



AGENDA ITEM SUMMARY FORM

MEETING DATE: 2/13/23

PREPARED BY: Matt Lonnerstater, AICP

AGENDA ITEM CONTENT: Special Approval Request PSP 22-11 'El Car Wash' - 1275 & 1301 W. 14 Mile Road

AGENDA ITEM SECTION: Public Hearings



BUDGETED AMOUNT: N/A

FUNDS REQUESTED: N/A

FUND: N/A

EXECUTIVE SUMMARY:

The applicant, Samantha Burgner c/o Alrig USA, on behalf of El Car Wash, requests Special Approval from City Council under Section 10.326(8) of the Madison Heights Zoning Ordinance for an auto wash facility at 1275 and 1301 W. 14 Mile Road (PINs 44-25-02-101-046 and 44-25-02-101-045). The property is zoned B-3, General Business.

RECOMMENDATION:

Staff recommends that City Council approve PSP 22-11 with conditions based on the findings listed within the staff report after the required public hearing.



MEMORANDUM

Date: February 6th, 2023
CC Meeting: February 13th, 2023
To: City of Madison Heights City Council
From: Matt Lonnerstater, AICP – City Planner
Subject: Special Approval Request PSP 22-11 – 1275 & 1301 W. 14 Mile Road – Auto Wash
Recommendation: **Approval, with Conditions**

Request

The applicant, Samantha Burgner c/o Alrig USA, on behalf of El Car Wash, requests Special Approval from City Council under Section 10.326(8) of the Madison Heights Zoning Ordinance for an auto wash facility at 1275 and 1301 W. 14 Mile Road (PINs 44-25-02-101-046 and 44-25-02-101-045). The property is zoned B-3, General Business.

Background and Application

The applicant proposes to construct an express auto wash facility featuring a small retail component on the subject site, located on the south side of W. 14 Mile Road west of Stephenson Highway. The property is currently improved with a vacant restaurant building (formerly Applebee's) and an associated parking lot. The site features two separate taxable parcels with a combined area of 1.5 acres. The existing commercial structure would be demolished to accommodate the new development.

The property is zoned B-3, General Business, which permits auto wash facilities through the special approval process outlined in **Section 10.201** of the Zoning Ordinance. Auto wash facilities are also subject to the use-specific standards contained in **Section 10.326(8)**. The special approval criteria and use-specific standards are contained at the end of this report.

The images below depict the existing conditions of the commercial building and a rendering of the proposed auto wash development.

Existing Commercial Building (vacant)



Proposed Auto Wash



The applicant has submitted a conceptual site plan, color renderings, a traffic study, and a project narrative. The proposed auto wash facility features a single-tunnel wash, small retail component, three (3) pay stations and queuing lines, and nineteen (19) outdoor vacuum stations. Within the project narrative, the applicant states that the retail component will incorporate a, *“mixed use concept allowing an additional use to the community adding character and activate the corridor with multiple services.”* The narrative states that El Car Wash partners with Mojo’s Donuts, which is self-managed and independently operated. An outdoor patio space is depicted on the site plans and in the renderings.

The renderings illustrate a shopfront-style façade along W. 14 Mile Road to screen the outdoor vacuuming spaces and queuing areas. Additional site features and amenities are shown on the conceptual site plan, including site and right-of-way landscaping, two (2) electric vehicle charging stations, a bicycle rack, public sidewalk connections, and dumpster enclosure.

Requests for special approval are subject to the following criteria, as outlined in Section **10.201(4)**:

The use shall be designed and located so that it is compatible with the surrounding properties, neighborhood and vicinity. At a minimum, this shall include:

- 1. Location of use(s) on site;*
- 2. Height of all improvements and structures;*
- 3. Adjacent conforming land uses;*
- 4. Need for proposed use in specified areas of the city;*
- 5. Conformance with future land use plans for the area as adopted by the planning commission;*
- 6. Compatibility with the permitted principal uses allowed in the zoning district where the special approval use is requested.*

Additional criteria for reviewing special uses are contained at the end of this report.

Existing Zoning, Land Use, and Transportation

The table below denotes existing adjacent land uses and zoning designations.

	Existing Land Use	Existing Zoning
Site	Commercial (vacant restaurant)	B-3, General Business
North (across 14 Mile)	Light Industrial/Office	Office (City of Troy)
South	Commercial (hotel)	H-R, High-Rise
East	Commercial (restaurant)	B-3, General Business
West	Commercial (retail/restaurant)	B-3, General Business

The subject site is zoned B-3, *General Business*, which is, “*designed to provide sites for more diversified business types and are often located so as to serve the passer-by-traffic.*” Adjacent land uses, including properties to the north in Troy, are zoned for, and developed with, commercial, retail, office and light-industrial uses.

The subject site has primary frontage along W. 14 Mile Road. Per the Master Plan, 14 Mile Road is classified as a *principal arterial road*, which is intended to provide access to important traffic generators, such as major airports or regional shopping centers. The property is located approximately 1,200 feet from the I-175/14 Mile Road interchange.

The applicant has provided a traffic study conducted by Fleis & Vandenbrink. The traffic study concludes that the proposed auto wash use will not negatively impact the adjacent roadway, and that vehicle queuing can be adequately accommodated on the site. However, the study recommends that the applicant work with the Road Commission for Oakland County (RCOC) to install a right-turn deceleration taper on eastbound 14 Mile Road prior to the site driveway.

Future Land Use and Master Plan

The table below denotes adjacent future land use designations as contained within the 2021 Madison Heights Master Plan.

	Future Land Use
Site	Commercial
North (across 14 Mile)	‘21 st Century Industrial’ (City of Troy)
South	Commercial
East	Commercial
West	Commercial

The future land use designation of the subject site and adjacent properties is listed as ‘*Commercial.*’ Per the Master Plan, the Commercial designation is intended to, “*cover a broad range of goods and services.*” Further, the Master Plan states, “*it is envisioned that development regulations for commercial areas will be aimed at incremental improvements for existing development/redevelopment and support the kind of flexibility needed to encourage private investment.*” Adjacent property, including property to the north in Troy, is planned for commercial and light industrial uses.

Environment and Sustainability

The project narrative provides a brief overview of proposed water re-use and recycling system. Per the narrative, the auto wash facility will be improved with holding tanks that will recycle and re-utilize grey water utilizing a reverse osmosis filtration system. A sand-oil separator treatment system is proposed to treat water prior to disposal into the wastewater sewer system.

Use-Specific Standards

Auto wash facilities are subject to the use-specific standards of **Section 10.326(8), listed in full at the end of this report**. The following standards are not currently met by the proposed development:

- *The time of operation shall be limited between the hours of 8:00 a.m. and 10:00 p.m.*

The project narrative states that the car wash will operate between 7 a.m. and 9 p.m. The applicant will need to modify hours of operation or seek a variance from the Zoning Board of Appeals.

- *All operations must be carried on within the building area, including but not limited to vacuuming, washing and drying.*

Nineteen (19) outdoor vacuuming stations are proposed. The applicant will need to seek a variance from the Zoning Board of Appeals.

Additionally, staff notes that the conceptual renderings depict a large roof sign stating, “Welcome to Madison Heights.” Roof signs projecting above any portion of a roof are prohibited per city sign regulations, Section 10.511(IV)(A) of the Zoning Ordinance. The applicant will need to revise the location of this sign or alternatively seek a variance through the Zoning Board of Appeals.

Staff Analysis

While staff has concerns regarding the proliferation of auto-oriented uses (such as auto wash facilities) in Madison Heights, staff acknowledges that the site’s proximity to the I-75/14 Mile Road interchange and location along a principal arterial road makes it conducive for such uses. The proposed project would allow for the redevelopment of a vacant commercial site and eliminate an under-utilized parking area. Further, the project would introduce a modern shopfront-style façade with a retail component along the 14 Mile Road frontage, which staff believes could activate and add unique character to the streetscape. Several minor site plan modifications are needed to ensure compliance with the Zoning Ordinance and to ensure safe pedestrian movement on the property, which can be confirmed upon site plan review. The applicant will need to obtain a variance from the Zoning Board of Appeals to accommodate the outdoor vacuuming stations, with additional potential variances for hours of operation and roof signage.

Staff recommends the following conditions of approval to promote the use of land in a socially and economically desirable manner, ensure that the site is developed in substantial compliance with the provided conceptual plan and the Zoning Ordinance, and certify that the use does not operate in a manner that negatively-impacts adjacent properties:

- 1) Combine the two (2) separate parcels into a single parcel via the lot combination process.
- 2) Include a retail/food component and outdoor patio area on the site plan to activate the 14 Mile Road streetscape. The patio area shall be substantially consistent with the renderings, the exact location and design of which may be determined during the site plan review process.
- 3) Provide a pedestrian sidewalk connection between the 'pre-wash' spaces and the retail component. The pedestrian connection shall be improved with an alternate paving material (e.g. stamped concrete/asphalt) where it crosses vehicular drive aisles. The exact location and design of the pedestrian connection may be determined during the site plan review process.
- 4) Improve the pedestrian connection from W. 14 Mile Road with an alternate paving material (e.g. stamped concrete/asphalt) where it crosses vehicular drive aisles.
- 5) Provide a minimum of two (2) electric vehicle (EV) charging stations, level two or above, on the site. The exact location of the charging stations may be determined during the site plan review process.
- 6) Modify the location of the bypass lane into the parking/vacuum area to ensure that drivers and emergency vehicles can escape a long queue line, if needed. The exact location of the bypass lane may be determined during the site plan review process.
- 7) Seek approval from the Road Commission for Oakland County (RCOC) for a right-turn deceleration taper lane along 14 Mile Road in accordance with the Fleis & Vandenbrink traffic study.
- 8) Obtain a variance from the Zoning Board of Appeals for outdoor vacuuming stations, which are prohibited per Section 10.326(8)(q).
- 9) Modify the hours of operation to satisfy the use-specific condition of Section 10.326(8)(c), *"the time of operation shall be limited between the hours of 8:00 a.m. and 10:00 p.m."* or seek a variance from the Zoning Board of Appeals.
- 10) Revise the location of the proposed roof sign to comply with sign regulations, Section 10.511, or seek a variance from the Zoning Board of Appeals.
- 11) Remove the existing nonconforming pylon sign. All new wall and ground signage shall be in compliance with city sign regulations, 10.511 of the Zoning Ordinance.
- 12) Building elevations submitted for site plan review shall be substantially consistent with the provided renderings. the applicant shall have the ability to work with the Community & Economic Development Department to develop alternative elevations that meet the spirit of the renderings.

Findings and Recommendation

Staff offers the following findings for City Council consideration:

1. The applicant requests special use approval for an auto wash use at 1275 & 1301 W. 14 Mile Road, zoned B-3, General Business
2. The proposed auto wash use is compatible with existing adjacent uses, which primarily includes commercial, retail, office and restaurant uses.
3. The proposed auto wash use is compatible with the Future Land Use Map's 'Commercial' designation for the subject site, as contained within the 2021 Master Plan.
4. The proposed auto wash use is consistent with the special use criteria of Section 10.201(4).

5. The proposed site plan layout, mixed-use format, and architectural design of the auto wash use promotes the activation of the 14 Mile Road streetscape and furthers the intent of the Zoning Ordinance.
6. The proposed auto wash use satisfies a majority of the use-specific criteria of Section 10326(8) and general site development requirements of the Zoning Ordinance. However, several modifications will need to be made to bring it into full compliance with the Zoning Ordinance. Variances from the Zoning Board of Appeals may be required where zoning compliance cannot be obtained.
7. The Site Plan Review Committee (SPRC) reviewed the proposed special approval request at their January 11th, 2023 meeting. The SPRC provided minor comments regarding the site plan, which have been incorporated as recommended conditions in this Staff Report. Further SPRC review will be required upon submittal of the site plan.

Based on these findings, staff recommends that City Council **approve special use request PSP 22-11, with the following conditions:**

- 1) Combine the two (2) separate parcels into a single parcel via the lot combination process.
- 2) Include a retail/food component and outdoor patio area on the site plan to activate the 14 Mile Road streetscape. The patio area shall be substantially consistent with the renderings, the exact location and design of which may be determined during the site plan review process.
- 3) Provide a pedestrian sidewalk connection between the 'pre-wash' spaces and the retail component. The pedestrian connection shall be improved with an alternate paving material (e.g. stamped concrete/asphalt) where it crosses vehicular drive aisles. The exact location and design of the pedestrian connection may be determined during the site plan review process.
- 4) Improve the pedestrian connection from W. 14 Mile Road with an alternate paving material (e.g. stamped concrete/asphalt) where it crosses vehicular drive aisles.
- 5) Provide a minimum of two (2) electric vehicle (EV) charging stations, level two or above, on the site. The exact location of the charging stations may be determined during the site plan review process.
- 6) Modify the location of the bypass lane into the parking/vacuum area to ensure that drivers and emergency vehicles can escape a long queue line, if needed. The exact location of the bypass lane may be determined during the site plan review process.
- 7) Seek approval from the Road Commission for Oakland County (RCOC) for a right-turn deceleration taper lane along 14 Mile Road in accordance with the Fleis & Vandenbrink traffic study.
- 8) Obtain a variance from the Zoning Board of Appeals for outdoor vacuuming stations, which are prohibited per Section 10.326(8)(q).
- 9) Modify the hours of operation to satisfy the use-specific condition of Section 10.326(8)(c), *"the time of operation shall be limited between the hours of 8:00 a.m. and 10:00 p.m."* **or** seek a variance from the Zoning Board of Appeals.
- 10) Revise the location of the proposed roof sign to comply with sign regulations, Section 10.511, **or** seek a variance from the Zoning Board of Appeals.

- 11) Remove the existing nonconforming pylon sign. All new wall and ground signage shall be in compliance with city sign regulations, 10.511 of the Zoning Ordinance.
- 12) Building elevations submitted for site plan review shall be substantially consistent with the provided renderings. the applicant shall have the ability to work with the Community & Economic Development Department to develop alternative elevations that meet the spirit of the renderings.

Next Step

After the public hearing and discussion, City Council may take action on the requested special use by approving, approving with conditions, or denying the application. Alternatively, City Council may postpone action to allow verification, compilation, or submission of additional or supplemental information or to address other concerns or issues.

Any motion shall include concise findings based upon the special approval review standards and criteria, Section 10.201(4), listed below.

Pertinent Zoning Ordinance Sections

Sec. 10.326 - B-3 Uses Permissible on Special Approval

- (8) Auto washes:
- (a) When completely enclosed in a building.
 - (b) An attendant must be on duty and on the premises at all times that such auto wash is in operation. All other times, the building must be locked and safely secured.
 - (c) The time of operation shall be limited between the hours of 8:00 a.m. and 10:00 p.m.
 - (d) All buildings to be used in connection with the auto wash shall be located at least 20 feet away from any right-of-way line.
 - (e) Where multiple wash stalls are proposed all auto stacking lanes must be channeled with curbs to each wash stall so as to prevent cross traffic and the minimum stacking space shall be six cars per stall. The minimum amount of stacking space to be provided in all car wash developments shall be equivalent to 20 minutes of full and continuous operation.
 - (f) Buildings must be constructed so as to be enclosed on two sides plus doors on the front and rear of each stall, capable of being locked.
 - (g) All lights used in connection with auto washes shall be shaded so as not to project upon or become a nuisance to adjacent properties.
 - (h) All land used in connection with auto washes is to be paved and drainage provided in accordance with existing ordinances pertaining to parking lots.
 - (i) A chainlink-type fence must be constructed so as to enclose the entire property except drives and areas where screen walls are required, two feet along any street, four feet side and back.
 - (j) Access points are limited to not more than two 20-foot drives. Such drives are to be a minimum of 50 feet apart and ten feet from the exterior lot lines and 35 feet from any intersection right-of-way lines and shall not be constructed so that ingress and egress shall be through residentially zoned areas. Such access points must have the approval of the Madison Heights Police Department to effect that they will not interfere with vehicular traffic nor will they create a safety hazard.
 - (k) No steam hose for public use shall be located upon the premises in connection with such auto wash.
 - (l) All blowers shall be turned off when not in use in connection with the operation of the car wash.
 - (m) It shall be unlawful for any person, firm or corporation or any agent, servant or employee thereof, who while operating an auto wash, to permit or cause to be permitted upon the premises in which the said business is located, a nuisance, by allowing the health, safety or welfare of the community to be impaired.
 - (n) It shall be the duty of the licensee, manager, or person in charge of any auto wash, to keep the premises whereon said auto wash is located, together with the parking area and any adjacent area, free from rubbish, waste products and debris.
 - (o) It shall be unlawful for any patron of an auto wash or for any other person while parking on or adjacent to the premises to race the motor of any vehicle, to suddenly start or stop any unseemly noise, nuisance or disturbance which shall impair the peace, health or safety of the community.
 - (p) Construction of auto wash buildings shall not be permitted if said construction shall require standing or parking on public rights-of-way in connection with the operation of the auto wash.

- (q) All operations must be carried on within the building area, including but not limited to vacuuming, washing and drying.

Section 10.201 – *Special Approval Use Review Procedures and Requirements*

- (4) *Review standards and criteria.* The city council shall consider the following standards and criteria in their review of all special approval use requests:
 - (a) Site plans submitted for special approval uses shall be prepared in conformance with and contain all information as outlined in Section 10.514. Site Plan Review.
 - (b) All design standards or criteria imposed on specific special approval uses elsewhere in this Ordinance shall be met.
 - (c) The use shall be designed and located so that it is compatible with the surrounding properties, neighborhood and vicinity. At a minimum, this shall include:
 - 1. Location of use(s) on site;
 - 2. Height of all improvements and structures;
 - 3. Adjacent conforming land uses;
 - 4. Need for proposed use in specified areas of the city;
 - 5. Conformance with future land use plans for the area as adopted by the planning commission; and
 - 6. Compatibility with the permitted principal uses allowed in the zoning district where the special approval use is requested.
 - (d) Ingress/egress to the use shall be controlled to assure maximum vehicular and pedestrian safety, convenience and minimum traffic impact on adjacent roads, drives and uses including, but not limited to:
 - 1. Reduction in the number of ingress/egress points through elimination, minimization and/or consolidation of drives and/or curb cuts;
 - 2. Proximity and relation to intersections, specifically with regard to distance from drive(s) to intersection(s);
 - 3. Reduction/elimination of pedestrian/vehicular traffic conflicts;
 - 4. Adequacy of sight distances;
 - 5. Location and access of off-street parking;
 - 6. Location and/or potential use of service drives to access multiple parcels, reducing the number of access points necessary to serve the parcels.
 - (e) Screening shall be provided along all property lines, where council determines such screening is necessary to minimize impact of the use on adjacent properties or uses.
 - (f) The use shall be properly served by utilities.
 - (g) The use shall not have an adverse effect on the environment beyond the normal effects of permitted principal uses in the same zoning district and shall not result in an impairment, pollution, and/or destruction of the air, water, and natural resources.
 - (h) The use shall be specifically scrutinized for conformance with the performance standards outlined in section 10.509 of this Ordinance.
 - (i) The proposed use shall be designed as to location, size, intensity, site layout, and periods of operation to eliminate any possible nuisances which might be noxious to the occupants of any other nearby

properties. The use shall not involve uses, activities, processes, materials, equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive smoke, fumes, glare, noise, vibration, odors, and adverse environmental impacts.

- (j) The proposed use does not impose an unreasonable burden upon public services and utilities in relation to the burden imposed by permitted principal uses in the same zoning district.
- (k) The city council may impose conditions in granting special approval that it deems necessary to fulfill the spirit and purpose of this Ordinance. The conditions may include those necessary to ensure that public services and facilities affected by a proposed land use or activity will be capable of accommodating increased service and facility loads caused by the land use or activity, to protect the natural environment and conserve natural resources and energy, to ensure compatibility with adjacent uses of land, and to promote the use of land in a socially and economically desirable manner. Conditions imposed shall:
 - 1. Be designed to protect natural resources, the health, safety and welfare, as well as the social and economic well-being of those who will use the land use or activity under consideration, residents and landowners immediately adjacent to the proposed land use or activity, and the community as a whole.
 - 2. Be related to the valid exercise of the police power and purposes that are affected by the proposed use or activity.
 - 3. Be necessary to meet the intent and purpose of the zoning regulations; be related to the standards established in this Ordinance for the land use or activity under consideration (if applicable); and be necessary to ensure compliance with those standards.
 - 4. Provide adequate safeguards as deemed necessary for the protection of the general welfare and individual property rights, and for ensuring that the intent and objectives of this Ordinance will be observed. The breach of any condition, safeguard or requirement, and the failure to correct such breach within 30 days after an order to correct is issued by the city shall be reason for immediate revocation of the special approval. Conditions and requirements stated as a part of special use permit authorizations shall be continuing obligations of the holders of such permits and are binding upon their heirs and assigns and upon any persons taking title to the affected property while such special use permit is in effect.
- (l) The discontinuance of a special use after a specified time may be a condition to the issuance of the permit. Renewal of a special use permit may be granted after a review and determination by the city council that continuing private need and public benefit will be served by such renewal. Renewal applications shall be in accord with standards and requirements in effect at the time that the renewal is requested.

NOTICE OF PUBLIC HEARING

Notice is hereby given that the City Council for the City of Madison Heights will hold a public hearing on **Monday, February 13th, 2023 at 7:30 p.m. in the City Council Chambers of the Municipal Building at 300 W. 13 Mile Road, Madison Heights, Michigan 48071** to consider the following special approval request:

Case # PSP 22-11

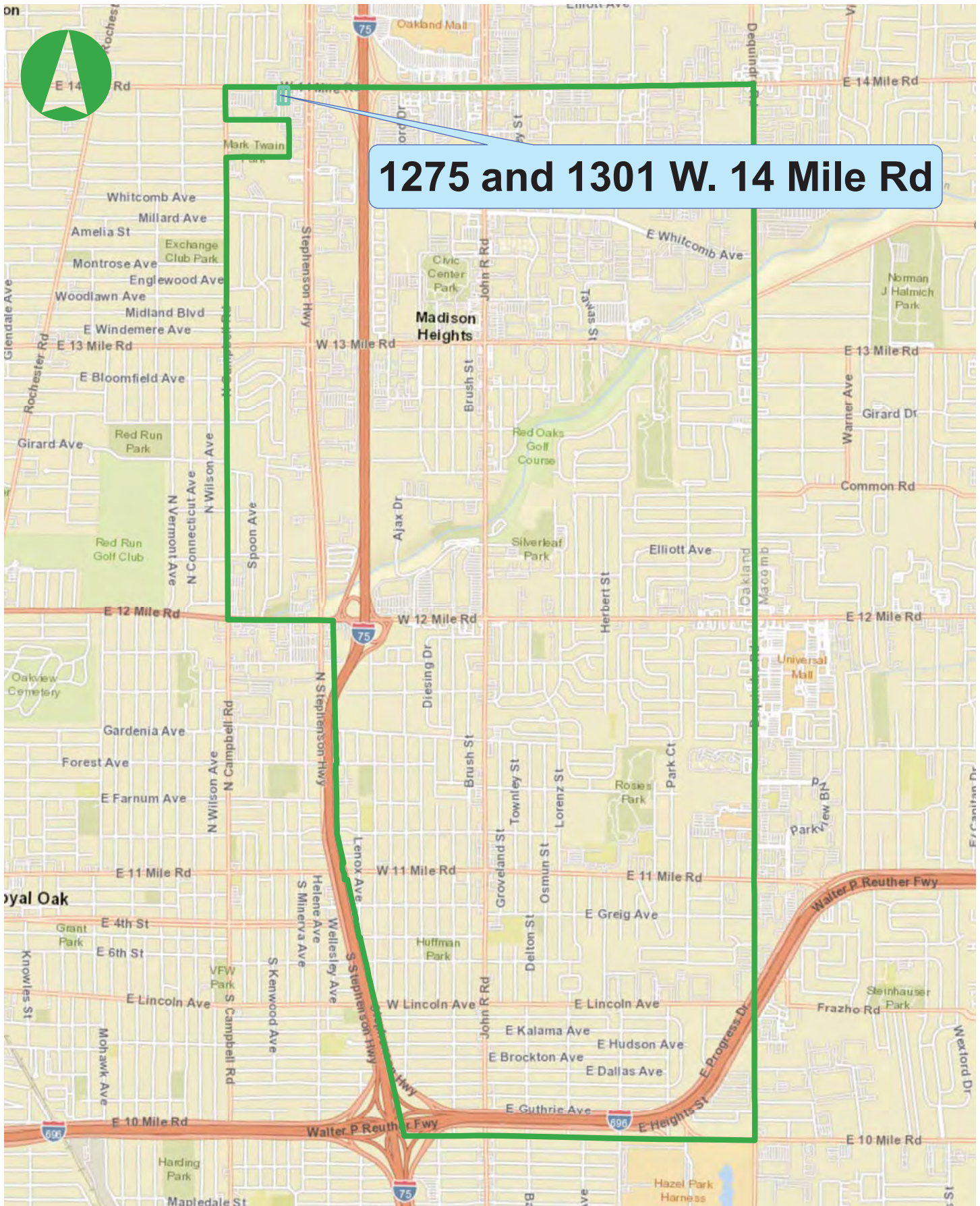
The applicant, Samantha Burgner, requests Special Approval from City Council under Section 10.326(8) of the Madison Heights Zoning Ordinance for an automated auto wash at 1275 & 1301 W. 14 Mile Road, PINS 44-25-02-101-046 and 44-25-02-101-045. The property is zoned B-3, General Business.

The application and any supporting documents can be viewed during regular business hours at the Community and Economic Development Department. In addition, the agenda item can be viewed online after 4:00 p.m. on the Friday prior to the meeting at www.madison-heights.org in the Agenda Center.

For further information, please contact the Community and Economic Development Department at (248) 583-0831.

Cheryl Rottmann, CMC
City Clerk
(248) 583-0826

PSP CASE: 22 - 11



Site Address: 1275 and 1301 W. 14 Mile Rd



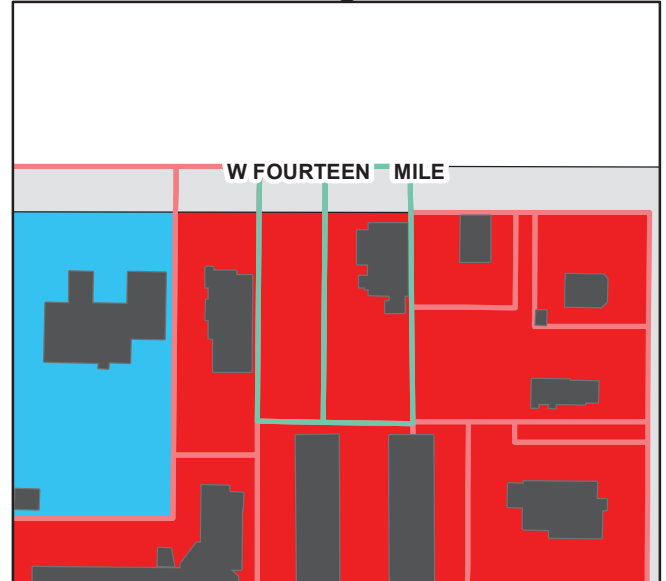
[Click for maps](#)

Aerial



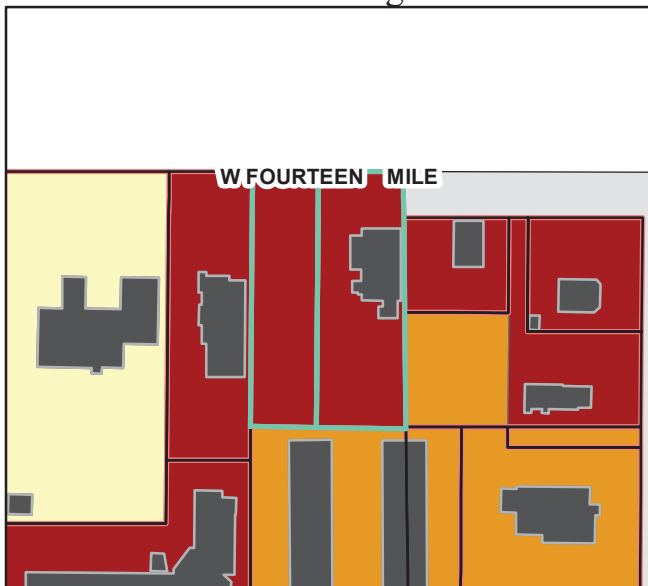
- 1275 and 1301 W.14 Mile Rd
- Parcels

Existing Land Use



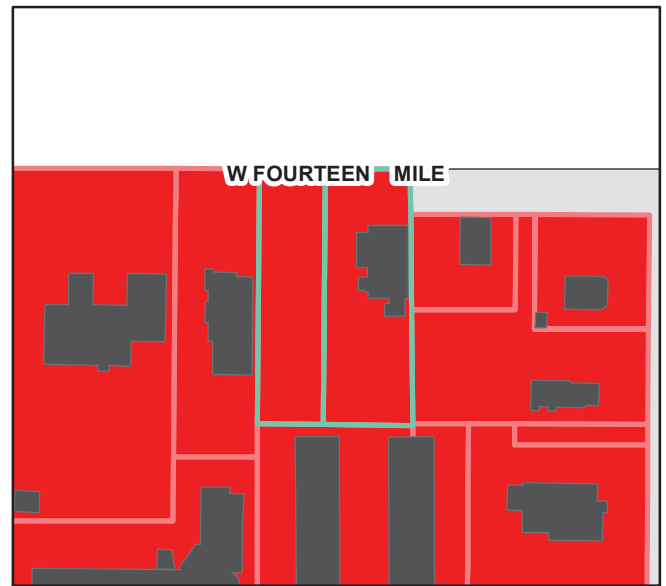
- 1275 and 1301 W.14 Mile Rd
- Parcels
- Commercial
- Quasi-Public
- Buildings

Zoning



- 1275 and 1301 W.14 Mile Rd
- Parcels
- B-3 General Business
- H-R High Rise
- R-2 Residential
- Buildings

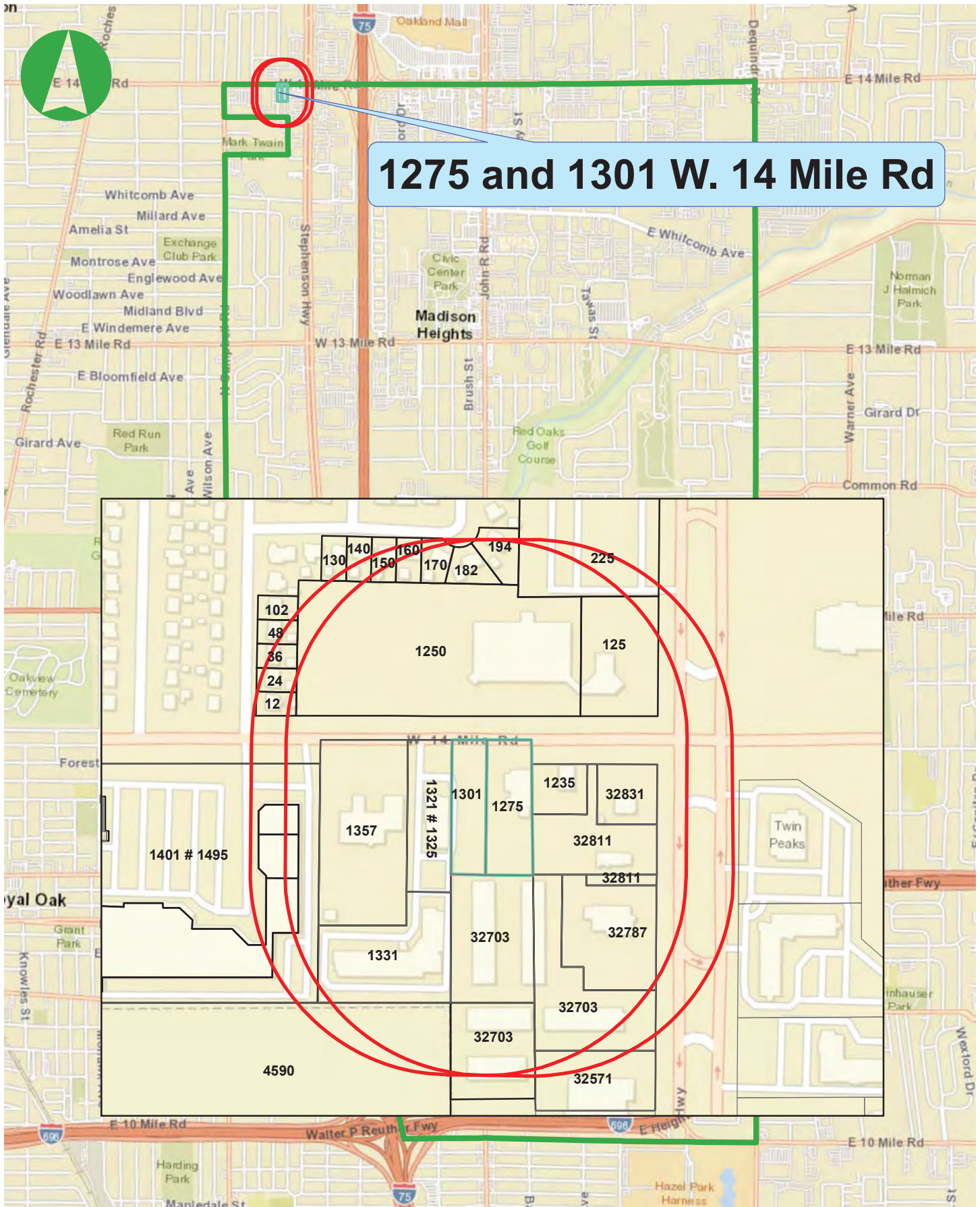
Future Land Use



- 1275 and 1301 W.14 Mile Rd
- Commercial
- Buildings
- Industrial

PSP CASE: 22 - 11

BUFFER 500 FT





**CITY OF MADISON HEIGHTS
COMMUNITY DEVELOPMENT DEPARTMENT
PETITION FOR USE PERMITTED BY
SPECIAL APPROVAL**

FOR OFFICE USE ONLY

Request	No:
Date	Filed:
Approved by	CDD:
Approved for Hearing: _____	

I (we) the under signed, do hereby apply and petition the City of Madison Heights for a Special Approval Use Permit and provide the following information.

(Application must be typed)

Building Address: 1275 & 1301 W. 14 Mile Road Tax ID No.: 44 - 25 - 02 - 101 - 045
44 - 25 - 02 - 101 - 046

APPLICANT INFORMATION

Name: Samantha Burgner
Phone No.: (413)-464-2267 Fax No.: N/A
Mailing Address: 30200 Telegraph Rd Suite 205 City, State, Zip: Bingham Farms, MI 48025
(Notices will be mailed to this address)
Driver's License No.: N/A Date of Birth: N/A
Interest in Property: Redevelopment

BUILDING & BUSINESS INFORMATION

Zoning District: B-3 Autowash Use Requested Pursuant to Section 10.326 of the Zoning Ordinance
Explain Requested Use in Detail: Proposed 3,822 SF drive-through autowash with 31 parking spaces. Autowash will have 22 vacuum spaces with two (2) vacuum producers enclosed within a building structure. Proposed 32 stacking spaces with 3 pay-stations and 6 pre-wash parking spaces.

The above referenced parcel is known as: (Lots(s) Acreage Parcel (s)) 0.66-AC & 0.84-AC of N/A
Subdivision (if platted lot(s)) and is located on the N S E W (Circle One) side of West 14 Mile Rd Street/Road between Stephenson Highway Street/Road and Campbell Street / Road.

Hours of Operation: 7am - 9pm
Property Frontage: 196.3 FT Width/Depth: 335 FT No. of Parking Spaces: 31 Private Lot Shared Lot
No. of Floors: 1 Max. No. of Employees: 8 Male N/A Female N/A No. on Largest Single Shift: 6
No. of Seats for Restaurant or Assembly Uses: N/A Capacity of Waiting Area: N/A
Building: New X or Existing Will Additions or Alterations to the Building be Required? N/A
Explain: New Building

Describe Any Other Site Improvements to be Made: 31 space parking lot for vacuum spaces, employees, and drive-through lanes
Landscaping and utility improvements

Building Owner Name: Ross Prop LLC: David Field Phone No.: (248)-737-0000 Fax No.: N/A
Mailing Address: 31390 Northwestern Hwy, Suite A City: Farmington Hills, MI Zip: 48334
(Notices will be mailed to this address)

Note: All blanks and boxes above must be completed. Use N/A where appropriate.
CONTINUED ON REVERSE SIDE



PETITION FOR USE PERMITTED BY
SPECIAL APPROVAL (Continued)

Include one (1) copies of a site plan, no larger than 11 x 17 inches, which meets the requirements of Section 10.514 of the Zoning Ordinance of Madison Heights and the required seven hundred and fifty dollar fee (\$750.00) plus a site plan application.

This petition / application must be signed by both the Owner in Fee of the property and the Applicant prior to submittal. Applicant(s) and property owner(s) hereby consent to city staff, board and commission members, and contractors to access the property for purposes of evaluating the site for the requested action(s).

FOR THE OWNER:

Signature [Signature]
Printed DAVID R. FIELD Name
Date 12/20/22

FOR THE APPLICANT IF NOT THE OWNER:

Signature [Signature]
Printed Samantha Burgner Name
Date 12/20/2022

NOTARY:

On this 20th day of December

Before me personally appeared
David R. Field to me known to be the
person who executed the forgoing instrument, and
acknowledged that he executed the same as his free act
and deed.

Notary's
Signature [Signature]

Notary's
Printed Name Lisa E. Hissong

Notary public, State of Michigan,

County of Wayne

My commission expires 3/25/2029

Acting in the County of Oakland

NOTARY:

On this 20th day of December

Before me personally appeared
Samantha Burgner to me known to be the
person who executed the forgoing instrument, and
acknowledged that he executed the same as his free act
and deed.

Notary's
Signature [Signature]

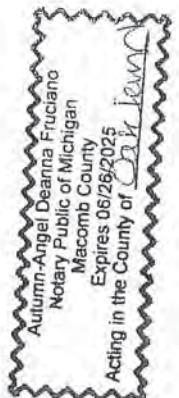
Notary's
Printed Name Autumn Fruciano

Notary public, State of Michigan,

County of Oakland

My commission expires 5/25/2025

Acting in the County of Oakland



OFFICE USE ONLY

\$750.00 Fee Paid _____	Receipt Number _____	By _____	Date: _____
One Site Plan Attached no larger than 11 x 17 inches <input type="checkbox"/> Yes <input type="checkbox"/> No			
Site Plan Application: _____		Date: _____	
Copies to C.D.D. _____			
Notices Mailed to Properties Within 500 Feet _____			
Council Action _____			
Meeting Date _____			

NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF WAYNE
Lisa E. Hissong
My Commission Expires 03/25/2029
Acting in the County of Oakland



February 6, 2023

Mayor Roslyn Grafstein
and City Council
City of Madison Heights
300 W. 13 Mile Road
Madison Heights, MI 48071

Re: Address: 1275 W. 14 Mile Road
Applicant: El Car Wash
Special Use Approval for Car Wash

Dear Mayor Grafstein and City Councilmembers:

On behalf of El Car Wash ("El"), we are providing this supplemental letter to address compliance with Special Approval Use standards, as specified in your Zoning Ordinance. The Applicant is proposing a new El Car Wash and Mojo Donuts restaurant at the project site. The existing restaurant building, formerly Applebee's, will be demolished and replaced by two new businesses, both from Florida.

El believes the market at this location for a new upscale, environmentally sustainable car wash is excellent. Other car washes in Madison Heights are predominately in the area east of I-75. The El Car Wash is located in an under-served area in the northwest portion of the City.

The project site is zoned B-3 bordered by a Dunkin' Donuts restaurant to the west, Rodeway Inn to the south, and a Tim Horton's restaurant (under construction) to the east. The proposed El Car Wash / Mojo Donuts will complement the obvious trend in this area away from traditional sit-down restaurants to the "fast casual" brands. These businesses will provide customers from nearby hotels, commercial businesses and residential neighborhoods with a variety of consumer choices.

The El Car Wash will not disturb any residential neighbors as all adjacent neighbors are commercial. Proposed hours of operation are 7 a.m. to 9 p.m., consistent with many businesses in the area.

We have attached El's stated compliance with all of the Special Approval Use standards that the City Council reviews pursuant to Zoning Ordinance Section 10.201. El meets or exceeds all of those Standards. In particular, the following compliance points are of note:

- Mixed-use nature of the site, including the El Car Wash and Mojo Donuts;

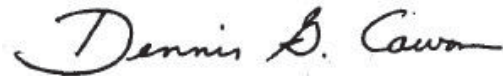
ATTORNEYS & COUNSELORS AT LAW

Mayor Roslyn Grafstein
and City Council
City of Madison Heights
February 6, 2023
Page 2

- More than required stacking spaces so there will be no encroachment onto 14 Mile from those vehicles entering the site;
- Environmentally sustainable features, including water recycling and sand-oil separator treatment systems;
- An on-site bike rack will be installed; and
- Electric vehicle (EV) charging stations are included in the Site Plan.

Based on El's compliance with the Special Approval Use standards, we respectfully request the City Council approve the Special Approval Use for the El Car Wash. We look forward to our dialogue with you at your February 13th meeting. In the meantime, should you have any questions regarding this correspondence or the proposed mixed-used project, please feel free to contact me at your earliest convenience.

Sincerely,



Dennis G. Cowan
Direct Dial: (248) 901-4029
Cell: (248) 321-2820
Email: dcowan@plunkettcooney.com

DGC/cmw
Attachment

cc: Justin Landau
Gabe Schuchman
Samantha Burgner
Mitchell Harvey

Open.29459.30018.30489798-1

El Car Wash 1275 W. 14 Mile Road

Compliance with Special Approval Use Standards Pursuant to Zoning Ordinance Section 10.201(4)

- (a) Site plans submitted for special approval uses shall be prepared in conformance with and contain all information as outlined in Section 10.514. Site Plan Review.**

El has submitted its Site Plan and other required documentation for Special Approval Uses in compliance with all information as outlined in Section 10.514.

- (b) All design standards or criteria imposed on specific special approval uses elsewhere in this Ordinance shall be met.**

The criteria as outlined in Section 10.326(8), specifically addresses auto washes. El is in compliance with or exceeds the stated criteria but is providing landscaping instead of a chain-link fence around the west and south property lines. El believes a chain-link fence would be unsightly given the new construction in the immediate area.

- (c) The use shall be designed and located so that it is compatible with the surrounding properties, neighborhood and vicinity. At a minimum, this shall include:**

- 1. Location of use(s) on site;**
- 2. Height of all improvements and structures;**
- 3. Adjacent conforming land uses;**
- 4. Need for proposed use in specified areas of the city;**
- 5. Conformance with future land use plans for the area as adopted by the planning commission; and**
- 6. Compatibility with the permitted principal uses allowed in the zoning district where the special approval use is requested.**

The El Car Wash and Mojo Donuts are compatible with the surrounding commercial properties and vicinity. The site is 1.5 acres providing adequate space for all primary and secondary business activities. The proposed uses are

consistent with other uses in the vicinity allowing consumers to make multiple stops during one vehicle trip.

(d) Ingress/egress to the use shall be controlled to assure maximum vehicular and pedestrian safety, convenience and minimum traffic impact on adjacent roads, drives and uses including, but not limited to:

- 1. Reduction in the number of ingress/egress points through elimination, minimization and/or consolidation of drives and/or curb cuts;**
- 2. Proximity and relation to intersections, specifically with regard to distance from drive(s) to intersection(s);**
- 3. Reduction/elimination of pedestrian/vehicular traffic conflicts;**
- 4. Adequacy of sight distances;**
- 5. Location and access of off-street parking;**
- 6. Location and/or potential use of service drives to access multiple parcels, reducing the number of access points necessary to serve the parcels.**

There is only one driveway access point for ingress and egress to the site. The interior drives are routed in such manner to eliminate or minimize any vehicular conflict within the site. There are ample site lines to avoid any conflicts with pedestrians or bikers when cars are entering or leaving the site. More than adequate on-site parking is provided.

(e) Screening shall be provided along all property lines, where council determines such screening is necessary to minimize impact of the use on adjacent properties or uses.

Currently, there is no screening at the site. El provides a unique entry point from 14 Mile, which screens the northern property line, which is the most visible feature for drivers and pedestrians. The east property line is screened by the car wash building. Curbing protects the drive lanes on the western and southern property lines, which leads to the entryway to the car wash building.

(f) The use shall be properly served by utilities.

The utilities are adequate, and the proposed site uses shall be properly served.

(g) The use shall not have an adverse effect on the environment beyond the normal affects of permitted principal uses in the same zoning district and shall not result in an impairment, pollution, and/or destruction of the air, water, and natural resources.

The proposed car wash and restaurant uses will not create any adverse environmental impact. In fact, the El Car Wash recycles approximately 90% of the water used at the facility. Any water discharged in the public sewer system will go through a sand-oil separator system to eliminate the possibility of any contamination. El Car Wash is an eco-friendly business that uses about one-third of the water that would be used with residents cleaning their car at home. Two electric vehicle (EV) charging stations are also included in the Site Plan.

(h) The use shall be specifically scrutinized for conformance with the performance standards outlined in Section 10.509 of this Ordinance.

The proposed uses are in compliance with Section 10.509, which concerns performance standards, including open storage, glare and radioactive materials, fire and explosive hazards, noise and waste. None of these adverse factors are present at the project site. To reduce noise, the main vacuum filter/separator and vacuum turbines are located inside the car wash building. No outdoor speakers are associated with the car wash tunnel. There is little noise that emanates from the car wash building and is of an intermittent nature. As previously stated, water is recycled and there will be no untreated waste discharge into the public sewer system.

(i) The proposed use shall be designed as to location, size, intensity, site layout, and periods of operation to eliminate any possible nuisances which might be noxious to the occupants of any other nearby properties. The use shall not involve uses, activities, processes, materials, equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive smoke, fumes, glare, noise, vibration, odors, and adverse environmental impacts.

The site layout has been designed to eliminate any possible nuisances that might affect adjacent properties. The primary car wash activity will be within an enclosed building. There is no excessive smoke, fumes, glare, noise, vibration, odors, or adverse environmental impacts.

- (j) The proposed use does not impose an unreasonable burden upon public services and utilities in relation to the burden imposed by permitted principal uses in the same zoning district.**

The proposed use does not impose any burden upon public services and utilities.

Open.29459.30018.30485168-1



Re: El Car Wash Application for a High-End Express Car Wash in Madison Heights

El Car Wash
Justin Landau
5201 SW 8th St.
Miami, FL 33134
justin@elcarwash.com
(917) 680-5575

Dear Madison Heights City Council,

El Car Wash is the largest independent car wash company in South Florida. Since being founded in 2011, the company has since grown to include 26 locations that are currently open with another 20 sites currently under construction. We have experienced such rapid success in South Florida and hope to expand our brand to the Metro Detroit area with over 15+ sites in our portfolio, with Madison Heights scheduled as our second location to open. At our proposed Madison Heights site, we would build one of our high-end facilities consisting of a single tunnel, three pay-stations, and ample parking spaces with vacuum amenities. We do not ever touch your car as this is a completely self-service facility where the multi-million dollar tunnel does the exterior cleaning and the customer then chooses to clean the interior themselves or exit the property. Customers can join El Car Wash's unlimited membership program and receive unlimited washes at all our locations across our portfolio in Michigan and Florida. Each location provides free vacuums, towels, glass cleaner, compressed air, dash wipes and more.



Express Car Washes – Common Misconceptions vs. Reality

Item	Misconception	Reality for El Car Wash
COVID	I will need to interact with employees	You stay in your vehicle the entire time as the car exterior is washed and dried by our equipment only then you can use the free vacuums and other amenities if you choose - it is completely user controlled
Hours of Operation	Car Washes are 24/7	We are exclusively a day-time operation – 7:00am to 9:00pm (all employees off site shortly after) – Gas stations and Drive Thru restaurants are open much later or 24/7
Aesthetics	Car washes are blue tents and very ugly	We focus on having thoughtful curb appeal that matches the local community and costs over \$3-4 million to build
Environmental Impact	Car washes are bad for the environment	Express car washes are completely environmentally friendly, save substantial water for the community vs washing at home or Gas Stations and all soaps are biodegradable
Noise (Music)	There is loud music played	We do not play music and no music is allowed on site
Noise (Vacuums)	The vacuums are loud and there is a lot of noise	Vacuum equipment is housed inside of concrete enclosures & even without it there is only average street level noise at property line
Light	The site is lit up all night	Site lighting is turned off when closed and there are stringent requirements for all <u>photometrics</u>
Traffic	Car washes bring traffic	We generate fewer trips than restaurants or banks and our high-speed tunnel gets cars out in 2-3 minutes
Staffing	There are 20+ employees drying & vacuuming cars	We NEVER touch a car – this is an express car wash only – there are typically 5 employees on site, and they are there for customer service
Odor & Smell	Car washes create waste	There are no odors or smells
Maintenance	Car washes are not maintained well	Our only focus of business is car washing – not gas station, not lube shop, we keep our sites looking perfect because we sell cleanliness

We understand that most people and communities are unfamiliar with the new form of express car wash, and we truly appreciate the opportunity to have our application considered and to dispel many of the misconceptions that exist about this industry. We ask that you please take the time to read through our application and are excited about the prospect of being a long-term partner to the community of Madison Heights and providing a great service to its growing population.

Mixed Used Component

The site will include a mixed used concept allowing an additional use to the community adding character and activate the corridor with multiple services. ECW currently partners, Mojo's Donuts a small business located in Miami. Mojo's Donuts is committed to growing with ECW and bringing their business to the Michigan market. The user would be self-managed and independently operated. The space will have a separate entrance, food prep, and storage area. The operations will be a carry out based option with outdoor seating in the warmer months.

Sustainability

The carwash will include state-of-the-art equipment for vehicle cleaning and protecting. The innovative process and proposed equipment allow the entire car washing and drying experience to be approximately 2.5 minutes. The facility proposes large holding tanks that will recycle the water used by the facility. Approximately 90 percent of the facility's water will be recycled by taking the car-wash water runoff and containing it inside the building, then it will be drained to the re-use tank for future car washes. There will be a sand-oil separator treatment system to pre-treat the water before being discharged to the

wastewater system; therefore, the water will not be discharged into the stormwater system. The light poles are installed with LED fixtures for energy efficiency. Sidewalks and crosswalks throughout the site promote pedestrian connectivity into and around the facility.

The El Car Wash brand is anchored in customer service, social responsibility, site cleanliness, quality and speed. We believe that part of our mission is to create a fun and environmentally conscious experience for customers. At our locations we make a consistent and dedicated effort to reduce the carbon footprint on the environment; we accomplish this by utilizing reverse osmosis filtration to recycle our water, using professional biodegradable products that are safe for the earth, and saving energy through major investments in top-of-the-line equipment.

Generally speaking, few people realize that washing a car in their driveway is one of the most environmentally un-friendly chores they can do around the house. Unlike household wastewater that enters sewers or septic systems and undergoes treatment before it is discharged into the environment, what runs off from your car sweeps down your driveway (an impervious surface) and goes right into storm drains—and eventually into rivers, streams, creeks and wetlands where it poisons aquatic life and wreaks other ecosystem havoc as that water is included harmful materials like gasoline, oil, and residues from exhaust fumes—as well as the harsh detergents being used for the washing itself. El Car Wash sends its wastewater into the sewer systems, after it has already been filtered through an oil/water separator, so it gets treated before it is ever discharged.

High end automatic recycle car washes such as El Car Wash use less than 1/3rd the fresh water of even the most careful home car washer as washing a car at home typically uses between 80 and 140 gallons of water, while a commercial car wash averages less than 45 gallons per car. In addition, El Car Wash employs a water reclaim system which is a stand-alone operation that works in tandem with other car washing equipment which draws water from large settling tanks in the car wash, processes the water to remove vehicle contaminants and/or chemicals, treats the water for any odors, and sends the processed water back to the wash system for reuse. This further helps reduce the amount of water used per vehicle. Having a car wash in an extremely convenient location where the individual daily needs are served has been shown to be the optimal place for the consumer to get this type of service. Overall, we truly believe we can consistently be a leader in sustainability across the industry and will continue with our commitment to corporate social responsibility in Madison Heights.

Our site plan will also provide the opportunity for electric car charging with 2 available units placed on site.

Community Benefits

El Car Wash has substantial partners within the communities they are currently operating and will continue this level of involvement as we expand. Some examples of these partnerships include Baptist Health, the largest health system in South Florida as well as many smaller local charities and causes. We are currently working with Linda Williams, Executive director for the Madison Heights and Hazel Park Chamber of commerce to identify opportunities for community involvement and connection with neighboring businesses. We hope to finalize some of these opportunities over the next few months.

Along with our involvement in the community we also provide the ability for local schools and organizations to utilize our facilities for fundraising events. We are excited to partner with the Madison Heights School district, the Lamphere school district, the Madison Heights Women's Club, the Arts Board, Madison Citizens United, and many more organizations.

Car Wash Operations

There are three queue lanes each with an arm gate located on the south side of the project that each will have static menu boards and pay stations. The facility will provide a membership option that will allow members to use the western most queue lane that will have a scanner and will read a personalized identification tag or the license plate on the members vehicle. The pay stations will operate without any noise or sound. Once the customer pays, the gate will open and allow the customer to get into the single queuing lane to enter the car-wash tunnel on the west side of the building. An attendant will be present to guide the customers onto the conveyor. The customer will remain within the vehicle as it is guided through the car-wash tunnel. The entire process of the carwash takes approximately 2.5 minutes. Upon exiting the tunnel, the one-way traffic flow will guide the customers to the optional self-service vacuums or exit the site at the north access point. The hours of operation of the car wash, including vacuum will be from 7:00 a.m. to 9:00 p.m. to allow for people who go to work early or come home late to have a clean car.

Traffic Impact Study

We contracted Fleis & Vandenbrink to complete a Traffic Impact Assessment for the car wash use at our proposed site. Based on trip generation and current traffic pattern they are presenting minimal impact to the current traffic flow. Fleis & Vandenbrink is recommending we complete a right-turn deceleration taper on eastbound 14 Mile Road at the site drive due to their findings. Please refer to the submitted traffic study for additional detail regarding the findings.

Noise

The vacuum bays will utilize a "Autovac" manufactured vacuum system for the facility with the motors within the carwash structure or fully enclosed within a concrete enclosure. At each vacuum bay, a stanchion contains the suction hoses that will lead to a small dust bin, which then leads to the main vacuum filter/separator and vacuum turbines in the building. The air-dryers inside the car-wash tunnel will be outfitted with silencing mufflers to reduce the sound generate. In addition, there are no outdoor speakers associated with the car-wash tunnel, and no sounds will be provided on the three pay stations.

We have ample sound data that we can provide which demonstrates that the car-wash facility will comply with all noise performance standards for non-residential uses. See below for the sound level readings from the manufacturer.

SOUND LEVEL METER READINGS

MODEL: FT-DD-T440HP3 (40hp T4 VACSTAR TURBINE VACUUM PRODUCER)

READING ONE: 60 DB-A, 3 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING TWO: 56 DB-A, 10 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING THREE: 51 DB-A, 20 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING FOUR: 44 DB-A, 30 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

NOTE: THESE READINGS WERE TAKEN OUTSIDE OF CINDER BLOCK ENCLOSURE WITH 8" THICK WALLS,
CONCRETE SLAB AND WOOD JOIST ROOF.

SOUND LEVEL METER USED:

SIMPSON MODEL #40003 – MSHA APPROVED.
MEETS OSHA & WALSH-HEALY REQUIREMENTS FOR NOISE CONTROL.
CONFORMS TO ANSI S1.4-1983, IEC 651 SPECS FOR METER TYPE.

We are happy to continue to work with the Madison Heights municipality to ensure a cohesive design and that we are holding ourselves to the highest standards. Please see the below for updated renderings of our project for your review.



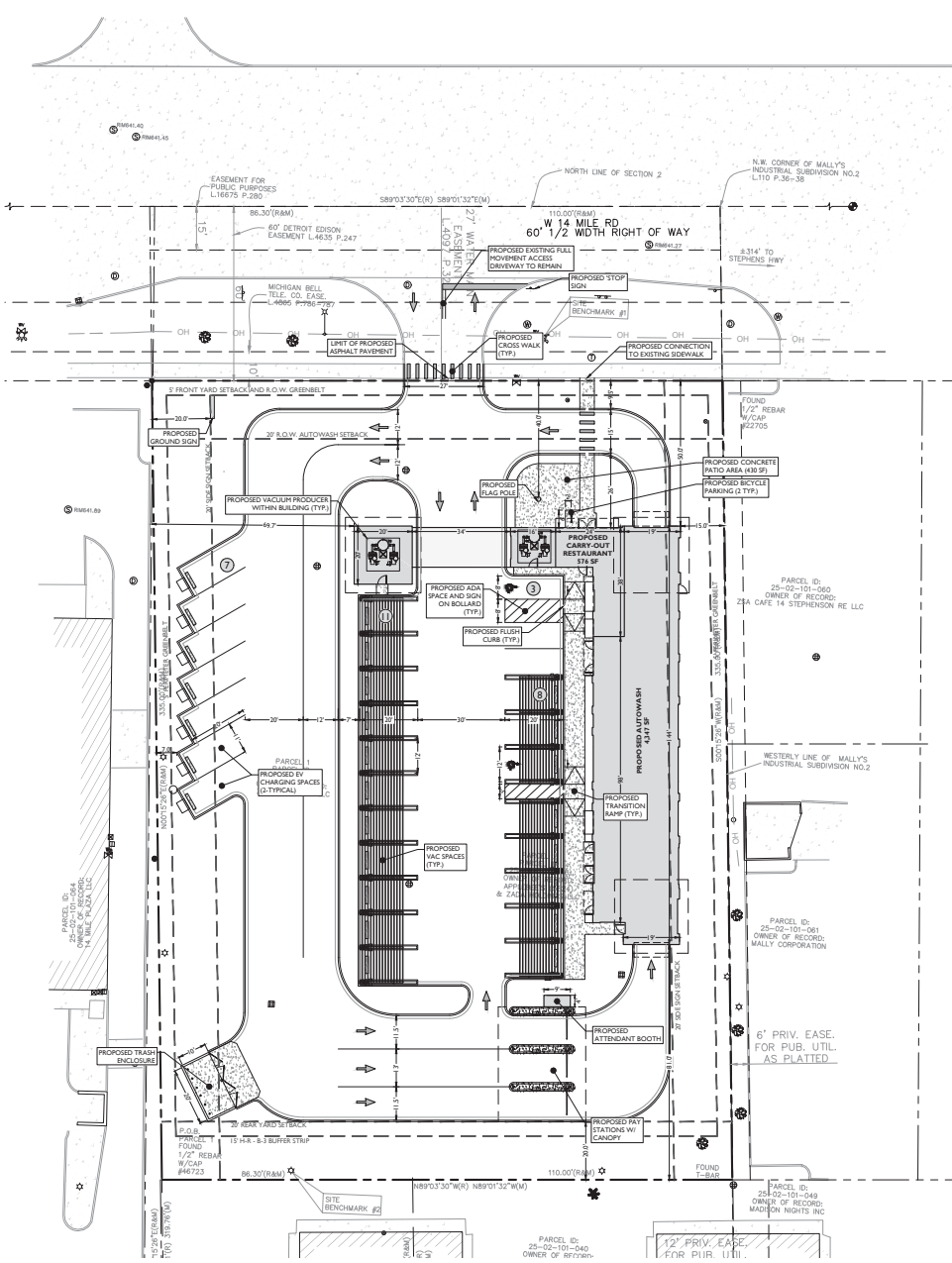
Thank you

Justin Landau

A large, stylized handwritten signature in black ink, appearing to read 'Justin Landau'.

El Car Wash
5201 SW 8th St.
Miami, FL 33134
justin@elcarwash.com
(917) 680-5575

1. SITE DEVELOPMENT PLAN SHALL BE SUBMITTED TO THE CITY OF MADISON, WISCONSIN, FOR REVIEW AND APPROVAL. 2. THE CITY OF MADISON, WISCONSIN, SHALL REVIEW THE SITE DEVELOPMENT PLAN FOR CONFORMANCE WITH THE CITY OF MADISON, WISCONSIN, ZONING ORDINANCE AND THE CITY OF MADISON, WISCONSIN, SUBDIVISION MAP ACT.

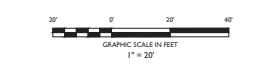


LAND USE AND ZONING		
PID: 25-02-101-048 & 25-02-101-045		
GENERAL BUSINESS DISTRICT (B-3)		
PROPOSED USE	PERMITTED USE	PERMITTED USE
CARRY-OUT RESTAURANT	OUTDOOR SEATING	PERMITTED USE
AUTOWASH	SPECIAL APPROVAL USE	
ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	15,000	15,000 (1.58 AC)
MAXIMUM BUILDING HEIGHT	3 STORIES (40 FT)	1 STORY (32 FT)
MINIMUM FRONT YARD SETBACK	5 FT	50.0 FT
MINIMUM REAR YARD SETBACK	20 FT	10.0 FT
AUTOWASH R.O.W. SETBACK	20 FT	50.0 FT
MINIMUM R.O.W. GREENBELT	5 FT	15.0 FT
MINIMUM PERIMETER GREENBELT	5 FT	7.0 FT
MINIMUM 1/2" REBAR	1.5 FT	20.0 FT
CHAINLINK FENCE	PERIMETER	NOT PROVIDED (N)
OPERATIONS WITHIN BUILDING	ALL	NOT PROVIDED (N)
MINIMUM FLAGPOLE PERIMETER SETBACK	40 FT	40.0 FT
MINIMUM SIDE SIGN SETBACK	20 FT	20.0 FT

- (V) VARIANCE
- (W) WAIVER
- (1) [10.40] (a) - WHERE THE FRONT YARDS OF 50 PERCENT OR MORE OF THE PRINCIPAL STRUCTURE IN ANY BLOCK IN EXISTENCE AT THE TIME OF PASSAGE OF THIS ORDINANCE, WITHIN THE DISTRICT ZONED AND ON THE SAME SIDE OF THE STREET, ARE LESS THAN THE MINIMUM FRONT YARD INDICATED ABOVE, THEN ANY BUILDING SUBSEQUENTLY ERECTED ON THAT SIDE OF THE STREET MUST BE LESS AND NEED NOT BE GREATER THAN THE AVERAGE DEPTH OF THE FRONT YARDS OF SAID STRUCTURES.
- (2) [10.24] (b) - A CHAINLINK FENCE MUST BE CONSTRUCTED SO AS TO ENCLOSE THE ENTIRE PROPERTY EXCEPT DRIVES AND AREAS WHERE SCREEN WALLS ARE REQUIRED, TWO FEET ALONG ANY STREET, FOUR FEET SIDE AND BACK.
- (3) [10.24] (b) - ALL OPERATIONS MUST BE CARRIED ON WITHIN THE BUILDING AREA INCLUDING BUT NOT LIMITED TO VACUUMING, WASHING AND DRYING.
- (4) [10.50] (d) (i) - IN ANY CASE THE HEIGHT OF ANY FLAGPOLE SHALL NOT BE GREATER THAN THE DISTANCE TO THE NEAREST PROPERTY LINE.

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
[10.505] (D) 2.	CARRY-OUT RESTAURANT: 1 SPACE PER 2 PERSONS (6 PERSONS/SPACED PERSONS) = 3 SPACES AUTOWASH: 2 SPACES PLUS 1 PER EACH EMPLOYEE 2 SPACES (5 EMPLOYEES) (SPACE/EMPLOYEES) = 5 SPACES TOTAL: 3 + 2 + 5 = 10 SPACES	20 SPACES
[10.506] (TABLE)	30' PARKING: 9 FT X 30 FT W/ 20 FT ASLE	9 FT X 30 FT W/ 30 FT ASLE
[10.506] (TABLE)	40' PARKING: 9 FT X 30 FT W/ 18 FT ASLE	11 FT X 30 FT W/ 20 FT ASLE
[10.505] (F) 1.	2 SPACES PER 100 SQ. FT. OF FLOOR AREA	2 SPACES
[10.324] (b) (v)	AUTO WASH STACKING, EQUIVALENT TO 20 MIN. OF CONTINUOUS OPERATION	PROVIDED
[10.507] (TABLE)	LOADING DOCK: ONE (1) 3 FT X 8 FT	TO OCCUR OFF HOURS

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



SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	PROPOSED CURB
---	PROPOSED FLUSH CURB
---	PROPOSED SIGNS
---	PROPOSED BUILDING
---	PROPOSED CONCRETE
---	PROPOSED BUILDING DOORS

DATE	BY	DESCRIPTION
10/10/2023	MPH	FOR SPECIAL LAND USE APPROVAL
10/10/2023	AF	FOR CLIENT REVIEW
10/10/2023	MPH	FOR CLIENT REVIEW

STONEFIELD
engineering & design

Rutherford, NJ - New York, NY - Boston, MA
Princeton, NJ - Tampa, FL - Detroit, MI
www.stonefielddesign.com

607 Shady Side, Suite 200, Detroit, MI 48226
Phone: 248.347.1115

EL CAR WASH MADISON
PROPOSED AUTOWASH & CARRY-OUT RESTAURANT

10/10/2023 10:45 AM
10/10/2023 10:45 AM
CITY OF MADISON/HIGHWAYS
JANUARY COUNTY, MICHIGAN #0071

STONEFIELD
engineering & design

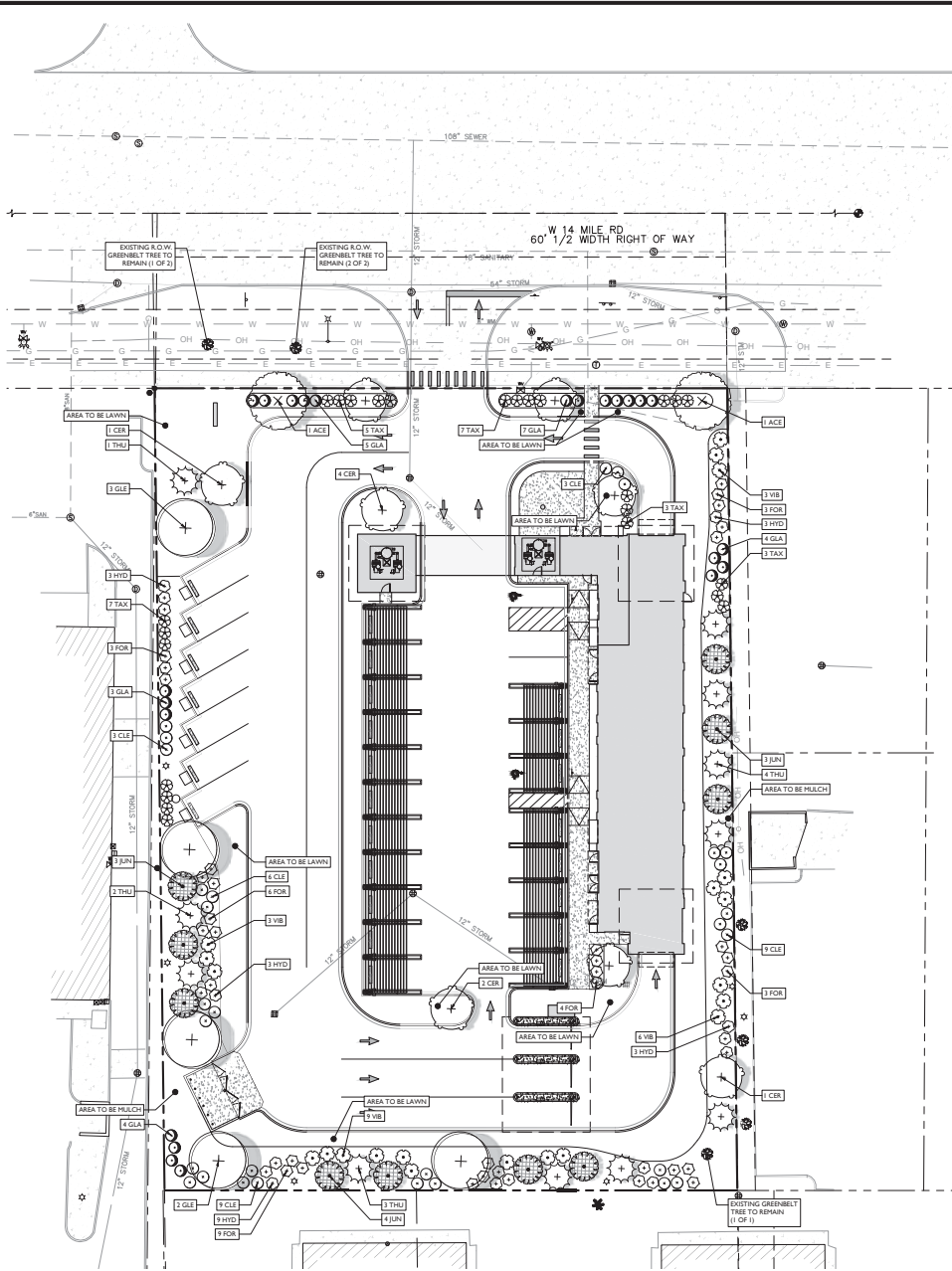
MICHIGAN LICENSE NO. 62010903C
LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 20' PROJECT ID: DET-33283

TITLE: SITE PLAN

DRAWING: C-1

1. VERTICAL SCALE: 1" = 10' 2. HORIZONTAL SCALE: 1" = 20' 3. LANDSCAPING PLAN: 1" = 20'



PLANT SCHEDULE						
DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
(X)	ACE	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2" - 3" CAL	B&B
(+)	GLE	5	GLEDITSIA TRACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2 1/2" - 3" CAL	B&B
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
(*)	JUN	10	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	1' - 4' HT	B&B
(*)	THU	11	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	1' - 4' HT	B&B
FLOWERING TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
(+)	CEB	8	CERCIS CANADENSIS	EASTERN REDBUD	2 1/2" - 3" CAL	B&B
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
(*)	CLE	30	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	3/4" - 3/8"	POT
(*)	FOR	28	FORSYTHIA X 'ARNOLDS DWARF'	ARNOLDS DWARF FORSYTHIA	3/4" - 3/8"	POT
(*)	HYD	31	HYDRANGEA PACECORYLLA 'ENDLESS SUMMER'	BALMER HYDRANGEA	3/4" - 3/8"	POT
(*)	VIB	21	VIBURNUM ACERIFOLIUM	HARLEQUIN VIBURNUM	3/4" - 3/8"	POT
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
(*)	GLA	35	KECK GLABRA 'COMPACTA'	COMPACT KIMBERLY	3/4" - 3/8"	POT
(*)	TAX	35	TAXUS X MEDIA 'DENIFORMIS'	DENSE ANGLO-JAPANESE YEW	3/4" - 3/8"	POT

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

LANDSCAPING AND BUFFER REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 10.10.B.2(a)	BUFFER STRIP REQUIREMENTS THE BUFFER STRIP SHALL BE 15 FT WIDE MINIMUM. THE BUFFER STRIP SHALL BE COVERED WITH GRASS EXCEPT FOR PLANTING AREAS.	30.00 FT PROVIDED COMPLIES
§ 10.10.B.2(b.1)	SOUTH PROPERTY LINE 144 FT (1) TREE FOR EVERY 20 LF OF BUFFER STRIP (1/4 FT) = (1 TREE / 20 FT BUFFER) = 10 TREES	1 EXISTING TREE TO REMAIN 9 TREES PROPOSED
§ 10.10.B.2(b.3)	(4) SHRUBS FOR EVERY 30 LF OF BUFFER STRIP (1/4 FT) = (4 SHRUBS / 30 FT BUFFER) = 40 SHRUBS PLANTINGS SHALL BE A MIXTURE OF EVERGREEN AND DECIDUOUS TREES.	40 SHRUBS PROPOSED COMPLIES
§ 10.10.B.2(b.4)	GREENBELT REQUIREMENTS THE GREENBELT SHALL BE COVERED WITH GRASS, LIVING GROUND COVER, WOOD CHIPS, MULCH, OR STONE. W 1/4 MILE ROAD: 160 FT (1) TREE FOR EVERY 30 LF OF GREENBELT (1/4 FT) = (1 TREE / 30 FT GREENBELT) = 6 TREES	COMPLIES
§ 10.10.B.2(b.5)	(4) SHRUBS FOR EVERY 30 LF OF GREENBELT (1/4 FT) = (4 SHRUBS / 30 FT GREENBELT) = 33 SHRUBS	2 EXISTING TREES TO REMAIN 4 TREES PROPOSED
§ 10.10.B.2(b.6)	EAST PROPERTY LINE 275 FT (1) TREE FOR EVERY 30 LF OF GREENBELT (275 FT) = (1 TREE / 30 FT GREENBELT) = 9 TREES (4) SHRUBS FOR EVERY 30 LF OF GREENBELT (275 FT) = (4 SHRUBS / 30 FT GREENBELT) = 37 SHRUBS	9 TREES PROPOSED 37 SHRUBS PROPOSED
§ 10.10.B.2(b.7)	WEST PROPERTY LINE 275 FT (1) TREE FOR EVERY 30 LF OF GREENBELT (275 FT) = (1 TREE / 30 FT GREENBELT) = 9 TREES (4) SHRUBS FOR EVERY 30 LF OF GREENBELT (275 FT) = (4 SHRUBS / 30 FT GREENBELT) = 37 SHRUBS	9 TREES PROPOSED 37 SHRUBS PROPOSED
§ 10.10.B.2(b.8)	INTERIOR LANDSCAPING FOR EVERY NEW DEVELOPMENT INTERIOR LANDSCAPING AREA SHALL BE PROVIDED EQUAL TO AT LEAST 5% OF THE TOTAL IMPERVIOUS AREA. (10,000 SQ) / (0.05) = 14,000 SF THE INTERIOR LANDSCAPING AREA SHALL BE COVERED WITH GRASS, GROUND COVER, WOOD CHIPS, OR MULCH. (1) TREE = (1) TREE / 400 SF OF REQUIRED LANDSCAPING AREA (14,000 SF) = (1 TREE / 400 SF) = 35 TREES (2) SHRUBS = (2) SHRUBS FOR EVERY 400 SF OF REQUIRED LANDSCAPING AREA (14,000 SF) = (2 SHRUBS / 400 SF) = 35 SHRUBS	1715 SF PROVIDED COMPLIES
§ 10.10.B.2(b.9)	PARKING LOT LANDSCAPING ANY OFF-STREET PARKING AREAS CONTAINING 10 OR MORE SPACES SHALL PROVIDE 5 SF OF PARKING LOT LANDSCAPING FOR EVERY SPACE. (20 SPACES) * (5 SF) = 140 SF THE PARKING LOT LANDSCAPING AREA SHALL BE GRASS, LIVING GROUND COVER, WOOD CHIPS, OR MULCH. (1) TREE FOR EVERY 100 SF OF REQUIRED PARKING LOT LANDSCAPING AREA (140 SF) = (1 TREE / 100 SF) = 2 TREES	5 TREES PROPOSED 10 SHRUBS PROPOSED
§ 10.10.B.2(b.10)	SCREENING REQUIREMENTS A LANDSCAPE BUFFER STRIP OR GREENBELT REQUIRED TO SCREEN B-3 ZONE FROM ADJACENT H-2 ZONE A LANDSCAPE BUFFER STRIP OR GREENBELT REQUIRED TO SCREEN B-3 ZONE FROM ADJACENT B-3 ZONE A GREENBELT REQUIRED TO SCREEN B-3 ZONE FROM ADJACENT R.O.W.	1741 SF PROVIDED COMPLIES

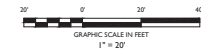
811
Know what's below
Call before you dig.

IRRIGATION NOTE:

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRY IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY HANGUP ON SITE DYNAMIC WATER PRESSURE. AVAILABLE HEADRUG IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVE, PIPING, HEADS, BACKFLOW PREVENTION, PETERS, CONTROLLER, AND SENSORS WITHIN HANGUP AREAS.

LANDSCAPING NOTES

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



DATE	BY	DESCRIPTION
01/09/2023	MPH	FOR SPECIAL LAND USE APPROVAL
11/27/2022	AF	FOR SPECIAL LAND USE APPROVAL
11/27/2022	MPH	FOR CLIENT REVIEW

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design
Rutherford, NJ - New York, NY - Boston, MA
Princeton, NJ - Tampa, FL - Detroit, MI
www.stonefielddesign.com
607 Shady Side 200, Detroit, MI 48226
Phone 248.347.1115

EL CAR WASH MADISON
PROPOSED AUTOWASH & CARRY-OUT RESTAURANT
1715 31ST ST. SUITE 200, DETROIT, MI 48226
CITY OF MADISON HEIGHTS
OAKLAND COUNTY, MICHIGAN 48071

STONEFIELD
engineering & design
MICHIGAN LICENSE NO. 021004328
LICENSED PROFESSIONAL ENGINEER
SCALE: 1" = 20' PROJECT ID: DET-23024
TITLE: LANDSCAPING PLAN
DRAWING: C-2



















MEMO

VIA EMAIL sburgner@alrigusa.com

To: El Car Wash Michigan

From: Julie Kroll, PE, PTOE
Mary Ollis, EIT
Fleis & VandenBrink

Date: January 27, 2023

Re: Proposed Car Wash Development
Madison Heights, Michigan
Traffic Impact Assessment

1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Assessment (TIA) for the proposed development in Madison Heights, Michigan. The project site is located at 1275 W. 14 Mile Road, generally in the southwest quadrant of the 14 Mile Road and Stephenson Hwy. intersection, as shown on the attached **Figure 1**. The proposed development includes the construction of El Car Wash with an attached carry-out restaurant, located on property that was previously occupied by an Applebee's restaurant that will be razed as part of this project. No changes to the existing site access are proposed and will be maintain via one (1) driveway on 14 Mile Road, which is under the jurisdiction of the Road Commission for Oakland County (RCOC). The City of Madison Heights has required the completion of a Traffic Impact Assessment (TIA) as part of the site plan approval process.

The scope of work for this study was developed based on the requirements as outlined in the City of Madison Heights Code of Ordinances, Fleis & VandenBrink's (F&V) knowledge of the study area, understanding of the development program, accepted traffic engineering practices, and information published by the Institute of Transportation Engineers (ITE). Sources of data for this study include RCOC, City of Madison Heights, MDOT, and ITE.

2 BACKGROUND

F&V collected an inventory of existing lane use and traffic controls at the study intersections, as shown in the attached **Figure 2**; additional roadway information is attached and summarized in **Table 1**.

Table 1: Roadway Information

Roadway Segment	14 Mile Road
Number of Lanes	5 (2 lanes each direction, TWLT)
Functional Classification	Other Principal Arterial
Roadway Jurisdiction	RCOC
Speed Limit	40 mph
Traffic Volumes (AADT)	29,600 vpd (2018 SEMCOG)

27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334

P: 248.536.0080

F: 248.536.0079

www.fveng.com

F&V obtained historic weekday traffic volume data from the MDOT Traffic Data Management System (TDMS) that were collected on Wednesday April 18th, 2018 on 14th Mile Road between Campbell Road and Stephenson Highway. The weekday AM and PM peak hours for the adjacent roadway network were observed to generally occur between 7:15 to 8:15 AM and 4:30 PM to 5:30 PM.

3 SITE TRIP GENERATION

The number of peak hour (weekday AM and PM and Saturday) and daily vehicle trips that would be generated by the proposed car wash and carry-out restaurant development was forecast based on data published by ITE in the *Trip Generation, 11th Edition*. The trip generation data for Automated Car Wash (LUC 948) and Fast Casual Restaurant (LUC 930) is limited during the AM and SAT peak periods, therefore for purposes of this study the highest peak hour (PM peak) was utilized for all peak periods of this evaluation.

As is typical of commercial developments, a portion of the trips generated are from vehicles on the adjacent roadway and will pass the site on their way from an origin to their ultimate destination. Therefore, not all traffic at the site driveways is necessarily new traffic added to the street system. This percentage of the trips generated by the development are considered “pass-by” trips and do not add new traffic to the adjacent street system. These trips are therefore reduced from the total external trips generated by a study site. Car washes and similar type land uses such as gas stations, generally cater to adjacent street traffic volumes. However, there is no published data is available for calculating pass-by trips for this land uses by ITE in the *Trip Generation Manual, 11th Edition*; therefore, in order to provide a conservative analysis, a 50% pass-by trip reduction was applied to this land use. The site trip generation forecast utilized for the proposed development is summarized in **Table 1**.

Table 1: Trip Generation Summary

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	Peak Hour (vph)		
					In	Out	Total
Automated Car Wash	948	1	Tunnel	780	39	39	78
Pass-By: 50%				390	20	19	39
New Trips				390	19	20	39
Fast Casual Restaurant	930	576	SF	56	4	3	7
Pass-By: 50%				28	2	2	4
New Trips				28	2	1	3
Total Trips				836	43	42	85
Total Pass-by				418	22	21	43
Total New Trips				418	21	21	42

4 SITE TRIP DISTRIBUTION

The vehicular trips that would be generated by the proposed development were assigned to the study roads based on the proposed site access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and the methodologies published by ITE. The ITE trip distribution methodology assumes that new trips will enter the network and access the development, then leave the development and return to their direction of origin. The site trip distributions utilized in the analysis are summarized in **Table 2**.

Table 2: Site Trip Distribution

New Trips				Via	Direction	Pass-By Trips		
AM	PM	SAT	To/From			AM	PM	SAT
33%	62%	50%	East	14 Mile Road	Eastbound	67%	38%	50%
67%	38%	50%	West	14 Mile Road	Westbound	33%	62%	50%
100%	100%	100%	Total			100%	100%	100%

The vehicular traffic volumes shown in **Table 1** were distributed to the roadway network according to the distribution shown in **Table 2**. The site-generated trips are shown on the attached **Figure 2**. For purposes of

In this analysis it was assumed an average 50/50 distribution East/West on 4 Mile would be typical of Saturday operations.

5 ACCESS MANAGEMENT

5.1 INTERSECTION/DRIVEWAY SPACING

The proximity and relation to intersections, specifically regarding distance from the proposed driveway and adjacent driveways and intersections was reviewed and the adjacent driveway and intersection spacing are shown on **Exhibit 1**. Key findings of this review are summarized below:

- The proposed development includes only one site access driveway on 4 Mile Road via the existing driveway location. Shared access or a service drive with the adjacent properties is not feasible at this time.
- The adjacent signalized intersection at Stephenson Hwy is located approximately 400 feet west of the site driveway. Left-turns are not permitted at this intersection and the adjacent bank on the north side of 4 Mile Road will have minimal left-turn conflicts within the existing center left-turn lane.

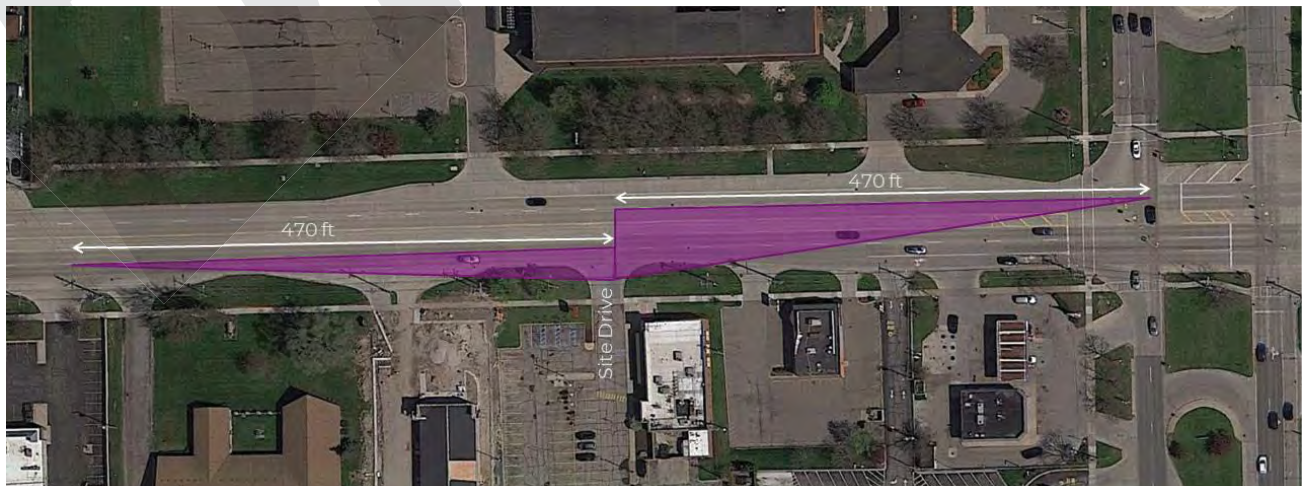
Exhibit 1: Driveway and Intersection Spacing



5.2 SIGHT DISTANCE EVALUATION

A sight distance evaluation was completed in accordance with MUTCD sight-distance requirements at this site driveway intersection as shown on the attached Figure 1-1. The minimum sight distance on a 40 mph, 5 lane road is 400 feet in both directions, measured from 15-feet from the edge of pavement. The results of the sight distance evaluation are shown in **Exhibit 2** and indicate that adequate sight distance is available in both the east and west directions.

Exhibit 2: Sight Distance Summary

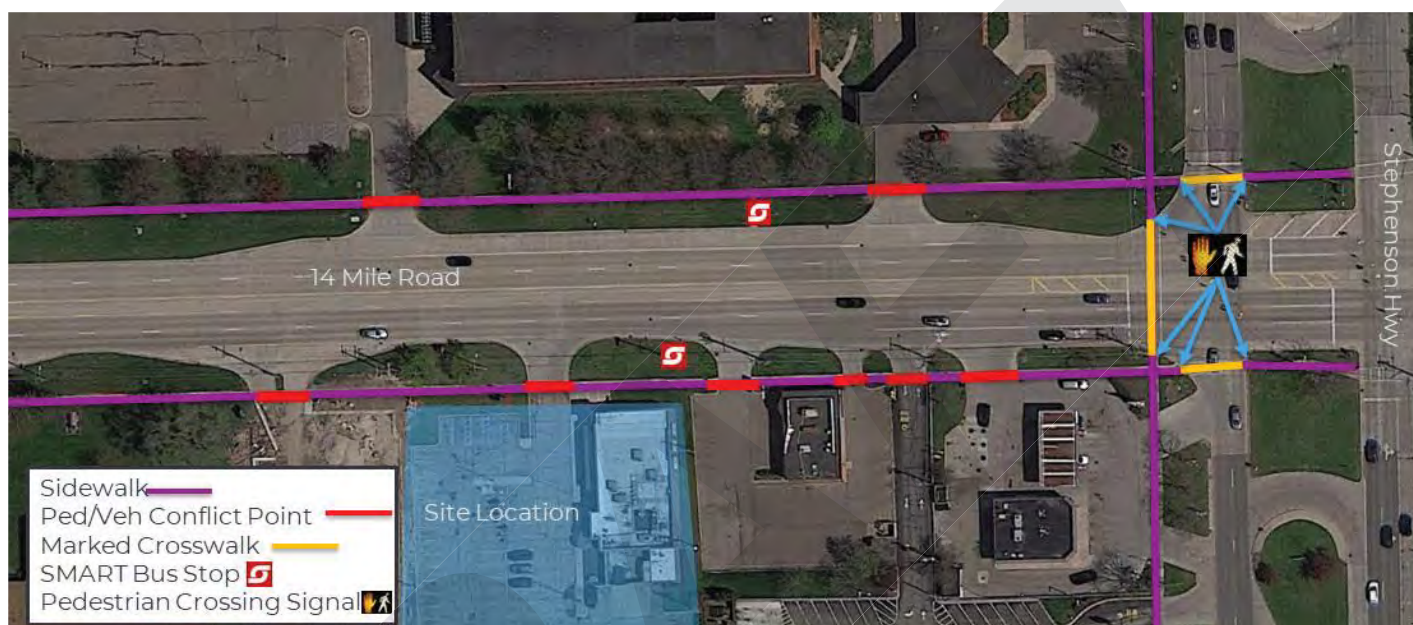


5.3 MULTI-MODAL SUMMARY

A multi-modal facilities are shown on **Exhibit 3**. Key findings of this evaluation are summarized below:

- The proposed development provides convenient access to the SMART bus stop located adjacent to the property on 14 Mile Road.
- A protected signalized crossing is located 400 feet west of the development at the 14 Mile and Stephenson Hwy intersection.
- The proposed development plan includes the addition of a marked pedestrian crossing at the site driveway intersection.

Exhibit 3: Multi-Modal Access Summary



5.4 AUXILIARY LANES

The C/C auxiliary lane treatment criteria was evaluated at the site driveway on 14 Mile Road. There is an existing center left-turn lane on 14 Mile Road adjacent to the project site; therefore, the warrant criteria for an auxiliary left-turn lane was not evaluated. This analysis was based on the future traffic volumes, as shown on the attached **Figure 2**. The results of the analysis are shown on the C/C chart is attached and summarized in **Table 4**. The results of the auxiliary turn lane analysis indicate that a right-turn deceleration taper is recommended on eastbound 14 Mile Road at the site driveway.

Table 4: Auxiliary Turn Lane Analysis Summary

Intersection	Weekday AM Peak	Weekday PM Peak	Saturday Peak	Recommendation
14 Mile Road & Site Drive	Right Turn Taper	Right Turn Taper	Right Turn Taper	Right Turn Taper

6 SITE CIRCULATION

The projected vehicle queuing for the proposed site operations was reviewed to determine if the proposed on-site queue length is adequate to accommodate the projected operations. Information regarding the service rates was provided by Tommy's Express for use in this analysis, due to their similar site layout. The proposed site includes three (3) drive-through lanes: Cash/Credit Card Payment (1 lane) and App Payment (2 lanes). Data from Tommy's Express shows 40% of customers use the cash lane and 60% use the app. For analysis purposes, it was assumed that the average cash payment service rate is 30 seconds per vehicle and app payment is 20 seconds per vehicle. Once paid, the vehicles enter the queue for the wash tunnel which has a service rate of 18 seconds per vehicle.

Table 5: Vehicle Queuing Analysis

EI CAR WASH STACKING SPACE CALCULATOR - CASH		EI CAR WASH STACKING SPACE CALCULATOR - APP		EI CAR WASH STACKING SPACE CALCULATOR - TUNNEL	
Number of Arrivals	15	Number of Arrivals	24	Number of Arrivals	39
Time per Vehicle (s)	60	Time per Vehicle (s)	30	Time per Vehicle (s)	18
Service Rate (veh/hr)	60	Service Rate (veh/hr)	120	Service Rate (veh/hr)	200
Peak Arrival (veh)	3	Peak Arrival (veh)	3	Peak Arrival (veh)	3
Vehicle Length	25	Vehicle Length	25	Vehicle Length	25
TOTAL QUEUE (ft)	75	TOTAL QUEUE (ft)	75	TOTAL QUEUE (ft)	75

Site plan for Parcel 10, 25-02-101-000, showing proposed building layout, parking, and surrounding streets. The plan includes labels for various features like "PROPOSED VACUUM PRODUCTION WITHIN BUILDING (TYP)", "PROPOSED ADA SPACE AND SIGN ON ROLL-UP (TYP)", and "PROPOSED TRANSITION (TYP)". It also shows "PROPOSED GROUND SIGN" and "PROPOSED BIKEWAY PARKING (TYP)". The plan is oriented with North at the top.

7 CONCLUSIONS

The conclusions of this TIA are as follows:

1. Site Access

- The proposed development includes only one site access driveway on 4 Mile Road via the existing driveway location. Shared access or a service drive with the adjacent properties is not feasible at this time.

2. Adjacent Driveway and Intersections

- The adjacent signalized intersection at Stephenson Hwy is located approximately 400 feet west of the site driveway.
- Left-turns are not permitted at this intersection and the adjacent bank on the north side of 4 Mile Road will have minimal left-turn conflicts within the existing center left-turn lane.

3. Multi-Modal Evaluation

- The proposed development plan includes the addition of a marked pedestrian crossing at the site driveway intersection.
- The proposed development provides convenient access to the AAT bus stop located adjacent to the property on 4 Mile Road.
- A protected signalized crossing is located 400 feet west of the development at the 4 Mile and Stephenson Hwy intersection.

4. Sight Distance

- A sight distance evaluation was completed in accordance with CEC sight-distance requirements. The minimum sight distance on a 40 mph, 5-lane road is 400 feet in both directions, measured from 5 feet from the edge of pavement. The results of the sight distance evaluation indicate that adequate sight distance is available in both the east and west directions.

5. Auxiliary Lane Analysis

- There is an existing center left-turn lane on 4 Mile Road adjacent to the project site; therefore, the warrant criteria for an auxiliary left-turn lane was not evaluated.
- The results of the auxiliary turn lane analysis indicate that a right-turn deceleration taper is recommended on eastbound 4 Mile Road at the site driveway.

6. Site Circulation

- The projected vehicle queuing evaluation indicated that during the peak operations the projected traffic volumes can be adequately accommodated on the site, without exceeding the internal site circulation and impacting the adjacent roadway network.

8 RECOMMENDATIONS

- A right-turn deceleration taper is recommended on eastbound 4 Mile Road at the site driveway.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleiszer & Associates, Inc.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

Attached:

Figures 1-1
Proposed Site Plan
E/C Data
Traffic Volume Data
C/C Right of Way Criteria
C/C Right-Turn Lane Warrant

DRAFT



LEGEND

 SITE LOCATION



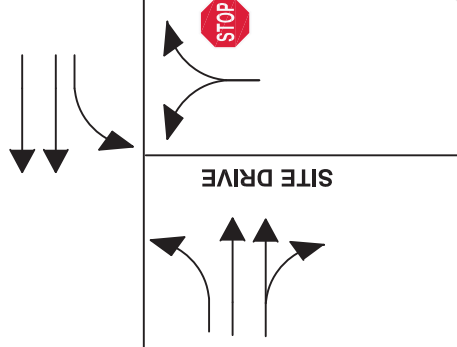
FIGURE 1 SITE LOCATION

EL CAR WASH - MADISON HEIGHTS, MI



LAND USE TRAFFIC CONTROL

SITE GENERATED TRAFFIC VOLUMES



0/0/0 - [15/8/11]
14/8/11 + [15/8/11]

SITE DRIVE

14/8/11 + [7/14/11]
7/14/11 + [15/8/11]

0/0/0 - [7/14/11]
7/13/10 + [7/14/11]

FUTURE TRAFFIC VOLUMES

1758/1072/1416
29/16/22

SITE DRIVE

21/22/22
22/22/22

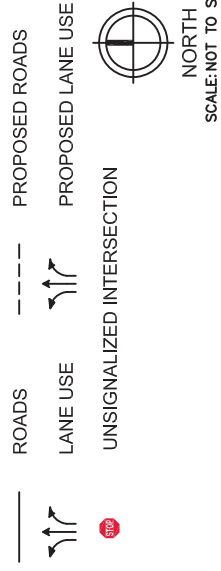
804/1760/1416
14/27/21

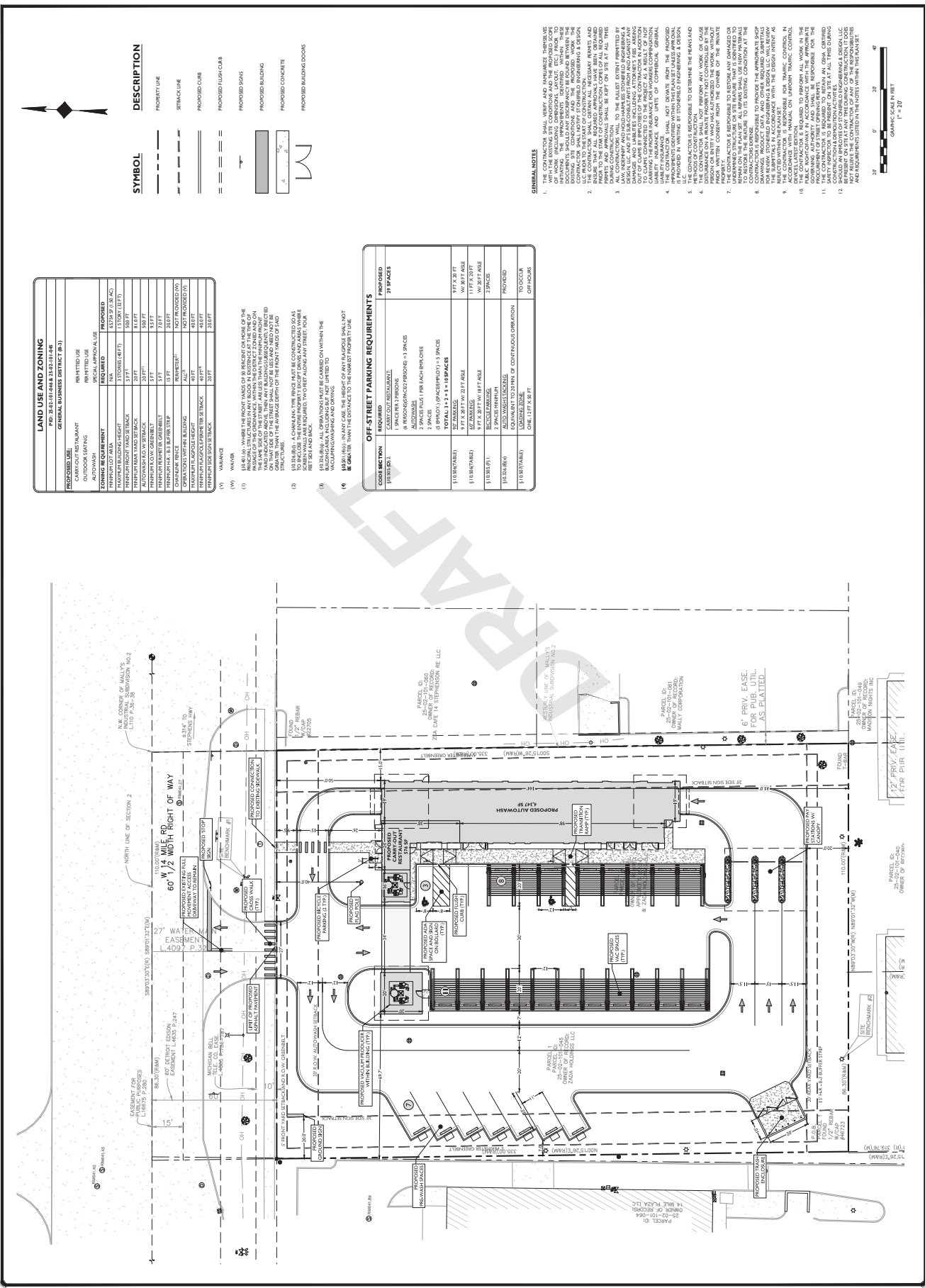


FIGURE 2
LANE USE AND TRAFFIC CONTROL
SITE GENERATED TRAFFIC VOLUMES

EL CAR WASH - MADISON HEIGHTS, MI

LEGEND





Crash and Road Data

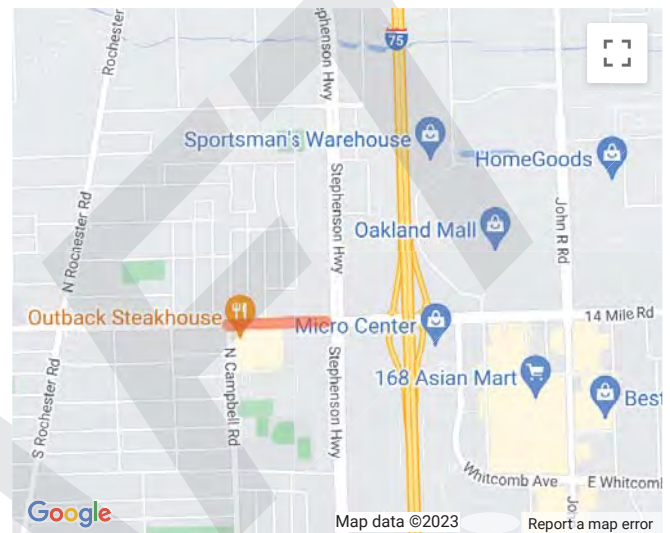
Road Segment Report

14 Mile Rd W, (PR Number 625804)

From:	14 Mile Rd E 1.731 BMP
To:	Campbell Rd 2.018 EMP
Jurisdiction:	County
FALINK ID:	585
Community:	City of Madison Heights , City of Troy
County:	Oakland
Functional Class:	3 - Other Principal Arterial
Direction:	1 Way
Length:	0.287 miles
Number of Lanes:	5
Posted Speed:	40 (source: TCO)
Route Classification:	Old M-59
Annual Crash Average 2017- <u>13</u> 2021:	
Traffic Volume (2018)*:	27,600 (Observed AADT)
Pavement Type (2021):	Concrete
Pavement Rating (2021):	Good
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View





Transportation Data Management
System

Volume Count Report

LOCATION INFO	
Location ID	63-5054_EB
Type	SPOT
Funct'l Class	3
Located On	14 MILE RD
Direction	EB
County	Oakland
Community	Madison Heights
MPO ID	40029
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Wed 4/18/2018
End Date	Thu 4/19/2018
Start Time	12:00:00 PM
End Time	12:00:00 PM
Direction	EB
Notes	
Station	63-5054
Study	
Speed Limit	
Description	
Sensor Type	Tube Class
Source	TcdsBinToVol
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	22	12	15	12	61
1:00-2:00	10	8	9	17	44
2:00-3:00	13	6	12	10	41
3:00-4:00	5	13	13	15	46
4:00-5:00	20	17	25	31	93
5:00-6:00	43	66	86	93	288
6:00-7:00	122	183	227	241	773
7:00-8:00	305	384	454	420	1,563
8:00-9:00	427	382	366	277	1,452
9:00-10:00	236	237	231	189	893
10:00-11:00	212	196	193	200	801
11:00-12:00	211	224	251	278	964
12:00-13:00	248	290	301	249	1,088
13:00-14:00	220	244	213	225	902
14:00-15:00	242	250	228	237	957
15:00-16:00	242	249	277	270	1,038
16:00-17:00	260	289	282	264	1,095
17:00-18:00	244	298	272	271	1,085
18:00-19:00	251	257	224	183	915
19:00-20:00	172	180	151	155	658
20:00-21:00	120	117	110	96	443
21:00-22:00	77	85	73	79	314
22:00-23:00	40	50	42	32	164
23:00-24:00	34	31	24	29	118
Total					15,796
AM Peak	07:15-08:15 1,685				
PM Peak	15:45-16:45 1,101				

FIGURE 6-1

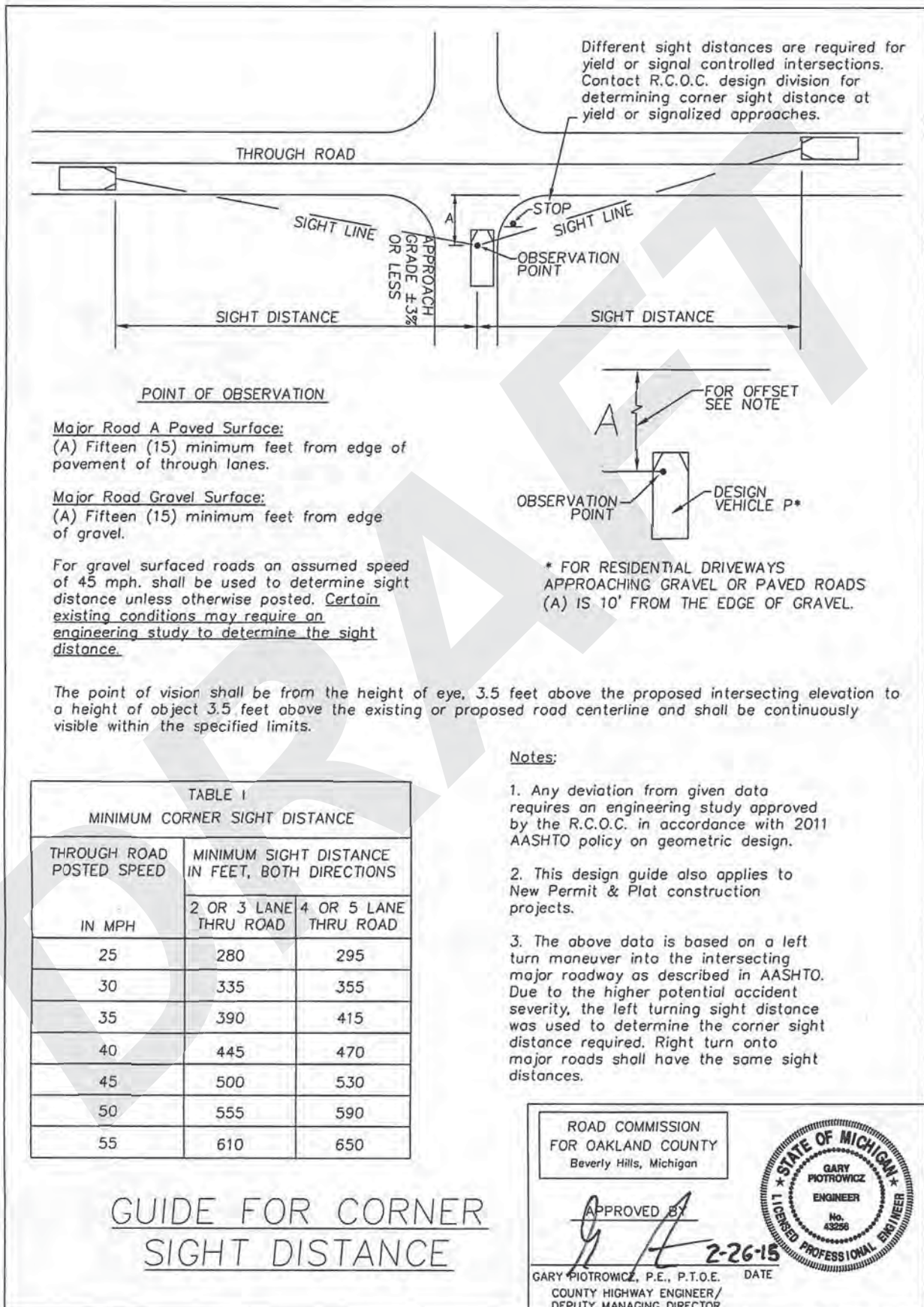
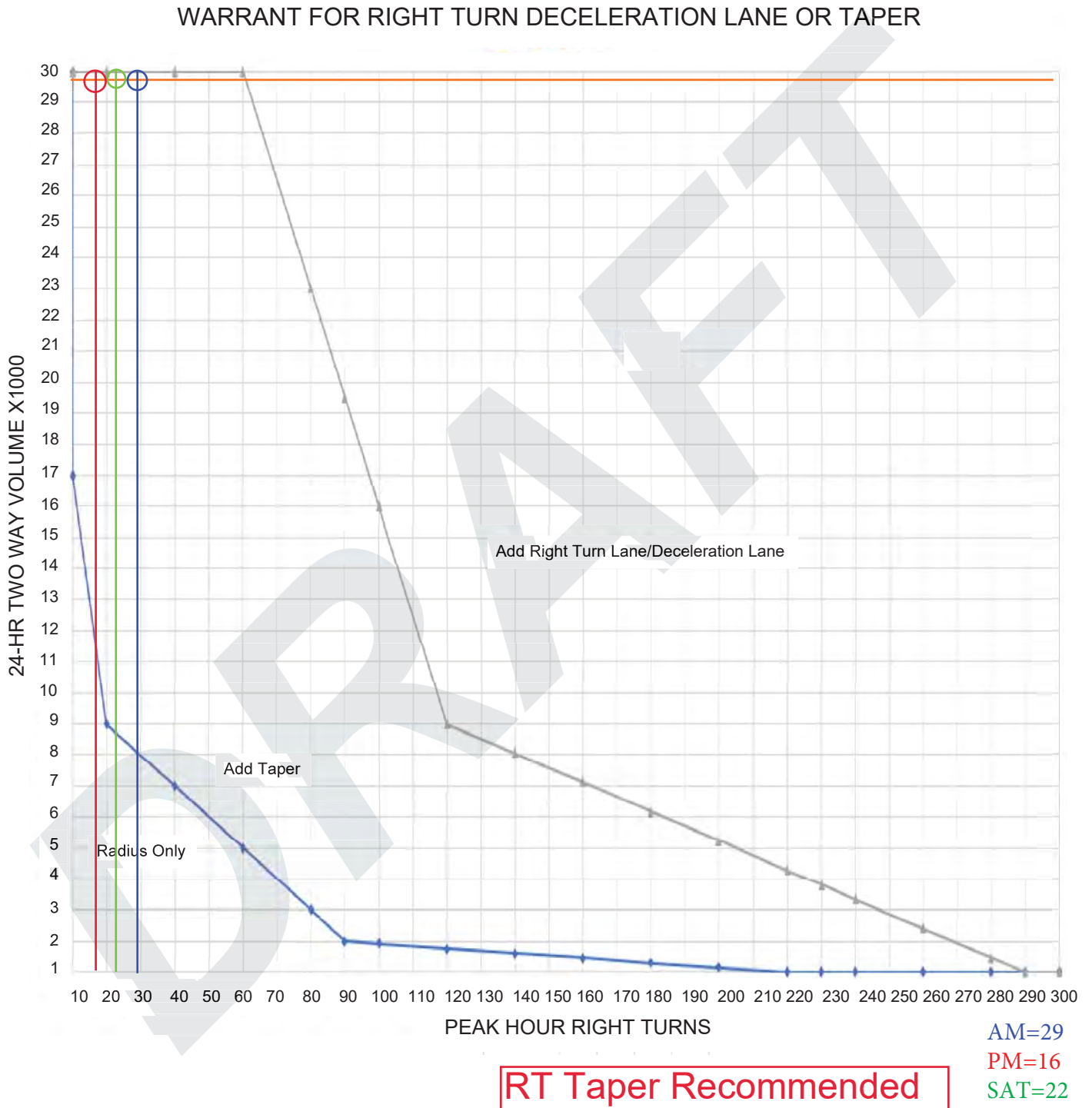


FIGURE 6-3

14 Mile Road & Site Drive



2021 AADT=29,700
2024 AADT=29,900



Transportation Data Management
System

Volume Count Report

LOCATION INFO	
Location ID	63-5054_WB
Type	SPOT
Funct'l Class	3
Located On	14 MILE RD
Direction	WB
County	Oakland
Community	Madison Heights
MPO ID	40030
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Wed 4/18/2018
End Date	Thu 4/19/2018
Start Time	12:00:00 PM
End Time	12:00:00 PM
Direction	WB
Notes	
Station	63-5054
Study	
Speed Limit	
Description	
Sensor Type	Tube Class
Source	TcdsBinToVol
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	12	17	13	7	49
1:00-2:00	16	9	8	12	45
2:00-3:00	4	12	6	3	25
3:00-4:00	8	9	12	13	42
4:00-5:00	7	17	22	30	76
5:00-6:00	48	93	75	92	308
6:00-7:00	122	173	150	160	605
7:00-8:00	222	235	200	215	872
8:00-9:00	168	215	179	213	775
9:00-10:00	174	175	167	177	693
10:00-11:00	179	179	196	177	731
11:00-12:00	229	237	265	281	1,012
12:00-13:00	250	264	240	229	983
13:00-14:00	210	234	183	227	854
14:00-15:00	206	286	234	280	1,006
15:00-16:00	231	280	291	331	1,133
16:00-17:00	334	415	415	432	1,596
17:00-18:00	489	452	339	349	1,629
18:00-19:00	285	267	214	247	1,013
19:00-20:00	204	172	165	163	704
20:00-21:00	168	167	118	124	577
21:00-22:00	115	113	76	78	382
22:00-23:00	62	61	40	50	213
23:00-24:00	31	30	30	17	108
Total					15,431
AM Peak	11:30-12:30				1,060
PM Peak	16:30-17:30				1,788