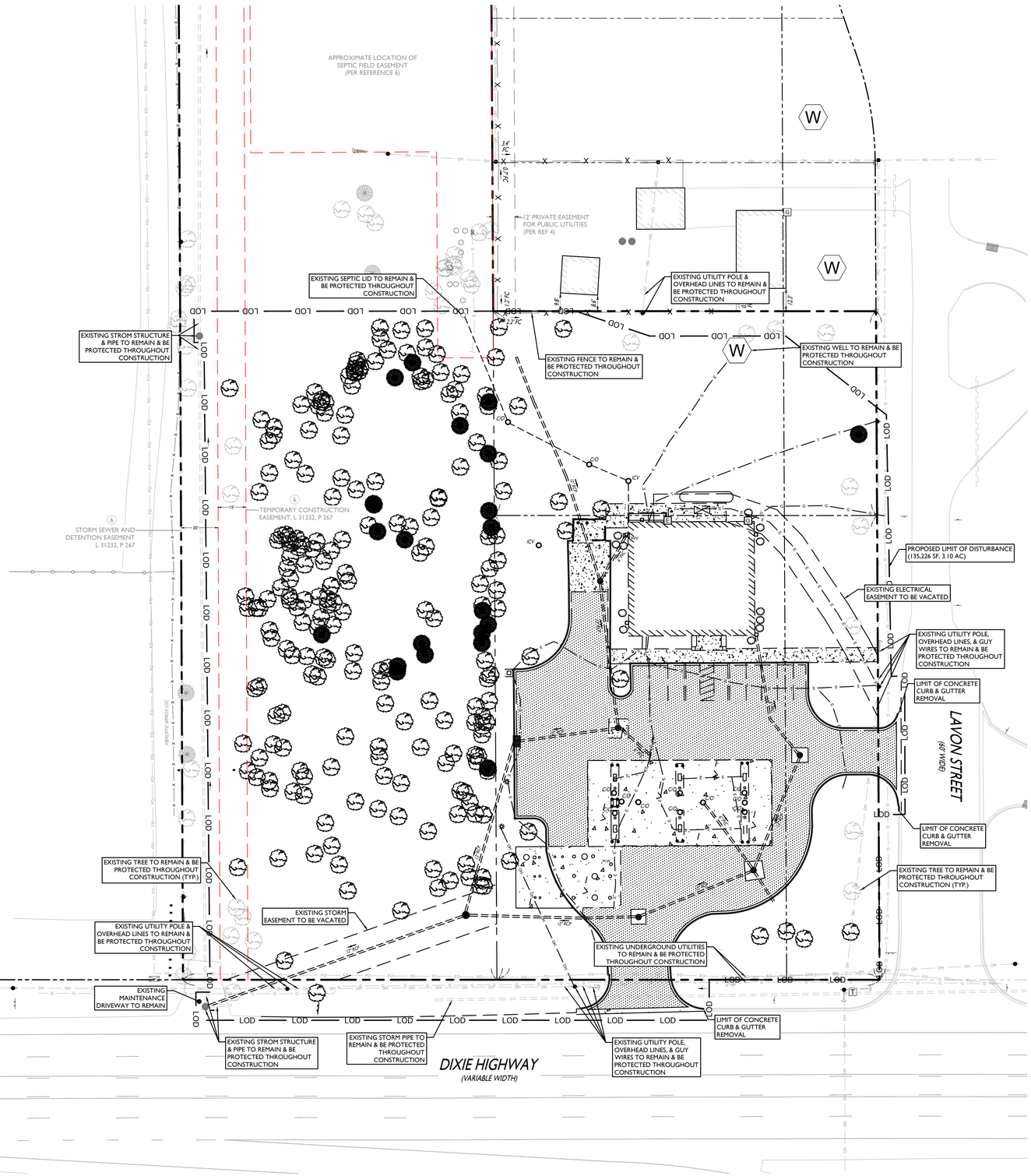
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: COVER SHEET

DRAWING: C-1.0

V:\DET\2025\DET-250399 SKILKEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTTOP 1 ACOVR.DWG



SYMBOL	DESCRIPTION
	FEATURE TO BE REMOVED / DEMOLISHED
LOD	LIMIT OF DISTURBANCE
	EXISTING CONCRETE TO BE REMOVED
	EXISTING ASPHALT TO BE REMOVED
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO REMAIN

ALL SITE FEATURES WITHIN THE LIMIT OF DISTURBANCE INDICATED ON THIS PLAN ARE TO BE REMOVED / DEMOLISHED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS

811

Know what's **below**
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DEMOLITION NOTES

1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
5. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — SOUTHWYCK COONEY — ENGINEER — 1201 — PROFESSIONAL ENGINEER

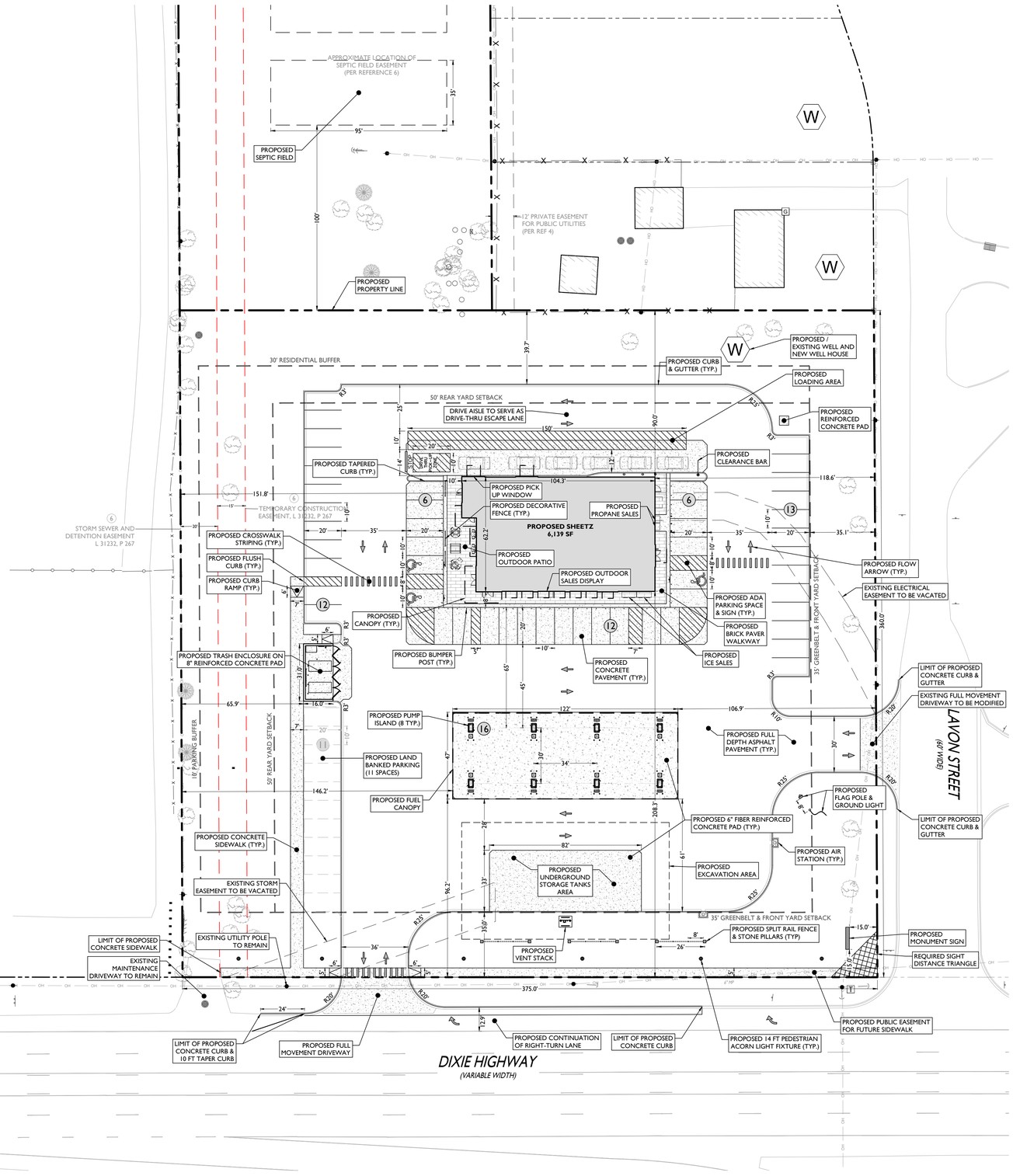
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE:
DEMOLITION PLAN

DRAWING:
C-2.0

V:\DET\2025\DET-250399 EKLAHN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTS\DET-250399-DEMO.DWG



LAND USE AND ZONING

PARCEL ID: 07-24-201-019 & 07-24-201-003

GENERAL BUSINESS DISTRICT (C-2) W/ DIXIE HIGHWAY OVERLAY

PROPOSED USE		
GAS STATION / CONVENIENCE	PERMITTED USE	
FAST FOOD RESTAURANT	PERMITTED USE	
OUTDOOR SALES	PERMITTED USE	
ZONING REQUIREMENT	**REQUIRED**	**PROPOSED**
MINIMUM LOT AREA	20,000 SF	134,938 SF (3.10 AC)
MINIMUM LOT WIDTH	150 FT	375.0 FT
MAXIMUM BUILDING COVERAGE	50%	8.10% (10,927 SF)
MAXIMUM BUILDING HEIGHT	2 STORIES (28.5 FT)	< 2 STORIES (28.5 FT)
MINIMUM FRONT YARD SETBACK	35 FT	96.2 FT
MINIMUM REAR YARD SETBACK	50 FT	90.0 FT
MINIMUM GREENBELT	35 FT	35.0 FT
MINIMUM RESIDENTIAL BUFFER	30 FT	39.7 FT
MINIMUM PARKING BUFFER	10 FT	65.9 FT
MINIMUM DRIVEWAY WIDTH	30 FT	36 FT (W)
MAXIMUM NUMBER OF DRIVEWAYS	1 PER FRONTAGE	1 DRIVEWAY
MINIMUM HEIGHT TO BOTTOM OF CANOPY	16 FT	COMPLIES
MAXIMUM CANOPY HEIGHT	25 FT*	COMPLIES

(W) WAIVER

(*) § 40-628.7: CANOPY HEIGHT MAY BE INCREASED TO 25 FT IF PITCHED ROOF IS INCORPORATED

OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 40-681.(1).g	GAS STATION / CONVENIENCE PARKING: 1 SPACE PER PUMP (16 PUMPS)(1 / 1 PUMP) = 16 SPACES 1 SPACE PER 75 SF (3,264 SF)(1 / 75 SF) = 44 SPACES FAST FOOD RESTAURANT PARKING: 1 SPACE PER 75 SF (1,209 SF)(1 / 75 SF) = 16 SPACES TOTAL: 16 + 44 + 16 = **76 SPACES**	16 PUMP SPACES 49 REGULAR TOTAL: **65 SPACES** + 11 LAND BANKED SPACES FUTURE TOTAL: 76 SPACES
§ 40-681.(1).h	90° PARKING DIMENSIONS: 9 FT X 18 FT W/ 22 FT AISLE	10 FT X 20 FT W/ 35 FT AISLE
§ 40-681.(3).a	STACKING: 6 SPACES 12 FT X 20 FT	6 SPACES 12 FT X 20 FT
§ 40-681.(2).b	LOADING: 1,401 - 20,000 SF = 1 SPACE	PROVIDED

A LOT COMBINATION WILL BE PURSUED WITH SPRINGFIELD TOWNSHIP FOLLOWING SITE PLAN APPROVAL

NO TOW TRUCK SHALL BE PERMANENTLY PARKED ON SITE

OUTSIDE SALES AREAS SHALL BE LOCATED WITHIN FIVE FEET OF THE BUILDING. ONE DISPLAY/SALES RACK MAY BE PERMITTED ADJACENT TO EACH ROW OF PUMP ISLANDS. PROPANE SALES SHALL BE LOCATED OUTSIDE THE PRINCIPAL BUILDING IN AN ENCLOSURE DESIGNED AND APPROVED FOR SUCH PURPOSE. ALL OUTSIDE SALES AREAS, DISPLAYS, RACKS, AND/OR ENCLOSURES SHALL NOT OBSTRUCT PEDESTRIAN OR VEHICULAR ACCESS WAYS.

SYMBOL	DESCRIPTION
	PROPERTY LINE
	SETBACK LINE
	PROPOSED CONCRETE CURB & GUTTER
	PROPOSED TAPERED CURB
	PROPOSED SIGNS / BOLLARDS
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED BUILDING DOORS



PEDESTRIAN ACORN LIGHT FIXTURE DETAIL

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

30' 0' 30' 60'

GRAPHIC SCALE IN FEET

1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
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1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — SCOTT M. REED — ASSOCIATE ENGINEER — 66048 — REGISTERED PROFESSIONAL ENGINEER

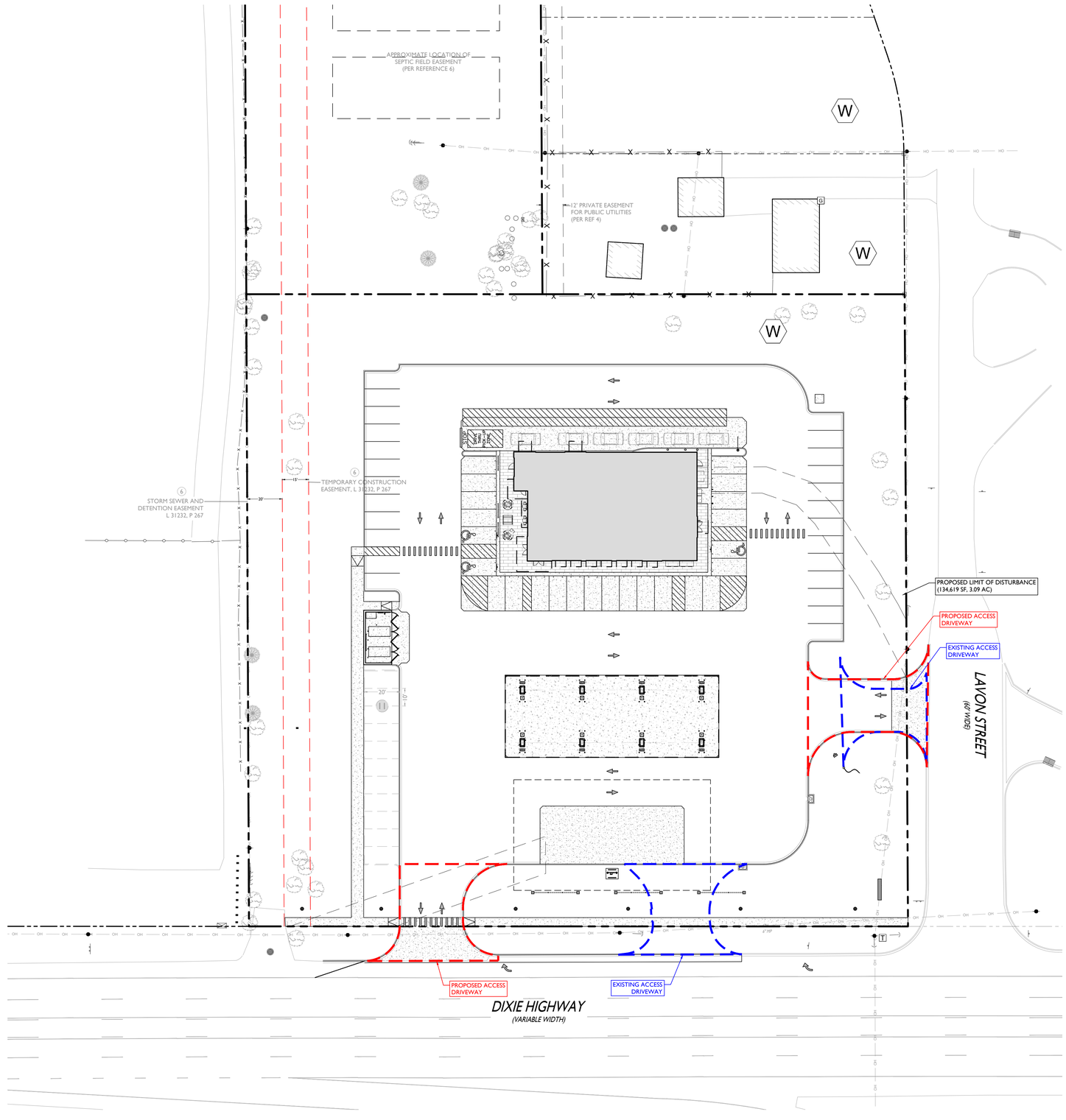
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: SITE PLAN

DRAWING: C-3.0

V:\DET\2025\DET-250399 (SALEEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI)\ACAD\PLOT\DP 3.3.3_SITE.DWG





SYMBOL	DESCRIPTION
	PROPERTY LINE
LOD	PROPOSED LIMIT OF DISTURBANCE
	EXISTING ACCESS DRIVEWAY
	PROPOSED ACCESS DRIVEWAY

30' 0' 30' 60'

GRAPHIC SCALE IN FEET
1" = 30'

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION,
CONVENIENCE STORE, FAST FOOD
RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN



STONEFIELD engineering & design

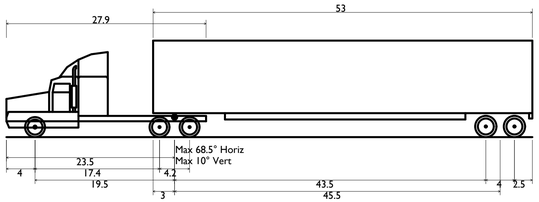
SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: SITE PLAN

DRAWING: C-3.1

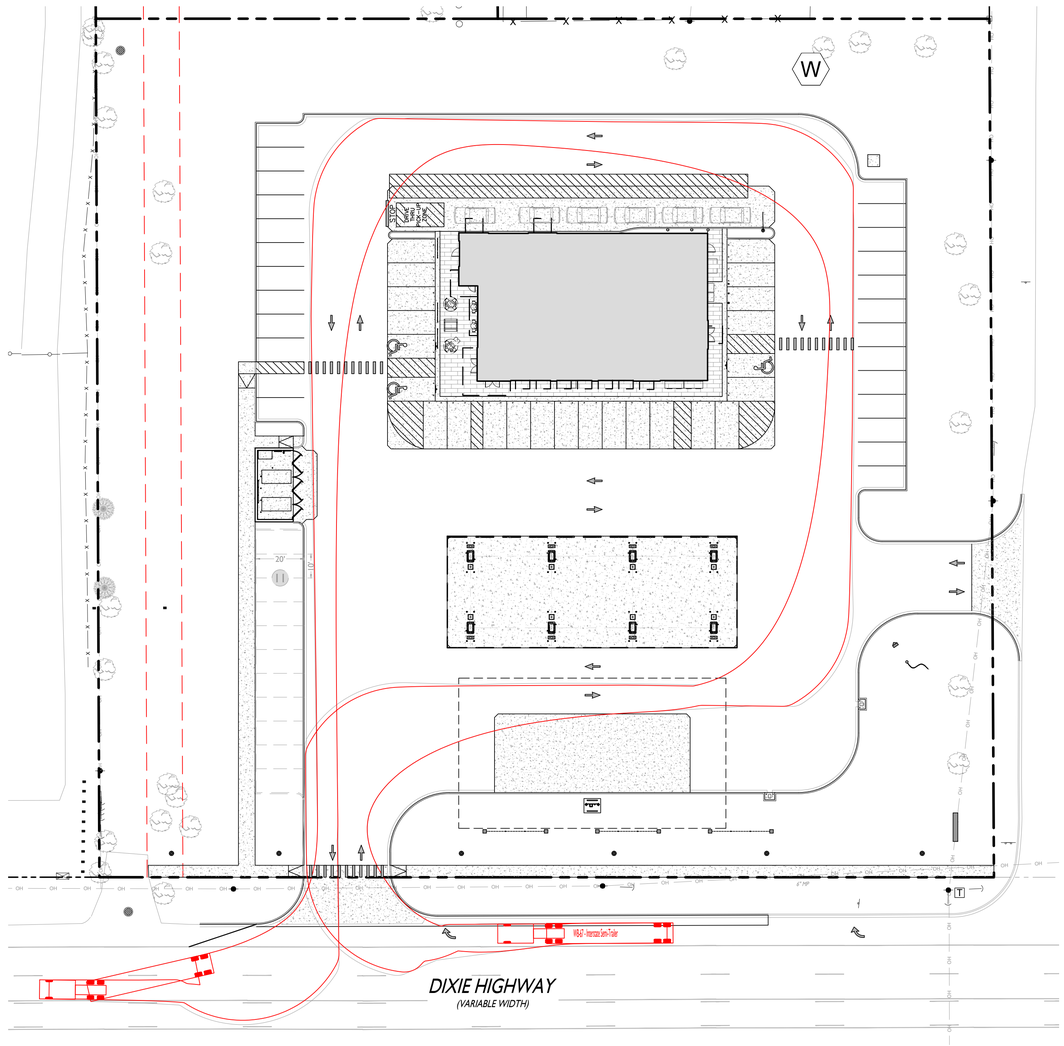
V:\DET\2025\DET-250399 BRAUN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTTED\P-3.0-3.3 SITE.DWG

FUELING / LOADING TRUCK ROUTE

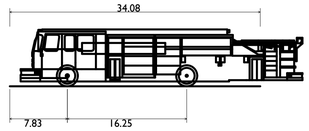


WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

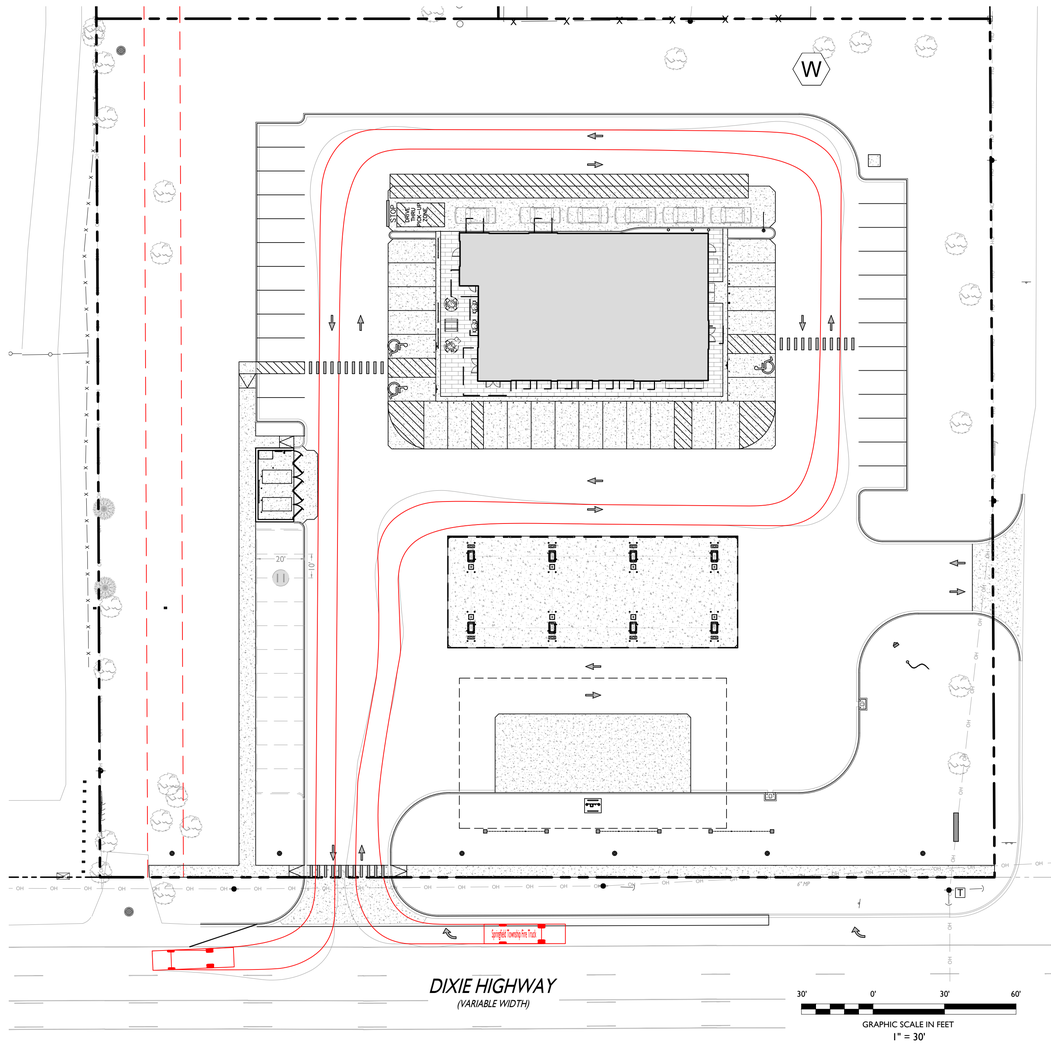


FIRE TRUCK ROUTE



Springfield Township Fire Truck (Sutphen 2011 Pumper)

Overall Length	34.080ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	42.00°



ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

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www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION,
CONVENIENCE STORE, FAST FOOD
RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN
SCOTT A. REED
COCKLEY
ENGINEER
No. 6201060126
PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: TRUCK TURNING PLAN

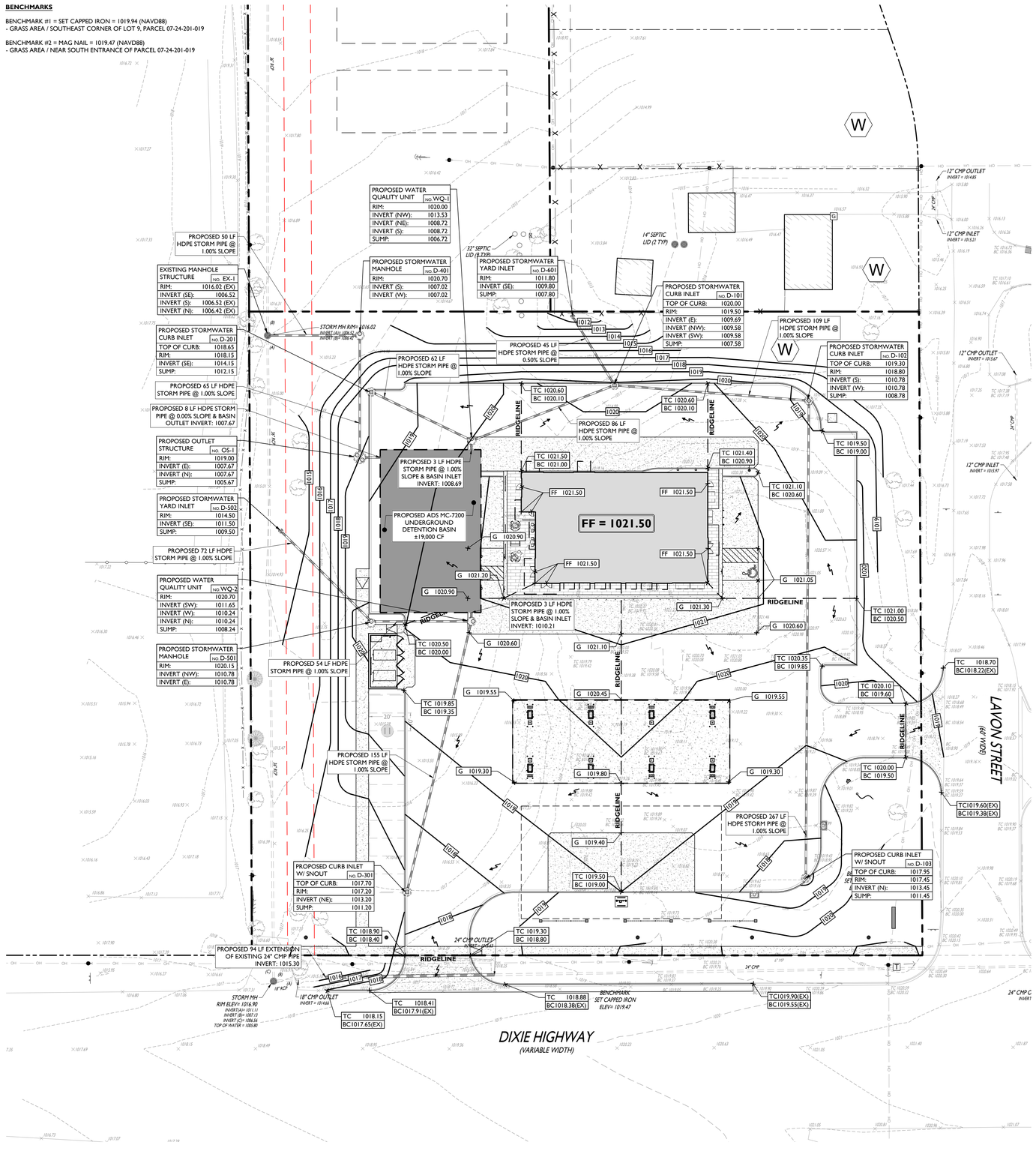
DRAWING: C-3.2

V:\DET\2025\DET-250399 (KAUKEY GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI)\CAD\SITE\SITE PLAN 1.0-3.3 SITE.DWG

BENCHMARKS

BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
- GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019

BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
- GRASS AREA / NEAR SOUTH ENTRANCE OF PARCEL 07-24-201-019



STORMWATER MANAGEMENT CALCULATIONS

Based on Oakland County Stormwater Management Regulations (Updated as of 04/07/2025)

Project:	SG - Springfield	Designer:	JD	Date:	06/03/26

Determination of Surface Runoff

Landcover		Area (AC)	Area (SF)		C-Value*		Weighted Value
Building / Pavement		1.71	74,492	x	0.90	=	67,043
Landscaped Areas	HSG 'C'	1.39	60,430	x	0.35	=	21,151
Subtotals		3.10	134,922				88,193

Composite C Value, C: **0.65**

$I = 30.209^{0.22} / (9.17+T)^{0.81}$ — Average Rainfall Intensity, I: **2.76** IN/HR

T_c, Time of Concentration:
Residencial Developments over 5 acres - 20 min
Commercial or Industrial Developments over 5 acres - 15 min
Any Development under 5 acres - 10 min

Design Storm Period, P: **1** YEARS

Time of Concenration, Tc: **10.0** MINS

PART D: Channel Protection Volume Control

$V_{CPv} = 3,630 * 1.00 * C * A$ — Required CPVC Volume, V_{CP-R}: **9,501** CF

Provided CPVC Volume, V_{CP-P}: **0.00** CF

Is High Ground Water Present On-Site? **No**

Is Infiltration >0.24 in/hr Available On-Site? **No**

Infiltration is Waived

CPVC is not provided as site soils are not suitable for infiltration.

PART E: Water Quality Control

$V_{WQ} = 3,630 * C * A$ — Water Quality Volume, V_{WQ}: **7,308** CF

$Q_{WQ} = C * A * (30.20 / (Tc + 9.17)^{0.81})$ — Water Quality Rate, Q_{WQ}: **5.56** CFS

Is a Forebay Proposed On-Site? **No**

Water Quality Unit provided
**See Specifications in Site Development Plans*

PART F: Channel Protection Rate Control: Extended Detention

$V_{ED} = 6,897 * C * A$ — Extended Detention Volume, V_{ED}: **13,886** CF

PART G: Detention & Flood Control Facilities

$Q_{100YR} = C * I_{100} * A$ — 100-yr Post-Development Peak Inflow Rate, Q_{100YR}: **15.33** CFS

$I_{100} = 82.3 / [(Tc + 9.17) ^ (0.81)]$ — 100-yr Rainfall Intensity, I_{100}: **7.62** in/hr

$Q_{REG} = 1.1055 - 0.2067LN(A)$ — Variable Release Rate, Q_{REG}: **0.87** CFS/ac

**Allowable Peak Release Rate Not to Exceed: 1) Restricted Rate for the Drain, or 2) The prorated Share of the Drain's Capacity, or 3) Q_{100} (max 1.0 CFS/ac)*

$Q_{100R} = Q_{REG} * A$ — 100-YR Release Rate, Q_{100R}: **2.70** CFS

$R = 0.206 - 0.15 * LN (Q_{100R} / Q_{100UN})$ — Storage Curve Factor, R: **0.47** CFS

$V_{100R} = V_{100R} * R - V_{CPv}$ — Post Development 100-yr Runoff Volume, V_{100RR}: **38,222** CF

$V_{100RD} = V_{100R} * R - V_{CPv}$ — 100-yr Detention Volume, V_{100RD}: **17,829** CF

SYMBOL / DESCRIPTION

- PROPERTY LINE
- 100 — PROPOSED GRADING CONTOUR
- RIDGELINE — PROPOSED GRADING RIDGELINE
- PROPOSED DIRECTION OF DRAINAGE FLOW
- G 100.00 — PROPOSED GRADE SPOT SHOT
- TC 100.50 / BC 100.00 — PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
- FF 100.00 — PROPOSED FINISH FLOOR SPOT SHOT
- PROPOSED STORMWATER STRUCTURES
- PROPOSED STORMWATER PIPING
- PROPOSED UNDERGROUND OUTLET STRUCTURE

GRADING NOTES

1. ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
4. THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
   - CURB GUTTER: 0.50%
   - CONCRETE SURFACES: 1.00%
   - ASPHALT SURFACES: 1.00%
6. A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF THIS CONDITION CANNOT BE MET.
7. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

DRAINAGE AND UTILITY NOTES

1. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP-GRADIENT.
3. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IMMEDIATELY IN WRITING.
4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL. SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC. AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
3. NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.

ADA NOTES

1. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES.
3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
4. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP. FOR ALTERATIONS, A CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
6. ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF ¼ INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN ¼ INCHES AND ½ INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP ¼ INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN ½ INCH.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

SCOTT W. BROOKS — STATE OF MICHIGAN — REGISTERED CIVIL ENGINEER — 62033 — PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: GRADING & STORMWATER MANAGEMENT PLAN

DRAWING: C-4.0

V:\DET\2025\DET-250399 (SHEETZ - SPRINGFIELD)\DWG\SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\PLOT-A1-GRADING.DWG

BENCHMARKS

BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
- GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019

BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
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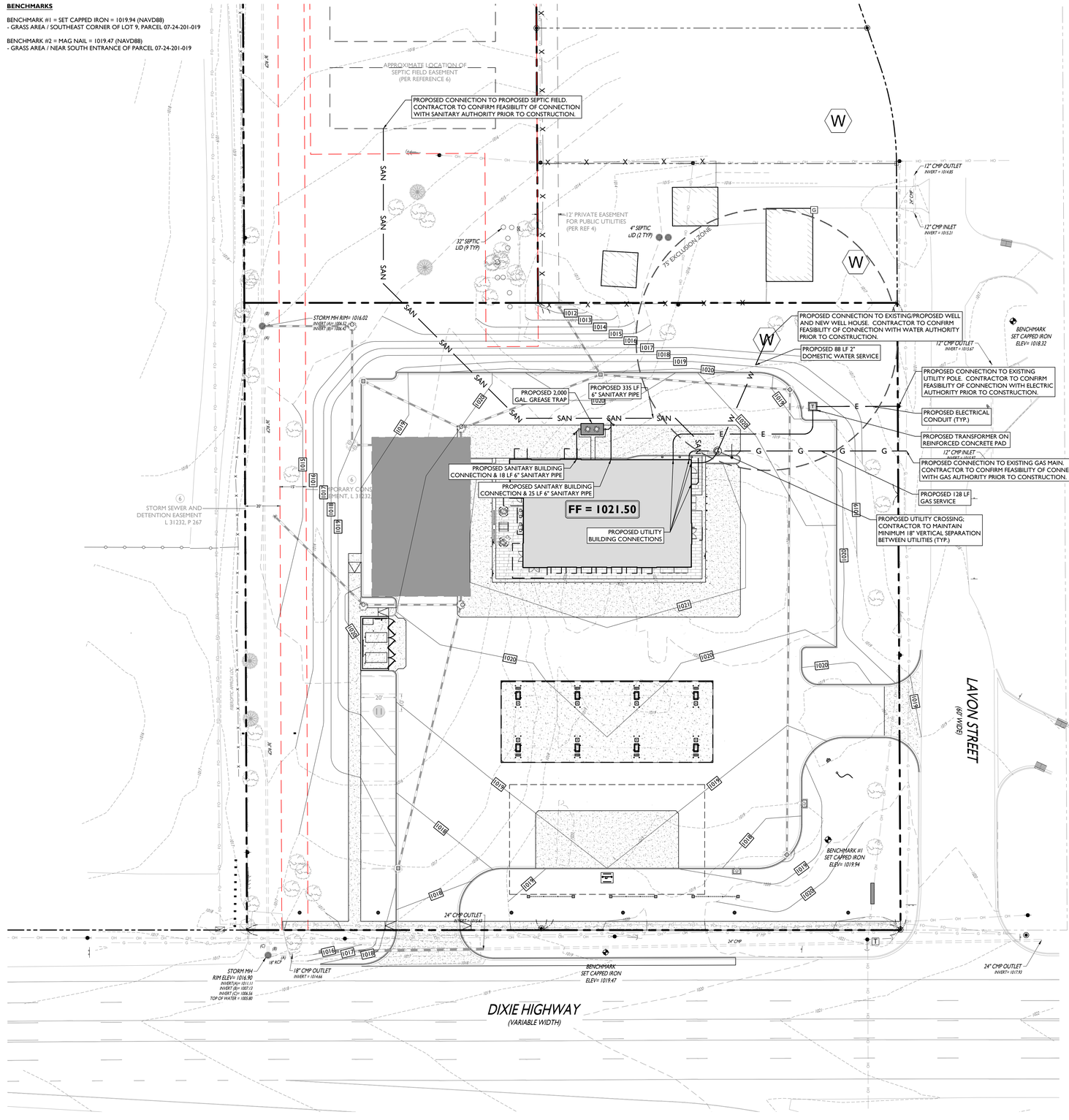

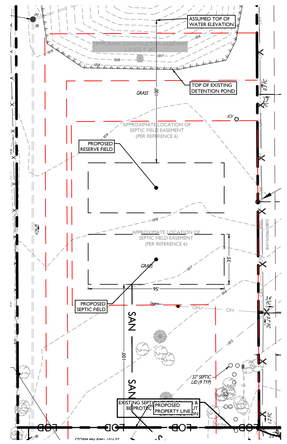

KNOX BOX TO BE PROVIDED. LOCATION TO BE APPROVED BY FIRE DEPARTMENT

SYMBOL	DESCRIPTION
	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
E	PROPOSED ELECTRIC CONDUIT
G	PROPOSED GAS LINE
S	PROPOSED SANITARY MANHOLE / CLEANOUT
T	PROPOSED TRANSFORMER ON CONCRETE PAD

DRAINAGE AND UTILITY NOTES

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2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
6. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
8. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

JONATHAN FRED COOKSEY — STATE OF MICHIGAN — 6201053 — PROFESSIONAL ENGINEER

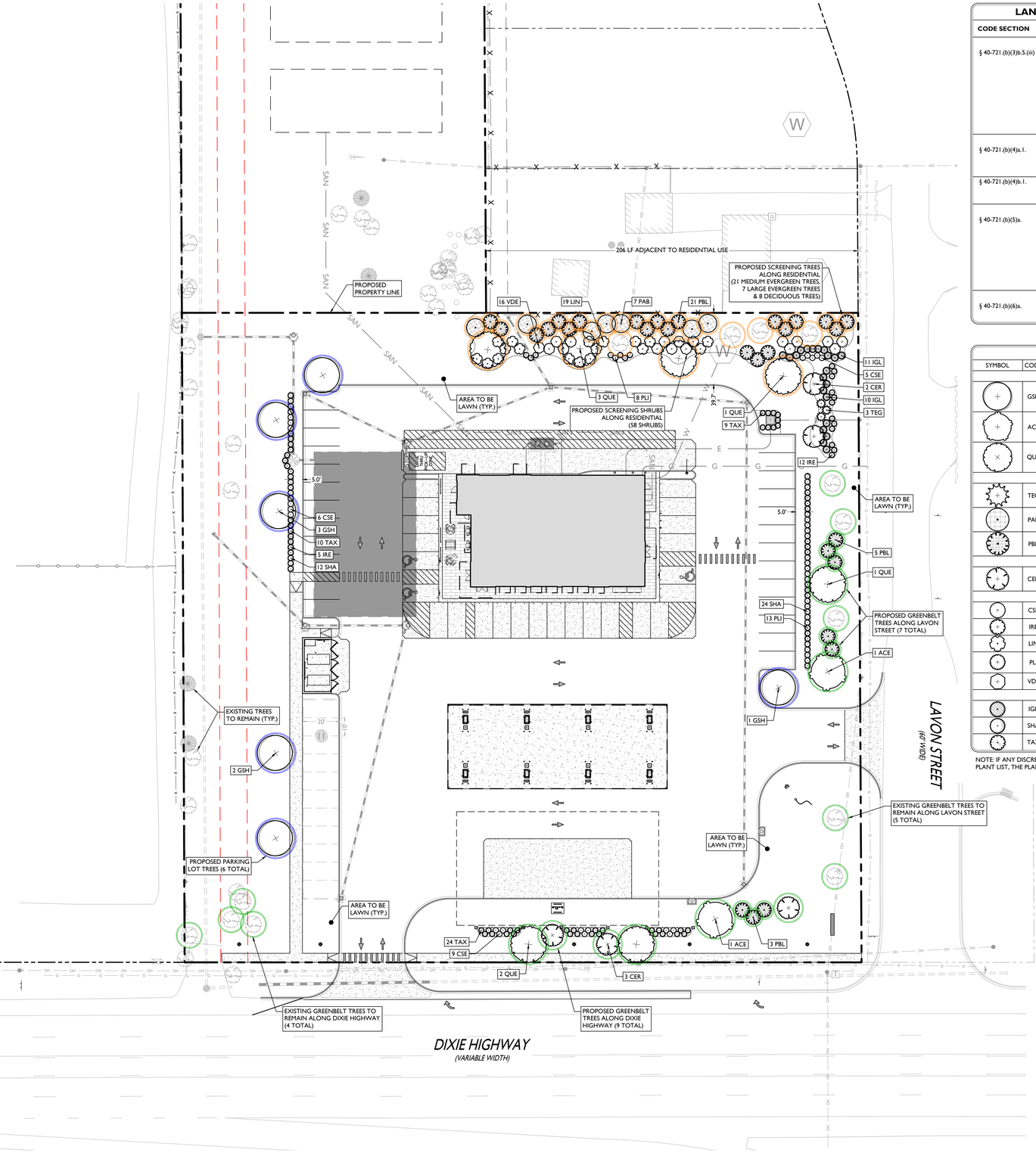
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: UTILITY PLAN

DRAWING: C-5.0

V:\DET\2025\DET-250399 SHEETZ DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTS\DET-250399 - 8500



LANDSCAPING AND SCREENING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 40-721.(b)(3)b.5.(iii)	SCREENING NO. 3 REQUIREMENTS	
	MINIMUM WIDTH: 30 FT	39.7 FT
	1 MEDIUM EVERGREEN TREE PER 10 LF	
	1 LARGE EVERGREEN TREE, 1 DECIDUOUS TREE, AND 5 SHRUBS PER 30 LF	
	(206 FT) * (1 TREE / 10 FT) = 21 MEDIUM EVERGREEN TREES	21 TREES
	(206 FT) * (1 TREE / 30 FT) = 7 LARGE EVERGREEN TREES	7 TREES
	(206 FT) * (1 TREE / 25 FT) = 8 DECIDUOUS TREES	4 EXISTING TREES 4 PROPOSED TREES
	(206 FT) * (7 SHRUBS / 25 FT) = 58 SHRUBS	58 SHRUBS
§ 40-721.(b)(4)a.1.	PARKING LOT TREES	
	1 TREE FOR EVERY 8 PARKING SPACES	
	(49 SPACES) * (1 TREE / 8 SPACES) = 6 TREES	6 TREES
	MINIMUM AREA: 150 SF	COMPLIES
§ 40-721.(b)(4)b.1.	PERIMETER PARKING LOT LANDSCAPING	
	LANDSCAPING, BERMING, OR SOLID WALL REQUIRED TO SCREEN PARKING FROM PUBLIC ROADS	COMPLIES
§ 40-721.(b)(5)a.	GREENBELTS	
	MINIMUM WIDTH: FRONT YARD SETBACK	COMPLIES
	1 TREE PER 30 LF	
	DIXIE HIGHWAY: 375 FT	
	(375 FT) * (1 TREE / 30 FT) = 13 TREES	4 EXISTING TREES 9 PROPOSED TREES
	LAVON STREET: 360 FT	
	(360 FT) * (1 TREE / 30 FT) = 12 TREES	5 EXISTING TREES 7 PROPOSED TREES
§ 40-721.(b)(6)a.	SITE LANDSCAPING	
	MINIMUM SITE LANDSCAPING: 10%	
	(134,938 SF) * (0.10) = 13,494 SF	19,482 SF (14.4%)

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
DECIDUOUS TREES						
	GSH	6	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2" - 2.5" CAL	B&B
	ACE	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2" - 2.5" CAL	B&B
	QUE	7	QUERCUS PALUSTRIS	PINK OAK	2" - 2.5" CAL	B&B
EVERGREEN TREES						
	TEG	3	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' - 8' HT	B&B
	PAB	7	PICEA ABIES	NORWAY SPRUCE	6' - 8' HT	B&B
	PBL	29	PICEA GLAUCA DENSATA	BLACK HILLS SPRUCE	6' - 8' HT	B&B
ORNAMENTAL TREES (SINGLE-STEM)						
	CER	5	CERCIS CANADENSIS	EASTERN REDBUD	1.5" - 2" CAL	B&B
SHRUBS						
	CSE	20	CORNUS SERICEA 'FARROW'	ARCTIC FIRE RED TWIG DOGWOOD	18" - 24" HT	POT
	IRE	17	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	18" - 24" HT	POT
	LIN	19	LINDERA BENZOIN	SPICEBUSH	24" - 30" HT	POT
	PLI	21	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL DWARF NINEBARK	18" - 24" HT	POT
	VDE	16	VIBURNUM DENTATUM	VIBURNUM	24" - 30" HT	POT
EVERGREEN SHRUBS						
	IGL	21	ILEX GLABRA	INKBERRY HOLLY	24" - 30" HT	POT
	SHA	36	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	18" - 24" HT	POT
	TAX	43	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLO-JAPANESE YEW	18" - 24" HT	POT

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

SYMBOL	DESCRIPTION
	PROPOSED SCREENING TREES
	PROPOSED PARKING LOT TREES
	PROPOSED GREENBELT TREES

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

LANDSCAPING NOTES

1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH .
4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

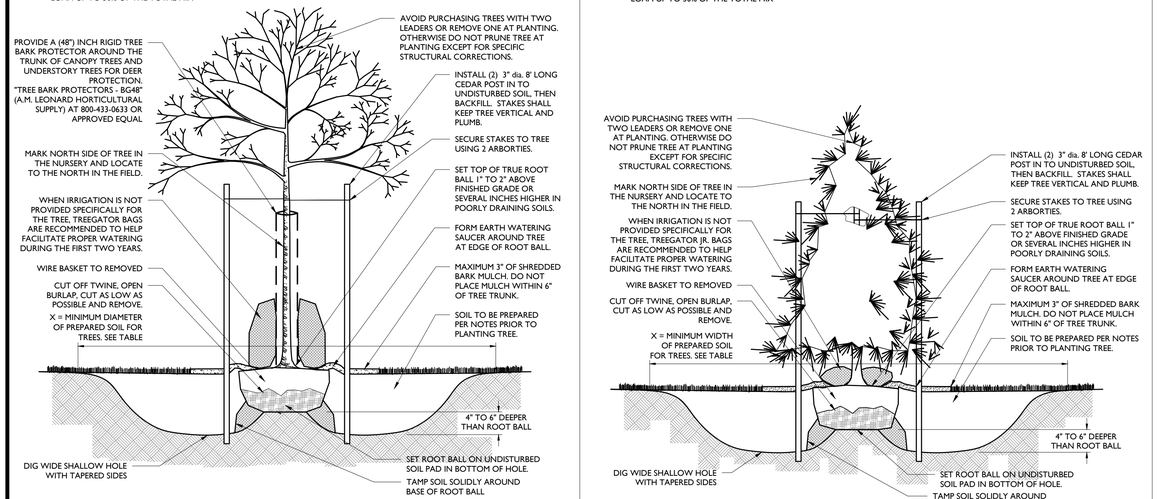
TITLE: LANDSCAPING PLAN

DRAWING: C-6.0

V:\DET\2025\DET-250399 SOLKEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\DP-6.0-LS LAND.DWG

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   - MODIFY EXTREMELY SANDY SOILDS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

1

NOTES:

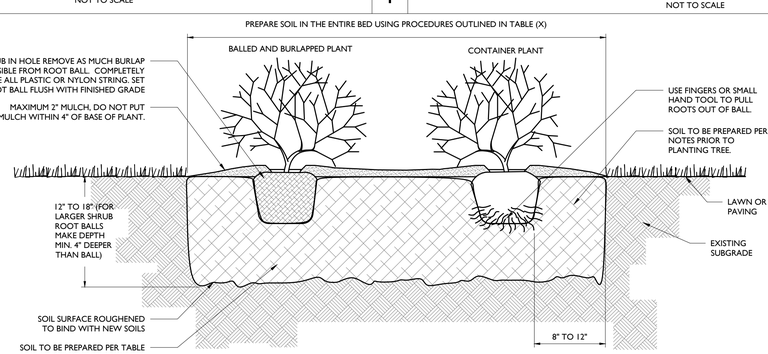
1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

CONIFEROUS TREE PLANTING DETAIL

NOT TO SCALE

2

PREPARE SOIL IN THE ENTIRE BED USING PROCEDURES OUTLINED IN TABLE (X)



NOTES:

1. FOR CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL

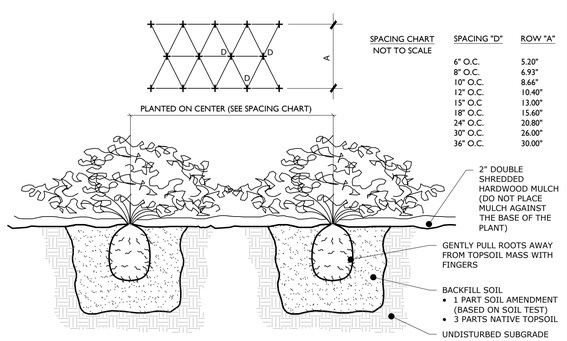
DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

3

NOTES:

1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
2. SOIL AMENDMENTS:
   - MODIFY HEAVY CLAY OR SILT SOILDS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   - MODIFY EXTREMELY SANDY SOILDS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX
3. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS



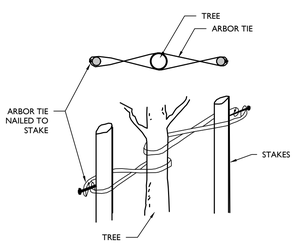
SPACING CHART
NOT TO SCALE

SPACING "D"	ROW "A"
6" O.C.	5.20"
8" O.C.	6.93"
10" O.C.	8.66"
12" O.C.	10.40"
15" O.C.	13.00"
18" O.C.	15.60"
24" O.C.	20.80"
30" O.C.	26.00"
36" O.C.	30.00"

GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

NOT TO SCALE

4



INSTALLATION GUIDELINES:

1. LOOP TIE AROUND TREE AND NAIL TO CEDAR STAKE.
2. REMOVE ALL STAKING AND TIES AT END OF FIRST GROWING SEASON.
3. FOLD ENDS OF ARBORTIE BACK. SECURE TO STAKES WITH 1" GALVANIZED ROOFING NAIL OR USE A KNOT.
4. CONSULT LANDSCAPE ARCHITECT FOR STAKING OF TREES LARGER THAN 6".
5. SOURCES INCLUDE:
   GEMPLERS 1-800-332-6744 or GEMPLERS.COM
   CSP OUTDOORS 1-800-592-6940 or CSPOUTDOORS.COM

ARBORTIE DETAIL

NOT TO SCALE

5

GENERAL LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.
2. WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
3. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.
4. IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VERIFYING TYPE AND PURITY.
5. UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRS.) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE OF PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER, OR GOVERNING MUNICIPAL OFFICIAL.
6. THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

PROTECTION OF EXISTING VEGETATION NOTES:

1. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
2. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FIXTURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.
3. IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
   - TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.
   - RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. IF APPLICABLE, THESE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."
   - LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"). ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

SOIL PREPARATION AND MULCH NOTES:

1. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
2. BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS:
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
   - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
3. TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL OBTAINED FROM A WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
4. TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.0 AND SHALL NOT CONTAIN LESS THAN 6% ORGANIC MATTER BY WEIGHT.
5. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.
6. CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.
7. UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBED AREA OF THE SITE.
8. LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL) IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
9. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.
11. DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF.
12. WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
13. SOIL SHALL BE LOOSENED WITH A BACKHOE OR OTHER LARGE COARSE-TILING EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
14. APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN PRODUCT AND PLANT MATERIAL.
15. ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

MYCRO® TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGI INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM), BENEFICIAL RHIZOSPHERE BACTERIA, TERRA-SORB SUPERABSORBENT HYDROGEL TO REDUCE WATER LEACHING, AND SELECTED ORGANIC MICROBIAL NUTRIENTS.

- DIRECTIONS FOR USE: USE 3-OZ PER EACH FOOT DIAMETER OF THE ROOT BALL, OR 3-OZ PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL, EXTENDING FROM THE SOIL SURFACE TO A DEPTH OF ABOUT 8 INCHES, AND EXTENDING OUT FROM THE ROOT BALL ABOUT 8 INCHES INTO THE BACKFILL. APPLY WATER TO SOIL SATURATION.
- MYCOR® TREE SAVER® IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ERICOID MYCORRHIZAE.
- SOIL PH: THE FUNGI IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS IN A PH RANGE OF 3 TO 9.
- FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION.
- OTHER PESTICIDES: HERBICIDES AND INSECTICIDES DO NOT NORMALLY INTERFERE WITH MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.

HEALTHY START MACRO TABS 12-8-8

- FERTILIZER TABLETS ARE PLACED IN THE UPPER 4 INCHES OF BACKFILL SOIL WHEN PLANTING TREES AND SHRUBS.
- TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 2 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT, MICROBIAL NUTRIENTS DERIVED FROM SEA KELP, PROTEIN BYPRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLED & BURLAPPED (B&B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT 1 TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

IRRIGATION DURING ESTABLISHMENT

SIZE AT PLANTING	IRRIGATION FOR VITALITY	IRRIGATION FOR SURVIVAL
< 2" CALIPER	DAILY FOR TWO WEEKS, EVERY OTHER DAY FOR TWO MONTHS, WEEKLY UNTIL ESTABLISHED	TWO TO THREE TIMES WEEKLY FOR TWO TO THREE MONTHS
2"-4 CALIPER	DAILY FOR ONE MONTH, EVERY OTHER DAY FOR THREE MONTHS, WEEKLY UNTIL ESTABLISHED	TWO TO THREE TIMES WEEKLY FOR THREE TO FOUR MONTHS
4 >" CALIPER	DAILY FOR SIX WEEKS, EVERY OTHER DAY FOR FIVE MONTHS, WEEKLY UNTIL ESTABLISHED	TWICE WEEKLY FOR FOUR TO FIVE MONTHS

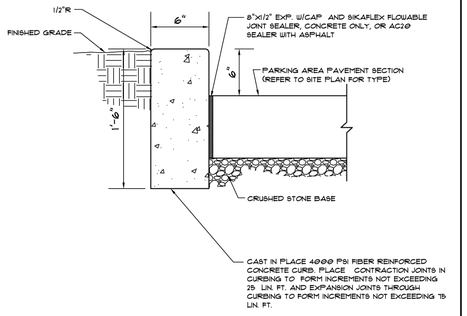
TABLE NOTES:
1. AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER TO THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL. DO NOT WATER IF ROOT BALL IS WET/SATURATED ON THE IRRIGATION DAY.

2. WHEN IRRIGATING FOR VITALITY, DELETE DAILY IRRIGATION WHEN PLANTING IN WINTER OR WHEN PLANTING IN COOL CLIMATES. ESTABLISHMENT TAKES THREE TO FOUR MONTHS PER INCH TRUNK CALIPER. NEVER APPLY IRRIGATION IF THE SOIL IS SATURATED.

3. WHEN IRRIGATION FOR SURVIVAL, TREES TAKE MUCH LONGER TO ESTABLISH THAN REGULARLY IRRIGATED TREES. IRRIGATION MAY BE REQUIRED IN THE NORMAL HOT, DRY PORTIONS OF THE FOLLOWING YEAR.

PLANT QUALITY AND HANDLING NOTES:

1. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER COMMON NAMES.
3. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE.
4. PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNSCALDS, DISFIGURING KNOTS OR FRESH CUTS OF LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE REJECTED.
5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE.
6. THE ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
7. ALL PLANTS DESIGNATED BALL AND BURLAP (B&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. THE DIAMETER AND DEPTH OF THE BALLS OF EARTH MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING. THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.
8. PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TARPS OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.
9. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING DETAILS.
10. LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN POSSIBLE. THE ROOT BALL SHALL BE KEPT MOIST AT ALL TIMES AND COVERED WITH MOISTENED MULCH OR ADDED WOODCHIPS. PROPER IRRIGATION SHALL BE SUPPLIED SO AS TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS SHALL BE UNTIED AND PROPER SPACING SHALL BE ALLOTTED FOR AIR CIRCULATION AND TO PREVENT DISEASE, WILTING, AND LEAF LOSS. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.
11. NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.
12. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.
13. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT.
14. IF PLANTS ARE PROPOSED WITHIN SIGHT TRIANGLES, TREES SHALL BE LIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE, AND SHRUBS, GROUND COVER, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.
15. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
    PLANTS (MARCH 15 - DECEMBER 15)
    LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)
16. THE FOLLOWING TREES ARE SUSCEPTIBLE TO T



SITE AND STORE PERIMETER CURBING
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	SITE AND STORE PERIMETER CURBING	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 03

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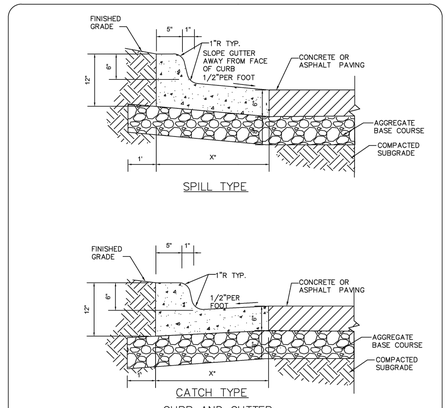
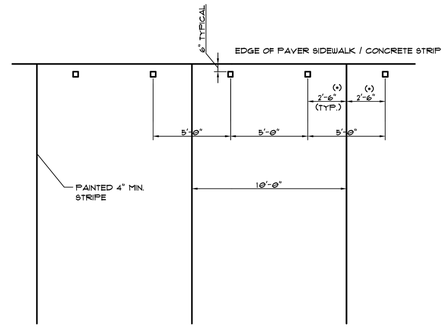


CURB AND GUTTER
SCALE: NO SCALE

NOTE:
- *ADJUST WIDTH PER LOCAL JURISDICTIONAL REQUIREMENTS (1.5' MIN).
- CONTRACTION JOINTS TO BE PLACED 10'O.C.
- EXPANSION JOINTS TO BE PLACED 75' O.C.
- 1/4" PRE-MOLDED BITUMINOUS EXPANSION JOINT WHEN ADJACENT TO CONCRETE PAVING
- CONCRETE SHALL BE 4,000 PSI FIBER MESH CONCRETE UNLESS OTHERWISE REQUIRED BY LOCAL JURISDICTION.
- AT CONTRACTOR OPTION, GUTTER THICKNESS MAY BE INCREASED AT END OF GUTTER TO MATCH THICKNESS OF ASPHALT/CONCRETE PAVING SECTION
- GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	CURB AND GUTTER DETAIL	SCALE: DATE: 03/10/2026 DRAWN BY: SJL/DLK 15

2



BUMPER POST DETAIL
SCALE: NO SCALE

- 2'-3" FOR 9.5' WIDE PARKING SPACE
- 2'-0" FOR 9.0' WIDE PARKING SPACE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	BUMPERPOST LAYOUT DETAIL AT PAVER SIDEWALK	SCALE: DATE: 4/7/2026 DRAWN BY: DAH 08

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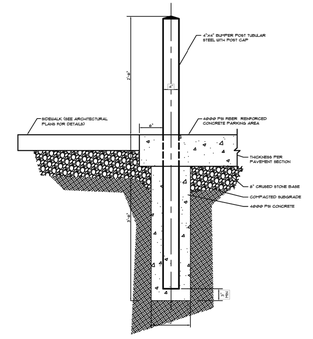

STOREFRONT BUMPER POST FLUSH SIDEWALK
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	STOREFRONT BUMPER POST DETAIL (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 51

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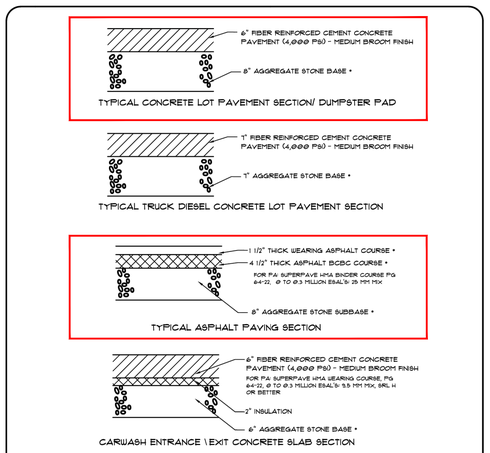

* PROPOSED MDOT 21AA STONE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	SITE PAVEMENT DETAILS	SCALE: DATE: 12/12/2023 DRAWN BY: DAH 20

V:\DET\2025\DET-250399 SOUDEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP\PROPOSED\DWG\C-07\DET-250399-C-07.3-7.3 DETS.DWG
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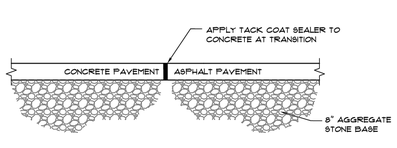
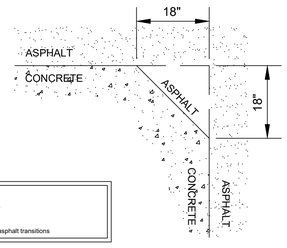


CONCRETE / ASPHALT PAVEMENT TRANSITION DETAIL
N.T.S.

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	ASPHALT PAVING DETAILS	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 27

6



CONCRETE / ASPHALT chamfer
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	CONCRETE/ASPHALT CHAMFER DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 28

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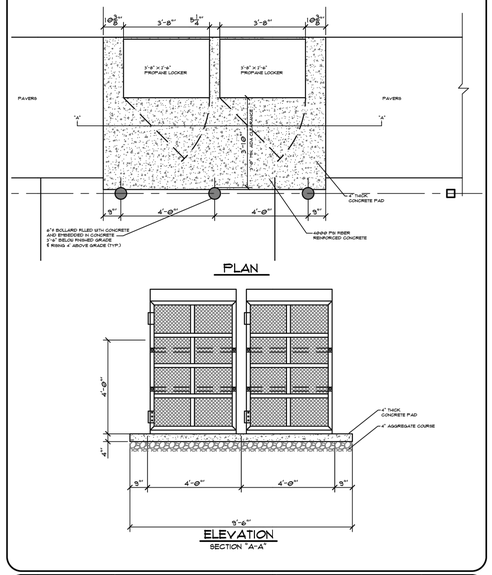

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	PROPANE LOCKER (AT BUILDING) (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 54

8

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

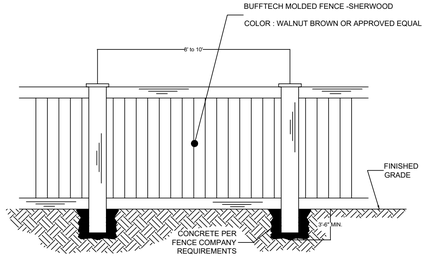


STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: CONSTRUCTION DETAILS

DRAWING: C-7.0



VINYL BOARD ON BOARD FENCE
SCALE: N.T.S.

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

PRIVACY FENCE DETAIL (MICHIGAN ONLY)

SCALE:
DATE: 2/2/2024
DRAWN BY: DAH

57

1

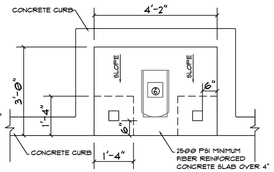
AIR MACHINE PAD NOTES:
ELECTRICAL NEEDS ARE A 120-VAC 30-AMP #10 WIRE CIRCUITS WITH GROUND

POWER CONDUIT FROM BUILDING TO AIR MACHINE IS TO BE RIGID PVC WITH FIRST AND LAST 10' IN RIGID METAL CONDUIT AND EYS FITTINGS AT BOTH ENDS. TERMINATED IN RECESSED 4" PVC SLEEVE UNDER AIR MACHINE.

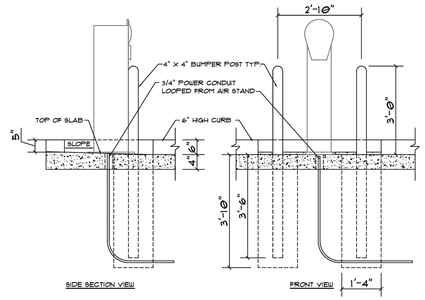
USE WEDGE ANCHOR BOLTS TO MOUNT AIR STAND.

BOLLARDS ARE 4" X 4" BUMPER POST TO BE PAINTED DARK BRONZE.

MAXIMUM DISTANCE FROM FINAL GRADE TO TOP BUTTON ON AIR MACHINE TO BE 48"



PLAN VIEW



SIDE SECTION VIEW FRONT VIEW

AIR MACHINE PAD
SCALE: NO SCALE

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

AIR MACHINE PAD DETAILS (MICHIGAN ONLY)

SCALE:
DATE: 2/2/2024
DRAWN BY: DAH

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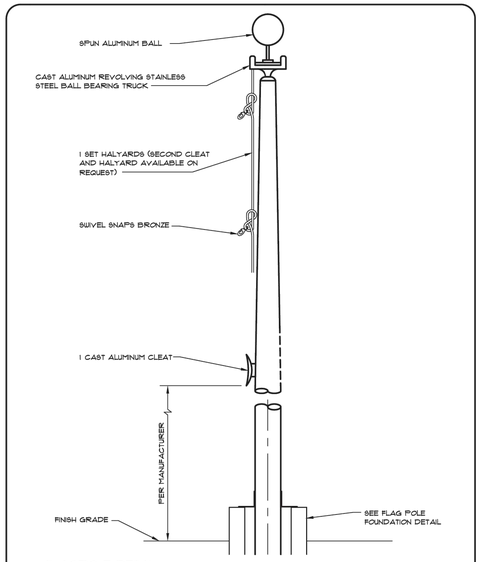

FLAGPOLE DETAIL
SCALE: NO SCALE

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

FLAGPOLE DETAIL

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH

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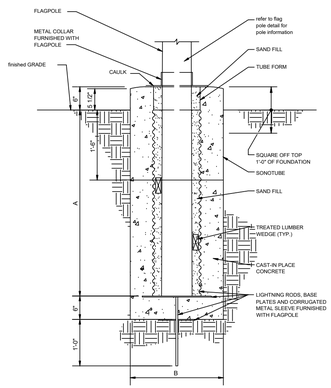
3

LEGEND				
POLE HEIGHT	SLEEVE SIZE	A	B	COLLAR BASE SIZE
40'	12" DIA.	48"	24" DIA.	16" DIA.
35'	10" DIA.	42"	22" DIA.	12" DIA.



FLAGPOLE FOUNDATION
SCALE: NO SCALE

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

FLAGPOLE FOUNDATION

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH

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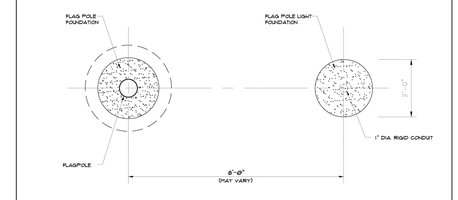

NOTE: CONTRACTOR/INSTALLER SHALL LOCATE LIGHT FIXTURE SO AS TO SHINE AWAY FROM ADJACENT ROADS AND/OR PROPERTIES

FLAGPOLE LIGHT FOUNDATION PLAN
SCALE: NO SCALE

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

FLAGPOLE AND LIGHT FOUNDATION LAYOUT PLAN

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH

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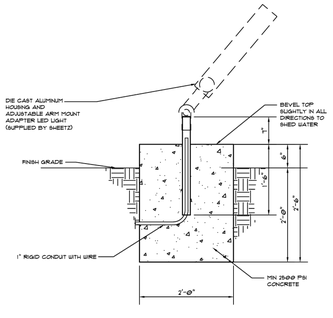

FLAGPOLE LIGHT FOUNDATION
SCALE: NO SCALE

DATE	BY	DESCRIPTION	REVISIONS

SHEETZ

FLAGPOLE LIGHT FOUNDATION

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH

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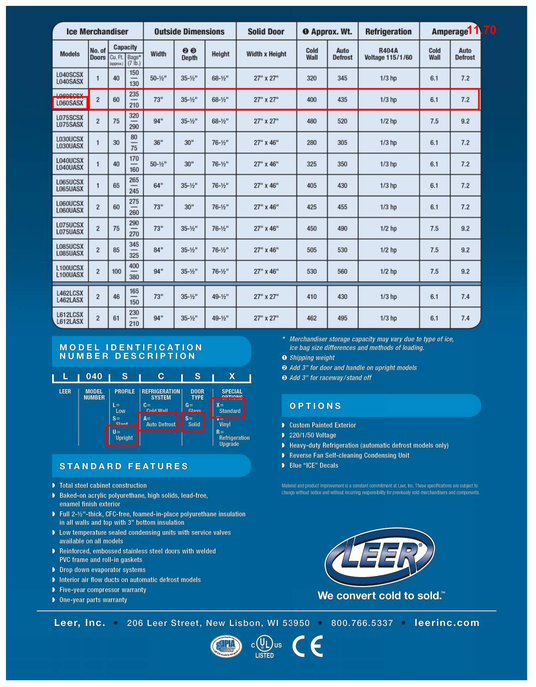

11.70

Ice Merchandiser			Outside Dimensions		Solid Door	❶ Approx. Wt.		Refrigeration	Amperage	
Models	No. of Doors	Capacity Cu. Ft. (approx.)	Width	❶ ❷ Depth	Height	Width x Height	Cold Wall	Auto Defrost	R404A Voltage 115/1/60	Cold Wall	Auto Defrost
L040SCSX L040SASX	1	40	150 130	50-½"	35-½"	68-½"	27" x 27"	320	345	1/3 hp	6.1	7.2
L060SCSX L060SASX	2	60	235 — 210	73"	35-½"	68-½"	27" x 27"	400	435	1/3 hp	6.1	7.2
L075SCSX L075SASX	2	75	320 — 290	94"	35-½"	68-½"	27" x 27"	490	520	1/2 hp	7.5	9.2
L030USCSX L030USASX	1	30	80 — 75	36"	30"	76-½"	27" x 46"	280	305	1/3 hp	6.1	7.2
L040USCSX L040USASX	1	40	170 — 160	50-½"	30"	76-½"	27" x 46"	325	350	1/3 hp	6.1	7.2
L065USCSX L065USASX	1	65	265 — 245	64"	35-½"	76-½"	27" x 46"	405	430	1/3 hp	6.1	7.2
L060USCSX L060USASX	2	60	275 — 260	73"	30"	76-½"	27" x 46"	425	455	1/3 hp	6.1	7.2
L075USCSX L075USASX	2	75	290 — 270	73"	35-½"	76-½"	27" x 46"	450	490	1/2 hp	7.5	9.2
L085USCSX L085USASX	2	85	345 — 325	84"	35-½"	76-½"	27" x 46"	505	530	1/2 hp	7.5	9.2
L100USCSX L100USASX	2	100	400 — 380	94"	35-½"	76-½"	27" x 46"	530	560	1/2 hp	7.5	9.2
L462LCSX L462LASX	2	46	165 — 150	73"	35-½"	49-½"	27" x 27"	410	430	1/3 hp	6.1	7.4
L612LCSX L612LASX	2	61	230 — 210	94"	35-½"	49-½"	27" x 27"	462	495	1/3 hp	6.1	7.4

MODEL IDENTIFICATION NUMBER DESCRIPTION

L | 040 | S | C | S | X

LEER | MODEL NUMBER | PROFILE: L = Low, S = Slant, U = Upright | REFRIGERATION SYSTEM: C = Cold Wall, A = Auto Defrost | DOOR TYPE: G = Glass, S = Solid | SPECIAL CONSIDERATIONS: X = Standard, V = Vinyl, R = Refrigeration Upgrade

STANDARD FEATURES

- Total steel cabinet construction
- Baked-on acrylic polyurethane, high solids, lead-free, enamel finish exterior
- Full 2-½"-thick, CFC-free, foamed-in-place polyurethane insulation in all walls and top with 3" bottom insulation
- Low temperature sealed condensing units with service valves available on all models
- Reinforced, embossed stainless steel doors with welded PVC frame and roll-in gaskets
- Drop down evaporator systems
- Interior air flow ducts on automatic defrost models
- Five-year compressor warranty
- One-year parts warranty

OPTIONS

- Custom Painted Exterior
- 220/1/50 Voltage
- Heavy-duty Refrigeration (automatic defrost models only)
- Reverse Fan Self-cleaning Condensing Unit
- Elkay "ICE" Decals

** Merchandiser storage capacity may vary due to type of ice, ice bag size differences and methods of loading.*
❶ Shipping weight
❷ Add 3" for door and handle on upright models
❷ Add 3" for raceway/stand off

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We convert cold to sold.™

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ICE BOX DETAIL
NOT TO SCALE

7

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — TIMOTHY FRED COOKSEY — ENGINEER — No. 6201060355 — PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-7.1

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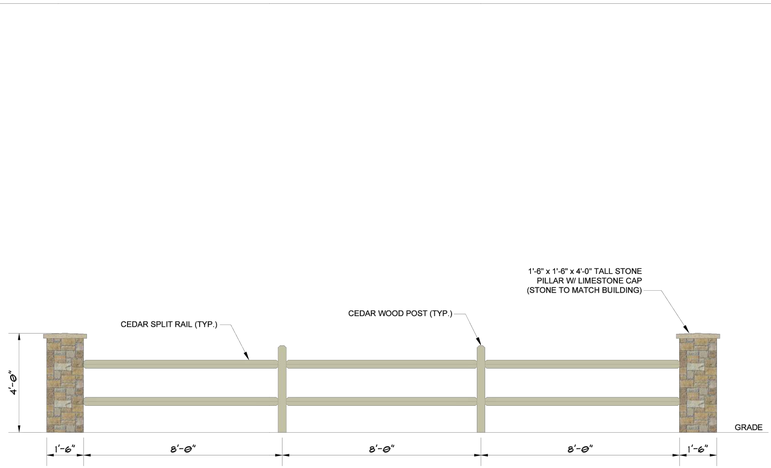
V:\CBT\2025\DET-250399 SHEETZ GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP_PROGRAD\PLOTS\DP-7.0-7.3 DETS_DWG



NOTE: CEDAR WOOD TO REMAIN UNFINISHED TO WEATHER NATURALLY

SCALE:
DATE: 07/31/2026
DRAWN BY: DNC

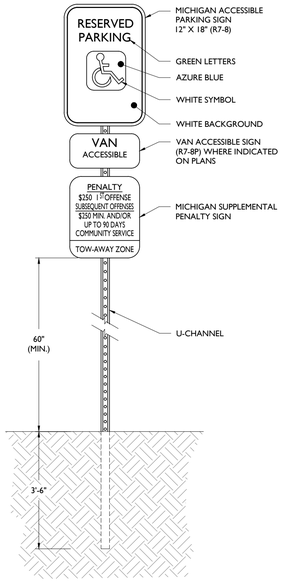
SPLIT FENCE DETAIL

SHEETZ

DATE	BY	DESCRIPTION

REVISIONS

1

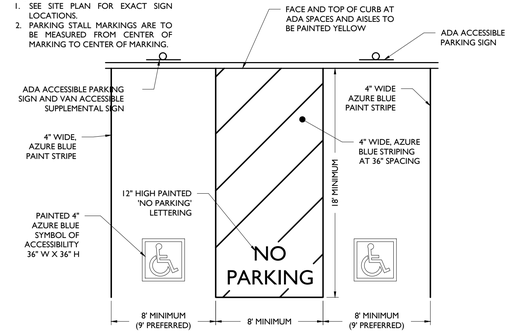


ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE

2

NOTES:
1. SEE SITE PLAN FOR EXACT SIGN LOCATIONS.
2. PARKING STALL MARKINGS ARE TO BE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING.



ACCESSIBLE PARKING STALL MARKINGS

NOT TO SCALE

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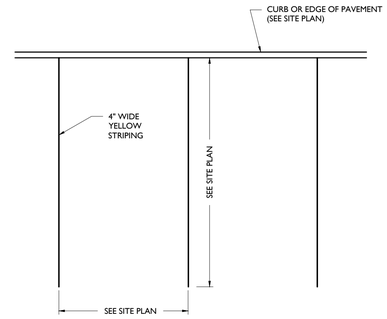

PARKING STALL MARKINGS

NOT TO SCALE

4

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

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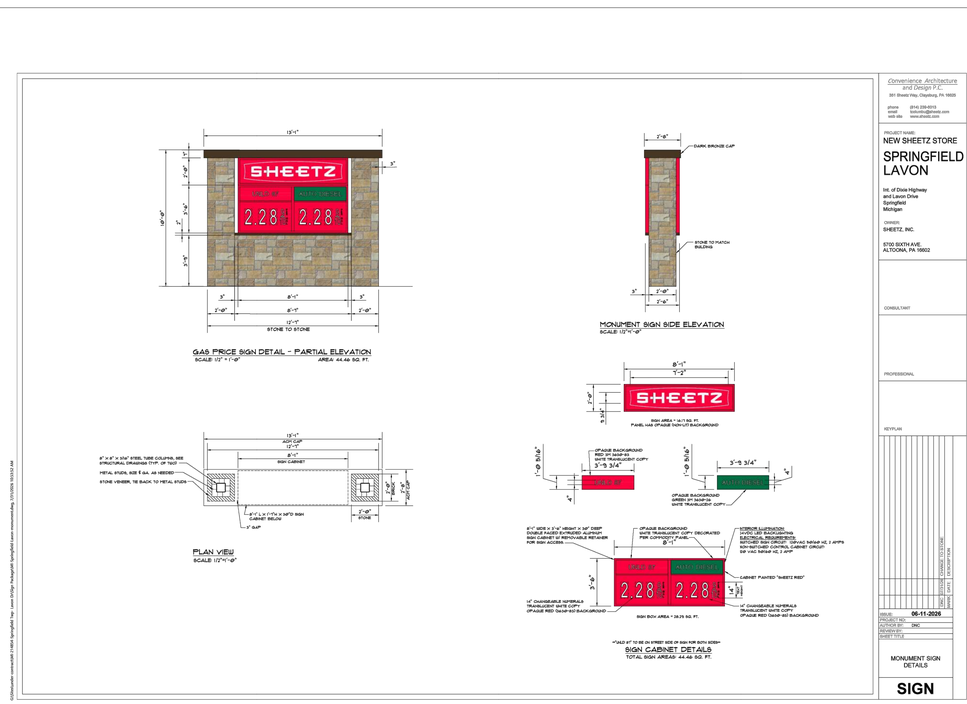
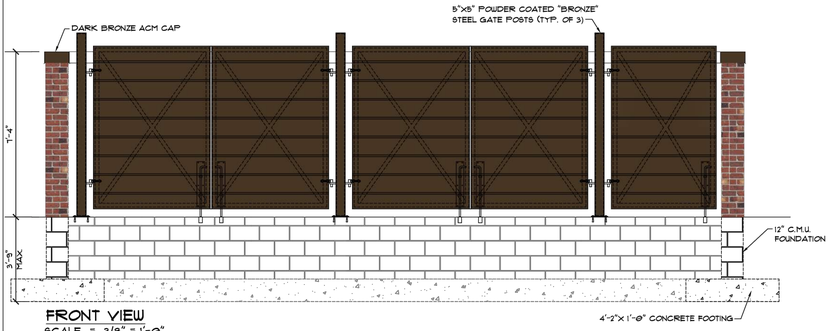
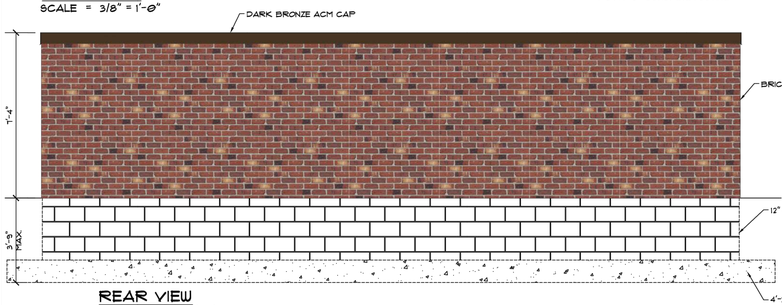
Phone 248.247.1115

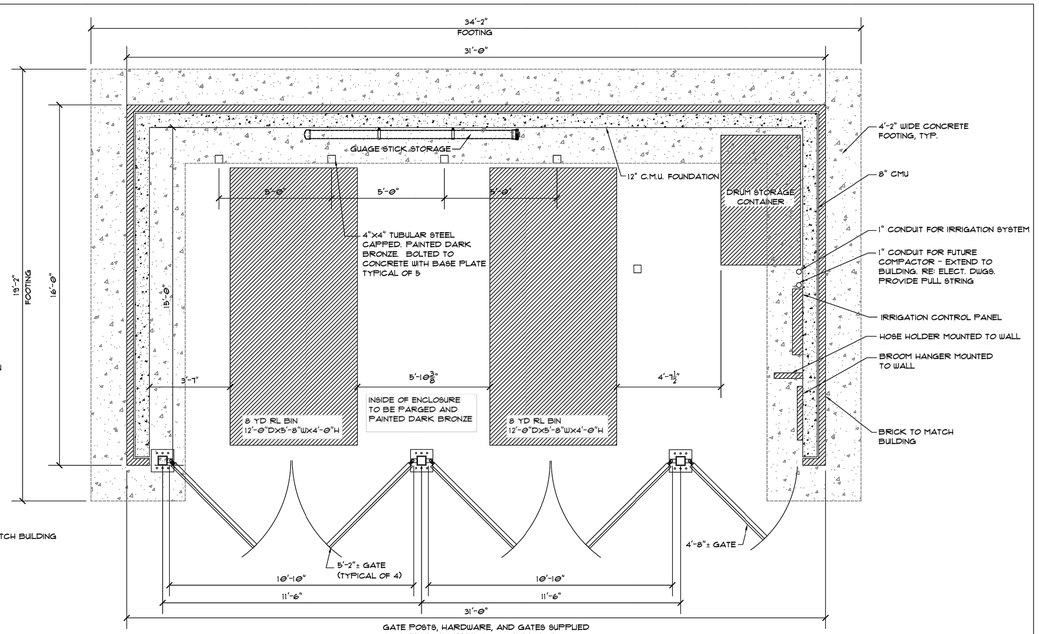

13'-1"
SHEETZ
UNLEAD 87
ACTIVATE DIESEL
2.28
2.28
18'-6"
5'
2'-6"
5'-6"
3'-6"
3"
8'-1"
2'-6"
12'-1"
STONE TO STONE
7'-6"
DARK BRONZE CAP
STONE TO MATCH BUILDING
3'
7'-6"
7'-6"
8'-1"
1'-3"
SHEETZ
2'-6"
3'-6"
RIGH AREA = 16.71 SQ. FT.
PANEL HAS OPAQUE SHOW-OUT BACKGROUND
13'-1"
ADA SIGN
12'-1"
8'-1"
SIGN CABINET
8" x 8" x 3/16" STEEL TUBE COLUMN, SEE STRUCTURAL DRAWINGS FOR SIZE
METAL STUDS, SIZE & GA. AS NEEDED
STONE VENEER, TIE BACK TO METAL STUDS
4'-6" L or 1'-7"H or 34"D SIGN CABINET BELOW
3'-6"
2'-6" STONE
OPAQUE BACKGROUND RED SPI 34/49-R3 WHITE "TRANSLUCENT COPY"
3'-5 3/4"
1'-0 3/16"
1'-0 3/16"
3'-5 3/4"
OPAQUE BACKGROUND WHITE SPI 34/49-W1
WHITE "TRANSLUCENT COPY"
8'-1" WIDE X 3'-6" HEIGHT @ 34" DEEP DOUBLE FACED EXTRUDED ALUMINUM RIGH CABINET W/ REMOVABLE RET-AINER FOR RIGH ACCESS
OPAQUE BACKGROUND WHITE "TRANSLUCENT COPY" / DECORATED PER COMMODITY PLANE
8'-1"
INTERIOR ILLUMINATION WITH LED BACKLIGHTING ELECTRICAL REQUIREMENTS 120 VAC 15A/1P NEC, 1 AWG 3#15@P-NC, 1 AWG 1#14@P-NC, 2 AWG 1#14@P-NC, 2 AWG 1#14@P-NC, 2



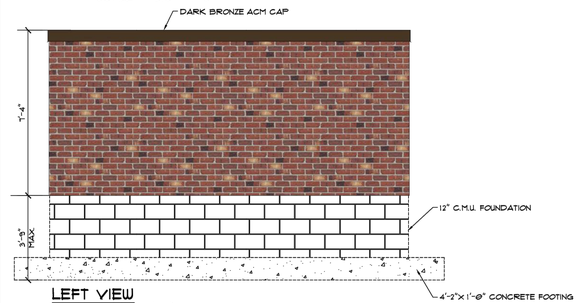
FRONT VIEW
SCALE = 3/8" = 1'-0"



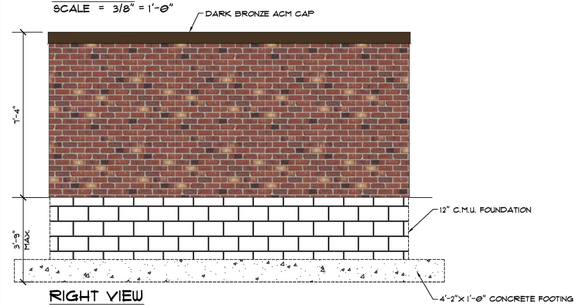
REAR VIEW
SCALE = 3/8" = 1'-0"



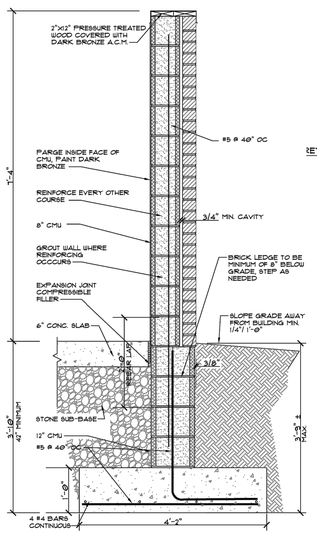
PLAN VIEW
SCALE = 3/8" = 1'-0"



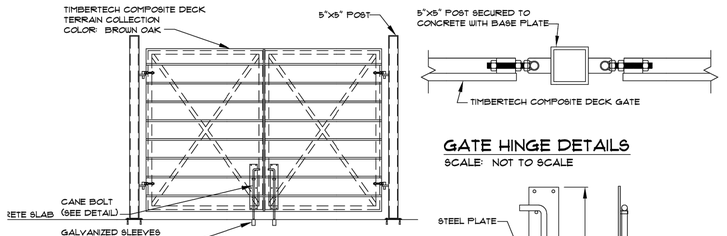
LEFT VIEW
SCALE = 3/8" = 1'-0"



RIGHT VIEW
SCALE = 3/8" = 1'-0"



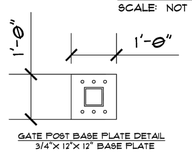
WALL SECTION
SCALE: 3/4" = 1'-0"



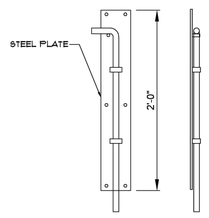
SEE PLAN VIEW FOR QUANTITIES OF GATES AND POSTS

GATE HINGE DETAILS
SCALE: NOT TO SCALE

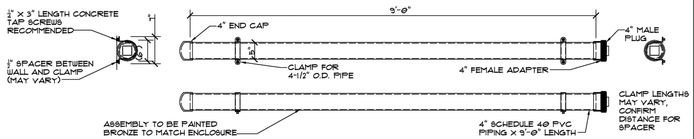
DUMPSTER GATE DETAILS
SCALE: NOT TO SCALE



GATE POST BASE PLATE DETAIL
3/4"x 12"x 12" BASE PLATE



CANE BOLT DETAIL
ONE TO BE MOUNTED ON INSIDE OF ONE GATE AND ONE MOUNTED ON OUTSIDE OF OPPOSITE GATE



GUAGE STICK DETAILS
SCALE: 3/4" = 1'-0"

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:

OWNER:

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

MARK	DATE	DESCRIPTION

ISSUE: 07-29-25
PROJECT NO:
AUTHOR BY: NMI
REVIEW BY:
SHEET TITLE

TRASH ENCLOSURE

1

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-7.3

V:\DET\2025\DET-250399 (KALEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI)\CAD\PLOTS\DP-7.0-7.3-DETL.DWG
G:\Sheetz_Site Standards\Trash Layouts\2026-Trash Enclosure new.dwg, 9/16/2026 9:28:46 PM, DWG To PDF.pc3

SYMBOL DESCRIPTION

SYMBOL	DESCRIPTION
	BUILDING
	CONCRETE SIDEWALK / MAT
	ASPHALT / CONCRETE CURB
D.C	DEPRESSED CURB
	PROPERTY LINE
	VACATED / INTERIOR LOT LINE
	ADJACENT PROPERTY LINE
	SECTION LINE
	RIGHT OF WAY LINE
	SUBDIVISION LINE
	EASEMENT
x x	CHAIN LINK FENCE
o o	BOARD-ON-BOARD FENCE
	UTILITY POLE
	GUY WIRE
	LIGHT POLE
	SIGNS
WV	WATER VALVE
GV	GAS VALVE
	DRAIN
	INLET
	MAN HOLE
	BOLLARDS
	4"x6" FRAME POST
	BOX (ELEC, GAS, ETC.)
E.P.	EDGE OF PAVEMENT
OH	OVERHEAD WIRE
G	UNDERGROUND GAS LINE
FO	UNDERGROUND FIBER OPTIC LINE
E	UNDERGROUND ELEC. LINE
T	UNDERGROUND COMMUNICATIONS LINE
SAN	SANITARY SEWER LINE
	STORM PIPE
100	MAJOR CONTOUR
101	MINOR CONTOUR
TC 100.50	TOP OF CURB SHOT
100.00	GRADE SPOT SHOT

SYMBOL	DESCRIPTION
BC 100.00	BOTTOM OF CURB SHOT
TW 102.00	TOP OF WALL SHOT
BW 100.00	BOTTOM OF WALL SHOT
	WALL
	PAVEMENT STRIPING
	DELINEATOR
	VEGETATION LINE
	ROOF OVERHANG
	TOP OF BANK
	GAS MARKER
	TELE-COMMUNICATIONS MARKER
W	WATER WELL
E	ELEC METER
G	GAS METER
T	TELEPHONE PEDESTAL
ICV	IRRIGATION CONTROL VALVE
C/O	CLEAN OUT
M.W.	MONITORING WELL
	VENT / STAND PIPE
	ROOF LEADER
	MAILBOX
	IRON ROD
	SURVEY MONUMENT
	SECTION CORNER
	BENCH MARK
	DECIDUOUS TREE
	PINE TREE
	SHRUB
ELEV	ELEVATION
FF	FINISH FLOOR
MH	MANHOLE
(M)	MEASURED
(R)	RECORD
BL	BLUE LINES
WL	WHITE LINES
YL	YELLOW LINES
TDO	TURN DOWN OUTLET

SURVEY NOTES:

1. THIS SURVEY AND THE BOUNDARIES SHOWN HEREON ARE THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED ON SEPTEMBER 5, 2025 BASED ON AVAILABLE MAPS AND DEEDS OF RECORD, AND PHYSICAL EVIDENCE. THIS SURVEY IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND AGREEMENTS OF RECORD THAT A TITLE SEARCH MAY DISCLOSE.
2. THIS SURVEY IS VALID ONLY WHEN A DIGITAL SEAL IS AFFIXED HERETO.
3. THE SURVEYOR IS NOT QUALIFIED TO IDENTIFY ENVIRONMENTAL CONDITIONS OR THE PRESENCE OR ABSENCE OF WETLANDS.
4. THE CERTIFICATION SHOWN HEREON IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
5. ANY SUBSURFACE UTILITIES SHOWN HAVE BEEN LOCATED FROM MARKOUTS OBSERVED ON SITE DURING THE FIELD SURVEY, AND SURFACE FEATURES SUCH AS VALVES, MANHOLES AND GRATES. STORM DRAINAGE AND OR SANITARY INVERTS ARE DEPICTED BASED ON OBSERVATIONS MADE IN THE FIELD. 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 THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION USED. THE SURVEY HAS NOT PHYSICALLY LOCATED THE UTILITIES. BEFORE ANY EXCAVATIONS ARE BEGUN, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
6. BEARINGS ARE REFERENCED TO THE MICHIGAN STATE PLANE COORDINATE SYSTEM (NAD83) SOUTH ZONE. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), ESTABLISHED VIA RTK GPS OBSERVATIONS UTILIZING MICHIGAN DEPARTMENT OF TRANSPORTATION CONTINUOUSLY OPERATING REFERENCE SYSTEM (MDOT CORS).
7. BASEMENT OR BELOW GRADE STRUCTURES (IF ANY) ARE UNKNOWN.
8. THE OUTLET INVERTS FOR THE STORM SEWER STRUCTURES LOCATED ON PARCEL 2 ARE TURN DOWN OUTLETS TO PROVIDE LIQUID SEPARATION, MAKING THESE INVERT MEASUREMENTS UNOBTAINABLE.
9. BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
   - GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019
   BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
   - GRASS AREA / NEAR SOUTH ENTRANCE OF PARCEL 07-24-201-019

PARCEL DESCRIPTION:

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF OAKLAND, TOWNSHIP OF SPRINGFIELD

PARCEL 1:
LOT 7 OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS.

PARCEL 2:
PART OF LOTS 8 AND 9, OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS: BEGINNING AT A POINT NORTH 33 DEGREES 17 MINUTES 20 SECONDS EAST 250 FEET FROM THE MOST WESTERLY CORNER OF LOT 8; THENCE NORTH 33 DEGREES 17 MINUTES 20 SECONDS EAST 110 FEET; THENCE SOUTH 56 DEGREES 24 MINUTES 10 SECONDS EAST 206 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 20 SECONDS WEST 110 FEET; THENCE NORTH 56 DEGREES 24 MINUTES 10 SECONDS WEST 206 FEET TO THE POINT OF BEGINNING

AND

PART OF LOTS 8 AND 9 OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, A SUBDIVISION OF PART OF THE NORTH 1/2 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS: BEGINNING AT THE MOST WESTERLY CORNER OF LOT 8, THENCE NORTH 33 DEGREES, 17 MINUTES 20 SECONDS EAST 250 FEET, THENCE SOUTH 56 DEGREES 24 MINUTES 10 SECONDS EAST 206 FEET, THENCE SOUTH 33 DEGREES 17 MINUTES 20 SECONDS WEST 250 FEET, THENCE NORTH 56 DEGREES 24 MINUTES 10 SECONDS WEST 206 FEET TO THE POINT OF BEGINNING, EXCEPTING ANY PART TAKEN FOR I-75 INTERCHANGE.

BEING THE SAME PROPERTY AS DESCRIBED IN A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

SURVEY REFERENCES:

1. DEED BETWEEN AUTO CITY SERVICE, INC AND HILLTOP CAMP BC LLC, DATED DECEMBER 23, 2019 AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, OAKLAND COUNTY, MICHIGAN, IN LIBER 53638 PAGE 599.
2. DEED BETWEEN AUTO CITY SERVICE, INC AND 8500 DIXIE HIGHWAY, LLC, DATED JULY 2, 2019 AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, OAKLAND COUNTY, MICHIGAN, IN LIBER 52983 PAGE 878.
3. "SUPERVISORS PLAT OF SPRINGFIELD ESTATES" A SUBDIVISION OF PART OF THE NORTH 1/2 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DATED JANUARY 26, 1950 AND RECORDED IN THE OAKLAND COUNTY REGISTER OF DEEDS OFFICE IN LIBER 60 OF PLATS ON PAGE 35.
4. "SPRINGFIELD ESTATES NO 1" A SUBDIVISION OF PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DATED FEBRUARY 9, 1966 AND RECORDED IN THE OAKLAND COUNTY REGISTER OF DEEDS OFFICE IN LIBER 117 OF PLATS ON PAGE 17.
5. "GRADING PLAN" PROPOSED NEW GAS STATION C-STORE FOR AUTO CITY SERVICE, SPRINGFIELD TOWNSHIP SITE 8496 AND 8500 DIXIE HIGHWAY, PREPARED BY ASSELIN ASSOCIATES ARCHITECTS, DATED MARCH 08, 2001.
6. "OVERALL SITE PLAN" PROPOSED NEW GAS STATION C-STORE FOR AUTO CITY SERVICE, TO BE SPRINGFIELD TOWNSHIP SITE 8496 & 8500 DIXIE HIGHWAY, SHEET C1.1 OF 6, PREPARED BY ASSELIN ASSOCIATES ARCHITECTS, DATED JUNE 02, 2003.
7. A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE (AREA OF MINIMAL FLOOD HAZARD) (UNSHADED) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY NO. 260478, MAP NUMBER 26125C0327F WHICH BEARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2006.

AREA NOTES

TOTAL LAND AREA

PARCEL 2 (PART OF LOTS 8 & 9) AREA=
74,176 SQUARE FEET± OR 1.703 ACRES±
PARCEL 1 (LOT 7) AREA=
205,979 SQUARE FEET± OR 4.729 ACRES±

EXISTING STRIPED PARKING

REGULAR = 7 SPACES
HANDICAP = 2 SPACES

TOTAL = 9 SPACES

SCHEDULE B - PART II EXCEPTIONS:

CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

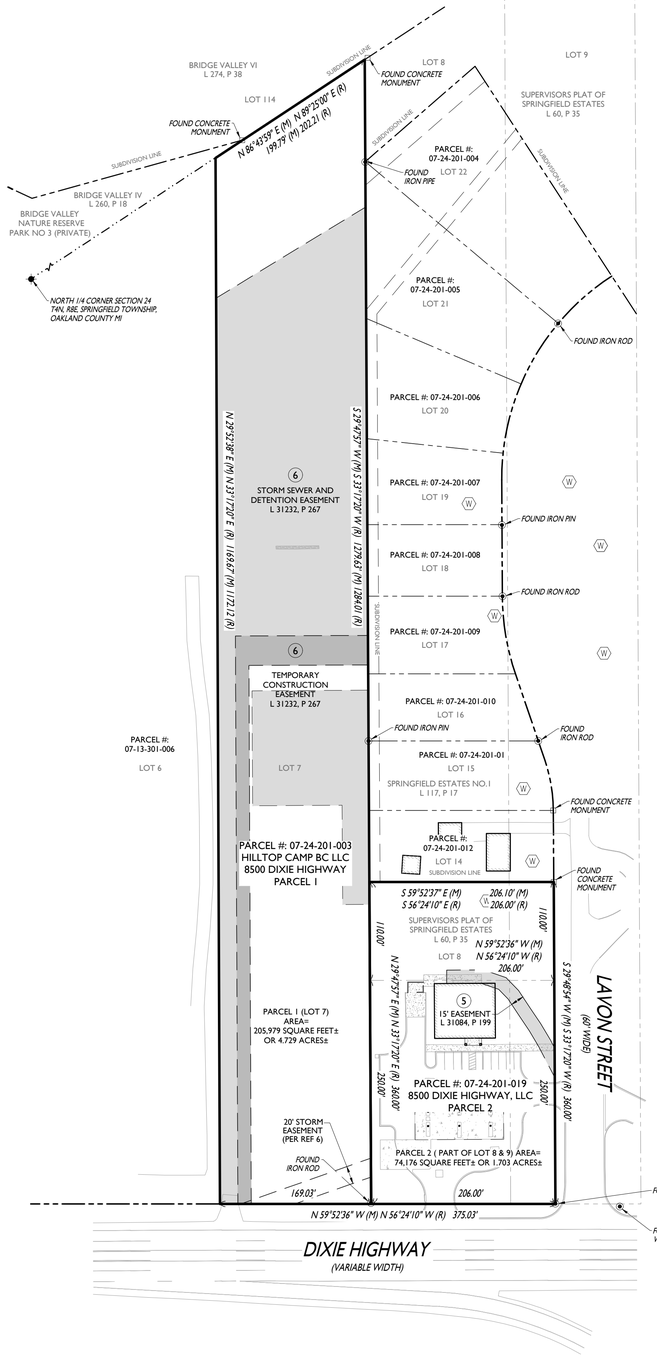
EXCEPTIONS 1 THROUGH 3, INCLUSIVE, AND 9 THROUGH 11, INCLUSIVE, ARE NOT SURVEY RELATED.

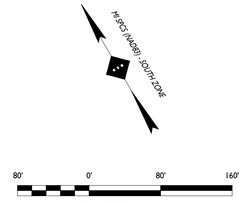
4. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT RECORDING NO: LIBER 1874, PAGE 162; LIBER 2589, PAGE 350 AND LIBER 13518, PAGE 285. **(LIBER 1874, PAGE 162 - BUILDING AND USE RESTRICTIONS AFFECT PARCEL 1 AND PARCEL 2; LIBER 2589, PAGE 350: BUILDING AND USE RESTRICTIONS AFFECT PARCEL 2; NOTHING TO SHOW) (LIBER 13518, PAGE 285 - AFFECTS PARCEL 2; GAS STATION RESTRICTION APPEARS TO HAVE EXPIRED (20 YEAR RESTRICTION; DOCUMENT RECORDED IN 1993)**

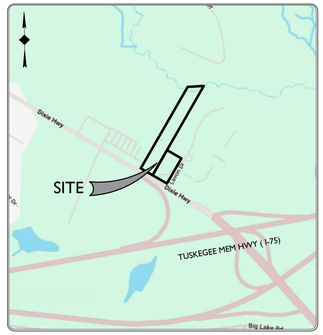
(5.) RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: DETROIT EDISON COMPANY RECORDING NO: LIBER 31084, PAGE 199. **(AFFECTS PARCEL 2; APPROXIMATE LOCATION IS SHOWN PER UTILITY MARKINGS)**

(6.) RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: BOARD OF COUNTY ROAD COMMISSIONER FOR OAKLAND COUNTY (A PUBLIC BODY CORPORATE) RECORDING NO: LIBER 31232, PAGE 267. **(AFFECTS PARCEL 1; SHOWN)**

7. TERMS, COVENANTS, AND CONDITIONS OF AGREEMENT FOR RIGHT OF FIRST REFUSAL (ASSETS AND PREMISES) AS SET FORTH BELOW: RECORDING NO: LIBER 52984, PAGE 24. **(AFFECTS PARCEL 2; RIGHT OF FIRST REFUSAL UNTIL 2035; NOTHING TO SHOW)**







SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE

811
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ALTA / NSPS LAND TITLE SURVEY

MAP OF SURVEY OF:

PARCEL #: 07-24-201-019 AND PARCEL 07-24-201-003
PART OF NORTH 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST
8500 DIXIE HIGHWAY AND VACANT DIXIE HIGHWAY
SPRINGFIELD TOWNSHIP
OAKLAND COUNTY, MICHIGAN

ISSUE	DATE	DRAFT BY	CHECK BY	FIELD DATE	FIELD CREW	DESCRIPTION
2	06/01/26	AG	AG	-	-	ADD WETLANDS
1	09/15/25	DJS	AG	09/05/25	JU	FOR ISSUE

THIS IS TO DECLARE 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, 9 & 13 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON SEPTEMBER 5, 2025

ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=80'	PROJECT ID: DET-250399	SHEET: 1 OF 3

Z:\ALTA\PERSONAL\TYRONNGILKEY\PROJ\GAS\DET\2025\DET-250399 SIGLEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_GAS\TYRONNGILKEY\DET-250399 - 1\DWG

MATCHLINE

SEE SHEET 3

PARCEL #: 07-24-201-010

LOT 16

LOT 9

FOUND IRON PIN

FOUND IRON ROD

S 29°45'57" W (M) S 33°17'20" W (R) 1278.63' (M) 1280.10' (R)

N 29°52'38" E (M) N 33°17'20" E (R) 1189.67' (M) 1172.12' (R)

APPROXIMATE LOCATION OF SEPTIC FIELD EASEMENT (PER REFERENCE 6)

GRASS

PARCEL #: 07-24-201-01

LOT 15

SPRINGFIELD ESTATES NO.1
L 117, P 17

FOUND CONCRETE MONUMENT

12' PRIVATE EASEMENT FOR PUBLIC UTILITIES (PER REF 4)

4" SEPTIC LID (2 TYP)

32" SEPTIC LID (9 TYP)

FRAME GARAGE

ASPHALT DRIVE

SINGLE STORY FRAME DWELLING

FRAME SHED

PARCEL #: 07-24-201-012

LOT 14

SUBDIVISION LINE

GATE

2.2' FC

S 59°52'37" E (M) 206.10' (M)
S 56°24'10" E (R) 206.00' (R)

FOUND CONCRETE MONUMENT

12" RCP INLET
INVERT = 1010.31

100.00'

LOT 8

SUPERVISORS PLAT OF SPRINGFIELD ESTATES
L 60, P 35

LOT 9

N 59°52'36" W (M)
N 56°24'10" W (R)
206.00'

CONC BLOCK TRASH ENCLOSURE

GENERATOR

PARCEL #: 07-24-201-019
8500 DIXIE HIGHWAY, LLC
PARCEL 2
SINGLE STORY FRAME BUILDING
FOOTPRINT= 4,176 SQ FT

PARCEL 2 (PART OF LOT 8 & 9) AREA=
74,176 SQUARE FEET± OR 1.703 ACRES±

15' EASEMENT
L 31084 P 199

67.9'

66.2'

66.1'

61.9'

COLUMN (2 TYP)

CATCH BASIN
GRT= 1020.06
INVERT (A)= 1015.46
INVERT (B)= 1019.46
INVERT (C)= TOO
TOP OF WATER= 1019.46

N 59°52'36" E (M) N 33°17'20" E (R) 360.00'

PARCEL #: 07-24-201-003
HILLTOP CAMP BC LLC
8500 DIXIE HIGHWAY
PARCEL 1

PARCEL 1 (LOT 7)
AREA=
205,979 SQUARE FEET±
OR 4.729 ACRES±

250.00'

ASPHALT

AIR COMPRESSOR

CATCH BASIN
GRT= 1018.76
INVERT (A)= 1016.86
INVERT (B)= 1009.06
INVERT (C)= TOO
TOP OF WATER= 1008.86

CATCH BASIN
GRT= 1018.29
INVERT (A)= 1012.29
INVERT (B)= TOO
TOP OF WATER= 1012.29

CANOPY

INLET GRT= 1018.57
INVERT (A)= 1008.67
INVERT (B)= TOO
TOP OF WATER= 1008.21

RAISED CONC PAD & FUEL PUMP (TYP)

METAL LID (TYP)

CANOPY COLUMN (6 TYP)

CATCH BASIN
GRT= 1018.29
INVERT (A)= 1011.29
INVERT (B)= TOO
TOP OF WATER= 1010.99

CATCH BASIN
GRT= 1018.31
INVERT (A)= 1015.01
INVERT (B)= 1015.01
INVERT (C)= 1012.21
INVERT (D)= TOO
TOP OF WATER = 1011.81

STANDING VENT PIPE (6 TYP)

COMMERCIAL SIGN: "BP"

BENCHMARK #1
SET CAPPED IRON
ELEV= 1019.94

FOUND IRON ROD

206.00'

LAYTON STREET (60' WIDE)

INLET GRT.= 1016.35

CONC CURB

ASPHALT

12" CMP OUTLET
INVERT = 1014.85

12" CMP INLET
INVERT = 1013.21

TC 1016.72
BC 1016.36

TC 1017.10
BC 1016.61

BENCHMARK
SET CAPPED IRON
ELEV= 1018.32

12" CMP OUTLET
INVERT = 1013.67

TC 1017.38
BC 1017.19

CONC CURB

12" CMP INLET
INVERT = 1013.97

TC 1017.95
BC 1017.68

SIGN: "STOP"

INLET GRT.= 1017.91

INLET GRT.= 1018.52

SIGN: "DEAD END"

SIGN: "NO PARKING..."

SIGN: "LAYTON ST."

FOUND IRON PIN WITH CAP "RED"

24" CMP OUTLET
INVERT= 1017.93

STORM MH RIM= 1016.02
INVERT (A)= 1006.22
INVERT (B)= 1006.42

TEMPORARY CONSTRUCTION EASEMENT, L 31232, P 267

STORM SEWER AND DETENTION EASEMENT
L 31232, P 267

GATE

RUINOUS ASPHALT

4"x6" SQUARE POST (TYP)

20' STORM EASEMENT (PER REF 6)

169.03'

24" CMP OUTLET
INVERT = 1015.63

FOUND IRON ROD

STORM MH RIM= 1019.17
INVERT (A)= 1010.07
INVERT (B)= 1007.47
INVERT (C)= 1007.17

STORM MH
RIM ELEV= 1016.90
INVERT (A)= 1011.11
INVERT (B)= 1007.13
INVERT (C)= 1006.96
TOP OF WATER = 1005.80

18" CMP OUTLET
INVERT = 1014.66

18" RCP

SIGN: NO U TURN

SIGN: SCHOOL X-ING AHEAD

N 59°52'36" W (M) N 56°24'10" W (R) 375.03'

BENCHMARK
SET CAPPED IRON
ELEV= 1019.47

CONC CURB & GUTTER

24" CMP

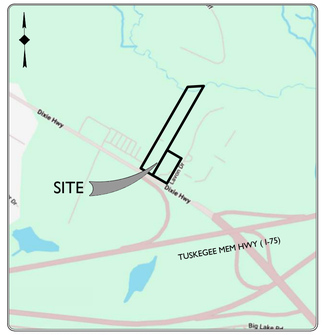
SIGN: "NO PARKING..."

DIXIE HIGHWAY
(VARIABLE WIDTH)

N 18°25'19"W (M) S 33°17'20" W (R)

GRAPHIC SCALE IN FEET
1" = 30'

30' 0' 30' 60'



SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE

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Phone 248.247.1115

ALTA / NSPS LAND TITLE SURVEY

MAP OF SURVEY OF:

PARCEL #: 07-24-201-019 AND PARCEL 07-24-201-003
PART OF NORTH 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST
8500 DIXIE HIGHWAY AND VACANT DIXIE HIGHWAY
SPRINGFIELD TOWNSHIP
OAKLAND COUNTY, MICHIGAN

ISSUE	DATE	DRAFT BY	CHECK BY	FIELD DATE	FIELD CREW	DESCRIPTION
2	06/01/26	AG	AG	-	-	ADD WETLANDS
1	09/15/25	DJS	AG	09/05/25	JU	FOR ISSUE

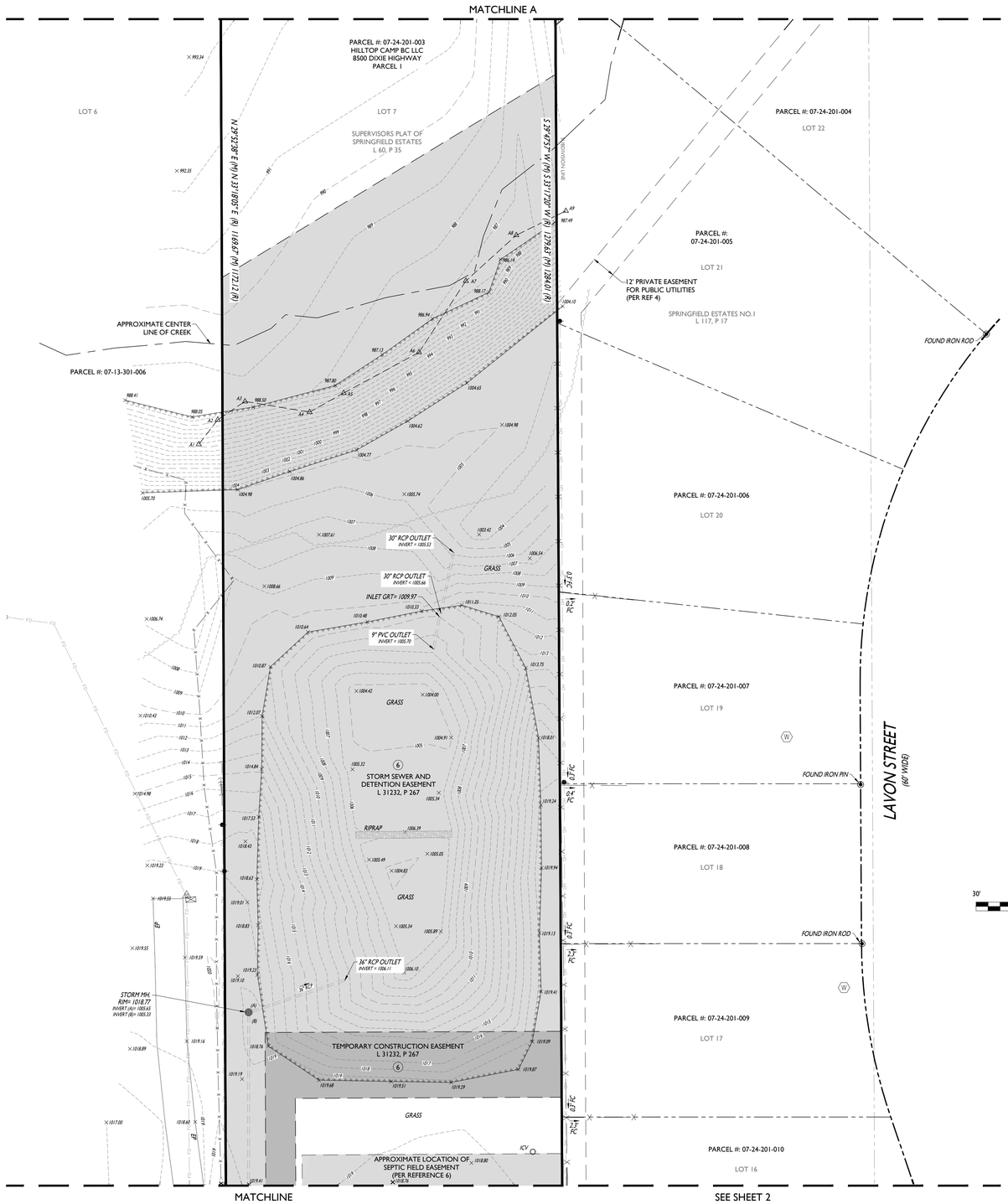
THIS IS TO DECLARE THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 8, 9 & 13 OF TABLE A THEREOF.

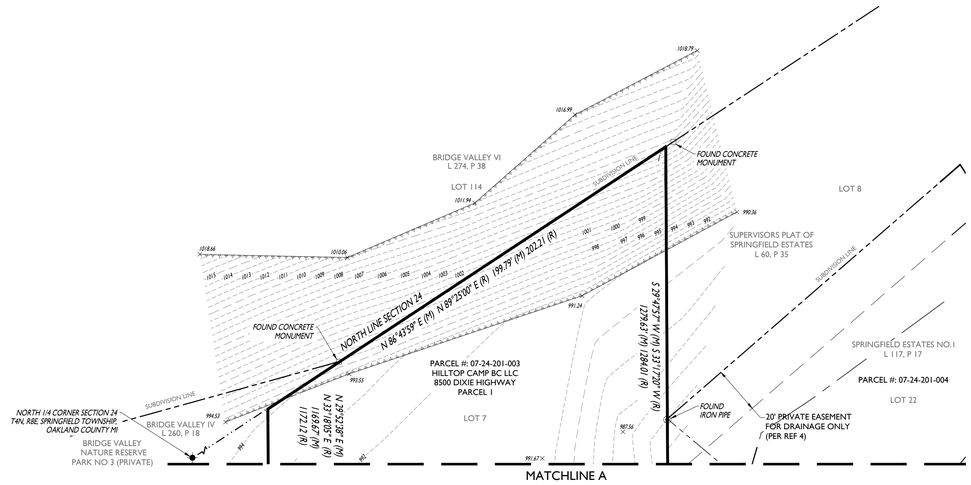
THE FIELDWORK WAS COMPLETED ON SEPTEMBER 5, 2025

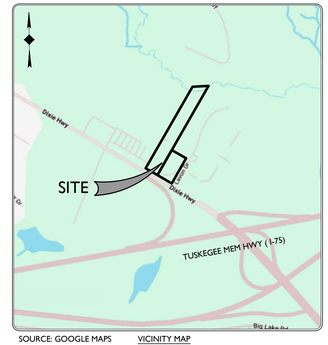
ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=30'	PROJECT ID: DET-250399	SHEET: 2 OF 3

Z:\AUTHEROON\AUTHORING\DRAWINGS\ALTA\PROJ\SAM\250399\SHEET\250399 SHEET.DWG - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_SURVEYING\DAD\250399 - 1\2.DWG







SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE



30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

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ISSUE	DATE	DRAFT BY	CHECK BY	FIELD DATE	FIELD CREW	DESCRIPTION
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1	09/15/25	DJS	AG	09/05/25	JU	FOR ISSUE

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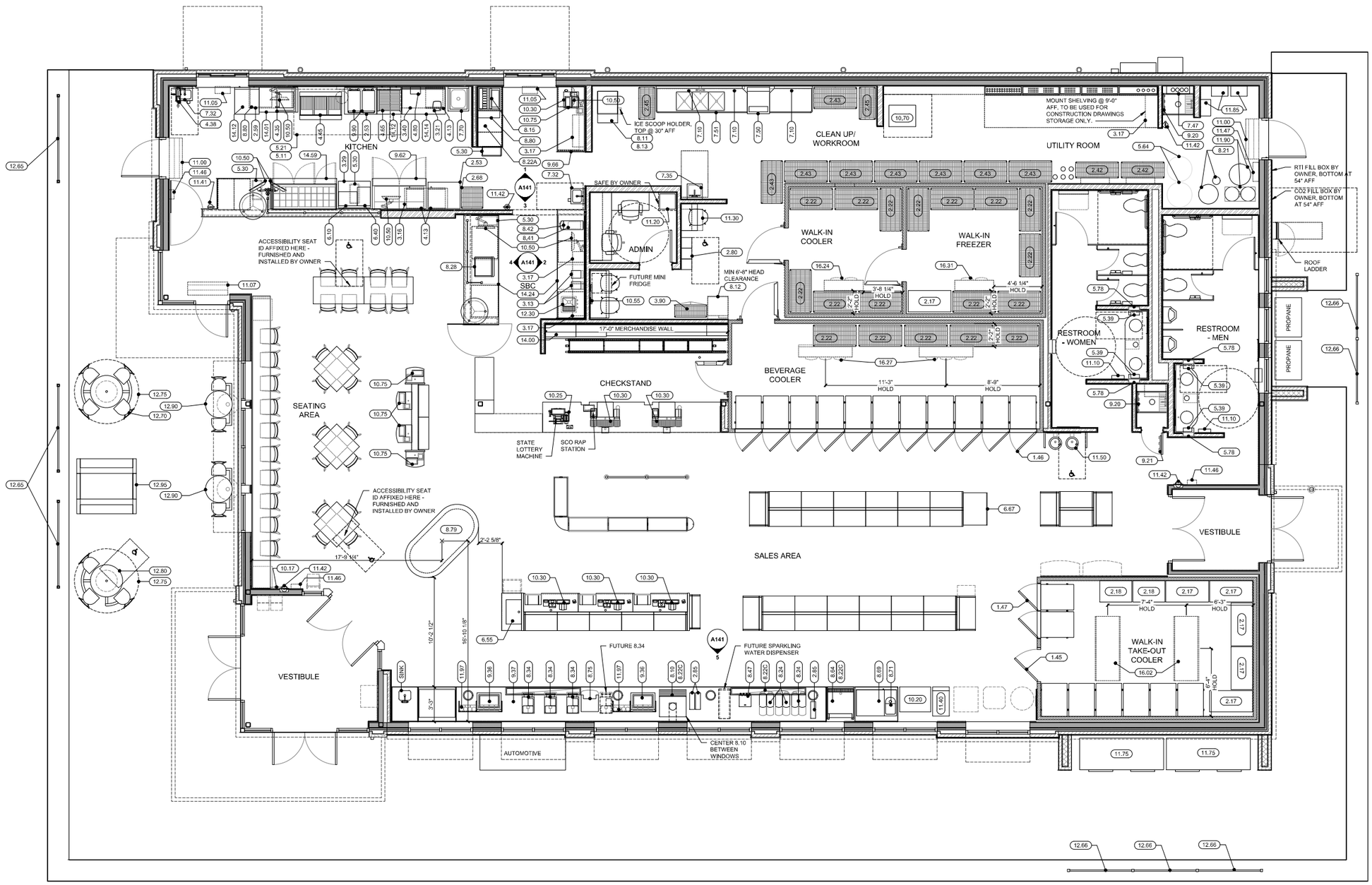
THE FIELDWORK WAS COMPLETED ON SEPTEMBER 5, 2025

ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=30'	PROJECT ID: DET-250399	SHEET: 3 OF 3

Z:\AUTHEPOR\BUILT\WORK\DSKAVEY\PROJ\GANTDET\DET-250399 ISSUED CAD\D - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_SURVEY\WG\GADDET-250399 - 1.DWG



EQUIPMENT PLAN

1/4" = 1'-0"

SALES FIXTURE CHART - 6139	
NUMBER OF GONDOLAS	43
LINEAR FEET OF GONDOLA	131'-11"
NUMBER OF REACH-IN COOLER DOORS	13 (2 W/ BEER)
LINEAR FEET OF REACH-IN COOLER DOORS	33'-4"
NUMBER OF RTE UNITS	2 (1 HOT, 1 COLD)
NUMBER OF NOVELTY ICE CREAM FREEZERS	1
LINEAR FEET OF TABACCO WALL	17'-0"
NUMBER OF CHECKOUTS	6 (3 POS, 3 SCO)
NUMBER OF INDOOR SEATS	30 (2 HC)

SPECIALTY EQUIPMENT SCHEDULE

Equip No	Item Description	Count	Installed by	Connected by
1.45	TAKE-HOME COOLER DOORS MAN DOOR	1	OWNER	N/A
1.46	TAKE-HOME FLANGELESS COOLER DOORS	11	OWNER	N/A
1.47	TAKE-HOME FULL FLANGE COOLER DOORS	2	OWNER	N/A
2.17	24 x 48 DUNNAGE RACK	6	OWNER	N/A
2.18	24 x 36 DUNNAGE RACK	2	OWNER	N/A
2.22	24 x 48 EPOXY SHELVING W/ CASTERS	18	OWNER	N/A
2.42	18 x 48 CHROME SHELVING W/ CASTERS	2	OWNER	N/A
2.43	24 x 48 CHROME SHELVING W/ CASTERS BAG-N-BOX	8	OWNER	N/A
2.45	18 x 36 CHROME SHELVING W/ CASTERS	2	OWNER	N/A
2.53	36 x 30 SS TABLE	2	OWNER	N/A
2.59	EAGLE SHELF 24 X 48	1	OWNER	N/A
2.68	24 x 24 MOBILE BREAD RACK	1	OWNER	N/A
2.80	STEEL LOCKER - 6-HIGH BOX 12"X12", 1 MIN ACCESSIBLE	3	OWNER	OWNER
2.85	LID & STRAW HOLDER	3	OWNER	OWNER
3.13	VITAMIX BLENDER	2	OWNER	OWNER
3.16	WALL MOUNTED SOLID SHELVING 24 x 48	1	OWNER	N/A
3.17	WALL MOUNTED SOLID SHELVING 14 x 36	4	OWNER	N/A
3.21	SCALE	1	OWNER	OWNER
3.29	36 x 30 SS TABLE - W/O UNDERSHELF	1	OWNER	N/A
3.40	WALL MOUNTED WIRE SHELVING 24 x 48	1	OWNER	N/A
3.90	14 x 36 EAGLE SECURITY RACK	1	OWNER	OWNER
4.13	MICROWAVE	3	OWNER	OWNER
4.35	FRY HOLDING STATION	1	OWNER	OWNER
4.38	HOSE REEL	1	PC	PC
4.45	ELECTRIC FRYER - 3 VAT	1	OWNER	OWNER
4.65	ROLLER GRILL	1	OWNER	OWNER
4.80	LABEL MINDER 2	1	OWNER	OWNER
5.11	FIRE SUPPRESSION SYSTEM	1	OWNER	OWNER
5.21	CAPTIVEAIRE 10FT EXHAUST HOOD	1	OWNER	MC
5.30	TRASH CAN	4	OWNER	OWNER
5.39	PAPER TOWEL DISPENSER	4	OWNER	OWNER
5.64	RTI INDOOR GREASE TANK SYSTEM	1	OWNER	OWNER
5.78	RECESSED BOX FOR PAPER TOWELS	4	OWNER	OWNER
6.10	HOT FOOD PRODUCT HOLDING UNIT	1	OWNER	OWNER
6.40	DOUBLE BARREL CONDIMENT DISPENSER	1	OWNER	OWNER
6.55	HEATED GLASS MINI-MERCHANDISER WARMER	1	OWNER	OWNER
6.67	FREEZER MERCHANDISER	1	OWNER	OWNER
7.10	MODULAR WALL WIRE SHELF, MAT, AND HOOK SYSTEM	3	OWNER	OWNER
7.32	KNEE OPERATED HANDSINK	2	PC	PC
7.35	SS HAND SINK w/ WRIST BLADES AND EYEWASH	1	PC	PC
7.47	WALL MOUNTED WATER FILTRATION SYSTEM	1	PC	PC
7.50	VENTLESS DISH MACHINE	1	OWNER	EC/PC
7.51	SCULLERY DISH TABLE 102" W/ 3 BOWL SINK	1	OWNER	PC
7.70	ONE-COMPARTMENT RINSE SINK WITH COVED EDGING	1	PC	PC
8.10	BEVERAGE DISPENSER	1	OWNER	OWNER
8.11	TRUE ICE MAKER TI-522-MA	1	OWNER	OWNER
8.12	ICE MACHINE (WITH ELEVATED SUPPORT STAND)	1	OWNER	EC
8.13	TRUE ICE BIN TIB-422	1	OWNER	OWNER
8.15	BEVERAGE DISPENSER (DRIVE-THRU)	1	OWNER	OWNER
8.21	CO2 CARBONATION SYSTEM	1	OWNER	OWNER
8.22A	WATER CARBONATOR	1	OWNER	OWNER
8.22C	UNDER COUNTER COMPACT WATER BOOSTER	3	OWNER	OWNER
8.24	2 HEAD FUB	3	OWNER	OWNER
8.28	ESPRESSO MACHINE	1	OWNER	OWNER
8.34	FRANKE COFFEE BREWER	3	OWNER	OWNER
8.41	GAS MODULE (DASHED) UNDER NITRON	1	OWNER	OWNER
8.42	NITRON COLD DRAFT ON 5" LEGS	1	OWNER	OWNER
8.47	ICE TEA MACHINE	1	OWNER	OWNER
8.64	SELF CONTAINED FCB MACHINE	1	OWNER	OWNER
8.69	MILKSHAKE BLENDING BAR	1	OWNER	OWNER
8.71	MILKSHAKE BLENDER	1	OWNER	OWNER
8.75	5 HOPPER HOT BEVERAGE SYSTEM	1	OWNER	OWNER
8.79	OPEN AIR RTE CASE	1	OWNER	EC
8.80	COUNTERTOP CUP DISPENSING CABINETS	2	OWNER	OWNER
9.20	24" MOP AND BROOM HOLDER	2	OWNER	OWNER
9.21	18" MOP AND BROOM HOLDER	1	OWNER	OWNER
9.36	REMOTE REFRIGERATED DROP-IN WELL	2	OWNER	OWNER
9.62	FOOD PREP TABLE - 60" SOLID DOOR SANDWICH UNIT	1	OWNER	OWNER
9.66	UNDERCOUNTER GLASS DOOR REFRIGERATOR	1	OWNER	OWNER
9.90	HIGH SPEED OVEN	2	OWNER	OWNER
10.17	STORE CLOCK (BATTERY OPERATED)	1	OWNER	OWNER
10.20	LOTTERY MACHINE	1	OWNER	OWNER
10.25	LOTTERY COUNTERTOP TICKET DISPENSER	1	OWNER	OWNER
10.30	POS TERMINAL	7	OWNER	OWNER
10.50	ORDER MONITOR	7	OWNER	OWNER
10.55	EMPLOYEE KIOSK	1	OWNER	OWNER
10.70	STORE SERVER	1	OWNER	OWNER
10.75	TOUCH SCREEN	5	OWNER	OWNER
11.00	AIR CURTAIN - 42", WHITE	2	OWNER	EC
11.05	DRIVE THRU AIR CURTAIN	2	OWNER	EC
11.07	AIR CURTAIN - 42", BRONZE	1	OWNER	EC
11.10	HAND DRYER	2	OWNER	EC
11.20	MULTI-FUNCTION PRINTER	1	OWNER	OWNER
11.30	TV SECURITY WALL MOUNT ENCLOSURE	1	OWNER	OWNER
11.40	ATM - CASH DISPENSER	1	OWNER	OWNER
11.41	FIRE EXTINGUISHER "CLASS K"	1	OWNER	OWNER
11.42	FIRE EXTINGUISHER	4	BC	BC
11.46	INSECT LIGHT TRAP - AURA MODEL	3	OWNER	OWNER
11.47	INSECT LIGHT TRAP - HALO MODEL	1	OWNER	OWNER
11.50	WATER FOUNTAIN	1	PC	PC
11.75	OUTDOOR ICE MERCHANDISER	2	OWNER	OWNER
11.85	TANKLESS WATER HEATER	2	OWNER	EC/PC
11.90	WATER SOFTENER	1	OWNER	EC/PC
11.97	SELF-SERVE COFFEE FIXING RACK	2	OWNER	OWNER
12.30	SINGLE BOWL UNDERMOUNT SS SINK	1	OWNER	PC
12.50	CYCLESAFE U BIKE RACK (SEE CIVIL)	2	OWNER	OWNER
14.00	TOBACCO MERCHANDISER	1	OWNER	OWNER
14.01	WORKTOP DRAWERED FREEZER - 43"	1	OWNER	OWNER
14.12	27" WORKTOP REFRIGERATOR	2	OWNER	OWNER
14.14	48" WORKTOP FREEZER	1	OWNER	OWNER
14.24	UNDERCOUNTER SINGLE DOOR COOLER - 27"	2	OWNER	OWNER
14.59	REFRIGERATED FOOD PREP TABLE - 72"	1	OWNER	OWNER
16.02	EVAPORATOR - WALK-IN TAKE-OUT COOLER	2	OWNER	EC
16.24	EVAPORATOR - WALK-IN COOLER	1	OWNER	EC
16.27	EVAPORATOR - BEVERAGE COOLER	2	OWNER	EC
16.31	EVAPORATOR - WALK-IN FREEZER	1	OWNER	EC

OUTDOOR FURNITURE SCHEDULE

MARK	DESCRIPTION	Count
12.65	ULTRA ALUMINUM FENCING - 8'-0"	3
12.66	ULTRA ALUMINUM FENCING - 6'-0"	5
12.70	4 SEAT OUTDOOR TABLE CLUSTER	1
12.75	ALUMINUM UMBRELLA	2
12.80	3 SEAT OUTDOOR TABLE CLUSTER	1
12.90	2 SEAT OUTDOOR TABLE CLUSTER	2
12.95	ALUMINUM PICNIC TABLE	1

LEGEND:
BC = BUILDING CONTRACTOR
EC = ELECTRICAL CONTRACTOR
MC = MECHANICAL CONTRACTOR
PC = PLUMBING CONTRACTOR
SC = SPECIALTY CONTRACTOR

NOTES:
1. ALL EQUIPMENT LISTED IS SUPPLIED BY OWNER, UNO.
2. ALL OVERHEAD EQUIPMENT TO BE MOUNTED 80" AFF MIN, UNO.
3. REFER TO G003 FOR ALL EQUIPMENT INSTALLATION PARAMETERS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

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615 Fishers Run Victor, NY 14564
585-742-2222 - www.opd.com

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PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE: 7-5-2024
SITE ID NO: 214445
AUTHOR BY: MRK
REVIEW BY: MGV
VERSION: 6139_v1.6

EQUIPMENT PLAN

A140

PERMIT REVIEW DRAWINGS



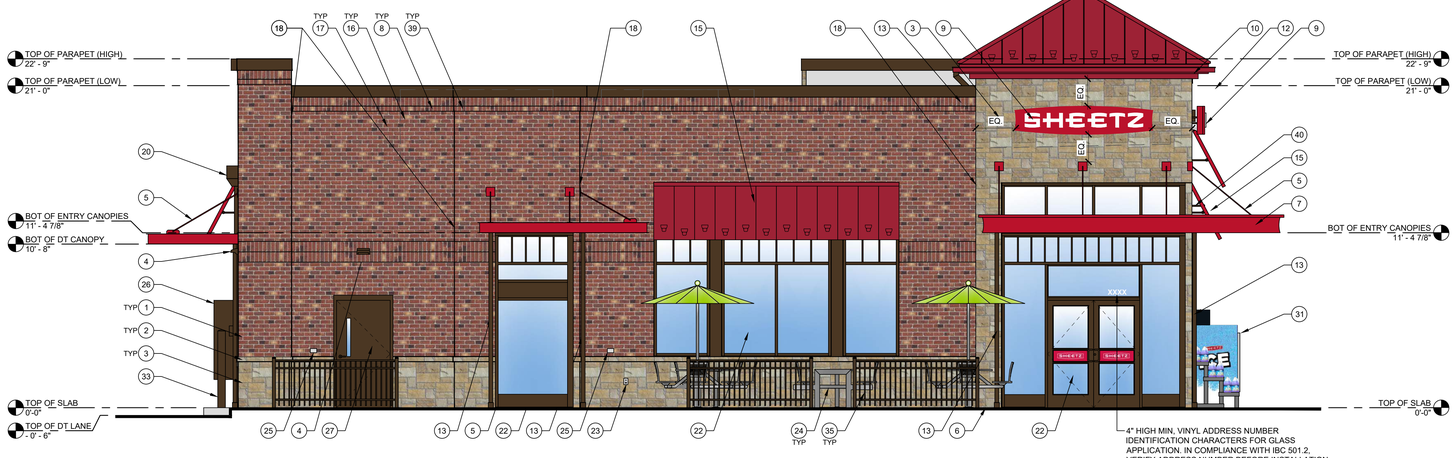
1 FRONT ELEVATION
1/4" = 1'-0"

TYPICAL EXTERIOR ELEVATION NOTES:

- ALL LIGHTS SHOWN ABOVE AND/OR BELOW DOORS OR WINDOWS ARE TO BE CENTERED ON THE DOOR OR WINDOW UNLESS NOTED OTHERWISE.
- FIXTURES/EQUIPMENT BETWEEN TWO DOORS OR WINDOWS ARE TO BE CENTERED EQUALLY.
- EXTERIOR SEALANT FOR STONE SHALL COMPLY WITH SECTION 07 9005 JOINT SEALANTS, GENERAL BUILDING FASCADE WEATHER SEALANT AND SHALL MATCH THE COLOR OF THE STORE.

EXTERIOR ELEVATION KEYNOTES:

1. BRICK VENEER, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
2. CAST STONE SILL, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
3. ANCHORED CAST STONE MASONRY VENEER, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
4. EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
5. ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT KYNAR FINISH
6. BRICK PAVER WALKWAY
7. LIGHTED CURVED FASCIA CANOPY ATTACHMENT
8. METAL COPING, COLOR: DARK BRONZE
9. WALL MOUNTED BUILDING SIGN, SEE SHEET A200.
10. STANDING SEAM METAL ROOF, COLOR: BRITE RED
11. ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE
12. GUTTER, COLOR TO MATCH CUPOLA COLOR
13. DOWNSPOUT, COLOR: DARK BRONZE
14. DRIVE-THRU WINDOW (IF APPLICABLE)
15. METAL STANDING SEAM SHED STYLE AWNING AND FRAME ASSEMBLY, ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE
16. BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
17. BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
18. CONTROL JOINT, SEE MASONRY SPEC
19. STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE
20. STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE
21. OVERFLOW SCUPPER
22. ALUMINUM STOREFRONT SYSTEM, SEE A600
23. EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS
24. OUTDOOR FURNITURE
25. ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS
26. ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS
27. HM DOOR AND FRAME, COLOR: DARK BRONZE
28. EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS
29. SEAMLESS ALUM PANEL SYSTEM WITH EXPOSED FASTENERS, COLOR: DARK BRONZE
30. PROPANE LOCKER
31. ICE MERCHANDISER
32. RTI FILLPORT
33. STEEL BOLLARD, COLOR: DARK BRONZE
34. CO2 FILLPORT
35. DECORATIVE ALUMINUM FENCE, COLOR DARK BRONZE
36. AUTOMATIC DOOR PUSH PLATE AND BOLLARD, BOLLARD COLOR: DARK BRONZE
37. GAS METER AND RISER, REFER TO CIVIL UTILITY PLAN, COLOR: DARK BRONZE
38. MTO GRAPHIC DECAL, SEE SHEET A200.
39. LIGHT CHANNEL AT PARAPET COPING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
40. MTO DECAL LIGHT BAR, REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION.
41. FAUX WINDOWS WITH INTERNAL GRAPHIC
42. E-STOP & SIGN, REFER TO UST DRAWINGS



2 LEFT ELEVATION
1/4" = 1'-0"



OUTLINE AREA = 14.84 SQ.FT.
BOX AREA = 16.52 SQ.FT.
TYPICAL OF THREE
PROJECTS 7" OFF FACE OF BUILDING

A WALL MOUNTED "SHEETZ" BUILDING SIGN
1/2" = 1'-0"



OUTLINE AREA = 8.38 SQ. FT.
BOX AREA = 21.47 SQ. FT.
TYPICAL OF ONE
PROJECTS 0" OFF FACE OF BUILDING

B WALL MOUNTED "MTO" DECAL
1/2" = 1'-0"

*C*onvenience *A*rchitecture and *D*esign P.C.
242 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON DR.

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE:	05.11.2026
SITE ID NO:	214854
AUTHOR BY:	DLN
REVIEW BY:	RJH
VERSION:	6139_v1.9

EXTERIOR ELEVATIONS

A200

PRELIMINARY ELEVATIONS



3 REAR ELEVATION
1/4" = 1'-0"

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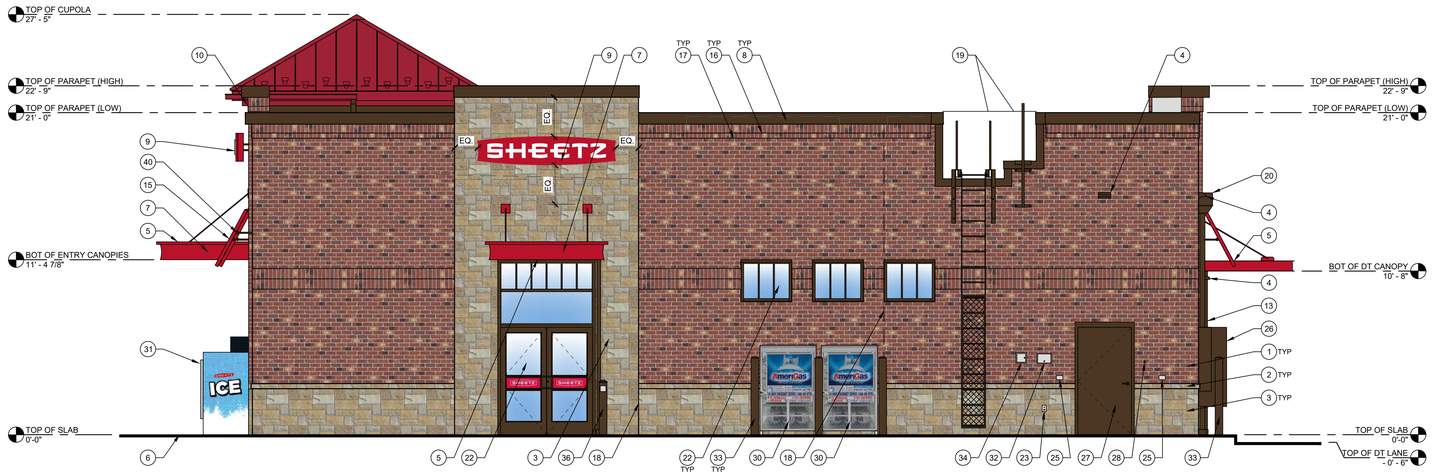
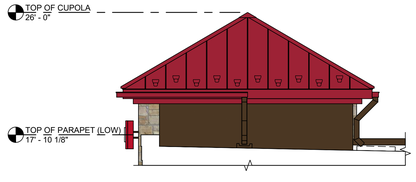
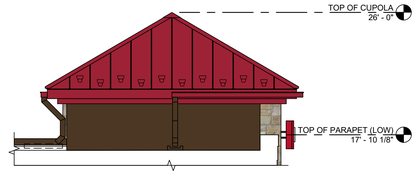
5. ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT KYNAR FINISH
6. BRICK PAVER WALKWAY
7. LIGHTED CURVED FASCIA CANOPY ATTACHMENT
8. METAL COPING, COLOR: DARK BRONZE
9. WALL MOUNTED BUILDING SIGN, SEE SHEET A200.
10. STANDING SEAM METAL ROOF, COLOR: BRITE RED
11. ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE
12. GUTTER, COLOR TO MATCH CUPOLA COLOR
13. DOWNSPOUT, COLOR: DARK BRONZE
14. DRIVE-THRU WINDOW (IF APPLICABLE)
15. METAL STANDING SEAM SHED STYLE AWNING AND FRAME ASSEMBLY, ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE
16. BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
17. BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
18. CONTROL JOINT, SEE MASONRY SPEC
19. STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE
20. STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE
21. OVERFLOW SCUPPER
22. ALUMINUM STOREFRONT SYSTEM, SEE A600
23. EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS
24. OUTDOOR FURNITURE
25. ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS
26. ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS
27. HM DOOR AND FRAME, COLOR: DARK BRONZE
28. EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS
29. SEAMLESS ALUM PANEL SYSTEM WITH EXPOSED FASTENERS, COLOR: DARK BRONZE
30. PROPANE LOCKER
31. ICE MERCHANDISER
32. RTI FILLPORT
33. STEEL BOLLARD, COLOR: DARK BRONZE
34. CO2 FILLPORT
35. DECORATIVE ALUMINUM FENCE, COLOR DARK BRONZE
36. AUTOMATIC DOOR PUSH PLATE AND BOLLARD, BOLLARD COLOR: DARK BRONZE
37. GAS METER AND RISER, REFER TO CIVIL UTILITY PLAN, COLOR: DARK BRONZE
38. MTO GRAPHIC DECAL, SEE SHEET A200.
39. LIGHT CHANNEL AT PARAPET COPING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
40. MTO DECAL LIGHT BAR, REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION.
41. FAUX WINDOWS WITH INTERNAL GRAPHIC
42. E-STOP & SIGN, REFER TO UST DRAWINGS



4 RIGHT ELEVATION
1/4" = 1'-0"



5 CUPOLA ELEVATION FROM ROOF
1/4" = 1'-0"



6 CUPOLA ELEVATION FROM ROOF
1/4" = 1'-0"

*C*onvenience *A*rchitecture
and *D*esign P.C.
242 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON DR.

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

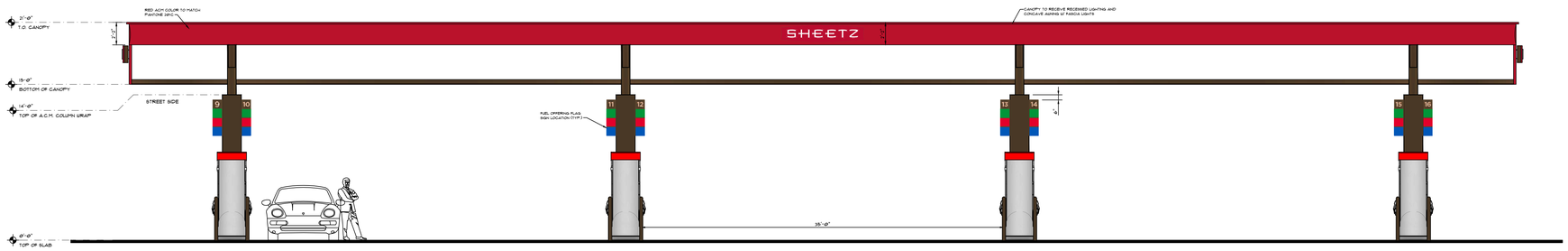
MARK	DATE	DESCRIPTION

ISSUE:	05.11.2026
SITE ID NO:	214854
AUTHOR BY:	DLN
REVIEW BY:	RJH
VERSION:	6139_v1.9

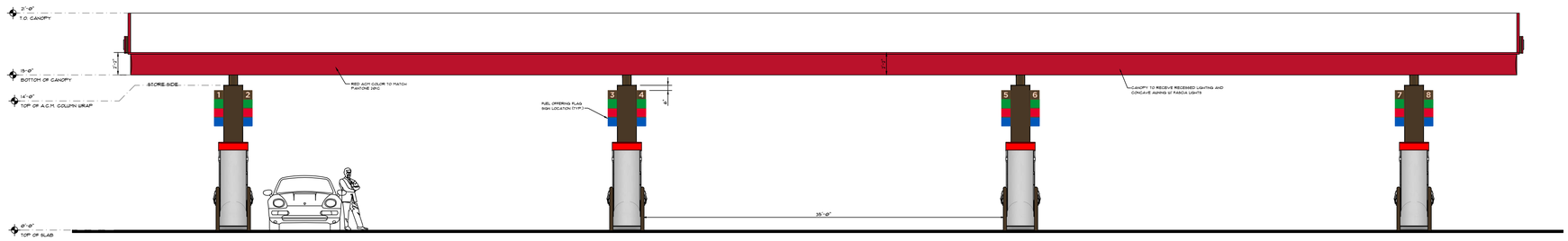
EXTERIOR ELEVATIONS

A201

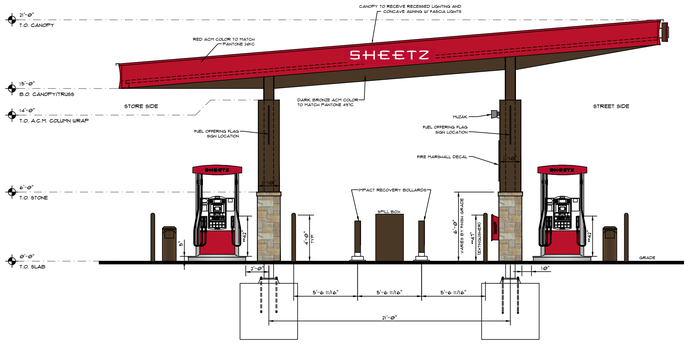
PRELIMINARY ELEVATIONS



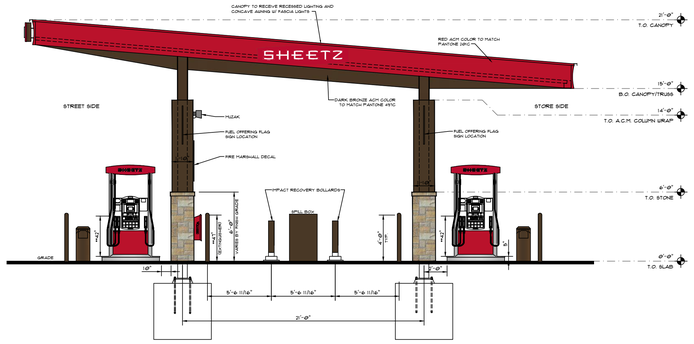
SIDE 'B' ELEVATION
SCALE: 3/16" =1'-0"



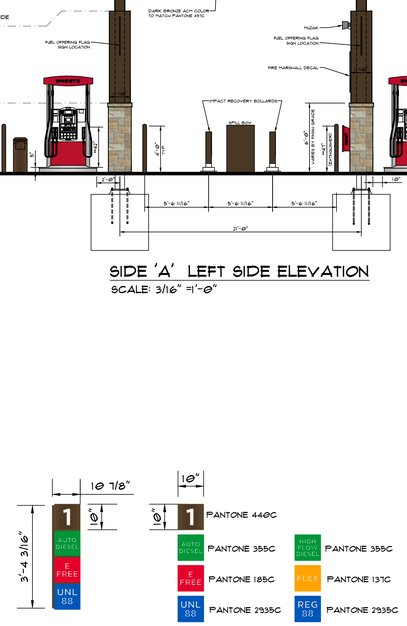
SIDE 'D' ELEVATION
SCALE: 3/16" =1'-0"



SIDE 'A' LEFT SIDE ELEVATION
SCALE: 3/16" =1'-0"

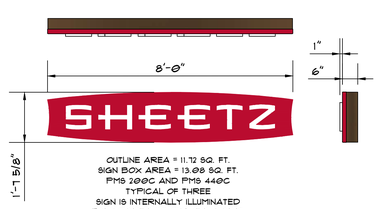


SIDE 'C' RIGHT SIDE ELEVATION
SCALE: 3/16" =1'-0"



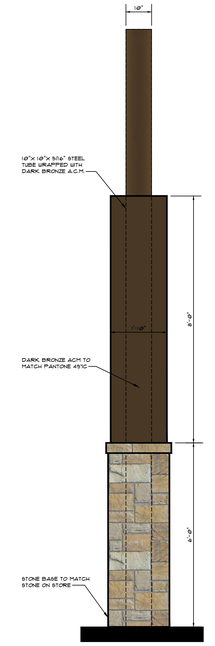
DISPENSER NUMBER AND FUEL OFFERING FLAG
VARIES PER SITE/ DISPENSER
2 PER COLUMN ON STORE SIDE COLUMNS
0.69 SQ. FT. PER PANEL
2.76 SQ. FT. MAX/FLAG

DOUBLE FACED FUEL OFFERING FLAG SIGN DETAILS
SCALE: 1/2" =1'-0"

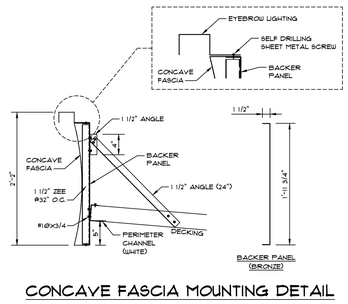


OUTLINE AREA = 11.72 SQ. FT.
SIGN BOX AREA = 13.08 SQ. FT.
PMS 200C AND PMS 440C
TYPICAL OF THREE
SIGN IS INTERNALLY ILLUMINATED
PIN-MOUNTED TO CURVED AWNNG

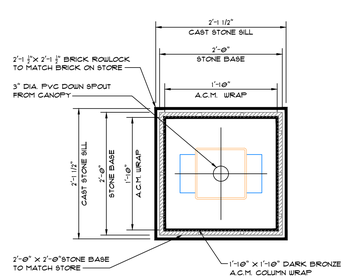
CANOPY MOUNTED SHEETZ SIGN DETAIL
SCALE: 1/2" =1'-0"



COLUMN ELEVATION
SCALE: 1/2" =1'-0"

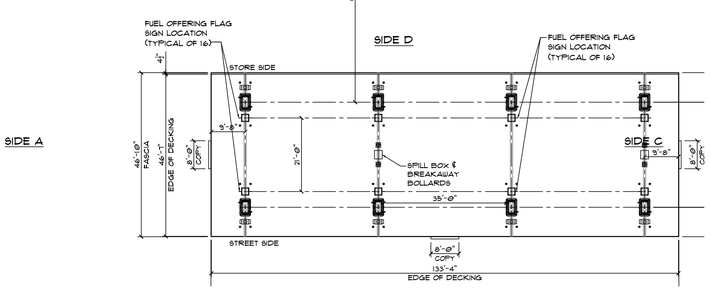


CONCAVE FASCIA MOUNTING DETAIL
SCALE: 1/4" =1'-0"



STONE COLUMN BASE DETAIL
SCALE: 1/4" =1'-0"





PLAN VIEW FOR LOGO LOCATIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON

Int. of Dixie Highway
and Lavon Drive
Springfield
Michigan

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE: 01-30-2025
PROJECT NO:
AUTHOR BY: DNC
REVIEW BY:
SHEET TITLE

GAS AWNING

AWNING

Archived: Tuesday, August 11, 2026 11:24:36 AM
From: [redacted]
Sent: Tuesday, August 11, 2026 10:23:20 AM
To: Supervisor's Office
Cc: Bridge Valley Board cphyleii@indtwp.com
Subject: [EXTERNAL] Public Comment and Objection to Proposed Sheetz 24/7 Site Plan & Special Land Use Request at I-75 and Dixie
Importance: Normal
Sensitivity: None

You don't often get email from XXXXXXXXXXX Learn why this is important

Caution: This email originated from outside of Springfield Township's email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

[redacted]

August 10, 2026

Springfield Charter Township Planning Commission
Attn: Laura Moreau, Township Supervisor / Planning Commission Chair
12000 Davisburg Road
Davisburg, MI 48350

RE: Public Comment and Objection to Proposed Sheetz 24/7 Site Plan & Special Land Use Request

Dear Chairperson and Members of the Planning Commission,

I am writing to submit formal public comment regarding the proposed Sheetz 24/7 development site, at Dixie and I-75.

While my home at 7674 Devins Rdg is located within Independence Township, my backyard property line directly marks the border of Springfield Township and is adjacent to the proposed development zone.

Because environmental disruptions like mechanical noise, commercial vibrations, and overnight light pollution do not respect municipal boundaries, my home and property value will bear the direct brunt of this 24-hour operation.

A continuous 24/7 commercial node combining high-volume fuel pumps, a fast-food restaurant, a drive-thru, and overnight semi-truck inventory deliveries, creates severe noise. If left completely unmitigated, this project will permanently shatter the peace of this immediate cross-border neighborhood and run directly counter to the spirit of local noise protections, such as Springfield Township Ordinance Section 285-27.

Because of my property's immediate proximity to the site, I formally request that the Planning Commission mandate the following legally binding site-plan conditions prior to granting any final approval or special land use permits:

Structural Acoustic Barrier Wall:
Mandate that the developer construct a continuous, structurally engineered masonry or acoustic sound-dampening wall directly along the shared border to block noise and headlight glare, rather than relying on standard wooden privacy fencing or basic landscaping.

Restricted Overnight Operational Hours: Explicitly prohibit heavy semi-truck inventory deliveries, fuel tanker refilling, dumpster tipping, and mechanical parking lot sweeping/vacuuming during overnight quiet hours between 10:30 p.m. and 7:00 a.m.

Directional, Low-Volume Drive-Thru Speakers:
Require all outdoor drive-thru and fuel pump intercom systems to use automated, low-volume, highly directional speakers oriented entirely away from the Independence Township residential border.

Baseline and Post-Construction Decibel Testing:
Require Sheetz to fund an independent, pre-construction ambient noise study, followed by mandatory post-opening decibel testing to ensure the active business strictly complies with township residential noise thresholds.

Although I reside across the township line, I am a directly aggrieved neighbor whose quality of life depends on the responsible zoning decisions of this body. I urge the Commission to protect the peaceful character of our shared border and defer approval until Sheetz legally commits to these critical sound-mitigation measures.

Thank you for your time, leadership, and consideration of neighboring property owners.

Sincerely,

[redacted]

[redacted]

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: August 17, 2026

Final Site Plan Review
For
Springfield Township, Michigan

Applicant:	Stonefield Engineering & Design
Project Name:	Sheetz- Springfield Township
Plan Date:	June 3, 2026
Location:	8500 Dixie Highway – North corner of Dixie Highway and Lavon Drive, north of I-75
Zoning:	C-2, General Business District Dixie Highway Overlay District
Action Requested:	Preliminary and Final Site Plan Approval
Required Information:	As Noted

PROJECT AND SITE DESCRIPTION

The applicant is requesting Final Site Plan approval for the demolition and redevelopment of a former gas station to construct a 6,139 square foot Sheetz gas station, convenience store and fast-food drive-through. The project will occupy two parcels, which combined total 3.10 acres, are in the C-2, General Business zoning district and within the Dixie Highway Overlay District. The applicant has indicated on page C-3.0 that a lot combination will be pursued upon site plan approval. In this review, parcel # 07-24-201-003 shall be referred to as parcel A and parcel # 07-24-201-019 shall be referred to as parcel B. The scope of the project is proposed to be a portion of parcel A and the entirety of parcel B.

The site currently consists of a former BP gas station, which is to be demolished.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

In the C-2 zoning district, automobile filling/convenience stations and fast-food drive-throughs are permitted principal uses. Automobile filling/convenience stations are subject to the standards set in Section 40-628 of the Zoning Ordinance. The Planning Commission reviews final site plans, and approves, approves with minor revisions, tables or denies final site plans.

Figure 1 below depicts an aerial image of the subject parcels.

Figure 1. *– Subject Site Aerial Photograph*



Source: NearMap, April 7, 2026

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, AND SETBACKS

The subject site and proposed building appear to conform to the dimensional requirements of the C-2 zoning district, as shown in Table 1, on the following page. The nearest dimension from either the proposed building or the canopy is listed in Table 1.

Table 1. *– C-2 -Dimensional Requirements*

	REQUIRED	PARCEL A	PARCEL B	SITE TOTAL
Minimum Lot Size	20,000 sq. ft.	207,264.48 sq. ft.	74,075.51 sq. ft.	281,339.99 sq. ft
Minimum Lot Width	100 ft.	~169 ft.	~206 ft.	375 ft.
Min. Setbacks	REQUIRED	PROVIDED		COMPLIANCE
Front	35 ft.	208.3 ft. (canopy)		Complies
Side (East)	40 ft.	106.9 ft. (canopy)		Complies
Side (West)	40 ft.	146.2 ft. (canopy)		Complies
Rear	50 ft.	90 ft. (building)		Complies
Max. Lot Coverage	50%	8.10%		Complies
Max. Building Height				
Building	28 ft. 5 in. (2 stories)	27 ft. 5 in. (1 story)		Complies
Canopy	25 ft.	21 ft.		Complies

The subject site meets the lot standards, as well as the setback, height, and lot coverage requirements for the C-2 zoning district.

Items to be Addressed: *None.*

NATURAL RESOURCES

Topography: The site is pre-graded and relatively flat from the previous use.

Trees: The site currently has existing landscaping trees. These trees are shown in the site plan and those within the greenbelt are proposed to remain.

Wetlands: There are no wetlands on the site. To the rear of parcel A, there is a drain that runs through the property.

Soils: Soils information has not been provided.

Items to be Addressed: *None.*

BUILDING LOCATION AND SITE ARRANGEMENT

As previously mentioned, the project spans across two parcels. At their July 28th, 2026, meeting, the Planning Commission recommended that the applicant apply for a lot combination. The applicant has expressed that an application will be submitted following site plan approval. Per Section 40-2, a Lot is defined as " a contiguous and defined tract of land, under single ownership or control, which is used or intended to be used for purposes as allowed by this chapter. A lot may consist of (a) a single lot of record; (b) a portion of a lot of record; or (c) a combination of one or more lots of record or portions thereof." Since the applicant has ownership of the two adjacent parcels, they may act as one. However, the Planning Commission may require that the applicant combine the two parcels as a condition of approval.

Parcel A is currently vacant with a drain running along the rear of the property. Parcel B currently consists of an existing BP gas station with 7 pumps and a convenience store.

The proposed Sheetz development will span across the majority of Parcel B and a portion of Parcel A that fronts Dixie Highway. There is a septic field proposed in the center of Parcel A and a new well at the rear of parcel B.

Items to be Addressed: *Planning Commission determines if a lot combination should be a condition of approval.*

PARKING AND LOADING

Section 40-681 contains parking and loading requirements for automobile filling/convenience stations and fast-food restaurants. Parking calculations are provided in **Table 2** below.

Table 2. *– Off-Street Parking & Loading Requirements*

	Required	**Provided**
Automobile filling/ convenience stations		
1 space per fueling position. Each fueling position as designated on the approved site plan may be used to meet overall required parking.	16 pump spaces	16 pump spaces
Plus 1 space per each 75 sq. ft. of floor area devoted to retail sales and customer service.	44 spaces	33 spaces & 11 banked spaces
Fast food restaurant 1 space per 75 sq. ft. of floor area	16 spaces	16 spaces
Total	**76 spaces**	**76 spaces**
1,401 to 20,000 square feet of gross floor area requires dedicated loading space	1 loading space	1 loading space
Fast food restaurants drive-through stacking spaces	6 spaces	6 spaces

The applicant has proposed that a portion of the site to the west be reserved for 11 banked parking spaces. With the addition of these spaces, the proposed plans meet the requirements of Section 40-681. The Planning Commission should determine if the 11 missing spaces may be banked or should be developed with initial construction.

Items to be Addressed: *Planning Commission determine if 11 spaces may be banked.*

SITE ACCESS AND CIRCULATION

The site is proposing two ingress/egress drives, one from southwest off Dixie Highway and the other from the southeast off Lavon Street.

A circulation plan was included on Sheet C-3.2 that shows turning radii for fire, garbage and other large trucks.

Section 40-628 of the Zoning Ordinance restricts driveway widths to a maximum of 30 feet. The applicant is requesting a modification to allow for the driveway access from Dixie Highway to be 36 feet. The Planning Commission should determine if additional width within the driveway is needed to ensure appropriate site access for deliveries and other emergency vehicles.

Items to be Addressed: *Planning Commission determines if additional driveway width is necessary.*

SAFETY PATHS AND SIDEWALKS

This section of Dixie Highway is designated as a priority pathway per Section 40-851(b) of the Zoning Ordinance, which requires the developer to construct a pathway within an easement adjacent to the right-of-way. The applicant is proposing a 5-foot-wide safety path that stretches along the site frontage to Dixie Highway.

An additional sidewalk was included along the western side of the development that connects the path along Dixie Highway to the main entrance. Crosswalks have also been included that connect the western and eastern parking facilities, Dixie Highway safety path and dumpster to the main entrance.

Items to be Addressed: *None.*

ESSENTIAL FACILITIES

Existing well and septic can be seen on sheet C-4.0. The applicant has indicated that they will potentially install a new well and well house in the eastern corner of parcel B and a new septic field to the north, in parcel A.

A transformer is proposed in the eastern corner of parcel B.

We defer to the Township Engineer for additional comments regarding essential facilities and stormwater management.

Items to be Addressed: *Township Engineer review of essential facilities.*

LANDSCAPING

The applicant has submitted a landscape plan on sheet C-5.0. The following landscape standards from Section 40-721 apply to the site:

Greenbelt: The proposed greenbelts along Dixie Highway and Levon Street contain existing and new trees. Both comply with standards.

Screening: The residential screening to the northeast complies with standards for the required screen number three as shown in the **Table 3** below:

Table 3. *– Screen No. 3 Requirements*

Type	Required	Provided	Compliance
Medium Evergreen Tree 1 per linear feet	206 feet/10 = 21 trees	21 trees	Complies
Large Evergreen Tree 1 per 30 linear feet	206 feet/30 = 7 trees	7 trees	Complies
Deciduous Tree 1 per 25 feet	206 feet/25 = 8 trees	4 proposed trees 4 preserved trees	Complies
Shrubs 7 per 25 linear feet	(206 feet/25) x 7 = 58 shrubs	58 shrubs	Complies

Parking Lot: Section 40-721(b)(4) requires one tree per eight parking spaces. The applicant proposes 49 standard parking spaces, therefore requires six trees. Six parking lot trees are being proposed, which complies with standards. If the banked spaces are approved and then constructed at a later date, the associated two additional parking lot trees would be required to be installed at that time.

Site Landscaping: Section 40-721(6) requires at least ten percent (10%) of the site area, excluding existing public rights-of-way, to be landscaped. A calculation of the landscaped area was provided and the applicant meets standards.

Trash Enclosure: A trash enclosure is proposed on the western side of the property. The enclosure meets the required standards of Section 40-721(8).

Items to be Addressed: *None.*

LIGHTING

Sheet "RL-11279-S1_Full" provides a lighting and photometric plan. The plans provided meet the standards set in Section 40-888 of the Zoning Ordinance regarding exterior lighting.

Items to be Addressed: *None.*

SIGNAGE

A sign plan was submitted. Details for the proposed ground sign are on Sheet C-7.2, and details for the building signs are on Sheet A 200, A 201 and Awning.

Ground Sign Standards – Section 40-751(c)

Standards for signs in the C-2 Zoning District can be found in the **Table 4** below:

Table 4 *– C-2 Sign Standards*

	Required	Provided	Compliance
Setback	15 feet	15 feet	Complies
Area	50 sq. ft.	44.5 sq. ft.	Complies
Ratio	Less than 3:1	1.14:1	Complies
Support Structure Area	Support structure must not exceed 25 percent of the max permissible are of the sign.	61.3%	Does not Comply
Height	10 feet maximum	10 feet	Complies

The support structure of the proposed sign exceeds the 25 percent maximum permissible area of the sign. In the Dixie Corridor Overlay District, the 25 percent limit may be increased during the site plan review process. The Planning Commission should determine if the support structure may be 64 percent of the permissible sign area instead of the 25 percent standard.

Building Sign Standards – Section 40-75(d)

There are 4 building signs proposed, the area of each sign can be found in the **Table 5** below:

Table 5 *– Proposed sign areas*

Sheetz (Building #1)	Sheetz (Building #2)	"MTO" Made to Order	Sheetz (Canopy)
16.52 sq. ft.	16.52 sq. ft.	21.47 sq. ft.	13.08 sq. ft.

The total of all the signs is 67.59 square feet. Since the applicant is setback more than 100 feet from the road of travel, they are allowed a total of 100 square feet of building sign area. The proposed building signs comply with ordinance standards.

Items to be Addressed: *Planning Commission determine if the support structure may be 64 percent of the permissible sign area.*

FLOOR PLANS AND ELEVATIONS

The building materials for the convenience store are brick veneer, cast stone sill, anchored case stone masonry, and standing stem metal roof. The plans provided meet the architectural standards in Section 40-821. Floor plans have been provided on Sheet A140.

Outdoor seating is proposed on the northeastern side of the building. The proposed outdoor seating meets all standards set forth in Section 40-646.

Items to be Addressed: *None.*

REQUIREMENTS FOR AUTOMOBLIE FILLING/ CONVEINIENCE STATION

Per Section 40-628 Automobile repair facilities, minor, automobile filling/convenience stations, automobile filling/mixed use stations, and automobile filling/service stations are subject to the following:

1. The lot for the automobile service station shall have 150 feet of frontage on the principal street serving the station.

   CWA Comment: The proposed project has a roughly 375 feet of frontage along Dixie Highway and complies with standards.

2. The use at the proposed location will not create a traffic hazard or traffic nuisance because of its location or the location of its driveways:

   a. As compared to similar uses;

   b. Considering turning movements in relation to other lots, existing buildings, or proposed buildings on or near the site and the traffic pattern from such buildings;

   c. Considering its location near a vehicular or pedestrian entrance or crossing to a public or private school, park, playground or hospital, or other public use or place of public assembly; and/or;

   d. Considering its location and proximity to other surrounding uses.

   CWA Comment: The proposed project is taking the place of a similar use. The applicant has submitted a traffic impact study for the proposed development. The study identified no significant concerns related to traffic generated by the site. The report recommends the construction of a westbound right-turn taper and a future intersection. Township Engineering reviewed the traffic study and did not identify any concerns with its findings. Based on the submitted study, we have no concerns regarding the anticipated traffic impacts of the proposed development.

3. Driveway tapers and acceleration and deceleration lanes shall be designed according to the provisions set forth in section 40-684—Driveway approaches. Driveway spacing shall be in conformance with section 40-683—Access management and may be no closer than 20 feet to the side property line, with the exception of combined driveways that may be located on or adjacent to a property line. The maximum width of each driveway at the right-of-way line shall be no more than 30 feet unless modified by the planning commission during the site plan review process to

ensure adequate access of delivery and emergency vehicles. Whenever possible, a combined driveway for both service station and an adjacent commercial property shall be designated and provided.

CWA Comment: The applicant is requesting the Planning Commission grant a modification from driveway width to allow a maximum of 36 feet instead of 30 feet. The plans proposed comply with other remaining standards.

4. If a separate automobile wash is proposed, it must maintain a minimum distance of 25 feet from any lot line, and shall not encroach on the required front, side or rear yards.

   CWA Comment: No automobile wash has been proposed.

5. Additional screening or noise buffering pursuant to section 40-721(b)(3). Screening between land uses, may be required at the discretion of the township taking into consideration adjacent land uses.

   CWA Comment: The proposed buffer complies with screening standards in Section 40-721. We feel that the proposed development should not cause excessive noise to surrounding residential uses.

6. All buildings must be oriented so that service bay and automobile wash doors face away from any abutting residentially zoned or used property.

   CWA Comment: No service bays or automobile washes have been proposed.

7. If a canopy is proposed over the gasoline pumps, the canopy design must relate to the facade design of the main building. The minimum clear distance to the canopy bottom shall be 16 feet with a maximum canopy height of 20 feet. Canopy height may be increased to 25 feet if a pitched roof is incorporated in the design. The location of the canopy must meet all minimum setback requirements for the district as enumerated in Section 40-572.

   CWA Comment: The applicant has submitted canopy elevations for the proposed development. The canopy meets all required setback standards and is proposed to have a height of 21 feet. The Zoning Ordinance permits a maximum canopy height of 25 feet when a pitched roof is incorporated. As proposed, the canopy complies with all applicable ordinance requirements.

8. Outside sales areas shall be located within five feet of the building. One display/sales rack may be permitted adjacent to each row of pump islands. Propane sales shall be located outside the principal building in an enclosure designed and approved for such purpose. All outside sales areas, displays, racks, and/or enclosures shall not obstruct pedestrian or vehicular access ways.

   CWA Comment: The applicant has provided a note on Sheet C-3.0 that states they intend to comply with all standards set in Section 40-628 regarding outdoor sales.

9. Vehicles awaiting repair must be parked in a designated parking space. One such vehicle per service bay may be parked on-site for no more than 48 hours.

CWA Comment: The applicant has indicated that vehicle services will not be provided on site.

10. One tow-truck that is accessory to the subject principal use may be parked on-site within a designated parking space.

    CWA Comment: The applicant has indicated on sheet C-3.0 that no tow truck is to be permanently parked on site.

Items to be Addressed: *Planning Commission determine if additional driveway width is necessary.*

DIXIE HIGHWAY DESIGN GUIDELINES

The subject site is located within the Dixie Highway Overlay District. Per Section 40-596, the final site plan must be consistent with the Dixie Highway Design Guidelines. Please note that the Dixie Highway Design Guidelines document does allow for flexibility in application.

Streetscape

The Overlay District streetscape requirements are intended to promote lighting, fencing, greenbelts, entry landscaping, and signage that contribute life, color, texture, and a distinct sense of identity to the streetscape. The proposed greenbelt and entry landscaping satisfy the general landscaping requirements and incorporate the natural character and design elements that the Overlay District was established to preserve. The latest versions of the plans show the required teardrop lighting along the safety path that runs parallel to Dixie Highway. Stone and wood fencing, along with stone facing incorporated into the proposed ground sign, further satisfy the requirements of the Overlay District.

Building Site Design

The Overlay District encourages development that emphasizes natural elements and provides a balanced relationship between pedestrian and vehicular circulation throughout the site. The overlay district requires the primary building entrance to be located on the side of the building. The proposed plans include entrances on both the front and side elevations. In addition, the proposed building incorporates a prairie style of development with stone and wood accents, and stamped metal awnings over the windows. The proposed fuel station canopy also includes stone and wood accents and a slated roof.

The overlay district also strongly encourages the inclusion of a community amenity. Outdoor seating is proposed on the northeastern side of the building and a flagpole near the driveway off of Lavon Street.

The Planning Commission should determine if the proposed plan satisfies the requirements of the Dixie Highway Overlay District

Items to be Addressed: *Planning Commission should determine if the proposed plan satisfies the requirements of the Dixie Highway Overlay District.*

SUMMARY

The submitted site plans are determined to be in compliance with the final site plan review standards of the Springfield Township Zoning Ordinance. The following items should be considered by the Planning

Commission and addressed by the applicant to the satisfaction of the Planning Commission before final site plan approval is granted.

Planning Commission Considerations:

A. Building Location and Site Arrangement.
   a. Determine if a lot combination should be a condition of approval.

B. Parking and Loading.
   a. Determine if 11 missing spaces may be banked spaces.

C. Site Access and Circulation.
   a. Determine if additional driveway width is necessary.

D. Signage.
   a. Determine if the support structure may be 64 percent of the permissible sign area.

E. Automobile Filling/Convenience Stations.
   a. Determine if additional driveway width is necessary.

F. Dixie Highway Design Guidelines.
   a. Determine if the proposed plan satisfies the requirements of the Dixie Highway Overlay District.

Township Engineer or Other Agency Review: Township Engineer review of essential facilities.

Respectfully submitted,

CARLISLE/WORTMAN ASSOC., INC.
Megan Masson-Minock, AICP
Principal

CARLISLE/WORTMAN ASSOC., INC.
Benny Bono
Community Planner

cc: *Ric Davis, Supervisor*
Danielle Sink, Supervisor's Assistant
Brian Galley, Planning Commission Chair
Nancy McClain, P.E.(nmcclain@giffelswebster.com)
Jason Maye, P.E. (jmayer@giffelswebster.com)
Matthew J. Covey (mcovey@springfield-twp.us)

August 17, 2026

Springfield Township Planning Commission
Charter Township of Springfield
12000 Davisburg Road
Davisburg, Michigan 48350

RE: Final Site Plan Submittal
APPROVED AS NOTED

Project Name: Springfield Twp Sheetz
GW Project No.: 20829.00

Dear Planning Commission Members:

Giffels Webster has completed our engineering review of the Final Site Plan for the proposed Springfield Twp Sheetz project plans dated August 11, 2026. Our comments are summarized below:

General

The 3.00-acre site is located on the east side of Dixie Highway, directly west of Lavon Drive. It has been in use as a gas station for approximately 20 years.

Utilities

The site will be served by an existing well, assuming it is feasible, and a new septic field and lead. An existing storm conveyance system at the existing gas station site ultimately flows along the Dixie Highway frontage of the lot northeast to a detention area on parcel 07-24-201-003 which is owned by the Road Commission for Oakland County (RCOC).

Required for Preliminary Site Plan

1. None

Required for Final Site Plan

1. Coordinate the need for a high capacity well for fire protection with the Fire Department.
2. Approval of the proposed outlet to the existing detention basin will be required from the RCOC.
3. Provide drainage area layout and hydraulic calculations to verify pipe capacity and velocity.
4. Provide profiles for all proposed storm piping.

Grading

The site currently slopes toward existing catch basins in the existing pavement. The green space around the perimeter of the parking area and on parcel 07-24-204-003 slopes toward the existing detention basin or the ditches along the road frontages. The proposed grading will utilize similar techniques. The existing grassy area on parcel 07-24-201-003 will be partially paved over, increasing the amount of storm water runoff.

Required for Preliminary Site Plan

1. None

Required for Final Site Plan

2. Approval of the revised drive approaches will be required from the RCOC.

Other Plan Comments

Required for Preliminary Site Plan

1. None

Required for Final Site Plan

1. Provide a soil erosion and sedimentation control plan. A soil erosion permit will be required from the Oakland County Water Resources Commissioner (OCWRC) prior to the pre-construction meeting.
2. A Storm Water Maintenance Agreement will be required for the site.
3. Provide a demolition plan to clarify what all is being removed from existing property.
4. Provide a tabulated list of quantities for each applicable plan sheet.
5. Add standard details sheets to the plan set.

Permits

The applicant shall obtain all required permits before any work commences on site. The following is a list of permits that may be required for the project:

1. A Soil Erosion and Sedimentation Control permit from OCWRC.
2. An Onsite Sewage Disposal System (Septic) permit from Oakland County Health Department.
3. A Right-of-Way permit for approach work within the Dixie Highway and Lavon Drive ROWs from the RCOC.
4. A building permit from the Springfield Township Building Department.
5. All off-site easements and/or hold harmless agreements necessary to do the work for this project and recorded prior to construction (if required).

We appreciate the opportunity to assist the Planning Commission in this preliminary site plan review process. A detailed review of the construction plans will be required if the preliminary & final site plans are approved by the Planning Commission. It is the responsibility of the applicant to ensure that the construction plans meet all of the conditions of the site plan approval by the Planning Commission. Please contact us if you have any questions.

Respectfully,
GIFFELS WEBSTER

Jason Mayer, PE
Partner

Nancy McClain, PE
Project Manager

cc: Ric Davis, Springfield Township Supervisor
Sean Miller, Springfield Township Clerk
Danielle Sink, Springfield Township
Megan Masson-Minock, AICP, Carlisle Wortman Associates, Township Planner

Attachments: Marked-up Final Site Plan set stamped Approved as Noted

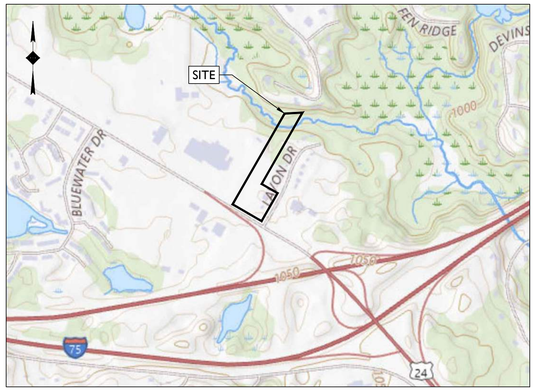
SITE DEVELOPMENT PLANS

FOR

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, & FAST FOOD RESTAURANT WITH PICKUP

PID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD, OAKLAND COUNTY, MI



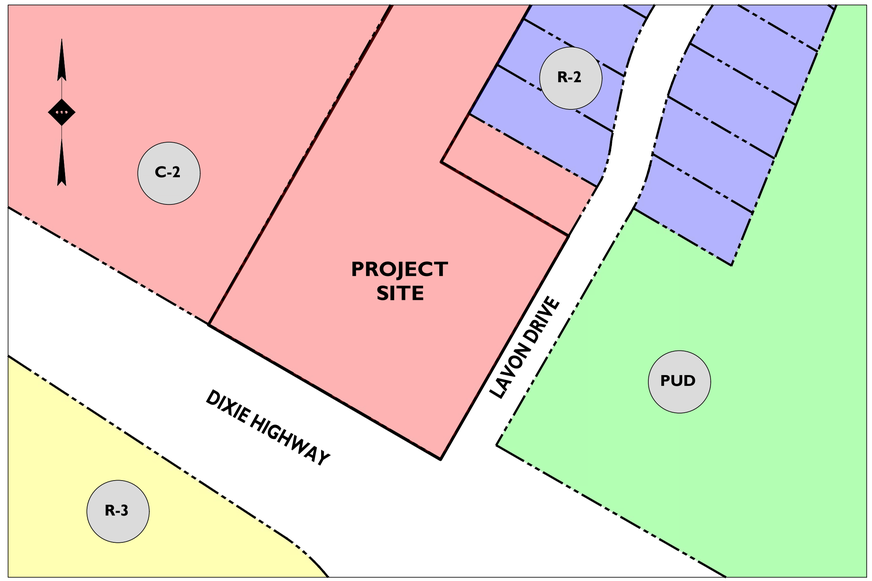
SOURCE: USGS TOPOGRAPHICAL MAPPER

LOCATION MAP
SCALE: 1" = 800'±



SOURCE: NEARMAPS ONLINE MAPPING SYSTEM

AERIAL MAP
SCALE: 1" = 100'±



SOURCE: SPRINGFIELD TOWNSHIP ZONING MAP

- C-2: GENERAL BUSINESS DISTRICT
- R-2: ONE-FAMILY RESIDENTIAL (1.0 AC.)
- PUD: PLANNED UNIT DEVELOPMENT
- R-3: ONE FAMILY RESIDENTIAL (0.5 AC.)

ZONING MAP
SCALE: 1" = 100'±

PLANS PREPARED BY:

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Phone 248.247.1115

PLAN REFERENCE MATERIALS:

1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
   - ALTA / NSPS LAND TITLE SURVEY PREPARED BY STONEFIELD ENGINEERING & DESIGN, DATED 06/01/2026
   - WETLAND DELINEATION PREPARED BY BARR, DATED 05/27/2026
   - AERIAL MAP PROVIDED BY NEARMAPS ONLINE MAPPING SYSTEM, DATE RETRIEVED 05/29/2026
   - LOCATION MAP PROVIDED BY USGS TOPOGRAPHICAL MAPS, DATE RETRIEVED 05/29/2026
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1.0
DEMOLITION PLAN	C-2.0
SITE PLAN	C-3.0 & C-3.1
TRUCK TURNING PLAN	C-3.2
GRADING & STORMWATER MANAGEMENT PLAN	C-4.0
UTILITY PLAN	C-5.0
LANDSCAPING PLAN	C-6.0
LANDSCAPING DETAILS	C-6.1
CONSTRUCTION DETAILS	C-7.0 - C-7.3

ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	SHEETS 1, 2, 3 OF 3
ARCHITECTURAL FLOOR PLAN	A140
ARCHITECTURAL ELEVATIONS	A200 & A201
CANOPY ELEVATIONS	AWNING

APPLICANT

SKILKEN GOLD
4270 MORSE ROAD
COLUMBUS, OHIO 43230
248.752.3331
ARIBA@SKILKENGOLD.COM

APPROVED AS NOTED FINAL SITE PLAN SUBMITTAL

GIFFELS WEBSTER
1025 E. MAPLE ROAD, SUITE 100
BIRMINGHAM, MI 48009

08/17/2026

COMMENTS:
- See Sheet C-4.0 for comments on storm water requirements at engineering submission.

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ
PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — SOUTHFRED COCKEY ENGINEER — 6201053 — PROFESSIONAL ENGINEER

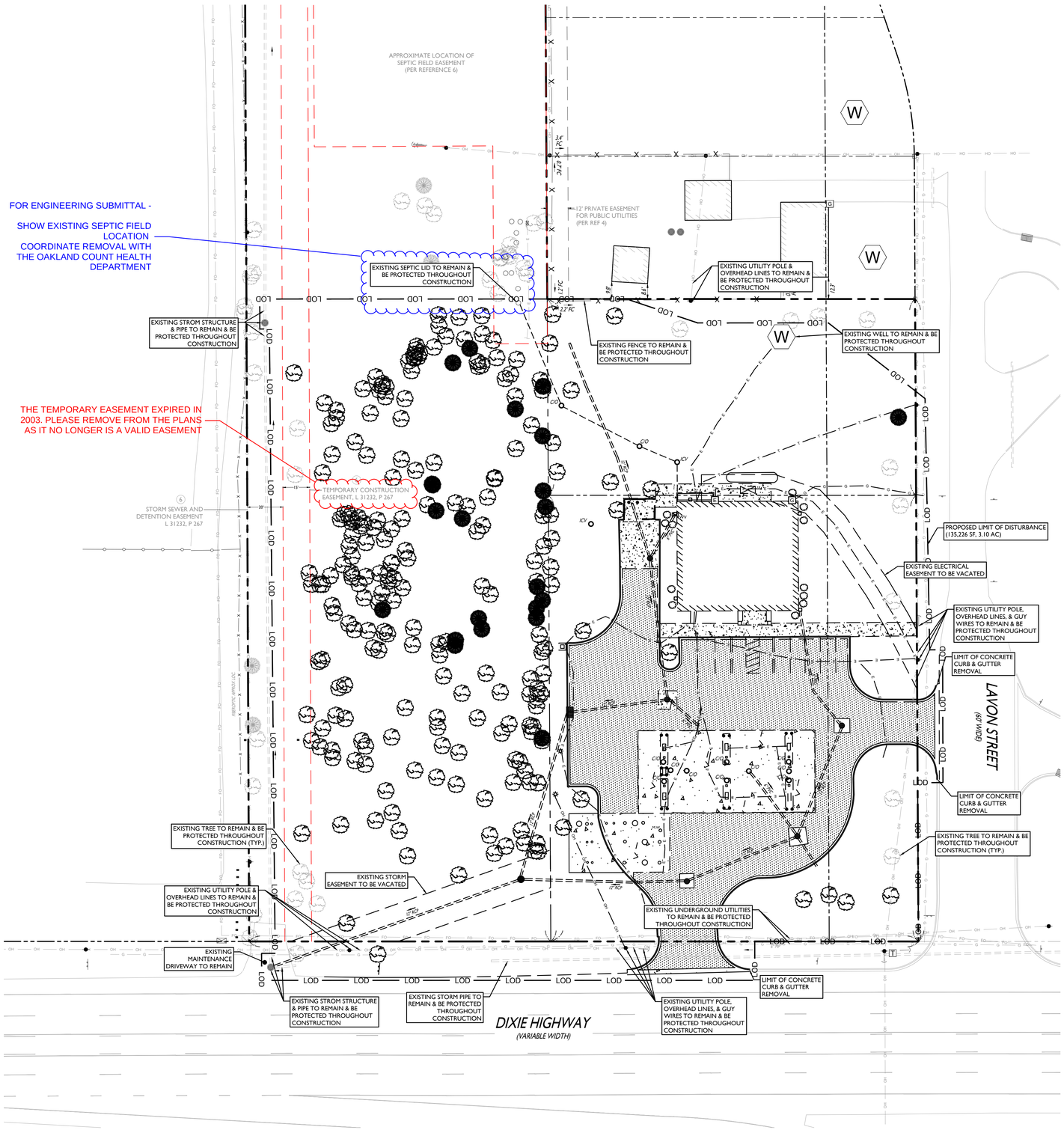
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: COVER SHEET

DRAWING: C-1.0

V:\DET\2025\DET-250399 SKILKEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTS\P-1 ACOVER.DWG



SYMBOL	DESCRIPTION
	FEATURE TO BE REMOVED / DEMOLISHED
LOD	LIMIT OF DISTURBANCE
	EXISTING CONCRETE TO BE REMOVED
	EXISTING ASPHALT TO BE REMOVED
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO REMAIN

ALL SITE FEATURES WITHIN THE LIMIT OF DISTURBANCE INDICATED ON THIS PLAN ARE TO BE REMOVED / DEMOLISHED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS

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DEMOLITION NOTES

1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
5. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
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1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — SOUTHWARD GOODEY — ENGINEER — 1201 — REGISTERED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: DEMOLITION PLAN

DRAWING: C-2.0

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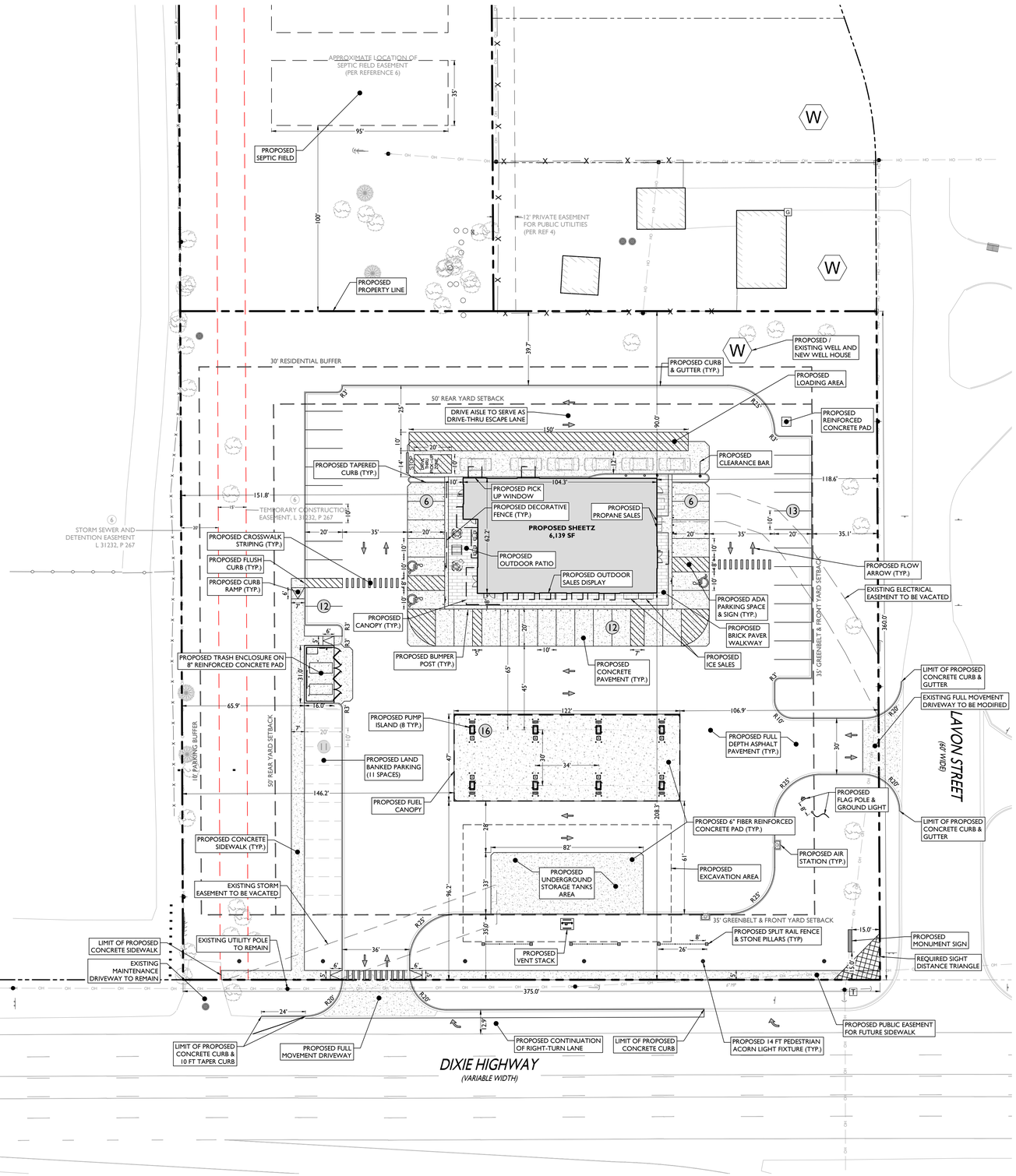

LAND USE AND ZONING

PARCEL ID: 07-24-201-019 & 07-24-201-003

GENERAL BUSINESS DISTRICT (C-2) W/ DIXIE HIGHWAY OVERLAY

PROPOSED USE		
GAS STATION / CONVENIENCE	PERMITTED USE	
FAST FOOD RESTAURANT	PERMITTED USE	
OUTDOOR SALES	PERMITTED USE	
ZONING REQUIREMENT	**REQUIRED**	**PROPOSED**
MINIMUM LOT AREA	20,000 SF	134,938 SF (3.10 AC)
MINIMUM LOT WIDTH	150 FT	375.0 FT
MAXIMUM BUILDING COVERAGE	50%	8.10% (10,927 SF)
MAXIMUM BUILDING HEIGHT	2 STORIES (28.5 FT)	< 2 STORIES (28.5 FT)
MINIMUM FRONT YARD SETBACK	35 FT	96.2 FT
MINIMUM REAR YARD SETBACK	50 FT	90.0 FT
MINIMUM GREENBELT	35 FT	35.0 FT
MINIMUM RESIDENTIAL BUFFER	30 FT	39.7 FT
MINIMUM PARKING BUFFER	10 FT	65.9 FT
MINIMUM DRIVEWAY WIDTH	30 FT	36 FT (W)
MAXIMUM NUMBER OF DRIVEWAYS	1 PER FRONTAGE	1 DRIVEWAY
MINIMUM HEIGHT TO BOTTOM OF CANOPY	16 FT	COMPLIES
MAXIMUM CANOPY HEIGHT	25 FT*	COMPLIES

(W) WAIVER

(*) § 40-628.7: CANOPY HEIGHT MAY BE INCREASED TO 25 FT IF PITCHED ROOF IS INCORPORATED

OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 40-681.(1).g	GAS STATION / CONVENIENCE PARKING: 1 SPACE PER PUMP (16 PUMPS)(1 / 1 PUMP) = 16 SPACES 1 SPACE PER 75 SF (3,264 SF)(1 / 75 SF) = 44 SPACES FAST FOOD RESTAURANT PARKING: 1 SPACE PER 75 SF (1,209 SF)(1 / 75 SF) = 16 SPACES TOTAL: 16 + 44 + 16 = **76 SPACES**	16 PUMP SPACES 49 REGULAR TOTAL: **65 SPACES** + 11 LAND BANKED SPACES FUTURE TOTAL: 76 SPACES
§ 40-681.(1).h	90° PARKING DIMENSIONS: 9 FT X 18 FT W/ 22 FT AISLE	10 FT X 20 FT W/ 35 FT AISLE
§ 40-681.(3).a	STACKING: 6 SPACES 12 FT X 20 FT	6 SPACES 12 FT X 20 FT
§ 40-681.(2).b	LOADING: 1,401 - 20,000 SF = 1 SPACE	PROVIDED

A LOT COMBINATION WILL BE PURSUED WITH SPRINGFIELD TOWNSHIP FOLLOWING SITE PLAN APPROVAL

NO TOW TRUCK SHALL BE PERMANENTLY PARKED ON SITE

OUTSIDE SALES AREAS SHALL BE LOCATED WITHIN FIVE FEET OF THE BUILDING. ONE DISPLAY/SALES RACK MAY BE PERMITTED ADJACENT TO EACH ROW OF PUMP ISLANDS. PROPANE SALES SHALL BE LOCATED OUTSIDE THE PRINCIPAL BUILDING IN AN ENCLOSURE DESIGNED AND APPROVED FOR SUCH PURPOSE. ALL OUTSIDE SALES AREAS, DISPLAYS, RACKS, AND/OR ENCLOSURES SHALL NOT OBSTRUCT PEDESTRIAN OR VEHICULAR ACCESS WAYS.

SYMBOL	DESCRIPTION
	PROPERTY LINE
	SETBACK LINE
	PROPOSED CONCRETE CURB & GUTTER
	PROPOSED TAPERED CURB
	PROPOSED SIGNS / BOLLARDS
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED BUILDING DOORS



PEDESTRIAN ACORN LIGHT FIXTURE DETAIL

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

30' 0' 30' 60'

GRAPHIC SCALE IN FEET

1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
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NOT APPROVED FOR CONSTRUCTION

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — SCOTT M. REED — ASSOCIATE ENGINEER — 66048 — REGISTERED PROFESSIONAL ENGINEER

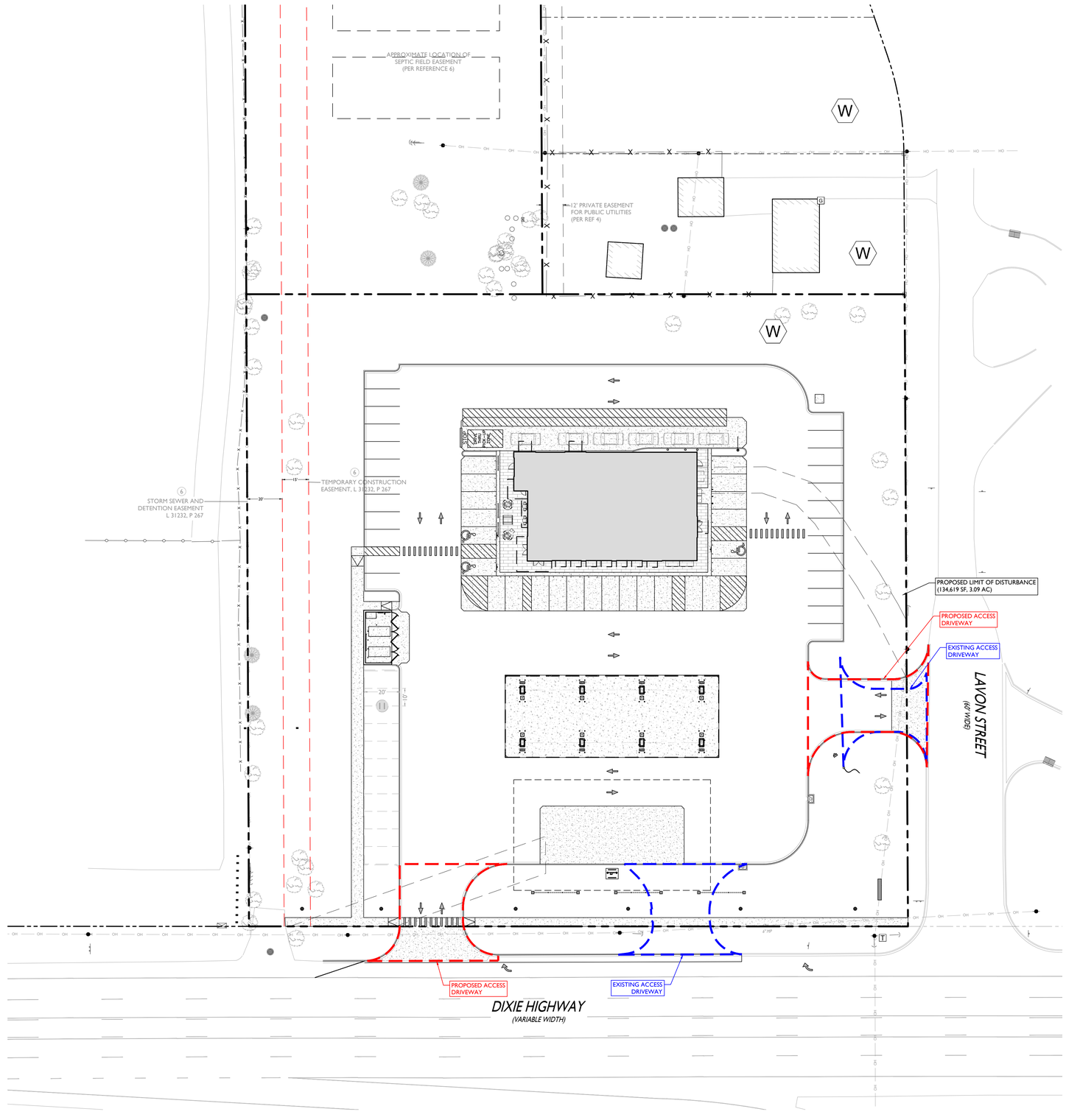
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: SITE PLAN

DRAWING: C-3.0

V:\DET\2025\DET-250399 (SALEEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI)\ACAD\PLOT\DP 3.3.3_SITE.DWG



SYMBOL	DESCRIPTION
	PROPERTY LINE
LOD	PROPOSED LIMIT OF DISTURBANCE
	EXISTING ACCESS DRIVEWAY
	PROPOSED ACCESS DRIVEWAY

30' 0' 30' 60'

GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
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NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION,
CONVENIENCE STORE, FAST FOOD
RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

JONATHAN REED COCKSEY — STATE OF MICHIGAN — ENGINEER — 66 — REGISTERED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

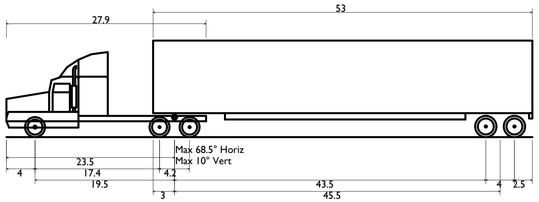
SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: SITE PLAN

DRAWING: C-3.1

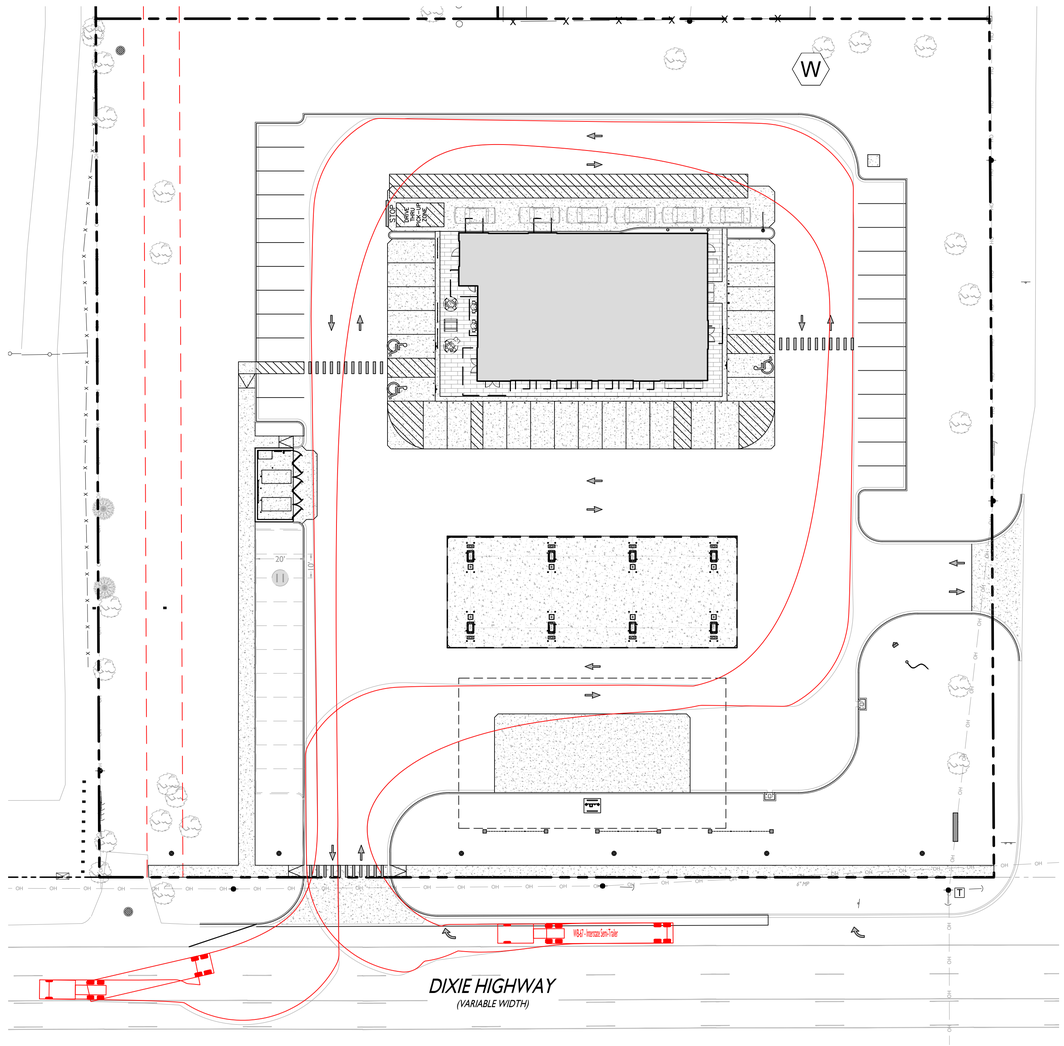
V:\DET\2025\DET-250399 BRAUN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\DP-3.0-3.3 SITE.DWG

FUELING / LOADING TRUCK ROUTE

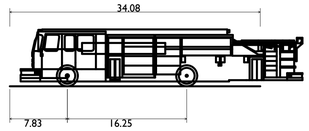


WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

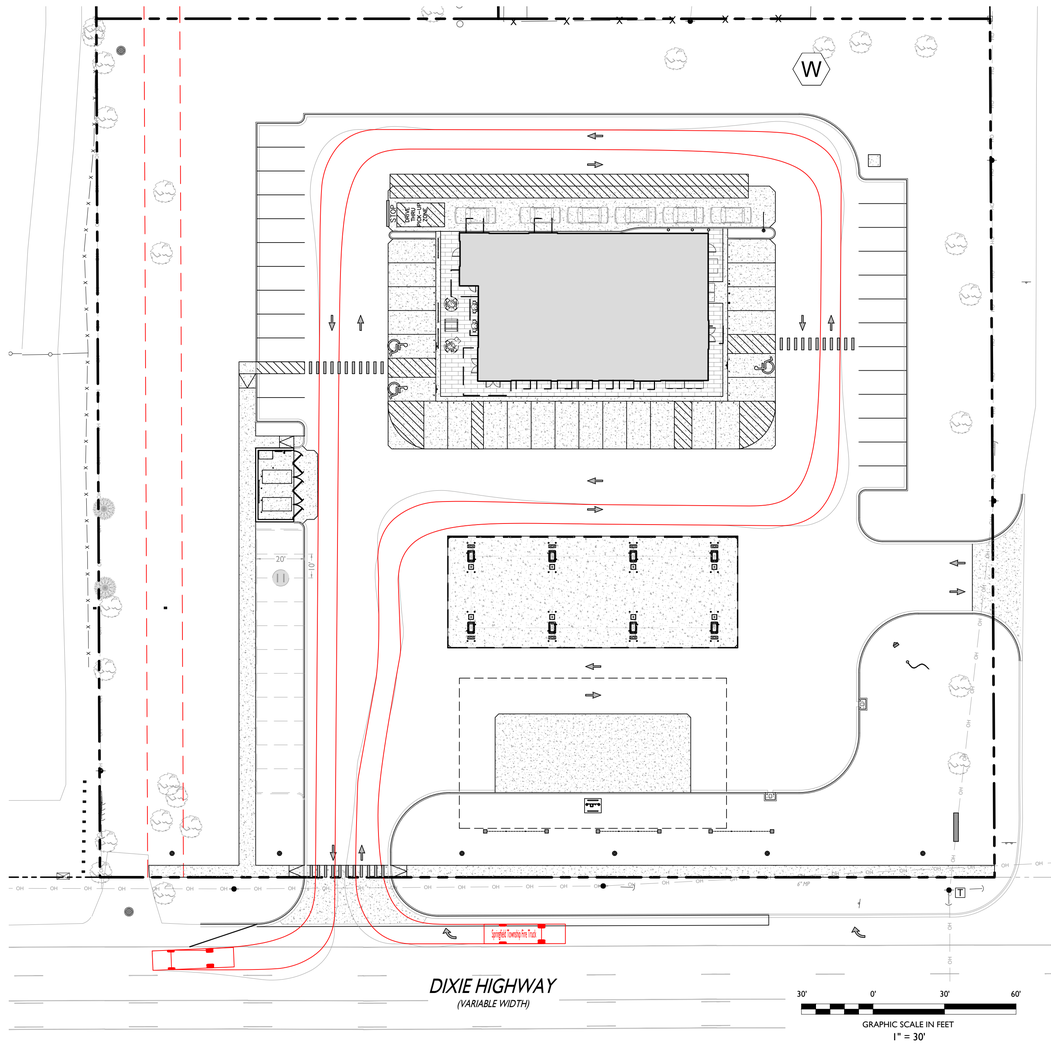


FIRE TRUCK ROUTE



Springfield Township Fire Truck (Sutphen 2011 Pumper)

Overall Length	34.080ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	42.00°



ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN
SCOTT HAYNES COCKSEY
ENGINEER
No. 6201064126
PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE:

TRUCK TURNING PLAN

DRAWING:

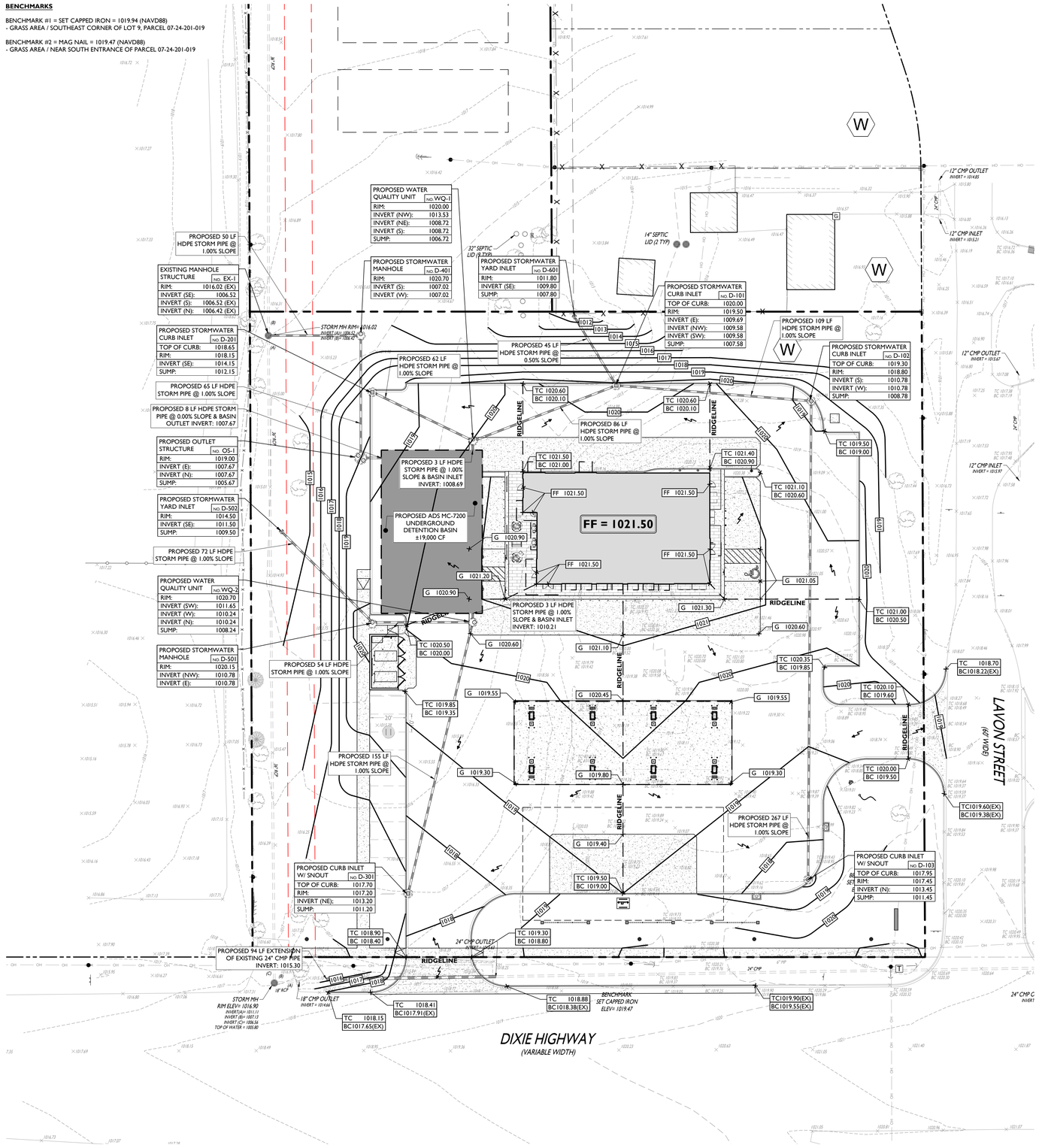
C-3.2

V:\DET\2025\DET-250399 (KALEEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI)\CAD\PLOTS\DP-3.0-3.3 SITE.DWG

BENCHMARKS

BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
- GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019

BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
- GRASS AREA / NEAR SOUTH ENTRANCE OF PARCEL 07-24-201-019



STORMWATER MANAGEMENT CALCULATIONS

Based on Oakland County Stormwater Management Regulations (Updated as of 04/07/2025)

Project:	SG - Springfield	Designer:	JD	Date:	06/03/26

Determination of Surface Runoff

Landcover		Area (AC)	Area (SF)		C-Value*		Weighted Value
Building / Pavement		1.71	74,492	x	0.90	=	67,043
Landscaped Areas	HSG 'C'	1.39	60,430	x	0.35	=	21,151
Subtotals		3.10	134,922				88,193

Composite C Value, C: **0.65**

$I = 30.209^{0.22} / (9.17+T)^{0.61}$ — Average Rainfall Intensity, I: **2.76** IN/HR

T_c, Time of Concentration:
Residencial Developments over 5 acres - 20 min
Commercial or Industrial Developments over 5 acres - 15 min
Any Development under 5 acres - 10 min

Design Storm Period, P: **1** YEARS

Time of Concentration, Tc: **10.0** MINS

PART D: Channel Protection Volume Control

$V_{CPv} = 3,630 * 1.00 * C * A$ — Required CPVC Volume, V_{CP-R}: **9,501** CF

Provided CPVC Volume, V_{CP-P}: **0.00** CF

Is High Ground Water Present On-Site? **No**

Is Infiltration >0.24 in/hr Available On-Site? **No**

Infiltration is Waived

CPVC is not provided as site soils are not suitable for infiltration.

PART E: Water Quality Control

$V_{WQ} = 3,630 * C * A$ — Water Quality Volume, V_{WQ}: **7,308** CF

$Q_{WQ} = C * A * (30.20 / (Tc + 9.17)^{0.61})$ — Water Quality Rate, Q_{WQ}: **5.56** CFS

Is a Forebay Proposed On-Site? **No**

Water Quality Unit provided
**See Specifications in Site Development Plans*

PART F: Channel Protection Rate Control: Extended Detention

$V_{ED} = 6,897 * C * A$ — Extended Detention Volume, V_{ED}: **13,886** CF

PART G: Detention & Flood Control Facilities

$Q_{100YR} = C * I_{100} * A$ — 100-yr Post-Development Peak Inflow Rate, Q_{100YR}: **15.33** CFS

$I_{100} = 82.3 / [(Tc + 9.17) ^ (0.81)]$ — 100-yr Rainfall Intensity, I_{100}: **7.62** in/hr

$Q_{REL} = 1.1055 - 0.2061*LN(A)$ — Variable Release Rate, Q_{REL}: **0.87** CFS/ac

**Allowable Peak Release Rate Not to Exceed: 1) Restricted Rate for the Drain, or 2) The prorated Share of the Drain's Capacity, or 3) Q_{100} (max 1.0 CFS/ac)*

$Q_{100R} = Q_{REL} * A$ — 100-YR Release Rate, Q_{100R}: **2.70** CFS

$R = 0.206 - 0.15 * LN (Q_{100R} / Q_{100YR})$ — Storage Curve Factor, R: **0.47** CFS

$V_{100R} = V_{100R} * R - V_{CPv}$ — Post Development 100-yr Runoff Volume, V_{100RV}: **38,222** CF

$V_{100RD} = V_{100R} * R - V_{CPv}$ — 100-yr Detention Volume, V_{100RD}: **17,829** CF

ENGINEERING SUBMISSION WILL NEED TO SHOW:
- EXISTING ANG PROPOSED DRAINAGE AREAS, INCLUDING OFF-SITE AREAS.
- OVERFLOW ROUTING
- CALCULATIONS FOR THE EXISTING BASIN THAT YOU ARE DISCHARGING TO.

DRAINAGE AND UTILITY NOTES

1. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP-GRADIENT.
3. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IMMEDIATELY IN WRITING.
4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL. SHORING DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.

STORMWATER UNDERGROUND BMP CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL INSTALL AND BACKFILL THE UNDERGROUND BMP IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. UNDERGROUND BASINS SHALL UTILIZE A STONE BACKFILL WITH A MINIMUM VOID RATIO OF 40%.
3. NO CONSTRUCTION LOADING OVER UNDERGROUND BASINS IS PERMITTED UNTIL BACKFILL IS COMPLETE PER THE MANUFACTURER'S SPECIFICATIONS. NO VEHICLES SHALL BE STAGED OR OPERATE FROM A FIXED POSITION OVER THE BASIN.

SYMBOL / DESCRIPTION

- PROPERTY LINE
- 100 — PROPOSED GRADING CONTOUR
- RIDGELINE — PROPOSED GRADING RIDGELINE
- PROPOSED DIRECTION OF DRAINAGE FLOW
- G 100.00 — PROPOSED GRADE SPOT SHOT
- TC 100.50 / BC 100.00 — PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
- FF 100.00 — PROPOSED FINISH FLOOR SPOT SHOT
- PROPOSED STORMWATER STRUCTURES
- PROPOSED STORMWATER PIPING
- PROPOSED UNDERGROUND OUTLET STRUCTURE

GRADING NOTES

1. ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF ALL FILL MATERIALS BROUGHT TO THE SITE.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
4. THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY AUTHORITY REGULATIONS.
5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS FOLLOWS:
   - CURB GUTTER: 0.50%
   - CONCRETE SURFACES: 1.00%
   - ASPHALT SURFACES: 1.00%
6. A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF THIS CONDITION CANNOT BE MET.
7. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

ADA NOTES

1. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS AISLES.
2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL ADA PARKING SPACES IN ACCORDANCE WITH STATE GUIDELINES.
3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
4. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP. FOR ALTERATIONS, A CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
6. ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS.
8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF ½ INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN ¼ INCHES AND ½ INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP ¼ INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN 1 UNIT VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE).
9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN ½ INCH.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
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OAKLAND COUNTY, MICHIGAN

MATTHEW D. COOLSEY — ENGINEER — 53106 — STATE OF MICHIGAN — PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: GRADING & STORMWATER MANAGEMENT PLAN

DRAWING: C-4.0

V:\DET\2025\DET-250399 (SOLKEN) GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\DTSP-1-GRADING.DWG

BENCHMARKS

BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
- GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019

BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
- GRASS AREA / NEAR SOUTH ENTRANCE OF PARCEL 07-24-201-019

FOR ENGINEERING SUBMITTAL -

REMOVE EXISTING SEPTIC FIELD LOCATION FROM THIS SHEET

FOR ENGINEERING SUBMISSION - VERIFY WITH OAKLAND COUNTY HEALTH DEPARTMENT AND FIRE MARSHAL IF WELL CONNECTION AND CAPACITY IS ACCEPTABLE

APPROXIMATE LOCATION OF SEPTIC FIELD EASEMENT (PER REFERENCE 6)

PROPOSED CONNECTION TO PROPOSED SEPTIC FIELD. CONTRACTOR TO CONFIRM FEASIBILITY OF CONNECTION WITH SANITARY AUTHORITY PRIOR TO CONSTRUCTION.

32' SEPTIC LID (9 TYP)

4' SEPTIC LID (2 TYP)

12' PRIVATE EASEMENT FOR PUBLIC UTILITIES (PER REF 4)

75' EXCLUSION ZONE

12" CMP OUTLET INVERT = 1014.81

24" CMP

12" CMP INLET INVERT = 1015.21

STORM MH RIM= 1016.02
INVERT (A)= 1006.52
INVERT (B)= 1006.42

PROPOSED CONNECTION TO EXISTING PROPOSED WELL AND NEW WELL HOUSE. CONTRACTOR TO CONFIRM FEASIBILITY OF CONNECTION WITH WATER AUTHORITY PRIOR TO CONSTRUCTION.

PROPOSED 88 LF 2" DOMESTIC WATER SERVICE

PROPOSED 2,000 GAL. GREASE TRAP

PROPOSED 335 LF 6" SANITARY PIPE

PROPOSED CONNECTION TO EXISTING UTILITY POLE. CONTRACTOR TO CONFIRM FEASIBILITY OF CONNECTION WITH ELECTRIC AUTHORITY PRIOR TO CONSTRUCTION.

PROPOSED ELECTRICAL CONDUIT (TYP.)

PROPOSED TRANSFORMER ON REINFORCED CONCRETE PAD

12" CMP INLET INVERT = 1015.21

PROPOSED CONNECTION TO EXISTING GAS MAIN. CONTRACTOR TO CONFIRM FEASIBILITY OF CONNECTION WITH GAS AUTHORITY PRIOR TO CONSTRUCTION.

PROPOSED 128 LF GAS SERVICE

PROPOSED SANITARY BUILDING CONNECTION & 18 LF 6" SANITARY PIPE

PROPOSED SANITARY BUILDING CONNECTION & 25 LF 6" SANITARY PIPE

FF = 1021.50

PROPOSED UTILITY BUILDING CONNECTIONS

PROPOSED UTILITY CROSSING; CONTRACTOR TO MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN UTILITIES (TYP.)

BENCHMARK SET CAPPED IRON ELEV= 1018.32

24" CMP OUTLET INVERT= 1011.61

BENCHMARK #1 SET CAPPED IRON ELEV= 1019.94

24" CMP

BENCHMARK SET CAPPED IRON ELEV= 1019.47

24" CMP OUTLET INVERT= 1011.93

STORM MH RIM ELEV= 1016.90
INVERT(A)= 1011.11
INVERT (B)= 1007.13
INVERT (C)= 1006.56
TOP OF WATER = 1005.80

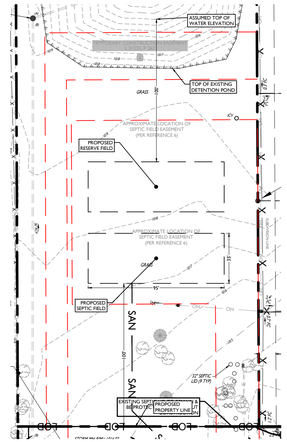
18" CMP OUTLET INVERT = 1014.66

STORM SEWER AND DETENTION EASEMENT L 31232, P 267

TEMPORARY CONSTRUCTION EASEMENT, L 31232, P 267

LAYON STREET (66' WIDE)

DIXIE HIGHWAY (VARIABLE WIDTH)



SEPTIC FIELD INSET

50' 0' 50' 100'

GRAPHIC SCALE IN FEET
1" = 50'

KNOX BOX TO BE PROVIDED. LOCATION TO BE APPROVED BY FIRE DEPARTMENT

SYMBOL	DESCRIPTION
	PROPERTY LINE
SAN	PROPOSED SANITARY LATERAL
W	PROPOSED DOMESTIC WATER SERVICE
E	PROPOSED ELECTRIC CONDUIT
G	PROPOSED GAS LINE
S	PROPOSED SANITARY MANHOLE / CLEANOUT
T	PROPOSED TRANSFORMER ON CONCRETE PAD

DRAINAGE AND UTILITY NOTES

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2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
6. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
8. CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

30' 0' 30' 60'

GRAPHIC SCALE IN FEET
1" = 30'

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555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN
JONATHAN FRED COOKSEY
ENGINEER
No. 6201060424
PROFESSIONAL ENGINEER

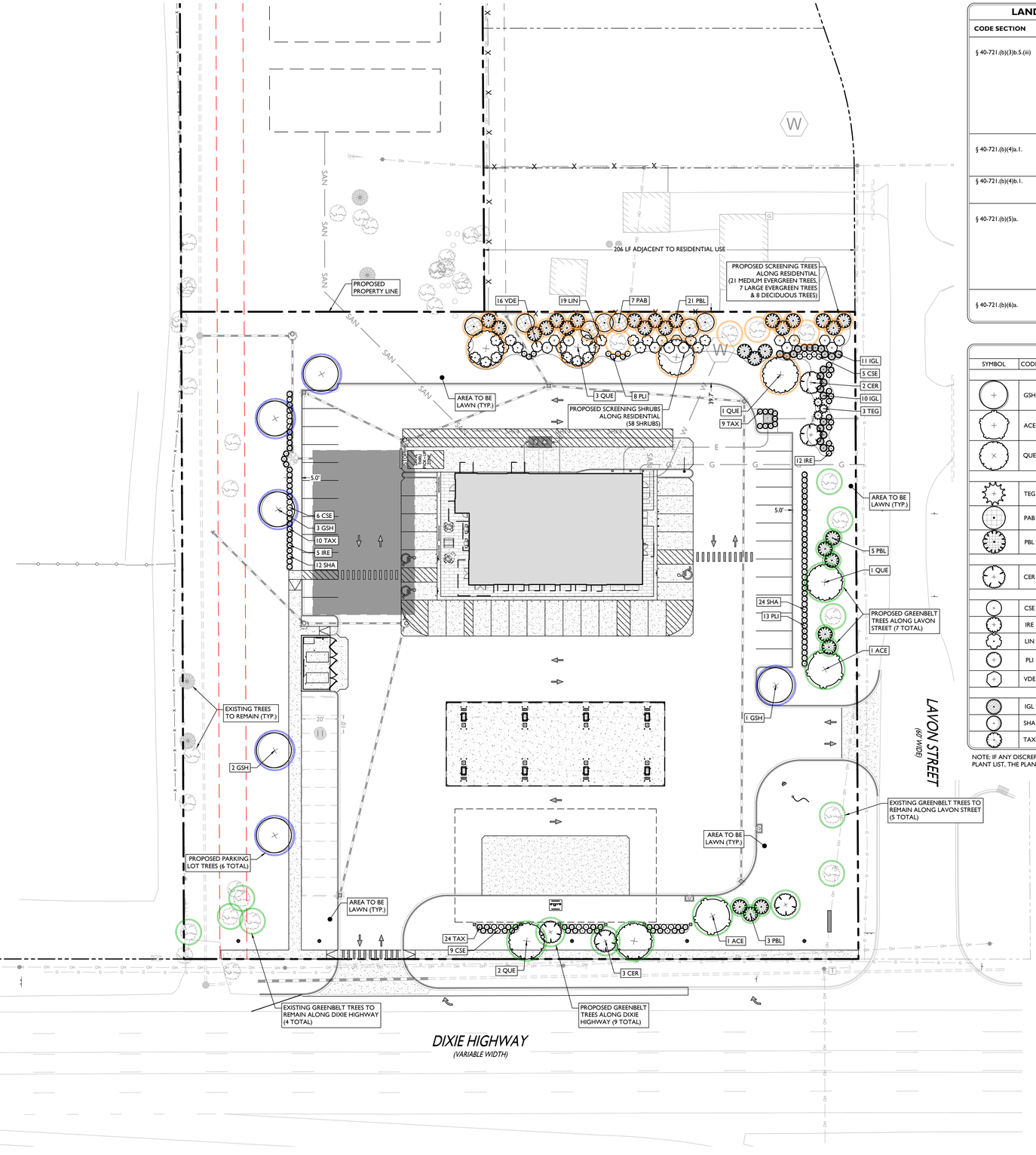
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-250399

TITLE: UTILITY PLAN

DRAWING: C-5.0

V:\DET\2025\DET-250399 SHEETZ DIXIE\CAD\DET-250399 - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTS\DET-250399 - SHEETZ DIXIE PLOT STYLE.CTB



LANDSCAPING AND SCREENING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 40-721.(b)(3)b.5.(iii)	SCREENING NO. 3 REQUIREMENTS	
	MINIMUM WIDTH: 30 FT	39.7 FT
	1 MEDIUM EVERGREEN TREE PER 10 LF	
	1 LARGE EVERGREEN TREE, 1 DECIDUOUS TREE, AND 5 SHRUBS PER 30 LF	
	(206 FT) * (1 TREE / 10 FT) = 21 MEDIUM EVERGREEN TREES	21 TREES
	(206 FT) * (1 TREE / 30 FT) = 7 LARGE EVERGREEN TREES	7 TREES
	(206 FT) * (1 TREE / 25 FT) = 8 DECIDUOUS TREES	4 EXISTING TREES 4 PROPOSED TREES
	(206 FT) * (7 SHRUBS / 25 FT) = 58 SHRUBS	58 SHRUBS
§ 40-721.(b)(4)a.1.	PARKING LOT TREES	
	1 TREE FOR EVERY 8 PARKING SPACES	
	(49 SPACES) * (1 TREE / 8 SPACES) = 6 TREES	6 TREES
	MINIMUM AREA: 150 SF	COMPLIES
§ 40-721.(b)(4)b.1.	PERIMETER PARKING LOT LANDSCAPING	
	LANDSCAPING, BERMING, OR SOLID WALL REQUIRED TO SCREEN PARKING FROM PUBLIC ROADS	COMPLIES
§ 40-721.(b)(5)a.	GREENBELTS	
	MINIMUM WIDTH: FRONT YARD SETBACK	COMPLIES
	1 TREE PER 30 LF	
	DIXIE HIGHWAY: 375 FT	
	(375 FT) * (1 TREE / 30 FT) = 13 TREES	4 EXISTING TREES 9 PROPOSED TREES
	LAVON STREET: 360 FT	
	(360 FT) * (1 TREE / 30 FT) = 12 TREES	5 EXISTING TREES 7 PROPOSED TREES
§ 40-721.(b)(6)a.	SITE LANDSCAPING	
	MINIMUM SITE LANDSCAPING: 10%	
	(134,938 SF) * (0.10) = 13,494 SF	19,482 SF (14.4%)

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
DECIDUOUS TREES						
	GSH	6	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2" - 2.5" CAL	B&B
	ACE	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2" - 2.5" CAL	B&B
	QUE	7	QUERCUS PALUSTRIS	PINK OAK	2" - 2.5" CAL	B&B
EVERGREEN TREES						
	TEG	3	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' - 8' HT	B&B
	PAB	7	PICEA ABIES	NORWAY SPRUCE	6' - 8' HT	B&B
	PBL	29	PICEA GLAUCA DENSATA	BLACK HILLS SPRUCE	6' - 8' HT	B&B
ORNAMENTAL TREES (SINGLE-STEM)						
	CER	5	CERCIS CANADENSIS	EASTERN REDBUD	1.5" - 2" CAL	B&B
SHRUBS						
	CSE	20	CORNUS SERICEA 'FARROW'	ARCTIC FIRE RED TWIG DOGWOOD	18" - 24" HT	POT
	IRE	17	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	18" - 24" HT	POT
	LIN	19	LINDERA BENZOIN	SPICEBUSH	24" - 30" HT	POT
	PLI	21	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL DWARF NINEBARK	18" - 24" HT	POT
	VDE	16	VIBURNUM DENTATUM	VIBURNUM	24" - 30" HT	POT
EVERGREEN SHRUBS						
	IGL	21	ILEX GLABRA	INKBERRY HOLLY	24" - 30" HT	POT
	SHA	36	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	18" - 24" HT	POT
	TAX	43	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLO-JAPANESE YEW	18" - 24" HT	POT

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.

SYMBOL	DESCRIPTION
	PROPOSED SCREENING TREES
	PROPOSED PARKING LOT TREES
	PROPOSED GREENBELT TREES

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

LANDSCAPING NOTES

1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH .
4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
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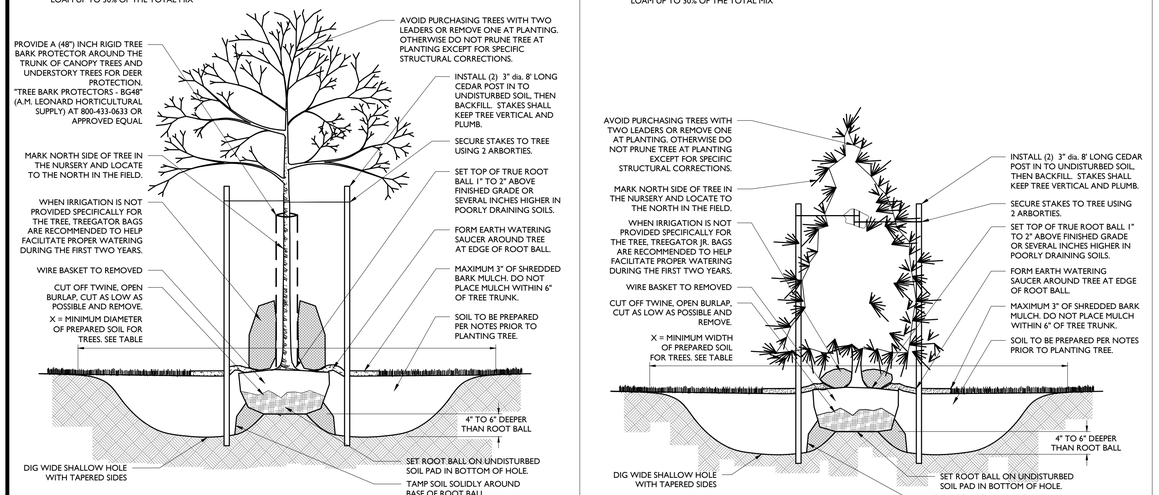
TITLE: **LANDSCAPING PLAN**

DRAWING: **C-6.0**

V:\DET\2025\DET-250399 SOLKEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\DP-6.0-LANDSCAPING.DWG

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
2. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
3. SOIL AMENDMENTS:
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
   - MODIFY EXTREMELY SANDY SOILDS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

1

NOTES:

1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
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3. SOIL AMENDMENTS:
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CONIFEROUS TREE PLANTING DETAIL

NOT TO SCALE

2

GENERAL LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.
2. WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
3. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.
4. IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND SEED VERIFYING TYPE AND PURITY.
5. UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRS.) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE OF ANY PLANT MATERIALS TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER, OR GOVERNING MUNICIPAL OFFICIAL.
6. THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

PROTECTION OF EXISTING VEGETATION NOTES:

1. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
2. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FIXTURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.
3. IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
   - TRENCHING: WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS, OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.
   - RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. IF APPLICABLE, THESE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."
   - LOWERING GRADES: EXISTING TREES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"). ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

SOIL PREPARATION AND MULCH NOTES:

1. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
2. BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED WITHIN THE "SEED SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS:
   - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM.
   - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
3. TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL OBTAINED FROM A WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
4. TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.0 AND SHALL NOT CONTAIN LESS THAN 6% ORGANIC MATTER BY WEIGHT.
5. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.
6. CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.
7. UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBED AREA OF THE SITE.
8. LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL) IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
9. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.
11. DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR. GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF.
12. WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
13. SOIL SHALL BE LOOSENED WITH A BACKHOE OR OTHER LARGE COARSE-TILING EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
14. APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN PRODUCT AND PLANT MATERIAL.
15. ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

MYCRO® TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGI INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM), BENEFICIAL RHIZOSPHERE BACTERIA, TERRA-SORB SUPERABSORBENT HYDROGEL TO REDUCE WATER LEACHING, AND SELECTED ORGANIC MICROBIAL NUTRIENTS.

- DIRECTIONS FOR USE: USE 3-OZ PER EACH FOOT DIAMETER OF THE ROOT BALL, OR 3-OZ PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL, EXTENDING FROM THE SOIL SURFACE TO A DEPTH OF ABOUT 8 INCHES, AND EXTENDING OUT FROM THE ROOT BALL ABOUT 8 INCHES INTO THE BACKFILL APPLY WATER TO SOIL SATURATION.
- MYCORⓇ TREE SAVERⓇ IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ERICOID MYCORRHIZAE.
- SOIL PH: THE FUNGI IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS IN A PH RANGE OF 3 TO 9.
- FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION.
- OTHER PESTICIDES: HERBICIDES AND INSECTICIDES DO NOT NORMALLY INTERFERE WITH MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.

HEALTHY START MACRO TABS 12-8-8

- FERTILIZER TABLETS ARE PLACED IN THE UPPER 4 INCHES OF BACKFILL SOIL WHEN PLANTING TREES AND SHRUBS.
- TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 2 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT, MICROBIAL NUTRIENTS DERIVED FROM SEA KELP, PROTEIN BYPRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLED & BURLAPPED (B&B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT 1 TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL EVENLY DISTRIBUTED AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

PLANT QUALITY AND HANDLING NOTES:

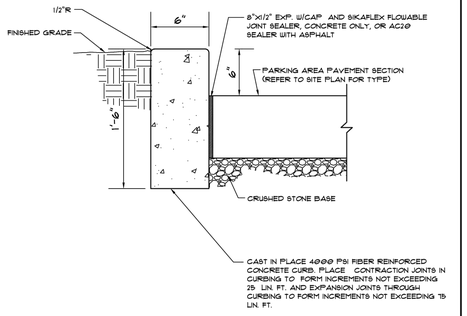
1. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER COMMON NAMES.
3. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE.
4. PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNSCALDS, DISFIGURING KNOTS OR FRESH CUTS OF LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE REJECTED.
5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE.
6. THE ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
7. ALL PLANTS DESIGNATED BALL AND BURLAP (B&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. THE DIAMETER AND DEPTH OF THE BALLS OF EARTH MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING. THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED.
8. PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TARPS OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DIGGING, CARELESSNESS WHILE IN TRANSIT OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.
9. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING DETAILS.
10. LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN POSSIBLE. THE ROOT BALL SHALL BE KEPT MOIST AT ALL TIMES AND COVERED WITH MOISTENED MULCH OR ADDED WOODCHIPS. PROPER IRRIGATION SHALL BE SUPPLIED SO AS TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS SHALL BE UNTIED AND PROPER SPACING SHALL BE ALLOTTED FOR AIR CIRCULATION AND TO PREVENT DISEASE, WILTING, AND LEAF LOSS. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.
11. NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.
12. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.
13. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT.
14. IF PLANTS ARE PROPOSED WITHIN SIGHT TRIANGLES, TREES SHALL BE LIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE, AND SHRUBS, GROUND COVER, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.
15. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
    PLANTS (MARCH 15 - DECEMBER 15)
    LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)
16. THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15):

ABIES CONCOLOR	CORNUS VARIETIES	OSTRYA VIRGINIANA
ACER BUERGERIANUM	CRATAEGUS VARIETIES	PINUS NIGRA
ACER FREEMANII	CUPRESSOCYPARIS LEYLANDII	PLATANUS VARIETIES
ACER RUBRUM	FAGUS VARIETIES	POPULUS VARIETIES
ACER SACCHARINUM	HALESIA VARIETIES	PRUNUS VARIETIES
BETULA VARIETIES	ILEX X FOSTERII	PYRUS VARIETIES
CARPINUS VARIETIES	ILEX NELLIE STEVENS	QUERCUS VARIETIES (NOT Q. PALUSTRIS)
CEDRUS DEODARA	ILEX OPACA	SALIX WEEPING VARIETIES
CELTIS VARIETIES	JUNIPERUS VIRGINIANA	SORBUS VARIETIES
CERCIDIPHYLLUM VARIETIES	KOELREUTERIA PANICULATA	TAXODIUM VARIETIES
CERCIS CANADENSIS	LIQUIDAMBAR VARIETIES	TAXUX B REPANDENS
CORNUS VARIETIES	LIRIODENDRON VARIETIES	TILIA TOMENTOSA VARIETIES
CRATAEGUS VARIETIES	MALUS IN LEAF	ULMUS PARVIFOLIA VARIETIES
	NYSSA SYLVATICA	ZELKOVA VARIETIES

17. IF A PROPOSED PLANT IS UNATTAINABLE OR ON THE FALL DIGGING HAZARD LIST, AN EQUIVALENT SPECIES OF THE SAME SIZE MAY BE REQUESTED FOR SUBSTITUTION OF THE ORIGINAL PLANT. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.
18. DURING THE COURSE OF CONSTRUCTION/PLANT INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED.
19. THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.
20. A 90-DAY MAINTENANCE PERIOD SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED.
21. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUYS IF ORIGINALLY REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
22. MOW ALL GRASS AREAS AT REGULAR INTERVALS TO KEEP THE GRASS HEIGHT FROM EXCEEDING THREE INCHES (3"). MOWING SHALL BE PERFORMED ONLY WHEN GRASS IS DRY. MOWER BLADE SHALL BE SET TO REMOVE NO MORE THAN ONE THIRD (1/3) OF THE GRASS LENGTH. WHEN THE AMOUNT OF GRASS IS HEAVY, IT SHALL BE REMOVED TO PREVENT DESTRUCTION OF THE UNDERLYING TURF. MOW GRASS AREAS IN SUCH A MANNER AS TO PREVENT CLIPPINGS FROM BLOWING ONTO PAVED AREAS, AND SIDEWALKS. CLEANUP AFTER MOWING SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS TO CLEAR THEM FROM MOWING DEBRIS.
23. GRASSED AREAS DAMAGED DURING THE PROCESS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL RESTORE THE DISTURBED AREAS TO A CONDITION SATISFACTORY TO THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE. THIS MAY INCLUDE FILLING TO GRADE, FERTILIZING, SEEDING, AND MULCHING.
24. SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED.
25. LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION, THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OR A WATERING TRUCK OR OTHER ACCEPTABLE MANNER.
26. THE QUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL.
27. IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL. HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY OF PLANT HEALTH AND ESTABLISHMENT.

PLANT MATERIAL GUARANTEE NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1 YR.) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE.
2. THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS COMPANY'S OPERATIONS.
3. ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENT



SITE AND STORE PERIMETER CURBING
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	SITE AND STORE PERIMETER CURBING	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 03

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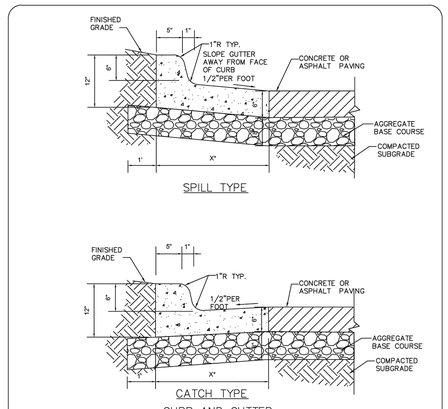

CURB AND GUTTER
SCALE: NO SCALE

NOTE:
- *ADJUST WIDTH PER LOCAL JURISDICTIONAL REQUIREMENTS (1.5' MIN).
- CONTRACTION JOINTS TO BE PLACED 10'O.C.
- EXPANSION JOINTS TO BE PLACED 75' O.C.
- 1/4" PRE-MOLDED BITUMINOUS EXPANSION JOINT WHEN ADJACENT TO CONCRETE PAVING
- CONCRETE SHALL BE 4,000 PSI FIBER MESH CONCRETE UNLESS OTHERWISE REQUIRED BY LOCAL JURISDICTION.
- AT CONTRACTOR OPTION, GUTTER THICKNESS MAY BE INCREASED AT END OF GUTTER TO MATCH THICKNESS OF ASPHALT/CONCRETE PAVING SECTION
- GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	CURB AND GUTTER DETAIL	SCALE: DATE: 03/15/2024 DRAWN BY: SJL/DLK 15

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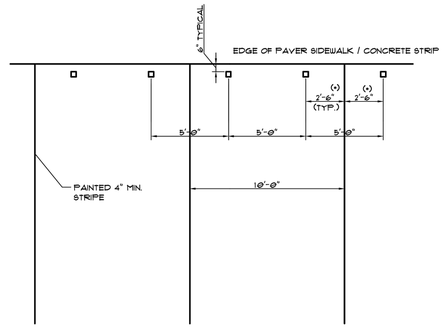

BUMPER POST DETAIL
SCALE: NO SCALE

- 2'-3" FOR 9.5' WIDE PARKING SPACE
- 2'-0" FOR 9.0' WIDE PARKING SPACE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	BUMPERPOST LAYOUT DETAIL AT PAVER SIDEWALK	SCALE: DATE: 4/7/2026 DRAWN BY: DAH 08

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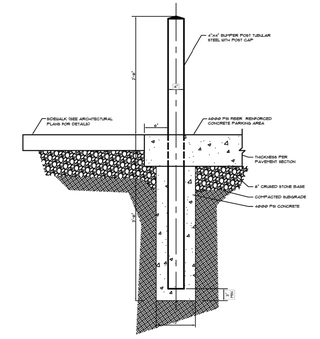

STOREFRONT BUMPER POST FLUSH SIDEWALK
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	STOREFRONT BUMPER POST DETAIL (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 51

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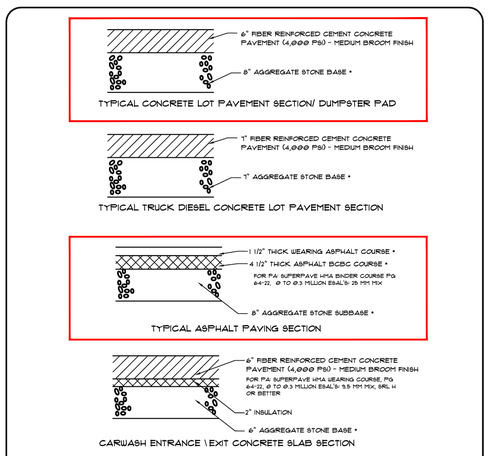

* PROPOSED MDOT 21AA STONE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	SITE PAVEMENT DETAILS	SCALE: DATE: 12/12/2023 DRAWN BY: DAH 20

V:\DET2025\DET-250399 EDLEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTS\DET-250399 7.0-7.3 DETS.DWG

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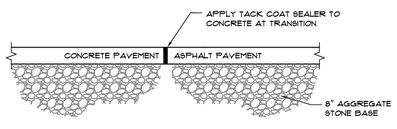

CONCRETE / ASPHALT PAVEMENT TRANSITION DETAIL
N.T.S.

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	ASPHALT PAVING DETAILS	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 27

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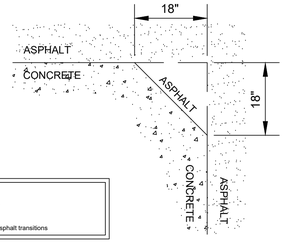

CONCRETE / ASPHALT chamfer
SCALE: NO SCALE

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	CONCRETE/ASPHALT CHAMFER DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 28

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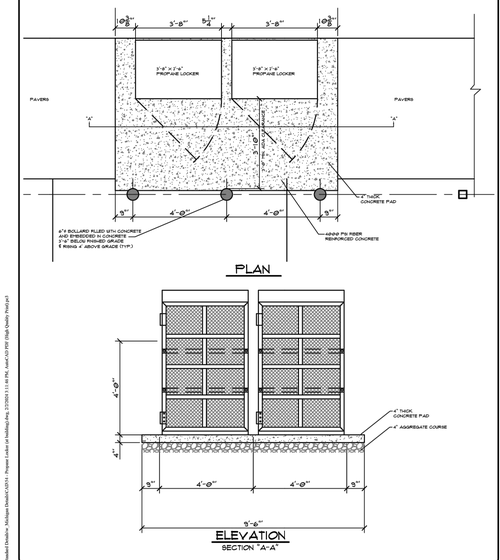

DATE | BY | DESCRIPTION REVISIONS	SHEETZ	PROPANE LOCKER (AT BUILDING) (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 54

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ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

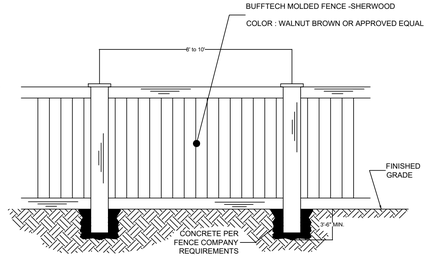


STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: CONSTRUCTION DETAILS

DRAWING: C-7.0



VINYL BOARD ON BOARD FENCE
SCALE: N.T.S.

DATE BY DESCRIPTION REVISIONS	SHEETZ	PRIVACY FENCE DETAIL (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 57

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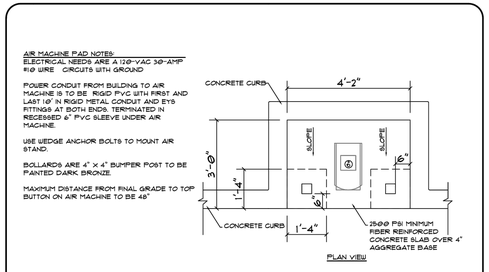
AIR MACHINE PAD NOTES:
ELECTRICAL NEEDS ARE A 120-VAC 30-AMP #10 WIRE CIRCUITS WITH GROUND

POWER CONDUIT FROM BUILDING TO AIR MACHINE IS TO BE RIGID PVC WITH FIRST AND LAST 10' IN RIGID METAL CONDUIT AND EYS FITTINGS AT BOTH ENDS. TERMINATED IN RECESSED 6" PVC SLEEVE UNDER AIR MACHINE.

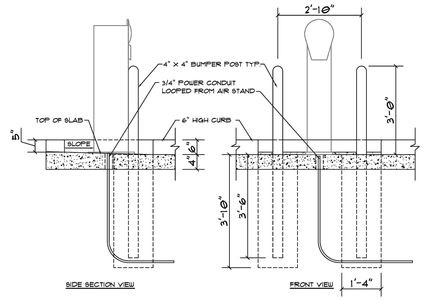
USE WEDGE ANCHOR BOLTS TO MOUNT AIR STAND.

BOLLARDS ARE 4" X 4" BUMPER POST TO BE PAINTED DARK BRONZE.

MAXIMUM DISTANCE FROM FINAL GRADE TO TOP BUTTON ON AIR MACHINE TO BE 48"



PLAN VIEW



SIDE SECTION VIEW FRONT VIEW

AIR MACHINE PAD
SCALE: NO SCALE

DATE BY DESCRIPTION REVISIONS	SHEETZ	AIR MACHINE PAD DETAILS (MICHIGAN ONLY)	SCALE: DATE: 2/2/2024 DRAWN BY: DAH 52

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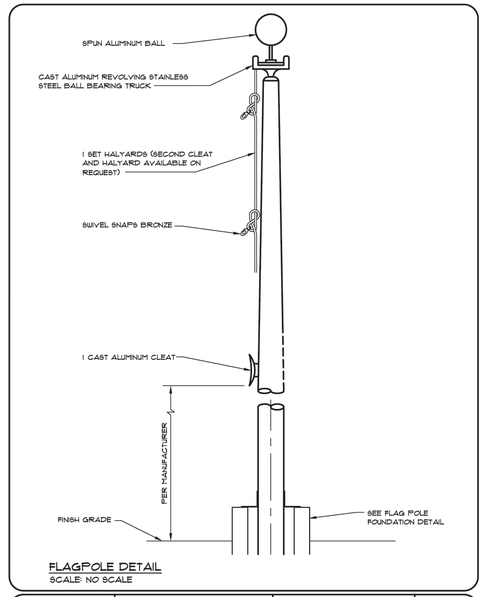

FLAGPOLE DETAIL
SCALE: NO SCALE

DATE BY DESCRIPTION REVISIONS	SHEETZ	FLAGPOLE DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 11

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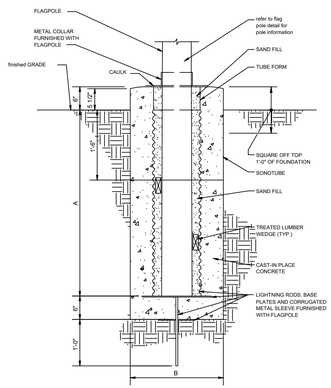
3

LEGEND				
POLE HEIGHT	SLEEVE SIZE	A	B	COLLAR BASE SIZE
40'	12" DIA.	48"	24" DIA.	16" DIA.
35'	10" DIA.	42"	22" DIA.	12" DIA.



FLAGPOLE FOUNDATION
SCALE: NO SCALE

DATE BY DESCRIPTION REVISIONS	SHEETZ	FLAGPOLE FOUNDATION	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 12

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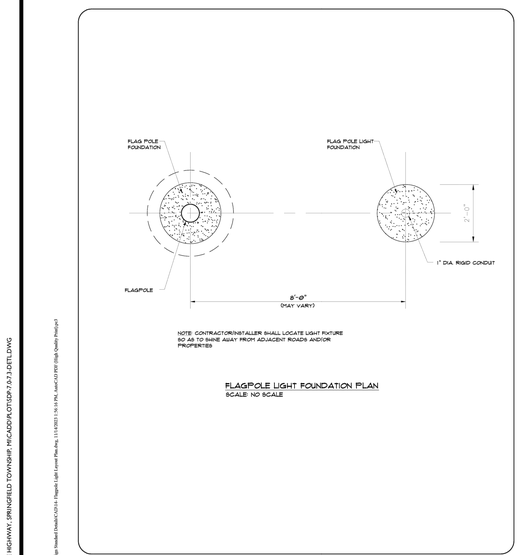

NOTE: CONTRACTOR/INSTALLER SHALL LOCATE LIGHT FIXTURE SO AS TO SHINE AWAY FROM ADJACENT ROADS AND/OR PROPERTIES

FLAGPOLE LIGHT FOUNDATION PLAN
SCALE: NO SCALE

DATE BY DESCRIPTION REVISIONS	SHEETZ	FLAGPOLE AND LIGHT FOUNDATION LAYOUT PLAN	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 14

V:\CBT\2025\DET-250399 SOLVEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOTDEP 7.0-7.3 DATE.DWG
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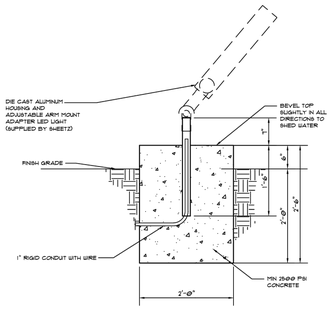

FLAGPOLE LIGHT FOUNDATION
SCALE: NO SCALE

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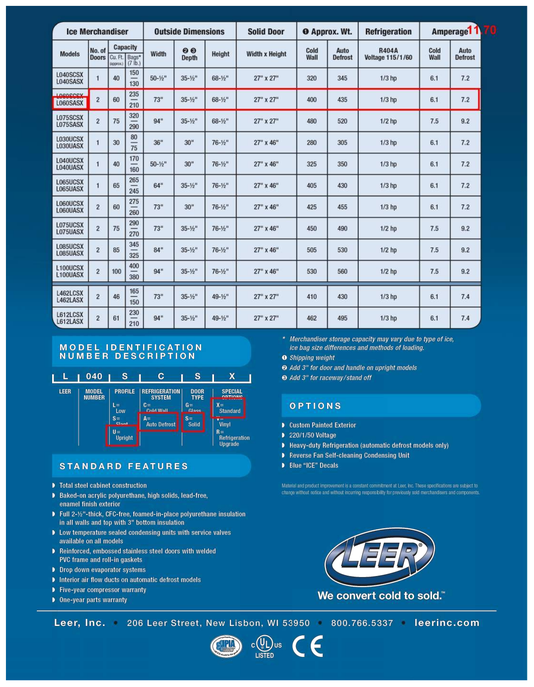

ICE BOX DETAIL
NOT TO SCALE

7

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
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1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

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SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

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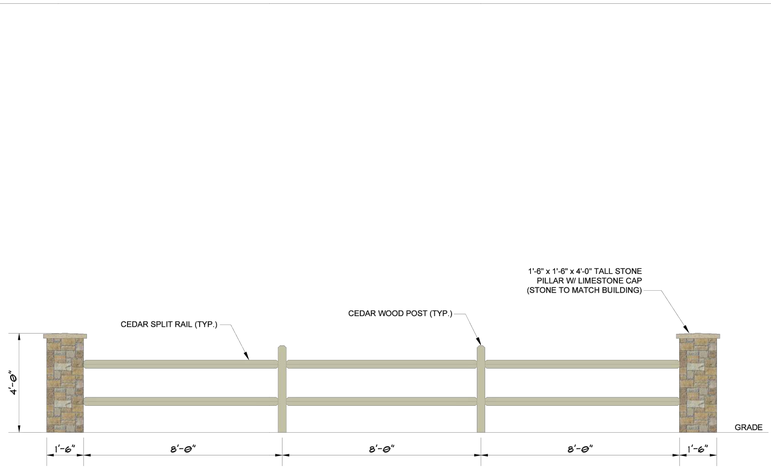
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: CONSTRUCTION DETAILS

DRAWING: C-7.1



SCALE:
DATE: 07/31/2026
DRAWN BY: DNC

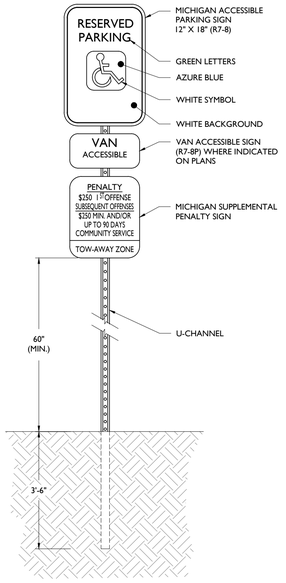
SPLIT FENCE DETAIL

SHEETZ

DATE	BY	DESCRIPTION

REVISIONS

1

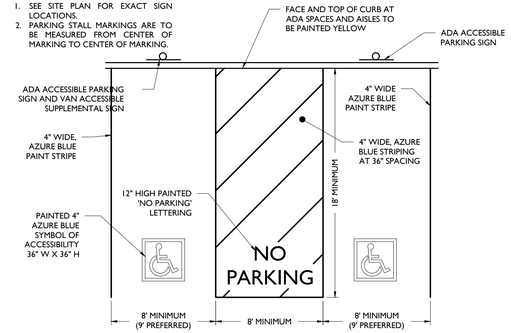


ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE

2

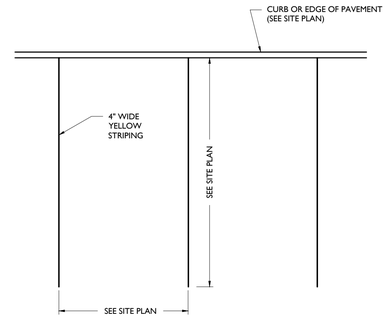
NOTES:
1. SEE SITE PLAN FOR EXACT SIGN LOCATIONS.
2. PARKING STALL MARKINGS ARE TO BE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING.



ACCESSIBLE PARKING STALL MARKINGS

NOT TO SCALE

3



PARKING STALL MARKINGS

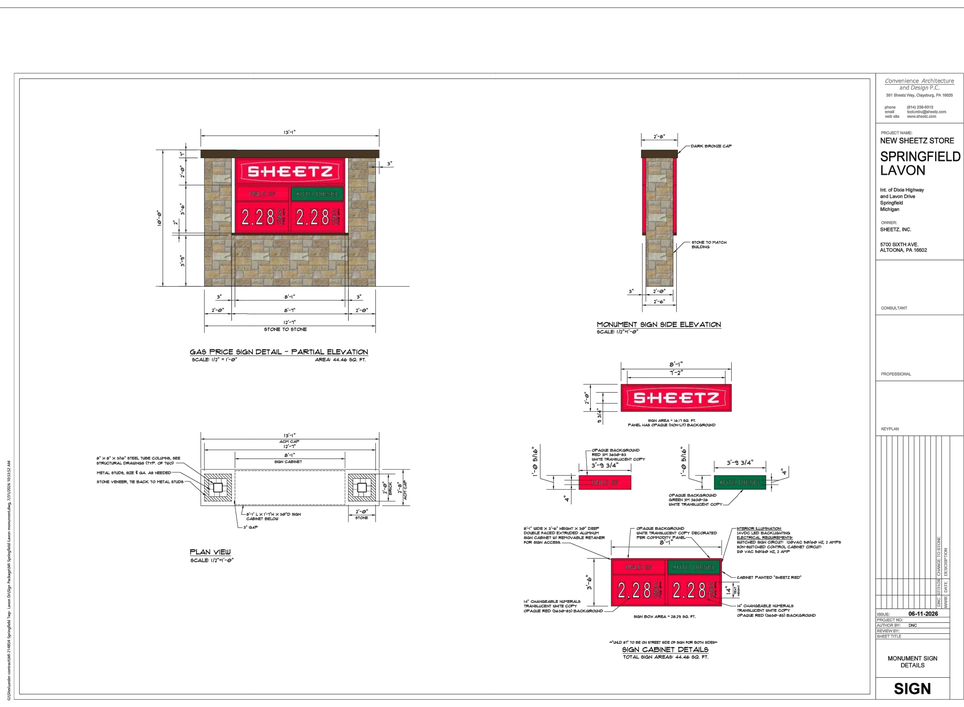
NOT TO SCALE

4

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
2	05/07/2026	KH	PRELIMINARY SITE
1	11/26/2025	NB	PRELIMINARY SITE, GRADING, UTILITIES

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115



GAS PRICE SIGN DETAIL - PARTIAL ELEVATION
SCALE: 1/2" = 1'-0" AREA: 44.46 SQ. FT.

PLAN VIEW
SCALE: 1/2"=1'-0"

MONUMENT SIGN SIDE ELEVATION
SCALE: 1/2"=1'-0"

SIGN CABINET DETAILS
TOTAL SIGN AREAS: 44.46 SQ. FT.

Convenience Architecture and Design P.C.
391 Sheetz Way, Claysburg, PA 16625
phone (814) 239-8103
email tsstudio@windy.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE
SPRINGFIELD LAVON
Int. of Dixie Highway and Lavon Drive
Springfield Michigan
OWNER:
SHEETZ, INC.
5700 SIXTH AVE.
ALTOONA, PA 16602
CONSULTANT
PROFESSIONAL
KEYPLAN

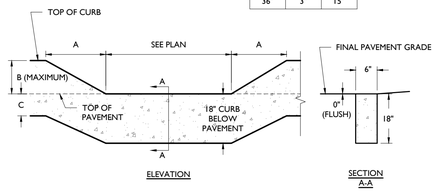
ISSUE	DESCRIPTION
06-11-2026	

PROJECT NO.:
AUTHOR BY: DNC
DESIGN BY:
SHEET TITLE:
MONUMENT SIGN DETAILS

SIGN

5

FLUSH CURB DIMENSIONS		
A	B	C
72"	6"	12"
60"	5"	13"
48"	4"	14"
36"	3"	15"



FLUSH CURB DETAIL

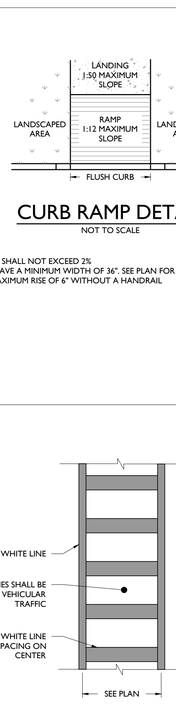
NOT TO SCALE

6

PAVEMENT STRIPING & MARKINGS NOTES:

1. ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
2. ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
3. PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
4. UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
5. UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.

8



CURB RAMP DETAIL

NOT TO SCALE

NOTES:
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%
2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL

7

CROSSWALK DETAIL

NOT TO SCALE

9

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN · LICENSED · MATTHEW D. COOKSEY · ENGINEER · PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-7.2

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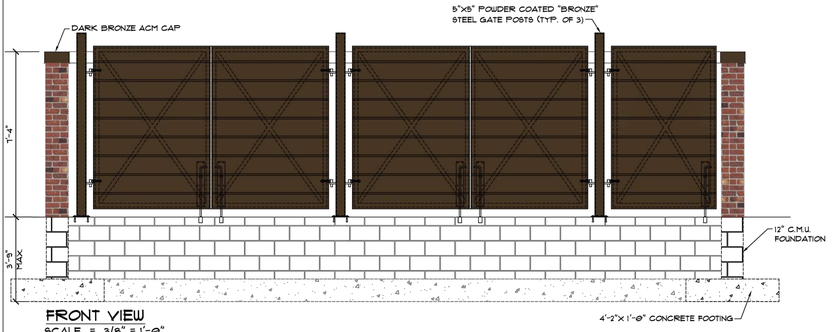
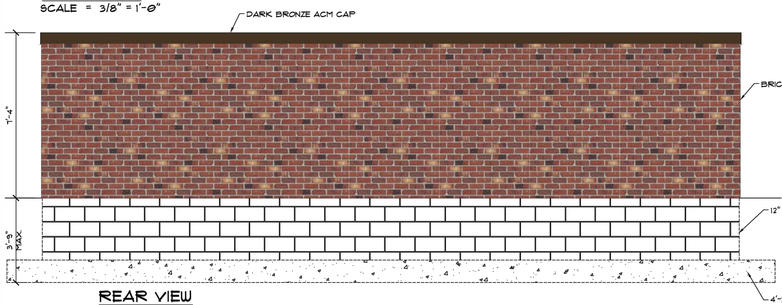
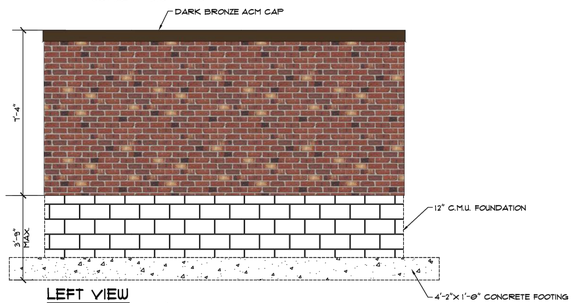
V:\DET\2025\DET-250399 SHEETZ LAVON, COLO - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI\CAD\PLOT\DET-250399-C-7.2-DETAILS.DWG



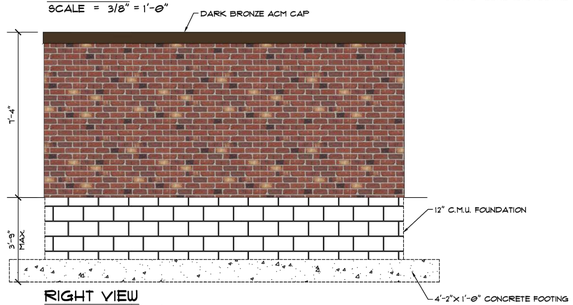
FRONT VIEW
SCALE = 3/8" = 1'-0"



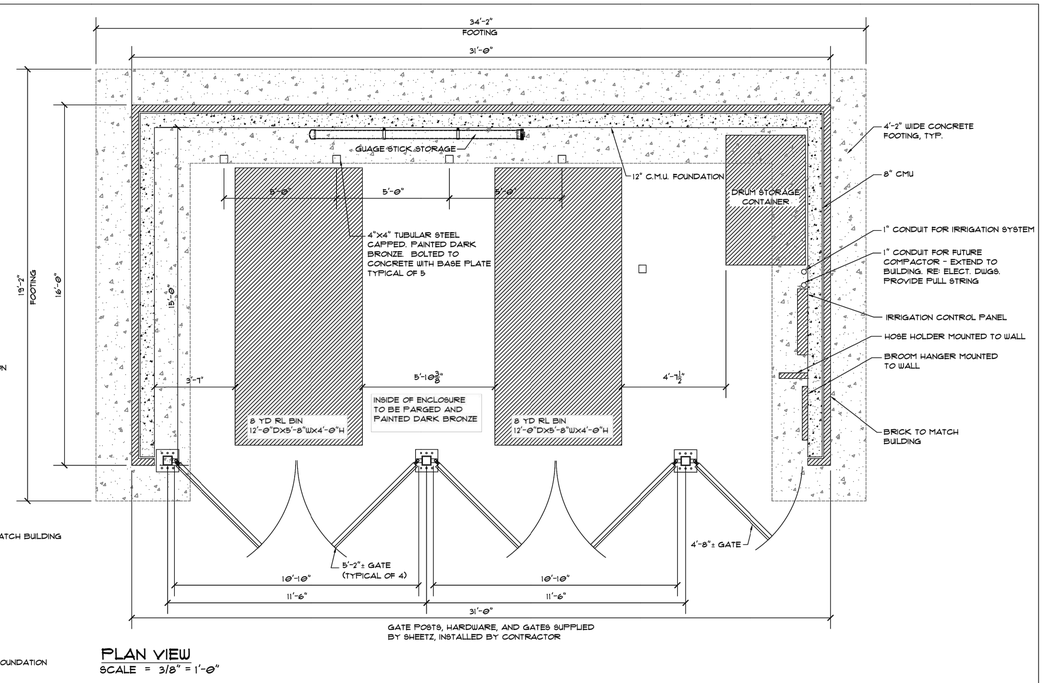
REAR VIEW
SCALE = 3/8" = 1'-0"



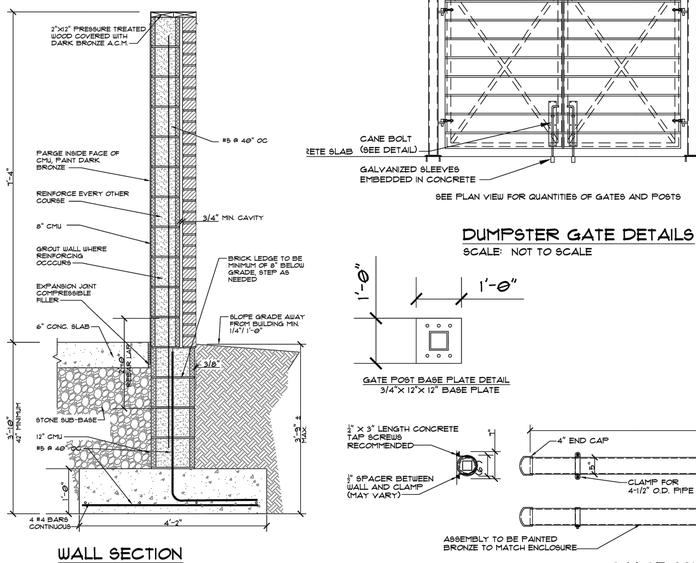
LEFT VIEW
SCALE = 3/8" = 1'-0"



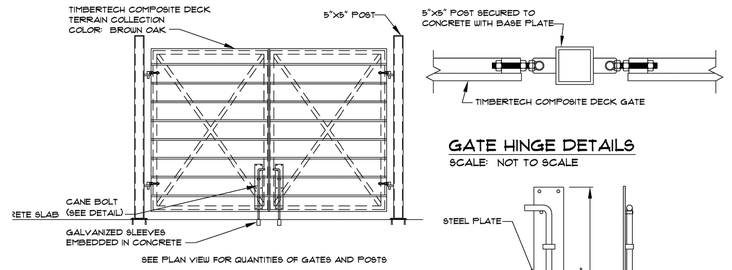
RIGHT VIEW
SCALE = 3/8" = 1'-0"



PLAN VIEW
SCALE = 3/8" = 1'-0"



WALL SECTION
SCALE: 3/4" = 1'-0"

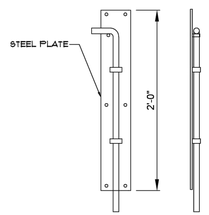


SEE PLAN VIEW FOR QUANTITIES OF GATES AND POSTS

GATE HINGE DETAILS
SCALE: NOT TO SCALE

DUMPSTER GATE DETAILS
SCALE: NOT TO SCALE

GATE POST BASE PLATE DETAIL
3/4"x 12"x 12" BASE PLATE



CANE BOLT DETAIL
ONE TO BE MOUNTED ON INSIDE OF ONE GATE AND ONE MOUNTED ON OUTSIDE OF OPPOSITE GATE

GUAGE STICK DETAILS
SCALE: 3/4" = 1'-0"

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:

OWNER:

MARK	DATE	DESCRIPTION

ISSUE: 07-29-25
PROJECT NO:
AUTHOR BY: NMI
REVIEW BY:
SHEET TITLE

TRASH ENCLOSURE

1

ISSUE	DATE	BY	DESCRIPTION
4	08/11/2026	JD	UPDATES FOR FINAL SITE PLAN REVIEW
3	06/18/2026	JD	FOR FINAL SITE PLAN REVIEW
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Phone 248.247.1115

SITE DEVELOPMENT PLANS

SHEETZ

PROPOSED GASOLINE SERVICE STATION, CONVENIENCE STORE, FAST FOOD RESTAURANT WITH PICKUP

PARCEL ID: 07-24-201-019 & 07-24-201-003
8500 DIXIE HIGHWAY
TOWNSHIP OF SPRINGFIELD
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN — CHRISTOPHER J. COOKSEY — ENGINEER — 6201053470 — PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-250399

TITLE: CONSTRUCTION DETAILS

DRAWING: C-7.3

V:\DET\2025\DET-250399 (KOLEN'S GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP INC\ACAD\PLOTS\DP 7.0-7.3 DETL.DWG
G:\Sheetz_Site Standards\Trash Layouts\2026-Trash Enclosure new.dwg, 9/16/2026 9:28:46 PM, DWG To PDF.pc3

SYMBOL DESCRIPTION

SYMBOL	DESCRIPTION
	BUILDING
	CONCRETE SIDEWALK / MAT
	ASPHALT / CONCRETE CURB
D.C	DEPRESSED CURB
	PROPERTY LINE
	VACATED / INTERIOR LOT LINE
	ADJACENT PROPERTY LINE
	SECTION LINE
	RIGHT OF WAY LINE
	SUBDIVISION LINE
	EASEMENT
x x	CHAIN LINK FENCE
o o	BOARD-ON-BOARD FENCE
	UTILITY POLE
	GUY WIRE
	LIGHT POLE
	SIGNS
WV	WATER VALVE
GV	GAS VALVE
	DRAIN
	INLET
	MAN HOLE
	BOLLARDS
	4"x6" FRAME POST
	BOX (ELEC, GAS, ETC.)
E.P.	EDGE OF PAVEMENT
OH	OVERHEAD WIRE
G	UNDERGROUND GAS LINE
FO	UNDERGROUND FIBER OPTIC LINE
E	UNDERGROUND ELEC. LINE
T	UNDERGROUND COMMUNICATIONS LINE
SAN	SANITARY SEWER LINE
	STORM PIPE
100	MAJOR CONTOUR
101	MINOR CONTOUR
TC 100.50	TOP OF CURB SHOT
100.00	GRADE SPOT SHOT

SYMBOL DESCRIPTION

SYMBOL	DESCRIPTION
BC 100.00	BOTTOM OF CURB SHOT
TW 102.00	TOP OF WALL SHOT
BW 100.00	BOTTOM OF WALL SHOT
	WALL
	PAVEMENT STRIPING
	DELINEATOR
	VEGETATION LINE
	ROOF OVERHANG
	TOP OF BANK
	GAS MARKER
	TELE-COMMUNICATIONS MARKER
W	WATER WELL
E	ELEC METER
G	GAS METER
	TELEPHONE PEDESTAL
ICV	IRRIGATION CONTROL VALVE
C/O	CLEAN OUT
M.W.	MONITORING WELL
	VENT / STAND PIPE
	ROOF LEADER
	MAILBOX
	IRON ROD
	SURVEY MONUMENT
	SECTION CORNER
	BENCH MARK
	DECIDUOUS TREE
	PINE TREE
	SHRUB
ELEV	ELEVATION
FF	FINISH FLOOR
MH	MANHOLE
(M)	MEASURED
(R)	RECORD
BL	BLUE LINES
WL	WHITE LINES
YL	YELLOW LINES
TDO	TURN DOWN OUTLET

SURVEY NOTES:

1. THIS SURVEY AND THE BOUNDARIES SHOWN HEREON ARE THE RESULT OF AN ACTUAL FIELD SURVEY PERFORMED ON SEPTEMBER 5, 2025 BASED ON AVAILABLE MAPS AND DEEDS OF RECORD, AND PHYSICAL EVIDENCE. THIS SURVEY IS SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND AGREEMENTS OF RECORD THAT A TITLE SEARCH MAY DISCLOSE.
2. THIS SURVEY IS VALID ONLY WHEN A DIGITAL SEAL IS AFFIXED HERETO.
3. THE SURVEYOR IS NOT QUALIFIED TO IDENTIFY ENVIRONMENTAL CONDITIONS OR THE PRESENCE OR ABSENCE OF WETLANDS.
4. THE CERTIFICATION SHOWN HEREON IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
5. ANY SUBSURFACE UTILITIES SHOWN HAVE BEEN LOCATED FROM MARKOUTS OBSERVED ON SITE DURING THE FIELD SURVEY, AND SURFACE FEATURES SUCH AS VALVES, MANHOLES AND GRATES. STORM DRAINAGE AND OR SANITARY INVERTS ARE DEPICTED BASED ON OBSERVATIONS MADE IN THE FIELD. 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 THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION USED. THE SURVEY HAS NOT PHYSICALLY LOCATED THE UTILITIES. BEFORE ANY EXCAVATIONS ARE BEGUN, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
6. BEARINGS ARE REFERENCED TO THE MICHIGAN STATE PLANE COORDINATE SYSTEM (NAD83) SOUTH ZONE. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), ESTABLISHED VIA RTK GPS OBSERVATIONS UTILIZING MICHIGAN DEPARTMENT OF TRANSPORTATION CONTINUOUSLY OPERATING REFERENCE SYSTEM (MDOT CORS).
7. BASEMENT OR BELOW GRADE STRUCTURES (IF ANY) ARE UNKNOWN.
8. THE OUTLET INVERTS FOR THE STORM SEWER STRUCTURES LOCATED ON PARCEL 2 ARE TURN DOWN OUTLETS TO PROVIDE LIQUID SEPARATION, MAKING THESE INVERT MEASUREMENTS UNOBTAINABLE.
9. BENCHMARK #1 = SET CAPPED IRON = 1019.94 (NAVD88)
   - GRASS AREA / SOUTHEAST CORNER OF LOT 9, PARCEL 07-24-201-019
   BENCHMARK #2 = MAG NAIL = 1019.47 (NAVD88)
   - GRASS AREA / NEAR SOUTH ENTRANCE OF PARCEL 07-24-201-019

PARCEL DESCRIPTION:

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF OAKLAND, TOWNSHIP OF SPRINGFIELD

PARCEL 1:
LOT 7 OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS.

PARCEL 2:
PART OF LOTS 8 AND 9, OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS: BEGINNING AT A POINT NORTH 33 DEGREES 17 MINUTES 20 SECONDS EAST 250 FEET FROM THE MOST WESTERLY CORNER OF LOT 8; THENCE NORTH 33 DEGREES 17 MINUTES 20 SECONDS EAST 110 FEET; THENCE SOUTH 56 DEGREES 24 MINUTES 10 SECONDS EAST 206 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 20 SECONDS WEST 110 FEET; THENCE NORTH 56 DEGREES 24 MINUTES 10 SECONDS WEST 206 FEET TO THE POINT OF BEGINNING

AND

PART OF LOTS 8 AND 9 OF SUPERVISORS PLAT OF SPRINGFIELD ESTATES, A SUBDIVISION OF PART OF THE NORTH 1/2 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 60 OF PLATS, PAGE 35, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS: BEGINNING AT THE MOST WESTERLY CORNER OF LOT 8, THENCE NORTH 33 DEGREES, 17 MINUTES 20 SECONDS EAST 250 FEET, THENCE SOUTH 56 DEGREES 24 MINUTES 10 SECONDS EAST 206 FEET, THENCE SOUTH 33 DEGREES 17 MINUTES 20 SECONDS WEST 250 FEET, THENCE NORTH 56 DEGREES 24 MINUTES 10 SECONDS WEST 206 FEET TO THE POINT OF BEGINNING, EXCEPTING ANY PART TAKEN FOR I-75 INTERCHANGE.

BEING THE SAME PROPERTY AS DESCRIBED IN A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

SURVEY REFERENCES:

1. DEED BETWEEN AUTO CITY SERVICE, INC AND HILLTOP CAMP BC LLC, DATED DECEMBER 23, 2019 AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, OAKLAND COUNTY, MICHIGAN, IN LIBER 53638 PAGE 599.
2. DEED BETWEEN AUTO CITY SERVICE, INC AND 8500 DIXIE HIGHWAY, LLC, DATED JULY 2, 2019 AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, OAKLAND COUNTY, MICHIGAN, IN LIBER 52983 PAGE 878.
3. "SUPERVISORS PLAT OF SPRINGFIELD ESTATES" A SUBDIVISION OF PART OF THE NORTH 1/2 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DATED JANUARY 26, 1950 AND RECORDED IN THE OAKLAND COUNTY REGISTER OF DEEDS OFFICE IN LIBER 60 OF PLATS ON PAGE 35.
4. "SPRINGFIELD ESTATES NO 1" A SUBDIVISION OF PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DATED FEBRUARY 9, 1966 AND RECORDED IN THE OAKLAND COUNTY REGISTER OF DEEDS OFFICE IN LIBER 117 OF PLATS ON PAGE 17.
5. "GRADING PLAN" PROPOSED NEW GAS STATION C-STORE FOR AUTO CITY SERVICE, SPRINGFIELD TOWNSHIP SITE 8496 AND 8500 DIXIE HIGHWAY, PREPARED BY ASSELIN ASSOCIATES ARCHITECTS, DATED MARCH 08, 2001.
6. "OVERALL SITE PLAN" PROPOSED NEW GAS STATION C-STORE FOR AUTO CITY SERVICE, TO BE SPRINGFIELD TOWNSHIP SITE 8496 & 8500 DIXIE HIGHWAY, SHEET C1.1 OF 6, PREPARED BY ASSELIN ASSOCIATES ARCHITECTS, DATED JUNE 02, 2003.
7. A TITLE COMMITMENT PREPARED BY CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

FLOOD NOTE:

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE (AREA OF MINIMAL FLOOD HAZARD) (UNSHADED) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY NO. 260478, MAP NUMBER 26125C0327F WHICH BEARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2006.

AREA NOTES

TOTAL LAND AREA

PARCEL 2 (PART OF LOTS 8 & 9) AREA=
74,176 SQUARE FEET± OR 1.703 ACRES±
PARCEL 1 (LOT 7) AREA=
205,979 SQUARE FEET± OR 4.729 ACRES±

EXISTING STRIPED PARKING

REGULAR = 7 SPACES
HANDICAP = 2 SPACES

TOTAL = 9 SPACES

SCHEDULE B - PART II EXCEPTIONS:

CHICAGO TITLE INSURANCE COMPANY, ISSUING OFFICE COMMITMENT NUMBER 631263147NTS, COMMITMENT DATE AUGUST 26, 2025 AT 08:00 AM.

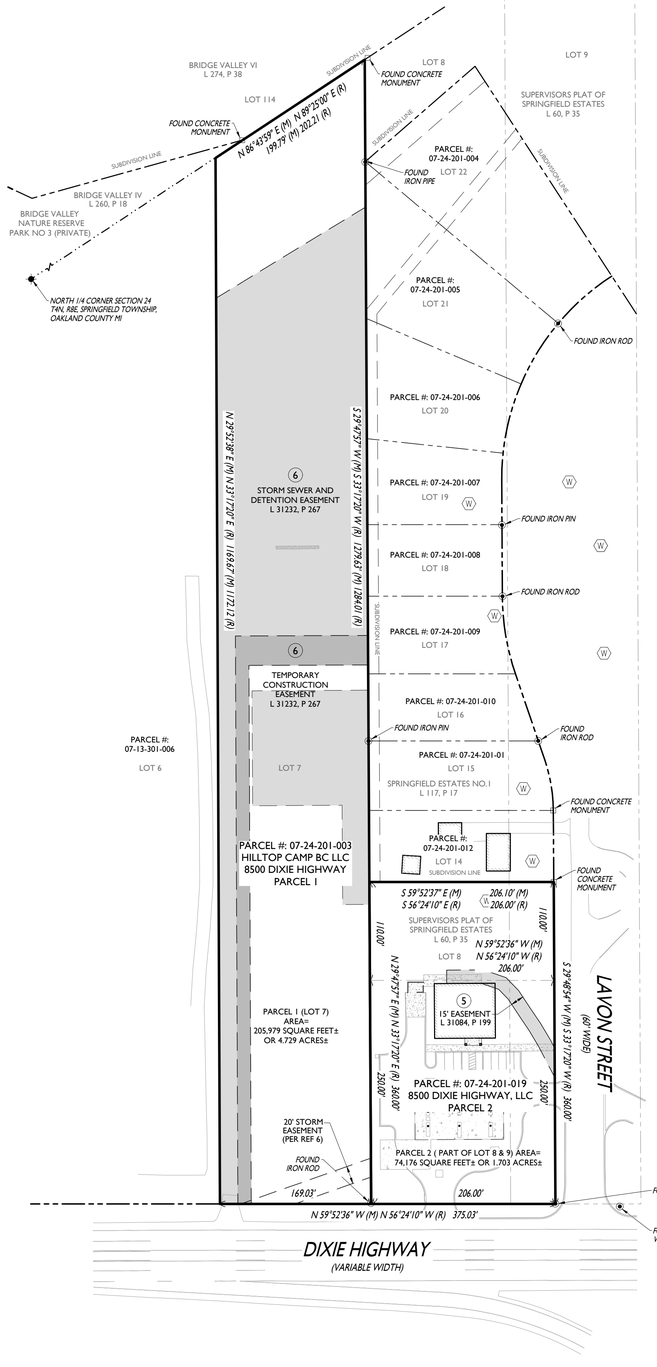
EXCEPTIONS 1 THROUGH 3, INCLUSIVE, AND 9 THROUGH 11, INCLUSIVE, ARE NOT SURVEY RELATED.

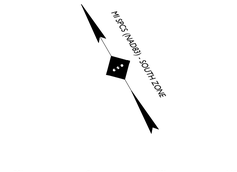
4. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT RECORDING NO: LIBER 1874, PAGE 162; LIBER 2589, PAGE 350 AND LIBER 13518, PAGE 285. **(LIBER 1874, PAGE 162 - BUILDING AND USE RESTRICTIONS AFFECT PARCEL 1 AND PARCEL 2; LIBER 2589, PAGE 350: BUILDING AND USE RESTRICTIONS AFFECT PARCEL 2; NOTHING TO SHOW) (LIBER 13518, PAGE 285 - AFFECTS PARCEL 2; GAS STATION RESTRICTION APPEARS TO HAVE EXPIRED (20 YEAR RESTRICTION; DOCUMENT RECORDED IN 1993)**

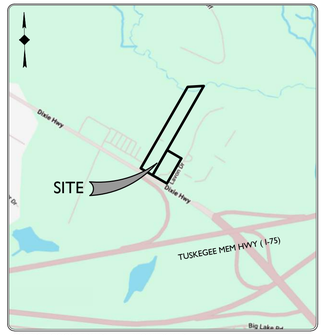
(5.) RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: DETROIT EDISON COMPANY RECORDING NO: LIBER 31084, PAGE 199. **(AFFECTS PARCEL 2; APPROXIMATE LOCATION IS SHOWN PER UTILITY MARKINGS)**

(6.) RIGHT(S) OF WAY AND/OR EASEMENT(S) AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT: GRANTED TO: BOARD OF COUNTY ROAD COMMISSIONER FOR OAKLAND COUNTY (A PUBLIC BODY CORPORATE) RECORDING NO: LIBER 31232, PAGE 267. **(AFFECTS PARCEL 1; SHOWN)**

7. TERMS, COVENANTS, AND CONDITIONS OF AGREEMENT FOR RIGHT OF FIRST REFUSAL (ASSETS AND PREMISES) AS SET FORTH BELOW: RECORDING NO: LIBER 52984, PAGE 24. **(AFFECTS PARCEL 2; RIGHT OF FIRST REFUSAL UNTIL 2035; NOTHING TO SHOW)**







SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE

811
Know what's **below**
Call before you dig.

STONEFIELD engineering & design

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Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com

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Phone 248.247.1115

ALTA / NSPS LAND TITLE SURVEY

MAP OF SURVEY OF:

PARCEL #: 07-24-201-019 AND PARCEL 07-24-201-003
PART OF NORTH 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST
8500 DIXIE HIGHWAY AND VACANT DIXIE HIGHWAY
SPRINGFIELD TOWNSHIP
OAKLAND COUNTY, MICHIGAN

ISSUE	DATE	DRAFT BY	CHECK BY	FIELD DATE	FIELD CREW	DESCRIPTION
2	06/01/26	AG	AG	-	-	ADD WETLANDS
1	09/15/25	DJS	AG	09/05/25	JU	FOR ISSUE

THIS IS TO DECLARE 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, 9 & 13 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON SEPTEMBER 5, 2025

ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=80'	PROJECT ID: DET-250399	SHEET: 1 OF 3

Z:\ALTA\PERSONAL\TYRONNGILKEY\PROJ\GAS\DET\2025\DET-250399 SIGLEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_GAS\TYRONNGILKEY\DET-250399 - V3.DWG

MATCHLINE

SEE SHEET 3

PARCEL #: 07-24-201-010

LOT 16

LOT 9

FOUND IRON PIN

FOUND IRON ROD

S 29°45'57" W (M) S 31°17'20" W (R) 1278.63' (M) 1280.10' (R)

N 29°52'38" E (M) N 31°17'20" E (R) 1189.67' (M) 1172.12' (R)

APPROXIMATE LOCATION OF SEPTIC FIELD EASEMENT (PER REFERENCE 6)

GRASS

PARCEL #: 07-24-201-01

LOT 15

SPRINGFIELD ESTATES NO.1
L 117, P 17

FOUND CONCRETE MONUMENT

12' PRIVATE EASEMENT FOR PUBLIC UTILITIES (PER REF 4)

4" SEPTIC LID (2 TYP)

32" SEPTIC LID (9 TYP)

FRAME GARAGE

ASPHALT DRIVE

SINGLE STORY FRAME DWELLING

PARCEL #: 07-24-201-012

LOT 14

FRAME SHED

GATE

SUBDIVISION LINE

S 59°52'37" E (M) 206.10' (M)
S 56°24'10" E (R) 206.00' (R)

12" CMP OUTLET
INVERT = 1013.80

12" CMP INLET
INVERT = 1013.21

INLET GRT.= 1016.35

CONC CURB

ASPHALT

12" CMP OUTLET
INVERT = 1013.67

BENCHMARK
SET CAPPED IRON
ELEV= 1018.32

ASPHALT

CONC CURB

12" CMP INLET
INVERT = 1013.97

SIGN: "STOP"

INLET GRT.= 1017.91

INLET GRT.= 1018.52

LAYON STREET (60' WIDE)

SIGN: "LAYON ST"

FOUND IRON PIN WITH CAP "RED"

24" CMP OUTLET
INVERT= 1017.93

STORM MH RIM= 1016.02
INVERT (A)= 1006.52
INVERT (B)= 1006.42

LOT 6

PARCEL #: 07-13-301-006

ASPHALT DRIVE

PARCEL #: 07-24-201-003
HILLTOP CAMP BC LLC
8500 DIXIE HIGHWAY
PARCEL 1

LOT 8

SUPERVISORS PLAT OF SPRINGFIELD ESTATES
L 60, P 35

LOT 9

100.00'

133.1'

12" RCP INLET
INVERT = 1010.31

CONC BLOCK TRASH ENCLOSURE

GENERATOR

N 59°52'36" W (M)
N 56°24'10" W (R)
206.00'

BENCHMARK
SET CAPPED IRON
ELEV= 1019.47

BENCHMARK #1
SET CAPPED IRON
ELEV= 1019.94

COMMERCIAL SIGN: "BP"

STANDING VENT PIPE (6 TYP)

FOUND IRON ROD

206.00'

6 TEMPORARY CONSTRUCTION EASEMENT, L 31232, P 267

STORM SEWER AND DETENTION EASEMENT
L 31232, P 267

PARCEL 1 (LOT 7)
AREA=
205,979 SQUARE FEET±
OR 4.729 ACRES±

PARCEL #: 07-24-201-019
8500 DIXIE HIGHWAY, LLC
PARCEL 2
SINGLE STORY
FRAME BUILDING
FOOTPRINT= 4,176 SQ FT

PARCEL 2 (PART OF LOT 8 & 9) AREA=
74,176 SQUARE FEET± OR 1.703 ACRES±

15' EASEMENT
L 31084 P 199

67.9'

66.2'

66.1'

67.9'

61.4'

COLUMN (2 TYP)

N 59°52'36" E (M) N 53°17'20" E (R) 360.00'

S 59°52'36" W (M) S 53°17'20" W (R) 360.00'

250.00'

CATCH BASIN
GRT= 1020.06
INVERT (A)= 1015.66
INVERT (B)= 1015.66
INVERT (C)= TOO
TOP OF WATER= 1009.46

CATCH BASIN
GRT= 1018.76
INVERT (A)= 1016.06
INVERT (B)= 1009.06
INVERT (C)= TOO
TOP OF WATER= 1008.86

CATCH BASIN
GRT= 1018.29
INVERT (A)= 1012.39
INVERT (B)= TOO
TOP OF WATER= 1012.39

INLET GRT= 1018.57
INVERT (A)= 1008.47
INVERT (B)= TOO
TOP OF WATER= 1008.27

CATCH BASIN
GRT= 1018.31
INVERT (A)= 1015.01
INVERT (B)= 1015.01
INVERT (C)= 1012.21
INVERT (D)= TOO
TOP OF WATER = 1011.81

CATCH BASIN
GRT= 1018.29
INVERT (A)= 1011.39
INVERT (B)= TOO
TOP OF WATER= 1010.99

RAISED CONC PAD & FUEL PUMP (TYP)

METAL LID (TYP)

CANOPY

CANOPY COLUMN (6 TYP)

AIR COMPRESSOR

ASPHALT

CONC CURB & GUTTER

RUINOUS ASPHALT

4"x6" SQUARE POST (TYP)

STORM MH RIM= 1019.17
INVERT (A)= 1010.07
INVERT (B)= 1007.47
INVERT (C)= 1007.17

20' STORM EASEMENT (PER REF 6)

169.03'

24" CMP OUTLET
INVERT = 1015.63

FOUND IRON ROD

SIGN: "NO U TURN"

STORM MH
RIM ELEV= 1016.90
INVERT (A)= 1011.11
INVERT (B)= 1007.13
INVERT (C)= 1006.96
TOP OF WATER = 1005.80

18" CMP OUTLET
INVERT = 1014.66

18" RCP

SIGN: SCHOOL X-ING AHEAD

N 59°52'36" W (M) N 56°24'10" W (R) 375.03'

DIXIE HIGHWAY
(VARIABLE WIDTH)

SIGN: "NO PARKING..."

SIGN: "NO PARKING..."

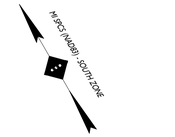
SIGN: "DEAD END"

SIGN: "NO PARKING..."

SIGN: "STOP"

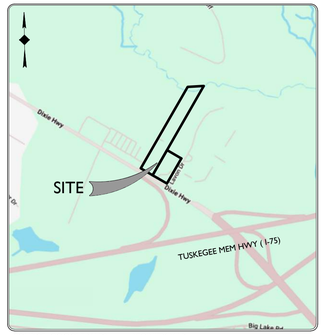
SIGN: "NO PARKING..."

SIGN:





GRAPHIC SCALE IN FEET
1" = 30'



SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE

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Phone 248.247.1115

ALTA / NSPS LAND TITLE SURVEY

MAP OF SURVEY OF:

PARCEL #: 07-24-201-019 AND PARCEL 07-24-201-003
PART OF NORTH 1/4 OF SECTION 24, TOWN 4 NORTH, RANGE 8 EAST
8500 DIXIE HIGHWAY AND VACANT DIXIE HIGHWAY
SPRINGFIELD TOWNSHIP
OAKLAND COUNTY, MICHIGAN

ISSUE	DATE	DRAFT BY	CHECK BY	FIELD DATE	FIELD CREW	DESCRIPTION
2	06/01/26	AG	AG	-	-	ADD WETLANDS
1	09/15/25	DJS	AG	09/05/25	JU	FOR ISSUE

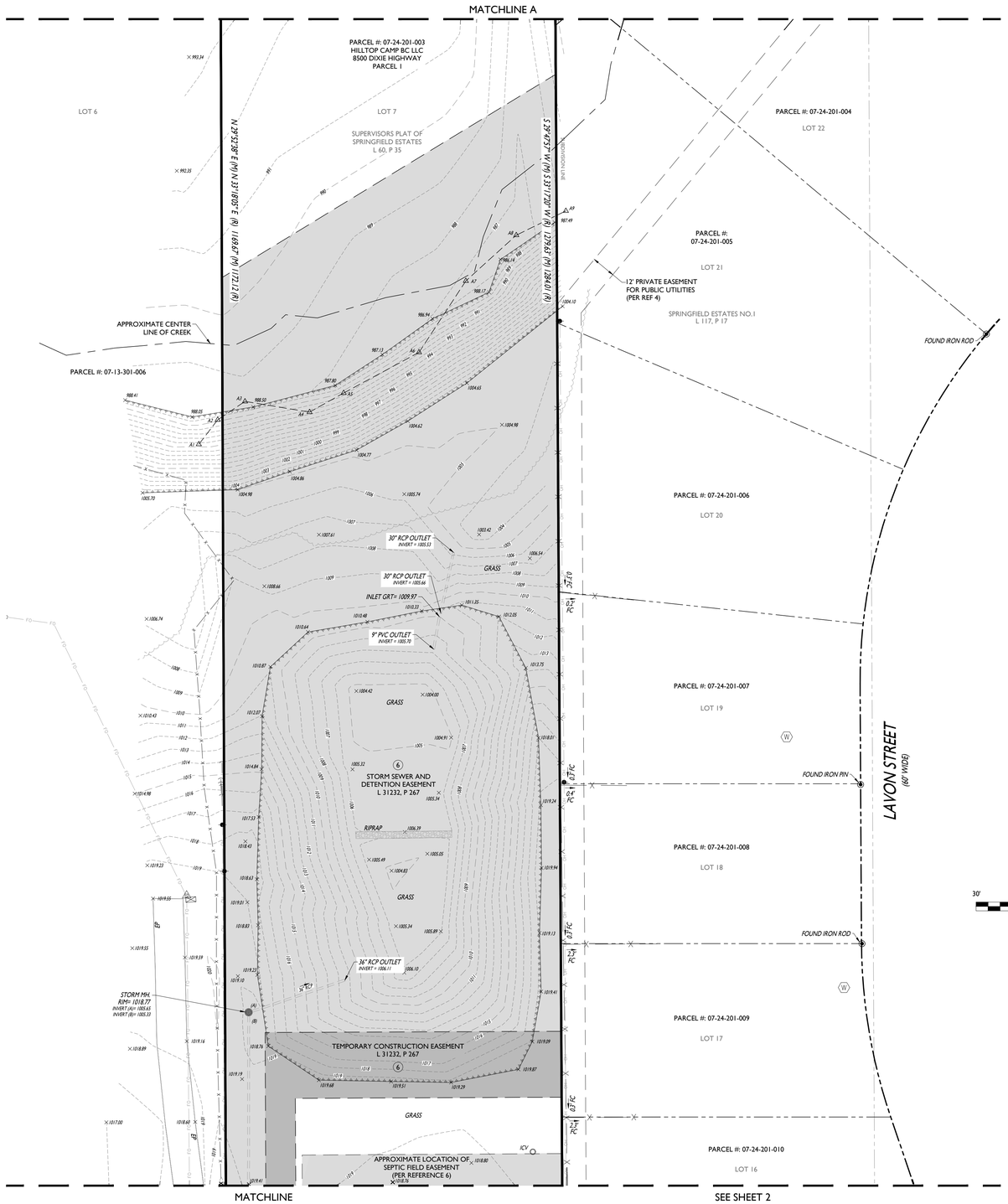
THIS IS TO DECLARE THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 8, 9 & 13 OF TABLE A THEREOF.

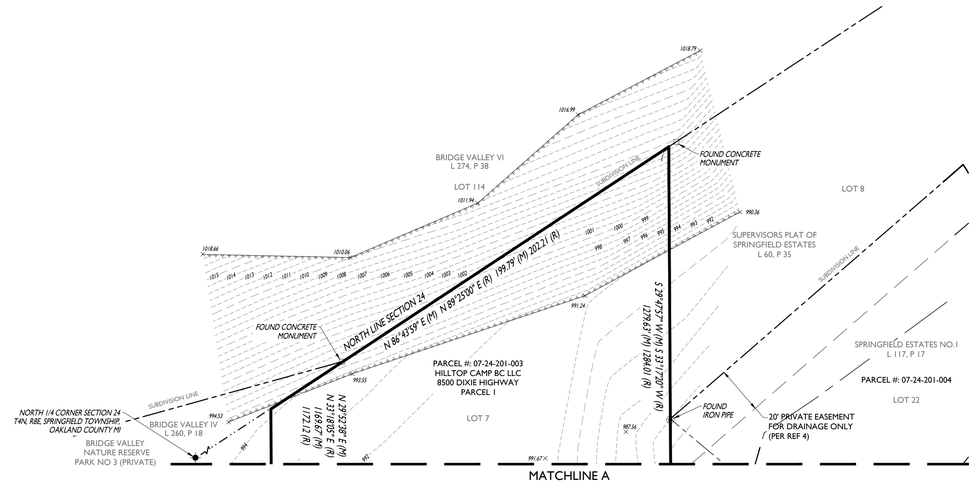
THE FIELDWORK WAS COMPLETED ON SEPTEMBER 5, 2025

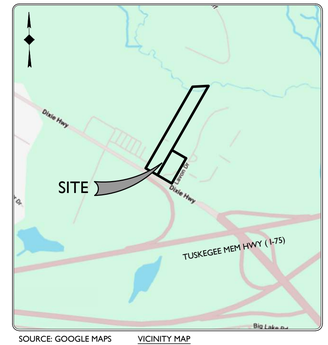
ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=30'	PROJECT ID: DET-250399	SHEET: 2 OF 3

Z:\AUTHEROON\AUTHORING\DRAWINGS\ALTA\PHOENIX\DET\250399\SHEETS\250399 SIGLIEN GOLD - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_SURVEYING\DAD\DET-250399 - V2.DWG







SOURCE: GOOGLE MAPS VICINITY MAP
NOT TO SCALE



30' 0' 30' 60'
GRAPHIC SCALE IN FEET
1" = 30'

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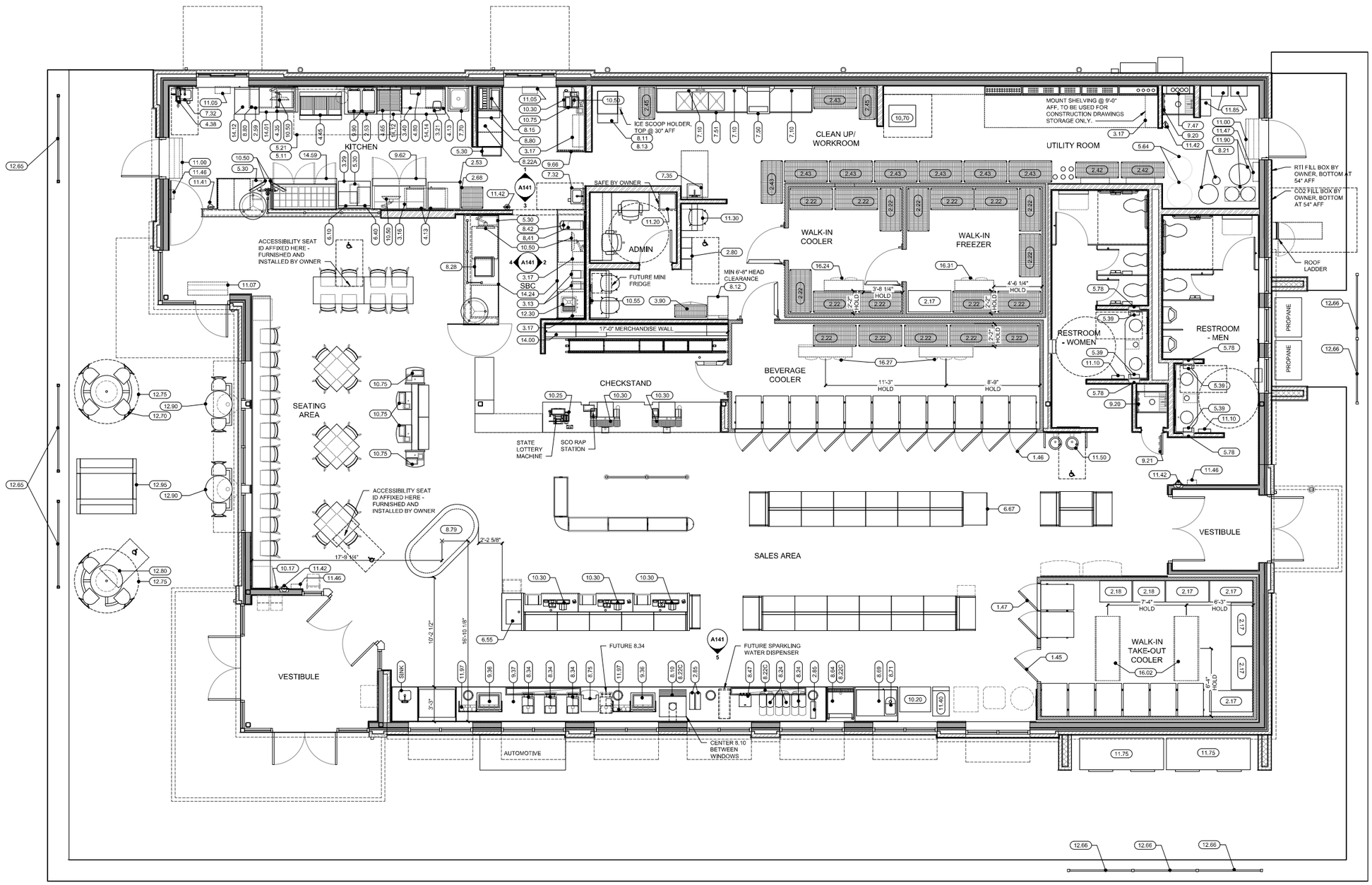
ANTHONY D. GIGLIO JR, PS
MICHIGAN PROFESSIONAL SURVEYOR No. 4001071395

SCALE: 1"=30'	PROJECT ID: DET-250399	SHEET: 3 OF 3

Z:\AUTHEPROJ\AUTHWORKS\SURVEY\PROJ\ALTA\DET250399 ISOLIEN, CO.D - 8500 DIXIE HIGHWAY, SPRINGFIELD TOWNSHIP, MI_SURVEY\WG\ALTADET250399 - 1 DWG



EQUIPMENT PLAN

1/4" = 1'-0"

SALES FIXTURE CHART - 6139	
NUMBER OF GONDOLAS	43
LINEAR FEET OF GONDOLA	131'-11"
NUMBER OF REACH-IN COOLER DOORS	13 (2 W/ BEER)
LINEAR FEET OF REACH-IN COOLER DOORS	33'-4"
NUMBER OF RTE UNITS	2 (1 HOT, 1 COLD)
NUMBER OF NOVELTY ICE CREAM FREEZERS	1
LINEAR FEET OF TABACCO WALL	17'-0"
NUMBER OF CHECKOUTS	6 (3 POS, 3 SCO)
NUMBER OF INDOOR SEATS	30 (2 HC)

SPECIALTY EQUIPMENT SCHEDULE

Equip No	Item Description	Count	Installed by	Connected by
1.45	TAKE-HOME COOLER DOORS MAN DOOR	1	OWNER	N/A
1.46	TAKE-HOME FLANGELESS COOLER DOORS	11	OWNER	N/A
1.47	TAKE-HOME FULL FLANGE COOLER DOORS	2	OWNER	N/A
2.17	24 x 48 DUNNAGE RACK	6	OWNER	N/A
2.18	24 x 36 DUNNAGE RACK	2	OWNER	N/A
2.22	24 x 48 EPOXY SHELVING W/ CASTERS	18	OWNER	N/A
2.42	18 x 48 CHROME SHELVING W/ CASTERS	2	OWNER	N/A
2.43	24 x 48 CHROME SHELVING W/ CASTERS BAG-N-BOX	8	OWNER	N/A
2.45	18 x 36 CHROME SHELVING W/ CASTERS	2	OWNER	N/A
2.53	36 x 30 SS TABLE	2	OWNER	N/A
2.59	EAGLE SHELF 24 X 48	1	OWNER	N/A
2.68	24 x 24 MOBILE BREAD RACK	1	OWNER	N/A
2.80	STEEL LOCKER - 6-HIGH BOX 12"X12", 1 MIN ACCESSIBLE	3	OWNER	OWNER
2.85	LID & STRAW HOLDER	3	OWNER	OWNER
3.13	VITAMIX BLENDER	2	OWNER	OWNER
3.16	WALL MOUNTED SOLID SHELVING 24 x 48	1	OWNER	N/A
3.17	WALL MOUNTED SOLID SHELVING 14 x 36	4	OWNER	N/A
3.21	SCALE	1	OWNER	OWNER
3.29	36 x 30 SS TABLE - W/O UNDERSHELF	1	OWNER	N/A
3.40	WALL MOUNTED WIRE SHELVING 24 x 48	1	OWNER	N/A
3.90	14 x 36 EAGLE SECURITY RACK	1	OWNER	OWNER
4.13	MICROWAVE	3	OWNER	OWNER
4.35	FRY HOLDING STATION	1	OWNER	OWNER
4.38	HOSE REEL	1	PC	PC
4.45	ELECTRIC FRYER - 3 VAT	1	OWNER	OWNER
4.65	ROLLER GRILL	1	OWNER	OWNER
4.80	LABEL MINDER 2	1	OWNER	OWNER
5.11	FIRE SUPPRESSION SYSTEM	1	OWNER	OWNER
5.21	CAPTIVEAIRE 10FT EXHAUST HOOD	1	OWNER	MC
5.30	TRASH CAN	4	OWNER	OWNER
5.39	PAPER TOWEL DISPENSER	4	OWNER	OWNER
5.64	RTI INDOOR GREASE TANK SYSTEM	1	OWNER	OWNER
5.78	RECESSED BOX FOR PAPER TOWELS	4	OWNER	OWNER
6.10	HOT FOOD PRODUCT HOLDING UNIT	1	OWNER	OWNER
6.40	DOUBLE BARREL CONDIMENT DISPENSER	1	OWNER	OWNER
6.55	HEATED GLASS MINI-MERCHANDISER WARMER	1	OWNER	OWNER
6.67	FREEZER MERCHANDISER	1	OWNER	OWNER
7.10	MODULAR WALL WIRE SHELF, MAT, AND HOOK SYSTEM	3	OWNER	OWNER
7.32	KNEE OPERATED HANDSINK	2	PC	PC
7.35	SS HAND SINK w/ WRIST BLADES AND EYEWASH	1	PC	PC
7.47	WALL MOUNTED WATER FILTRATION SYSTEM	1	PC	PC
7.50	VENTLESS DISH MACHINE	1	OWNER	EC/PC
7.51	SCULLERY DISH TABLE 102" W/ 3 BOWL SINK	1	OWNER	PC
7.70	ONE-COMPARTMENT RINSE SINK WITH COVED EDGING	1	PC	PC
8.10	BEVERAGE DISPENSER	1	OWNER	OWNER
8.11	TRUE ICE MAKER TI-522-MA	1	OWNER	OWNER
8.12	ICE MACHINE (WITH ELEVATED SUPPORT STAND)	1	OWNER	EC
8.13	TRUE ICE BIN TIB-422	1	OWNER	OWNER
8.15	BEVERAGE DISPENSER (DRIVE-THRU)	1	OWNER	OWNER
8.21	CO2 CARBONATION SYSTEM	1	OWNER	OWNER
8.22A	WATER CARBONATOR	1	OWNER	OWNER
8.22C	UNDER COUNTER COMPACT WATER BOOSTER	3	OWNER	OWNER
8.24	2 HEAD FUB	3	OWNER	OWNER
8.28	ESPRESSO MACHINE	1	OWNER	OWNER
8.34	FRANKE COFFEE BREWER	3	OWNER	OWNER
8.41	GAS MODULE (DASHED) UNDER NITRON	1	OWNER	OWNER
8.42	NITRON COLD DRAFT ON 5" LEGS	1	OWNER	OWNER
8.47	ICE TEA MACHINE	1	OWNER	OWNER
8.64	SELF CONTAINED FCB MACHINE	1	OWNER	OWNER
8.69	MILKSHAKE BLENDING BAR	1	OWNER	OWNER
8.71	MILKSHAKE BLENDER	1	OWNER	OWNER
8.75	5 HOPPER HOT BEVERAGE SYSTEM	1	OWNER	OWNER
8.79	OPEN AIR RTE CASE	1	OWNER	EC
8.80	COUNTERTOP CUP DISPENSING CABINETS	2	OWNER	OWNER
9.20	24" MOP AND BROOM HOLDER	2	OWNER	OWNER
9.21	18" MOP AND BROOM HOLDER	1	OWNER	OWNER
9.36	REMOTE REFRIGERATED DROP-IN WELL	2	OWNER	OWNER
9.62	FOOD PREP TABLE - 60" SOLID DOOR SANDWICH UNIT	1	OWNER	OWNER
9.66	UNDERCOUNTER GLASS DOOR REFRIGERATOR	1	OWNER	OWNER
9.90	HIGH SPEED OVEN	2	OWNER	OWNER
10.17	STORE CLOCK (BATTERY OPERATED)	1	OWNER	OWNER
10.20	LOTTERY MACHINE	1	OWNER	OWNER
10.25	LOTTERY COUNTERTOP TICKET DISPENSER	1	OWNER	OWNER
10.30	POS TERMINAL	7	OWNER	OWNER
10.50	ORDER MONITOR	7	OWNER	OWNER
10.55	EMPLOYEE KIOSK	1	OWNER	OWNER
10.70	STORE SERVER	1	OWNER	OWNER
10.75	TOUCH SCREEN	5	OWNER	OWNER
11.00	AIR CURTAIN - 42", WHITE	2	OWNER	EC
11.05	DRIVE THRU AIR CURTAIN	2	OWNER	EC
11.07	AIR CURTAIN - 42", BRONZE	1	OWNER	EC
11.10	HAND DRYER	2	OWNER	EC
11.20	MULTI-FUNCTION PRINTER	1	OWNER	OWNER
11.30	TV SECURITY WALL MOUNT ENCLOSURE	1	OWNER	OWNER
11.40	ATM - CASH DISPENSER	1	OWNER	OWNER
11.41	FIRE EXTINGUISHER "CLASS K"	1	OWNER	OWNER
11.42	FIRE EXTINGUISHER	4	BC	BC
11.46	INSECT LIGHT TRAP - AURA MODEL	3	OWNER	OWNER
11.47	INSECT LIGHT TRAP - HALO MODEL	1	OWNER	OWNER
11.50	WATER FOUNTAIN	1	PC	PC
11.75	OUTDOOR ICE MERCHANDISER	2	OWNER	OWNER
11.85	TANKLESS WATER HEATER	2	OWNER	EC/PC
11.90	WATER SOFTENER	1	OWNER	EC/PC
11.97	SELF-SERVE COFFEE FIXING RACK	2	OWNER	OWNER
12.30	SINGLE BOWL UNDERMOUNT SS SINK	1	OWNER	PC
12.50	CYCLESAFE U BIKE RACK (SEE CIVIL)	2	OWNER	OWNER
14.00	TOBACCO MERCHANDISER	1	OWNER	OWNER
14.01	WORKTOP DRAWERED FREEZER - 43"	1	OWNER	OWNER
14.12	27" WORKTOP REFRIGERATOR	2	OWNER	OWNER
14.14	48" WORKTOP FREEZER	1	OWNER	OWNER
14.24	UNDERCOUNTER SINGLE DOOR COOLER - 27"	2	OWNER	OWNER
14.59	REFRIGERATED FOOD PREP TABLE - 72"	1	OWNER	OWNER
16.02	EVAPORATOR - WALK-IN TAKE-OUT COOLER	2	OWNER	EC
16.24	EVAPORATOR - WALK-IN COOLER	1	OWNER	EC
16.27	EVAPORATOR - BEVERAGE COOLER	2	OWNER	EC
16.31	EVAPORATOR - WALK-IN FREEZER	1	OWNER	EC

OUTDOOR FURNITURE SCHEDULE

MARK	DESCRIPTION	Count
12.65	ULTRA ALUMINUM FENCING - 8'-0"	3
12.66	ULTRA ALUMINUM FENCING - 6'-0"	5
12.70	4 SEAT OUTDOOR TABLE CLUSTER	1
12.75	ALUMINUM UMBRELLA	2
12.80	3 SEAT OUTDOOR TABLE CLUSTER	1
12.90	2 SEAT OUTDOOR TABLE CLUSTER	2
12.95	ALUMINUM PICNIC TABLE	1

LEGEND:
BC = BUILDING CONTRACTOR
EC = ELECTRICAL CONTRACTOR
MC = MECHANICAL CONTRACTOR
PC = PLUMBING CONTRACTOR
SC = SPECIALTY CONTRACTOR

NOTES:
1. ALL EQUIPMENT LISTED IS SUPPLIED BY OWNER, UNO.
2. ALL OVERHEAD EQUIPMENT TO BE MOUNTED 80" AFF MIN, UNO.
3. REFER TO G003 FOR ALL EQUIPMENT INSTALLATION PARAMETERS

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5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

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PROFESSIONAL

KEYPLAN

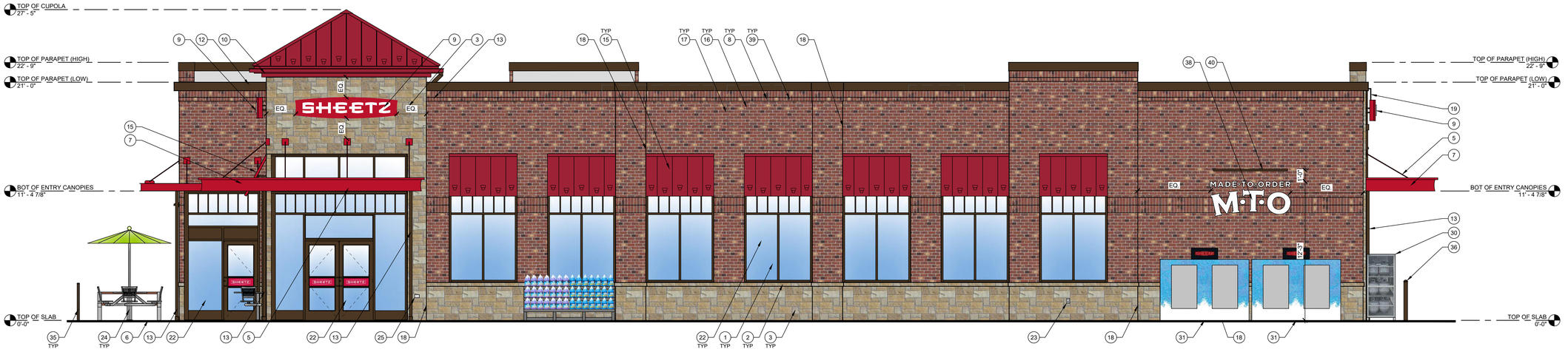
MARK	DATE	DESCRIPTION

ISSUE:	7-5-2024
SITE ID NO:	214445
AUTHOR BY:	MRK
REVIEW BY:	MGV
VERSION:	6139_v1.6

EQUIPMENT PLAN

A140

PERMIT REVIEW DRAWINGS



1 FRONT ELEVATION
1/4" = 1'-0"



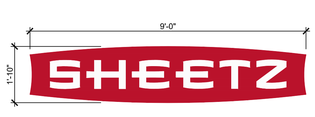
2 LEFT ELEVATION
1/4" = 1'-0"

TYPICAL EXTERIOR ELEVATION NOTES:

- ALL LIGHTS SHOWN ABOVE AND/OR BELOW DOORS OR WINDOWS ARE TO BE CENTERED ON THE DOOR OR WINDOW UNLESS NOTED OTHERWISE.
- FIXTURES/EQUIPMENT BETWEEN TWO DOORS OR WINDOWS ARE TO BE CENTERED EQUALLY.
- EXTERIOR SEALANT FOR STONE SHALL COMPLY WITH SECTION 07 9005 JOINT SEALANTS, GENERAL BUILDING FASCADE WEATHER SEALANT AND SHALL MATCH THE COLOR OF THE STORE.

EXTERIOR ELEVATION KEYNOTES:

1. BRICK VENEER, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
2. CAST STONE SILL, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
3. ANCHORED CAST STONE MASONRY VENEER, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
4. EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
5. ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT KYNAR FINISH
6. BRICK PAVER WALKWAY
7. LIGHTED CURVED FASCIA CANOPY ATTACHMENT
8. METAL COPING, COLOR: DARK BRONZE
9. WALL MOUNTED BUILDING SIGN, SEE SHEET A200.
10. STANDING SEAM METAL ROOF, COLOR: BRITE RED
11. ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE
12. GUTTER, COLOR TO MATCH CUPOLA COLOR
13. DOWNSPOUT, COLOR: DARK BRONZE
14. DRIVE-THRU WINDOW (IF APPLICABLE)
15. METAL STANDING SEAM SHED STYLE AWNING AND FRAME ASSEMBLY, ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE
16. BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
17. BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
18. CONTROL JOINT, SEE MASONRY SPEC
19. STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE
20. STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE
21. OVERFLOW SCUPPER
22. ALUMINUM STOREFRONT SYSTEM, SEE A600
23. EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS
24. OUTDOOR FURNITURE
25. ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS
26. ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS
27. HM DOOR AND FRAME, COLOR: DARK BRONZE
28. EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS
29. SEAMLESS ALUM PANEL SYSTEM WITH EXPOSED FASTENERS, COLOR: DARK BRONZE
30. PROPANE LOCKER
31. ICE MERCHANDISER
32. RTI FILLPORT
33. STEEL BOLLARD, COLOR: DARK BRONZE
34. CO2 FILLPORT
35. DECORATIVE ALUMINUM FENCE, COLOR DARK BRONZE
36. AUTOMATIC DOOR PUSH PLATE AND BOLLARD, BOLLARD COLOR: DARK BRONZE
37. GAS METER AND RISER, REFER TO CIVIL UTILITY PLAN, COLOR: DARK BRONZE
38. MTO GRAPHIC DECAL, SEE SHEET A200.
39. LIGHT CHANNEL AT PARAPET COPING. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
40. MTO DECAL LIGHT BAR, REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION.
41. FAUX WINDOWS WITH INTERNAL GRAPHIC
42. E-STOP & SIGN, REFER TO UST DRAWINGS



OUTLINE AREA = 14.84 SQ.FT.
BOX AREA = 16.52 SQ.FT.
TYPICAL OF THREE
PROJECTS 7" OFF FACE OF BUILDING

A WALL MOUNTED "SHEETZ" BUILDING SIGN
1/2" = 1'-0"



OUTLINE AREA = 8.38 SQ. FT.
BOX AREA = 21.47 SQ. FT.
TYPICAL OF ONE
PROJECTS 0" OFF FACE OF BUILDING

B WALL MOUNTED "MTO" DECAL
1/2" = 1'-0"

Convenience Architecture and Design P.C.
242 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON DR.

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE:	05.11.2026
SITE ID NO:	214854
AUTHOR BY:	DLN
REVIEW BY:	RJH
VERSION:	6139_v1.9

EXTERIOR ELEVATIONS

A200

PRELIMINARY ELEVATIONS



3 REAR ELEVATION
1/4" = 1'-0"

TYPICAL EXTERIOR ELEVATION NOTES:

- ALL LIGHTS SHOWN ABOVE AND/OR BELOW DOORS OR WINDOWS ARE TO BE CENTERED ON THE DOOR OR WINDOW UNLESS NOTED OTHERWISE.
- FIXTURES/EQUIPMENT BETWEEN TWO DOORS OR WINDOWS ARE TO BE CENTERED EQUALLY.
- EXTERIOR SEALANT FOR STONE SHALL COMPLY WITH SECTION 07 9005 JOINT SEALANTS, GENERAL BUILDING FASCADE WEATHER SEALANT AND SHALL MATCH THE COLOR OF THE STORE.

EXTERIOR ELEVATION KEYNOTES:

1. BRICK VENEER, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
2. CAST STONE SILL, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
3. ANCHORED CAST STONE MASONRY VENEER, COLOR: CRAB ORCHARD. SEE MASONRY SPEC
4. EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
5. ARCHITECTURAL CANOPY, COLOR: REGAL RED, PREMIUM TWO-COAT KYNAR FINISH
6. BRICK PAVER WALKWAY
7. LIGHTED CURVED FASCIA CANOPY ATTACHMENT
8. METAL COPING, COLOR: DARK BRONZE
9. WALL MOUNTED BUILDING SIGN, SEE SHEET A200.
10. STANDING SEAM METAL ROOF, COLOR: BRITE RED
11. ROOF EQUIPMENT SCREEN, COLOR: DARK BRONZE
12. GUTTER, COLOR TO MATCH CUPOLA COLOR
13. DOWNSPOUT, COLOR: DARK BRONZE
14. DRIVE-THRU WINDOW (IF APPLICABLE)
15. METAL STANDING SEAM SHED STYLE AWNING AND FRAME ASSEMBLY, ROOF COLOR: BRITE RED, FRAME COLOR: DARK BRONZE
16. BRICK SOLDIER COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
17. BRICK ROWLOCK COURSE, COLOR: 680 BY CONTINENTAL BRICK COMPANY. SEE MASONRY SPEC
18. CONTROL JOINT, SEE MASONRY SPEC
19. STEEL ROOF LADDER AND CRANKY POST, COLOR: DARK BRONZE
20. STANDARD THROUGH WALL SCUPPER WITH CONDUCTOR HEAD & DOWNSPOUT, COLOR: DARK BRONZE
21. OVERFLOW SCUPPER
22. ALUMINUM STOREFRONT SYSTEM, SEE A600
23. EXTERIOR HOSE BIB, REFER TO PLUMBING DRAWINGS
24. OUTDOOR FURNITURE
25. ELECTRICAL RECEPTACLE, REFER TO ELECTRICAL DRAWINGS
26. ELECTRICAL EQUIPMENT, REFER TO ELECTRICAL DRAWINGS
27. HM DOOR AND FRAME, COLOR: DARK BRONZE
28. EMERGENCY WATER CONNECTION, REFER TO PLUMBING DRAWINGS
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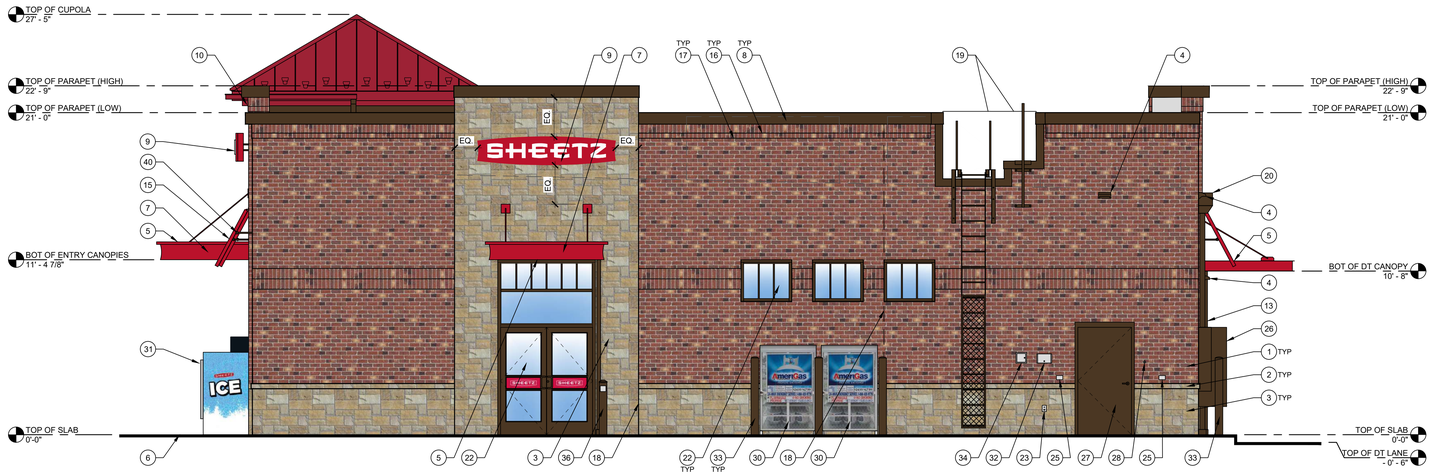
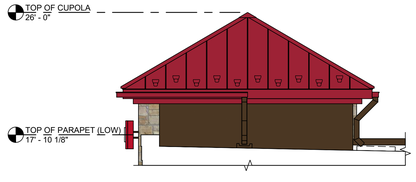
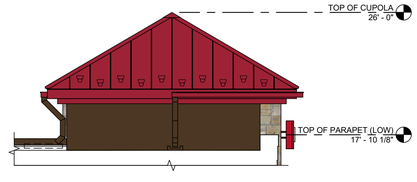
41. FAUX WINDOWS WITH INTERNAL GRAPHIC
42. E-STOP & SIGN, REFER TO UST DRAWINGS



4 RIGHT ELEVATION
1/4" = 1'-0"



5 CUPOLA ELEVATION FROM ROOF
1/4" = 1'-0"



6 CUPOLA ELEVATION FROM ROOF
1/4" = 1'-0"

*C*onvenience *A*rchitecture
and *D*esign P.C.
242 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON DR.

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

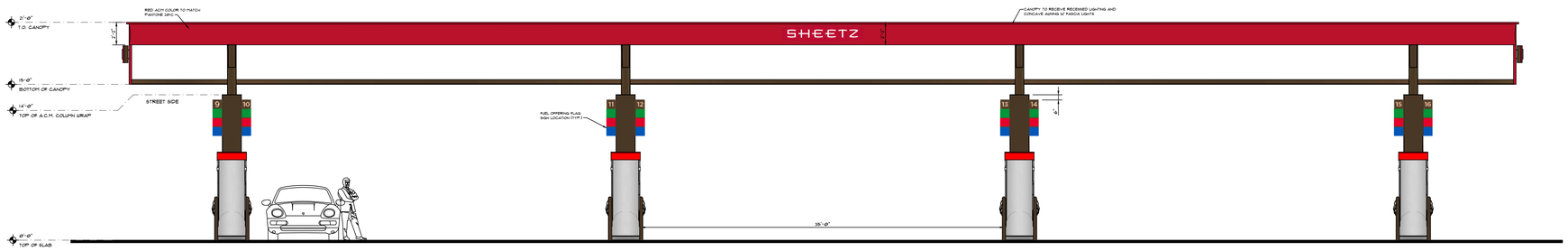
MARK	DATE	DESCRIPTION

ISSUE:	05.11.2026
SITE ID NO:	214854
AUTHOR BY:	DLN
REVIEW BY:	RJH
VERSION:	6139_v1.9

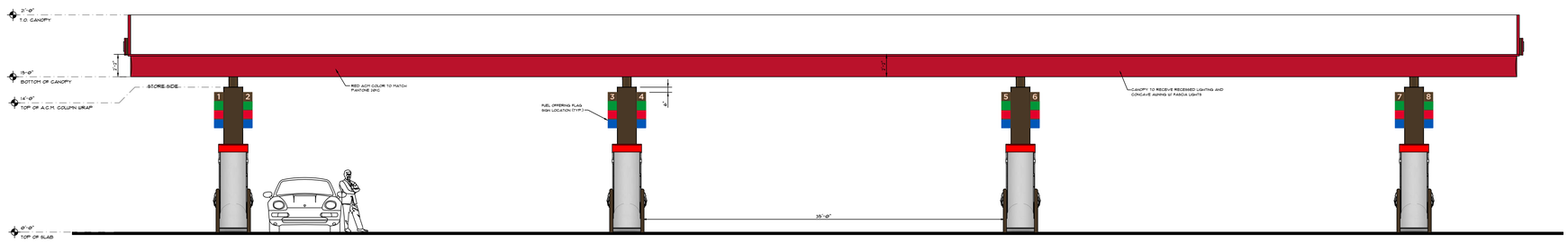
EXTERIOR ELEVATIONS

A201

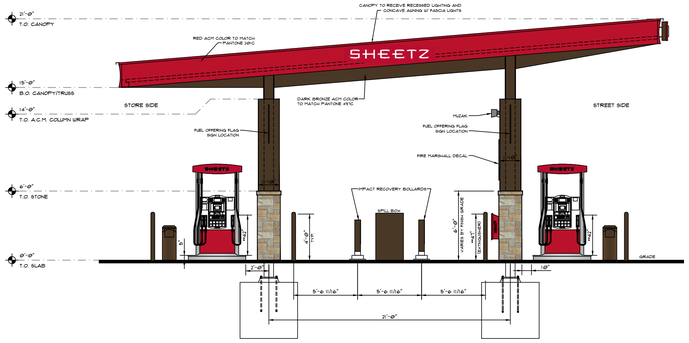
PRELIMINARY ELEVATIONS



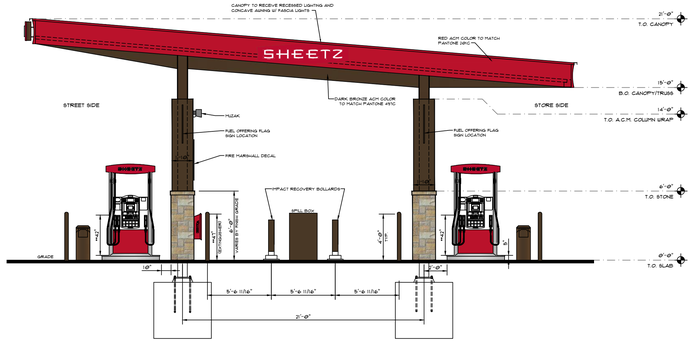
SIDE 'B' ELEVATION
SCALE: 3/16" =1'-0"



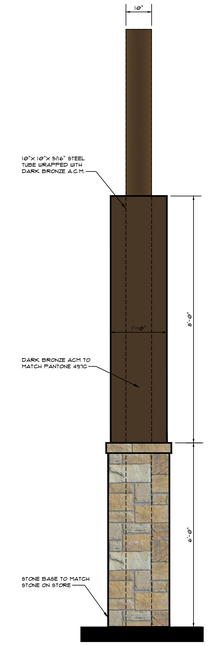
SIDE 'D' ELEVATION
SCALE: 3/16" =1'-0"



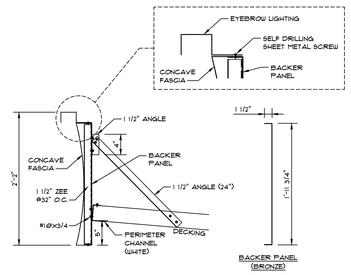
SIDE 'A' LEFT SIDE ELEVATION
SCALE: 3/16" =1'-0"



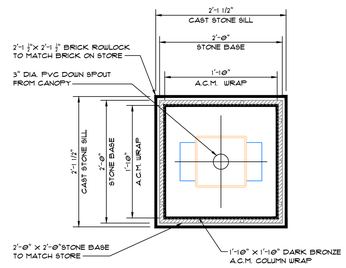
SIDE 'C' RIGHT SIDE ELEVATION
SCALE: 3/16" =1'-0"



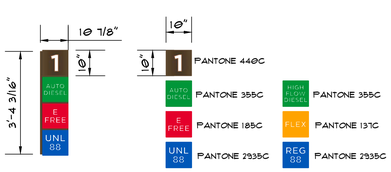
COLUMN ELEVATION
SCALE: 1/2" =1'-0"



CONCAVE FASCIA MOUNTING DETAIL
SCALE: 1/4" =1'-0"

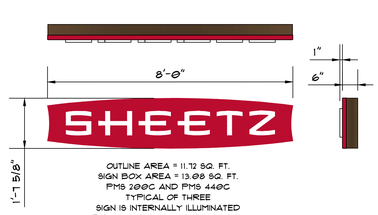


STONE COLUMN BASE DETAIL
SCALE: 1/4" =1'-0"



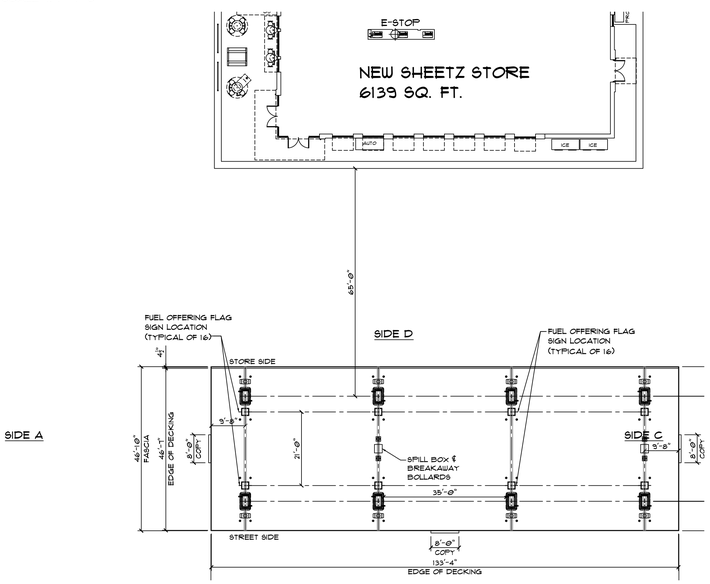
DISPENSER NUMBER AND FUEL OFFERING FLAG
VARIES PER SITE/ DISPENSER
2 PER COLUMN ON STORE SIDE COLUMNS
0.69 SQ. FT. PER PANEL
2.76 SQ. FT. MAX/FLAG

DOUBLE FACED FUEL OFFERING FLAG SIGN DETAILS
SCALE: 1/2" =1'-0"



OUTLINE AREA = 11.72 SQ. FT.
SIGN BOX AREA = 13.08 SQ. FT.
PMS 200C AND PMS 440C
TYPICAL OF THREE
SIGN IS INTERNALLY ILLUMINATED
PIN-MOUNTED TO CURVED AWNNG

CANOPY MOUNTED SHEETZ SIGN DETAIL
SCALE: 1/2" =1'-0"



PLAN VIEW FOR LOGO LOCATIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ STORE

SPRINGFIELD LAVON

Int. of Dixie Highway
and Lavon Drive
Springfield
Michigan

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE: 01-30-2025
PROJECT NO:
AUTHOR BY: DNC
REVIEW BY:
SHEET TITLE

GAS AWNING

AWNING

MEMO

New Business

SPRINGFIELD CHARTER TOWNSHIP



TO: Springfield Township Planning Commission

FROM: Danielle Sink, Building Admin

DATE: August 25, 2026

RE: Zoning Ordinance Amendments

Summary:

Township Planner Megan Masson-Minock has drafted zoning ordinance amendments for the Planning Commissions review. The drafts include:

1. Accessory Buildings and Structures and Uses
2. Ground signs in Residential Zoning Districts
3. Outdoor seating and outdoor cafe service

Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Springfield Charter Township Planning Commission

FROM: Megan A. Masson-Minock, AICP

DATE: August 17, 2026

RE: Draft Zoning Ordinance Amendments for Accessory Buildings and Structures and Uses

Please find attached zoning ordinance amendments developed by the Ordinance Committee to simplify the Township's regulations regarding accessory buildings, i.e., barns, sheds, and garages. The zoning ordinance amendments propose the following:

- Allowance for each single-family dwelling to have a single attached or detached garage, with the following size limitations:
    - For parcels one acre or less in area, a maximum garage floor area of 800 square feet or 50% of the dwelling's floor area (excluding basements), whichever is greater.
    - For parcels greater than one acre in area, a maximum garage floor area of 1,200 square feet or 50% of the dwelling's floor area (excluding basements), whichever is greater.
- Simplifying the total accessory floor area, excluding the floor area of any garage, as follows:
    - For parcels one acre or less in area, 800 square feet plus 1 square foot for each 100 square feet of lot area, not to exceed 1,200 square feet.
    - For parcels greater than one acre in area, 1,000 square feet plus 1 square foot for each 100 square feet of lot area.

The next steps for the Planning Commission would be to ask for revisions and/or set a public hearing. I will be in attendance at the August 25, 2026 Planning Commission meeting. Please let us know if you have any questions.

Respectfully submitted,

Megan A. Masson-Minock

CARLISLE/WORTMAN ASSOC.,INC
Megan Masson-Minock, AICP
Principal

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

Sec. 40-649. Accessory buildings and structures and uses.

Accessory buildings and structures and uses, except as otherwise provided for in this chapter, shall be subject to the following regulations:

(1) *Single-family residential accessory buildings and structures.*

a. Attached and detached accessory buildings shall be subject to all the setback and height restrictions applicable to principal buildings and structures.

b. Each single-family dwelling shall be permitted one attached or detached accessory garage where the floor area does not exceed fifty percent (50%) of the total floor area (excluding basements) of the principal dwelling or eight hundred (800) square feet for parcels one (1) acre or less and one thousand two hundred (1,200) square feet for parcels greater than one (1) acre, whichever is greater.

c. The total of all attached and detached accessory buildings located on a parcel**, exclusive of an attached or detached garage,** shall be subject to maximum lot coverage requirements and shall be subject to the following restrictions in floor area based upon parcel size:

Parcel Size (acres)	Total Accessory Floor Area
1 or less	800 square foot, plus 1 square foot for each 100 square feet of lot area. Maximum 1,200 square feet.
More than 1 ~~to 2.5~~ 5	1,000 square feet plus 1 square feet for each 100 square feet of lot area. ~~Maximum 2,100 square feet.~~
~~More than 2.5 to 5~~	~~1,000 square feet plus one square feet for each 100 square feet of lot area. Maximum 3,200 square feet.~~
~~More than 5~~	~~1,000 square feet plus 1 square feet for each 100 square feet of lot area. Maximum 5,400 square feet.~~

c. Any accessory building with a proposed side entrance, except for pedestrian grade doors, shall have a minimum side yard setback of 30 feet as measured from the entrance of said accessory building to the nearest side yard property line.

d. Any accessory building shall meet the standards for compatibility as set forth in section 40-638(8).

e. Outbuildings used in conjunction with a farm as defined in this chapter shall not be considered accessory subject to the requirements as set forth in this section, but shall be subject to all setback and height restrictions applicable to principal buildings and structures.

f. Where there is an historically significant accessory structure and the owner intends to construct additional accessory buildings and structures on the property, the owner may apply to the zoning board of appeals for an exemption of the historically significant accessory structure from the allowable accessory floor area requirements. The zoning board of appeals may require evidence of the historical significance of the accessory structures. The zoning board of appeals shall grant an exemption if it determines that the structure possesses significant historical value.

(2) *All other accessory buildings and structures*. Accessory buildings and uses for all principal uses shall comply with applicable setback and height restrictions specified for the zoning district wherein the accessory use or building is located. Except as may be permitted under section 40-643, no accessory building shall be erected on a vacant lot in any zoning district or prior to the time of construction of the main building to which it is accessory. Further, an accessory building shall not be occupied or used unless or until the main building to which it is accessory is also being occupied or used, or after such time as the occupation of the use of the main building has ceased.

Sec. 40-649. Accessory buildings and structures and uses.

Accessory buildings and structures and uses, except as otherwise provided for in this chapter, shall be subject to the following regulations:

(1) *Single-family residential accessory buildings and structures.*

a. Attached and detached accessory buildings shall be subject to all the setback and height restrictions applicable to principal buildings and structures.

b. Each single-family dwelling shall be permitted one attached or detached accessory garage where the floor area does not exceed fifty percent (50%) of the total floor area (excluding basements) of the principal dwelling or eight hundred (800) square feet for parcels one (1) acre or less and one thousand two hundred (1,200) square feet for parcels greater than one (1) acre, whichever is greater.

C. The total of all attached and detached accessory buildings located on a parcel, exclusive of an attached or detached garage, shall be subject to maximum lot coverage requirements and shall be subject to the following restrictions in floor area based upon parcel size:

Parcel Size (acres)	Total Accessory Floor Area
1 or less	800 square foot, plus 1 square foot for each 100 square feet of lot area. Maximum 1,200 square feet.
More than 1	1,000 square feet plus 1 square feet for each 100 square feet of lot area.

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Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Springfield Charter Township Planning Commission

FROM: Megan A. Masson-Minock, AICP

DATE: August 17, 2026

RE: Draft Zoning Ordinance Amendments for ground signs in Residential Zoning Districts

When reviewing a sign application for a sign at the beach area in Softwater Woods subdivision, we found that ground signs for permitted non-residential uses in the residential zoning districts (R1-A, R-1, R-2, R-3, RM, RM-1, RMH) were not allowed. Per consultation with the Township Attorney, we recommend the Planning Commission consider the attached zoning ordinance amendments.

The zoning ordinance amendments propose the following:

- Add principal permitted uses to the item that allows permanent ground signs for non-residential uses in the residential zoning districts. Non-residential uses that are principal permitted uses in these zoning districts are farms, parks, picnic grounds, nature trails, playgrounds, botanical gardens, woodland preserves, wildlife preserves or similar facilities for outdoor recreation.

The next steps for the Planning Commission would be to ask for revisions and/or set a public hearing. I will be in attendance at the August 25, 2026 Planning Commission meeting. Please let us know if you have any questions.

Respectfully submitted,

Megan A. Masson-Minock

CARLISLE/WORTMAN ASSOC.,INC
Megan Masson-Minock, AICP
Principal

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
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Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

Sec. 40-751. Signs.

(c) Ground signs.

(1) *General requirements.*

a. Within all nonresidential zoning districts, only one ground sign shall be permitted per lot.

b. Within all residential zoning districts, only one ground sign shall be permitted at the primary entrance for the purpose of identifying a subdivision, site condominium, multiple-family development, or mobile home park. One additional ground sign may be permitted at a secondary entrance if it is not located on the same street as the primary entrance. Sign size, number of signs, and location shall be determined during site plan review.

c. Within all residential zoning districts, only one ground sign shall be permitted per lot for the purpose of identifying a nonresidential **principal permitted or** special land use. Size and location shall be determined during site plan review.

d. Within all PUD districts, the number and size and location of ground signs shall be determined by the intended use of the premises, subject to the review and approval of the township during PUD plan review.

e. All ground signs shall be set back a minimum of 15 feet from all road rights-of-way.

f. The ratio of width to height of the sign face at the widest and highest points shall not exceed 3:1.

g. The support structure for a ground sign shall not exceed 25 percent of the maximum permissible area of the sign measured by viewing the elevation of the sign perpendicular to the sign face, unless otherwise approved during the site plan review process. In the Dixie Corridor Overlay District, the 25 percent limit may be increased during the site plan review process.

h. Signs which give the time or temperature, or changeable copy signs with displays which change not more than two times in a 24-hour period, are allowed on a ground sign.

(2) *Maximum height and area requirements.*

a. The maximum sign area (per side) of the R1-A, R-1, R-2, R-3, RM, RMH, RC, PR and PS zoning districts shall be 32 square feet. The maximum sign height for these districts shall be six feet.

b. The maximum sign area (per side) of the O-S, C-1, C-2, M-1, M-2, and E-1 zoning districts shall be 50 square feet.

c. Sign height. The following shall apply.

District	Height
OS	8 feet
C-1	8 feet
C-2	10 feet
M-1	6 feet

Proposed language in red, bold font (**example**)
Proposed deletions in red, strikethrouogh font (~~example~~)

District	Height
M-2	6 feet
E-1	6 feet

(3) *Business center.*

a. A business center sign shall state the name of the business center and the tenants located therein. No individual tenants may be permitted to have a separate ground sign.

b. One business center sign shall be permitted with the following exceptions:

1. An additional business center sign may be located at a secondary entrance that is not located on the same street as the primary entrance.

2. An additional business center sign may be allowed if a 300-foot separation between signs can be maintained along the frontage of the center.

In no case shall more than two business center signs be permitted for each center. If two business center signs are permitted as noted above, the total allowable square footage shall not exceed 75 square feet for each sign.

c. The maximum area of a business center sign shall be 112 square feet. The maximum height of business center signs shall be 12.5 feet.

.

Sec. 40-751. Signs.

(c) Ground signs.

(1) *General requirements.*

a. Within all nonresidential zoning districts, only one ground sign shall be permitted per lot.

b. Within all residential zoning districts, only one ground sign shall be permitted at the primary entrance for the purpose of identifying a subdivision, site condominium, multiple-family development, or mobile home park. One additional ground sign may be permitted at a secondary entrance if it is not located on the same street as the primary entrance. Sign size, number of signs, and location shall be determined during site plan review.

c. Within all residential zoning districts, only one ground sign shall be permitted per lot for the purpose of identifying a nonresidential principal permitted or special land use. Size and location shall be determined during site plan review.

d. Within all PUD districts, the number and size and location of ground signs shall be determined by the intended use of the premises, subject to the review and approval of the township during PUD plan review.

e. All ground signs shall be set back a minimum of 15 feet from all road rights-of-way.

f. The ratio of width to height of the sign face at the widest and highest points shall not exceed 3:1.

g. The support structure for a ground sign shall not exceed 25 percent of the maximum permissible area of the sign measured by viewing the elevation of the sign perpendicular to the sign face, unless otherwise approved during the site plan review process. In the Dixie Corridor Overlay District, the 25 percent limit may be increased during the site plan review process.

h. Signs which give the time or temperature, or changeable copy signs with displays which change not more than two times in a 24-hour period, are allowed on a ground sign.

(2) *Maximum height and area requirements.*

a. The maximum sign area (per side) of the R1-A, R-1, R-2, R-3, RM, RMH, RC, PR and PS zoning districts shall be 32 square feet. The maximum sign height for these districts shall be six feet.

b. The maximum sign area (per side) of the O-S, C-1, C-2, M-1, M-2, and E-1 zoning districts shall be 50 square feet.

c. Sign height. The following shall apply.

District	**Height**
OS	8 feet
C-1	8 feet
C-2	10 feet
M-1	6 feet

District	Height
M-2	6 feet
E-1	6 feet

(3) *Business center.*

a. A business center sign shall state the name of the business center and the tenants located therein. No individual tenants may be permitted to have a separate ground sign.

b. One business center sign shall be permitted with the following exceptions:

1. An additional business center sign may be located at a secondary entrance that is not located on the same street as the primary entrance.

2. An additional business center sign may be allowed if a 300-foot separation between signs can be maintained along the frontage of the center.

In no case shall more than two business center signs be permitted for each center. If two business center signs are permitted as noted above, the total allowable square footage shall not exceed 75 square feet for each sign.

c. The maximum area of a business center sign shall be 112 square feet. The maximum height of business center signs shall be 12.5 feet.

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Springfield Charter Township Planning Commission

FROM: Megan A. Masson-Minock, AICP

DATE: August 17, 2026

RE: Draft Zoning Ordinance Amendments for outdoor seating and outdoor café service

Please find attached zoning ordinance amendments to allow outdoor seating and café service in the Parks and Recreation (PR) zoning district. During the site plan and special land use review for Heather Highlands golf course, it became apparent that Section 40-646 -Outdoor seating and café service, an amendment to the Zoning Ordinance in 2022, did not allow outdoor dining in the PR district. The zoning ordinance amendments propose the following:

- Allow outdoor seating in the PR district by an environmental education center, golf course clubhouse, athletic fields, campground, community recreation center, or special event facility that operates out of a permanent or seasonally used building. The uses listed in the amendments are special land uses in the PR district that might have food establishments, such as café or food concessions.
    - Outdoor seating is defined in the Zoning Ordinance as "an outdoor area operated by a restaurant or other food establishment which sells food or beverages for immediate consumption, located on the same site as the related business, that provides seating outside of the establishment for patrons and other persons. This area does not provide waiter or waitress service or offer alcoholic beverages, is unenclosed by fixed walls, and open to the air."
- Allow outdoor cafes in the PR district by an environmental education center, golf course clubhouse, athletic fields, campground, community recreation center, or special event facility that operates out of a permanent or seasonally used building. Again, these uses are special land uses in the PR district that might have food establishments, such as an outdoor bar or food concessions.
    - An outdoor café is defined in the Zoning Ordinance as "an outdoor dining area operated by a restaurant or other food establishment which sells food, beverages, or alcoholic beverages for immediate consumption, located on the same site as the related business, and that provides waiter/waitress service."

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

The next steps for the Planning Commission would be to ask for revisions and/or set a public hearing. I will be in attendance at the August 25, 2026 Planning Commission meeting. Please let us know if you have any questions.

Respectfully submitted,



CARLISLE/WORTMAN ASSOC.,INC
Megan Masson-Minock, AICP
Principal

Sec. 40-646. Outdoor seating and outdoor cafe service.

(a) *General standards.* Outdoor seating and/or outdoor cafe service shall:

(1) Be located on the same property and in close proximity, as determined by the approving body, to the principal establishment, and be located outside of any easements or road rights of way.

(2) Be used or operated only during normal operating hours of the principal establishment.

(3) Be kept clean, orderly, and maintained, or the permit may be revoked.

(4) Comply with the township standards set forth in article VI regarding noise, lighting and odor. Noise, lighting, and odor shall be controlled so as to avoid a nuisance or disturbance to neighboring properties. The property owner and/or business owner is responsible for mitigating any nuisances that arise from the outdoor seating/outdoor cafe service and eliminating, to the greatest extent possible, all negative impacts on surrounding properties.

(5) Comply with applicable regulations of the county health department and the state liquor control commission.

(6) Meet the requirements of the Americans with Disabilities Act (ADA).

(7) Remove and store out of sight all temporary seating and structures once the season is over.

(b) Outdoor seating, as defined in this chapter, for consumption of food or drink may be offered in the C-1, C-2, and VC districts by a bar/lounge and/or carry-out, fast-food, or sit-down restaurant that operates out of a permanent building**; or in the PR district by an environmental education center, golf course clubhouse, athletic fields, campground, community recreation center or special event facility that operates out of a permanent or seasonally used building,** subject to the following conditions:

(1) The outdoor seating area shall accommodate no more than 20 patrons, unless additional parking is provided, as calculated per section 40-681.

(2) Outdoor seating may not be located in existing parking spaces, loading spaces, or areas designated for vehicular traffic.

(3) Outdoor seating may be located in a front yard setback if, as determined during required review, the following conditions apply:

a. No other reasonable location exists on site, and/or

b. The seating area is within ten feet of the front face of the building, and/or

c. The location of the seating area is as far from the abutting road as possible to ensure the safety of patrons.

(c) An outdoor cafe service, as defined in this chapter, for the consumption of food or drink may be operated in the C-1, C-2, and VC districts by a bar/lounge and/or carry-out, fast-food, or sit-down restaurant that operates out of a permanent building**; or in the PR district by an environmental education center, golf course clubhouse, athletic fields, campground, community recreation center or special event facility that operates out of a permanent or seasonally used building**. All applicable zoning ordinance requirements for setbacks, parking, and other provisions shall apply.

(d) *Review procedures.* Outdoor seating areas that accommodate five or more patrons and all outdoor cafe service require review by the site plan review committee or the planning commission, as outlined below.

(1) *Outdoor seating review.*

a. *No permanent structures and five to 19 patrons.* Outdoor seating areas that do not propose to install any permanent structures, and that accommodate five to 19 patrons, must receive approval by the site plan review committee before establishing the outdoor seating area. The business owner, with approval by the property owner if different, shall submit a completed application form and required information to the planning administrator for review and approval before the outdoor seating area is initially established.

Proposed language in red, bold font (**example**)
Proposed deletions in red, strikethrouogh font (~~example~~)

Review by the site plan review committee and annual permit are not required for outdoor seating areas with no permanent structures that accommodate four or fewer patrons.

b. *Permanent structures or 20 or more patrons.* Outdoor seating areas that propose to install permanent structures, including additional parking spaces, or that seat 20 or more patrons shall require site plan review by the site plan review committee, per section 40-136 of the zoning ordinance. No outdoor seating shall be established before approval is granted.

(2) *Outdoor cafe service review.*

a. *No permanent structures.* Outdoor cafe service that does not propose to install any permanent structures shall require site plan review by the site plan review committee, per section 40-136 of the zoning ordinance. No outdoor cafe service shall be established before approval is granted.

b. *Permanent structures.* Outdoor cafe service that proposes to install permanent structures, including additional parking spaces, shall require site plan review by the planning commission, per section 40-136. If the existing business is a special land use in the district, then an amendment of the special land use permit is also required.

(e) *Annual permit.* Outdoor seating areas and outdoor cafe service that did not require approval by the planning commission must obtain an annual permit from the township. The business owner, with approval by the property owner if different, shall submit a completed permit application form and required information to the planning administrator for review and approval before the outdoor seating area is established each year.

Sec. 40-646. Outdoor seating and outdoor cafe service.

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(2) Be used or operated only during normal operating hours of the principal establishment.

(3) Be kept clean, orderly, and maintained, or the permit may be revoked.

(4) Comply with the township standards set forth in article VI regarding noise, lighting and odor. Noise, lighting, and odor shall be controlled so as to avoid a nuisance or disturbance to neighboring properties. The property owner and/or business owner is responsible for mitigating any nuisances that arise from the outdoor seating/outdoor cafe service and eliminating, to the greatest extent possible, all negative impacts on surrounding properties.

(5) Comply with applicable regulations of the county health department and the state liquor control commission.

(6) Meet the requirements of the Americans with Disabilities Act (ADA).

(7) Remove and store out of sight all temporary seating and structures once the season is over.

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b. The seating area is within ten feet of the front face of the building, and/or

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Review by the site plan review committee and annual permit are not required for outdoor seating areas with no permanent structures that accommodate four or fewer patrons.

b. *Permanent structures or 20 or more patrons.* Outdoor seating areas that propose to install permanent structures, including additional parking spaces, or that seat 20 or more patrons shall require site plan review by the site plan review committee, per section 40-136 of the zoning ordinance. No outdoor seating shall be established before approval is granted.

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MEMO

New Business

SPRINGFIELD CHARTER TOWNSHIP



TO: Springfield Township Planning Commission

FROM: Danielle Sink, Building Admin

DATE: August 25, 2026

RE: Clawson Tank Storage Preliminary Application – 4634 Clawson Tank Dr – 07-36-401-011

Summary:

1. Site Plan Application 7/9/26
2. Narrative 7/9/26
3. CWA Plan Review 8/18/26
4. GW Engineering Letter and Markup Plans 8/17/26
5. Fire Department Review 7/10/26
6. Building Department Review 7/17/26
7. Full size site plans including conceptual site plan, photometric plans, architect plans, landscape plans 7/9/26

Authentisign ID: A17797D2-F97A-F111-B337-000D3A1E5FED

SPRINGFIELD
CHARTER TOWNSHIP
SUPERVISOR'S OFFICE
248-846-6502 | FAX 248-6548



APPLICATION FOR SITE PLAN REVIEW
Please Review Instruction Page Before Completing

Applicant

Name	Danny White
Address	576 Longpointe Dr Lake Orion,MI 48362
City, State, Zip	
Phone	928.706.5622
Email	dannywhite928@gmail.com
Interest	

All Parties of Interest (Title Holder, Contract Purchaser, Partners): Include for Each

Name		Name	
Address		Address	
Phone		Phone	
Email		Email	
Interest		Interest	

Name		Name	
Address		Address	
Phone		Phone	
Email		Email	
Interest		Interest	

Designer: (Registered Engineer, Architect, Surveyor, Landscape Architect, Planner)

Name	Kieft Engineering	Name	Jay Noonan A.I.B.D
Address	5852 S Main #1	Address	Design Resources
Phone	Clarkston,Mi 48346	Phone	jay@designreso.com
Email	248.625.5251	Email	248.496.8991
Interest	pmcwilliams@kiefteng.com	Interest	

Name	J Eppink Partners Inc	Name	
Address	27 S Squirrel Rd	Address	
Phone	Auburn Hills, MI 48326	Phone	
Email	248.917.8646	Email	
Interest	jim@jeppink.com	Interest	

Authentisign ID: A17797D2-F97A-F111-B337-000D3A1E5FED

Other Consultants:

Name		Name	
Address		Address	
Phone		Phone	
Email		Email	

General Property Information and Description:

General Location	4634 Clawson Tank Rd
Current Zoning	M1 Light Industrial
Acreage	8.19
Parcel ID Number	07-36-401-007
Legal Description	
	(Attach Metes and bounds description where applicable)

Purpose of Request and Intended Use:

Indoor Storage Condominiums

CERTIFICATION: I hereby certify that I have reviewed the Springfield Township Zoning Ordinance and Design & Constructions Standards and agree to comply with those requirements. I have also read and understand the Instructions to Applicant. I understand that the fee entitles me to reviews of the original plan and one revision. Each additional revision will require a fee of 50% of the original.

I hereby grant permission to any township official, consultant or employee to access the property in order to review the site plan submitted.

Signature of Applicant: Daniel M. White Date 7/9/26

DANIEL WHITE
(Print Name)

Signature of Owner: _____ Date _____

_____
(Print Name)

Signature of Applicant Representative: _____ Date _____

_____
(Print Name)

For Township Use Only File No. _____

PRELIMINARY [ ] Date Received _____ Fee $_____
3rd Review Fee $_____ 4th Review Fee $_____

FINAL [ ] Date Received _____ Fee $_____
3rd Review Fee $_____ 4th Review Fee $_____

FINAL ENGINEERING REVIEW [ ] Date Received _____ Fee $_____
3rd Review Fee $_____ 4th Review Fee $_____

Clawson Tank Development

Project Narrative & Section 40-630 Compliance

Springfield Township, Michigan

Project Narrative

Clawson Tank is a proposed indoor storage condominium development designed primarily for the storage of boats, RVs, collector vehicles, trailers, and personal property.

Individual units will be sold as storage condominiums. Owner access will be controlled and consistent with the condominium association rules. Emergency vehicle access will be provided at all times.

There will be no regular on-site staff. Common areas and maintenance will be managed by the condominium association and outside contractors as needed.

The property is intended for storage use and will not operate as a retail, repair, manufacturing, or general business facility.

Section 40-630 Compliance

1. Storage Use
Units will be used for storage. Activities prohibited under Section 40-630, including retail sales, vehicle or boat repair, fabrication, welding, painting, and operation of similar equipment, will not be permitted.

2. Hazardous Materials
Hazardous, explosive, corrosive, or flammable materials will not be permitted. Fuel tanks will be drained and batteries will be removed from vehicles and equipment before storage. Batteries will not be stored within the individual units.

3. Outdoor Storage
No outdoor storage is proposed as part of the development.

4. Site Requirements
The project will comply with the minimum two-acre lot requirement, one-story building limitation, and maximum 50% building coverage requirement.

5. Emergency Access
Emergency vehicle access will be provided to all buildings at all times.

6. Parking
Parking will be provided in accordance with Section 40-630 and the Township-approved site plan.

7. Building Separation
Building separation will be provided in accordance with the Township-approved site plan.

8. Internal Circulation
Internal drives will provide safe access to the storage units and adequate circulation for RVs, boats, trailers, and emergency vehicles.

Conclusion

Clawson Tank is intended to be a clean, secure, low-traffic storage condominium development. The project will comply with the applicable requirements of Section 40-630 and the Township-approved site plan.

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: August 18, 2026

Preliminary Site Plan Review
For
Springfield Township, Michigan

Applicant:	Danny White
Project Name:	Clawson Tank Self-Storage Facility
Plan Date:	May 19, 2026
Location:	4634 Clawson Tank Road, northwest of the intersection of Andersonville Road and Nelsey Road, at the end of Clawson Tank Drive
Zoning:	M-1, Light Industrial
Action Requested:	Preliminary Site Plan Approval
Required Information:	As Noted

PROJECT AND SITE DESCRIPTION

The applicant is requesting Preliminary Site Plan approval for the development of a self-storage facility located on an 8.16-acre parcel located in the M-1 Light Industrial zoning district. The site is currently vacant, relatively flat, with a dense tree canopy and no known water features. The eastern side of the parcel boarders Independence Township, and the adjacent lots are zoned ML, Limited Industrial. The applicant is proposing six storage buildings, totaling roughly 130,565 square feet, with units of various sizes and large drive lanes. The units in Building One will have entrances on both the east and west side to allow for drive-through storage. The applicant has indicated that the primary use will be storage of boats, RVs, collector cars, and personal property. Units will be condominiums for purchase, not rentals.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

In the M-1 zoning district, self-storage facilities are a principal permitted use subject to the standards of Section 40-630. The Planning Commission shall review the preliminary site plan and make reasonable inquiries of and receive answers from the applicant review.

Figure 1 below depicts an aerial image of the subject parcel.



Source: NearMap, July 24, 2026

PROJECT HISTORY

The subject site is currently vacant. The applicant participated in a pre-application meeting with Township staff. The applicant has provided a project narrative identifying the primary proposed use as indoor storage for boats, recreational vehicles (RVs), collector vehicles, and personal property. Township Fire also submitted a memo outlining initial concerns regarding the ability of emergency services to adequately access the site. Since that time, the applicant has coordinated with Township Fire to address these concerns. Based on the latest plans submitted, the previously identified emergency access concerns have been addressed.

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, AND SETBACKS

The subject site and proposed building appear to conform to the dimensional requirements of the M-1 zoning district, and Section 40-630 as shown in Table 1.

Table 1. *– M-1 -Dimensional Requirements*

	REQUIRED	PROVIDED	COMPLIANCE
Minimum Lot Size	2 Acres (Sec. 40-630)	8.16 Acres	Complies
Minimum Lot Width	120 ft. (Sec. 40-572)	457 ft.	Complies
Min. Setbacks (Sec. 40-572)			
Front	50 ft.	>50 ft.	Unknown
Side (Northwest)	30 ft.	30 ft.	Complies
Side (South)	30 ft.	30 ft.	Complies
Rear	50 ft.	50 ft.	Complies
Max. Lot Coverage	50% (Sec. 40-630)	36.7%	Complies
Max. Building Height	1-Story (Sec. 40-630)	1-Story	Complies
	28.5 feet (Sec. 40-572)	25 feet	Complies

The proposed plans appear to meet the dimensional requirements for the M-1 zoning district and those in Section 40-630 – Self-storage facility. The applicant should include lot width on the final site plan, and the front yard setback from each storage building to closest lot line.

Items to be Addressed: *1. Applicant provide lot width on site plan. 2. Applicant provide front yard setbacks for each building.*

NATURAL RESOURCES

Topography: The site is relatively flat with two mild elevations to the southeast and southwest.

Trees: The site is densely forested to the south and east. A large portion of the existing trees are likely to be removed. The applicant has not provided an exact count of trees to be removed.

Wetlands: There are no documented wetlands, however majority of the site does have wetland soil.

Soils: Soils information was not provided.

Items to be Addressed: *None.*

BUILDING LOCATION AND SITE ARRANGEMENT

The site layout proposes six storage facilities, each containing units of varying configurations and sizes. Buildings One and Two are centrally located within the site, while Buildings Three through Six are situated along the site perimeter. Building One will consist of drive-through storage units designed to

accommodate indoor boat and recreational vehicle (RV) parking. A wash bay is also proposed at the southern end of the building. Each unit within Building Three is proposed to be equipped with an individual meter and may include a single restroom. Public restrooms are proposed at the southern end of Building One.

The site has two access points off Clawson Tank Drive. Three septic fields are proposed in the frontage along Clawson Tank Drive, along with the dumpster enclosure just south of Building Six. The stormwater retention pond exists offsite and will be shared with other parcels in the area.

Items to be Addressed: *None.*

PARKING AND LOADING

Section 40-630 contains parking requirements for Self-Storage Facilities. Parking calculations are provided in **Table 2** below.

Table 2. *– Off-Street Parking Requirements*

	Required	Provided
Self-Storage Facilities	1 space for every 150 storage spaces or fraction thereof shall be located adjacent to the project office. A minimum of three such spaces shall be provided. 143 units < 150 units = 3 space minimum	3 spaces
Barrier-free	1 space	1 space
Total	4 spaces	4 spaces
Loading Spaces	5 spaces	None

Section 40-681 permits the Planning Commission to approve deviations from the loading space requirements. The Planning Commission should determine whether the required number of loading spaces is necessary and appropriate for the proposed use.

Items to be Addressed: *Planning Commission determine if the required loading spaces are appropriate for the proposed use.*

SITE ACCESS AND CIRCULATION

The site will be accessed from two points along Clawson Tank Drive. Section 40-683 permits the applicant to provide either two one-way driveways or a single two-way driveway for site access. Since the applicant has proposed two access points, we assume that each driveway is intended to operate as a one-way entrance or exit. The applicant should clearly identify the proposed direction of traffic for each access drive on the site plans.

Additionally, the posted speed limit was not identified for Clawson Tank Drive, without which the required driveway spacing calculation cannot be computed. The applicant should provide the distance between the proposed access drives and identify the applicable speed limit for Clawson Tank Drive on the submitted site plans. Based on aerial measurements and the apparent operating conditions of other businesses along the roadway, the speed limit is assumed to be between twenty-five and thirty miles per hour.

Pedestrian access to and throughout the site is limited. The applicant has not identified any additional on-site features intended to enhance pedestrian safety or accommodate pedestrian circulation. The Planning Commission should determine whether the proposed plans provide adequate pedestrian access and safety measures to meet the needs of the proposed development.

Site circulation and turning radii for fire, garbage and additional large-scale trucks can be seen on Sheet 2 of the submitted plans.

All other aspects of the preliminary site plan comply with Section 40-683 – Access Management and Section 40-684 – Driveway approaches and are shown on Sheet 2.

Items to be Addressed: *1. Applicant label one-way access drives. 2. Applicant provide speed limit for Clawson Tank Drive. 3. Applicant provide distance between access drives. 4. Planning Commission determine if site pedestrian circulation is sufficient.*

SAFETY PATHS AND SIDEWALKS

A safety path does not exist nor is it proposed along Clawson Tank Drive, which is not designated a priority pathway. Per Section 40-851(b)(5)b of the Zoning Ordinance, the developer is required to grant an easement for a safety path of acceptable size and location, as determined by the Township.

Items to be Addressed: *Applicant provide safety path easement.*

ESSENTIAL FACILITIES

Site water will be accessed through an existing main with Independence Township. There are three septic fields proposed within the portion of the parcel that fronts Clawson Tank Drive.

Stie stormwater drainage will be provided off-site as seen on Sheet 4.

We defer to the Township Engineer for additional comments regarding essential facilities and stormwater management.

Items to be Addressed: *Township Engineer review of essential facilities.*

LANDSCAPING

The applicant has submitted a landscape plan as seen on Page L-1. The following landscape standards apply to the site:

Greenbelt: Section 40-721(5) requires one tree for each 30 lineal feet of frontage that abuts the right-of-way. The site has 457 feet of frontage along the right-of-way; therefore, 16 trees are required. The applicant has provided 16 trees in compliance with standards.

Screening: The site currently borders only other industrially zoned parcels, including the adjacent parcels located in Independence Township. Therefore, the applicant is not required to provide screening landscaping.

Parking Lot: Section 40-721(b)(4) requires one tree per eight parking spaces. The site is required to have three parking spaces which would equate to one parking lot tree. The applicant has provided one tree which complies with standards.

The site is also required to have parking lot islands that are no less than 150 square feet. Plans propose a parking lot island, but it is unclear if the island meets the minimum requirements. The applicant should provide the square footage of the proposed parking lot island.

Site Landscaping: Section 40-721(6) requires at least ten percent (10%) of the site area, excluding existing public rights-of-way, to be landscaped. A calculation of the landscaped area has not been provided. However, it does appear that that more than 10% of the site area is proposed to be landscaped. The applicant has provided additional trees nearing the portion of the site fronting Clawson Tank Drive. We recommend that the proposed trees be spaced out more evenly across the site.

Trash Enclosure: A trash enclosure is on Sheet 1 located just south of building six near the front of the site. No details have been submitted regarding proper screening of the trash enclosure and should be submitted upon final site plan review in compliance with Section 40-721(8).

The Zoning Ordinance requires that enclosures be located away from public view as far as possible. The Planning Commission should determine if the current location of the trash enclosure is appropriate.

Items to be Addressed: *1. Applicant provide square footage of proposed parking lot island. 2. Applicant provide details of trash enclosure. 3. Planning Commission determine if location of trash enclosure is appropriate.*

LIGHTING

The applicant has provided a lighting plan and photometric plan. The proposed plans appear to comply with the standards in Section 40-888. However, there are two types of lighting proposed and only one schematic show on submitted plans. The applicant should provide schematics for the all proposed light fixtures.

Items to be Addressed: *Applicant provide schematic for all proposed light fixtures.*

SIGNAGE

Sign information has not been provided. Signs must be approved as part of site plan review or by the Planning Commission at a later date.

Items to be Addressed: *Applicant to provide signage plan.*

FLOOR PLANS AND ELEVATIONS

The building materials for the proposed self-storage buildings have not been provided. The applicant should provide a building material list upon final site plan review. The plans provided should meet the architectural standards in Section 40-821.

Items to be Addressed: *1. Applicant provide building materials list. 2. Applicant comply with architectural standards in Section 40-821.*

REQUIREMENTS FOR SELF-STORAGE FACILITIES

The criteria for self-storage facilities in Section 40-630 are listed below. The Planning Commission will need to evaluate the project against these criteria. We have provided comments regarding each criterion:

1. *Prohibited activity in relationship to the rental of units.*
    a. No activity other than rental of storage units shall be allowed. No commercial, wholesale, retail, industrial or other business use on, or operated from, the facility shall be allowed. Examples of prohibited activities (commercial or personal) include but are not limited to:
        i. Auctions, wholesale, or retail sales, miscellaneous or garage sales, except those conducted by the owner of the self-storage facility to dispose of those items abandoned by individual tenants.
        ii. The servicing, repair or fabrication of motor vehicles, boats, trailers, lawnmowers, appliances, furniture, machinery, or other similar property.
        iii. The operation of power tools, painting equipment, compressors, welding equipment or similar tools and equipment.
        iv. The storage of goods needed and used on a regular basis as part of a business.

Applicant: *The property is intended for storage use and will not operate as a retail, repair, manufacturing, or general business facility.*

CWA Comment: *Overall, we find that the proposed use is intended to comply with the applicable standard. However, we are concerned that the inclusion of individual restrooms within Building Three could facilitate the establishment of businesses or the use of the units as living quarters, which would be inconsistent with the intended self-storage use.*

Similar uses for automobile storage, such as car clubs, have been proposed in neighboring communities, where concerns have been raised regarding the potential for social gatherings, events, and other activities occurring within individual units. To address these concerns and ensure that the proposed development remains consistent with the intended use, we recommend that the applicant provide draft copies of the

applicable unit purchase agreements, master deed, condominium bylaws, and any other governing documents. These documents should clearly establish that the units are intended solely for self-storage purposes and expressly prohibit the use of any unit as living quarters or for the operation of a business.

b. The storage of any toxic, explosive, corrosive, flammable or hazardous material is prohibited. Fuel tanks on any motor vehicles, boat, lawnmower, or similar property will be drained or removed prior to storage. Batteries will be removed from vehicles before storage and shall not be stored within units under any circumstances.

Applicant: *Hazardous, explosive, corrosive, or flammable materials will not be permitted. Fuel tanks will be drained, and batteries will be removed from vehicles and equipment before storage. Batteries will not be stored within the individual units.*

CWA Comment: *The applicant has confirmed that no hazardous, explosive, corrosive, or flammable materials will be stored on-site. We feel that this standard should be clearly documented within governing documents, similar to the recommendation above.*

c. All outdoor storage of automobiles and recreational vehicles shall be screened in accordance with section 40-721(b)(3).

CWA Comment: *Outdoor storage is not proposed; all vehicles are to be stored indoors.*

2. *General requirements.*
   a. The minimum lot area used for self-storage facilities shall be two acres. Other uses on the same property shall not be included in the two-acre minimum area.

CWA Comment: *The current parcel is 8.16 acres; this complies with standards.*

b. Each facility must provide for emergency vehicle access at all times.

Applicant: *Emergency vehicle access will be provided to all buildings at all times.*

CWA Comment: *We see no concern with the applicant complying with this standard and defer to Township Fire Department for further comment.*

c. No structure may exceed one story in height.

CWA Comment: *Provided site plans do not show proposed storage buildings exceeding one-story in height.*

d. The total lot coverage by structures shall be limited to 50 percent of the total lot area used for the self-storage facility.

CWA Comment: *The proposed lot coverage is 37%, this complies with standards.*

3. *Parking, drives and loading areas.*
   a. One parking space for every 150 storage spaces or fraction thereof shall be located adjacent to the project office. A minimum of three such spaces shall be provided.

CWA Comment: *The site plan did not meet the 150 storage space threshold. The three minimum spaces have been provided.*

b. Distance between storage unit buildings shall be a minimum of 24 feet.

CWA Comment: *The applicant has provided distance between buildings on Sheet Two. While most proposed buildings comply with these standards, a measurement between Buildings Five and Six to the north of the site was not provided. The applicant must include this measurement upon submission of final site plans.*

c. All storage units must be accessible by safe circular drives clearly marked to distinguish direction (if one-way).

CWA Comment: *The applicant has not indicated if internal drives are one-way or two-way. This information should be included upon final site plan review.*

d. During the site plan review process the applicant must demonstrate that emergency vehicles and other vehicles that would typically utilize such a facility can circulate through the site adequately, i.e., entering and exiting the site without having to back up.

CWA Comment: *The applicant has provided a circulation plan for emergency vehicles on Sheet 2. Additionally, Township Fire has submitted a memo confirming that the submitted plans meet emergency service requirements. We defer to Township Fire for any additional comments.*

Items to be Addressed: *1. Applicant provide draft copies of the applicable unit purchase agreements, master deed, condominium bylaws, and any other governing documents that clearly show compliance with standards one and two of Section 40-630. 2. Applicant provide distance between Buildings Five and Six. 3. Applicant indicate if internal drives are one-way or two-way.*

SUMMARY

The submitted preliminary site plan is not in compliance with Springfield Township's Zoning Ordinance. The following items need to be considered by the Planning Commission and addressed by the applicant to the satisfaction of the Planning Commission.

Planning Commission Considerations:

A. Parking and Loading.
1. Determine if the required loading spaces are appropriate for the proposed use.

B. Site Access and Circulation.
1. Determine if site pedestrian circulation is sufficient.

C. Landscaping.
1. Determine if location of trash enclosure is appropriate.

Applicant to Address:

A. Area, Width, Height, and Setbacks.
1. Provide lot width on site plan.
2. Provide front yard setbacks for each building.

B. Site Access and Circulation.
1. Label one-way access drives.
2. Provide speed limit for Clawson Tank Drive.
3. Provide distance between access drives.

C. Safety Paths and Sidewalks.
1. Provide safety path easement.

D. Landscaping.
1. Provide square footage of proposed parking lot island.
2. Provide details of trash enclosure.

E. Lighting.
1. Provide schematics for all proposed light fixtures.

F. Signage.
1. Provide signage plan.

G. Floorplans and Elevations.
1. Provide building materials list.
2. Comply with architectural standards in Section 40-821.

H. Requirements for Self-Storage Facilities.
1. Provide draft copies of the applicable unit purchase agreements, master deed, condominium bylaws, and any other governing documents that clearly show compliance with standards one and two of Section 40-630.
2. Provide distance between buildings five and six.
3. Indicate if internal drives are one-way or two-way.

Township Engineer or Other Agency Review: Township Engineer review of essential facilities.

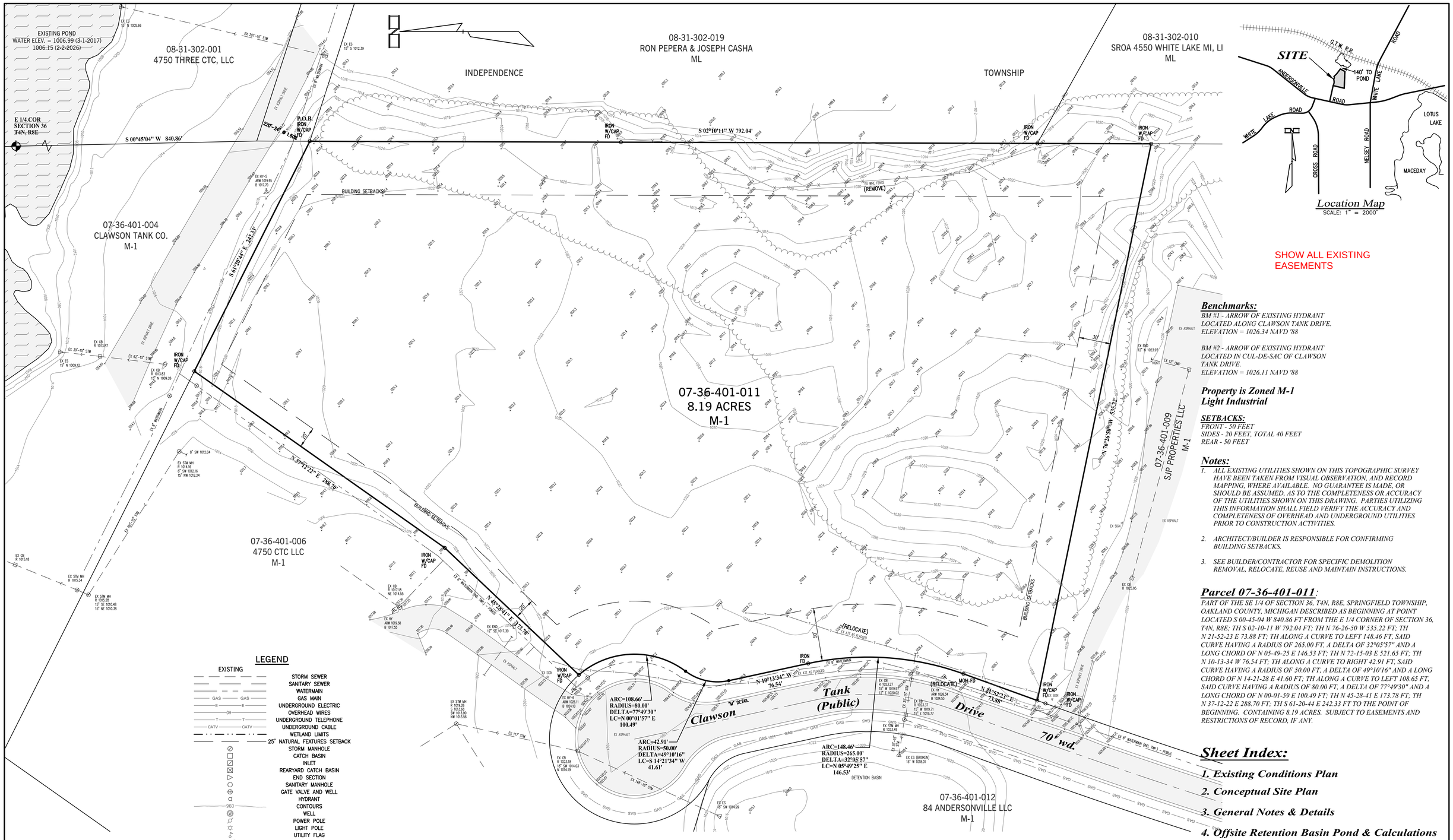
For future site plan submissions, we request that the applicant provide separate sheets for the circulation plan, utility plan, and general site plan. Separating these components will facilitate a more thorough and efficient review of the proposed plans.

Respectfully submitted,

CARLISLE/WORTMAN ASSOC., INC.
Megan Masson-Minock, AICP
Principal

CARLISLE/WORTMAN ASSOC., INC.
Benny Bono
Community Planner

cc: *Ric Davis, Supervisor*
Sean Miller, Clerk
Danielle Sink, Supervisor's Assistant
Brian Galley, Planning Commission Chair
Nancy McClain, P.E.(nmcclain@giffelswebster.com)
Jason Mayer, P.E. (jmayer@giffelswebster.com)
Matthew J. Covey (mcovey@springfield-twp.us)



LEGEND

EXISTING

- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- GAS MAIN
- UNDERGROUND ELECTRIC
- OVERHEAD WIRES
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE
- WETLAND LIMITS
- 25' NATURAL FEATURES SETBACK
- STORM MANHOLE
- CATCH BASIN
- INLET
- REARYARD CATCH BASIN
- END SECTION
- SANITARY MANHOLE
- GATE VALVE AND WELL
- HYDRANT
- CONTOURS
- WELL
- POWER POLE
- LIGHT POLE
- UTILITY FLAG
- GRADE
- SOIL BORING
- DEMOLITION LIMITS

Benchmarks:

BM #1 - ARROW OF EXISTING HYDRANT LOCATED ALONG CLAWSON TANK DRIVE. ELEVATION = 1026.34 NAVD '88

BM #2 - ARROW OF EXISTING HYDRANT LOCATED IN CUL-DE-SAC OF CLAWSON TANK DRIVE. ELEVATION = 1026.11 NAVD '88

Property is Zoned M-1 Light Industrial

SETBACKS:

FRONT - 50 FEET
SIDES - 20 FEET, TOTAL 40 FEET
REAR - 50 FEET

Notes:

1. *ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION, AND RECORD MAPPING, WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.*
2. *ARCHITECT/BUILDER IS RESPONSIBLE FOR CONFIRMING BUILDING SETBACKS.*
3. *SEE BUILDER/CONTRACTOR FOR SPECIFIC DEMOLITION REMOVAL, RELOCATE, REUSE AND MAINTAIN INSTRUCTIONS.*

Parcel 07-36-401-011:

PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN DESCRIBED AS BEGINNING AT POINT LOCATED S 00-45-04 W 840.86 FT FROM THE E 1/4 CORNER OF SECTION 36, T4N, R8E; TH S 02-10-11 W 792.04 FT; TH N 76-26-50 W 535.22 FT; TH N 21-52-23 E 73.88 FT; TH ALONG A CURVE TO LEFT 148.46 FT, SAID CURVE HAVING A RADIUS OF 265.00 FT, A DELTA OF 32°05'57" AND A LONG CHORD OF N 05-49-25 E 146.53 FT; TH N 72-15-03 E 521.65 FT; TH N 10-13-34 W 76.54 FT; TH ALONG A CURVE TO RIGHT 42.91 FT, SAID CURVE HAVING A RADIUS OF 50.00 FT, A DELTA OF 49°10'16" AND A LONG CHORD OF N 14-21-28 E 41.60 FT; TH ALONG A CURVE TO LEFT 108.65 FT, SAID CURVE HAVING A RADIUS OF 80.00 FT, A DELTA OF 77°49'30" AND A LONG CHORD OF N 00-01-59 E 100.49 FT; TH N 45-28-41 E 173.78 FT; TH N 37-12-22 E 288.70 FT; TH S 61-20-44 E 242.33 FT TO THE POINT OF BEGINNING. CONTAINING 8.19 ACRES. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

Sheet Index:

1. *Existing Conditions Plan*
2. *Conceptual Site Plan*
3. *General Notes & Details*
4. *Offsite Retention Basin Pond & Calculations*

APPROVED AS NOTED
PRELIMINARY SITE PLAN
GIFFELS WEBSTER
1025 E. MAPLE ROAD, SUITE 100
BIRMINGHAM, MI 48009
08/17/2026

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
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DATE	5-19-2026	CKD. BY / DATE
DRAWN	GF	
DESIGN	PCM	
SECTION	36	T- 4 -N. R- 8 -E.

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

Existing Conditions Plan
PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE	1" = 40'
SHEET	1 OF 4
KE	2025.207

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08-31-302-001
4750 THREE CTC, LLC

RON PEPERA & JOSEPH CASHA
08-31-302-019

07-36-401-004
TANK CO.
M-1

07-36-401-006
4750 CTC LLC
M-1

07-36-401-009
SJP PROPERTIES LLC
M-1

DISCHARGE TO OFF-SITE RETENTION POND

220'-24" @ 1.6%

PRETREATMENT MANHOLE-1
R 1023.20

PROPOSED 8' C.L. FENCE

RETAINING WALL- 255 LF+/-, (2' TO 5' HIGH)

END WALL (16.0B/W) (17.0T/W)

(13.0B/W) (17.0T/W)

8" GW-8 W/TAP
R 1018.00

8" GW-3 W/TAP
R 1018.00

8" GW-4
R 1020.00

CB-1
R 1019.00

CB-2
R 1019.50

CB-12
R 1019.50

CB-8
R 1021.50

EX HY-5
ARW 1019.95
B 1017.70

8'x10' (80 SF) ELECTRIC & (85 SF) FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #5)

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #6)

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #4

PROPOSED STORAGE BUILDING #5
TOTAL 16,840 SF
F.F. 1023.50

PROPOSED STORAGE BUILDING #4
TOTAL 16,639 SF
F.F. 1023.50

(7,582 SF)

(9,057 SF)

(1) UNIT @ 5,254 SF
F.F. 1023.50

(24) 45'x14' UNITS

(12) 45'x14' UNITS

(3) 45'x28' UNITS

HY-3
B 1023.50

HY-4
B 1023.50

HY-2
B 1023.50

CB-5
R 1022.50

CB-6
R 1022.50

CB-7
R 1022.60

MH-2
R 1022.90

CB-9
R 1022.50

CB-10
R 1022.50

CB-11
R 1023.00

(33) 45'x14' UNITS

PROPOSED STORAGE BUILDING #2
TOTAL 38,530 SF
F.F. 1024.00

12" DIA. STEEL BOLLARDS (TYPICAL)

12" Minimum Required

WASH BAY

OIL/GREASE TRAP (500 GALLON)

Provide detail at Engineering Submittal

(1) UNIT @ 3,171 SF
F.F. 1024.00
(11,391 SF)

(2) 45'x25' UNITS

45'x20' UNIT

1/4"+/- PAD SLOPE

CB-14
R 1023.80

12'x15' 180 SF ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #2)

6" GW-2
R 1023.90

(28) 45'x14' UNITS

CB-16
R 1023.00

CB-17
R 1023.00

CB-18
R 1023.00

CB-15
R 1023.00

(7) 60'x28' UNITS

PROPOSED STORAGE BUILDING #6
TOTAL 22,921 SF

(2) 60'x28' UNITS

(11,530 SF)

(1) UNIT @ 1420 SF

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #1)

PROPOSED STORAGE BUILDING #1
TOTAL 20,455 SF
F.F. 1024.50

(1) 45'x14' UNIT 630 SF

(1) 60'x14' UNIT 840 SF

PUBLIC RESTROOMS 600 SF

GAS METER ROOM 169 SF

(14) 80'x16' DRIVE-THRU UNITS

(9) 60'x28' UNITS

PROPOSED STORAGE BUILDING #3
TOTAL 15,180 SF

(6,780 SF)

(9) 60' x 28' UNITS W/INDIVIDUAL RESTROOMS & POTENTIAL SINGLE BATHROOM

1/4"+/- PAD SLOPE

(8,400 SF)

F.F. 1024.00

F.F. 1024.50

12'x14' (168 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #3)

RETAINING WALL- 365 LF+/-, (2' TO 4' HIGH)

RETAINING WALL- T/W 1021.0 460 LF+/- (2' TO 4' HIGH)

PROPOSED PRIMARY SEPTIC FIELD 76'

RESERVE SEPTIC FIELD

PRIMARY SEPTIC FIELD 66'

RESERVE SEPTIC FIELD

DUMPSTER ENCLOSURE

PROPOSED SLIDING GATE

NOTE: SEE WALL DETAIL FOR PORTION OF WALL TO BE BURIED (TYPICAL)

SHOW EXISTING AND PROPOSED WATER AND STORM WATER EASEMENTS

COORDINATE APPROVAL OF WATER MAIN LAYOUT & CONNECTION WITH INDEPENDENCE TOWNSHIP DPW DIRECTOR DAVE McKEE.

Will this connection be used for storm water along the Clawson Tank Drive ROW?

Clawson Tank (Public) Drive

70' wd.

"M" DETAIL

8" GW-7 W/TAP
R 1026.00

EX STM MH
R 1014.16
8" SW 1012.16
15" NW 1012.24

EX CB
R 1013.83
15" N 1009.26

EX CB
R 1017.18
NE 1014.55

EX CB
R 1023.18
18" SW 1014.03
N 1014.19

EX STM MH
R 1019.26
S 1013.68
SW 1013.90
NW 1013.56

EX CB
R 1023.37
15" W 1019.71
15" E 1019.77

EX STM MH
R 1023.49

EX CB
R 1023.27
15" W 1019.97
12" E 1020.07

EX ES (BROKEN)
15" W 1018.01

EX HY
ARW 1019.58
B 1017.55

EX HY-6
ARW 1026.11
B 1024.10

EX END
12" SE 1017.30

EX END
12" N 1023.97

EX 12" CMP

EX 8" WATERMAIN (IND. TWP.)

EX ASPHALT DRIVE

EX SIGN

EX ASPHALT

EX 117' STM

EX 62'-15" STM

EX 35'-15" STM

399'-9"

LEGEND

EXISTING		PROPOSED
	STORM SEWER	
	SEPTIC LINES	
W	WATERMAIN	W
GAS	GAS MAIN	GAS
OH	OVERHEAD LINES	OH
T	UNDERGROUND TELEPHONE	T
CATV	UNDERGROUND CABLE	CATV
E	UNDERGROUND ELECTRIC	E
	STORM MANHOLE	
	CATCH BASIN	
	INLET	
	REARYARD CATCH BASIN	
	END SECTION	
	SANITARY MANHOLE	
	GATE VALVE AND WELL	
	HYDRANT	
1020	CONTOURS	(20)
	GRADE	(26.0)
	MATCH ELEVATION	(M)
	TOP OF CURB	T/C
	TOP OF SIDEWALK	T/S
	TOP OF PAVEMENT	T/P
	TOP OF CONCRETE	TC
	TOP OF WALL	T/W
	BOTTOM OF WALL	B/W
	DITCH	D
	STANDARD CURB	
	REVERSE CURB	
	DRAINAGE AREA	

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
REGISTERED PROFESSIONAL ENGINEER

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DATE	ISSUE

PROPRIETOR:
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DATE	5-19-2026
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DESIGN	PCM
SECTION	36

CKD. BY	DATE
T- 4 -N. R- 8 -E.	

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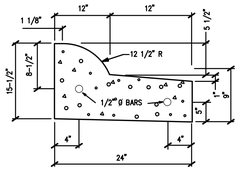
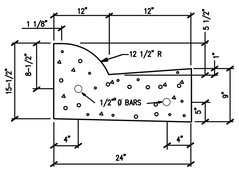
Conceptual Site Plan

PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

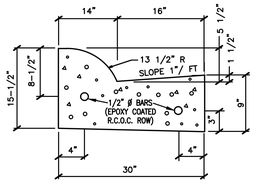
SCALE	1" = 30'
SHEET	2 OF 4
KE	2025.207



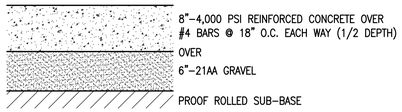
5 1/2" B-2 REVERSE CONCRETE ROLL CURB
NO SCALE



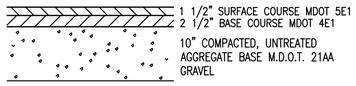
5 1/2" B-2 STANDARD CONCRETE ROLL CURB
NO SCALE



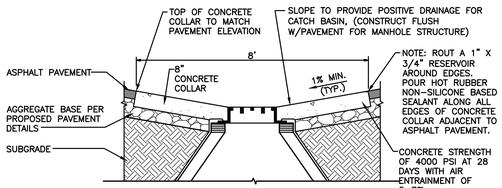
CONCRETE CURB & GUTTER (B-2 STANDARD)
NO SCALE



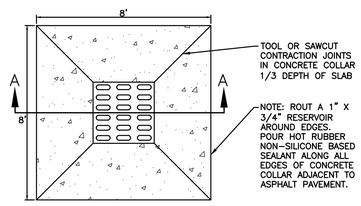
8" CONCRETE PAVEMENT DETAIL
DUMP STATION



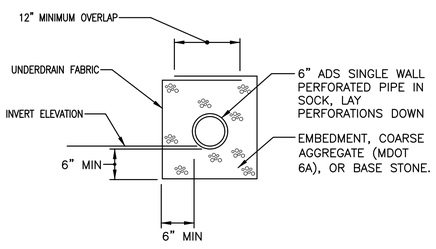
4" ASPHALT PARKING SECTION
NO SCALE



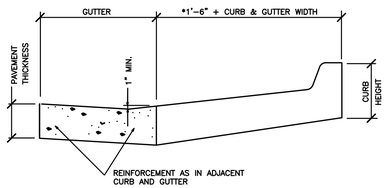
SECTION "A-A"
N.T.S.



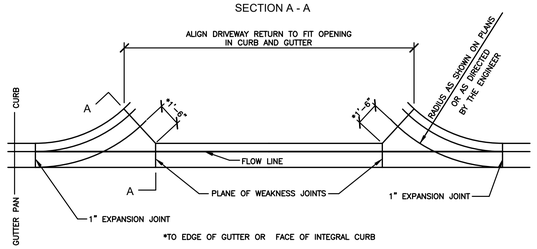
CONCRETE COLLAR AT CATCH BASIN
N.T.S.



UNDERDRAIN
N.T.S.



SECTION A - A



CONCRETE DRIVEWAY OPENING DETAIL
"M" DETAIL

General Notes:

1. OWNER: DANNY WHITE
   1926 MONTANA VISTA
   LAKE HAVASU, ARIZONA 86403
   EMAIL: dannywhite928@gmail.com
   PHONE: (928) 706-5622
3. PROPERTY DESCRIPTION: PARCEL 07-36-401-011
   PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN DESCRIBED AS BEGINNING AT POINT LOCATED S 00-45-04 W 840.86 FT FROM THE E 1/4 CORNER OF SECTION 36, T4N, R8E; TH S 02-10-11 W 792.04 FT; TH N 76-26-50 W 535.22 FT; TH N 21-52-23 E 73.88 FT; TH ALONG A CURVE TO LEFT 148.46 FT, SAID CURVE HAVING A RADIUS OF 265.00 FT, A DELTA OF 32°05'57" AND A LONG CHORD OF N 05-49-25 E 146.53 FT; TH N 72-15-03 E 521.65 FT; TH N 10-13-34 W 76.54 FT; TH ALONG A CURVE TO RIGHT 42.91 FT, SAID CURVE HAVING A RADIUS OF 50.00 FT, A DELTA OF 49°10'16" AND A LONG CHORD OF N 14-21-28 E 41.60 FT; TH ALONG A CURVE TO LEFT 108.65 FT, SAID CURVE HAVING A RADIUS OF 80.00 FT, A DELTA OF 77°49'30" AND A LONG CHORD OF N 00-01-59 E 100.49 FT; TH N 45-28-41 E 173.78 FT; TH N 37-12-22 E 288.70 FT; TH S 61-20-44 E 242.33 FT TO THE POINT OF BEGINNING. CONTAINING 8.19 ACRES. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.
4. EXISTING ZONING: M-1 (LIGHT INDUSTRIAL)
5. PROPOSED USE: STORAGE FACILITY
6. SITE AREA: 8.19 ACRES
7. BUILDING SIZES: SEE PLAN
   COVERAGE = 37%
   NOTE: ALLOWABLE BY ZONING = 80% - COVERED BY ALL BUILDINGS
8. SETBACKS:

	ZONING	PROPOSED
FRONT	50 FT	109 FT
SIDES	20 FT EA	30 FT
REAR	50 FT	50 FT
HEIGHT	2 STORIES/28.5 FT	25 FT

9. PARKING REQUIREMENTS:
10. WATER SUPPLY: MUNICIPAL WATER MAINS FROM INDEPENDENCE TOWNSHIP.
    NOTE: ALL BUILDING MAY BE FIRE SUPPRESSED.
11. SEWAGE DISPOSAL: SEPTIC TANKS AND DISPOSAL FIELDS WILL BE PROVIDED.
12. SIGNAGE: INDUSTRIAL PARK SIGNAGE TO BE PROPOSED ALONG WITH WALL MOUNTED BUILDING SIGNS. DETAILS TO BE PROVIDED WITH FINAL SITE PLANS..
13. LIGHTING: BUILDING LIGHTING PROPOSED ALONG WITH NECESSARY SAFETY ILLUMINATIONS LIGHT POSTS. DETAILS AND ILLUMINATION PATTERNS TO BE PROVIDED WITH FINAL SITE PLANS.
14. DUMPSTER: DUMPSTER PROVIDED (SEE PLAN), SCREENED IN ACCORDANCE WITH SPRINGFIELD TOWNSHIP REQUIREMENTS.
15. LANDSCAPING: DETAILED LANDSCAPE PLANS TO BE PROVIDED WITH FINAL SITE PLAN SUBMITTAL.
16. STORM DRAINAGE: DEVELOPED STORM DRAINAGE WILL BE HANDLED IN THE FOLLOWING MANNER - ON-SITE STORM WILL FLOW VIA STORM SEWERS TO THE EXISTING OFF-SITE RETENTION FACILITY (POND).
17. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE.
18. SOIL CONDITIONS: PER SOIL SURVEY OF OAKLAND COUNTY
    42 - PITS SAND & GRAVEL EXCAVATION AREAS.
    50B - IDIPSAMMENTS, UNDULATING - ALTERED WELL DRAINED SOILS.

NOTE: ALSO SEE SOIL BORINGS TAKEN ON-SITE.

SEPTIC FIELD CONCEPTUAL CALCULATION

PUBLIC RESTROOMS BUILDING:

THE BUILDING TO HAVE 8 TOILETS & 8 SINKS
∴ (16 FIXTURES)(0.12 REU/FIXTURE) = 1.92 REU
(1.92 REU'S)(270 GAL/REU)(1.25) = 648 GPD
FIELD SIZE (ASSUMING SAND) = 648 ÷ 0.40 = 1,620 SF
IF WE USE ELJENS PRETREATMENT SYSTEMS
(1,620)(0.62) = 1,005 SF
1,005 SF/16 SF/MODULE = 64 MODULES
64 MODULES ÷ 16 MODULES/ROW = 4 ROWS
WIDTH (4' x 3' = 12') + (3' x 1' = 3') + 1' = 16'
LENGTH (16' x 4') + 1' + 1' = 66'

THUS FIELD SIZE = 66' x 16'

(9)-28' x 60' UNITS (EACH SIDE)
EACH UNIT TO HAVE 1 TOILET & 2 SINKS
(9 UNITS)(3 FIXTURES/UNIT)(0.12 REU/FIXTURE) = 3.24 REU'S = 3.24 REU

(3.24 REU'S)(270 GAL/REU)(1.25) = 1,094 GPD
FIELD SIZE (ASSUMING SAND) = 1,094 ÷ 0.40 = 2,735 SF ≈ 2,800 SF

IF WE USE ELJENS PRETREATMENT SYSTEMS
(2,800 SF)(0.62) = 1,736 SF
1,736 SF/16 SF/MODULE = 110 MODULES/SIDE
110 MODULES ÷ 20 MODULES/ROW = 5.5 ROWS ≈ 6 ROWS
WIDTH (6' x 3' = 18') + (5' x 1' = 5') + 1' = 24'
LENGTH (18') x 4' + (1') x 2' + 1' + 1' = 76'

THUS. EACH FIELD SIZE = 76' x 24'

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
LAKE HAVASU, ARIZONA 86403
EMAIL: dannywhite928@gmail.com
PHONE: (928) 706-5622

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5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE	5-19-2026
DRAWN	GF
DESIGN	PCM
SECTION	36

CKD. BY	DATE
T- 4 -N. R- 8 -E.	

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

General Notes & Details
PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE	N/A
SHEET	3 OF 4
KE	2025.207

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Retention BasinCalculations:

TOTAL SITE AREA = 8.19 ACRES
AREA TO DRAIN TO LARGE POND LOCATED OFF-SITE NORTH OF SITE = 8.19 ACRES
8.19 ACRES - 356,980 SF
2"= 0.167'
REQUIRED RETENTION VOLUME = (356,980 SF)(0.167') = 59,616 CF

EXISTING POND ELEVATION = 1006.15 (2-2-2026)
EXISTING POND SURFACE AREA = 244,065 SF+/-

POTENTIAL INCREASE IN POND HEIGHT = $\frac{59{,}616 \text{ CF}}{244{,}065 \text{ SF}}$ = 0.244' (=2.93")

THUS, POTENTIAL RETENTION BASIN WATER ELEVATION = 1006.15 + 0.244' = 1006.394 ≈ 1006.40

SEE EASEMENT AGREEMENT FOR DETENTION/RETENTION POND BETWEEN HARDING LEASING & EQUIPMENT CO. & BCG PROPERTIES.

Provide a copy of this easement

08-31-302-002

EXISTING POND
WATER ELEV. = 1006.15 (2-3-2026)

ES-1
24" N. 1008.00
W/BARSCREEN &
12 SY GROUTED
RIP-RAP

220' 24" @ 1.90%
DISCHARGE TO OFF-SITE RETENTION POND

Easement Required

08-31-302-001
4750 THREE CTC, LLC

07-36-401-004
CLAWSON TANK CO.
M-1

07-36-401-006
4750 CTC LLC
M-1

INDEPENDENCE

PROPOSED STORAGE BUILDING #5
TOTAL 16,840 SF
F.F. 1023.50
(24) 45'x14' UNITS

PROPOSED STORAGE BUILDING #6
TOTAL 21,921 SF
(1) UNIT @ 3,171 SF F.F. 1024.00
(1,391 SF)
(2) 60'x28' UNITS
(1) UNIT @ 1,400 SF
(1,530 SF) F.F. 1024.50
(2) 60'x28' UNITS

(2) 45'x35' UNITS

RETAINING WALL- T/W 1021.0
460 LF+/- (2' TO 4' HIGH)

PROPOSED PRIMARY SEPTIC FIELD

RESERVE SEPTIC FIELD

DUMPSTER ENCLOSURE

PROPOSED 4" ASPHALT

PROPOSED 8' C.L. FENCE

PRETREATMENT MANHOLE-1
R 1023.20

8" CW-8 W/TAP
R 1018.00

8" CW-3 W/TAP
R 1018.00

8" CW-6
R 1018.00

8" CW-2
R 1023.90

8" CW-1
R 1024.20

CB-1
R 1019.00

CB-2
R 1019.50

CB-3
R 1020.00

CB-4
R 1020.00

CB-5
R 1022.50

CB-6
R 1022.50

CB-14
R 1023.00

CB-15
R 1023.00

CB-16
R 1023.00

HY-4
B 1023.50

8'x10' (80 SF) ELECTRIC & (85 SF) FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #5)

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #6)

12'x15' (180 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS BLDG. (2)

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #7)

(3) 45'x14' UNIT 630 SF
(1) 60'x14' UNIT 840 SF

EX 20"-15" STM
EX 39"-15" STM
EX 62"-15" STM
EX 20"-15" STM
EX 24"-15" STM
EX 15" W WATERMAIN
EX ES 15" S 1012.39
EX ES 15" S 1005.66
EX ES 15" N 1009.12
EX ES 15" N 1009.87
EX CB R 1013.87
EX CB R 1013.83 NE 1009.26
EX CB R 1005.18
EX STM MH R 1015.34
EX STM MH R 1015.28 15" SE 1010.48 15" NE 1010.38
EX STM MH R 1014.16 8" SW 1012.16 15" NW 1012.24
8" SW 1012.04
EX CB R 1007.18 NE 1014.55
EX HY ARW 1019.58 B 1017.55
EX END 12" SE 1017.30
EX STRUCTURE
EX ASPHALT DRIVE
EX GRAVEL DRIVE
EX BUILDING SETBACKS
EX 8" WATERMAIN
EX 6" WATERMAIN
EX 8" WATERMAIN INC. TEE
EX 8" WATERMAIN INC. TEE

Benchmarks:

BM #1 - ARROW OF EXISTING HYDRANT LOCATED ALONG CLAWSON TANK DRIVE. ELEVATION = 1026.34 NAVD '88

BM #2 - ARROW O0F EXISTING HYDRANT LOCATED IN CUL-DE-SAC OF CLAWSON TANK DRIVE. ELEVATION = 1026.11 NAVD '88

LEGEND

EXISTING		PROPOSED
	STORM SEWER	
	SEPTIC LINES	
	WATERMAIN	
GAS GAS	GAS MAIN	GAS GAS
OH OH	OVERHEAD LINES	OH OH
T T	UNDERGROUND TELEPHONE	T T
CATV CATV	UNDERGROUND CABLE	CATV CATV
E E	UNDERGROUND ELECTRIC	E E
	STORM MANHOLE	
	CATCH BASIN	
	INLET	
	REARYARD CATCH BASIN	
	END SECTION	
	SANITARY MANHOLE	
	GATE VALVE AND WELL	
	HYDRANT	
1020	CONTOURS	(20)
+1020.5	GRADE	(26.0)
	MATCH ELEVATION	(M)
	TOP OF CURB	T/C
	TOP OF SIDEWALK	T/S
	TOP OF PAVEMENT	T/P
	TOP OF CONCRETE	TC
	TOP OF WALL	T/W
	BOTTOM OF WALL	B/W
	DITCH	D
	STANDARD CURB	
	REVERSE CURB	
	DRAINAGE AREA	

RON PEP

STATE OF MICHIGAN — WILLIAM J. NORMAN II — PROFESSIONAL SURVEYOR NO. 46680 — REGISTERED PROFESSIONAL SURVEYOR

STATE OF MICHIGAN — PATRICK COLIN McWILLIAMS — LICENSE NO. 6201031658 — LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
LAKE HAVASU, ARIZONA 86403
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PHONE: (928) 706-5622

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DATE	5-19-2026	CKD. BY	DATE
DRAWN	GF		
DESIGN	PCM		
SECTION	36	T- 4 -N. R- 8 -E.	

72 HOURS (3 WORKING DAYS) | BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

Off-Site Retention Basin Pond & Calculations

PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E,
SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE	1" = 40'
SHEET	4 OF 4
KE	2025.207

G:\2025\207 Danny White\CAD\Clawson Tank Storage.dwg, 4 Offsite Pond, 5/19/2026 2:44:07 PM, , AutoCAD PDF (High Quality Print MOD).pc3

August 17, 2026

Springfield Township Planning Commission
Charter Township of Springfield
12000 Davisburg Road
Davisburg, Michigan 48350

RE: Preliminary Site Plan Submittal
Approved as Noted

Project Name: Clawson Tank Storage
GW Project No.: 20834.00

Dear Planning Commission Members:

Giffels Webster has completed our engineering review of the Preliminary Site Plan for the proposed Clawson Tank Storage project plans dated July 9, 2026. Our comments are summarized below:

General

The 8.19-acre site is located on the north end of Clawson Tank Drive, approximately 750 feet north of Andersonville Road. The site is currently undeveloped.

Utilities

An existing 8” water main connecting to the Independence Township water system is located along the Clawson Tank Road frontage and on the parcels to the west and north of the site. The developer is proposing to add a new 8” water main which will complete a loop around the property, 3 new hydrants, and domestic and/or /fire suppression connections for each of the 6 buildings. We had some discussion with the Independence Township Engineer regarding the proposed connections. Independence Township is open to the connections, however the Intergovernmental Agreement regarding water service may need to be updated prior to final approval of the connections.
There is no sanitary sewer serving the site. Three of the buildings will be connected to three proposed septic fields.
The storm sewer system is shown discharging to an existing pond north of the site on the adjoining parcel. There is also an existing 15” storm sewer located near the southwest corner of the site along the Clawson Tank Drive frontage that currently takes storm water from the right-of-way to a detention basin located west of Clawson Tank Drive.

Required for Preliminary Site Plan

1. Show existing public water main and storm sewer easements.

Required for Final Site Plan

1. An easement will be required to discharge the storm water across the parcel to the north to the existing pond.
2. Provide approval of water main layout from Independence Township. Contact Dave McKee, Independence Township Public Works Director, for the approval and to coordinate reviews and permitting.

3. Provide drainage area layout and hydraulic calculations verifying pipe capacity and velocity. Include existing drainage calculations from the retention basin north of the site and the detention basin to the west of the site.
4. Provide full detention calculations per the Oakland County Water Resources Commissioner (OCWRC) design standards to verify volume requirements and standards are met.
5. Minimum storm pipe size is 12” diameter – please revise the storm pipe between oil/grease trap and CB-10.

Grading

The site currently slopes somewhat south to north toward the existing retention basin. However, the drainage pattern is not consistent, and low points exist on the property and portions of it drain toward neighboring properties slightly. The proposed grading slope toward swales and catch basins which ultimately convey storm water to the existing retention basin and away from the property lines.

Required for Preliminary Site Plan

1. Provide corner grades for all the proposed buildings and at regular intervals on the pavement on site.
2. Provide swale centerline slope labels.

Required for Final Site Plan

1. Approval of the drive approaches will be required from the Road Commission for Oakland County.

Other Plan Comments

Required for Preliminary Site Plan

1. The Fire Marshal shall review the site for their access and fire protection requirements.

Required for Final Site Plan

1. Provide a soil erosion and sedimentation control plan. A soil erosion permit will be required from the OCWRC prior to the pre-construction meeting.
2. Provide a tabulated list of quantities for each applicable plan sheet.
3. Add standard details sheets to the plan set.

Permits

The applicant shall obtain all required permits before any work commences on site. The following is a list of permits that may be required for the project:

1. A Soil Erosion and Sedimentation Control permit from OCWRC.
2. Approval for connections to the public water main from Independence Township.
3. A Water System Extension Permit from the Michigan Department of Environment, Great Lakes, and Energy.
4. An Onsite Sewage Disposal System (Septic) permit from Oakland County Health Department.
5. A Right-of-Way permit for approach work within the Clawson Tank Drive ROW from the Road Commission for Oakland County.

6. A building permit for the proposed bathroom and related plumbing from the Springfield Township Building Department.
7. All off-site easements and/or hold harmless agreements necessary to do the work for this project, and recorded prior to construction (if required).

We appreciate the opportunity to assist the Planning Commission in this preliminary site plan review process. A detailed review of the final site plans and construction plans will be required if the preliminary site plan is approved by the Planning Commission. It is the responsibility of the applicant to ensure that the construction plans meet all of the conditions of the site plan approval by the Planning Commission. Please contact us if you have any questions.

Respectfully,

GIFFELS WEBSTER

Nancy McClain, PE
Project Manager

Brooke McDonald, PE
Senior Engineer

cc: Ric Davis, Springfield Township Supervisor,
Sean Miller, Springfield Township Clerk
Danielle Sink, Springfield Township
Jason Mayer, PE, Giffels Webster, Township Engineer
Megan Masson-Minock, AICP, Carlise Wortman Associates, Township Planner

Attachments: Marked-up Preliminary Site Plan set stamped Approved as Noted

SPRINGFIELD TOWNSHIP FIRE DEPARTMENT

10280 Rattalee Lake Road • Davisburg, MI 48350
Phone: 248.625.6699 Fax: 248.605.4090
Email: stfd@springfield-twp.us

Matthew J. Covey, *Fire Chief* • Matthew S. Strickland, *Assistant Chief*

Site Plan Review

Project: Springfield RV & Vehicle Storage
Address: 4634 Clawson Tank Drive
Date: July 10, 2026

The Springfield Township Fire Department has reviewed the updated site plan submitted to the Township on July 9, 2026, for the proposed Springfield RV & Vehicle Storage project located at 4634 Clawson Tank Drive.

During the review process, the Fire Department had several discussions with the project team regarding fire department access, hydrant locations, fire flow, building layouts, and overall emergency operations on the site. The original concerns were focused on making sure firefighters would have safe and practical access throughout the site during an emergency.

The updated plans have addressed those concerns, including changes to the hydrant locations and site layout. These changes provide better access for fire apparatus, improve firefighter operations, and make the hydrants more usable during an actual incident.

Based on the revised site plan submitted on July 9, 2026, the Springfield Township Fire Department is satisfied with the changes made and has no additional concerns with the site plan at this time.

Approval of this site plan is based on the information provided and does not remove the requirement for future Fire Department inspections and review. Fire suppression systems, fire alarm systems, Knox Box installation, emergency access, and any additional fire and life safety requirements will be reviewed through the building permit process prior to final occupancy.

The Fire Department appreciates the project team working through these items and making the necessary adjustments to improve the overall safety and operation of the site.

Respectfully,

Matthew J. Covey

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

July 17, 2026

Springfield Township Planning Commission

Re: Clawson Tank Storage BLDG Department Comments

Planning Commissioners:

I have completed a preliminary review of the drawings provided for your review. The information provided is not enough to complete full building code compliance review, but that is not required for where the applicant is in the process. Based on the information provided I have no comments at this time.

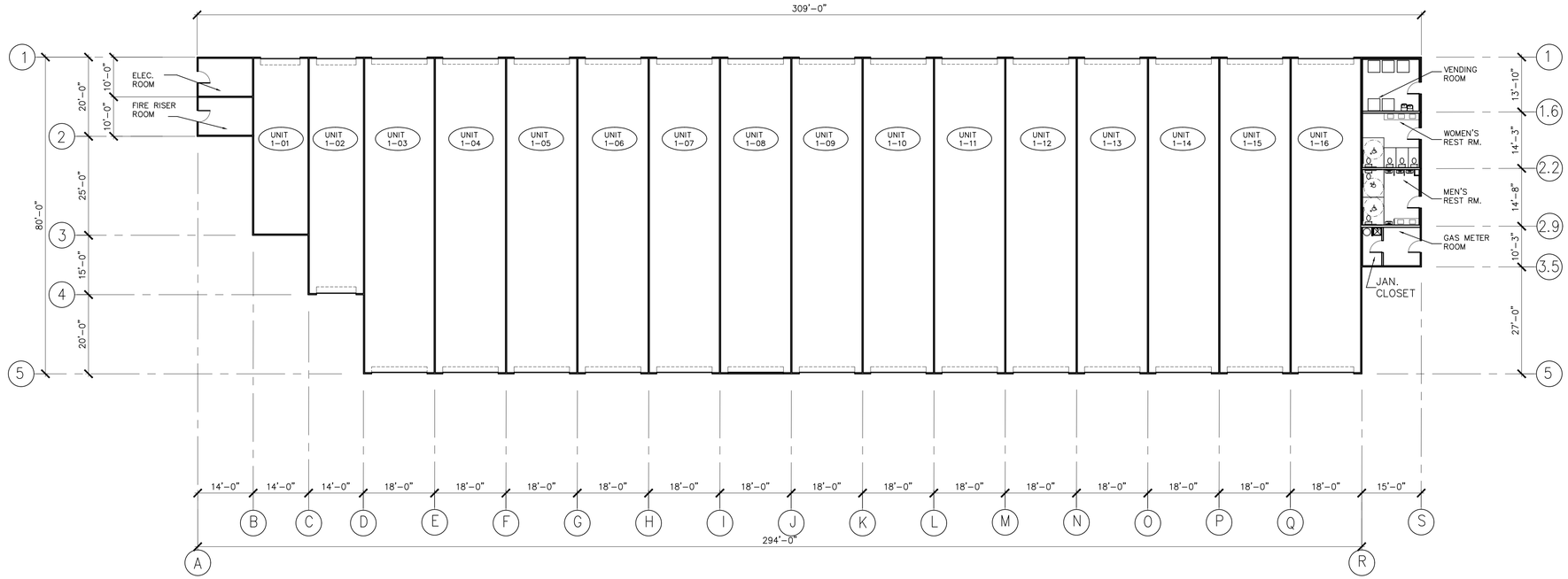
Sincerely,



Carlisle | Wortman
ASSOCIATES, INC.

Brent Strong
Director/Building Official
Phone: 734-662-2200 | Mobile: 734-323-5613
117 N. 1st Street, Suite 70, Ann Arbor, MI 48104

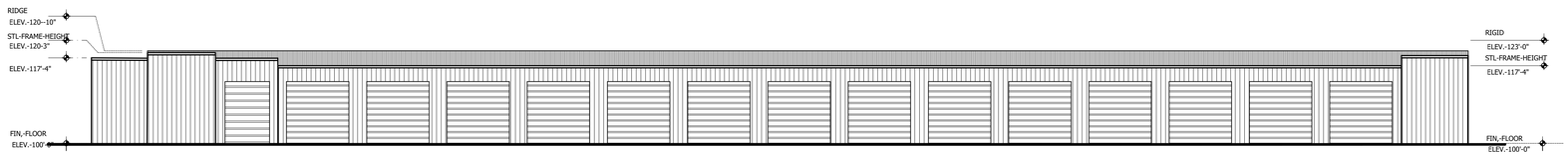
Benjamin R. Carlisle, *President* John L. Enos, *Vice President* Douglas J. Lewan, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal* Jeff Shafer, *Principal*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
Richard K. Carlisle, *Past President/Senior Principal*

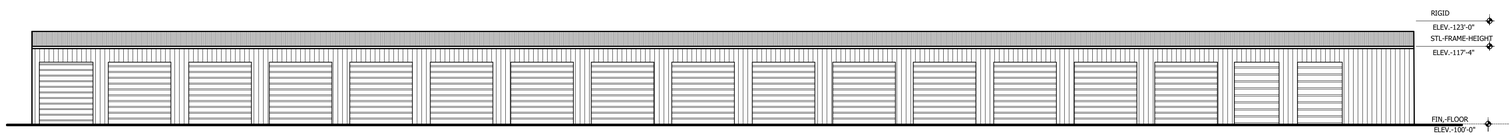


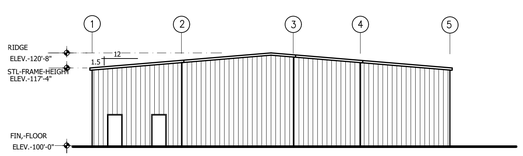
BUILDING #1

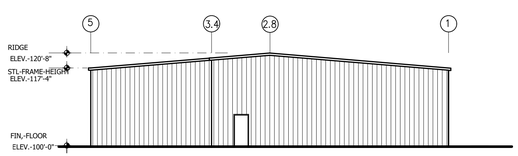
SCALE: 1/16" = 1' - 0"

1 / A-1









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OWNER REVIEW 07/07/26

REVISIONS:	DATE:
CONSTRUCTION: ■	-
PERMIT: ■	
BIDDING: ■	-
PRELIMINARY: ■	-
CHECKED BY: —	
DRAWN BY: : — -	J.P.N.

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USE DIMENSIONS INDICATED

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1886 LAKE POINT DR.
ORTONVILLE, MI 48462
PHONE:(248) 496-8991 FAX:(248) 783-3377
email: info@designreso.com
website: www.designreso.com

PROJECT LOCATION:
PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

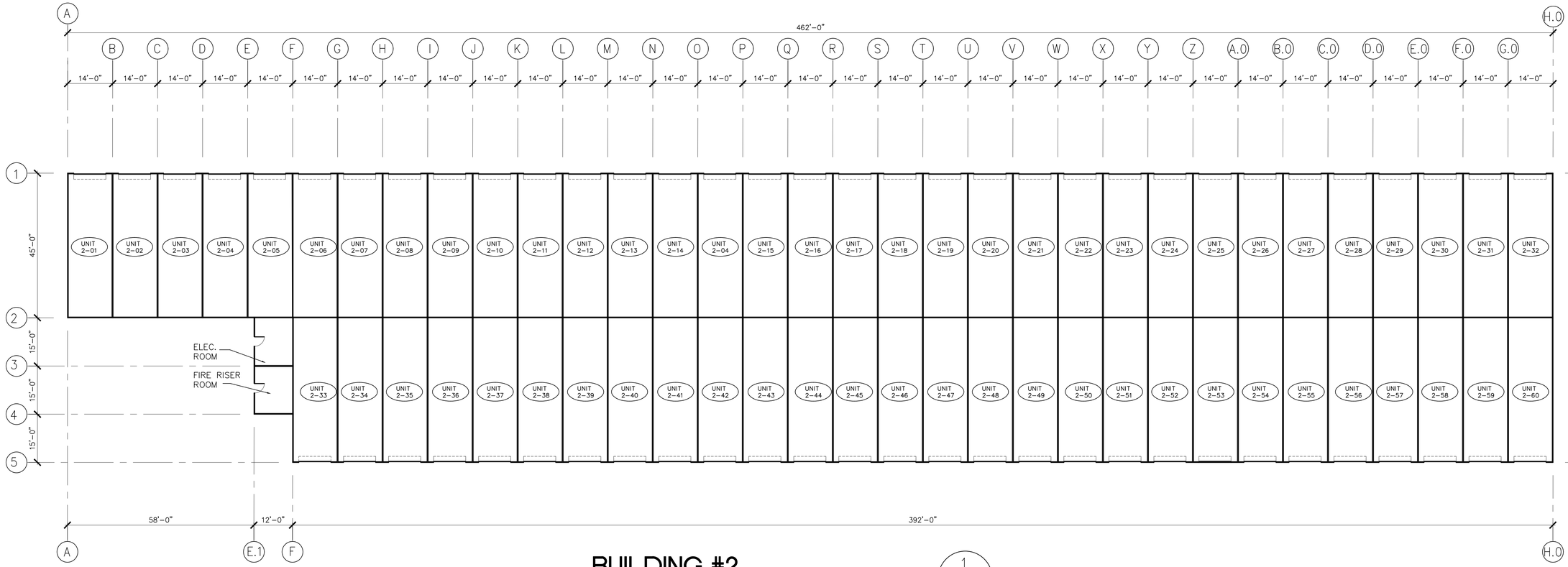
DRAWING TITLE:
BUILDING #1

SEAL

PROJECT NUMBER: 25-020

SHEET NUMBER: A-1

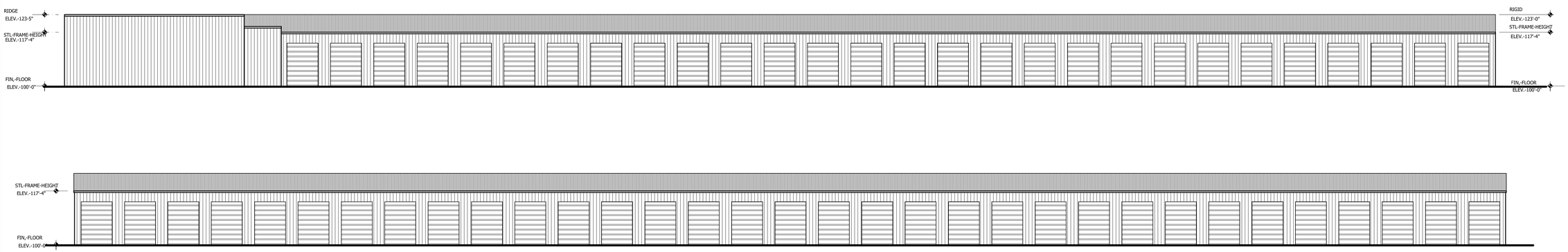
PLOTTED:7/7/2026 1:10 PM | ARCH D (36.00 X 24.00 INCHES) | 25-020 R.V. STORAGE.DWG

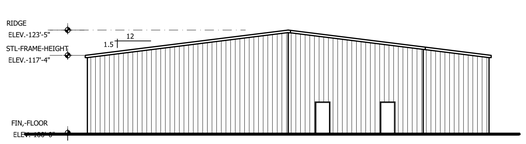


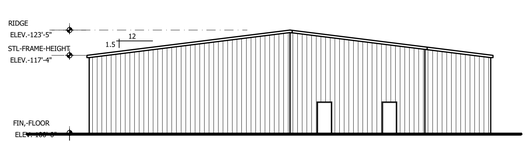
BUILDING #2

SCALE: 1/16" = 1' - 0"

1 / A-1







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REVISIONS:	DATE:
OWNER REVIEW	07/07/26

CONSTRUCTION:	■	-
PERMIT:	■	
BIDDING:	■	-
PRELIMINARY:	■	-
CHECKED BY:	—	
DRAWN BY: :	—	J.P.N.

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website: www.designreso.com

PROJECT LOCATION:

PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

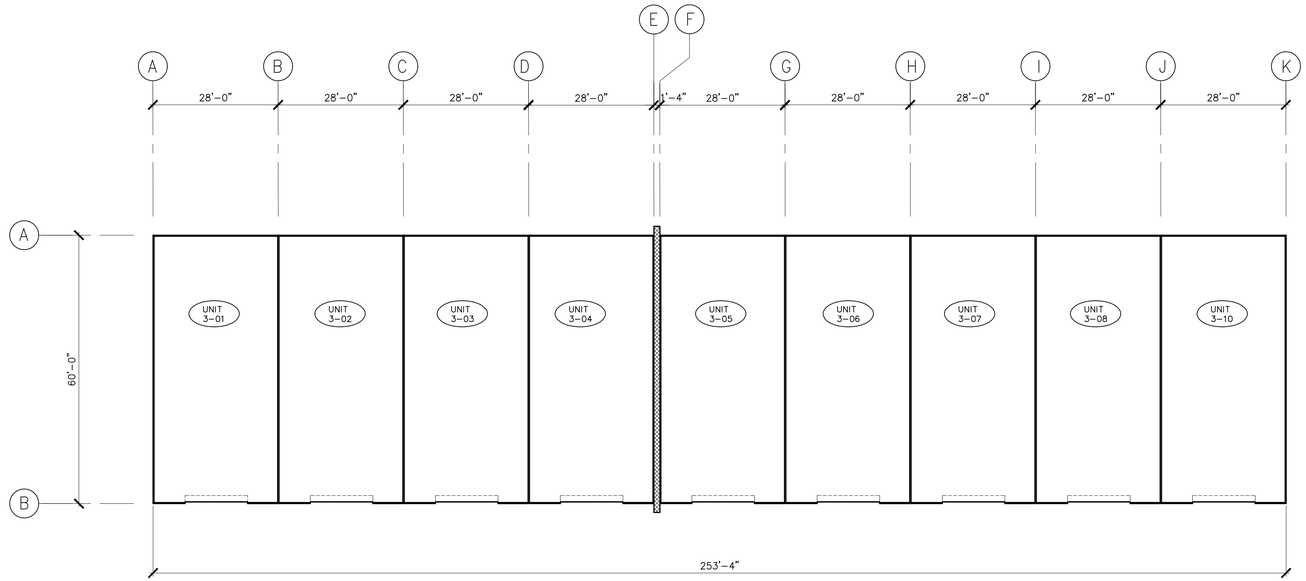
DRAWING TITLE:
FOUNDATION PLAN

SEAL

PROJECT NUMBER:
25-020

A-2
SHEET NUMBER:

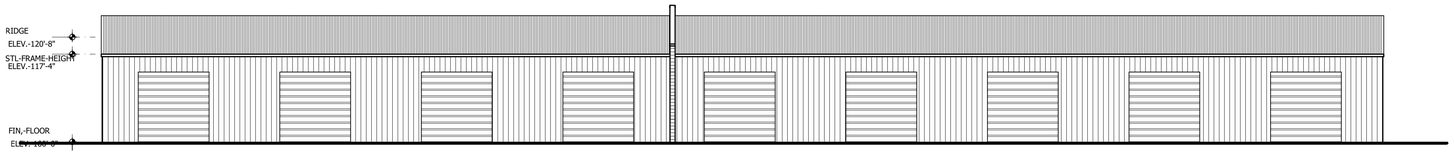
PLOTTED: 7/7/2026 1:13 PM | ARCH D (36.00 X 24.00 INCHES) | 25-020 R.V. STORAGE.DWG

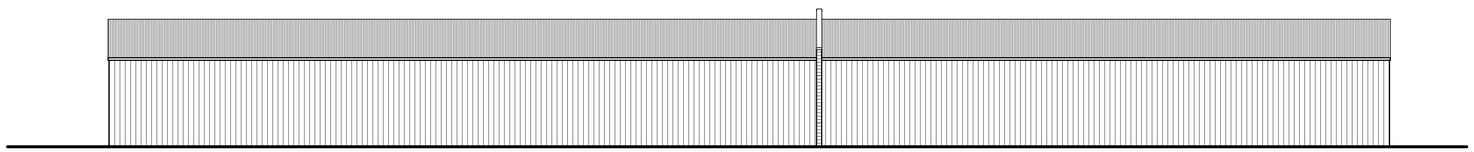


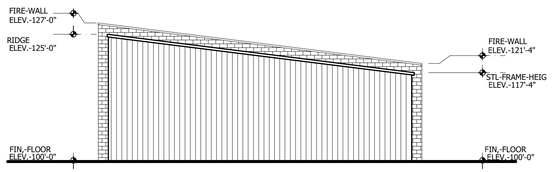
BUILDING #3

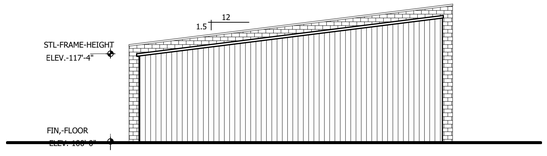
SCALE: 1/16" = 1' - 0"

A-3









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OWNER REVIEW 07/07/26

REVISIONS:		DATE:
CONSTRUCTION:	■	-
PERMIT:	■	
BIDDING:	■	-
PRELIMINARY:	■	-
CHECKED BY:	—	
DRAWN BY: :	— -	J.P.N.

DO NOT SCALE DRAWINGS
USE DIMENSIONS INDICATED

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PROJECT LOCATION:

PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

DRAWING TITLE:
BUILDING #3

SEAL

PROJECT NUMBER:
25-020

SHEET NUMBER:
A-3

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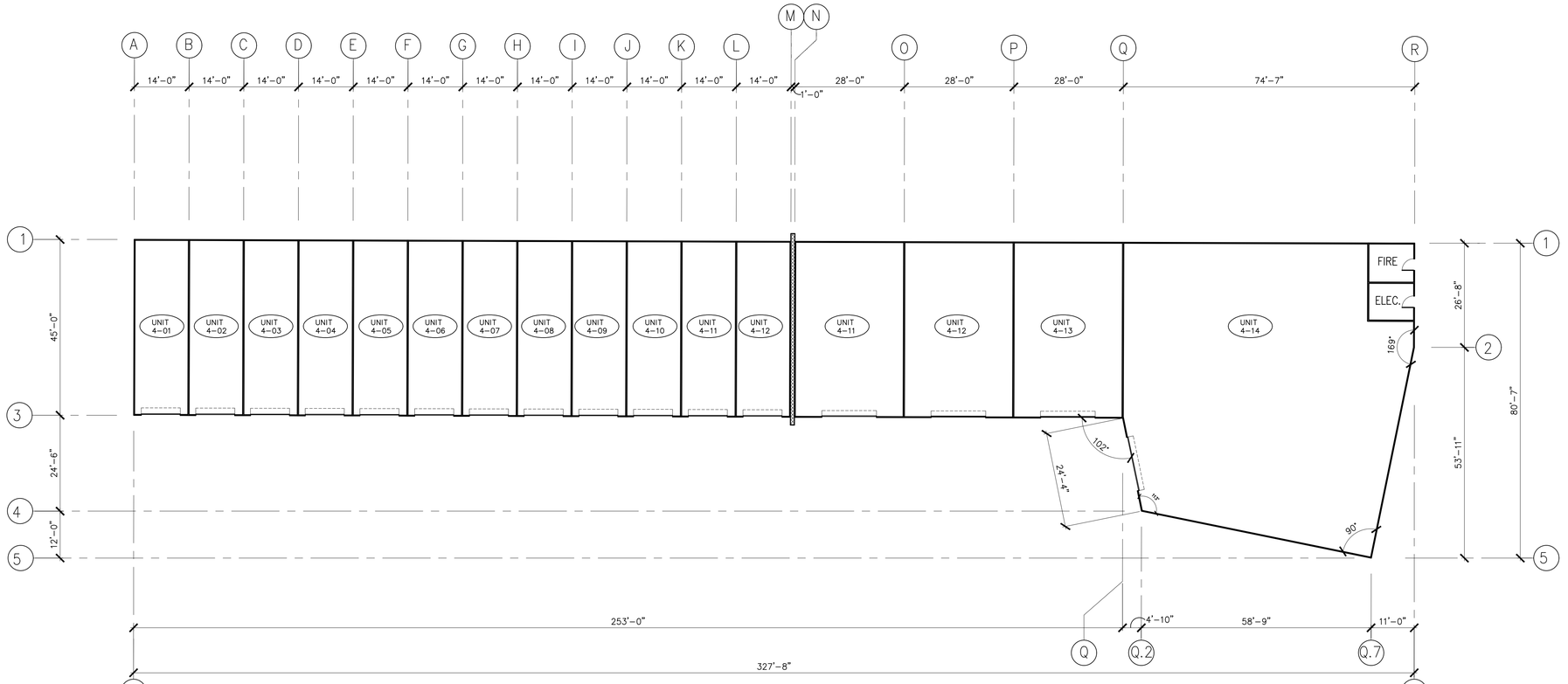
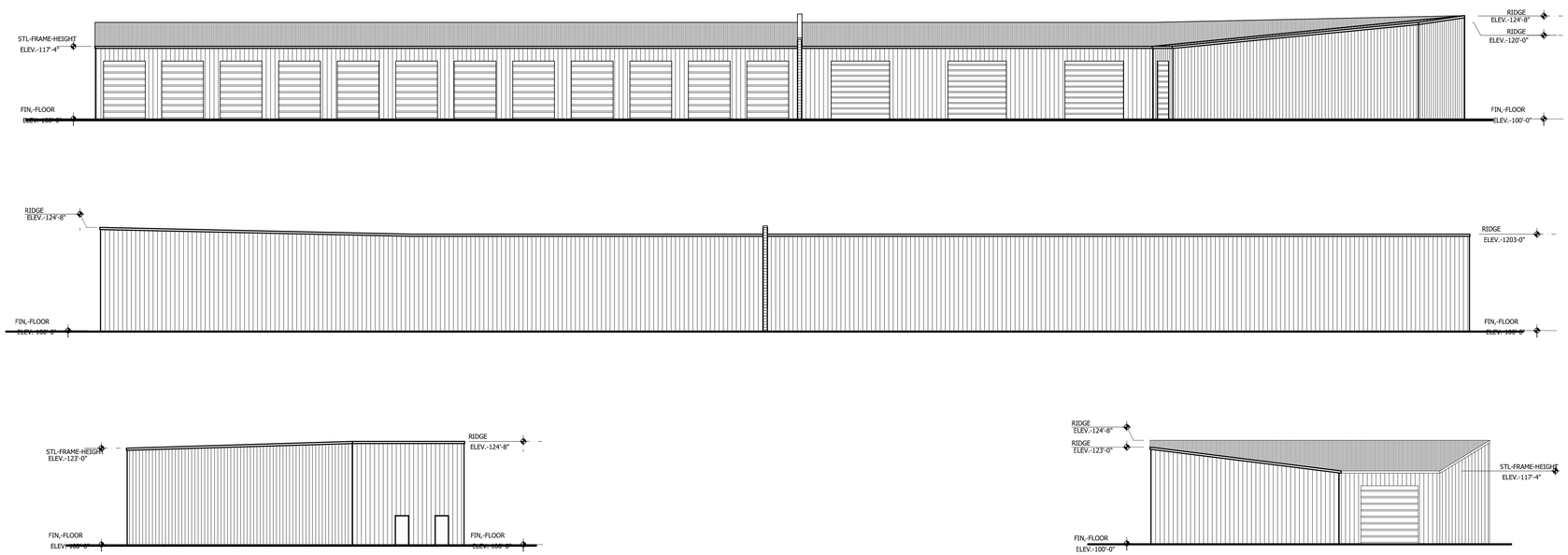


BUILDING #4

SCALE: 1/16" = 1' - 0"

A-4



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PROJECT LOCATION:

PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL # 07-36-401-011
DAVISBURG, MICHIGAN

DRAWING TITLE:
BUILDING
#4

SEAL

PROJECT NUMBER:
25-020

A-4
SHEET NUMBER:

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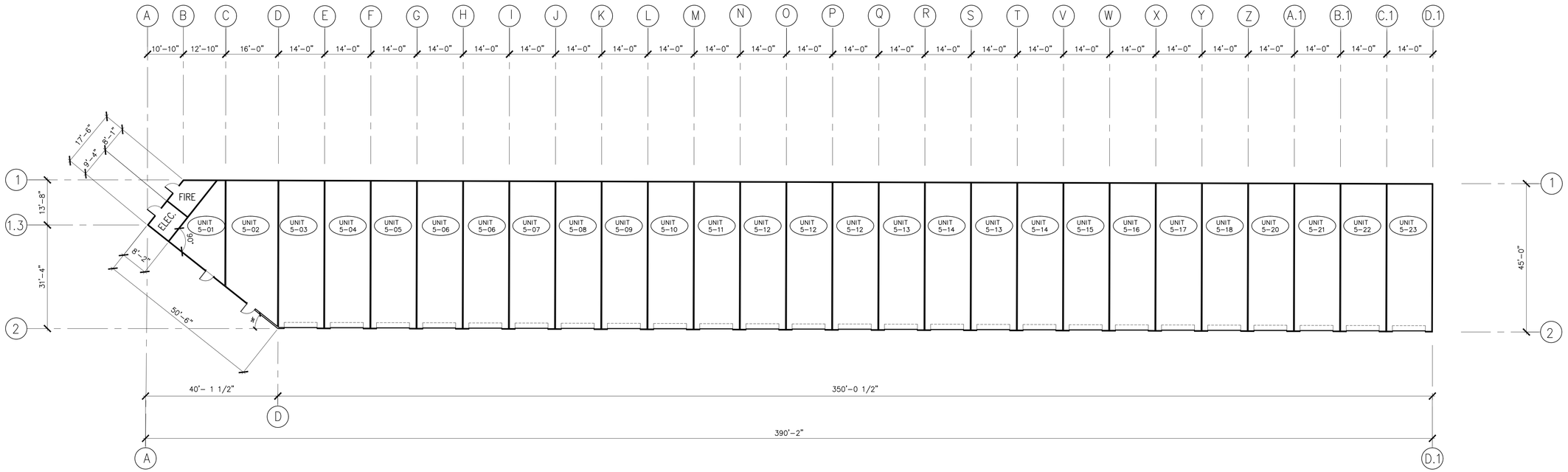
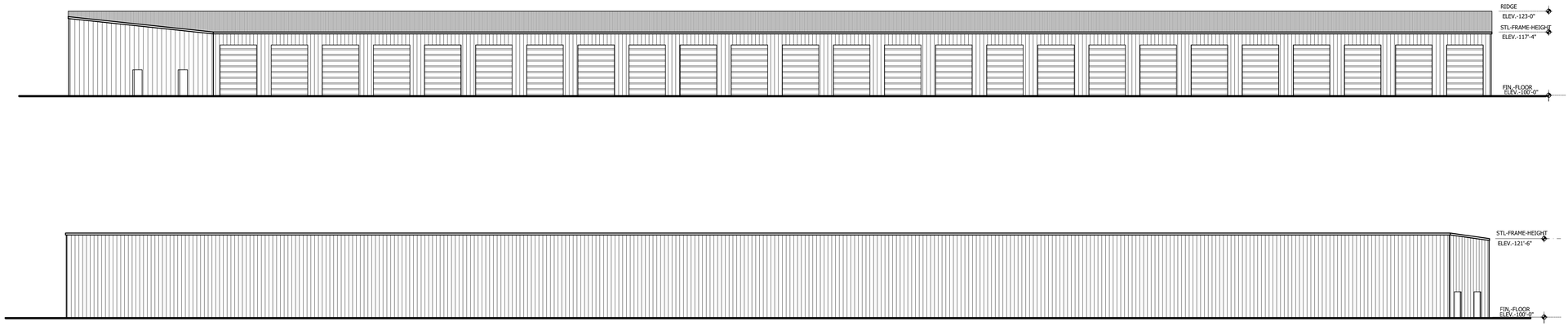
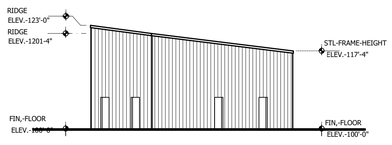


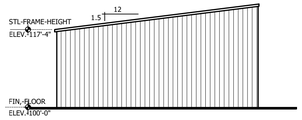
BUILDING #5

SCALE: 1/16" = 1' - 0"

A-3







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PROJECT LOCATION:

PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

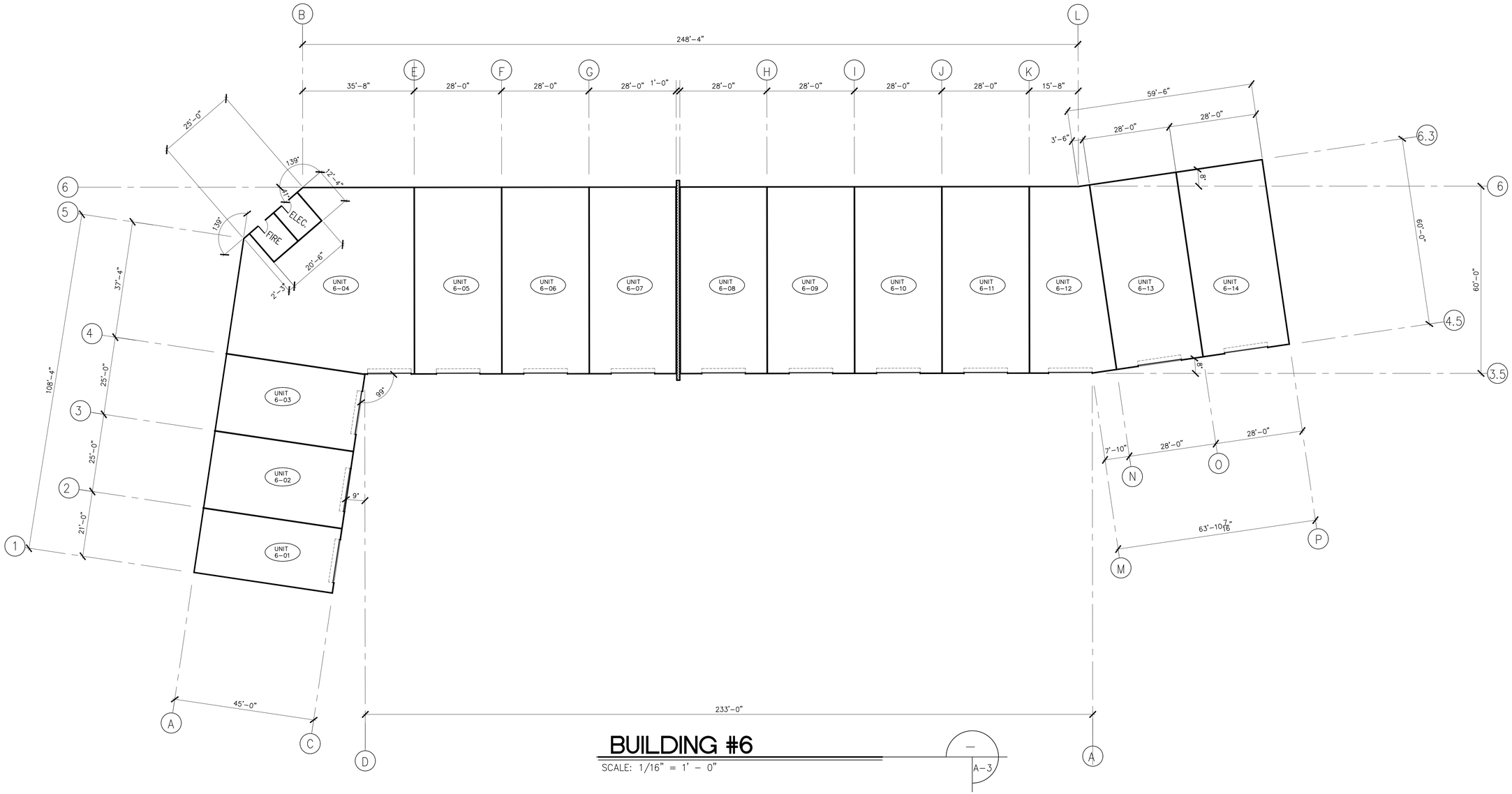
DRAWING TITLE:
BUILDING
#5

SEAL

PROJECT NUMBER:
25-020

SHEET NUMBER:
A-5

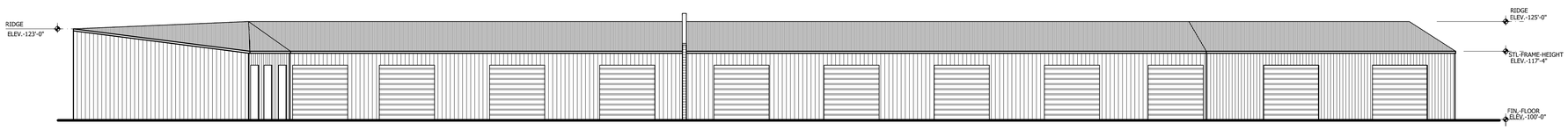
PLOTTED: 7/7/2026 1:15 PM | ARCH D (36.00 X 24.00 INCHES) | 25-020 R.V. STORAGE.DWG



BUILDING #6

SCALE: 1/16" = 1' - 0"

A-3



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PROJECT LOCATION:
PROPOSED R.V. STORAGE FACILITY:
SPRINGFIELD R.V. STORAGE PARK
PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

DRAWING TITLE:
BUILDING
#6

SEAL

PROJECT NUMBER:
25-020

A-6
SHEET NUMBER:

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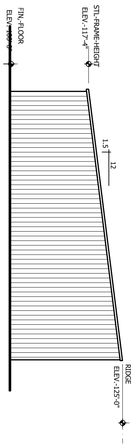

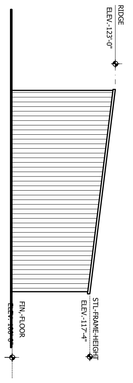

PROJECT LOCATION:

PROPOSED R.V. STORAGE FACILITY:

SPRINGFIELD R.V. STORAGE PARK

PARCEL ? 07-36-401-011
DAVISBURG, MICHIGAN

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CONSTRUCTION: -

REVISIONS: DATE:

OWNER REVIEW 07/07/26

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SEAL:

DRAWING TITLE:
BUILDING #6

PROJECT NUMBER:
25-020

SHEET NUMBER:
A-7

NORTH
SCALE: 1" = 30'

PROPOSED WALL
SEE CIVIL PLAN

LAWN AREAS TO BE GRADED AND HYDROSEEDED TO BLEND WITH EXISTING GRADE, TYP.
SEE GRADING PLAN

2' WIDE COBBLESTONE MAINTENANCE STRIP BETWEEN BUILDING AND LAWN
INSTALL ALUMINUM EDGING, WEED FABRIC, AND 1-3" COBBLESTONE, TYP.

FENCE

IRRIGATED HYDROSEED LAWN

PROPOSED STORAGE BUILDING #5

PROPOSED STORAGE BUILDING #4

PROPOSED STORAGE BUILDING #2

PROPOSED STORAGE BUILDING #3

PROPOSED STORAGE BUILDING #6

PROPOSED STORAGE BUILDING #1

1 ARMSTRONG MAPLE
IN CURBED PARKING
ISLAND

VAN ACCESSIBLE

18" STM
15" STM
12" STM
6" STM
6" IWI

EX 8" WATERMAIN (NO TAP) - PUBLIC

3 SERVICEBERRY
6 BLACK HILL SPRUCE
2 TULIP TREE
3 LITTLE LEAF LINDEN

2 WHITE PINE
1 FLOWERING DOGWOOD

CLAWSON TANK DRIVE

SEE ENLARGEMENT 1 FOR PLANTING DETAIL

ENLARGEMENT #1

SCALE 1" = 20'

PROPOSED FENCE
IRRIGATED HYDROSEED LAWN
CLEARVIEW TRIANGLE
CLEARVIEW TRIANGLE
EX 8" WATERMAIN
EX ATT AS FLAGGED
GAS

14 SHRUBBY CINQUEFOIL
6 RED TWIG DOGWOOD
3 ARMSTRONG MAPLE
11 BROADMOOR JUNIPER

3 ARMSTRONG MAPLE
6 RED TWIG DOGWOOD
11 BROADMOOR JUNIPER
14 SHRUBBY CINQUEFOIL

CLAWSON TANK DRIVE

STATE OF MICHIGAN
REGISTERED LANDSCAPE ARCHITECT
JAMES T. EPPINK
LANDSCAPE ARCHITECT
No. 1309
LICENSE

J EPPINK PARTNERS, INC
Urban Design Studio

Landscape Architecture
Traditional Town Planning

27 Squirrel Road
Suite 104
Auburn Hills, MI 48326
248.922.0789

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Project:
Clawson Tank Storage

Clawson Tank Rd
Springfield Twp., MI

Owner:
Danny White

1926 Montana Vista
Lake Havasu, Arizona, 86403

Sheet:
Landscape Plan

Issues / Revisions

Drawn by:
LKP
Checked By
JTE
Date
July 7, 2026
Scale
1" = 30'

Sheet
L-1

ORDINANCE REQUIREMENT SUMMARY :

Springfield Charter Township Ordinance : 40-721

Buffer Landscaping
Ordinance Requirement: No buffer required between lots of similar zoning. Our site and surrounding sites are zoned M-1

Greenbelt Landscaping Adjacent to Street Frontage		
Ordinance Requirement: 1 Tree per 30' of Frontage		
Clawson Tank Dr Frontage - 457 LF		
Calculation	Required	Provided
1 Tree per 30 LF / 457 LF = 15.2 x 1	16 Trees	16 Trees

Parking Lot		
Ordinance Requirement: 1 Tree per 8 spaces		
Parking Lot - 3 Spaces		
Calculation	Required	Provided
1 Tree per 8 spaces / 3 spaces = 1 x1	1 Tree	1 Tree
150 SF of landscape island	150 SF	490 SF

Site Landscaping		
Ordinance Requirement: Minimum of 10% of site must be landscaped. Landscaped areas for public right of way, and greenbelt requirements can not be used to satisfy this requirement.		
Site Area = 8.19 ac		
Calculation	Required	Provided
8.19 ac = 356,756 sf *.10 = 35,675 sf	35,675 SF	89,133 SF

NOTE: The site has existing woody vegetation that is to be removed during construction.
This site is not located in a Resource Protection Overlay District.

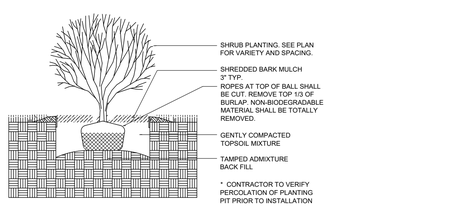
PLANT DATA CHART:

QTY.	DESCRIPTION	SIZE / ROOT
6	Acer rubrum 'Armstrong' Armstrong Maple	2" cal., B&B
3	Amelanchier arborea Serviceberry	8' MS., B&B
1	Cornus florida Flowering Dogwood	8' MS., B&B
4	Liriodendron tulipefera Tuliptree	2" cal., B&B
12	Picea glauca 'densata' Black Hills Spruce	8', B&B
2	Pinus strobus White Pine	8', B&B
6	Tilia cordata Little Leaf Linden	2" cal., B&B
12	Cornus seircea Red Twig Dogwood	#5, Container
22	Juniperus sabina 'Broadmoor' Broadmoor Juniper	#5, Container
28	Potentilla fruticosa Shrubby cinquefoil	#5, Container

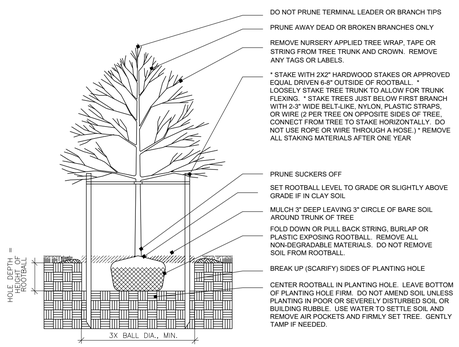
LANDSCAPE NOTES :

1. Contractor shall be responsible for contacting and coordinating with all pertinent utility companies 72 hours in advance of any digging to make themselves familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for any cost incurred due to damage of said utilities or structures.
2. Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist. Such conditions shall immediately be brought to the attention of the Owner's Representative. The contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.
3. Any discrepancies between dimensioned layout and actual field conditions shall be reported to the Owner's Representative. Failure to make such discrepancies known will result in contractor's responsibility and liability for any changes and associated costs.
4. Contractor shall be responsible for any coordination with subcontractors as required to accomplish construction installation operations.
5. Contractor shall provide and maintain positive surface drainage.
6. Contractor shall be responsible for any existing materials that are damaged during construction.
7. See Plant & Material List and Planting Details for planting requirements, materials and execution.
8. All trees shall have a clay loam or clay root ball. Trees with sand root balls will not be accepted.
9. All tree varieties and substitutions to be approved by he Owners Representative prior to being delivered to site. Any plant material delivered to site not previously approved may be rejected and are the sole responsibility of the contractor.
10. The location of all plant material shall be scaled from drawings or interpreted from plant list. Final location of all plant material shall be subject to approval from the Owner's Representative.
11. The contractor shall "water in" and fertilize all plants immediately after planting.
12. Contractor shall install 2 - 4" of screened Top Soil on all planting areas and all new lawn areas. Contractor shall install Sod at all new lawn areas as depicted on drawings, and shall grade, blend, and hydroseed repaired areas with existing lawn areas a perimeter as shown
13. Contractor shall install 4" depth Shredded Hardwood Mulch in all shrub and tree planting beds unless otherwise indicated. Install decorative Cobblestone at area adjacent to foundation as indicated.
14. The contractor shall guarantee all trees, shrubs, ground cover and other plant materials for one year from the date of acceptance, including labor and removal and disposal of dead material.
15. All plant material shall be nursery grown. All trees and plant material shall meet the current standards of the American Society of Nurseryman.
16. Landscape Contractor shall install an automated irrigation system for all sod lawn and planting bed areas on a Design/Build basis. All work shall be in compliance with local, slate and federal codes and ordinances. Contractor shall be responsible to obtain all related permits and inspections.
17. All diseased, damaged, or dead material shown on the site plan shall be replaced by the end of the growing season. Property owner shall be responsible to maintain plant material in healthy condition and/or replace dead plant material for the life of the project. The Owner shall maintain all landscape and lawn areas on a weekly or bi-weekly basis during the growing season.
18. Contractor shall adhere to all soil erosion prevention methods as directed within civil engineering drawings and within the municipal Ordinance including maintaining silt fencing and ensuring that soil, silt and other debris is prevented from leaving site or entering area drains, sewer inlets, creeks or natural areas.
19. Contractor shall supply and install 4" aluminum Steel edging (or equal) at all planting bed areas where the landscape bed abuts seed or sod lawn areas, typ.
20. All unpaved areas within development zone shall be either irrigated sod lawn, irrigated hydroseed lawn, mulch beds, or groundcover as indicated, typ.
21. Contractor shall protect existing trees throughout construction with the installation of temporary snow fence placed no closer than the drip line of trees to remain to prevent damage or compaction, typ.

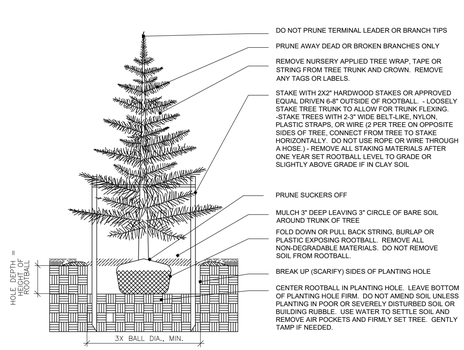
PLANTING DETAILS :



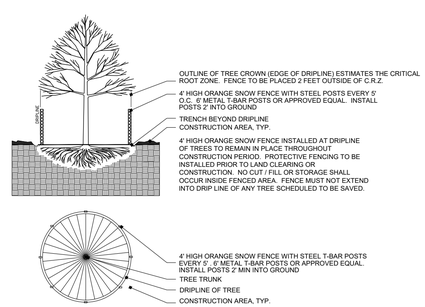
SHRUB PLANTING - BALL AND BURLAP, TYP.
NOT TO SCALE



DECIDUOUS TREE PLANTING DETAIL, TYP.
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL, TYP.
NOT TO SCALE



TREE PROTECTION - 4' HIGH ORANGE SNOW FENCE
NOT TO SCALE

STATE OF MICHIGAN
JAMES T. EPPINK
LANDSCAPE ARCHITECT
No. 1309
REGISTERED LANDSCAPE ARCHITECT

J EPPINK PARTNERS, INC
Urban Design Studio
Landscape Architecture
Traditional Town Planning
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Project:
Clawson Tank Storage

Clawson Tank Rd
Springfield Twp., MI

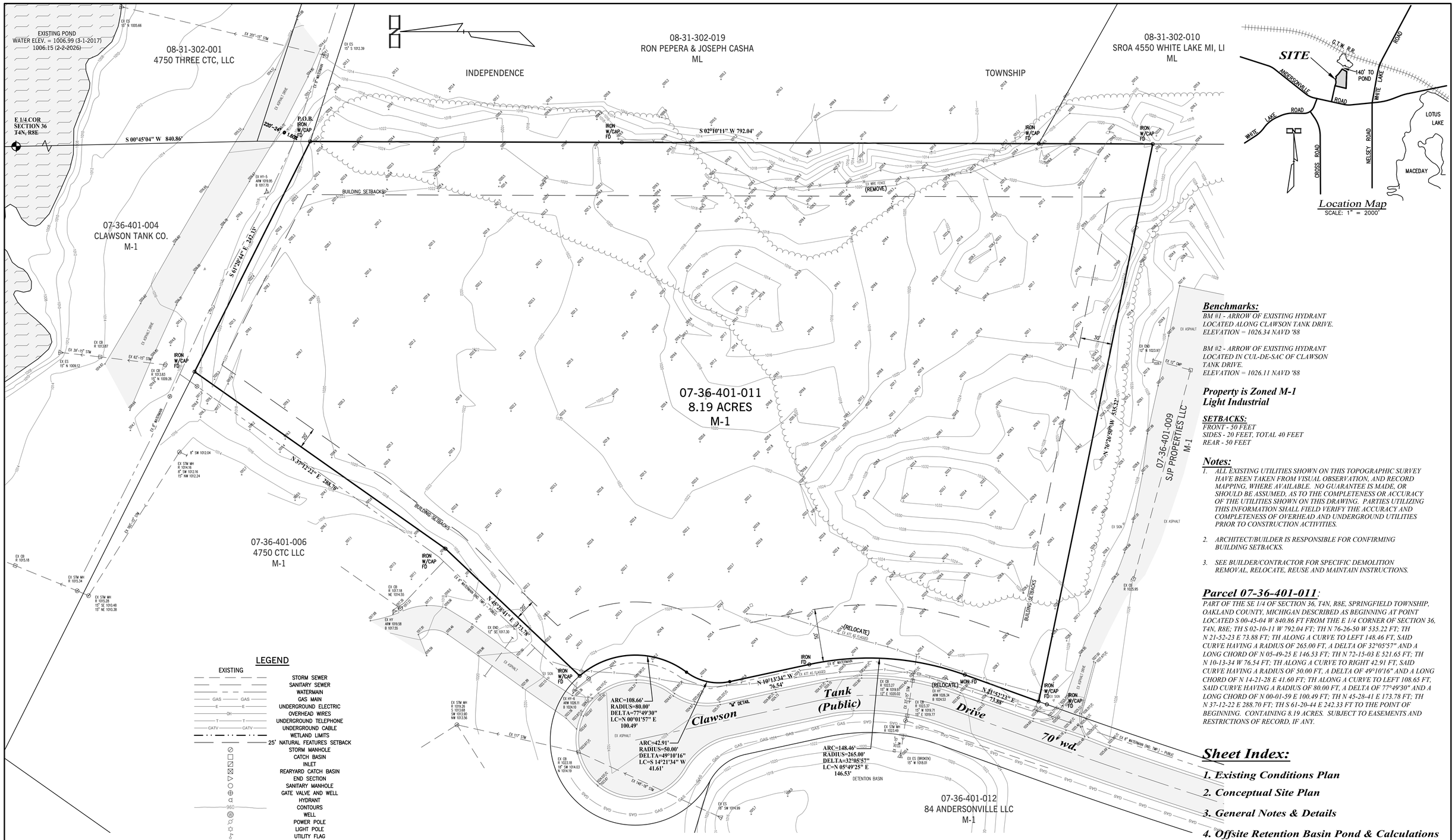
Owner:
Danny White
1926 Montana Vista
Lake Havasu, Arizona, 86403

Sheet:
Landscape Plan

Issues / Revisions

Drawn by:
LKP
Checked By
JTE
Date
July 7, 2026
Scale
As Noted

Sheet
L-2



LEGEND

EXISTING

- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- GAS MAIN
- UNDERGROUND ELECTRIC
- OVERHEAD WIRES
- UNDERGROUND TELEPHONE
- UNDERGROUND CABLE
- WETLAND LIMITS
- 25' NATURAL FEATURES SETBACK
- STORM MANHOLE
- CATCH BASIN
- INLET
- REARYARD CATCH BASIN
- END SECTION
- SANITARY MANHOLE
- GATE VALVE AND WELL
- HYDRANT
- CONTOURS
- WELL
- POWER POLE
- LIGHT POLE
- UTILITY FLAG
- GRADE
- SOIL BORING
- DEMOLITION LIMITS

Benchmarks:

BM #1 - ARROW OF EXISTING HYDRANT LOCATED ALONG CLAWSON TANK DRIVE. ELEVATION = 1026.34 NAVD '88

BM #2 - ARROW OF EXISTING HYDRANT LOCATED IN CUL-DE-SAC OF CLAWSON TANK DRIVE. ELEVATION = 1026.11 NAVD '88

Property is Zoned M-1 Light Industrial

SETBACKS:

FRONT - 50 FEET
SIDES - 20 FEET, TOTAL 40 FEET
REAR - 50 FEET

Notes:

1. *ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION, AND RECORD MAPPING, WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.*
2. *ARCHITECT/BUILDER IS RESPONSIBLE FOR CONFIRMING BUILDING SETBACKS.*
3. *SEE BUILDER/CONTRACTOR FOR SPECIFIC DEMOLITION REMOVAL, RELOCATE, REUSE AND MAINTAIN INSTRUCTIONS.*

Parcel 07-36-401-011:

PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN DESCRIBED AS BEGINNING AT POINT LOCATED S 00-45-04 W 840.86 FT FROM THE E 1/4 CORNER OF SECTION 36, T4N, R8E; TH S 02-10-11 W 792.04 FT; TH N 76-26-50 W 535.22 FT; TH N 21-52-23 E 73.88 FT; TH ALONG A CURVE TO LEFT 148.46 FT, SAID CURVE HAVING A RADIUS OF 265.00 FT, A DELTA OF 32°05'57" AND A LONG CHORD OF N 05-49-25 E 146.53 FT; TH N 72-15-03 E 521.65 FT; TH N 10-13-34 W 76.54 FT; TH ALONG A CURVE TO RIGHT 42.91 FT, SAID CURVE HAVING A RADIUS OF 50.00 FT, A DELTA OF 49°10'16" AND A LONG CHORD OF N 14-21-28 E 41.60 FT; TH ALONG A CURVE TO LEFT 108.65 FT, SAID CURVE HAVING A RADIUS OF 80.00 FT, A DELTA OF 77°49'30" AND A LONG CHORD OF N 00-01-59 E 100.49 FT; TH N 45-28-41 E 173.78 FT; TH N 37-12-22 E 288.70 FT; TH S 61-20-44 E 242.33 FT TO THE POINT OF BEGINNING. CONTAINING 8.19 ACRES. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.

Sheet Index:

1. Existing Conditions Plan
2. Conceptual Site Plan
3. General Notes & Details
4. Offsite Retention Basin Pond & Calculations

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
LAKE HAVASU, ARIZONA 86403
EMAIL: dannywhite928@gmail.com
PHONE: (928) 706-5622

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PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE 5-19-2026	CKD. BY	DATE
DRAWN GF		
DESIGN PCM		
SECTION 36	T- 4 -N. R- 8 -E.	

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

Existing Conditions Plan
PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE	1" = 40'
SHEET	1 OF 4
KE 2025.207	

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08-31-302-001
4750 THREE CTC, LLC

RON PEPERA & JOSEPH CASHA
08-31-302-019

07-36-401-006
4750 CTC LLC
M-1

07-36-401-009
SJP PROPERTIES LLC
M-1

401-004
TANK CO.
M-1

DISCHARGE TO OFF-SITE RETENTION POND

220'-24' @ 1.60%

PRETREATMENT MANHOLE-1
R 1023.20

PROPOSED 8' C.L. FENCE

RETAINING WALL-
255 LF+/-, (2' TO 5' HIGH)

END WALL (16.0B/W) (17.0T/W)

(13.0B/W) (17.0T/W)

8" GW-8 W/TAP
R 1018.00

8" GW-4
R 1020.00

CB-12
R 1019.50

CB-1
R 1019.00

CB-2
R 1019.50

8" GW-3 W/TAP
R 1018.00

CB-8
R 1021.50

8'x10' (80 SF) ELECTRIC & (85 SF) FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #5)

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #4

PROPOSED STORAGE BUILDING #5
TOTAL 16,840 SF
F.F. 1023.50

PROPOSED STORAGE BUILDING #4
TOTAL 16,639 SF
F.F. 1023.50

(7,582 SF)

(9,057 SF)

(1) UNIT @ 5,254 SF
F.F. 1023.50

(24) 45'x14' UNITS

(12) 45'x14' UNITS

(3) 45'x28' UNITS

HY-3
B 1023.50

HY-4
B 1023.50

HY-2
B 1023.50

CB-5
R 1022.50

CB-6
R 1022.50

CB-7
R 1022.60

CB-9
R 1022.50

CB-10
R 1022.50

CB-11
R 1023.00

MH-2
R 1022.90

PROPOSED 4" ASPHALT

12" DIA. STEEL BOLLARDS (TYPICAL)

(33) 45'x14' UNITS

PROPOSED STORAGE BUILDING #2
TOTAL 38,530 SF
F.F. 1024.00

(2) 45'x25 UNITS 45'x20' UNIT

(1) UNIT @ 3,171 SF
F.F. 1024.00

(11,391 SF)

(6,780 SF)

F.F. 1024.00

CB-3
R 1020.00

6" GW-6
R 1018.00

CB-14
R 1023.80

6" GW-2
R 1023.90

12'x15' (180 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #2)

WASH BAY

OIL/GREASE TRAP (500 GALLON)

(28) 45'x14' UNITS

PROPOSED STORAGE BUILDING #3
TOTAL 15,180 SF

(9) 60'x28' UNITS

(8) 60' x 28' UNITS W/INDIVIDUAL METERS & POTENTIAL SINGLE BATHROOM

1.44% PAD SLOPE

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #6)

PROPOSED STORAGE BUILDING #6
TOTAL 22,921 SF

(7) 60x28' UNITS

(2) 60x28' UNITS

(1) UNIT @ 1,420 SF

(11,530 SF)
F.F. 1024.50

CB-4
R 1020.00

CB-15
R 1023.00

CB-16
R 1023.00

CB-17
R 1023.00

CB-18
R 1023.00

12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #1)

(1) 45'x14' UNIT 630 SF

(1) 60'x14' UNIT 840 SF

PROPOSED STORAGE BUILDING #1
TOTAL 20,455 SF
F.F. 1024.50

(14) 80'x16' DRIVE-THRU UNITS

PUBLIC RESTROOMS 600 SF

GAS METER ROOM 169 SF

6" GW-1
R 1024.20

RETAINING WALL- T/W 1021.0
460 LF+/- (2' TO 4' HIGH)

RETAINING WALL-
365 LF+/-, (2' TO 4' HIGH)

12'x14' (168 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #3)

6" GW-3
R 1024.00

PROPOSED PRIMARY SEPTIC FIELD

RESERVE SEPTIC FIELD

PRIMARY SEPTIC FIELD 66'

DUMPSTER ENCLOSURE

PROPOSED SLIDING GATE

RELOCATED HYDRANT-1
B 1024.00

6" GW-9
R 1025.00

6" GW-7 W/TAP
R 1026.00

NOTE:
SEE WALL DETAIL FOR PORTION OF WALL TO BE BURIED (TYPICAL)

"M" DETAIL

Clawson Tank (Public) Drive

70' wd.

DETENTION BASIN

EX 8" WATERMAIN (IND. TAP) - PUBLIC

EX 8" WATERMAIN

EX ASPHALT

EX ASPHALT DRIVE

EX SIGN

EX 12" CMP

EX 117' STM

EX 146' STM

EX STM MH
R 1014.16
8" SW 1012.16
15" NW 1012.24

EX HY-5
ARW 1019.95
B 1017.70

EX CB
R 1013.83
15" N 1009.26

EX HY-6
ARW 1026.11
B 1024.10

EX CB
R 1023.27
15" W 1019.97
12" E 1020.07

EX CB
R 1023.37
15" W 1019.71
15" E 1019.77

EX STM MH
R 1023.49

EX STM MH
R 1019.26
S 1013.68
SW 1013.90
NW 1013.56

EX CB
R 1023.18
18" SW 1014.03
N 1014.19

EX ES (BROKEN)
15" W 1018.01

EX CB
R 1017.18
NE 1014.55

EX HY
ARW 1019.58
B 1017.55

EX END
12" SE 1017.30

EX CB
R 1025.95

LEGEND

EXISTING		PROPOSED
	STORM SEWER	
	SEPTIC LINES	
	WATERMAIN	
GAS GAS	GAS MAIN	GAS GAS
OH OH	OVERHEAD LINES	OH OH
T T	UNDERGROUND TELEPHONE	T T
CATV CATV	UNDERGROUND CABLE	CATV CATV
E E	UNDERGROUND ELECTRIC	E E
	STORM MANHOLE	
	CATCH BASIN	
	INLET	
	REARYARD CATCH BASIN	
	END SECTION	
	SANITARY MANHOLE	
	GATE VALVE AND WELL	
	HYDRANT	
1020	CONTOURS	(20)
+1024.9	GRADE	(26.0)
	MATCH ELEVATION	(M)
	TOP OF CURB	T/C
	TOP OF SIDEWALK	T/S
	TOP OF PAVEMENT	T/P
	TOP OF CONCRETE	TC
	TOP OF WALL	T/W
	BOTTOM OF WALL	B/W
	DITCH	D
	STANDARD CURB	
	REVERSE CURB	
	DRAINAGE AREA	

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
LAKE HAVASU, ARIZONA 86403
EMAIL: dannywhite926@gmail.com
PHONE: (928) 706-5622

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SECTION 36	T- 4 -N. R- 8 -E.	

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Conceptual Site Plan

PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E,
SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE 1" = 30'
SHEET 2 OF 4
KE 2025.207

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
REGISTERED PROFESSIONAL ENGINEER

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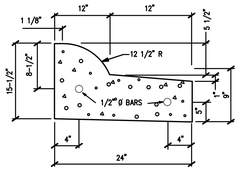
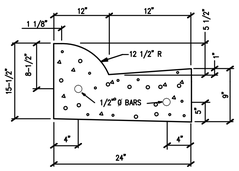
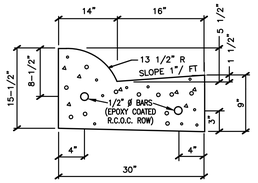


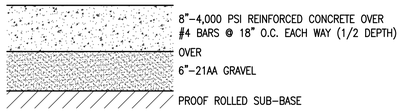
5 1/2" B-2 REVERSE CONCRETE ROLL CURB
NO SCALE



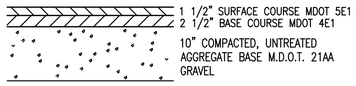
5 1/2" B-2 STANDARD CONCRETE ROLL CURB
NO SCALE



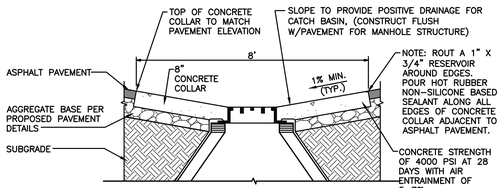
CONCRETE CURB & GUTTER (B-2 STANDARD)
NO SCALE



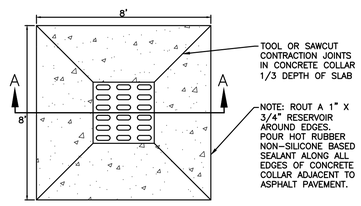
8" CONCRETE PAVEMENT DETAIL
DUMP STATION



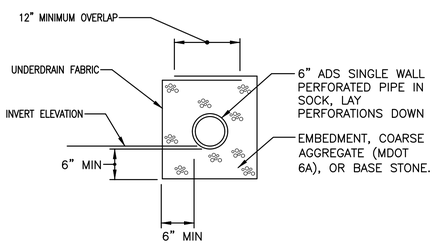
4" ASPHALT PARKING SECTION
NO SCALE



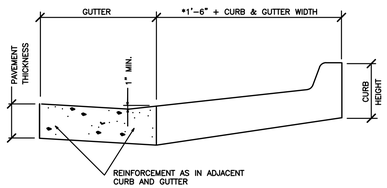
SECTION "A-A"
N.T.S.



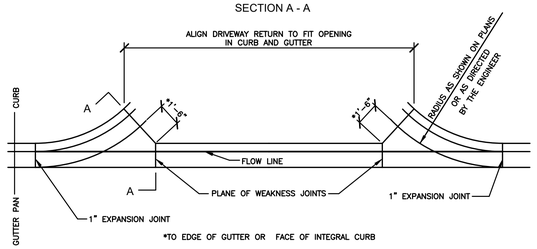
CONCRETE COLLAR AT CATCH BASIN
N.T.S.



UNDERDRAIN
N.T.S.



SECTION A - A



CONCRETE DRIVEWAY OPENING DETAIL
"M" DETAIL

General Notes:

1. OWNER: DANNY WHITE
   1926 MONTANA VISTA
   LAKE HAVASU, ARIZONA 86403
   EMAIL: dannywhite928@gmail.com
   PHONE: (928) 706-5622
3. PROPERTY DESCRIPTION: PARCEL 07-36-401-011
   PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN DESCRIBED AS BEGINNING AT POINT LOCATED S 00-45-04 W 840.86 FT FROM THE E 1/4 CORNER OF SECTION 36, T4N, R8E; TH S 02-10-11 W 792.04 FT; TH N 76-26-50 W 535.22 FT; TH N 21-52-23 E 73.88 FT; TH ALONG A CURVE TO LEFT 148.46 FT, SAID CURVE HAVING A RADIUS OF 265.00 FT, A DELTA OF 32°05'57" AND A LONG CHORD OF N 05-49-25 E 146.53 FT; TH N 72-15-03 E 521.65 FT; TH N 10-13-34 W 76.54 FT; TH ALONG A CURVE TO RIGHT 42.91 FT, SAID CURVE HAVING A RADIUS OF 50.00 FT, A DELTA OF 49°10'16" AND A LONG CHORD OF N 14-21-28 E 41.60 FT; TH ALONG A CURVE TO LEFT 108.65 FT, SAID CURVE HAVING A RADIUS OF 80.00 FT, A DELTA OF 77°49'30" AND A LONG CHORD OF N 00-01-59 E 100.49 FT; TH N 45-28-41 E 173.78 FT; TH N 37-12-22 E 288.70 FT; TH S 61-20-44 E 242.33 FT TO THE POINT OF BEGINNING. CONTAINING 8.19 ACRES. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD, IF ANY.
4. EXISTING ZONING: M-1 (LIGHT INDUSTRIAL)
5. PROPOSED USE: STORAGE FACILITY
6. SITE AREA: 8.19 ACRES
7. BUILDING SIZES: SEE PLAN
   COVERAGE = 37%
   NOTE: ALLOWABLE BY ZONING = 80% - COVERED BY ALL BUILDINGS
8. SETBACKS:

	ZONING	PROPOSED
FRONT	50 FT	109 FT
SIDES	20 FT EA	30 FT
REAR	50 FT	50 FT
HEIGHT	2 STORIES/28.5 FT	25 FT

9. PARKING REQUIREMENTS:
10. WATER SUPPLY: MUNICIPAL WATER MAINS FROM INDEPENDENCE TOWNSHIP.
    NOTE: ALL BUILDING MAY BE FIRE SUPPRESSED.
11. SEWAGE DISPOSAL: SEPTIC TANKS AND DISPOSAL FIELDS WILL BE PROVIDED.
12. SIGNAGE: INDUSTRIAL PARK SIGNAGE TO BE PROPOSED ALONG WITH WALL MOUNTED BUILDING SIGNS. DETAILS TO BE PROVIDED WITH FINAL SITE PLANS..
13. LIGHTING: BUILDING LIGHTING PROPOSED ALONG WITH NECESSARY SAFETY ILLUMINATIONS LIGHT POSTS. DETAILS AND ILLUMINATION PATTERNS TO BE PROVIDED WITH FINAL SITE PLANS.
14. DUMPSTER: DUMPSTER PROVIDED (SEE PLAN), SCREENED IN ACCORDANCE WITH SPRINGFIELD TOWNSHIP REQUIREMENTS.
15. LANDSCAPING: DETAILED LANDSCAPE PLANS TO BE PROVIDED WITH FINAL SITE PLAN SUBMITTAL.
16. STORM DRAINAGE: DEVELOPED STORM DRAINAGE WILL BE HANDLED IN THE FOLLOWING MANNER - ON-SITE STORM WILL FLOW VIA STORM SEWERS TO THE EXISTING OFF-SITE RETENTION FACILITY (POND).
17. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE.
18. SOIL CONDITIONS: PER SOIL SURVEY OF OAKLAND COUNTY
    42 - PITS SAND & GRAVEL EXCAVATION AREAS.
    50B - IDIPSAMMENTS, UNDULATING - ALTERED WELL DRAINED SOILS.

NOTE: ALSO SEE SOIL BORINGS TAKEN ON-SITE.

SEPTIC FIELD CONCEPTUAL CALCULATION

PUBLIC RESTROOMS BUILDING:

THE BUILDING TO HAVE 8 TOILETS & 8 SINKS
∴ (16 FIXTURES)(0.12 REU/FIXTURE) = 1.92 REU
(1.92 REU'S)(270 GAL/REU)(1.25) = 648 GPD
FIELD SIZE (ASSUMING SAND) = 648 ÷ 0.40 = 1,620 SF
IF WE USE ELJENS PRETREATMENT SYSTEMS
(1,620)(0.62) = 1,005 SF
1,005 SF/16 SF/MODULE = 64 MODULES
64 MODULES ÷ 16 MODULES/ROW = 4 ROWS
WIDTH (4' x 3' = 12') + (3' x 1' = 3') + 1' = 16'
LENGTH (16' x 4') + 1' + 1' = 66'

THUS FIELD SIZE = 66' x 16'

(9)-28' x 60' UNITS (EACH SIDE)
EACH UNIT TO HAVE 1 TOILET & 2 SINKS
(9 UNITS)(3 FIXTURES/UNIT)(0.12 REU/FIXTURE) = 3.24 REU'S = 3.24 REU

(3.24 REU'S)(270 GAL/REU)(1.25) = 1,094 GPD
FIELD SIZE (ASSUMING SAND) = 1,094 ÷ 0.40 = 2,735 SF ≈ 2,800 SF

IF WE USE ELJENS PRETREATMENT SYSTEMS
(2,800 SF)(0.62) = 1,736 SF
1,736 SF/16 SF/MODULE = 110 MODULES/SIDE
110 MODULES ÷ 20 MODULES/ROW = 5.5 ROWS ≈ 6 ROWS
WIDTH (6' x 3' = 18') + (5' x 1' = 5') + 1' = 24'
LENGTH (18') x 4' + (1') x 2' + 1' + 1' = 76'

THUS. EACH FIELD SIZE = 76' x 24'

STATE OF MICHIGAN
PATRICK COLIN McWILLIAMS
LICENSE NO. 6201031658
LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
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1926 MONTANA VISTA
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DATE	5-19-2026
DRAWN	GF
DESIGN	PCM
SECTION	36

CKD. BY	DATE
T- 4 -N. R- 8 -E.	

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

General Notes & Details
PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E, SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE	N/A
SHEET	3 OF 4
KE	2025.207

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Retention BasinCalculations:

TOTAL SITE AREA = 8.19 ACRES
AREA TO DRAIN TO LARGE POND LOCATED OFF-SITE NORTH OF SITE = 8.19 ACRES
8.19 ACRES - 356,980 SF
2"= 0.167'
REQUIRED RETENTION VOLUME = (356,980 SF)(0.167') = 59,616 CF

EXISTING POND ELEVATION = 1006.15 (2-2-2026)
EXISTING POND SURFACE AREA = 244,065 SF+/-

POTENTIAL INCREASE IN POND HEIGHT = $\frac{59{,}616 \text{ CF}}{244{,}065 \text{ SF}}$ = 0.244' (=2.93")

THUS, POTENTIAL RETENTION BASIN WATER ELEVATION = 1006.15 + 0.244' = 1006.394 ≈ 1006.40

SEE EASEMENT AGREEMENT FOR DETENTION/RETENTION POND BETWEEN HARDING LEASING & EQUIPMENT CO. & BCG PROPERTIES.

08-31-302-002

EXISTING POND
WATER ELEV. = 1006.15 (2-3-2026)

ES-1
24" N. 1008.00
W/BARSCREEN &
12 SY GROUTED
RIP-RAP

08-31-302-001
4750 THREE CTC, LLC

220'-24" @ 1.60%
DISCHARGE TO OFF-SITE RETENTION POND

07-36-401-004
CLAWSON TANK CO.
M-1

07-36-401-006
4750 CTC LLC
M-1

INDEPENDENCE

PROPOSED 8' C.L. FENCE

PROPOSED STORAGE BUILDING #5
TOTAL 16,840 SF
F.F. 1023.50
(24) 45'x14' UNITS

PROPOSED STORAGE BUILDING #6
TOTAL 21,921 SF
(1) UNIT @ 3,171 SF F.F. 1024.00
(1) UNIT @ 1,440 SF
(11,390 SF)
(11,530 SF) F.F. 1024.50
(2) 60'x28' UNITS
(2) 45'x20' UNITS
(15) 45'x25' UNITS
(1) 60'x14' UNIT 840 SF
(1) 45'x14' UNIT 630 SF

PROPOSED 4" ASPHALT

RETAINING WALL- T/W 1021.0
460 LF+/- (2' TO 4' HIGH)

PROPOSED PRIMARY SEPTIC FIELD

RESERVE SEPTIC FIELD

DUMPSTER ENCLOSURE

PRETREATMENT MANHOLE-1
R 1023.20

CB-1 R 1019.00
CB-2 R 1019.50
CB-3 R 1020.00
CB-4 R 1020.00
CB-5 R 1022.50
CB-6 R 1022.50
CB-14 R 1023.30
CB-15 R 1023.00
CB-16 R 1023.00

8" GW-3 W/TAP R 1018.00
8" GW-6 R 1018.00
8" GW-2 R 1023.90
8" GW-1 R 1024.20

8'x10' (80 SF) ELECTRIC & (85 SF) FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #5)
12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #6)
12'x15' (180 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS BLDG. (2)
12'x10' (120 SF) ELECTRIC & FIRE RISER ROOM W/OUTSIDE DOORS (BLDG. #7)

HY-4 R 1023.50
HY-5 R 1019.95
HY-1 ARW 1019.58 B 1017.55
EX HY ARW 1019.58 B 1017.55

EX STM MH R 1014.16 8" SW 1012.16 15" NW 1012.24
EX STM MH R 1015.34
EX STM MH R 1015.28 15" SE 1010.48 15" NE 1010.38
EX CB R 1005.18
EX CB R 1003.87
EX CB R 1013.83 15" N 1009.26
EX ES 15" N 1009.12
EX ES 15" N 1009.87
EX ES 15" S 1005.66
EX ES 15" S 1012.39
EX CO R 1017.18 NE 1014.55
EX CO 12" SE 1017.30

EX 20'-15" STM
EX 39'-15" STM
EX 62'-15" STM
EX 8" WATERMAIN
EX 6" WATERMAIN
EX ASPHALT DRIVE

LEGEND

EXISTING		PROPOSED
	STORM SEWER	
	SEPTIC LINES	
	WATERMAIN	
GAS GAS	GAS MAIN	GAS GAS
OH OH	OVERHEAD LINES	OH OH
T T	UNDERGROUND TELEPHONE	T T
CATV CATV	UNDERGROUND CABLE	CATV CATV
E E	UNDERGROUND ELECTRIC	E E
⊘	STORM MANHOLE	◕
□	CATCH BASIN	■
⊠	INLET	◪
⊠	REARYARD CATCH BASIN	◧
▽	END SECTION	▶
○	SANITARY MANHOLE	●
⊕	GATE VALVE AND WELL	⊕
⊡	HYDRANT	◖
1020	CONTOURS	(20)
+1020.5	GRADE	(26.0)
	MATCH ELEVATION	(M)
	TOP OF CURB	T/C
	TOP OF SIDEWALK	T/S
	TOP OF PAVEMENT	T/P
	TOP OF CONCRETE	TC
	TOP OF WALL	T/W
	BOTTOM OF WALL	B/W
	DITCH	D
	STANDARD CURB	
	REVERSE CURB	
	DRAINAGE AREA	

RON PEP

Benchmarks:

BM #1 - ARROW OF EXISTING HYDRANT LOCATED ALONG CLAWSON TANK DRIVE. ELEVATION = 1026.34 NAVD '88

BM #2 - ARROW O0F EXISTING HYDRANT LOCATED IN CUL-DE-SAC OF CLAWSON TANK DRIVE. ELEVATION = 1026.11 NAVD '88

STATE OF MICHIGAN — WILLIAM J. NORMAN II — PROFESSIONAL SURVEYOR NO. 46680 — LICENSED PROFESSIONAL SURVEYOR

STATE OF MICHIGAN — PATRICK COLIN McWILLIAMS — LICENSE NO. 6201031658 — LICENSED PROFESSIONAL ENGINEER

DATE	ISSUE

PROPRIETOR:
DANNY WHITE
1926 MONTANA VISTA
LAKE HAVASU, ARIZONA 86403
EMAIL: dannywhite928@gmail.com
PHONE: (928) 706-5622

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KIEFT ENGINEERING

KIEFT ENGINEERING, INC.
PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE	5-19-2026	CKD. BY	DATE
DRAWN	GF		
DESIGN	PCM		
SECTION	36	T- 4 -N. R- 8 -E.	

72 HOURS (3 WORKING DAYS) | BEFORE YOU DIG CALL MISS DIG (800) 482-7171 OR 811

Off-Site Retention Basin Pond & Calculations

PARCEL NO. 07-36-401-011
PART OF THE SE 1/4 OF SECTION 36, T4N, R8E,
SPRINGFIELD TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE 1" = 40'
SHEET 4 OF 4
KE 2025.207

G:\2025\207 Danny White\CAD\Clawson Tank Storage.dwg, 4 Offsite Pond, 5/19/2026 2:44:07 PM, , AutoCAD PDF (High Quality Print MOD).pc3

Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lumens per Lamp	LLF	Wattage
▭	W1	51	Lithonia Lighting	WDGE2 LED P4 40K 80CRI TFTM	WDGE2 LED WITH P4 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE FORWARD THROW MEDIUM OPTIC	4202	0.9	46.6589
▭	W2	4	Lithonia Lighting	WDGE2 LED P2 40K 80CRI T1S	WDGE2 LED WITH P2 - PERFORMANCE PACKAGE, 4000K, 80CRI, TYPE 1 SHORT OPTIC	1981	0.9	18.9815

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall/Grade	+	0.6 fc	3.1 fc	0.0 fc	N/A	N/A
Storage Area	✳	1.2 fc	3.1 fc	0.0 fc	N/A	N/A



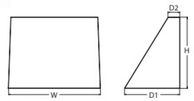
WDGE2 LED
Architectural Wall Sconce
Precision Refractive Optic

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1):	7"
Depth (D2):	1.5"
Height:	9"
Width:	11.5"
Weight: (without options)	13.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

design select — Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI) P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		–	750	1,200	2,000	–	–	–	–
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	–	1,200	2,000	3,000	4,500	6,000	–
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	–	–
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	–	7,500	8,500	10,000	12,000	–	–
WDGE4 LED	Precision Refractive			Standalone / nLight	–	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information — **EXAMPLE:** WDGE2 LED P3 40K 80CRI T3M MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE2 LED	P0[1] P1[1] P2[1] P3[1] P4[1]	27K 2700K; 30K 3000K; 35K 3500K; 40K 4000K; 50K 5000K; AMB[2] Amber	70CRI[2] 80CRI LW[2] Limited Wavelength	T1S Type I Short; T2M Type II Medium; T3M Type III Medium; T4M Type IV Medium; TFTM Forward Throw Medium	MVOLT 347[3] 480[3]	Shipped included: SRM Surface mounting bracket; KCW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[4]. Shipped separately: AWS 3/8inch Architectural wall spacer[5]; PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available[5]

Options		Finish	
E10WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 3"C min)	DDBXD	Dark bronze
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)	DBLXD	Black
PE	Photocell, Button type[6]	DNAXD	Natural aluminum
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[6]	DWHXD	White
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DSSXD	Sandstone
CCE	Coastal Construction[7]	DDBTXD	Textured dark bronze
		DBLBXD	Textured black
		DNATXD	Textured natural aluminum
		DWHGXD	Textured white
		DSSTXD	Textured sandstone

Standalone Sensors/Controls

PIR	Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIRH	Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIR1FC3V	Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation.
PIRH1FC3V	Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.

Networked Sensors/Controls

NLTAIR2 PIR	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIR2 PIRH	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights.
NLTAIREM2 PIR	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIREM2 PIRH	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights.

See page 4 for out of box functionality

LITHONIA LIGHTING — COMMERCIAL OUTDOOR — 1 Acuity Way • Decatur, GA 30035 • Phone: 1-800-705-SERV (7378) • www.lithonia.com

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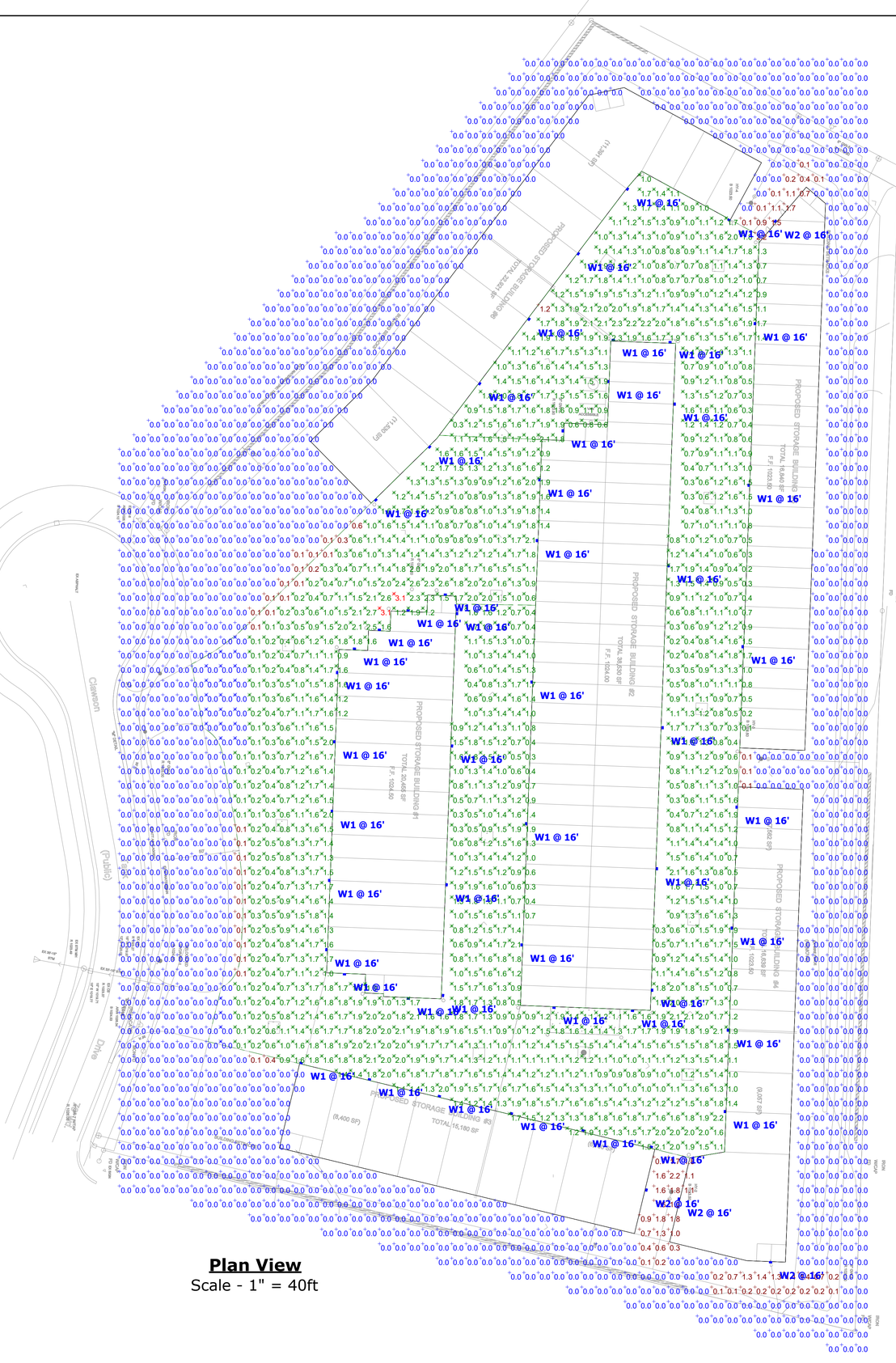
WDGE2 LED Rev. 05/07/26



Plan View
Scale - 1" = 40ft

General Note

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2019. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT CONTROLS@GASSERBUSH.COM OR 734-266-6705.

Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note

FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734--266-6705.

Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

SPRINGFIELD R.V. STORAGE
EXTERIOR PHOTOMETRIC PLAN
GASSER BUSH ASSOCIATES
WWW.GASSERBUSH.COM

Designer
BK
Date
07/01/2026
Scale
Not to Scale
Drawing No.
#26-60469

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Springfield Charter Township Planning Commission

FROM: Megan A. Masson-Minock, AICP

DATE: August 18, 2026

RE: Levy/Burroughs Materials Corporation Application Update

The purpose of this memo is to update the Planning Commission on the Levy/Burroughs Materials Corporation Application.

Recent Meetings:
No meetings between Township officials or consultants with the applicant have occurred since the last update.

Expected Activity:
Per Mr. Maxbauer, the following activity is expected to occur on the subject site or Ormond Road in the next month:

- September: Site investigation continues.

Mr. Maxbauer has indicated the schedule may be subject to change.

Mining Ordinance:
The Township Board is considering amendments to the Mining Ordinance per counsel of Greg Need and Gerald Fisher. The Mining Ordinance is not subject to review or recommendation by the Planning Commission per state law. The first reading was postponed on August 13, 2026.

I will be in attendance at the August 25, 2026 Planning Commission meeting. Please let us know if you have any questions and how this monthly update can be improved.

Respectfully submitted,

Megan A. Masson-Minock

CARLISLE/WORTMAN ASSOC.,INC
Megan Masson-Minock, AICP
Principal

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
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