

GAINES CHARTER TOWNSHIP
PLANNING COMMISSION – REGULAR MEETING
Township Board Room - 8555 Kalamazoo Ave. S.E. Caledonia, MI 49316

DRAFT Agenda

7:00 p.m. – Thursday, September 25th, 2025

- I. Call to Order and Roll Call**
- II. Consideration of Agenda**
- III. Consideration of Meeting Minutes**
 - a. Consideration of August 28th, 2025, Planning Commission Regular Meeting Minutes**
- IV. Inquiry of Conflict of Interest**
- V. Public Comment**
- VI. New Business**
 - 1. Public Hearings**
 - a. None**
 - 2. Site Plan Review**
 - a. Amazon GRR5 Facility**
 - 3. Items not requiring a Public Hearing**
 - a. 3429 Loretta View SE –Special Use Permit**
 - b. Zoning Ordinance Text Amendment – LED Message Centers in SR Zoning District**
- VII. General Discussion**
 - a. Housing Affordability**
- VIII. Adjournment**

Persons with disabilities needing special accommodations should contact Kim Triplett at (616) 698-6640 one week prior to the meeting to request mobility, visual or any other assistance.

DRAFT Minutes of the Gaines Charter Township Planning Commission

Regular Meeting held August 28th, 2025, at 7 pm

8555 Kalamazoo Ave., SE, Caledonia, MI 49316

MEMBERS PRESENT: Rober, Waayenberg, Wiersema, Giarmo, Thomas

MEMBERS ABSENT: Haagsma and Billips, with notice

STAFF PRESENT: Dan Wells, Community Development Director; Dakota Swan, Assistant Planner

I. CALL TO ORDER AND ROLL CALL

Chair Giarmo called the meeting to order at 7:00 PM.

II. CONSIDERATION OF MEETING AGENDA

III. CONSIDERATION OF MEETING MINUTES

Consideration of the July 24th, regular Planning Commission meeting minutes.

Motion: Motion by Rober, supported by Wiersema to approve the minutes of July 24th, 2025, with corrections.

DISCUSSION:

AYES: All

NAYS: None

ABSTAIN: None

DECISION: Motion Carried (5-0)

IV. INQUIRY OF CONFLICT OF INTEREST

None.

V. PUBLIC COMMENT

None.

VI. NEW BUSINESS

1. Public Hearings

a. 3429 Loretta View SE – Special Use Permit – Accessory Building

Brad Miedema, the property owner and applicant, explained that he is seeking a Special Use Permit to construct a 15,000 square-foot accessory building. The intent is to use the accessory building as a sports facility for their family; the building is planned to include a full-sized baseball infield, a weight room, gymnastics area, and basketball court. Miedema explained that his family is relocating from California where they are used to doing sports outside year-round. They will be constructing a new home on the parcel as well.

Community Development Director Dan Wells noted a correction on the staff memo, as this project is being requested in the Agricultural/ Rural-Residential zoning district. Wells noted that the site plan also includes a sauna, golf simulator, cold storage, and a kitchen/ bar area upstairs. Properties in the A/RR zoning district are limited to 5,000 square feet of accessory buildings; the proposed building is three times as large as what would be permitted by right, hence the request for a Special Use Permit.

Planner Wells then gave an overview of the applicable standards of review from Sections 18.20.A.9 of the Zoning Ordinance, which pertain to oversized accessory buildings, and Section 27.40 which pertain to all special land uses.

Standard 27.40.B aims to ensure that the proposed special use is compatible with other uses in the surrounding area; staff found this standard to be undetermined since the surrounding area is mainly rural and characterized by wood lots and open fields. Although some accessory buildings in the vicinity are similar in scale, they are largely used in agricultural ventures.

27.40.D intends to ensure that there will not be any form of nuisance that could arise from the special use and was found to be undetermined by staff. Although no noise or smells will come from the building, the visual impact could be considered a nuisance to some. Wells noted that the architectural committee for Loretta View Drive has reviewed and approved the proposed building, and that public notices were sent to every address within 300 feet of the subject parcel, so any aggrieved parties were made aware of the public hearing and the opportunity to address their concerns to the Planning Commission.

27.40.E addresses environmental concerns associated with the special use; staff found this standard to be met. Planner Wells noted that he spoke with the Township Engineer about this project to ensure that water will not run off onto anyone else's property. Although residential properties are exempt from stormwater regulations, it has been taken into consideration.

27.40.G aims to ensure that approving the request would not set precedent for development that could potentially have adverse effects on the plans and policies of the Township in the future. Staff found this standard to be undetermined solely due to the size of the proposed building. The 2023 Master Plan designates this parcel as rural, and being characterized by natural woodlots, open fields, livestock, prairie, and limited residential development. If residential development occurs in these types of areas, the Master Plan advises that it should be sparse.

With regard to the standards of approval for oversized accessory buildings outlined in Section 18.20.A.9, Planner Wells noted that the Planning Commission must determine whether the visual impact of the building will be overly obtrusive, and whether the architectural character of the building is consistent with other accessory buildings in the area, in addition to the home on the parcel. Wells added that with regard to future development, Loretta View would be required to be upgraded to a major private street should a

future property owner be interested in dividing and selling off pieces of the subject parcel for new construction.

Chair Giarmo opened the public hearing.

Bob Pylman of 3432 Loretta View, the neighbor directly to the west of the subject parcel, stated that he thinks the building is too tall, and the scale of the project feels overly gross, as homes on the drive are not even close to the scale of the building. Although Pylman appreciates what Miedema is providing his children through this request, Pylman said that he feels as though this would be “overpowering our neighborhood”. Pylman also expressed concern about the adverse effects construction traffic may have on the road; Planner Wells responded that a road maintenance agreement is in place to ensure that if individuals are responsible for damage, they will be held accountable.

Chair Giarmo closed the public hearing.

Commissioner Wiersema began discussion by stating that he is concerned about the size of the building despite the subject parcel being large enough to adequately accommodate the building. Although the Planning Commission has approved several large accessory buildings, none have been this large. Wiersema stated that this building “is almost a warehouse”. Miedema has noted that the building is intended to be used privately and only by his family, however, Wiersema inquired about what protection the Township may be able to put in place to prevent a future homeowner from using the space commercially. Planner Wells noted that commercial use in a residential zoning district would be prohibited, and that the building would be permitted to be used for residential storage purposes. Wiersema added that he is concerned that this request is misaligned with the intent and goals of the Master Plan.

Commissioner Waayenberg said that although the building is obscenely large, he is not in staunch opposition to the project, noting that he “love[s] big pole barns”. Waayenberg did, however, pose the question of what may happen to the building in 10-12 years after Miedema’s children would likely no longer be using the building for sports training; he noted that if there was a commercial operation being run in the building, he is certain the association on Loretta View would catch on. Although the building is large, Waayenberg noted that the subject parcel is also very large and absorbs the scale of the building. With regard to setting poor precedence for future development, Waayenberg added that if someone with a far smaller piece of land came to the Planning Commission seeking a similarly sized building, approving this request could potentially expose the Planning Commission into having to approve a request as such. Waayenber inquired about a timeline for construction of the building, to which Planner Wells responded that no permits for the accessory building would be issued until permits for the home are issued.

Commissioner Thomas echoed Waayenberg’s concerns and agreed that Miedema’s intent is admirable, however, her concerns are down the road. Thomas noted that a future homeowner could desire a different use for a building of this size, which may be incompatible with zoning requirements and regulations.

Vice Chair Rober agreed that this is an incredible gift for Miedema’s children, and that 9 acres of land is suitable to absorb the scale of the building, however, she is unsure about how the neighborhood would react. Waayeneberg added that since this is an interior lot without frontage on a primary road, screening is enhanced. Thomas said she has no doubts that the construction will be well done and aesthetically pleasing, however, her concern is the use of the building in 10-12 years – Rober agreed and added that she is also concerned about the size of the building.

Chair Giarmo inquired about the size of the home that will be built; Miedema responded that the home will be 5,200 square feet. Giarmo noted that the proposed accessory building is about three times the size of the home. Rober noted that since the subject parcel is quite far back from Hanna Lake, it's unlikely that the building will be visible from the right-of-way.

Planner Wells noted that staff found the landscaping plan provided to be rather minimal; increased landscaping could help to soften the visual impact of such a large building. Wells asked that should a motion to approve be made, landscaping requirements should be discussed further.

Chair Giarmo inquired about what the building and home will look like; Miedema responded that the home will be two-stories with stonework on the exterior, and that they are attempting to emulate architectural elements inspired by "French countryside" homes. Miedema added that the accessory building is planned to match the home in color but will not feature the same stonework.

Vice Chair Rober noted that some smaller houses in the Township have three car garages and also may be considered disproportionate with the home; Planner Wells explained that the Zoning Ordinance limits the square footage of attached garages to being 50% of the ground floor square footage. Chair Giarmo said that the notion of setting bad precedence does not concern her as much as it used to, since the Planning Commission reviews requests as such on a case-by-case basis, but that she would feel more comfortable if the proposed building was smaller. She added that the Planning Commission should decide whether they are comfortable with the scale of the building before they consider landscaping or other furnishings.

Commissioner Wiersema said that he would be uncomfortable with approving this request. Waayenberg stated that he's not necessarily opposed to the request, but he is not keen on making the motion to approve the project either due to the scale of the building.

MOTION: Motion by Waayenberg, supported by Rober, to postpone the request for a Special Use Permit for an accessory building at 3429 Loretta View Drive, due to standards of review being undetermined and due to the absence of two Planning Commissioners.

DISCUSSION: The Planning Commissioners in attendance at the August meeting agreed that they would prefer to discuss this request with all members present.

AYES: ALL

NAYS: None

ABSTAIN: None

DECISION: Motion Carried (5-0)

2. Site Plan Review

a. None

3. Items not requiring a Public Hearing

a. 4645 100th Street – Resolution to Revoke Special Use Permit

At the July regular meeting of the Planning Commission, the Planning Commission voted unanimously to revoke a Special Use Permit issued for a home occupation due to conditions of the permit not being abided by. The applicant and Township Attorney both requested a formal resolution be created.

MOTION: Motion by Waayenberg, supported by Rober, to revoke the Special Use Permit for a home occupation at 4645 100th Street SE.

DISCUSSION: None

AYES: ALL

NAYS: None

ABSTAIN: None

DECISION: Motion Carried (5-0)

b. Zoning Ordinance Text Amendment – LED Message Centers in SR Zoning District

Planner Wells explained that this request was for an amendment to the Zoning Ordinance to allow for ECM signs in residential zoning districts for institutional uses, such as schools and churches. The Township Board of Trustees considered this request at their most recent meeting, held on August 11th, 2025, at which they referred the request back to the Planning Commission for further review and deliberation. Under the old Zoning Ordinance, ECM's were permitted in residential zoning district so long as a Special Use Permit was obtained; the updated Zoning Ordinance prohibits ECM's in residential zoning districts, as the steering committee that worked on the ordinance update found them to be a nuisance. Feedback from the community captured during the 2023 Master Plan update indicate that overly obtrusive lighting is also a concern for residents. Wells noted that the biggest concerns are light spill, glare, and a lack of shielding for ECM's. Staff provided language from the Zoning Ordinance on both signage and lighting to guide the discussion on this request, since the two chapters aren't entirely compatible; something that would be permissible under the lighting ordinance may not be allowed under the sign ordinance. Wells noted that there is overlap between the two chapters, and although the Zoning Ordinance steering committee did thoroughly consider all updates to the ordinance, these two chapters were not necessarily considered in conjunction with one another.

Chair Giarmo said that enforcement and holding users accountable to all stipulations for ECM's would be tricky, as there are several elements that are regulated; staff would likely be overburdened with enforcement efforts. Giarmo also noted that she appreciates the Township Board's concern, as most of what they are seeing is not permitted. Commissioner Waayenberg suggested that perhaps it could be as simple as requiring the lighting ordinance to be entirely compatible with the sign ordinance.

Planner Wells stated that staff does have the ability to measure candlepower at the edge of the property to monitor light spill and encourage owners to dim the display until there is no reading at property lines, however, this would likely be overburdensome for staff currently.

Chair Giarmo highlighted the fact that the updated Zoning Ordinance has only been in effect since April of 2025, and that it has not been a sufficient amount of time to see how the ordinance is really working. Wells noted that the Township Board did acknowledge the positive impact of allowing this type of signage in residential areas, as they provide good messaging opportunities for schools and churches; Wells said that they do provide a certain kind of service to the community.

Giarmo said that she would hate to see institutional uses have no avenue to implement these kinds of signs as they do have positive impacts, however, she noted that “our residents were clear” that they were concerned with excessive lighting in residential areas during the public input phase of the 2023 Master Plan update. Waayenberg noted that ECM’s aren’t necessarily banned outright in the Township, rather, they are strategically restricted only in certain areas.

Chair Giarmo inquired with Planner Wells, asking if he got the sense that the Township Board was eager or not to make this modification to the Zoning Ordinance. Wells said that his impression was that the Township Board had mixed opinions on this topic; some trustees seemed amenable to the idea so long as the right restrictions were in place, such as requiring them to be 200 feet from residential structures and other requirements to minimize light spill. Wells explained that in its simplest form, this is a question for the Planning Commission of whether they want to allow ECM’s in residential zoning districts or not. Section 24.80 of the Zoning Ordinance has the same requirements for permanent signs across all residential zoning districts; Planner Wells pointed this out and noted that each residential district doesn’t necessarily have its own set of signage requirements.

Wiersema asked Planner Wells, hypothetically, if a church purchased a piece of property and wanted to use an ECM for their signage, the current ordinance would not allow them to have this kind of signage; Planner Wells confirmed this and noted that they would be permitted to use a channel lit internally or externally illuminated sign, but no LED’s would be allowed to be used in the display. Chair Giarmo said that the Township needs to be able to trust its regulations and trust that people follow them; staff is unable to chase down signs to the extent that would be necessary, and Giarmo noted that this would likely be an inefficient use of staff time.

Wiersema noted that if an institution bought a large piece of property and requested an ECM, it likely wouldn’t be overly obtrusive as a large property would buffer any light spill. Giarmo responded that with a Special Use Permit, the Planning Commission would have the authority and ability to consider factors as such for individual instances.

Giarmo requested that staff look at both the sign and lighting ordinances to look for inconsistencies that may need to be changed to help with enforcement issues that may arise from issuance of a Special Use Permit for electronic messaging centers. Wells responded that staff can certainly do that, however, he lacks confidence that such review will inform the decision. Staff could modify the sign ordinance to include language that stipulates light emitted by LED’s must be 0 at property lines, since this is the only means of regulation that would be enforceable with the use of a light meter.

MOTION: Motion by Rober, supported by Waayenberg, to direct staff to modify the ordinance to include restrictions for light levels at property lines in residential areas, to only make ECM’s available to institutional users in residential zoning districts with the issuance of a Special Use Permit, and to create consistency between the lighting and signage ordinances.

DISCUSSION: None
AYES: ALL
NAYS: None
ABSTAIN: None
DECISION: Motion Carried (5-0)

VII. GENERAL DISCUSSION

Wiersema inquired about the status of the Brewer Park Apartments; Wells responded that last year the developer requested and obtained a site plan extension, and that they are anticipated to start construction this fall.

Wiersema also noted that the utility units on the roof of the new Pine Rest Pediatric Center are unsightly, and encouraged the Planning Commission to be cautious about such aesthetic considerations.

VIII. ADJOURNMENT

The meeting adjourned at 8:06 PM.

CERTIFICATION:

I hereby certify that the above is a true copy of the minutes from the August 28th, 2025, Planning Commission Meeting of the Gaines Charter Township Planning Commission held at the time and place mentioned above pursuant to the required statutory procedures.

Respectfully submitted,

Lani Thomas,

Secretary

Gaines Charter Township Planning Commission

Date: _____

Gaines Charter Township

Planning Commission Memo

Meeting Date: September 25th, 2025

AGENDA ITEM: VI.2.a

APPLICANT: Kyle Schott, Ryan Companies US, Inc.

PROPOSED REQUEST: Site Plan
Review

FILE NUMBER: 250828KS

ADDRESS: 4495 68th Street SE

PROPERTY ZONING DISTRICT: PUD – Steelcase LSP

PARCEL NUMBER: 41-22-01-400-039

PROPERTY SIZE: 100.27 acres

REPORT BY: Dakota Swan, Assistant Planner



OVERVIEW

The applicant requests a site plan review for a 216,018 square-foot industrial building with associated parking, access drives, and loading spaces for trucks and vans. The Planning Commission is considering the site plan dated 09/17/2025. Associates will access the building from 68th Street using one existing driveway, and three additional driveways on 68th Street are being proposed as part of this request. The existing driveway on Patterson will also be used to access the site. Staff finds that the right-of-way is adequate to provide access for associates and van/ truck traffic. The subject parcel is within the Steelcase-LSP Planned Unit Development, and this request has been reviewed using standards for the underlying zoning, which in this case is Light Industrial (LI).

The proposed building is intended to be used in tandem with the existing Amazon building to the north. The existing facility will operate as a sortation facility, and the new proposed building will be used as a delivery station.

The proposed site plan includes an automatic vehicle inspection tunnel, an outdoor gathering area for associates, a smoking shelter, and a fleet service center in the western parking lot. The site plan also accounts for EV charging stations and is planned to feature a water quality treatment basin.

The site plan originally submitted to staff (dated 08/28/2025) was missing a few elements and contained minor discrepancies; the developer has since addressed staff's comments and provided an updated site plan (dated 09/17/2025). Staff has provided the updated site plan in digital format, but did not require the developer to submit updated hard copies, as the changes were understood as being minimal enough to negate the need for a new hard copy of plans. The developer has provided a letter addressing the concerns in addition to the updated site plan set.

Surrounding zoning:

	NORTH: PUD – Steelcase LSP	
WEST: PUD – Steelcase LSP	SUBJECT PARCEL	EAST: Caledonia Township - Industrial
	SOUTH: PUD – Steelcase LSP	

PROCESS

Site Plan Review applications are subject to the following process:

1. Submittal by applicant
2. Completeness review by Zoning Administrator
3. If complete, administrative review by Zoning Administrator
4. Review and decision by the Planning Commission

CHAPTER 26 SITE PLAN REVIEW

All non-residential buildings are subject to site plan review by the Planning Commission. The applicant has submitted an application with sufficient detail to evaluate compliance with the ordinance.

A. ZONING COMPLIANCE AND COMPATIBILITY

All site development plans, streets, and utilities are subject to site plan review under Section 26.20.A. and

shall conform to all zoning district requirements (in this case Chapter 12, Light Industrial), Land Use Regulation (Chapter 15), Building Requirements (Chapter 16), General Requirements (Chapter 17), and any applicable Specific Use Requirements (Chapter 18), unless specific modifications are approved by the Planning Commission.

REQUIREMENT	COMPLIANCE	COMMENT
LI REQUIREMENTS – CH 12		
Minimum Lot Area Table (12.20.C)	Yes	1 acre required
Minimum Lot Width (12.20.C)	Yes	150 feet minimum
Max. Building Height (12.20.C)	Yes	Max height of 60 feet if 100 feet or more from property lines, proposed building is 42 feet tall including parapet
Front Setback-100' (12.20.C)	Yes	
Side Setback-15' (12.20.C)	Yes	
Rear Setback-50' (12.20.C)	Yes	

B. LIGHTING

Lighting plans shall demonstrate compliance with all requirements and shall be designed to ensure safe conditions and minimal impact on neighboring properties and the night sky (Chapter 19).

REQUIREMENT	COMPLIANCE	COMMENT
LIGHTING - CH 19		
Parking Lots (19.20.F.2)	Yes	
Plans and Submittal Requirements (19.30)	Yes	Photometric plan provided
Color Temperature (19.40.B)	Yes	Color temperature limited to 4,000 kelvin
Fixture Type (19.40.C)	Yes	
Mounting Height (19.40.D)	Yes	30' max in industrial zoning when 150 feet or more from a residential lot
Illumination Levels (19.50.B)	Yes	10 footcandle maximum

C. PARKING AND LOADING

Parking lot design shall demonstrate compliance with all dimensional and circulation requirements and shall be arranged to provide safe and convenient access to buildings and land uses (Chapter 20). If applicable, stacking and loading spaces shall be designed to minimize the impact on internal circulation routes and offsite traffic patterns. The site plan does include striping, space size, curve radii, and drive lane dimensions, and designates ADA accessible spaces.

Staff recommends a condition that the Fire Marshall must approve all drive aisles and turn radii to ensure adequate and safe emergency vehicle access to all areas of the site.

Staff recommends a condition that the Township Engineer must approve all stormwater control infrastructure to ensure adequate drainage of the site.

REQUIREMENT	COMPLIANCE	COMMENT
PARKING AND LOADING - CH 20		
Setbacks-10' (20.40.A)	Yes	Yes
Dimensions & Layout (20.40.B)	Yes	Associate spaces are 9' x 18', delivery van and personal van spaces are 11' x 27'

REQUIREMENT	COMPLIANCE	COMMENT
Fire Lanes (20.40.C)	Yes	Fire Marshall will determine final compliance.
Parking Lot Maintenance and Service (20.40.D)	Yes	
Landscape Curb Area (20.40.E)	Yes	
Drainage and Runoff (20.40.F)	Yes	Township Engineer will determine final compliance
Striping and Pavement Markings (20.40.G)	Yes	
Snow Storage Areas (20.40.H)	Yes	Plenty of green space for snow storage; area between van lot and associate lot designated for snow storage
Landscape Breaks (20.40.I)	Yes	
Pedestrian Pathways (20.40.J)	Yes	
Connectivity (20.40.K)	Yes	
Accessible Parking (20.50.B)	Yes	6 barrier-free spaces
Minimum Number of Spaces (20.50.D)	Yes	285 spaces required, 1,190 spaces provided
Maximum Number of Spaces (20.50.E)	Undetermined	356 spaces maximum (>25% over minimum). PC may approve the overage.
Reductions (20.60.A)	N/A	
Shared Parking (20.60.B)	N/A	
Deferred Parking (20.60.C)	N/A	
Electric Vehicle Charging Stations (20.70)	Undetermined	Concrete strips for EV chargers have been identified which will also double as walkways; walkways are 6 feet wide, and the strip that will house EV chargers is 4 feet. Developer has clarified the design will be coordinated to locate chargers away from the perimeter, and that 180 chargers will be included
Loading Zones (20.80)	Yes	5 tractor trailer loading docks required, proposing 15

D. MOBILITY TRAFFIC AND ACCESS

Pedestrian and bicycle travel shall be accommodated in accordance with this Ordinance (Section 21.20). Acceptable traffic conditions shall be maintained (Section 21.30). Driveway placement, connectivity, and shared access shall be designed to promote safe and efficient access to and from the site and circulation within the site. Compliance with access management requirements shall be demonstrated (Section 21.40). All sites and buildings shall be accessible to emergency service vehicles and personnel to respond to emergencies and calls for service. Streets and driveways shall conform to the requirements of Chapter 22.

REQUIREMENT	COMPLIANCE	COMMENT
MOBILITY TRAFFIC & ACCESS - CH 21		
On Site Pedestrian Connections (21.20.A)	No	Need to provide pedestrian connection to the facility to the north. Direct and safe pathways throughout the site, trees are located near all major pathways providing adequate shade.
Along Roadways Within Right-Of-Way (21.20.B)	No	No sidewalk indicated on site plan; Planning Commission has the discretion to require sidewalks. Complicated utility easements within ROW.
Bicycle Accommodation (21.20.C)	Yes	No specific bike accommodations noted, Planning Commission has the discretion to require bike rack(s) or other cycling accommodations as major trail systems are in the vicinity.
Traffic Impact Analysis (21.30)	Yes	TIS provided for review
Access Management (21.40)	Yes	

E. LANDSCAPING, SCREENING, AND ENVIRONMENTAL PROTECTION

All applicable landscaping, buffering, screening, and environmental requirements shall be satisfied (Chapter 23), and sites shall not be significantly disturbed in ways beyond what is appropriate for the reasonable development of a site. Site plans shall demonstrate that the impact of exterior uses and activities is minimized by required landscaping and screening.

REQUIREMENT	COMPLIANCE	COMMENT
LANDSCAPING - CH 23		
Type and Variety (23.30.D)	Yes	Three shrub species provided; Inkberry Holly, Berry Poppins Winterberry, and Compact Pfitzer Juniper. Original submission only featured one shrub species.
Installation Specifics (23.30.E)	Yes	
Planting Separations (23.30.E.5.a)	Yes	Trees to be planted a minimum of 6 feet from curbs or paved surfaces
Minimum Installation Sizes (23.30.E.7)	Yes	All evergreen trees to be 6-8 feet tall at the time of installation
Irrigation (23.30.F)	Yes	Developer clarified that irrigation will be provided at landscaped areas
Preservation of Existing Trees (23.30.G)	Yes	
Maintenance (23.30.H)	Yes	
Berms (23.30.I)	N/A	
Prohibited Trees and Shrubs (23.30.J)	Yes	
Landscaping Plan (23.40.A)	Yes	
Requirements (23.40.B)	Yes	Balsam fir installation height listed as 5 feet, must be 6 feet at installation. All other requirements satisfied.
Front Yard Trees Location (23.50.B)	N/A	
Buffering (23.60.A)	N/A	Buffering not required since adjacent to similar uses, developer imposed screening will be implemented to buffer from ROW
Dumpster and Trash Receptacles (23.70.C)	Yes	
Parking Lot Canopy Trees (23.80.B)	Yes	21 trees required, 46 trees proposed for associate parking. 78 trees required, 173 trees proposed for delivery van + personal van parking
Screening (23.80.C)	N/A	No parking lots directly abut public ROW, staff finds screening to be accurate.

F. STORMWATER AND WATER QUALITY

Stormwater detention, retention, and drainage systems shall be designed to protect neighboring properties from the negative impacts of increased stormwater run-off and flooding. Systems shall be designed to function with public stormwater drainage systems under the authority of the Kent County Drain Commission, Kent County Road Commission, or the Michigan Department of Transportation (MDOT).

Stormwater infrastructure must be reviewed by the Township Engineer and must be approved thereby.

G. SIGNS

Proposed signs shall meet dimensional and location requirements and shall be placed in locations that limit driver distraction and prevent visual clutter (Chapter 24).

The applicant has indicated that they intend to install two pylon signs at the Rapids Drive entrance and the entrance immediately to the east. The applicant has also noted that they intend to install a 5-foot high monument sign at the southernmost entrance on Patterson, however, no further details or sign plans have been received. Sign plans will be subject to applicable standards and requirements for industrial zoning per Chapter 24, and staff requests that signage be reviewed administratively.

H. WATER AND SEWER

Public water and sewer connections must be approved by the Byron Gaines Utility Authority (BGUA) in accordance with Section 17.90.B as applicable. Staff does not anticipate that the water use will overburden BGUA's ability to provide public services while at the same time adequately providing for sewage collection and treatment.

Water and sewer infrastructure must be reviewed and approved by the Township Engineer.

I. OUTSIDE AGENCIES

Applicants must secure all applicable outside agency approvals, including but not limited to the Kent County Health Department, Kent County Road Commission, Kent County Drain Commission, Fire Department, and State of Michigan regulatory agencies. Securing applicable approvals may also be a condition of approval if not received prior to the Planning Commission review.

RECOMMENDATION

Unless action is tabled or postponed, the Planning Commission shall decide upon site plan requests as follows:

- a. Approval. The motion or resolution and minutes shall indicate the findings and conclusions serving as the basis for the decision and any conditions imposed.
- b. Denial. In the case of a denial, the motion or resolution and minutes shall indicate the findings and conclusions serving as the basis for the decision.

CONDITIONS

If the Planning Commission recommends approval, staff recommends the following conditions.

1. The Planning Commission must approve proposed excess parking spaces.
2. Signage will be reviewed administratively; may require a PUD amendment to accommodate signage.
3. Secure all Township department and outside agency approvals:
 - a. Township Engineer/BGUA.
 - b. Fire Department.
 - c. Kent County Road Commission (access and SESC).
 - d. Kent County Drain Commission.
 - e. Department of Environment, Great Lakes, and Energy.



June 19, 2025

Gaines Charter Township
Dan Wells
Community Development Director
Dan.wells@gainestownship.org

Re: DGX2 Site Plan Concept
Gaines Township Site Plan Approval Process

Dear Mr. Wells:

Pursuant to our meeting on June 18, 2025, we are submitting the site plan concept for your review and determination of the process for this project; administrative staff review versus site plan approval with Planning Commission. The previous delivery station project was approved through Gaines Township in 2022 and the proposed layout for this project is similar in size and scope.

Please refer to the bullet points below which note the differences from the previous approval:

- Curb cuts all remain the same.
- Less parking count (southwest parking lot eliminated).
 - o Associate Parking: -105.
 - o Van Parking: -230.
- Loading and canopy areas remain the same conceptually.
- Loading dock remains the same conceptually.
- Day one EV charging for approximately 40 percent of the fleet within the van parking area.
- Delivery Station building footprint increase of approximately 4,000 square feet.
- Addition of two outbuilding structures to support the Delivery Station.
 - o Fleet Service Center (FSC) 5,000 square feet; minor repairs to delivery vehicles.
 - o Automated Vehicle Inspection (AVI) 1,500 square feet; upon returning to site, the delivery vehicles run through this unoccupied utility shed with scanning equipment to determine any repairs needed.
- Existing stormwater ponds with capacity for this project; updates to storm sewer conveyance systems per layout changes.
- Existing fire and domestic water loop; minor updates to hydrant and building connection points per layout changes. Proposed changes to the hydrant locations are shown herein.
- Exiting sanitary loop; minor updates to building connection points per layout changes.

Sincerely,

Digitally signed by Jason R
Vincent
DN: C=US,
E=vincentj@progressiveae.com,
O=Progressive AE, OU=Project
Manager, CN=Jason R Vincent
Date: 2025.06.19 16:14:12-04'00'

Jason R. Vincent, Associate AIA, CDT
Senior Project Manager

JRV/sas

\\dms1\projects\83460288\01 ADMIN\A2 CORRESPONDENCE\2025 06 19 DGX2 Cover Letter.docx



September 17, 2025

Dakota Swan
Gaines Charter Township
8555 Kalamazoo Ave., SE.
Caledonia, MI 49316

Re: DGX2 Plan Review

To Whom It May Concern:

In response to the Plan Review Comments dated September 12, 2025, Progressive Companies provides the following clarifications/responses:

1. I see that in the parking lots, a concrete strip has been designated as space for EV chargers – where exactly will they be located within the concrete strips, and how many of them do you anticipate? Section 20.70.D of our ordinance stipulates that they must be 5 feet from walkways/ pedestrian facilities.

Progressive Companies Response: For head-to-head parking, the electric vehicle chargers are centrally located within the strip. The perimeters will house electric vehicle strips with the walkway nearby. Note that the walkway is six feet while the strip is four feet. Design will be coordinated to locate them away from the perimeter. Initial building launch will include approximately 180 chargers.

2. How tall do you intend to make the light poles? Section 19.40.D stipulates a maximum height of 30 feet.

Progressive Companies Response: Photometrics have been revised to adhere to the 30 foot maximum height for the light poles.

3. I see that 13 parking spaces will be allocated for trailer storage but I was unable to identify them on the site plan - where are they located? Was the intent there to imply that those 13 spaces are part of the facility to the north?

Progressive Companies Response: Trailer storage spaces are not part of the design and have been removed.

4. Have there been any snow storage areas identified? It seems like there is plenty of room for snow storage, but Section 20.40.H states that they must be identified on site plans.

Progressive Companies Response: There is quite a bit of green space around the parking areas, so they should be able to utilize these areas for snow storage. The sediment forebay was removed from the design, so the area between the associate and van lot is available. Drawing C200 shows these areas now as snow storage areas.

5. Section 23.30.D stipulates that no one shrub species shall exceed 50% of all shrubs, and I only saw one shrub species provided.

Progressive Companies' Response: We have added two other shrub species to the planting plan in different locations to make sure there is no more than 50 percent of one species.

6. Section 23.30.F stipulates that irrigation is required for all areas landscaped with shrubs lawns for nonresidential buildings unless a landscape architect demonstrates that it is not necessary. I didn't notice anything about irrigation on the site plans, any additional context on this would be super helpful.

Progressive Companies Response: Irrigation will be provided at landscaped areas.

7. With regard to installation sizes for landscaping, 23.30.E.7 stipulates that evergreen trees must be installed at a size of no less than 6 feet; I see on the site plans that balsam firs are noted as being 5 feet upon installation.

Progressive Companies Response: All evergreen trees are to be 6-8 feet tall at installation. The plant schedules have been adjusted accordingly.

8. I see on the site plan that you are anticipating three signs; two pylon signs at entrances on 68th Street and one monument sign at the entrance on Patterson. I'm wondering if you have any more details on signage at this time? No worries if not, the Planning Commission usually is comfortable with delegating signs to be administratively reviewed, but figured it was at least worth asking/ bringing to your attention.

Progressive Companies Response: The monument sign along Patterson Ave exists and it will be removed with the new facility. The proposed facility will have four proposed pylon signs that are now shown correctly on Drawing C200. One will be at each entrance.

If you have any questions, please don't hesitate to reach out by phone at (616) 447-3310 or via email at jvincent@weareprogressive.com.

Sincerely,

Jason R. Vincent, Associate AIA
Senior Project Manager



Application for Planned Unit Development

GAINES CHARTER TOWNSHIP

8555 Kalamazoo Ave SE

Caledonia, MI 49316

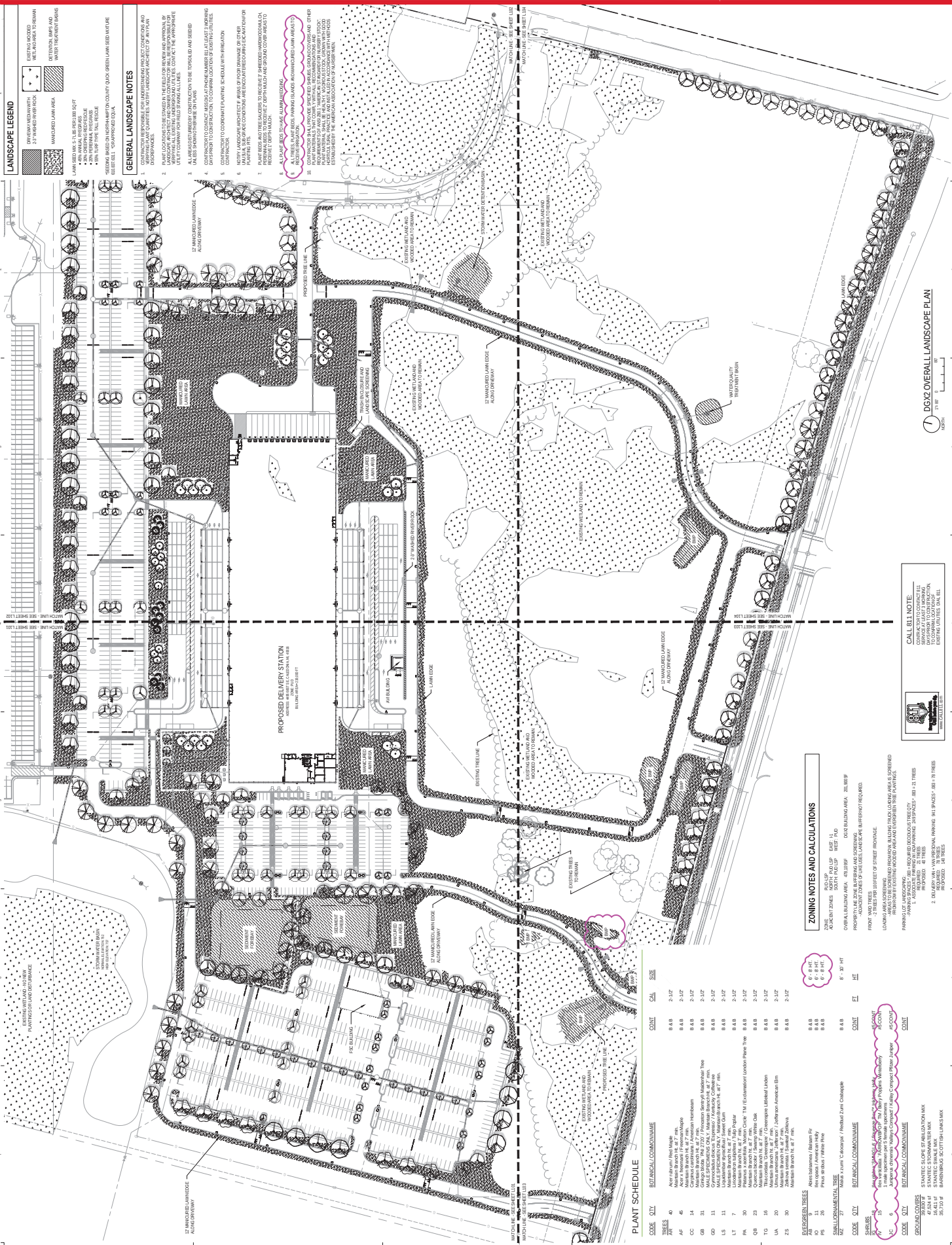
(616) 698-6640 • www.gainestownship.org

File Number

250828KS

Project Address	Street: 4495 68th Street SE City: Caledonia, MI Zip: 49316
Parcel Number(s)	41-22- 01-400-039 41-22- N/A
Owner Name	Amazon, Attn: James Dickerson
Owner Address	Street: 410 Terry Ave N. City: Seattle, WA Zip: 98109
Phone No. & Email	425-420-3538 / jmesdi@amazon.com
Applicant Name	Ryan Companies US, Inc. Attn: Kyle Schott
Applicant Address	Street: 700 Oakmont Lane, Suite 100 City: Westmont, IL Zip: 60559
Phone No. & Email	630-328-1148 / kyle.schott@ryancompanies.com
Brief Description of Division, Combination, or Line Adjustment	Development of the DGX2 Delivery Station with associated parking areas, storm water infrastructure, and various sanitary and water main adjustments. Four (4) curb cuts along 68th Street will serve the site along with the shared driveway to the GRR5 Sortation Facility for linehaul traffic.
<i>I grant Township staff permission to enter onto the subject property in review of this application, certify the correctness and knowledge of the information submitted, and agree to comply with the terms and requirements of all applicable Township ordinances.</i>	
Owner Signature	
For Township Use Only	
Zoning District	☐ RR ☐ SR ☐ VR ☐ MFR ☐ VN ☐ NC ☐ GC ☐ OS ☐ MB ☐ LI ☐ HI ☒ PUD
Project Type	☐ Land Division ☐ Land Combo ☐ Lot Line Adj ☐ Road Maint. Agmt. ☐ Plat ☐ Site Condo
Zoning	☐ Approved ☐ Approved w/Conditions ☐ Denied ☐ Withdrawn
Signature	Date
Notes	

SITE PLAN REVIEW



LANDSCAPE LEGEND

SYMBOL	DESCRIPTION
[Symbol]	EXISTING TREES
[Symbol]	PROPOSED TREES
[Symbol]	PROPOSED SHRUBS
[Symbol]	PROPOSED LAWNS
[Symbol]	PROPOSED PLANTINGS

GENERAL LANDSCAPE NOTES

1. CONSTRUCTION OF THE LANDSCAPE SHALL BE IN ACCORDANCE WITH THE CITY OF CHICAGO LANDSCAPE ARCHITECTURE ACT AND THE CITY OF CHICAGO LANDSCAPE ARCHITECTURE REGULATIONS.
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CALL B11 NOTE

SEE B11 FOR DETAILS OF THE DELIVERY STATION.

CALL B12 NOTE

SEE B12 FOR DETAILS OF THE DELIVERY STATION.

CALL B13 NOTE

SEE B13 FOR DETAILS OF THE DELIVERY STATION.

CALL B14 NOTE

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CALL B30 NOTE

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CALL B31 NOTE

SEE B31 FOR DETAILS OF THE DELIVERY STATION.

PLANT SCHEDULE

CODE	QTY	PLANT NAME	SIZE
01	10	Red Maple	12"
02	10	White Birch	12"
03	10	Green Ash	12"
04	10	Black Birch	12"
05	10	White Birch	12"
06	10	Green Ash	12"
07	10	Black Birch	12"
08	10	White Birch	12"
09	10	Green Ash	12"
10	10	Black Birch	12"

ZONING NOTES AND CALCULATIONS

OVERALL BUILDING AREA: 40,000 SQ. FT.

OVERALL LOT AREA: 100,000 SQ. FT.

OVERALL LOT COVERAGE: 40%.

OVERALL LOT SETBACK: 10 FT.

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OVERALL LOT SIDE SETBACK: 10 FT.

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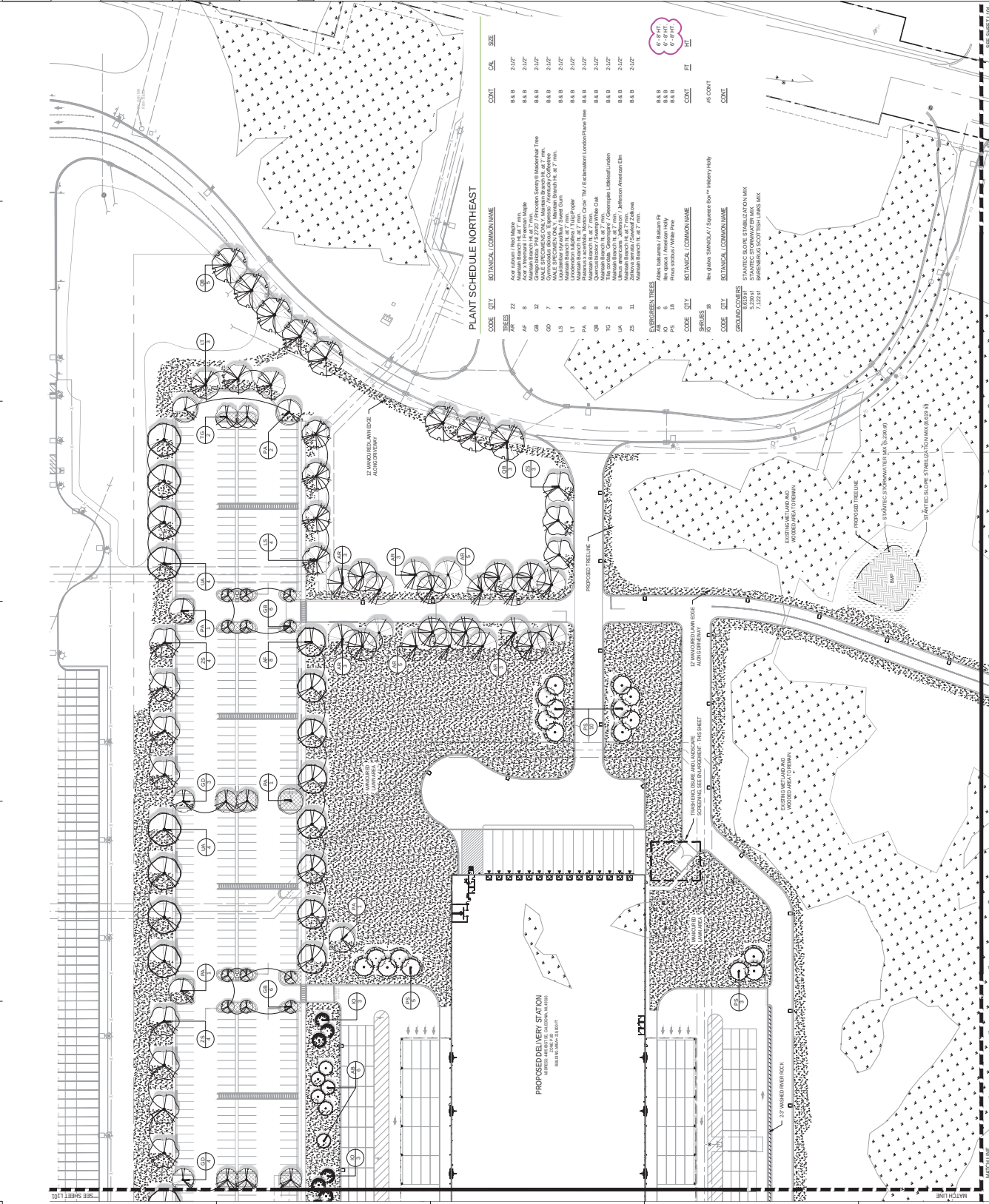
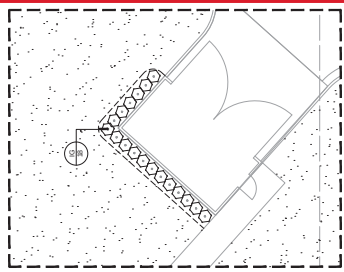
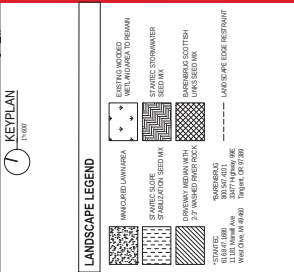
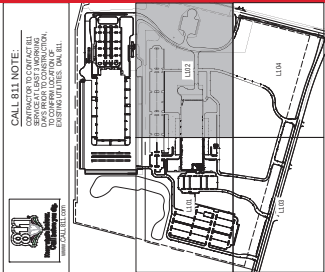
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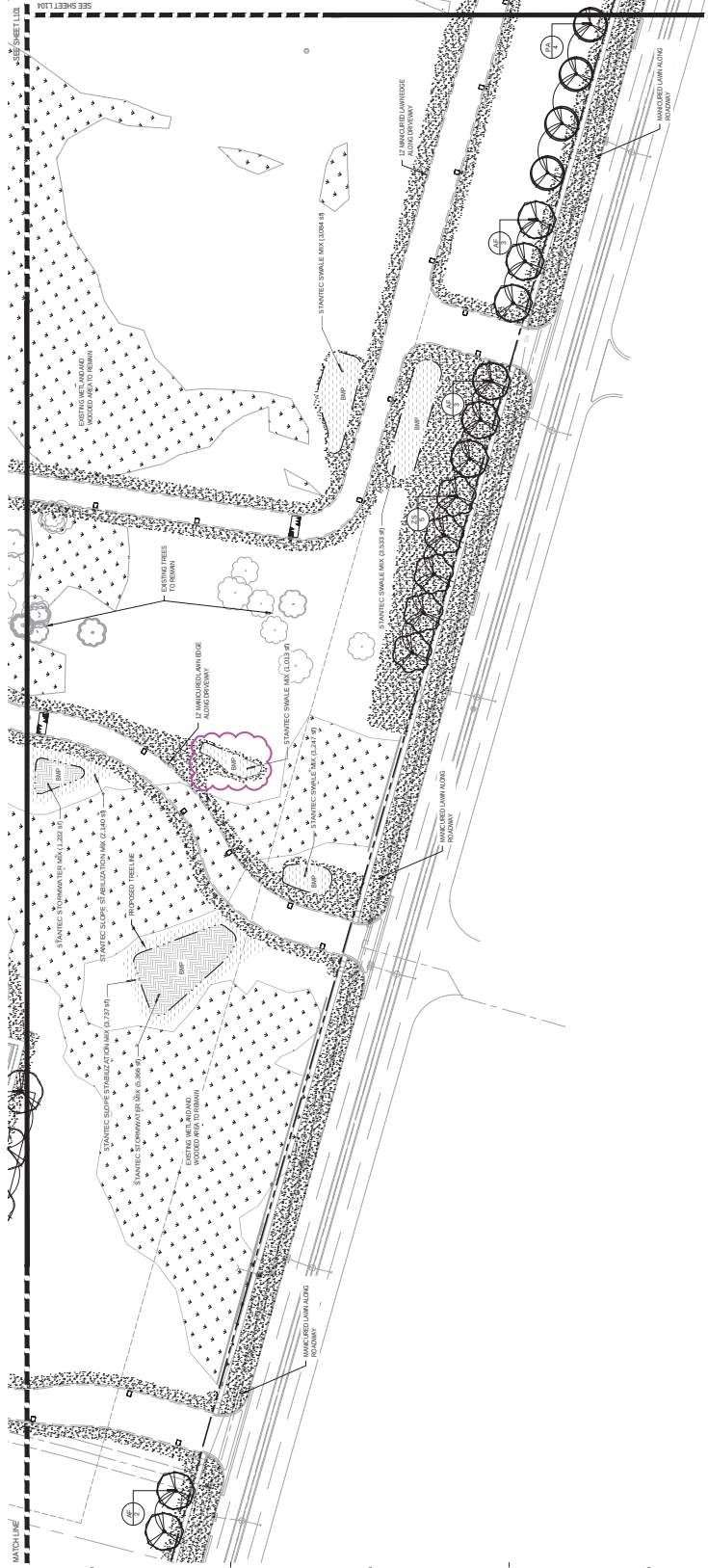
OVERALL LOT FRONT CORNER SETBACK: 10 FT.

OVERALL LOT SIDE CORNER SETBACK: 10 FT.



PLANT SCHEDULE SOUTHWEST

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CA
PA	3	Arceuthobium / Freeman Maple	8.8 B	2.5/2"
PA	3	Malus baccata / Autumn Color Tree	8.8 B	2.5/2"
UA	1	Ulmus americana / American Elm	8.8 B	2.5/2"
25	5	Malus baccata / Autumn Color Tree	8.8 B	2.5/2"
CODE	QTY	BOTANICAL / COMMON NAME	CONT	CA
GROUND COVER		STANTIC SWALE MA (L.03.03.03)	8.8 B	2.5/2"
GROUND COVER		STANTIC SWALE MA (L.03.03.03)	8.8 B	2.5/2"
GROUND COVER		STANTIC SWALE MA (L.03.03.03)	8.8 B	2.5/2"

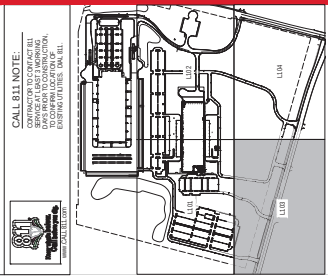


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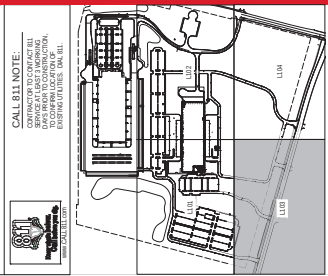
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ISSUANCE OF CDS - STEP BY STEP VIEW



TRAFFIC IMPACT STUDY DELIVERY STATION & SORTATION FACILITY GAINES TOWNSHIP, MICHIGAN

Prepared by:

Progressive Companies
1811 4 Mile Road NE
Grand Rapids, MI 49525

August 2025
Project No. 83460288

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EXECUTIVE SUMMARY

Introduction

A delivery station and sortation facility are being proposed on a vacant parcel located on the north side of 68th Street, west of Patterson Avenue in Gaines Township, Michigan. The sortation facility has already been constructed, but is not currently operating. The delivery station is proposing four (4) new access driveways to 68th Street and the sortation facility has constructed one (1) new access driveway to Patterson Avenue. Three (3) of the proposed driveways to 68th Street will oppose the existing Amazon Fulfillment Center driveways located on the south side of the roadway. The driveway to Patterson Avenue opposes an existing commercial driveway located on the east side of Patterson Avenue. A center left-turn lane and right-turn taper were constructed at the Patterson Avenue driveway, as was recommended in a prior traffic impact study.

The purpose of this traffic impact study was to analyze the potential impacts of the proposed development and identify what physical and/or operational roadway system improvements may be necessary to mitigate existing and/or impacts created by this development's traffic.

Study Area

The study area includes 10 signalized intersections and two (2) stop-controlled intersections as listed below:

- 60th Street at Patterson Avenue
- 60th Street at M-37 (Broadmoor Avenue)
- M-37 (Broadmoor Avenue) at M-6 Eastbound Off-Ramp
- M-37 (Broadmoor Avenue) at M-6 Westbound Off-Ramp
- 68th Street at East Paris Avenue
- 68th Street at West Fulfillment Driveway (Unsignalized)
- 68th Street at Center Fulfillment Driveway (Unsignalized)
- 68th Street at East Fulfillment Driveway
- 68th Street at Patterson Avenue
- 68th Street at M-37 (Broadmoor Avenue)
- M-37 (Broadmoor Avenue) at Crossover North of 68th Street
- M-37 (Broadmoor Avenue) at Crossover South of 68th Street

Data Collection

24-hour turning movement counts at the study area intersections were collected in July 2025 on a typical weekday. Detailed printouts of the count reports are included in the Appendix.

These counts indicated that the typical weekday morning peak hour occurs between 7:30 a.m. to 8:30 a.m. and the typical afternoon peak hour occurs between 4:45 p.m. to 5:45 p.m. However, as discussed later in this report, the analyses performed as part of this study included the A.M. peak, A.M. generator peak, P.M. peak, and P.M. generator peak time periods.

Analysis

Two (2) analysis scenarios were completed for the A.M., A.M. generator, P.M., and P.M. generator peak hours as part of the study as follows:

- Existing Conditions
- Future (2027) Conditions

An annual traffic growth rate of 2% (two percent) was used to estimate growth on study area roadways based on historical growth in the area. This growth rate was applied to the existing traffic volumes to determine the background (2027) traffic volumes.

24-hour trip generation estimates for the proposed facility were provided by the site owner. This data shows the majority of the trips generated by the site will occur during the off peak hours. There are three (3) classifications of trips anticipated to be generated by the facility. These trip types include semi-truck deliveries, employees and managers working within the facility, and delivery drivers.

The site is expected to generate a total (vehicles and trucks) of approximately 292 new vehicle trips during the A.M. peak hour, 417 new vehicles trips during the A.M. generator peak hour, 324 new vehicle trips during the P.M. peak hour, and 966 new vehicles trips during the P.M. generator peak hour. The majority of the trips will be the result of the delivery vehicles, with the delivery drivers arriving at the site in their personal vehicles and departing the site in delivery vehicles within a short timeframe.

The site is anticipated to generate a total of approximately 478 (239 entering, 239 exiting) semi-truck trips during the typical weekday, with the majority of the deliveries occurring during the overnight off peak hours (8:00 p.m. to 6:00 a.m.); although some deliveries may occur throughout the day.

For the existing and future (2027) conditions, capacity analyses were performed at the study area intersections to determine the impacts the site would have on the roadways and intersections within the study area.

Conclusions

Based on the analyses performed as part of this study and the existing infrastructure, the proposed delivery station and sortation facility will have minor impacts to the surrounding roadway network.

It should be noted that extensive capacity improvements were completed as part of the Amazon Fulfillment Center project at many of the intersections within the study area. Therefore, there is a significant amount of capacity available within the study area, which limits the impacts the proposed development has at the study area intersections.

Existing Conditions

The existing conditions analyses show all signalized intersections currently operate at an overall level of service (LoS) "C" or better during all analysis periods. All individual movements at the study area intersections currently operate at a LoS "D" or better during all analysis periods.

Future (2027) Conditions

After completion of the proposed facilities, all signalized intersections are anticipated to continue operating at an overall LoS "C" or better during all analysis periods. Assuming the recommendations listed below are implemented, all individual movements at the study area intersections are anticipated to operate at a LoS "D" or better during all analysis periods, except for the following movement:

- The eastbound right-turn movement from eastbound 60th Avenue onto southbound M-37 is anticipated to operate at a LoS "E" during the afternoon peak hour. This would be considered acceptable as it only occurs during the afternoon peak hour and the anticipated 95th percentile queue does not exceed the dedicated right-turn lane storage.

For inbound traffic entering the site, all left-turn queues at the proposed driveways are anticipated to be less than one (1) vehicle. For outbound traffic exiting the site, all exiting queues are anticipated to be less than one (1) vehicle, except at the proposed signalized east driveway to 68th Street and at the Patterson Avenue driveway. In both cases, the left-turn movement queue is anticipated to be a maximum of five (5) vehicles during any of the analysis periods.

Recommendations

The following recommendations to mitigate the impact of the proposed facilities and improve operations within the study area are as follows:

- The following improvements should be implemented at the existing signalized 68th Street/Amazon Fulfillment Center east driveway:
 - o The southbound approach should include separate left-turn and right-turn lanes with a minimum storage capacity of 100 feet for the left-turn movement.
 - o The pavement markings on the eastbound approach should be modified to include a separate left-turn lane with a minimum storage capacity of 100 feet.
 - o The proposed eastbound left-turn movement should operate as a lagging permissive/protected movement with a flashing yellow arrow to mirror the westbound left-turn operation.
 - o The northbound and southbound left-turn movements would operate as permissive only.
 - o A pedestrian phase and signal indicators should be added for the proposed north leg.
 - o Signal timings and offsets should be optimized based on the traffic volumes at the intersection after the facilities are open and operational.

CHAPTER 1

INTRODUCTION

A delivery station and sortation facility are being proposed on a vacant parcel located on the north side of 68th Street, west of Patterson Avenue in Gaines Township, Michigan. The sortation facility has already been constructed, but is not currently operating. The delivery station is proposing four (4) new access driveways to 68th Street and the sortation facility has constructed one (1) new access driveway to Patterson Avenue. Three (3) of the proposed driveways to 68th Street will oppose the existing Amazon Fulfillment Center driveways located on the south side of the roadway. The driveway to Patterson Avenue opposes an existing commercial driveway located on the east side of Patterson Avenue. A center left-turn lane and right-turn taper were constructed at the Patterson Avenue driveway, as was recommended in a prior traffic impact study.

The purpose of this traffic impact study was to analyze the potential impacts of the proposed development and identify what physical and/or operational roadway system improvements may be necessary to mitigate existing and/or impacts created by this development's traffic. Tasks undertaken to complete the analyses include:

1. **Data Collection.** Applicable information regarding the existing operating conditions of the adjacent roadways was obtained in July 2025. 24-hour turning movement counts were completed at the study area intersections. Information regarding lane configurations, speed limits, traffic controls, and other related data for the study area roadways was also collected.
2. **Background Growth.** An annual background traffic growth rate of 2% (two percent) was applied to the adjusted existing volumes to reflect anticipated non-development traffic increases by the 2027 horizon year (one (1) year).
3. **Trip Generation/Distribution.** The number of trips the proposed development is expected to generate during peak hours was identified based on information provided by the site owner. These trips were then assigned to the adjacent street system based upon the patterns followed by existing traffic and engineering judgment.



Figure 1. Location Map and Study Area

4. **Levels of Service.** Capacity calculations were completed at the study area intersections and site access driveways to identify existing and anticipated future peak hour operational characteristics.
5. **Mitigation.** Roadway/intersection improvements were identified, when applicable, that will enable the adjacent roadways and study area intersections to maintain equal and/or acceptable levels of service under future conditions upon the addition of background traffic growth and/or due to development traffic.

Pre-study coordination was completed with the Michigan Department of Transportation (MDOT) and Kent County Road Commission (KCRC) staff to help identify the required study area, study parameters, and any specific areas of concern. The following chapters outline the results of analyses completed during the study process.

CHAPTER 2

EXISTING CONDITIONS

The first step in the identification of potential traffic impacts is to determine how well the adjacent streets are operating under current conditions. The existing conditions provide a comparison to subsequent future conditions analyses. This chapter summarizes the data collection and existing operating conditions analysis procedures.

Key Study Area Roadways

M-37 (Broadmoor Avenue)

M-37 is a major north-south arterial roadway within the study area under Michigan Department of Transportation (MDOT) operational jurisdiction. M-37 has a boulevard cross section with two (2) travel lanes in each direction. Left turns are prohibited along the corridor, but crossovers are provided to facilitate these movements. M-37 has a speed limit of 55 miles per hour (mph) within the study area. Weekday 24-hour traffic volumes along M-37 north of 68th Street average approximately 30,000 vehicles per day.



Westbound 68th Street approaching East Driveway

68th Street

68th Street is an east-west local roadway under the jurisdiction of the KCRC. Within the study area, it generally has a five-lane cross section west of M-37 with a speed limit of 55 mph. East of M-37, 68th Street narrows to a two-lane cross section, although additional turn lanes are provided at the intersection with M-37. Weekday 24-hour traffic volumes along 68th Street in the vicinity of the site average approximately 9,100 vehicles per day west of Patterson Avenue.



Eastbound 68th Street approaching Rapids Drive

Patterson Avenue

Patterson Avenue is a north-south local roadway under the jurisdiction of KCRC. Patterson Avenue generally has a two-lane cross section within the study area, although additional turn lanes are provided at the signalized intersections. The speed limit along Patterson Avenue is 55 mph. Weekday 24-hour traffic volumes along Patterson Avenue in the vicinity of the site average approximately 6,200 vehicles per day south of 68th Street.



Southbound Patterson Avenue at 68th Street

Existing Intersections

The study area includes 10 signalized intersections and two (2) stop-controlled intersections, as listed in Table 1.

Table 1. Existing Intersections

Intersection	Traffic Control	Cycle Length		
		A.M.	P.M.	Off Peak (A.M. & P.M. Gen)
60th Street / Patterson Avenue	Signal	80	80	80
M-37 / 60th Street	Signal	100	100	80
M-37 / M-6 Westbound Off Ramp	Signal	100	100	80
M-37 / M-6 Eastbound Off Ramp	Signal	100	100	80
M-37 / Xover North of 68th Street	Signal	100	100	80
M-37 / 68th Street	Signal	100	100	80
M-37 / Xover South of 68th Street	Signal	100	100	80
68th Street / East Paris Avenue	Signal	50	50	50
68th Street / Rapids Drive	Two-Way Stop	-	-	-
68th Street / Existing Amazon Fulfillment Center Driveway	Two-Way Stop	-	-	-
68th Street / Existing Amazon Fulfillment Center East Driveway	Signal	90	90	70
68th Street / Patterson Avenue	Signal	90	90	70

Source: KCRC and MDOT, August 2025

Data Collection

24-hour turning movement counts at the study area intersections were collected in July 2025 on a typical weekday. Detailed printouts of the count reports are included in the Appendix.

These counts indicated that the typical weekday morning peak hour occurs between 7:30 a.m. to 8:30 a.m. and the typical afternoon peak hour occurs between 4:45 p.m. to 5:45 p.m. However, as discussed later in this report, the analyses performed as part of this study included the A.M. peak, A.M. generator peak, P.M. peak, and P.M. generator peak time periods.

Figure 2 shows the existing A.M. and A.M. generator peak hour volumes at the study area intersections, while Figure 3 shows the existing afternoon and afternoon generator peak hour volumes.

Existing Conditions Capacity Analysis

Intersection “level of service” (LoS) calculations were completed to evaluate the current operational efficiency of the study area intersections. These calculations were completed using techniques outlined in the *Highway Capacity Manual*, published by the Transportation Research Board. *Synchro*® traffic analysis software, version 11, based on the *Highway Capacity Manual* methodologies, was used in the analysis.

Levels of service at signalized and unsignalized intersections relate to the delay, traffic volumes, and intersection geometry. Levels of service are expressed in a range from “A” to “F,” with “A” denoting the highest or best, operating conditions. Generally, a LoS “D” rating is considered the minimum acceptable service level for signalized and unsignalized intersections in most areas, although a LoS “E” can be deemed as acceptable at times in urban areas or during the peak hours. The criteria for determining the LoS at signalized and unsignalized intersections are outlined in the Appendix of this report.

As mentioned previously, the analyses completed as part of this study included the peak time periods listed below. The traffic volumes used for the analyses include the peak one-hour traffic volumes within each of the listed peak time periods:

- A.M. Peak 7:00 a.m. – 9:00 a.m.
- A.M. Generator Peak 10:30 a.m. – 11:30 a.m.
- P.M. Peak 4:00 p.m. – 6:00 p.m.
- P.M. Generator Peak 10:00 p.m. – 11:00 p.m.

Table 2 shows the capacity analysis results and overall intersection levels of service for the study area intersections. All signalized intersections currently operate at an overall LoS “C” or better during all analysis periods. The critical or worst movement at the unsignalized intersections within the study area currently operate at a LoS “C” or better during all analysis periods. Copies of the *Synchro*® analyses are included in the Appendix.

Table 2. Existing Levels of Service and Delay

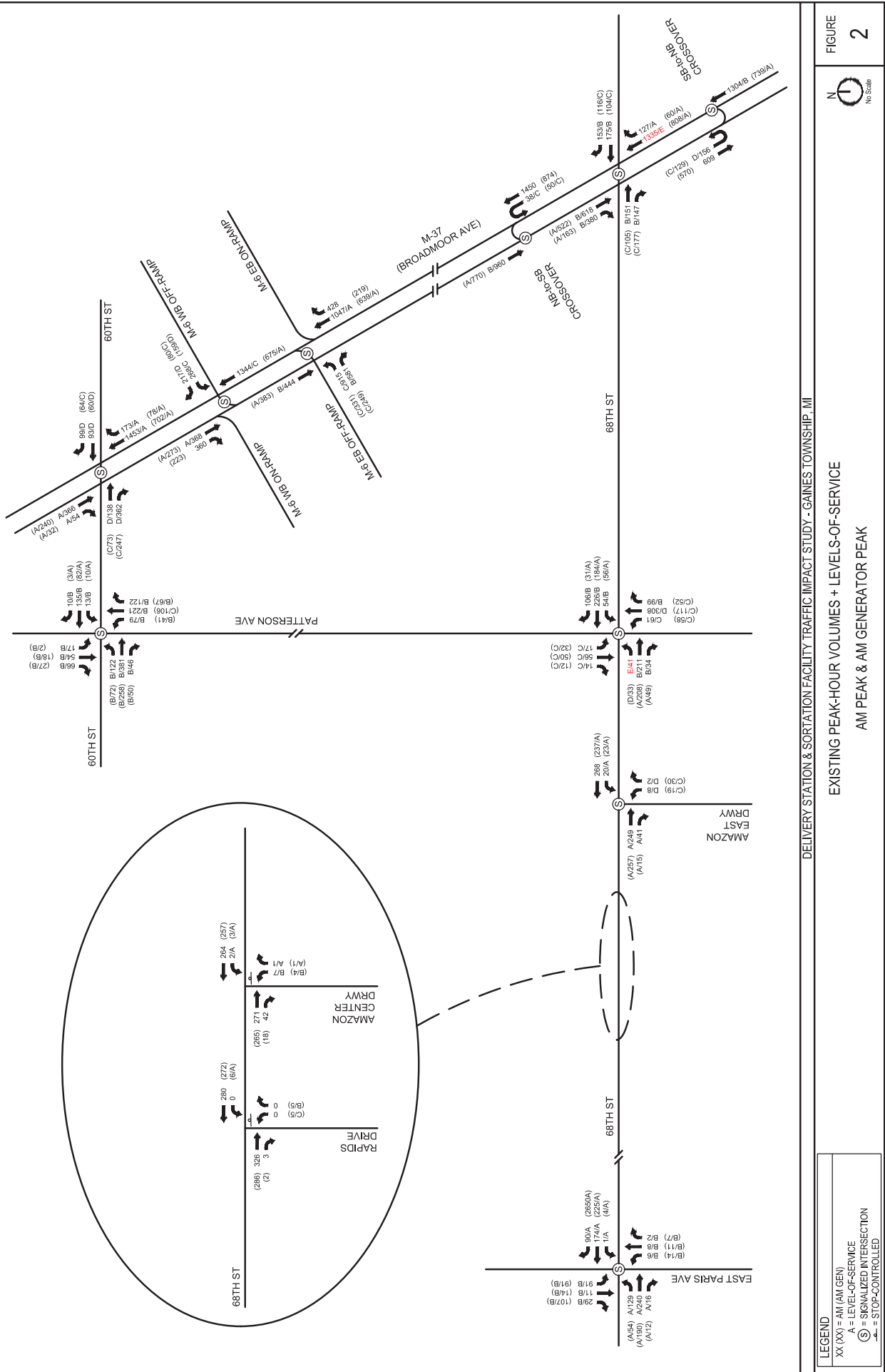
Intersection	Existing Conditions							
	A.M.		A.M. Gen		P.M.		P.M. Gen	
	LoS	Delay(s)	LoS	Delay(s)	LoS	Delay(s)	LoS	Delay(s)
60th Street / Patterson Avenue	B	15.9	B	13.2	B	17.1	B	12.4
M-37 / 60th Street	A	5.9	A	5.5	B	11.0	A	7.2
M-37 / M-6 Westbound Off Ramp	C	25.2	B	13.6	B	18.9	B	13.1
M-37 / M-6 Eastbound Off Ramp	B	19.6	B	18.3	C	25.2	B	18.1
M-37 / Xover North of 68th Street	B	11.3	A	6.3	B	12.5	A	8.1
M-37 / 68th Street	B	11.7	B	10.5	B	16.6	B	10.2
M-37 / Xover South of 68th Street	B	16.9	B	10.4	B	18.4	A	7.3
68th Street / East Paris Avenue	B	10.3	B	10.6	B	12.9	A	9.2
68th Street / Rapids Drive ¹	A	8.6	C	13.5	C	15.6	A	11.2
68th Street / Existing Amazon Fulfillment Center Driveway ¹	B	11.9	B	12.2	C	18.8	A	9.9
68th Street / Existing Amazon Fulfillment East Driveway	A	4.8	C	31.4	A	8.6	A	6.4
68th Street / Patterson Avenue	C	24.9	B	16.8	C	32.7	B	13.8

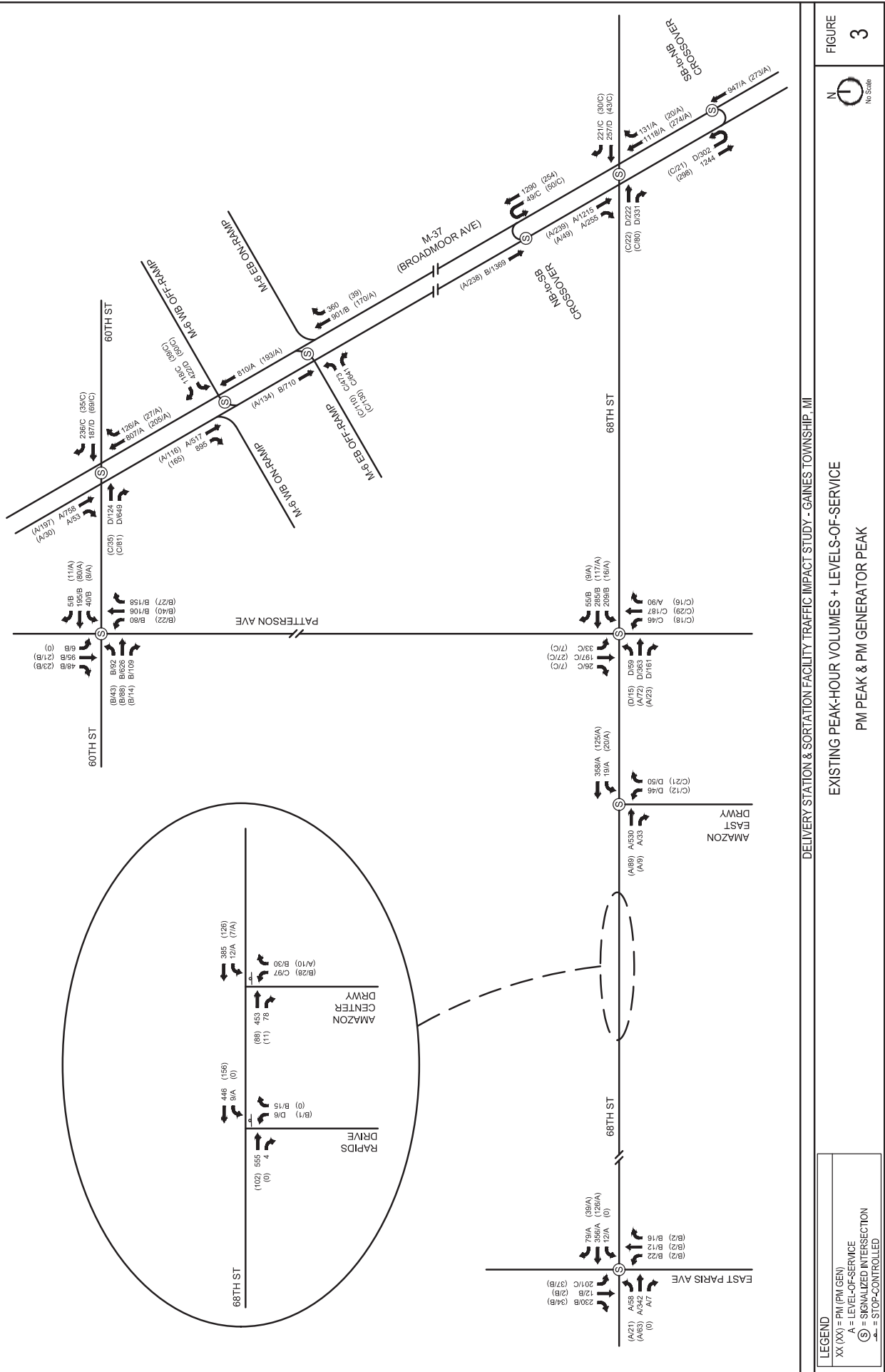
¹Unsignalized intersection, critical/worst movement(s) shown

Source: Progressive Companies, August 2025

Figure 2 shows the existing A.M. and A.M. generator peak hour levels of service for all individual movements at the study area intersections, while Figure 3 shows the existing P.M. and P.M. generator peak hour levels of service. As shown in Figures 2 and 3, all individual movements at the study area intersections currently operate at a LoS “D” or better during all analysis periods, except for the following movement:

- The eastbound left-turn lane on 68th Street at Patterson Avenue currently operates at a LoS “E” for the A.M. peak period. This delay should be considered acceptable since it only occurs in the A.M. peak period and 95th percentile queue lengths are less than three (3) car lengths.





CHAPTER 3

FUTURE (2027) CONDITIONS

The purpose of this chapter is to summarize the anticipated future (2027) traffic conditions within the study area with background traffic growth and proposed development traffic in place. These analyses provide the before/after comparison of future conditions and help define the timing and applicability of any potential roadway improvements necessary to mitigate the impact of the proposed development.

Background Traffic Growth

The existing peak hour volumes within the study area were increased by 2% (two percent) annually to account for background traffic growth based on information provided by KCRC and MDOT. As the analysis year for this study is 2027 (two (2) years), the adjusted existing traffic volumes were increased by 4% (four percent). There are no known future development projects within this study area that would be completed by 2027. A separate analysis of the background traffic volumes was not completed as the results would largely be the same as existing conditions.

Proposed Development

A delivery station and sortation facility are being proposed on a vacant parcel located on the north side of 68th Street, west of Patterson Avenue in Gaines Township, Michigan. The sortation facility has already been constructed, but is not currently operating. The delivery station is proposing four (4) new access driveways to 68th Street and the sortation facility has constructed one (1) new access driveway to Patterson Avenue. Three (3) of the proposed driveways to 68th Street will oppose the existing Amazon Fulfillment Center driveways located on the south side of the roadway. The driveway to Patterson Avenue opposes an existing commercial driveway located on the east side of Patterson Avenue. A center left-turn lane and right-turn taper were constructed at the Patterson Avenue driveway, as was recommended in a prior traffic impact study.

The operation of the delivery station will include semi-truck delivery of packages to the site from various regional sortation facilities, primarily in the off peak overnight hours for sorting. These packages will be sorted based on the delivery address and placed on delivery vehicles to be distributed to customers the following day.

The operation of the sortation facility will include semi-truck delivery of packages to be sorted based on delivery zip code. These packages will be reloaded onto semi-trucks based on zip code for delivery to various distribution centers. While there will be some interaction between the sortation facility and distribution center, the majority of the semi-truck traffic to/from the sortation facility will be to other regional distribution centers.

Site Access

The site proposes four (4) new access driveways to 68th Street and one (1) new access driveway to Patterson Avenue, as listed below. All proposed driveways include separate left-turn and right-turn lanes approaching 68th Street and Patterson Avenue. The proposed site plan shows the general traffic flow for all users within the site.

- The proposed west driveway will serve delivery drivers and delivery vehicles to/from the delivery station.
- The proposed driveway opposing Rapids Drive will serve employees working within the delivery station.
- The proposed center driveway will oppose the existing Amazon Fulfillment Center driveway and serve delivery drivers and delivery vehicles to/from the delivery station.
- The proposed east driveway will oppose the existing Amazon Fulfillment Center east driveway and form the fourth leg of the existing signalized intersection; This driveway will serve delivery drivers and delivery vehicles to/from the delivery station.
- The existing driveway to Patterson Avenue will serve both semi-truck and employee traffic to/from the sortation facility.

Trip Generation

24-hour trip generation estimates for the proposed delivery station and sortation facility were provided by the site owner. This data shows the majority of the trips generated by the site will occur during the off peak hours. There are three (3) classifications of trips anticipated to be generated by the proposed facilities. These trip types include semi-truck deliveries, employees and managers working within the facility, and delivery drivers. A detailed breakdown of the anticipated trips for each facility, by type and time of day, is included in the Appendix.

Delivery Station

The delivery station is anticipated to generate approximately 92 (46 entering, 46 exiting) semi-truck trips during the typical day, with the majority of the deliveries occurring during the overnight off peak hours (8:00 p.m. to 6:00 a.m.), although some deliveries may overlap with the typical morning and afternoon peak hours.

The primary shift of employees working within the delivery station arrive at the site in the overnight hours and depart in the early afternoon. Smaller shifts of employees work throughout the typical weekday; however, almost all employee trips entering and exiting the site occur outside of the typical weekday morning (7:00 a.m. to 9:00 a.m.) and afternoon (4:00 p.m. to 6:00 p.m.) peak hours.

The largest number of trips generated by the delivery station throughout the day is from the delivery drivers. These trips include the delivery drivers arriving at the site in their personal vehicles and departing the site in delivery vehicles within a short timeframe. These peak time periods occur between 9:30 a.m. and 12:00 p.m. and again at 8:30 p.m. to 10:30 p.m. A lesser peak of delivery driver trips also occurs during the afternoon from 4:00 p.m. to 5:30 p.m.

For the A.M. generator time period from 9:30 a.m. to 12:00 p.m., the site generates a peak from 10:30 a.m. to 11:30 a.m. Similarly, the evening time period from 9:00 p.m. to 10:00 p.m. generates a similar peak of delivery vehicles. Table 3 summarizes the anticipated trip generation for semi-trucks, employees, and delivery vehicles anticipated to occur during the analysis time periods for the delivery station.

Table 3. Delivery Station Trip Generation Summary

Peak Hour	Employee Vehicle Trips ¹		Delivery Vehicle Trips ²		Trucks ³		Total		
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Total
A.M. Peak	12	0	0	0	4	4	16	4	20
A.M. Generator	0	0	160	160	0	2	160	162	322
P.M. Peak	92	132	0	0	0	0	92	132	224
P.M. Generator	0	6	398	398	2	2	400	406	806

¹Employees working within the facility

²Delivery drivers arriving/departing site in personal vehicles and arriving/departing site in delivery vehicles

³Semi-truck trips to/from regional distribution center

Source: Ryan Companies, August 2025

Sortation Facility

The sortation facility is anticipated to generate approximately 386 (193 entering, 193 exiting) semi-truck trips during the typical day, with the majority of the deliveries occurring during the overnight off peak hours (8:00 p.m. to 6:00 a.m.), although some deliveries occur throughout the day.

Several shifts of employees working within the sortation facility arrive/depart the site during the typical weekday morning and afternoon peak hours as well as during the A.M. generator and P.M. generator of the site.

Table 4 summarizes the anticipated trip generation for semi-trucks and employees anticipated to occur during the analysis time periods for the sortation facility.

Table 4. Sortation Facility Trip Generation Summary

Peak Hour	Employee Vehicle Trips ¹		Trucks ²		Total		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
A.M. Peak ³	130	130	5	7	135	137	272
A.M. Generator ³	86	0	5	4	91	4	95
P.M. Peak	0	86	8	6	8	92	100
P.M. Generator ³	130	0	15	15	145	15	160

¹Employees working within the facility

²Semi-truck trips to/from regional distribution center

³Combines entering and exiting peak volumes from A.M., A.M. generator, and P.M. generator peak time periods

Source: Ryan Companies, August 2025

Total Trip Generation

Table 5 shows the total trip generation estimates for the site during all analysis periods.

Table 5. Total Trip Generation Summary

Peak Hour	Employee Vehicle Trips		Delivery Vehicle Trips		Trucks		Total		
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Total
A.M. Peak	142	130	0	0	9	11	151	141	292
A.M. Generator	86	0	160	160	5	6	251	166	417
P.M. Peak	92	218	0	0	8	6	100	224	324
P.M. Generator	130	6	398	398	17	17	545	421	966

Source: Ryan Companies, August 2025

Trip Distribution

The directional distribution of the employee and delivery vehicle trips was based upon existing travel patterns within the study area and engineering judgment, particularly the existing distribution of the employee traffic to/from the Amazon Fulfillment Center site located on the south side of 68th Street. It was assumed that the proposed distribution of employee and delivery traffic to/from the proposed site would be similar. Directional distribution to/from the proposed facility for site-generated employee and delivery vehicle trips is expected to be approximately as follows:

To/from M-6 East	8%	To/from 68th Street West	38%
To/from M-6 West	15%	To/from 68th Street East	2%
To/from M-37 North	12%	To/from East Paris Avenue North	12%
To/from M-37 South	10%	To/from Patterson Avenue South	3%

All employees to/from the sortation facility will enter/exit the proposed site at the driveway along Patterson Avenue; therefore, a slight adjustment to the trip distribution was made for these employee trips. As opposed to 50% (fifty percent) of the trips to/from the 68th Street/East Paris Avenue intersection, it was assumed 25% (twenty-five percent) of these trips would be along 68th Street west of East Paris Avenue, while the other 25% (twenty-five percent) would travel along 60th Street to/from Patterson Avenue to enter/exit the site.

For both the delivery station and sortation facility, almost all semi-truck traffic will be to/from M-6 with an approximate 50/50 east/west split. For incoming semi-truck trips, the most likely route will be taking M-37 south from the M-6 interchange to 68th Street and to the site. Outbound trucks will take Patterson Avenue to the north, 60th Street to M-37, and then south on M-37 to the M-6 on ramps.

Based upon the above distribution patterns for site trips and intended use of each driveway, the anticipated peak hour generated traffic was assigned to the existing roadway network and study area intersections. Figure 4 shows the total anticipated A.M. and A.M. generator peak hour trips for site generated traffic upon full completion and occupancy of the proposed facilities, while Figure 5 shows the total P.M. and P.M. generator peak hour trips for site generated traffic.

The anticipated site trips were added to the background (2027) peak hour volumes to depict the estimated total future (2027) volumes during the A.M., A.M. generator, P.M., and P.M. generator peak hours. Figure 6 shows the total anticipated future (2027) A.M. and A.M. generator volumes, while Figure 7 shows the total anticipated future (2027) P.M. and P.M. generator volumes.

Future (2027) Improvements

68th Street at Existing Amazon Fulfillment Center East Driveway

As the proposed driveway to the site will form the fourth leg of the existing signalized intersection, signal timing adjustments were made at the intersection as follows:

- The proposed eastbound left-turn movement was assumed to operate as a lagging permissive/protected movement with a flashing yellow arrow, to mirror the westbound left-turn operation.
- The northbound and southbound left-turn movements would operate as permissive only.
- A pedestrian phase was added for the proposed north leg.
- Signal timings and offsets were optimized while maintaining the existing cycle length during each of the analysis periods.

Turn Lane Warrants

For the proposed driveways along 68th Street, the existing two-way left-turn lane will serve as left-turn lanes at each of the proposed driveways. Right-turn lane warrants were not applied to the 68th Street driveways as the capacity analyses did not show right-turn lanes were necessary to meet level of service criteria.

Future (2027) Capacity Analysis

Intersection level of service calculations were completed to evaluate the future (2027) peak hour operating conditions at the study area intersections for all analysis periods, assuming the implementation of the improvements listed in the previous section.

Table 6 shows the future (2027) capacity analysis results and intersection levels of service for the study area intersections. All signalized intersections are anticipated to continue operating at an overall LoS "C" or better during all analysis periods. Copies of the *Synchro*® analyses are included in the Appendix.

Figure 6 shows the future (2027) A.M. and A.M. generator peak hour levels of service for all individual movements at the study area intersections, while Figure 7 shows the future (2027) P.M. and P.M. generator peak hour levels of service. As shown in Figures 6 and 7, all individual movements at the study area intersections are anticipated to operate at a LoS "D" or better during all analysis periods, except for the following movement:

- The eastbound right-turn movement from eastbound 60th Avenue onto southbound M-37 is anticipated to operate at a LoS "E" during the P.M. peak hour. This would be considered acceptable as it only occurs during the P.M. peak hour and the anticipated 95th percentile queue does not exceed the dedicated right-turn lanes storage.

Table 6. Future (2027) Levels of Service and Delay

Intersection	Future (2027) Conditions							
	A.M.		A.M. Gen		P.M.		P.M. Gen	
	LoS	Delay(s)	LoS	Delay(s)	LoS	Delay(s)	LoS	Delay(s)
60th Street / Patterson Avenue	B	16.2	B	13.9	B	17.4	B	14.8
M-37 / 60th Street	A	6.0	A	5.5	B	11.1	B	10.9
M-37 / M-6 Westbound Off Ramp	C	25.6	B	14.5	B	19.7	B	16.2
M-37 / M-6 Eastbound Off Ramp	C	20.1	B	18.4	C	25.9	B	17.7
M-37 / Xover North of 68th Street	B	11.7	A	7.4	B	13.9	B	9.8
M-37 / 68th Street	B	12.1	B	10.8	B	17.1	B	12.7
M-37 / Xover South of 68th Street	B	17.2	B	11.0	B	19.9	A	9.7
68th Street / East Paris Avenue	B	10.4	A	10.8	B	13.6	A	9.8
68th Street / Rapids Drive ^{1,2}	-	-	B	14.0	B	14.9	-	-
68th Street / Existing Amazon Fulfillment Center Driveway ¹	B	11.3	B	13.1	C	15.9	B	13.5
68th Street / Existing Amazon Fulfillment Center East Driveway	A	3.1	A	7.9	A	7.3	B	10.1
68th Street / Patterson Avenue	C	26.1	B	17.5	C	26.6	B	17.0
68th Street / Proposed West Driveway ^{1,2}	-	-	B	10.4	A	0.0	B	10.5
Patterson Avenue / Proposed Driveway ¹	C	17.0	B	11.6	C	11.6	B	11.6

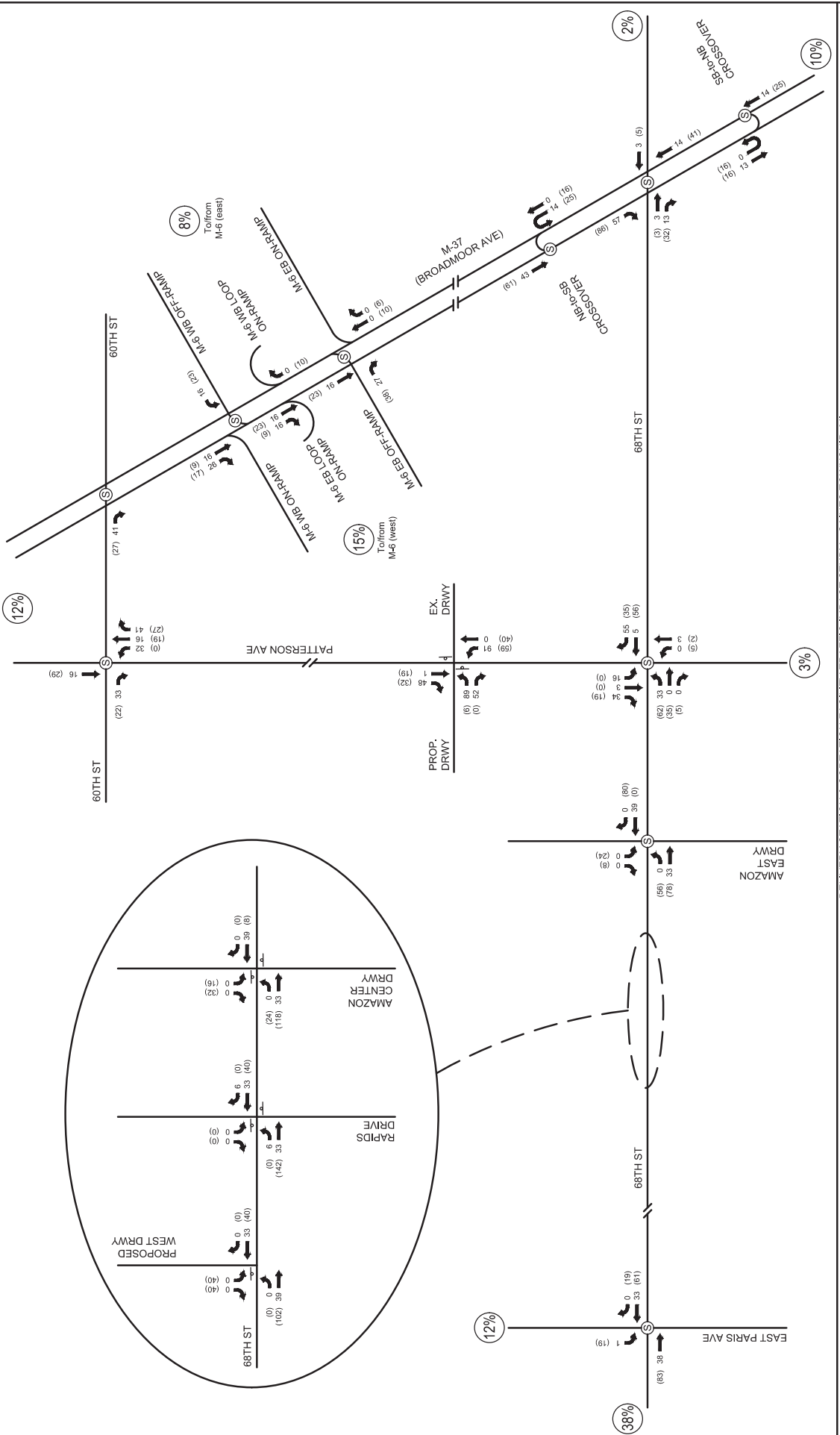
¹Unsignalized intersection, critical/worst movement(s) shown

²No traffic anticipated to exit the Proposed West Driveway during A.M. peak hour

Source: Progressive Companies, August 2025

In addition to reviewing the anticipated delay at the study area intersections, the 95th percentile queues were also reviewed at the study area intersections, with particular attention to the anticipated queues at the proposed site driveways.

For inbound traffic entering the site, all left-turn queues at the proposed driveways are anticipated to be less than one (1) vehicle. For outbound traffic exiting the site, all exiting queues are anticipated to be less than one (1) vehicle, except at the proposed signalized east driveway to 68th Street and at the Patterson Avenue driveway. In both cases, the left-turn movement queue is anticipated to be a maximum of five (5) vehicles during any of the analysis periods.



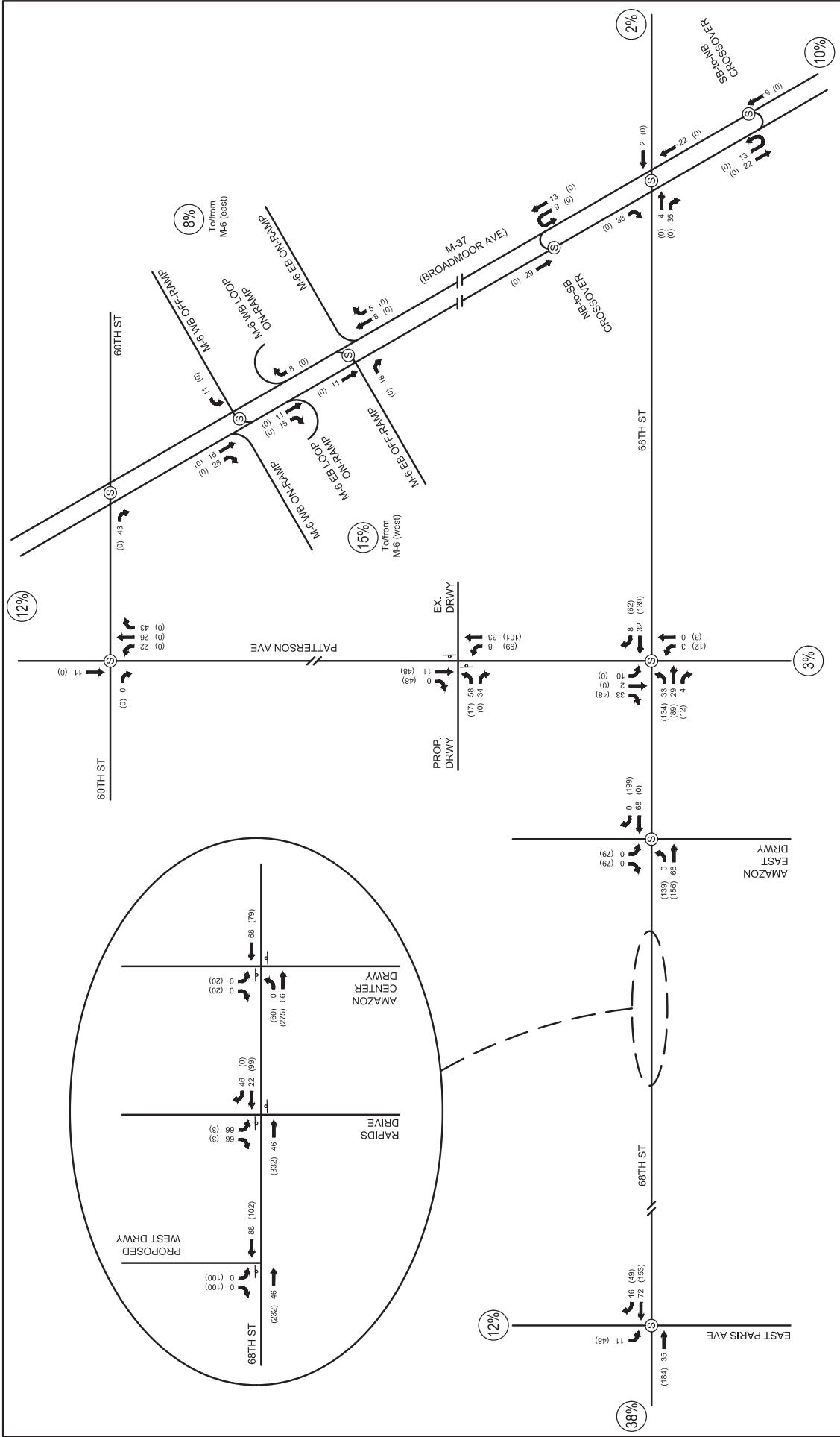
LEGEND
 XX (XX) = AM (AM GEN) GENERATED TRIPS
 (XX) = DISTRIBUTION FOR NEW TRIPS

FIGURE 4

FUTURE (2027) TRIP DISTRIBUTION + TRAFFIC ASSIGNMENT

AM PEAK + AM GENERATOR PEAK

DELIVERY STATION & SORTATION FACILITY TRAFFIC IMPACT STUDY - GAINES TOWNSHIP, MI



DELIVERY STATION & SORTATION FACILITY TRAFFIC IMPACT STUDY - GAINES TOWNSHIP, MI

FUTURE (2027) TRIP DISTRIBUTION + TRAFFIC ASSIGNMENT

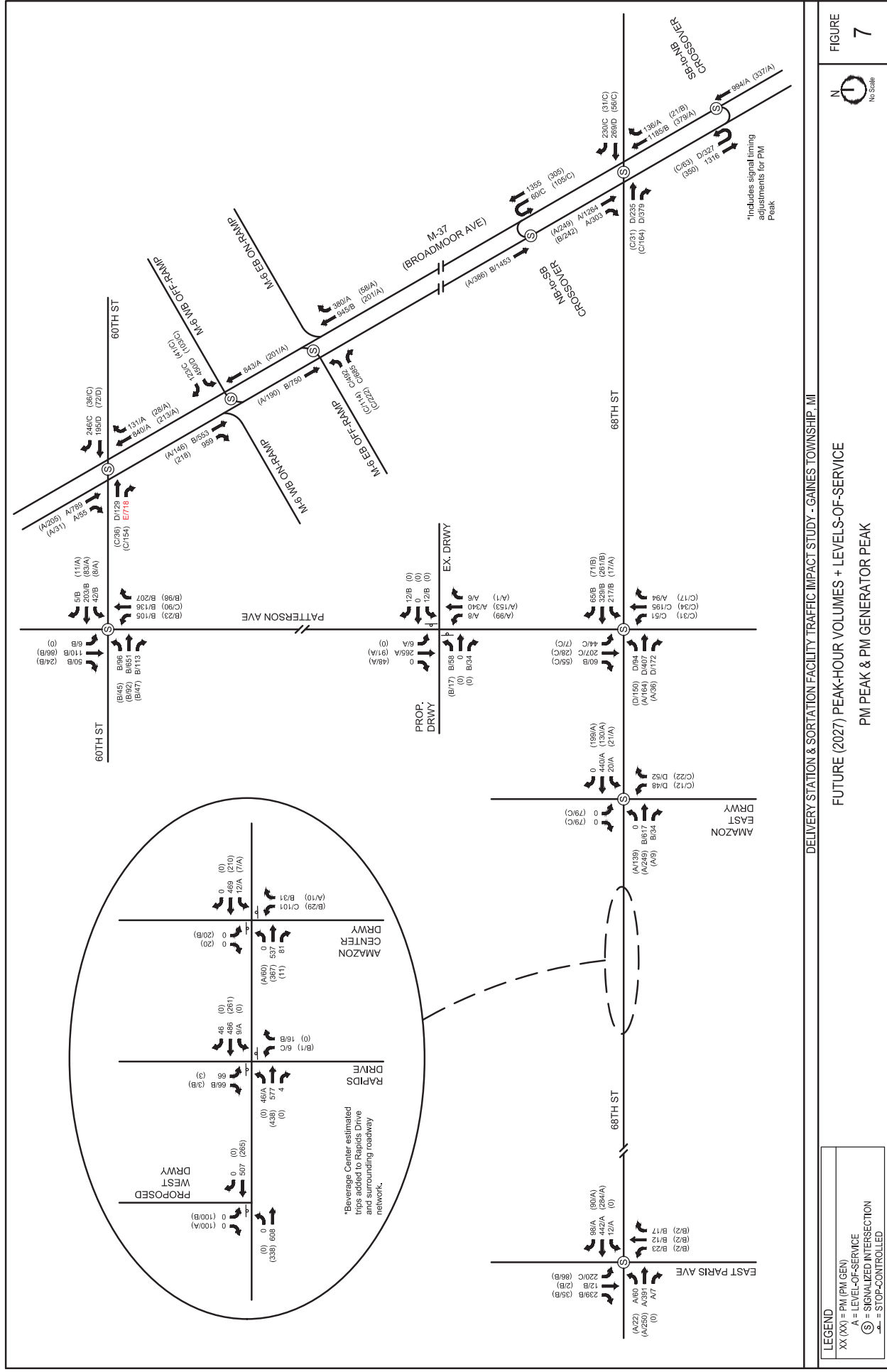
PM PEAK + PM GENERATOR PEAK

LEGEND

XX (XX) = PM (PM GEN) GENERATED TRIPS

(XX) = DISTRIBUTION FOR NEW TRIPS

FIGURE 5



CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

The chapter summarizes the results of the analyses performed as part of the study. Recommendations to improve the surrounding roadway network are also presented.

Conclusions

Based on the analyses performed as part of this study and the existing infrastructure, the proposed delivery station and sortation facility will have minor impacts to the surrounding roadway network.

It should be noted that extensive capacity improvements were completed as part of the Amazon Fulfillment Center project at many of the intersections within the study area. Therefore, there is a significant amount of capacity available within the study area, which limits the impacts the proposed development has at the study area intersections.

Existing Conditions

The existing conditions analyses show all signalized intersections currently operate at an overall level of service (LoS) "C" or better during all analysis periods. All individual movements at the study area intersections currently operate at a LoS "D" or better during all analysis periods.

Future (2027) Conditions

After completion of the proposed facilities, all signalized intersections are anticipated to continue operating at an overall LoS "C" or better during all analysis periods. Assuming the recommendations listed below are implemented, all individual movements at the study area intersections are anticipated to operate at a LoS "D" or better during all analysis periods, except for the following movement:

- The eastbound right-turn movement from eastbound 60th Avenue onto southbound M-37 is anticipated to operate at a LoS "E" during the afternoon peak hour. This would be considered acceptable as it only occurs during the afternoon peak hour and the anticipated 95th percentile queue does not exceed the dedicated right-turn lane storage.

For inbound traffic entering the site, all left-turn queues at the proposed driveways are anticipated to be less than one (1) vehicle. For outbound traffic exiting the site, all exiting queues are anticipated to be less than one (1) vehicle, except at the proposed signalized east driveway to 68th Street and at the Patterson Avenue driveway. In both cases, the left-turn movement queue is anticipated to be a maximum of five (5) vehicles during any of the analysis periods.

Recommendations

The following recommendations to mitigate the impact of the proposed facilities and improve operations within the study area are as follows:

- The following improvements should be implemented at the existing signalized 68th Street/Amazon Fulfillment Center east driveway:
 - o The southbound approach should include separate left-turn and right-turn lanes with a minimum storage capacity of 100 feet for the left-turn movement.
 - o The pavement markings on the eastbound approach should be modified to include a separate left-turn lane with a minimum storage capacity of 100 feet.
 - o The proposed eastbound left-turn movement should operate as a lagging permissive/protected movement with a flashing yellow arrow to mirror the westbound left-turn operation.
 - o The northbound and southbound left-turn movements would operate as permissive only.
 - o A pedestrian phase and signal indicators should be added for the proposed north leg.
 - o Signal timings and offsets should be optimized based on the traffic volumes at the intersection after the facilities are open and operational.

TECHNICAL APPENDIX

DELIVERY STATION & SORTATION FACILITY TRAFFIC IMPACT STUDY

- **Level of Service Definitions**
- **Glossary**
- **Site Plan**
- **Traffic Count Data**
- **Trip Generation Data**
- **Existing Synchro Analysis Results**
- **Future (2027) Synchro Analyses Results**

Level of Service Definitions

Signalized Intersections

Level of Service A:	Describes operations with very low average stopped delay, i.e., less than 10.0 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
Level of Service B:	Describes operations with an average stopped delay in the range of 10.0 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
Level of Service C:	Describes operations with an average stopped delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
Level of Service D:	Describes operations with an average stopped delay in the range of 35.1 to 55.0 seconds per vehicle. At Level of Service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c (volume/capacity) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
Level of Service E:	Describes operations with an average stopped delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay in many cases. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
Level of Service F:	Describes operations with an average stopped delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Level of Service Definitions

Unsignalized Intersections

Level of Service A:	Average delay per vehicles for impeded movements is less than 10 seconds. There is little or no delay with typically low side street and/or main street traffic.
Level of Service B:	Average stopped delays from 10.1 seconds to 15.0 seconds. Short delays, many acceptable gaps in main street traffic stream.
Level of Service C:	Average delay per vehicle ranges from 15.1 to 25.0 seconds. Average traffic delays with frequent gaps in main street traffic.
Level of Service D:	Average delays from 25.1 to 35.0 seconds for impeded movements. Long traffic delays for impeded movements due in part to a limited number of acceptable gaps.
Level of Service E:	Average delays in the 35.1 to 50.0 second range. May experience very long delays for impeded movements with a very small number of acceptable gaps in the traffic stream.
Level of Service F:	Average vehicle delays of over 50.0 seconds. Extreme traffic delays with virtually no acceptable gaps in main street traffic.

Glossary

Approach: A set of lanes accommodating all left-turn, through, and right-turn movements arriving at an intersection from a given direction.

Arterial: Signalized streets that serve primarily through traffic and provide access to abutting properties as a secondary function.

Average Stopped Delay: The total time vehicles are stopped in an intersection approach or lane group during a specified time interval divided by the volume departing from the approach or lane group during the same time period, in seconds per vehicle.

Background Traffic: Traffic volumes that will be on the roadway network without the presence of the proposed development.

Bypass Lane: A one-lane widening on a two-lane roadway that allows through traffic to pass by waiting left-turn traffic.

Capacity: The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions; usually expressed as vehicles per hour or persons per hour.

Conflicting Traffic Volume: The volume of traffic which conflicts with a specific movement at an intersection.

Corridor: A lineal study area aligned with a roadway facility in which traffic, land use, right-of-way, environmental, and other factors are evaluated to determine future transportation facility needs.

Cycle: Any complete sequence of traffic signal indications.

Cycle Length: The total time for a traffic signal to complete one cycle.

Design Hour Volume: The traffic volume for the design hour, usually a forecast of the relevant peak hour volume, in vehicles per hour.

Diverted Linked Trips: Trips from the traffic volume on roadways within the vicinity of the generator but which requires a diversion from that roadway to another roadway to gain access to the site.

Driveway Offset: Distance between driveways on opposite sides of a roadway, measured parallel to roadway.

Freeway: A multi-lane divided highway having a minimum of two lanes for exclusive use of traffic in each direction and full control of access and egress.

Gaps (Critical Gap): The median time headway between vehicles in a major traffic stream which will permit side-street vehicles to cross through or merge with the major traffic stream.

Green Time: The actual length of the "green" indication for a given movement at a signalized intersection.

Level of Service: A qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Operational Analysis: A use of capacity analysis to determine the prevailing level of service on an existing or projected facility, with known or projected traffic, roadway, and control conditions. This analysis can involve a particular location, such as an intersection or a corridor.

Pass-by Trips: Trips made as intermediate stops on the way from an origin to a primary trip destination.

Peak Hour (AM): The one hour period in the morning representing the highest hourly volume of traffic flow on the adjacent public street system.

Peak Hour (PM): The one hour period in the afternoon or evening representing the highest hourly volume of traffic flow on the adjacent public street system.

Peak Hour Factor: The hourly volume during the maximum volume hour of the day divided by four times the peak 15-minute flow within the peak hour; a measure of traffic demand fluctuation within the peak hour.

Phase: The part of the signal cycle allocated to any combination of traffic movements receiving the right-of-way simultaneously during one or more intervals.

Roadway Conditions: Geometric characteristics of a street or highway, including the type of facility, number and width of lanes (by direction), shoulder widths and lateral clearances, design speed, etc.

Service Drive: A roadway (usually private) that provides internal access to two or more uses.

Site Traffic: Existing or projected vehicular traffic generated by the development.

Study Area: The geographic area containing site access points and critical intersections (and connecting highway segments) which are impacted by the site-traffic generated by the development, and should be evaluated.

System Improvements: Added lanes, signal improvements, and other roadway improvements not considered site-related improvements.

Traffic Impact: The adverse impact on intersection Level of Service and/or street and highway safety and operations as determined by the criteria and procedures set forth in this handbook.

Trip (Directional Trip): A single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site.

Trip Distribution: The distribution or assignment of site traffic into site driveways and study area roadways/intersections based upon expected direction of approach and departure.

Unsignalized Intersection: Any intersection not controlled by traffic signals.

Volume: The number of persons or vehicles passing a point on a lane or roadway during some time interval, such as one hour or during an average day.

Volume-to-Capacity Ratio (V/C): The ratio of demand flow rate to capacity for a traffic facility

SITE PLAN

SITE CONCEPT
472 1207



TRAFFIC COUNT DATA



Vriesman
& Korhorn

September 11, 2025
0877

Via Email: dan.wells@gainestownship.org

Dan Wells, Community Development Director
Gaines Charter Township
8555 Kalamazoo Ave SE
Caledonia, MI 49316

RE: Amazon Delivery Station – Site Plan Review
Section 1, Gaines Charter Township

Dear Dan:

We have reviewed the site plans that you submitted for the Amazon Delivery Station that we received on August 28, 2025. We provide the following comments for the consideration of the Applicant and the Planning Commission:

1. We note that the stormwater management design for the site will need to be altered from what was originally approved. The Applicant's Engineer will need to submit a revised stormwater management package with updated calculations outlining the new design for approval prior to the start of construction.
2. We note that much of the public watermain and public sanitary sewer have already been constructed for the development of this building. The existing watermain and sanitary sewer that have been constructed will need to be evaluated, pressure tested, chlorinated and EGLE permits may be needed to complete the public utilities before they are put into service.
3. The Applicant's Engineer will need to submit a complete set of public utility plans with plan and profile views on all the watermain, with updated surface profiles to evaluate watermain depth and layout. Hydrant relocations cannot be evaluated or approved until we have reviewed this information. We note that many hydrants function as air releases along the watermain and cannot be moved. Hydrant relocations will be evaluated on a case-by-case basis considering the existing watermain design and the revised, proposed site layout.
4. The Applicant's Engineer shall clearly show which hydrants are proposed to be abandoned, relocated, or remain in their current location in the construction plan submittal.

Dan Wells, Community Development Director

September 11, 2025

Page 2

If you have any questions, concerns, or require additional information, please do not hesitate to contact our office.

Sincerely,

VK Civil

A handwritten signature in blue ink, appearing to read "Jeff M. Gritter", with a stylized, looping flourish at the end.

Jeffrey M. Gritter, P.E.

JMG/nfb

- c. Bob Terpstra, Supervisor
- Rod Weersing, Township Manager
- Connie Giarmo, Planning Commission Chair
- Dakota Swan, Assistant Planner
- Tracy Lawrence, Water and Sewer Administrator
- John Stuyfzand, Building Inspector
- Ken Van Hall, Gaines Fire Chief
- Pat Quick, Gaines Fire Inspector
- Barry Korhorn, Byron-Gaines Utility Authority
- Kyle Schott, Ryan Companies
- Josh Manion, P.E., Progressive Companies



Gaines Charter Township Fire Department Inspection Report

Plan Review-Site Plan Inspection Result

Inspection Status

Completed

Inspected by

24-53 - Pat Quick

Completed at

09/02/2025

Business Name	Address	Suite	City	Zip
Amazon DGX2 Delivery Station	4495 68th Street Southeast	--	Caledonia	49316

Introduction:

ITEM: REVIEW REQUIREMENTS We have reviewed your plans for the above facility. The following items are noted for compliance with code requirements. Code references to the International Fire Code 2015, as amended, are noted IFC; references to the Michigan/International Building Code are noted MBC; references to National Fire Protection Association codes and standards are noted NFPA. Please review the appropriate code for further details. All construction and processes must meet applicable code provisions.

RESULT: Plan Review

REMARK:

Site plan for new delivery hub.

General Construction and Demolition:

ITEM: REQUIRED ACCESS Approved vehicle access for fire fighting shall be provided to all construction or demolition sites prior to and during the time of construction. Access road(s) (20 feet wide, designed and maintained to support a vehicle weighing 20 tons on a single axle with dual wheels and standard road tires) shall be constructed as required. This road may be gravel, but vehicle access must be maintained and unobstructed at all times. (IFC 501.4, 503.1.1, 503.2.3, 503.4, 3310.1)

RESULT: Plan Review

ITEM: HYDRANTS REQUIRED Construction involving combustible building materials shall not occur until operable fire hydrants are in place within 500 road feet of the furthest point of any building being constructed. (IFC 3312.1)

RESULT: Plan Review

ITEM: FIRE LANE(S) Each side of the building where a fire lane is required must have an entrance as close to the middle as possible. The fire lane must be a minimum of 10 feet and a maximum of 35 feet from the building, and within 100 feet of all fire department connections. (IFC 503.1.1)

RESULT: Plan Review

REMARK:

Fire lanes are adequate, Fire Lane turning radius shall be able to accommodate GTFD Ladder Truck.

ITEM: "NO PARKING - FIRE LANE" SIGNS "No Parking – Fire Lane" signs shall be placed no closer than 25 feet apart or further than 75 feet apart. (IFC 503.1.1) The bottom of the sign must be 6'4" from grade level.

RESULT: Plan Review

ITEM: TEMPORARY ADDRESS NUMBERS DURING CONSTRUCTION Install supplementary Arabic address numerals on a post or mailbox on the same side of the public road as, and directly in front of, the building in such a manner as to be readily visible to occupants of fire department vehicles on the public road. (IFC 505.1.2.4, 505.1.3)

RESULT: Plan Review

REMARK:

Temporary address number shall be placed out at 68th St entrances.

ITEM: TRAFFIC CALMING DEVICES PROHIBITED Traffic calming devices shall be prohibited unless approved by the fire code official (IFC 503.4)

RESULT: Plan Review

Fire Protections Systems:

ITEM: SPRINKLER SYSTEM REQUIRED An approved automatic sprinkler system shall be provided throughout the entire building or in specific portion (s)/area(s) identified by the Fire Marshal in accordance with the code. (IFC 903; NFPA 13)

RESULT: Plan Review

REMARK:

Entire building to be sprinkled.

ITEM: LOCATION OF FIRE DEPARTMENT CONNECTIONS With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of the fire department connections shall be approved by the fire code official. (IFC 912.2)

RESULT: Plan Review

REMARK:

FDC shall be on building and not be a "Remote" style FDC and be Siamese fitting and not a Storz fitting (to be noted in building plan review).

ITEM: VISIBLE LOCATION OF FIRE DEPARTMENT CONNECTIONS Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire code official. (IFC 912.2.1)

RESULT: Plan Review

Closing:

ITEM: SUBJECT TO FIELD INSPECTION There may be additional requirements as a result of conditions found during inspections.

RESULT: Plan Review

Plans Approved or Denied:

ITEM: PLAN APPROVAL Any changes must be reviewed and approved by the Gaines Township Fire Department. All construction and processes must meet applicable codes and standards.

RESULT: Approved

Inspection Signatures

Inspector Signature



24-53 - Pat Quick
Fire Marshal
Deputy Chief

--

pat.quick@gainestownship.org

Gaines Charter Township

Planning Commission Memo

Meeting Date: September 25th, 2025

AGENDA ITEM: VI.3.a

PROPOSED REQUEST: Special Use Permit

ADDRESS: 3429 Loretta View SE

PARCEL NUMBER: 41-22-14-100-058

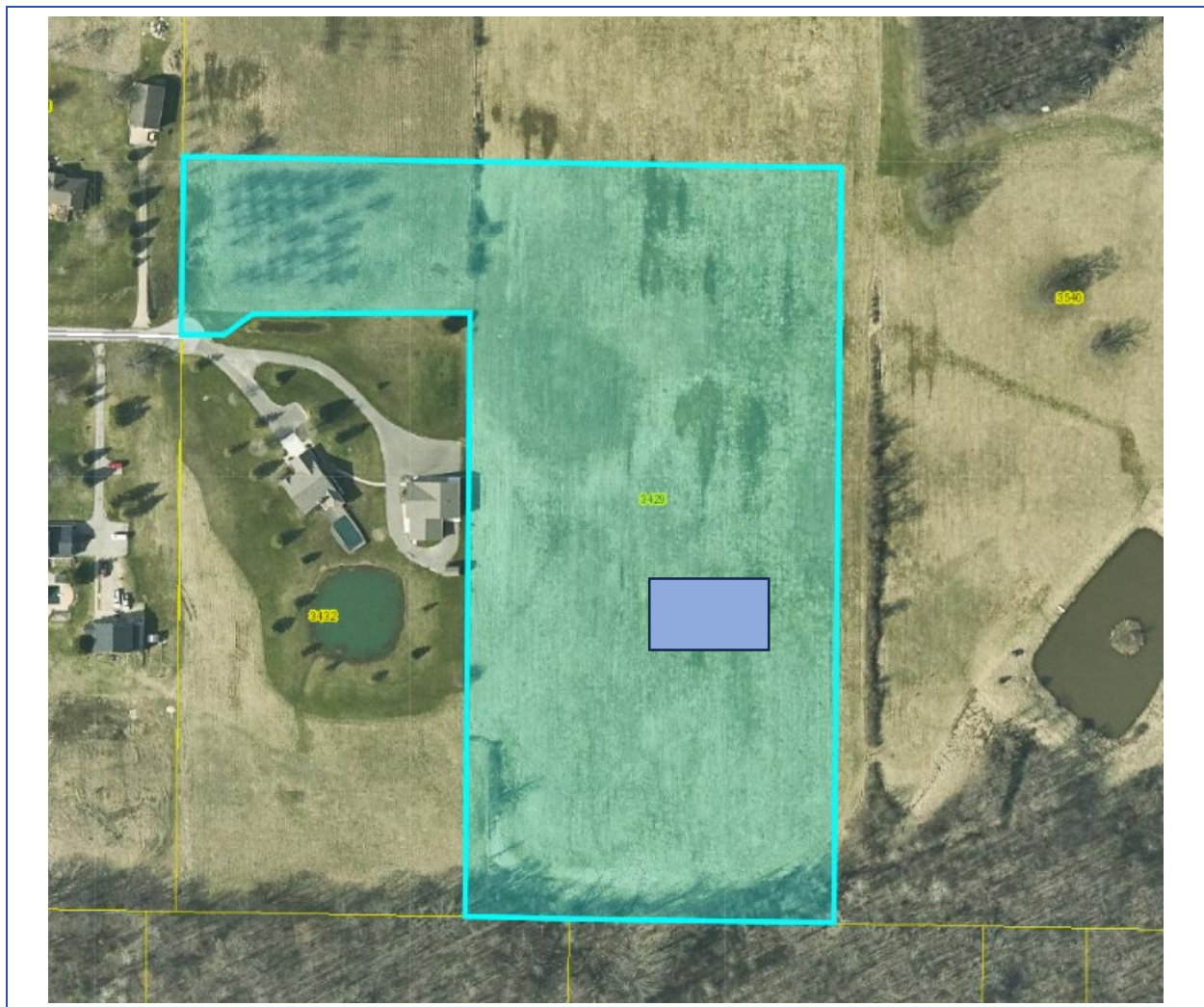
FILE NUMBER: 250625BM

APPLICANT: Brad Miedema

PROPERTY ZONING DISTRICT:
Agricultural/Rural Residential

PROPERTY SIZE: 9.9 Acres

REPORT BY: Dan Wells, Community
Development Director



OVERVIEW

The applicant is requesting a Special Use Permit to allow construction of an 85' x 120' building (10,200 square feet) in the Agricultural-Rural Residential zoning district. The building is intended to be used for private indoor recreation and storage purposes, specifically for a indoor baseball, basketball half court, gymnastics room, weight room, cold storage, and sauna. And upper floor includes a kitchen area and golf simulator.

The applicant had previously requested a 100' x 150' building (15,000 square feet) but has scaled the proposed building back, reducing it by approximately 1/3rd.

Based on the zoning ordinance, the property is limited to 2,400 SF of accessory buildings per acre, plus 500 SF per acre above the first, with a maximum of 5,000 SF by-right. In this instance, the applicant is requesting double the maximum of 5,000 SF, thus the request for a special use permit.

Surrounding zoning:

	NORTH: Agricultural-Rural Residential	
WEST: Agricultural-Rural Residential	SUBJECT PARCEL	EAST: Agricultural-Rural Residential
	SOUTH: Agricultural-Rural Residential	

STANDARDS OF REVIEW

The request has been reviewed using the applicable review standards of Section 27.40 "Special Land Use Approval Standards" and the specific standards of Section 18.20 "Accessory Buildings, Structures and Uses".

Section 27.40 Special Land Use Approval Standards

Special land uses are generally consistent with the purpose of the zoning district in which they are located, but due to unique operational characteristics or specific circumstances surrounding the use, they may not be desirable or compatible in all locations. Factors such as traffic, hours of operation, noise, visual impact, odor, intensity of use, or similar potential effects require that special land uses be evaluated for appropriateness on a case-by-case basis. Special land uses may be authorized after Planning Commission review and approval, following a review of the use and its potential impact on its surroundings.

A. ZONING ORDINANCE AND MASTER PLAN. The special land use will be consistent with the goals, intent, and purposes of the Zoning Ordinance and the Master Plan. The associated site plan will comply with all requirements of this Ordinance and satisfy all site plan standards of approval.

Meets standard. The 2023 Future Land Use Plan designates this parcel as Agricultural-Rural Residential. Accessory buildings are a permitted use under the Master Plan's guidance for Agricultural-Rural Residential properties and are provided for by the Zoning Ordinance subject to certain standards being met.

The proposed accessory building will be used for recreation purposes by the homeowner's family, which is allowed under the zoning ordinance. If the Planning Commission finds that the proposed building meets the standards for Special Land Use, then it will meet the requirements of the zoning ordinance.

B. USE COMPATIBILITY AND CHARACTER. The site plan and buildings associated with the use will be designed and constructed, and the use will be operated and maintained in ways to ensure compatibility with adjacent and nearby land uses. Establishment of the use will not degrade the essential character of the area in which it is proposed. Further, it will not impede the normal and orderly development and improvement of surrounding property and shall not have significant adverse impacts upon adjoining properties or uses.

Undetermined. This is a comparatively large building for non-agricultural use. The only buildings of this scale in the vicinity are two ca. 20-foot tall agricultural buildings about 1,000 feet to the northeast that are about 19,000 SF if combined, and a cluster of single-story agricultural hydroponic hoop houses about 2,000 feet to the north.

The proposed accessory building will be in an area that is relatively rural and characterized by open pasture, fenced fields, and groves of trees. It is likely that the building will be visible from 76th Street, although due to the distance from the road it won't appear as large as it would be to the adjacent properties. The applicant proposes planting a row of trees immediately west of the building in order to screen it from properties to the west.

The Planning Commission will need to determine if the massing and scale of the building is appropriate for the area.

C. PUBLIC SERVICES AND INFRASTRUCTURE. The use and its associated buildings and site improvements will be adequately served by essential infrastructure and services, such as roads, stormwater drainage infrastructure, schools, law enforcement, and fire protection; will not create excessive additional requirements at public cost for infrastructure; and will not be detrimental to the economic welfare of the community.

Meets standard. As a residential accessory building, staff does not anticipate any impacts on roads, police and fire protection, drainage structures, water or sewage facilities, or schools. After receiving feedback from the Township Fire Marshal, the applicant has modified the plan to include a gravel driveway to provide adequate emergency access to the building.

D. IMPACT AND NUISANCES. The use and its associated buildings and site improvements will not be hazardous or disturbing to existing or future uses in the same general vicinity and in the community as a whole, and it will not involve uses, activities, processes, materials, equipment, or conditions of operation that will be detrimental to persons, property or general welfare by reason of excessive activity, noise, vibration, smoke, fumes, glare, odor, or visual impact.

Undetermined. The proposed building doesn't pose any potential nuisance issues except visual impact. The owner has received permission from the Loretta View Architectural Committee, so it's not anticipated to hinder the health, safety, or economic welfare of surrounding properties or landowners by their evaluation.

During public comment at the August 28th Planning Commission meeting, the adjacent landowner to the west expressed concern about the size of the previously proposed 15,000 SF building.

E. ENVIRONMENTAL IMPACT. The use and its associated buildings and site improvements will not cause environmental degradation or significant change to landscapes, topography, and sensitive natural resources.

Meets standard. Residential property is exempt from stormwater regulations, but since the roof covers 10,200 square feet, runoff from the roof should be directed so that it doesn't impact neighboring properties.

F. TRAFFIC The use will not result in unsafe traffic conditions or negative impacts on bicycle and pedestrian travel and shall not create or substantially add to traffic hazards in the area.

Meets standard. The accessory building will be utilized for residential use; it is not anticipated that traffic will be affected.

G. PRECEDENCE AND REASONABLE LAND USE The proposed use shall not set precedents for development, which could adversely affect the long-term plans or policies of the Township. The proposed use will be reasonable.

Undetermined. Large accessory buildings are relatively common in rural areas of the Township, and several surrounding lots have accessory buildings that range from 1,200 to 2,400 SF. The proposed barn is double the size of what is normally allowed by-right (up to 5,000 SF for a parcel of this size).

The Planning Commission will need to determine if this proposal is reasonable or if it adversely affects the long-term plans for rural areas of the Township. The Master Plan describes rural areas thus:

"Natural woodlots, open fields, and agricultural land uses such as field crops, family farm livestock operations and hobby farms growing a variety of vegetables may be anticipated in these areas. This area is intended to function as an area where only limited residential development can or should occur.... Residential development in this land use district should be sparse." (pg. 49)

In terms of use as a private sports facility, the scale of this building is unprecedented in the Township. Indoor sport facilities that have been built in the Township previously include pickleball courts, pitching mounds, basketball courts, and golf simulators, usually as part of an accessory building.

Section 18.20.9 Accessory Buildings, Structures, And Uses. Oversized Accessory Buildings.

In considering a special use permit for an accessory building exceeding the maximum floor area, the Planning Commission shall consider the standards stated in Chapter 19 and the following additional standards:

The Planning Commission may consider requests for oversized accessory building square footage through the special land use process (Chapter 27). In addition to special land use and site plan standards of approval, the Planning Commission shall also consider the following factors:

a. Whether the intended use of the accessory building(s) is authorized within the applicable zoning district.

Private indoor recreation is permitted by right in accessory buildings in the Agricultural Rural Residential zoning district.

b. The size, type of construction, and general architectural character of the residential accessory building(s) are compatible with buildings in the vicinity.

The Planning Commission will need to determine if the size and scale of the proposed building is compatible with the surrounding properties.

c. The resulting increase in size and scale of the residential accessory building(s) does not result in a visible impact that is overly obtrusive to neighboring residents.

The Planning Commission will have to determine if the 10,200 square foot building is considered a visual impact that is overly obtrusive.

d. Proposed setbacks from lot lines and separation from dwellings on the adjacent properties are appropriate based on the size and scale of the proposed accessory building(s).

The proposed location is well outside of setback requirements for front and side yards, and the closest property line is 55 feet to the east.

Setback	Required	Proposed
Front	60 feet	Ca. 220 feet
Side	20 feet	Ca. 230 feet
Rear	5 feet	58 feet
Max. Height	25	24' 10 "

e. If the property is intended to be divided in the future, the location of the residential accessory building(s) does not impact the ability to divide the land in a compliant manner while maintaining required setbacks from the building(s).

There is no intention of dividing this parcel in the future, and doing so would be prohibitively expensive since it would require upgrading Loretta View into a major private street.

f. The increase in residential accessory building square footage does not result in adverse stormwater runoff impact and degradation of sensitive natural resources.

Residential property is exempt from stormwater regulations, but since the roof covers 10,200 square feet (approximately 1/3rd of an acre), runoff from the roof should be directed so that it doesn't impact neighboring properties.

STAFF RECOMMENDATION

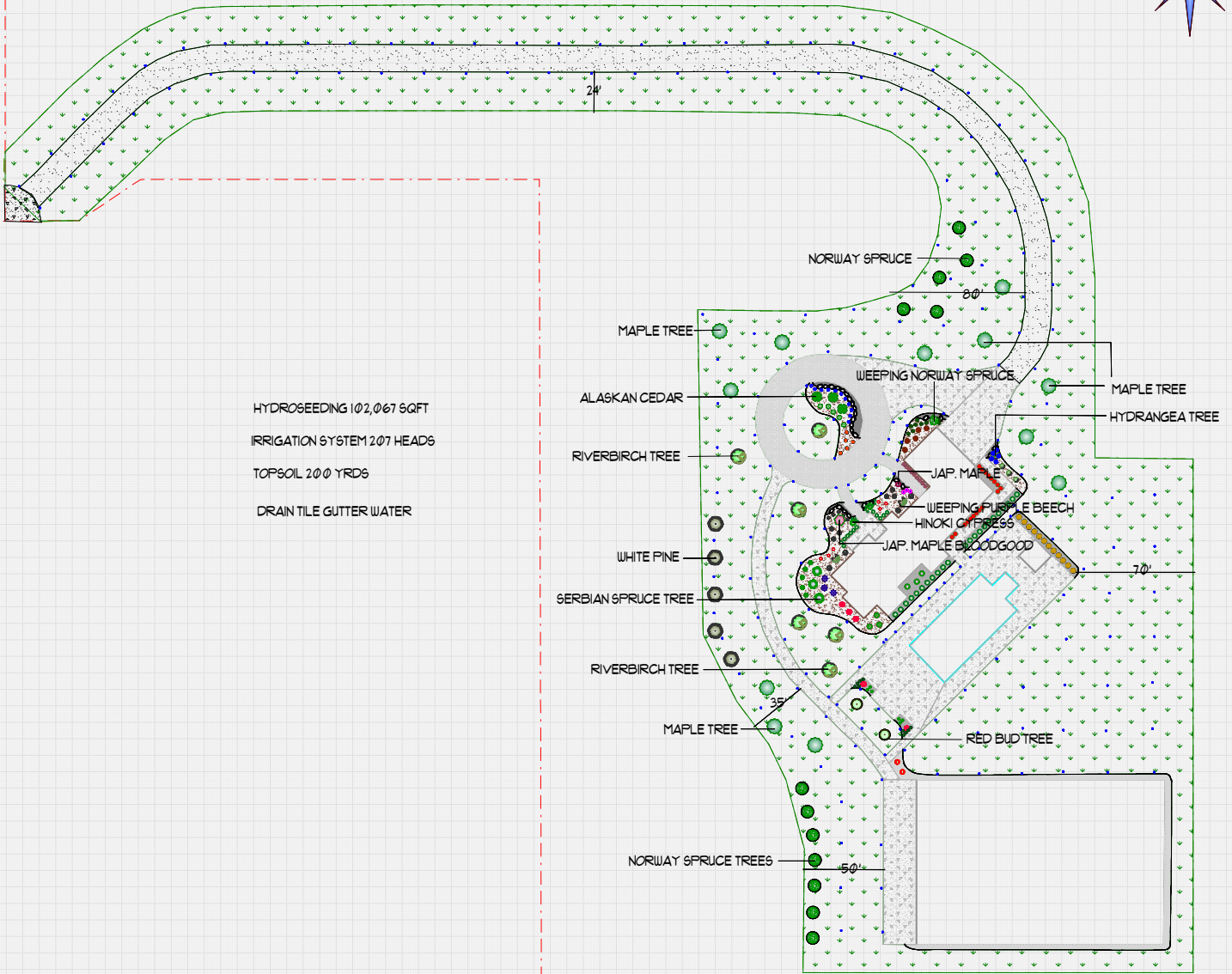
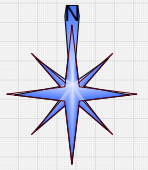
Unless action is postponed, the Planning Commission shall decide upon special land use requests as follows:

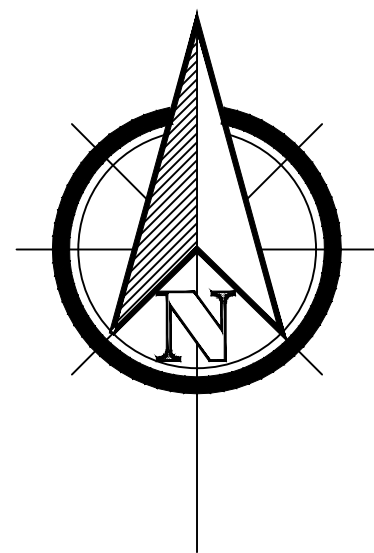
- a. Approval. The motion or resolution and minutes shall indicate the findings and conclusions serving as the basis for the decision and any conditions imposed.
- b. Denial. In the case of a denial, the motion or resolution and minutes shall indicate the findings and conclusions serving as the basis for the decision.

A formal resolution may be required by the Planning Commission to formally outline the findings, decision, and conditions, if applicable.

Reasonable conditions may be imposed by the Planning Commission on a special land use approval in accordance with Section 25.60.

If the Planning Commission determines that the scale of the building meets the standards for a SUP, Staff recommends that a better landscape plan be developed that is greater than a single row of trees, and it is applied to all sides of the building. A more naturalistic “grove” approach to screening using native conifers, deciduous trees, and large shrubs would be more appropriate considering the rural setting. If the Planning Commission is amenable, they may direct staff to complete a review of a revised landscaping plan administratively.





TOTAL SQUARE FOOTAGES

CONCRETE

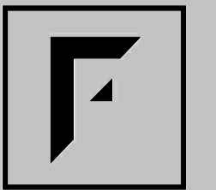
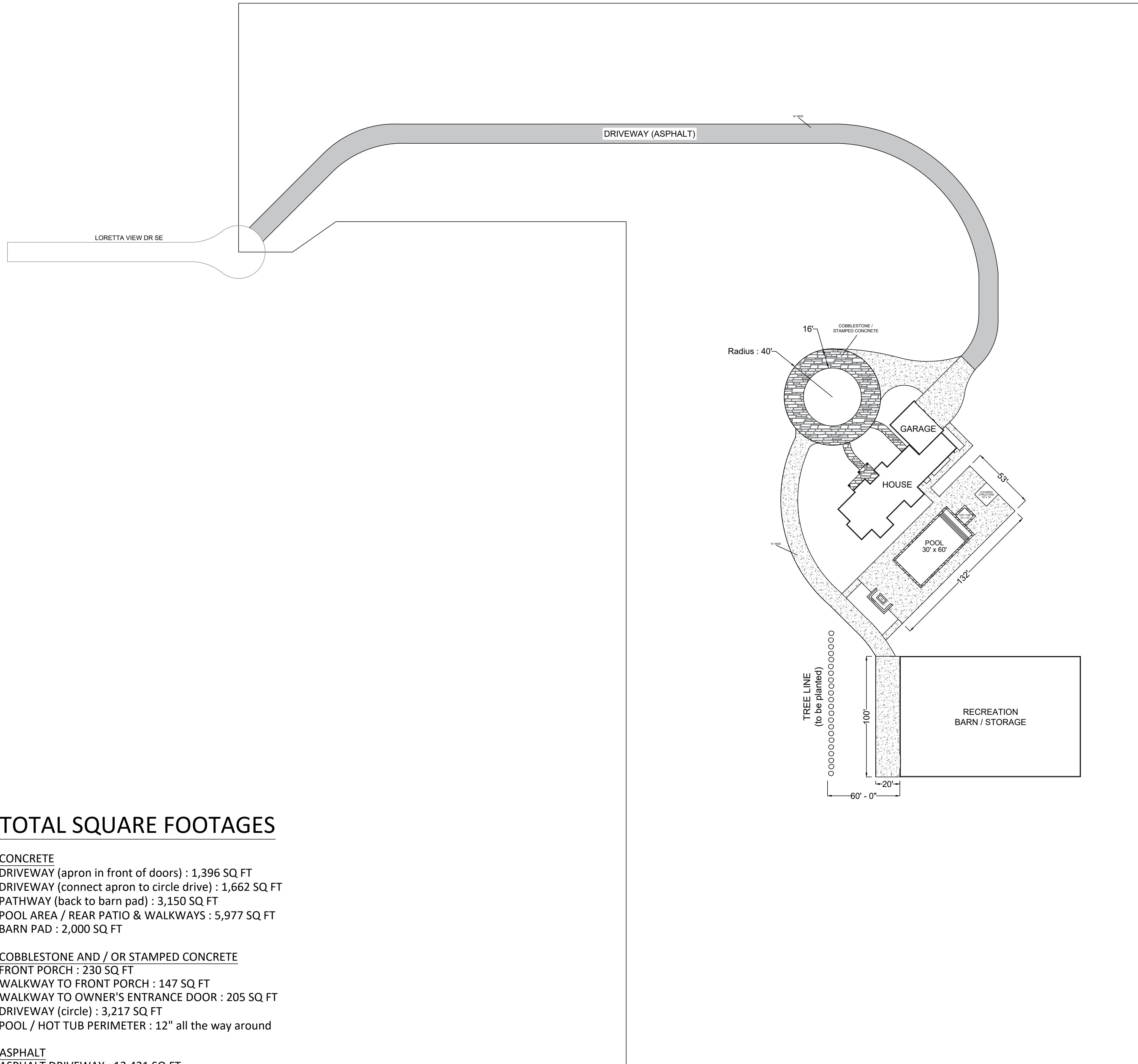
DRIVEWAY (apron in front of doors) : 1,396 SQ FT
DRIVEWAY (connect apron to circle drive) : 1,662 SQ FT
PATHWAY (back to barn pad) : 3,150 SQ FT
POOL AREA / REAR PATIO & WALKWAYS : 5,977 SQ FT
BARN PAD : 2,000 SQ FT

COBBLESTONE AND / OR STAMPED CONCRETE

FRONT PORCH : 230 SQ FT
WALKWAY TO FRONT PORCH : 147 SQ FT
WALKWAY TO OWNER'S ENTRANCE DOOR : 205 SQ FT
DRIVEWAY (circle) : 3,217 SQ FT
POOL / HOT TUB PERIMETER : 12" all the way around

ASPHALT

ASPHALT DRIVEWAY : 12,421 SQ FT

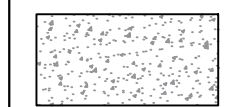


FORGE
HOMES

DRAWN BY:
Cam Van Koevering
Kyle Glass
Forge Homes LLC

PROJECT :
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
Parcel # 41-22-14-100-058



CONCRETE



COBBLESTONE AND / OR
STAMPED CONCRETE



ASPHALT

DATE

8/14/2025

SHEET

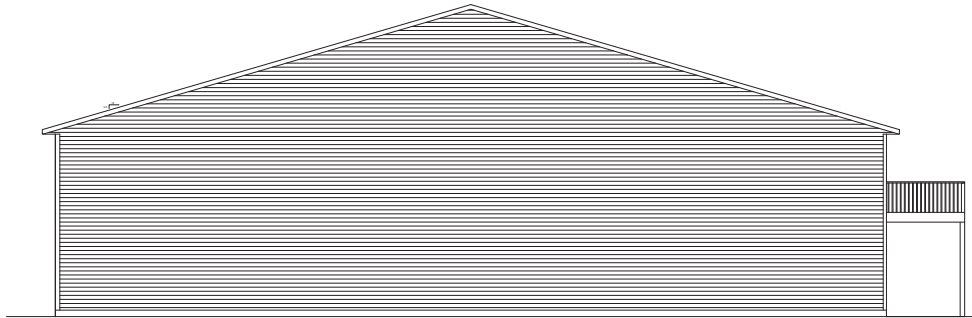
**CONCRETE
LAYOUT**

ROOF STRUCTURE
- INTERLAP & ENGAGE ALL DOWN SHINGLES
- ALUM. STRIP FLASHING @ ALL ROOF TO WALL INTERSECTIONS
- GUTTERS OR 3" IC & WATER SHIELD ON
- 4" MIN. GABLE TYPICAL
- ANY 2x4 RAFTER OVER 7'-11" TO BE BRACED TO
- WIND PER MANUFACTURER
- ATTIC ACCESS W/ WEATHER STRIP GASKET &
- RIGID BAIT ATTACHED
- 2 LAYERS OVERLAPPED SYNTHETIC
- UNDERLAMENT OVER ENTIRE ROOF
- 1" IC & 6" ROOF BREATHING
- ENG. TRUSSES @ 24" O.C.
- 4" IN CEILING INSULATION
- 1" IC CEILING OVERWALL
FLASHING / OTHER
- ALL PENETRATION PROJECTIONS TO HAVE METAL
- STRIP FLASHING
- TYVEK WINDOW TAPE ALL WIND & DOOR
- OPENINGS
- SHEET FLASHING TO BE METAL LGS & BASE OF
- WALL @ ALL MASONRY 2" ABOVE CONC. & 4"
- ABOVE GRADE
- 12" 1" R/G OPEN CELL INSUL. @ JOIST RIM BD.
- OR EOVY
EXTERIOR WALLS (HOUSE)
- EXTERIOR SMOOTH MASONRY
- 1" IC USE (CS BRACING METHODOLOGY)
- RE STR 2x4 OR 2x6 STUDS @ 16" O.C.
- NUMBOL CELLULOSE R-15
- 1" IC INSUL. AROUND ALL WINDOW & DOOR
- OPENINGS
- 1" IC OVERWALL
EXTERIOR WALLS (GARAGE)
- EXTERIOR SMOOTH MASONRY
- 1" IC USE (CS BRACING METHODOLOGY)
- RE STR 2x4 WALL STUDS @ 16" O.C.
- REINFORCED BOTTOM PLATES
- 1" IC USE ADJACENT TO ALL LIVING SPACE
- OVERWALL @ CEILING ALL FACES OF
- SUPPORTING STRUCTURES IN GARAGE
- DOOR BETWEEN HOUSE AND GARAGE TO HAVE
- 20 MIN. FIRE RATING
FOUNDATION SLAB
- ALL FINISHED FOUNDATION WALL FOOTINGS TO
- BE MIN. 1'-6" BELOW FINISHED GRADE
- MIN. 12" O.C. @ 16" WALLS UNBROKEN 12" 1" IC
- R/G INSULATION & NETTING OR NUMBOL
- CELLULOSE ECODEX PANELS
- (1) 4# CONT. BAR @ MID-STORY OF WALL AND
- (1) 4# BAR WITHIN 12" OF TOP OF WALL
- 12" FOUNDATION BOLT'S MAX. 6" SPACING
- MIN. 2 PER WALL SECTION WITHIN 12" OF PLATE
- CORNER & IN EACH MIDDLE THIRD OF PLATE
- SECTION OR EQUIVALENT
- SCHEDULE NOT HIGHER THAN 6" BELOW T.O.W.
- 6 MIL VAPOR BARRIER UNDER BRST. SLAB
- UNBROKEN WATERPROOFING @ EXT. SIDE OF
- FOUNDATION WALLS FROM FOOTING TO GRADE
- Foundation Drainage will be 4" completed with the
- exterior with clean water. Mount
- entire exterior and interior footings of living space
STRUCTURE
- 12" JACK STUDS REQUIRED ON HEADERS
- WORKING LESS THAN 4" WIDE
- 6 MIL VAPOR BARRIER UNDER BRST. FLOOR
- MEDIAN ROOM WALLS TO BE CONNECTED TO
- HOUSE STRUCTURE W/ APPROVED
- CONNECTING
GENERAL SAFETY
- ALL WINDOW BELLS IF OR MORE ABOVE GRADE
- TO BE MIN. 4" FLOOR TO FINISHED BELL SET OR
- HAVE APPROVED HARDWARE TO LIMIT OPENING

Dimension from
T.O.W. to midpoint
between ridge line
and eave



FRONT ELEVATION



REAR ELEVATION

Wall Cross Section - Scale $\frac{1}{2}'' = 1'$

EXTERIOR NOTES:
- FLASHING AND IC & WATER SHIELD (2 ROWS)
- AT A MINIMUM OF 3" ON HORIZONTAL LAYERS
- (TYP)
- METAL GUTTERS & DOWNGUTS TO ENTIRE
- PERIMETER
- ALUM. FASCIA AND SOFFIT (VENTED @ EAVES)



FORGE
HOMES

DRAWN BY:
Cam Van Koeveering
Kyle Glass
Forge Homes LLC

PROJECT:
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
PP # 41-22-14-100-058

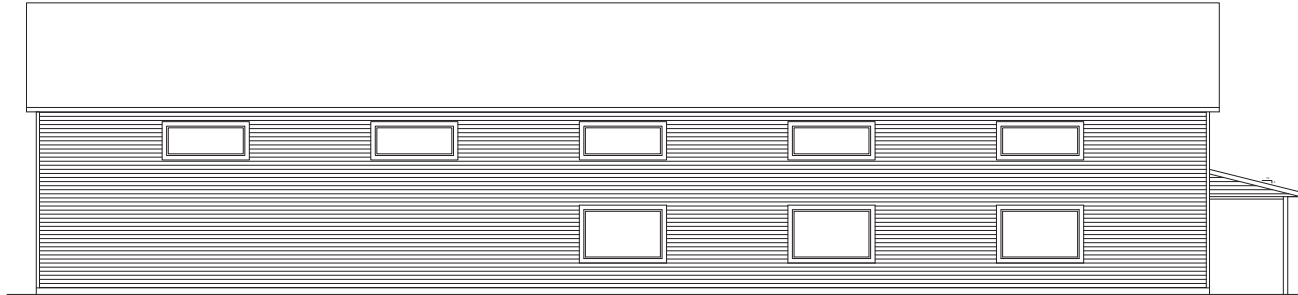
GENERAL NOTES:

DATE
9/4/2025

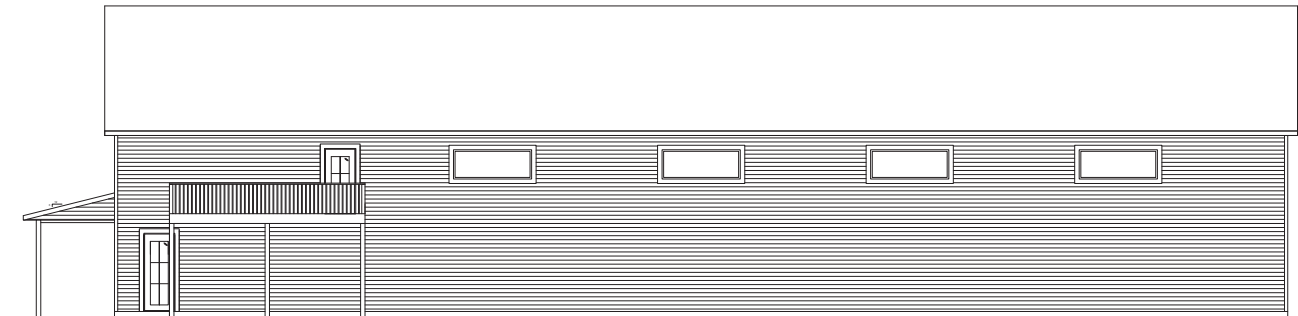
SCALE

SHEET

BARN
FRONT / REAR
ELEVATIONS



LEFT ELEVATION



RIGHT ELEVATION



FORGE
HOMES

DRAWN BY:
Carm Van Koeveering
Kyle Glass
Forge Homes LLC

PROJECT:
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
PP # 41-22-14-100-058

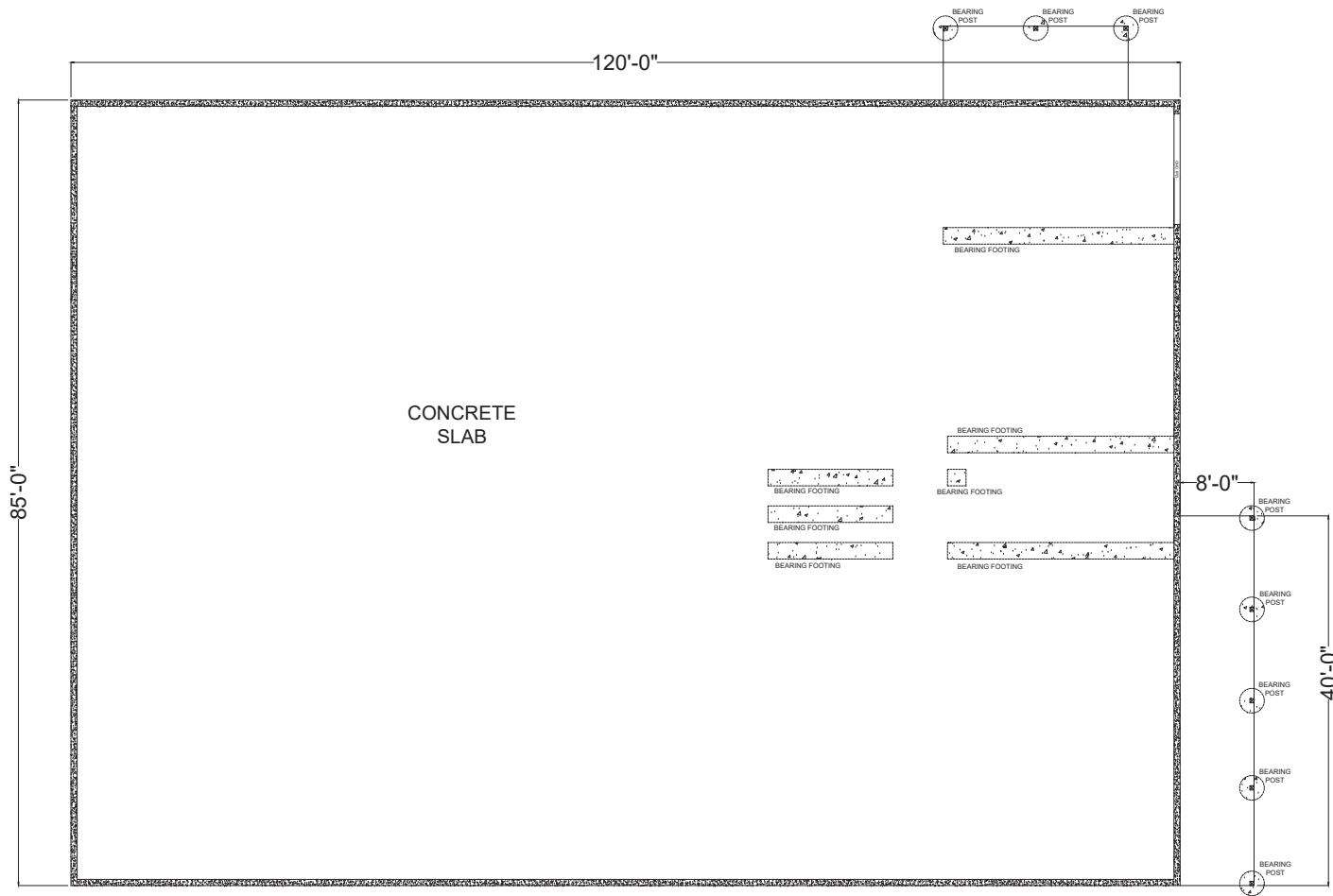
GENERAL NOTES:

DATE
9/4/2025

SCALE

SHEET

BARN
SIDE
ELEVATIONS



FORGE HOMES

DRAWN BY:
Cam Van Koeveering
Kyle Glass
Forge Homes LLC

PROJECT:
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
PP # 41-22-14-100-058

GENERAL NOTES:
- 48" deep Frost Wall
- Foundation Wall @ 8" Thick

Main Floor Square Footage : 10,200 sq ft
2nd Floor Square Footage : 1,294 sq ft
TOTAL Finished Footage : 11,494 sq ft

DATE
9/4/2025

SCALE

SHEET

BARN
FOUNDATION



FORGE HOMES

DRAWN BY:
Cam Van Koeveering
Kyle Glass
Forge Homes LLC

PROJECT:
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
PP # 41-22-14-100-058

- GENERAL NOTES:
- 9' Main Floor Wall Height
 - 2x6 Walls
 - Netting on all walls / ceilings in Baseball area
 - Netting to divide Gymnastics / Basketball / Baseball

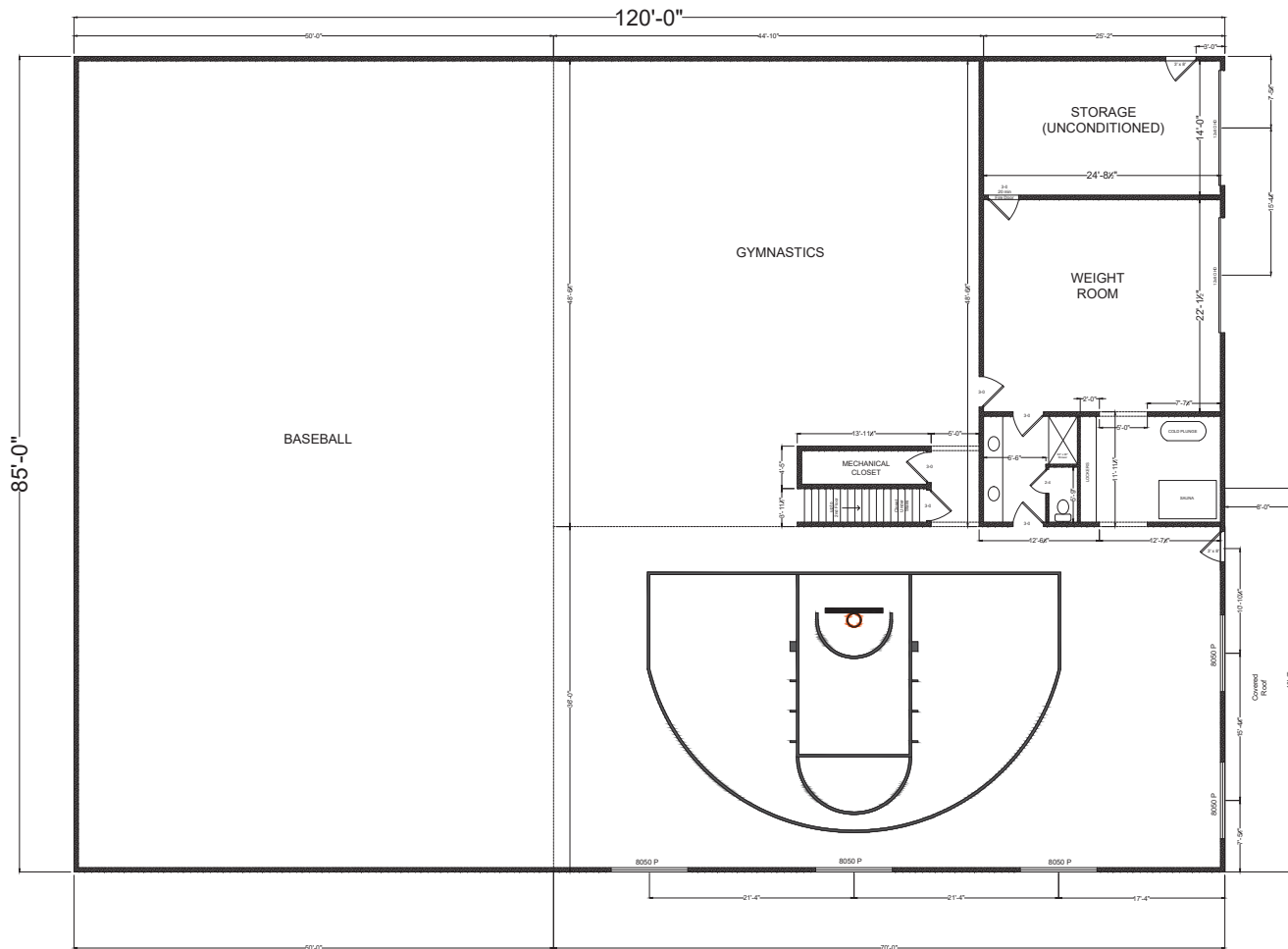
Main Floor Square Footage : 10,200 sq ft
2nd Floor Square Footage : 1,294 sq ft
TOTAL Finished Footage : 11,494 sq ft

DATE
9/4/2025

SCALE

SHEET

BARN
MAIN FLOOR





FORGE HOMES

DRAWN BY:
Carm Van Koeveering
Kyle Glass
Forge Homes LLC

PROJECT:
Miedema

PARCEL:
3429 Loretta View Dr SE
Caledonia, MI 49316
PP # 41-22-14-100-058

- GENERAL NOTES:
- 8' 2nd Floor Wall Height
 - Vaulted Ceiling
 - 2x6 Walls

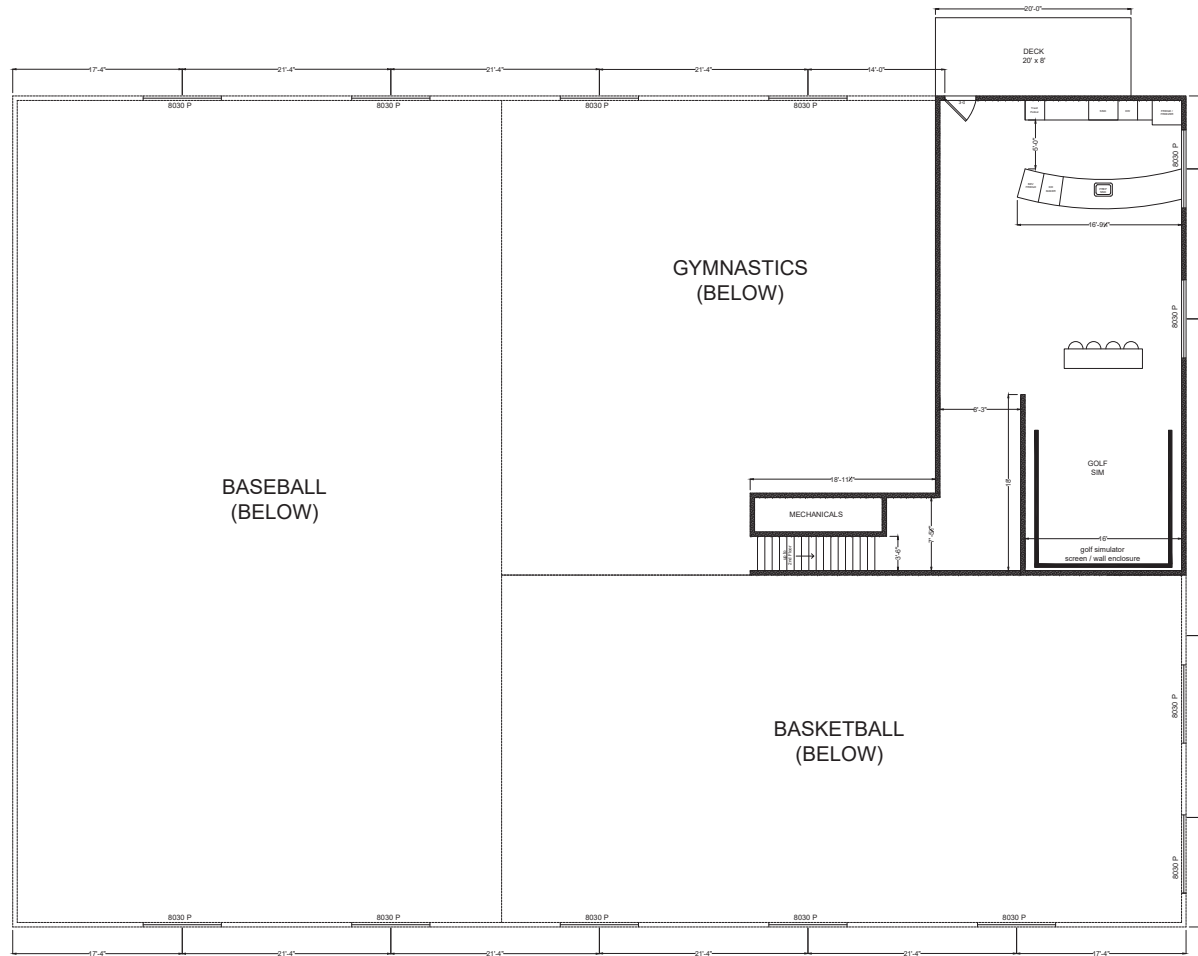
Main Floor Square Footage : 10,200 sq ft
2nd Floor Square Footage : 1,294 sq ft
TOTAL Finished Footage : 11,494 sq ft

DATE
9/4/2025

SCALE

SHEET

BARN
SECOND FLOOR



Planning Commission Memo

Meeting Date: September 25th, 2025

AGENDA ITEM: VI.3.b

FILE NUMBER: 250505DS

PROPOSED REQUEST: Zoning Text Amendment

PROPERTY ZONING DISTRICT: All Residential

ADDRESS: All Residential Parcels

PROPERTY SIZE: N/A

PARCEL NUMBERS: All Residential Parcels

**REPORT BY: Dakota Swan, Assistant Planner,
Dan Wells, Community Development Director**

**APPLICANT: Denise Simons, Midwest Sign
Company**

OVERVIEW

The applicant requests a Zoning Text Amendment to allow electronic changeable messaging (ECM) signs in residential zoning districts for institutional uses. Prior to the recent amendment to the Zoning Ordinance, ECMs were permitted in residential areas of the Township for institutional uses, so long as a Special Use Permit was obtained from the Planning Commission. During the process of amending the Zoning Ordinance, the Zoning Ordinance Steering Committee engaged in discussions regarding ECMs and deemed them to be a visual nuisance, and not appropriate for residential areas.

The Township Board reviewed the proposed changes and has requested the Planning Commission reevaluate several aspects of the proposed amendment. Concerns included time of operation, distance to homes, lack of dimmers at night, the use of “bright white” light at night creating glare, and screening of adjacent property.

The Board did recognize that ECMs offer an easy way to communicate events and other information by institutional users.

The applicant desires to restore the ability to use ECMs for institutional use. The amendment would apply to all institutional uses that are permitted in residential zoning. Practically this will mostly be for places of worship and private schools.

Two sections of the Zoning Ordinance are attached for reference, Signs and Lighting (since the discussion hinges on light levels), and staff has highlighted the relevant sections to inform discussion.

The current ordinance defines several classes of sign illumination:

External; 1. Sign lighting shall be of low intensity with effective provisions made to minimize spillover of light beyond the actual sign face. 2. The light source shall be enclosed and directed to prevent light from shining directly onto traffic or neighboring property.

Internal; Sign faces shall be opaque so that individual lamps are muted and cannot be distinguished behind the sign face.

Electronic Changeable Messages; Typically LED but includes “red dot” signs. The main regulations are as follows:

Sign Type. ECMs are only permitted on freestanding signs (as opposed to wall signs).

Size. No more than 40 percent of the area of the sign may be dedicated to an ECM display. The remainder of the sign shall consist of a static sign face. For a 32-square-foot sign this is 12.8 square feet.

Images and Transition. A) Each image shall be static and shall not move, flash, or otherwise be animated. B) Each message shall be displayed for a period of no less than eight (8) seconds. C) Transitions between images shall be instantaneous and shall not scroll, fade, or otherwise be animated.

Brightness; An electronic display sign shall be equipped with automatic dimming technology to adjust the brightness of the sign relative to ambient light conditions.

Staff has noticed that most sign owners follow the rules on changes, hours of operation and brightness, but a few do not, especially when it comes to the movement of graphics and animation.

In terms of what is currently allowed in residential areas—which includes Agricultural-Rural Residential, Suburban Residential, Village Residential, Multi-Family Residential—internal and external illumination is allowed for ground signs (for non-residential uses or B&Bs), and external illumination is allowed for residential development entry and wall signs (for non-residential uses, B&Bs, home occupations). ECMs are not allowed in any case.

PROCESS

Review of the zoning ordinance text amendment is subject to the following process:

1. Public hearing and review and recommendation by the Planning Commission (6/26/25)
2. First reading by the Township Board (7/14/25), public hearing scheduled
3. Public hearing by the Township Board (8/11/25, referred back to Planning Commission)
4. Reconsideration by PC (8/28/25)
5. Reconsideration by PC (9/25/25)
6. Reconsideration by Board
7. Publication of the approval notice within a newspaper of general circulation within the Township within 14 days. The effective date of the approval is the expiration of seven (7) days after publication unless a longer timeframe is set

CHAPTER 31 ZONING AMENDMENTS

All zoning text amendments are subject to review by the Planning Commission. If approval is granted, the request will get two readings at the Township Board, one of which will be a public hearing. This request has been reviewed using the applicable standards from Section 31.40.B, Zoning Amendment Approval Standards – Zoning Text Amendment. The applicant has submitted an application with sufficient detail to evaluate

compliance with the ordinance.

The following factors will be considered by the Planning Commission and Township Board while reviewing a proposed Zoning Ordinance text amendment. The amendment shall satisfy at least one (1) of these factors.

1. The amendment will implement the Township's Master Plan.

Undetermined. In the Master Plans "Chapter 4. Community Facilities & Utilities" issues surrounding artificial lighting in the Township is addressed:

The changing technology of lighting has led to the wide use of LEDs as a primary use both at the utility scale and for general commercial and residential use. LEDs have certain qualities that are significantly different from older lighting technologies including benefits such as much lower energy demands and a wide range of control over brightness, directional control, and color. LEDs also have several negative effects depending on how they are deployed including high glare, intensity, and luminescence; these negative effects can affect driving safety due to distraction, loss of night sky visibility, effects on human circadian rhythms, and effects on wildlife. If deployed incorrectly, light trespass may be considered a nuisance, and the increased use of LEDs must be regulated carefully to limit negative effects.

The Master Plan Public Input Survey also shows that residents are concerned about obtrusive lighting in the township. Question 12 asked residents how they feel about obtrusive lighting, to which 28.9% stated they are "Very Concerned," while 41.9% are "Somewhat Concerned" about the issue.

Clearly, over 69% of residents do not view obtrusive lighting favorably. However, the number of signs that will be applied for will not significantly add to light pollution in residential areas, and additional ECMs will be required to be adequately screened during the SLU permitting review if that is a process that the Planning Commission and Board approve.

2. The amendment addresses changing conditions in development trends, housing types, industrial standards, environmental best practices, and citizen preferences.

Meets standard. Staff has noticed an influx of inquiries about ECMs and where they are permitted; the demand to install these types of signs for institutional users has certainly increased over the last several years. The Planning Commission has approved two requests for Special Use Permits to allow ECMs in residential districts for institutional users over the last three years.

3. The proposed text amendment would clarify the intent of the Zoning Ordinance.

Not Applicable. The intent of the ordinance regarding electronic messaging centers is very clear; ECMs are permitted only within the Neighborhood Commercial, General Commercial, Office Service, Mixed Business, Light Industrial, and Heavy Industrial zoning districts. However, if the Planning Commission and Township Board agree that ECMs are appropriate under review as a Special Use Permit, it is in their power to change the ordinance.

4. The proposed text amendment would correct an error in the Zoning Ordinance.

Not Applicable. The Zoning Ordinance was amended in April; during final review no errors were noted in Chapter 24.

5. **The proposed text amendment would address changes to the State legislation, recent case law, opinions of the Attorney General of the State of Michigan, or any other county, state, or federal regulations.**

Not Applicable. Staff is not aware of any new legislation at the local, State, or federal level that would require a modification to the regulations on ECMs.

6. **In the event the amendment will add a use to a district, that use shall be fully consistent with the character of the range of uses provided for within the district.**

Not Applicable. Illuminated signs are an accessory use to a permitted primary use, not a new use.

7. **The amendment shall not create incompatible land uses within a zoning district or between adjacent districts.**

Not applicable. Illuminated signs in general are allowed within the residential zoning district, the requested amendment just modifies what technology is appropriate to allow.

8. **The proposed change shall be consistent with the Township's ability to provide adequate public facilities and services.**

Meets standard. Staff does not anticipate there will be any hinderance to the Township's ability to provide adequate public services if the zoning text amendment is approved.

9. **The proposed change shall be consistent with the Township's desire to protect the public health, safety, and welfare of the community.**

Undetermined. Staff finds that specific ECMs generally do not jeopardize public health, safety, or welfare, and do assist with wayfinding. They do create a light spill nuisance if not turned off at night, and can interfere with night driving for people with astigmatism.

Regulations in the Zoning Ordinance pertaining to electronic messaging centers were purposefully updated to restrict a landowner's ability to install them in residential zoning districts, as they were determined to be a point of nuisance by the Zoning Ordinance Steering Committee. If the Planning Commission determines that the proposed amendment is consistent with the Township's desire to protect public health, safety, and welfare of the community, then consistency with Section 31.40.B.9 will be achieved.

RECOMMENDATION

The Planning Commission should review signage and lighting sections of the ordinance and determine if any sections should be modified.

Unless action is tabled or postponed, the Planning Commission shall decide upon text amendment requests as follows:

- a. Approve and recommended the Board's final approval.
- b. Deny and recommended the Board's final denial.

**GAINES CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN
(ORDINANCE NO. ____)**

At a _____ meeting of the Township Board for Gaines Charter Township held at the Township offices on _____, 2025, beginning at ____ p.m., the following Ordinance was offered for adoption by Township Board Member _____, and was seconded by Township Board Member _____:

**AN ORDINANCE TO AMEND THE ZONING ORDINANCE
OF GAINES CHARTER TOWNSHIP TO ALLOW
ELECTRONIC CHANGEABLE MESSAGE (ECM) SIGNS
AS SPECIAL LAND USES FOR NON-RESIDENTIAL USES
IN RESIDENTIAL ZONING DISTRICTS**

THE CHARTER TOWNSHIP OF GAINES (the “Township”) ORDAINS:

Section 1. Chapter 24. Chapter 24 of the Gaines Charter Township Zoning Ordinance is amended to revise Section 24.80, Table 24.80, to allow electronic changeable message (ECM) signs as special land uses for non-residential uses in residential zoning districts, and for Table 24.80 to read in its entirety as follows:

TABLE 24.80: PERMANENT SIGNS- RESIDENTIAL ZONING DISTRICTS		
Type	Requirements	
Freestanding Sign: Ground Sign for Non-Residential Uses or Bed and Breakfasts	Zoning District	All residential districts
	Maximum Number	1 per lot
	Maximum Size	16 s.f. for bed and breakfasts 32 s.f. for all other uses
	Maximum Height	6 ft.
	Minimum Setbacks	10 feet from street right-of-way or easement 20 feet from all other property lines
	Illumination	External- for bed and breakfasts Internal and external (permitted) and ECM (special land use)- all other non-residential uses
Freestanding Sign: Ground Sign for Residential Development Entry Point	Zoning District	All residential districts
	Maximum Number	1 per entry
	Maximum Size	48 s.f.
	Maximum Height	6
	Minimum Setbacks	10 ft. from all property lines
	Illumination	External
Wall Sign: for Non-Residential Uses, Bed and Breakfasts, or	Zoning District	All residential districts
	Maximum Number	1 per building
	Maximum Size	8 s.f. for bed and breakfasts and major home occupations 32 s.f. for all other non-residential uses

TABLE 24.80: PERMANENT SIGNS- RESIDENTIAL ZONING DISTRICTS

Major Home Occupations	Illumination	External
-------------------------------	--------------	----------

Section 2. Effective Date. This Ordinance shall become effective seven (7) days after its publication (or a summary hereof) in a newspaper of general circulation within the Township.

The vote in favor of this Ordinance was as follows:

YEAS: _____

NAYS: _____

ABSENT/ABSTAIN: _____

ORDINANCE DECLARED ADOPTED

CERTIFICATION

I hereby certify that the above is a true copy of an Ordinance adopted by the Township Board for Gaines Charter Township at the time, date, and place specified above pursuant to the required statutory procedures.

Respectfully submitted,

By _____

Michael Brew

Gaines Charter Township Clerk

CHAPTER 19 LIGHTING

SECTION 19.10 INTENT

The intent of this article is to implement DarkSky principles; conserve energy, protect the natural environment from the adverse effects of artificial light; curtail the degradation of the nighttime visual environment; prevent excessive glare; and ensure safe conditions.

SECTION 19.20 GENERAL REQUIREMENTS

A. APPLICABILITY

This section applies to all properties in the Township.

B. LIMITATIONS

Light shall be confined on-site by the direction of the fixture, shielding, or adjustment of the level of brightness.

C. GLARE

Lighting shall not be directed in any manner that causes glare onto neighboring residential property or distraction to drivers.

D. DIRECTION

All outdoor lighting shall be directed down or directly onto the object being illuminated. Lighting or glare shall not be directed toward streets, adjacent properties, or the night sky.

E. PROHIBITED LIGHT SOURCES

The following light sources are prohibited:

1. **Laser Source.** The use of laser source light or any similar high-intensity light for outdoor advertising or entertainment is prohibited.
2. **Searchlights.** The operation of searchlights for advertising purposes is prohibited.
3. **Flashing Lights.** Except for motion-activated security lighting and temporary holiday lighting, permanent lights that flash, move, revolve, rotate, scintillate, blink, flicker, vary in intensity or color, or use intermittent electrical pulsation are prohibited.
4. **Public Safety.** Lighting that is similar to that used for traffic control devices or emergency vehicles is prohibited.

F. PARKING LOTS

1. **Requirement.** All non-residential and multi-family residential parking lots shall be illuminated for customer and resident safety.
2. **Mounting.** Lights to illuminate parking lots shall not be attached to any building except for illuminating parking spaces that are within 10 feet of building walls.

G. LIGHTING REDUCTION

For commercial and industrial properties, light levels shall be reduced 50 percent after the close of business.

SECTION 19.30 LIGHTING PLANS

A. LIGHTING PLAN SUBMITTAL

An overall lighting plan is required for all non-residential and multi-family parking lots, security lighting, general site lighting, and all outdoor storage or display area lighting. The Zoning Administrator or Planning Commission shall require a photometric plan for other areas illuminated on a site to ensure that the intent and requirements of this section are met.

B. SUBMITTAL REQUIREMENTS

Compliance with the lighting design criteria shall be demonstrated by submitting the following information as part of the required site plan:

1. Lighting plan (as part of the site plan package) showing light fixture locations and type designations.
2. Fixture mounting height(s).
3. Type and number of lighting fixtures.
4. Lamp source type (bulb type, i.e. high-pressure sodium, LED, etc.), lumen output, color temperature, and wattage.
5. Lighting manufacturer-supplied specifications (cut sheets) that include photographs or illustrations of the fixture(s), indicating the certified full cut off characteristics or B.U.G. rating of the fixture or demonstration that the fixture is fully shielded.
6. Photometric Plan. A photometric plan shall include the following:
 - a. Maximum illuminance levels should be expressed in ground-level footcandle measurements on a grid of the site showing footcandle readings in every five or ten-foot square.
 - b. The grid shall include light contributions from all sources (i.e. pole-mounted, wall-mounted, sign, and street lights).
 - c. Footcandle measurements shall be shown five feet beyond the property lines.
 - d. A calculation summary indicating footcandle levels on the lighting plan, noting the maximum, average, and minimum, as well as the uniformity ratio of maximum to minimum, and average to minimum levels. Average and uniformity ratios shall only be calculated within the parking spaces and drive aisles and shall exclude other illuminated areas of the site.

SECTION 19.40 LIGHT FIXTURE REQUIREMENTS

A. APPLICABILITY

This section applies to all properties in the Township.

B. COLOR TEMPERATURE

1. The lighting color temperature of new and replacement light fixtures shall not exceed 2,700 Kelvins in residential zoning districts.

2. The lighting color temperature of new and replacement light fixtures shall not exceed 4,000 Kelvins in commercial and mixed-use and industrial zoning districts.

C. FIXTURE TYPE

Lighting fixtures for non-residential and multi-family residential uses shall be a down-lighted type and fully cut off, and the light shall not be allowed to be emitted above the fixture. For LED lighting, up-light shall be zero for “B.U.G.” ratings. Fixtures shall comply with the following requirements:

1. A full cut off fixture shall have no direct up-light and shall reduce glare by limiting the light output to less than 10 percent at and below 10 degrees below the horizontal.
2. If the applicant cannot provide manufacturer confirmation of full cut off characteristics of light fixtures, the fixture shall be fully shielded, which will be determined by visual inspection of the fixture or a specification sheet. Fully shielded light fixtures are constructed and installed in such a manner that all light emitted by it, either directly from the lamp or a diffusing element or indirectly by reflection or refraction from any part of the fixture, is projected below the horizontal.
3. Under-canopy lighting shall be mounted flush with the canopy surface.
4. Examples of compliant and noncompliant light fixtures are shown in Figures 19-1 and 19-2.

D. MOUNTING HEIGHT

Light fixture mounting heights shall not exceed the following:

TABLE 19.40 D: LIGHT FIXTURE MOUNTING HEIGHT		
Zoning District		Maximum Height (ft).
Residential		15
Commercial and Mixed-Use districts	Less than 100 feet from a residential zoned lot	20
	100 feet or more from residential zoned lot	25
Industrial Districts	Less than 100 feet from a residential zoned lot	20
	150 feet or more from residential zoned lot	30

Noncompliant: Fixtures that produce light trespass and glare

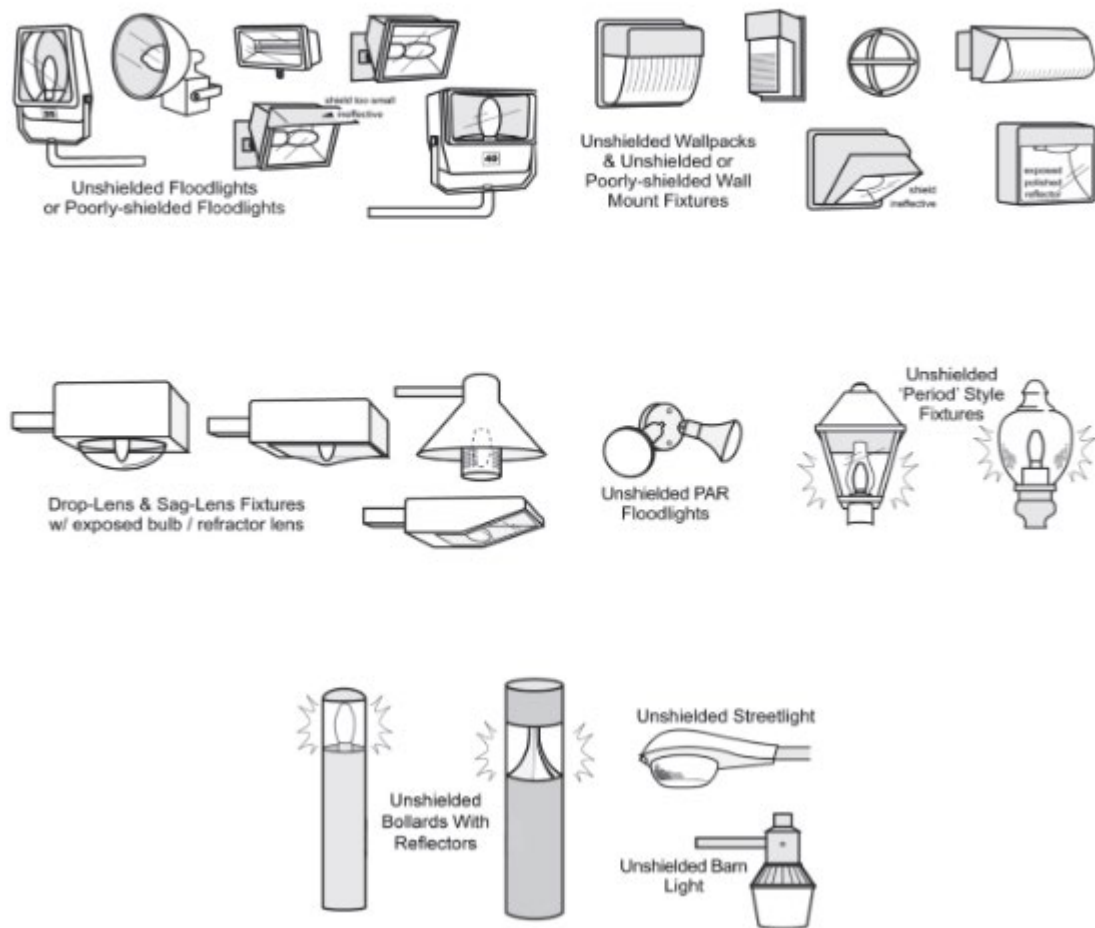


Figure 19-1 Noncompliant Light Fixtures

Compliant: Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night

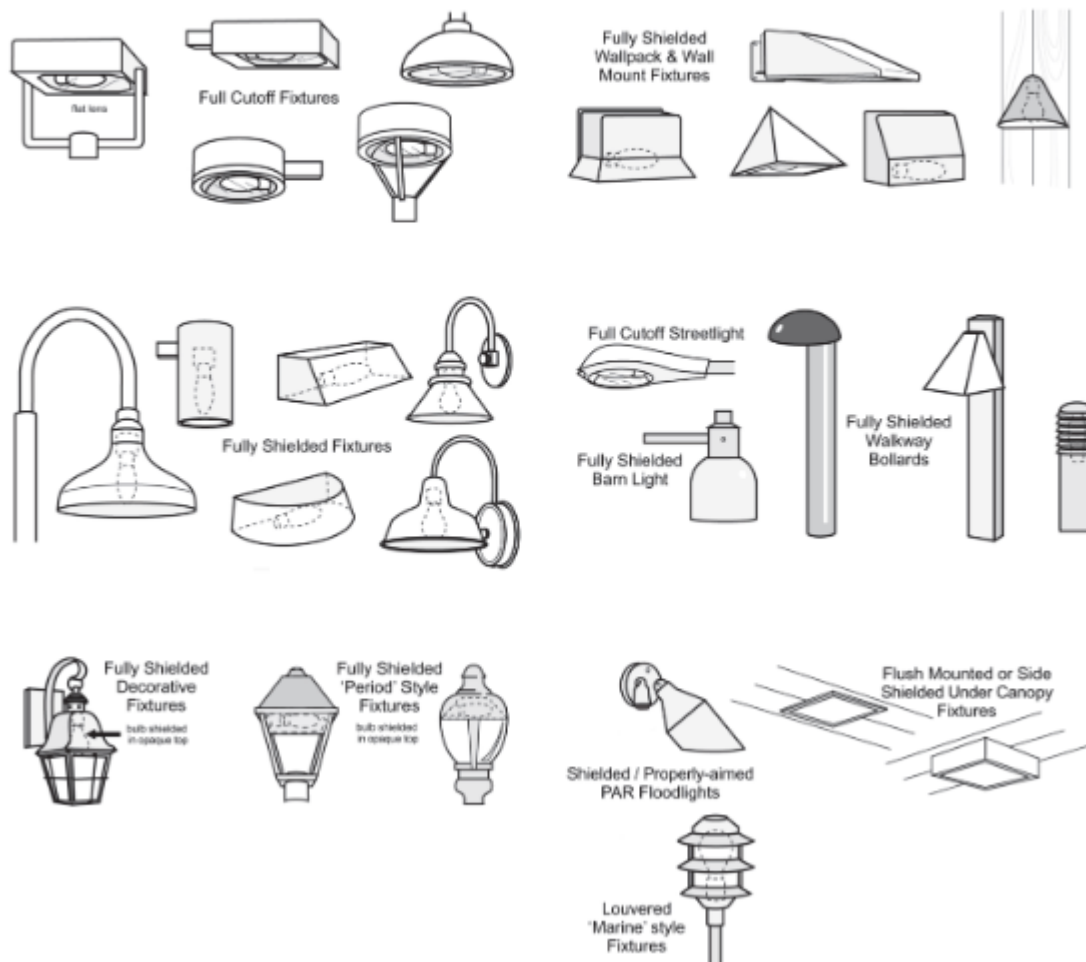


Figure 19-2 Compliant Light Fixtures

SECTION 19.50 SITE LIGHTING LEVELS

A. APPLICABILITY

This section applies to all properties in the Township.

B. ILLUMINATION LEVELS

Light levels shall meet the requirements in Table 19.50 B.

TABLE 19.50 B: REQUIRED SITE ILLUMINATION				
Location on Site	Min. fc	Max. fc	Ave. fc	Uniformity Ratio Max. to Min./ Ave. to Min.
Parking Lots	.5 fc	10 fc	1 fc	10:1 / 4:1
Under Canopies Such as Gas Stations, Drive-Thru Bank Porte-Cochere	3 fc	20 fc	-	-
Along Front Lot Line Adjacent to the Street Frontage	0 fc	1 fc	-	-
Along a Lot line Adjoining a Non- Residential Use or District	0 fc	1 fc ¹	-	-
Along a Lot line Adjoining a Residential Use or District	0 fc	0 fc	-	-
Non-Residential Outdoor Storage	0 fc	10 fc	-	-
All Other Lighting	-	10 fc	-	-

SECTION 19.60 LIGHTING MODIFICATIONS

A. AUTHORITY

The Planning Commission may modify the illumination requirements in Table 19.50 B and other lighting requirements based on a review of the applicant's proposal against industry standards and advanced lighting technology, so long as lighting plans ensure safe conditions and minimize impact on adjacent properties.

B. UNIQUE LAND USES

As part of site plan review by the Planning Commission, lighting systems not complying with the technical requirements of this article but consistent with its intent may be installed for the following land uses:

1. Sports fields and stadiums.
2. Specialized lighting for outdoor recreational uses.
3. Other unanticipated uses.

¹ The light level along a non-residential lot line may be increased to the maximum footcandle level where there is shared access/vehicular connections or the adjacent use is a similar use.

C. CONSIDERATIONS

The Planning Commission shall consider the following during the review of lighting modification requests:

1. The amount of space on the site available for lighting.
2. Existing lighting on the site and on adjacent properties.
3. The type of land use on the site and the size of the development.
4. The potential impact on existing and proposed adjacent land uses.
5. The effect that the required lighting would have on the operation of the existing or proposed land use.

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CHAPTER 24 SIGNS

SECTION 24.10 INTENT

A. INTENT

The intent of this chapter is to:

1. Protect free speech and balance the individual rights of property owners to communicate their message with the public's right to be free of unreasonable distractions and aesthetic intrusions.
2. Minimize and eliminate visual clutter and protect commercial, business, office, and industrial districts and areas from visual chaos and clutter.
3. Direct commercial and customer traffic to commercial areas of the Township and protect the public's ability to identify establishments and premises.
4. Preserve rural character and protect the natural beauty and distinctive character of the Township.
5. Protect, promote, and further the public peace, health, and safety of residents, property owners, and visitors.
6. Prevent, eliminate, or minimize traffic hazards and pedestrian accidents caused by signage that obstructs vision or views, distracts or confuses motorists, or is improperly secured or constructed.
7. Provide an environment that fosters the reasonable growth and development of business and commerce.
8. Protect and enhance property values.

B. CONTENT NEUTRALITY AND FREE EXPRESSION

Regarding content neutrality and constitutionally protected free expression, the Township finds that:

1. Content neutrality, viewpoint neutrality, and fundamental fairness in regulation and review are essential to ensuring an appropriate balance between the important, substantial, and compelling interests set out in this section and the constitutionally protected right to free expression.
2. The regulations set out in this chapter are unrelated to the suppression of constitutionally protected free expression, do not relate to the content of protected messages that may be displayed on signs, and do not relate to the viewpoint of individual speakers.
3. Notwithstanding the above, certain classifications of speech are not constitutionally protected due to the harm they cause to individuals or the community.
4. Sign restrictions are based on compelling public interests and regulation of the location, number, materials, height, and size. The duration of the display of temporary signs is essential to preventing visual clutter and ensuring safe conditions in the Township.
5. Temporary signs are not constructed to withstand long-term exposure to severe weather conditions or other physically damaging events and can result in safety and aesthetic concerns if not replaced or removed.

SECTION 24.20 APPLICABILITY

A. APPLICABILITY

All signs in the Township shall be constructed, placed, replaced, attached, structurally altered, or added in accordance with this chapter.

B. GOVERNMENTAL AND REGULATORY SIGNS

Government and regulatory signs are not subject to the requirements of this chapter.

C. RELIGIOUS SYMBOLS

Religious symbols are not considered signs and are not subject to the requirements of this chapter. Religious symbolism incorporated into signs is not exempt.

D. PERMITTING

1. **Permits Required.** No sign shall be constructed, placed, replaced, attached, expanded, moved, structurally altered, or added without first obtaining a permit unless specifically exempted by this chapter. Sign permits are reviewed administratively as zoning permits, per Section 25.40. See Section 36.20 for the submittal checklist.
2. **Exempt from Permitting.** Permits are not required for the following:
 - a. Maintenance. Painting, repainting, cleaning, maintenance, repair, and change of a sign face, message, or graphics shall not be considered an activity that requires the issuance of a sign permit, provided that no structural alterations or additions to the display area are made.
 - b. Re-lettering and Rewording Changeable Copy Signs. Changing copy or message of signs that are specifically designed for a changeable copy shall not require a permit.
 - c. Exempt Sign Types. See Section 24.60.

E. PLANS

Sign plans shall include the checklist requirements included in Section 35.20.

SECTION 24.30 GENERAL REQUIREMENTS

A. NON-COMMERCIAL MESSAGES

Any sign authorized to be displayed by this chapter may contain a non-commercial message.

B. SIGN PLACEMENT AND CONSTRUCTION

1. **Unsafe Placement.** Signs shall not interfere with, obstruct the view of, or be confused with any authorized traffic sign, signal, or device; constitute a nuisance; or cause a hazard to vehicle or pedestrian traffic.
2. **Durability.** Signs shall be constructed to withstand all wind and vibration forces that can normally be expected to occur.
3. **Maintenance.**
 - a. Signs and sign structures shall remain structurally safe and shall not constitute a hazard to safety or health.

- b. All signs shall be properly and reasonably maintained and shall not be allowed to become unsightly through disrepair or because of the effects of the weather.
- 4. **Right-of-Way and Street Easements.** Signs shall not be placed in, upon, or over any public right-of-way, alley, or other public place except as may be otherwise permitted by the Kent County Road Commission or Michigan Department of Transportation. Signs shall not be placed in, upon, or over any private street easement.
- 5. **Obstruction.** Signs shall not obstruct free ingress to or egress from a required door, window, fire escape, or other required exit way.

C. **CHANGEABLE COPY**

All permanent signs may have manual changeable copy.

D. **SETBACKS**

- 1. **Measurement.** Sign setbacks shall be measured in the same manner as required for buildings.
- 2. **Lot Line Adjustment.** Adjustment of lot lines that will cause a sign to become nonconforming is prohibited.
- 3. **Clear Vision Area.** Sign placement shall conform to Section 3.40 C.

E. **MEASUREMENT AND PLACEMENT**

- 1. **Sign Area.** The area of a sign shall be measured as the area within a single, continuous perimeter composed of any straight-line geometric figure with right angles that encloses the extreme limits of writing, representation, emblem, logo, or any other figure of similar character together with any frame or other material or color-forming an integral part of the display or used to differentiate the sign from the background against which it is placed, excluding only the structure necessary to support the sign.
- 2. **Freestanding Signs.**
 - a. **Sign Structure.**
 - i. The structure necessary to support the sign may include a framework, bracing, poles, posts, masonry base, wall, or comparable materials. Although the structure necessary to support the sign is excluded from the maximum sign area, the square footage shall not exceed 100 percent of the measured sign area.
 - ii. If the characters/text are affixed to a freestanding wall or architectural feature and that wall conforms to fence/wall requirements, the wall face is not restricted in area. However, the wall must be constructed of materials commonly used in decorative wall construction.
 - b. **Double-Faced Sign.** The area of freestanding signs that have two (2) or more faces shall be measured by including the area of all sign faces, except if two (2) faces are placed back-to-back and are no more than three (3) feet apart at any point, the area of only one (1) face shall be counted toward the maximum size requirement. In this case, if the two (2) back-to-back faces are of unequal size, the larger of the two (2) sign faces shall be counted as one (1) face.
 - c. **Height.**
 - i. The height of a sign shall be computed as the distance from the base of the sign at normal grade to the top of the highest attached component of the sign. For the purpose of this definition, normal grade shall be defined as either:
 - (a) The existing grade prior to construction, or

- (b) the newly established grade after construction, exclusive of any filling, berming, mounding, or excavating solely for the purpose of locating the sign.
- ii. If the normal grade cannot reasonably be determined, sign height shall be computed on the assumption that the elevation of the normal grade at the base of the sign is equal to the elevation of the nearest point of the crown of a public street or the grade of the land at the principal entrance to the principal structure on the lot, whichever is lower.
- iii. If the sign site is significantly lower than the street, the height can be increased administratively but shall not exceed maximum height measured from the elevation of the crown of street.

3. Wall Signs.

- a. Multi-Tenant Building Sign Area. For buildings with multiple tenants, the sign area for wall, projecting, canopy, or awning signs shall be determined by taking that portion of the front wall of the building applicable to each tenant and computing the sign requirements for that portion of the total wall.
- b. Wall signs shall not extend past the edge of the wall to which it is affixed.
- c. Wall signs shall not extend above the eave of a building with a pitched roof or above the top of a flat roof building
- d. Wall signs shall be mounted flat on the wall surface and shall be no more than one (1) foot in depth.
- e. Wall signs shall only face streets and parking areas.

F. LAWFUL NONCONFORMING SIGNS

See Section 33.60.

SECTION 24.40 ILLUMINATION

A. GENERAL

The illumination of permanent signs shall only be done through external or internal light sources or electronic changeable message systems. Temporary signs shall not be illuminated.

B. EXTERNAL ILLUMINATION

- 1. Sign lighting shall be of low intensity with effective provisions made to minimize spillover of light beyond the actual sign face.
- 2. The light source shall be enclosed and directed to prevent light from shining directly onto traffic or neighboring property.

C. INTERNAL ILLUMINATION

Sign faces shall be opaque so that individual lamps are muted and cannot be distinguished behind the sign face.

D. ELECTRONIC CHANGEABLE MESSAGES

Where allowable as noted in this chapter, ECM signs are subject to the following:

- 1. **Sign Type.** Electronic changeable messages (ECM) are only permitted on freestanding signs.

2. **Size.** No more than 40 percent of the area of the sign may be dedicated to an ECM display. The remainder of the sign shall consist of a static sign face.
3. **Images and Transition.**
 - a. Each image shall be static and shall not move, flash, or otherwise be animated.
 - b. Each message shall be displayed for a period of no less than eight (8) seconds.
 - c. Transitions between images shall be instantaneous and shall not scroll, fade, or otherwise be animated.
4. **Hours.** In residential zoning districts, ECM signs shall be shut off between 11 pm and 6 am.
5. **Brightness.**
 - a. An electronic display sign shall be equipped with automatic dimming technology to adjust the brightness of the sign relative to ambient light conditions.
 - b. All electronic messaging centers shall be equipped with an ambient light meter to adjust the brightness level of the sign face based on the ambient light conditions and shall not exceed a brightness level of 0.3 foot candles above ambient light as measured using a foot candle (Lux) meter at a preset distance depending on the sign area.
 - c. Brightness of electronic messaging centers shall be measured as follows:
 - i. At least 30 minutes following sunset, a foot candle meter shall be used to obtain an ambient light reading for the location. This is done while the EMC is off or displaying black copy. The reading shall be made with the meter aimed directly at the center of the sign area from a distance determined with the following formula: The square root of the product of the sign area multiplied by 100.
 - ii. Example using a 12 square foot sign:
 - (a) Measurement Distance = $\sqrt{12 \text{ Sq. Ft.} \times 100} = 34.6 \text{ ft.}$ as the determined setback from which the measurement will be taken.
 - (b) The sign shall then be turned on to full white copy to take another reading with the meter at the same location.
 - (c) If the difference between the readings is 0.3 foot candles or less, the brightness is properly adjusted and the sign is in compliance.
6. **Conformance.** A nonconforming freestanding sign may not be altered to include an ECM display sign unless it is first made conforming to all requirements of this chapter.
7. **Distance from Dwelling Units.** ECM components are not permitted within 200 feet of any dwelling unit except in those instances where dwelling units are located on the same lot as an office or commercial use.

SECTION 24.50 PROHIBITED SIGNS

A. PERMISSIVE REGULATION

Any sign which is not expressly allowed by the Ordinance is prohibited.

B. PROHIBITED SIGNS AND SIGN CHARACTERISTICS

1. Signs with moving parts, inflatable signs, banners, and balloons, as well as feather flag signs.
2. Signs with flashing, animation, moving, oscillating, blinking, intermittent illumination, or variable intensity light.
3. Signs that are held by or supported by a person for commercial advertising purposes.
4. Signs mounted on roofs.
5. Signs mounted on vehicles parked in a location for the primary purpose of advertising.
6. Signs attached to a utility pole, street sign, traffic control device, or other similar object.
7. Signs that are attached to any natural growth, such as trees, shrubs, or other natural foliage.

C. THREATENING, SEXUALLY EXPLICIT, OR PROFANE MESSAGING

No sign shall be prohibited based on the content or message it displays, except that threatening, sexually explicit, or profane signs are prohibited. The Zoning Administrator shall also consider the following criteria when providing a determination:

1. An average person, applying contemporary community standards, must find that the material, as a whole, appeals to the prurient interest, threatens the safety of a person or group of people, is offensive or profane, or the material depicts or describes, in a patently offensive way, sexual conduct specifically defined by applicable law; and
2. The material, taken as a whole, must lack serious literary, artistic, political, or scientific value.

SECTION 24.60 SIGNS EXEMPT FROM PERMITTING

The following signs are exempt from permitting requirements but must comply with the requirements of Table 24.60.

TABLE 24.60: SIGNS EXEMPT FROM PERMITTING		
Type	Requirements	
Address Sign	Zoning District	All
	Other Requirements	Text height shall be no greater than six (6) inches for residences and 18 inches for businesses and other nonresidential uses.
Device Sign	Zoning District	Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Size	2 s.f.
Flags	In residential zoning districts, commercial messages are not permitted. See Section 15.60 for flagpole regulations. Flags are subject to Section 24.50 C.	
Nameplates Sign	Maximum Size	2 s.f.
Painted Signs	Zoning District	Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Size	No maximum

TABLE 24.60: SIGNS EXEMPT FROM PERMITTING

	Other Requirements	Painted signs are restricted to the sides of buildings and shall not contain any words, logos, product, or service representations (otherwise considered a wall sign).
Sandwich Board Signs	Zoning District	Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Number	1 per tenant space
	Maximum Size	6 s.f.
	Maximum Height	4 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Not permitted.
	Other	The sign shall not interfere with or obstruct pedestrian or vehicular traffic; provided, at least 5 feet of passage shall be maintained on the sidewalk between the street and the sign. Windblown devices, including balloons, shall not be attached or otherwise made part of the sign. Signs shall be removed at the end of the business day and only be displayed during regular business hours. Sandwich boards must be weighted down or removed if winds gust to 20 m.p.h.
Small Freestanding Signs	Zoning District	Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Number	No limit
	Maximum Size	2 s.f.
	Maximum Height	3 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Not permitted
Temporary Yard Signs	Zoning District	All
	Maximum Number	Outside of election season: 2 Election season (45 days before an election to 10 days after an election): no limit
	Maximum Size	16 s.f. of total sign area
	Maximum Height	4 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Not permitted
	Other	On residential zoned lots, off-premise commercial advertising signs are prohibited as temporary yard signs
Window Signs	Zoning district	Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Number	No limit
	Maximum Size	The total area of all signs within a foot of the window shall not obscure more than 25 percent of the window area
	Illumination	Neon or internal, no more than 4 s.f., no more than 1 building tenant space

SECTION 24.70 TEMPORARY SIGNS- PERMITS REQUIRED

The following temporary signs may be permitted for limited time frames but must comply with all applicable requirements of Table 24.70 and this chapter.

TABLE 24.70: TEMPORARY SIGNS- PERMITS REQUIRED		
Type	Requirements	
Temporary Event- Banner Sign or Portable Sign	Zoning District	Nonresidential uses in Residential zoning districts and Commercial and Mixed-Use Districts and Industrial Districts
	Maximum Number	1 per lot
	Maximum Size	32 s.f.
	Maximum Height	6 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Not permitted
	Other Requirements	One permit per calendar year up to 21 days.
Temporary Use- Banner Sign or Portable Sign	Zoning District	See other requirements below
	Maximum Number	1 per lot
	Maximum Size	32 s.f.
	Maximum Height	6 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Not permitted
	Other Requirements	Only authorized for approved temporary land uses in accordance with Section 18.300. Timeframe is tied to the temporary use permit validity.

SECTION 24.80 PERMANENT SIGNS- RESIDENTIAL ZONING DISTRICTS- PERMITS REQUIRED

All permanent signs in ARR, RS, VR, and MFR, shall comply with the requirements of Table 24.80 and all other requirements of this chapter.

TABLE 24.80: PERMANENT SIGNS- RESIDENTIAL ZONING DISTRICTS		
Type	Requirements	
Freestanding Sign: Ground Sign for Non-Residential Use or Bed and Breakfast	Zoning District	All
	Maximum Number	1 per lot
	Maximum Size	16 s.f. for bed and breakfast 32 s.f. for all other uses
	Maximum Height	6 ft.
	Minimum Setbacks	10 feet from street right-of-way or easement 20 feet from all other property lines
	Illumination	External- for bed and breakfast Internal and external- all other uses
Freestanding Sign: Ground Sign for Residential Development Entry Point	Zoning District	All
	Maximum Number	1 per entry
	Maximum Size	48 s.f.
	Maximum Height	6
	Minimum Setbacks	10 ft. from all property lines
	Illumination	External

TABLE 24.80: PERMANENT SIGNS- RESIDENTIAL ZONING DISTRICTS

Wall Sign: for Non-Residential Use, Bed and Breakfast, or Major Home Occupation	Zoning District	All
	Maximum Number	1 per building
	Maximum Size	8 s.f. for bed and breakfast and major home occupation 32 s.f. for all other uses
	Illumination	External

SECTION 24.90 PERMANENT SIGNS- COMMERCIAL AND MIXED-USE ZONING DISTRICTS- PERMITS REQUIRED

All permanent signs in NC, GC, and OS shall comply with the requirements of Table 24.90 and all other requirements of this chapter.

TABLE 24.90: PERMANENT SIGNS- COMMERCIAL AND MIXED-USE DISTRICTS

Type	Requirements	
Access Point Sign	Zoning Districts	All
	Maximum Number	1 per driveway access
	Maximum Size	NC: 3 s.f. GC: 4 s.f. OS: 4 s.f.
	Maximum Height	Subject to clear vision corner height limitation (Section 15.90 C) If outside of clear height area, 4 ft. max.
	Minimum Setbacks	2 feet from street right-of-way or easement 10 feet from all other property lines
	Illumination	Internal or External
Freestanding Sign: Ground Sign	Zoning Districts	All
	Maximum Number	1 freestanding ground sign or pylon sign per lot, or 1 per street frontage
	Maximum Size	NC: 48 s.f. GC: 64 s.f. OS: 64 s.f.
	Maximum Height	NC: 6 ft. GC: 8 ft. OS: 8 ft.
	Minimum Setbacks	10 feet from street right-of-way or easement 20 feet from all other property lines
	Illumination	NC: Internal or External GC: Internal, External, or ECM OS: Internal, External, or ECM
Freestanding Sign: Pylon Sign	Zoning District	GC
	Maximum Number	1 freestanding ground sign or pylon sign per lot
	Maximum Size	No more than 1.5 s.f. per linear foot of lot frontage but no more than 100 s.f. max.
	Maximum Height	20 ft.
	Minimum Setbacks	10 ft. from all property lines
	Illumination	Internal, External, or ECM
Interior Site Signs	Zoning District	All

TABLE 24.90: PERMANENT SIGNS- COMMERCIAL AND MIXED-USE DISTRICTS

	Maximum Size	NC: 4 s.f. GC: 12 s.f. OS: 8 s.f.
	Maximum Number	No limit
	Maximum Height	5 ft.
	Minimum Setbacks	25 ft. from all property lines, 10 ft. if not visible from residential zoned property
	Illumination	Internal or External
Wall Sign	Zoning District	All
	Maximum Number	No limit
	Maximum Size	No more than 1.5 s.f. per linear foot per building frontage allowable for placement, but no more than 100 s.f. max. per individual sign For wall signs 100 ft. or more from a public street right-of-way or private street easement an extra 50 s.f. is allowed as well as 50 s.f. for every 50 ft. beyond 100 ft. from the public street right-of-way or private street easement. However no individual sign shall exceed 500 s.f.
	Illumination	Internal or External

SECTION 24.100 PERMANENT SIGNS- INDUSTRIAL DISTRICTS- PERMITS REQUIRED

All permanent signs in MB, LI, and HI, shall comply with the requirements of Table 24.100 and all other requirements of this chapter.

TABLE 24.100: PERMANENT SIGNS- INDUSTRIAL DISTRICTS

Type	Requirements	
Access Point Sign	Zoning Districts	All
	Maximum Number	1 per driveway access
	Maximum Size	4 s.f.
	Maximum Height	Subject to clear vision corner height limitation (Section 15.90 C) If outside of clear height area, 4 ft. max.
	Minimum Setbacks	2 feet from street right-of-way or easement 10 feet from all other property lines
	Illumination	Internal or External
Freestanding Sign: Ground Sign for Industrial Park Entry Point	Zoning Districts	All
	Maximum Number	1 per park entry, 2 max.
	Maximum Size	64 s.f.
	Maximum Height	8 ft.
	Minimum Setbacks	10 feet from street right-of-way or easement 20 feet from all other property lines
	Illumination	Internal, External, or ECM
Freestanding Sign: Ground Sign	Zoning Districts	All
	Maximum Number	1
	Maximum Size	64 s.f.
	Maximum Height	8 ft.

TABLE 24.100: PERMANENT SIGNS- INDUSTRIAL DISTRICTS

	Minimum Setbacks	10 feet from street right-of-way or easement 20 feet from all other property lines
	Illumination	Internal, External, or ECM
Interior Site Signs	Zoning District	All
	Maximum Size	12 s.f.
	Maximum Number	No limit
	Maximum Height	5 ft.
	Minimum Setbacks	25 ft. from all property lines, 10 ft. if not visible from residential zoned property
	Illumination	Internal or External
Wall Sign	Zoning District	All
	Maximum Number	No limit
	Maximum Size	No more than 1.5 s.f. per linear foot per building frontage allowable for placement, but no more than 100 s.f. max. per individual sign For wall signs 100 ft. or more from a public street right-of-way or private street easement an extra 50 s.f. is allowed as well as 50 s.f. for every 50 ft. beyond 100 ft. from the public street right-of-way or private street easement. However no individual sign shall exceed 500 s.f.
	Illumination	Internal or External

SECTION 24.110 BILLBOARDS- PERMITS REQUIRED

A. REQUIREMENTS

All billboards shall comply with the requirements of Table 24.110 A and all other requirements of this chapter except otherwise noted.

TABLE 24.110 A: BILLBOARDS

Type	Requirements	
Billboards	Zoning Districts	LI, HI on lots with frontage on M-6
	Maximum Number	No more than 6 billboards are permitted in the Township
	Maximum Size	672 s.f.
	Maximum Height	45 ft.
	Setbacks	Max. from the M-6 right-of-way: 100 ft. Min. from the M-6 right-of-way: 10 ft. Min. from any other cross-street right-of-way: 50 ft. Min. from any other property line: 50 ft.
	Minimum Separation	Min. separation between billboards: See the Highway Advertising Act of 1972. Min. distance from any existing dwelling units: 300 ft. without ECM display. Min. distance from any existing dwelling units: 750 ft. with ECM display
	Construction	Monopole structures are permitted. No other structure type is permitted.

TABLE 24.110 A: BILLBOARDS		
	Illumination	Internal, External, or ECM. Of the 6 allowable billboards, no more than 2 shall include ECM displays. ECM displays are subject to all requirements of Section 24.40 D except that the proportion of ECM display is not limited to a percentage of the total sign area.

B. BILLBOARD AND STRUCTURE DESIGN

1. **Shape.** A billboard sign face shall be a standard quadrilateral shape with four right angles, such as a square or rectangle, with the bottom edge being level with the street.
2. **Configuration.** Billboard configurations shall be limited to single-face, V-type or back-to-back configurations. Stacked or staggered-height billboard sign faces are prohibited. The angle of a V-type billboard sign face configuration shall not exceed 75 degrees.
3. **Placement.**
 - a. A billboard sign face shall be perpendicular to, or angled toward, the highway right of way.
 - b. On a billboard structure with two billboard sign faces, no more than one sign face shall be oriented toward the same direction of motor vehicle traffic.
4. **Extensions.**
 - a. A billboard sign face extension may project no more than five (5) feet from the top and no more than two (2) feet from either side of the billboard sign face, and no more than two (2) feet from the bottom of the billboard sign face.
 - b. The total area of a billboard sign face extension shall be not greater than 50 square feet.
 - c. The area and height of any lawful extension shall not be included in the maximum permitted sign face area or the maximum permitted billboard structure height.
 - d. A billboard sign face extension shall be temporary only; it shall be removed when the advertising copy on the billboard is changed, and shall not become a permanent modification of the billboard structure.
 - e. A permit is not required for a billboard sign face extension.