



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION – REGULAR MEETING
April 26, 2021 7PM

1. CALL MEETING TO ORDER
2. PUBLIC REMARKS
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. April 12, 2021 Regular Meeting

Zoom meeting ID: 872 0006 8286 Zoom password: 5151 Public comment: 517.349.1232
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5. COMMUNICATIONS
 - A. Mei Yun Shih RE: Rezoning #21030
6. PUBLIC HEARINGS
 - A. Special Use Permit #121031 (EROP, LLC), construct a drive-through car wash at 2703 Grand River Avenue.
 - B. Rezoning #21040 (Okemos IL-AL Investors, LLC), rezone two parcels totaling approximately 9.07 acres located at 1510 & 1560 Grand River Avenue from C-2 (Commercial) to RA (Single Family-Medium Density).
7. UNFINISHED BUSINESS - None
8. OTHER BUSINESS
 - A. Pathway Master Plan
9. REPORTS AND ANNOUNCEMENTS
 - A. Township Board update.
 - B. Liaison reports.
10. PROJECT UPDATES
 - A. New Applications - None
 - B. Site Plans Received - None
 - C. Site Plans Approved - None
11. PUBLIC REMARKS
12. ADJOURNMENT

AGENDA page 2
CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION MEETING
April 26, 2021 7PM

TENTATIVE PLANNING COMMISSION AGENDA
May 10, 2021

1. PUBLIC HEARINGS - None
2. UNFINISHED BUSINESS
 - A. Special Use Permit #21031 (EROP, LLC), construct a drive-through car wash at 2703 Grand River Avenue.
 - B. Rezoning #21040 (Okemos IL-AL Investors, LLC), rezone two parcels totaling approximately 9.07 acres located at 1510 & 1560 Grand River Avenue, from C-2 (Commercial) to RA (Single Family, Medium Density).
 - C. Rezoning #21030 (New China of Michigan), rezone 0.42 acre RC (Multiple Family-maximum 14 dwelling units per acre) to RCC (Multiple Family-maximum 34 dwelling units per acre) at 5114 Jo Don Drive.
 - D. Commission Review #21033 (Park Commission). Section 61 review for the acquisition for a 1.85 acre parcel at 5280 Okemos Road.
3. OTHER BUSINESS - None

Individuals with disabilities requiring auxiliary aids or services should contact: Principal Planner Peter Menser, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4576 - Ten Day Notice is Required.
Meeting Location: Zoom web conferencing application
Meeting ID: 872 0006 8286 Password: 5151

Providing a safe and welcoming, sustainable, prime community.



**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES**

DRAFT

April 12, 2021

**Meeting held virtually using the Zoom web conferencing application
7:00 P.M.**

**PRESENT: Commissioners McConnell, Hendrickson, Cordill, Shrewsbury, Richards,
Snyder, Blumer, and Trezise**

ABSENT: Commissioner Premoe

**STAFF: Director of Community Planning & Development Mark Kieselbach, Principal
Planner Menser, Assistant Planner Keith Chapman, Neighborhoods and
Economic Development Director Amber Clark, Information Technology
Director Stephen Gebes, and Multimedia Producer Samantha Diehl**

1. CALL MEETING TO ORDER

Chair Hendrickson called the regular meeting to order at 7:00 P.M.

2. PUBLIC REMARKS

- A. David Tate, 5117 Jo Don Dr., spoke in opposition to Rezoning #21030.
- B. Mila Furry, 5133 Jo Don Dr., spoke in opposition to Rezoning #21030.
- C. John McLaughlin, 4442 Congdon Dr., Williamston Township, engineer for the applicant of Rezoning #21030. He expressed the intention for the rezoning is to divide the property for sale to build a single family home.
- D. Helen Huang, 5114 Jo Dawn Dr., applicant for Rezoning #21030, stated her intention to sell the divided property to build a single family home.

3. APPROVAL OF AGENDA

Commissioner Richards moved to approve the agenda.

Seconded by Commissioner Blumer.

VOICE VOTE: Motion approved unanimously.

4. APPROVAL OF MINUTES

- A. March 22, 2021 Regular Meeting

Commissioner Trezise moved to approve the minutes.

Seconded by Commissioner Cordill.

Chair Hendrickson stated the voice vote needs to be stricken from items 7A, 7B and 4A.

Commissioner Cordill commented on page 3 under the first bullet remove the word parcel and replace with proposal and only rezone the parcel with frontage on Jolly Road.

Commission Shrewsbury requested on page 3 then under the second bullet replace the word second with full.

Commissioner Trezise accepted all as a friendly amendments.

VOICE VOTE: Motion approved unanimously.

5. COMMUNICATIONS

Chair Hendrickson noted one communication.

6. PUBLIC HEARINGS

- A. Rezoning #21030 (New China of Michigan) rezone 0.42 acre RC (Multiple Family-maximum 14 dwelling units per acre) to RCC (Multiple Family-maximum 34 dwelling units per acre) at 5114 Jo Don Drive.

Chair Hendrickson opened the public hearing at 7:30 p.m.

Assistant Planner Chapman provided an overview of the rezoning request of 0.42 acre from RC (Multiple Family-maximum 14 dwelling units per acre) to RCC (Multiple Family-maximum 34 dwelling units per acre). The location is at the northeast corner of Jo Don Dr. and Sirhol Dr. Both RC and RCC require 100 ft. of lot width. It meets the requirement with 216 ft. of lot width on Jo Don Dr, but it does not meet the requirement on Sirhol Dr. with 84 ft. of lot width.

John McLaughlin, engineer for the applicant, stated he believes the notice that the residents received of the maximum of 34 dwelling units was confusing because they did not realize that was per acre and the lot is only 0.42 acres and would only allow an additional 8 units on the north part since there are already 6 units on the parcel. The owners do not intend to create an apartment complex. The owners were approached by an individual who wished to purchase the northern part to build a house.

Public Comments:

- A. David Tate, 5117 Jo Don Dr., spoke in opposition to Rezoning #21030 earlier, but would not object if the applicant is planning to sell the property for the purposes of building a house.
- B. Mila Furry, 5133 Jo Don Dr., spoke in opposition to Rezoning #21030 earlier, but would not object if the applicant is planning to sell the property for the purposes of building a house.

Planning Commission Discussion:

- If the intent of this rezoning is to sell part of the property to build a single family house, that would not be an allowed use.
- The applicant stated she wishes to change the zoning, split the parcel and then change the zoning again.
- By ordinance, the applicant cannot split the parcel because it would become nonconforming.
- If the rezoning is approved, the owner has the right to put another apartment complex on the property.
- The applicant could not request a variance from the Zoning Board of Appeals (ZBA) for the

number of units as the ZBA cannot grant a use variance.

- The applicant could place a condition on the rezoning that it be used for single family or duplex but no more density is allowed on the site.
- If the rezoning was approved, the applicant could split the parcel as they are describing.
- One option may be for the land to be split and then sold to the Township as a pocket park since that is the way it is being used currently by the neighborhood. Adding a possible condition on the rezoning for open space.
- The property is going to have setback issues. The existing structure met the setback requirements from 1963 when it was built, but over time those requirements have changed.
- Discussion of the parcel at 5130, just north may also be nonconforming.
- Looking at the neighborhood, the lot sizes are small.
- The Planning Commission cannot make conditions on a zoning request. Those conditions need to be voluntary and made by the applicant.
- The applicant can work with the Planning Staff to work through their hopes for the site.
- If the rezoning was approved, the property would no longer be nonconforming.

Straw Poll:

All Commissioners state they could not support the rezoning request as submitted, but would be willing to look at an amended application for a single family or duplex development.

Chair Hendrickson closed the public hearing at 8:07 p.m.

7. **UNFINISHED BUSINESS** -None

8. **OTHER BUSINESS**

A. SmartZone

Director Clark provided the Planning Commission with a presentation on the SmartZone. The SmartZone is a Local Development Finance Authority (LDFA) that was developed in 2001 between the cities of Lansing and East Lansing. The Township was approached by LEAP as a potential community to join to SmartZone. The purpose of this authority is to connect the university and community with innovation, commercialization, good high tech jobs and entrepreneurship. The LDFA focuses in assisting entrepreneurs with their startups, particularly businesses that involve technology and research. A recent local success of the "SmartZone" is High Caliber Karting, which began in the Technology Innovation Center (TIC) in the City of East Lansing and now has a home in the Meridian Mall. We are proposing to add all of the parcels on Dawn Avenue and all the parcels on Towner Road to be included with the SmartZone LDFA. Right now it is proposed a 65% 35% split so that the funds that are communal can support development activities for all eligible properties. The TIF will be renewed with or without Meridian Township, with no negative impact to the LDFA. Should the Township Board approve to be include these parcels into the SmartZone, Meridian can withdraw at any time.

Planning Commission Discussion:

- How does each community get access to the shared funds?
- These funds are a development incentive.

- It is time to renew the five year extension.
- What type of expenditures would the fund be used for? It would be within the SmartZone only. The money is used to attract businesses to come to the SmartZone.
- Would Meridian Township have a representative on the Board if we were to join? Yes, there would be representative.
- Where are the LDFA areas in East Lansing and Lansing? Can we compare the taxable values between the communities?
- If the parcels are included in the LDFA can they be included in other taxing authorities?
- Some tax capture information would be very helpful.

B. Mixed Use Planned Unit Development (MUPUD) Ordinance Review

Principal Planner Menser stated the sub-committee did meet on April 5, 2021 to discuss the updates to the amenities section. The updates are referenced on page 32 in the packet.

Commissioner Richards moved to initiate a zoning amendment to amend Section 86-440, the mixed use planned unit development ordinance, in accordance with the revisions proposed in the draft ordinance dated April 9, 2021.

Seconded by Commissioner Blumer.

Planning Commission Discussion:

- Good presentation and it should move forward for public comment.
- Agreement that the ordinance is ready for public comment.
- Discussion regarding public transit stops. Developer will have to work with CATA and possibly expect the developer to pay for additional stops.
- Discussion regarding the enhanced amenities available by CATA.
- Discussion regarding the reduced amount of required non-residential uses from 50 percent to 25 percent in the three amenity category. Consensus that this is a target.
- Reviewed page 8, section e, 1 (f)- Amenities shall be visible and/or accessible to the public from a fully improved street, and/or a benefit to the general public.

ROLL CALL VOTE:

YAYS: Commissioner Trezise, McConnell, Cordill, Shrewsbury, Richards, Blumer, Snyder and Chair Hendrickson.

MOTION CARRIED: 8-0

9. REPORTS AND ANNOUNCEMENTS

A. Township Board update.

Principal Planner Menser provided a summary of the Township Board meeting held on March 30, 2021 was a joint meeting between local governments and school districts. The Board is scheduled to meet on April 13, 2021. On the agenda, is the zoning amendment regarding motor vehicle sales. The Kansas Road and Jolly Road rezoning project has been moved to the May 6, 2021 Township Board meeting.

B. Liaison reports.

Chair Hendrickson recognized Principal Planner Menser's departure to the City of East Lansing. Thanked Peter for the work he had done for the Township and with the Planning Commission and wished him lots of success.

10. PROJECT UPDATES

A. New Applications

1. Special Use Permit #21031 (EROP, LLC), construct a drive-through wash at 2703 Grand River Avenue.
2. Rezoning #21040 (Okemos IL-AL Investors, LLC), rezone two parcels totaling approximately 9.07 acres located at 1510 & 1560 Grand River Avenue, from C-2 (Commercial) to RA (Single Family, Medium Density).

B. Site Plans Received -None

C. Site Plans Approved

1. Site Plan Review #21-01-30 (Granger Construction), reconfigure drive-through at MSUFCU branch at 1775 Central Park Drive.
2. Site Plan Review #21-14-06 (Granger Construction), reconfigure drive-through at MSUFCU branch at 2300 Jolly Road.

11. PUBLIC REMARKS - NONE

12. ADJOURNMENT

Commissioner Trezise moved to adjourn the meeting.

Supported by Commissioner McConnell.

VOICE VOTE: Motion carried unanimously.

Chair Hendrickson adjourned the regular meeting at 8:55 p.m.

Respectfully Submitted,
Michelle Prinz, Recording Secretary

April 12, 2021

To: The board members of Meridian Township

My name is Mei Yun Shih, I am the property owner of 5125 Jo Don Dr. I am writing to support the upcoming rezoning #21030 for 5114 Jo Don Dr.


Mei Yun Shih
4200 Aztec Way
Okemos, MI 48864



To: Planning Commission

From: Mark Kieselbach, Director of Community Planning & Development

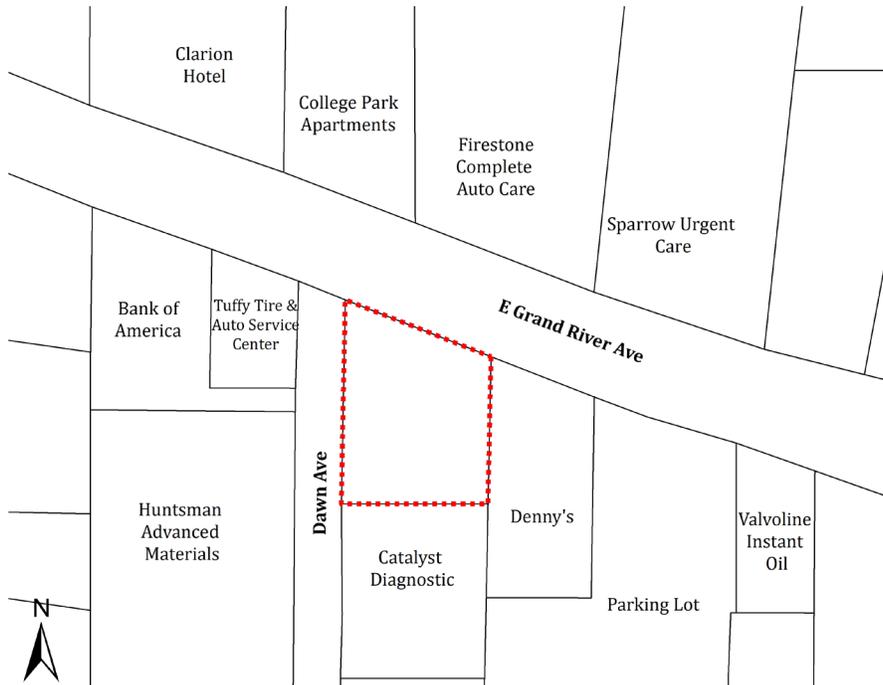
Keith Chapman, Assistant Planner

Date: April 23, 2021

Re: Special Use Permit #21031 (EROP, LLC), construct a drive-through car wash at 2703 Grand River Avenue.

EROP, LLC has requested special use permit (SUP) approval to construct a 3,300 square foot drive-through car wash at 2703 Grand River Avenue. The 0.88 acre subject site is zoned C-2 (Commercial). Drive through car wash facilities are permitted by special use permit in the C-2 (Commercial) zoning district. In addition to the proposed building, the applicant intends to remove the two existing access points on Grand River Avenue.

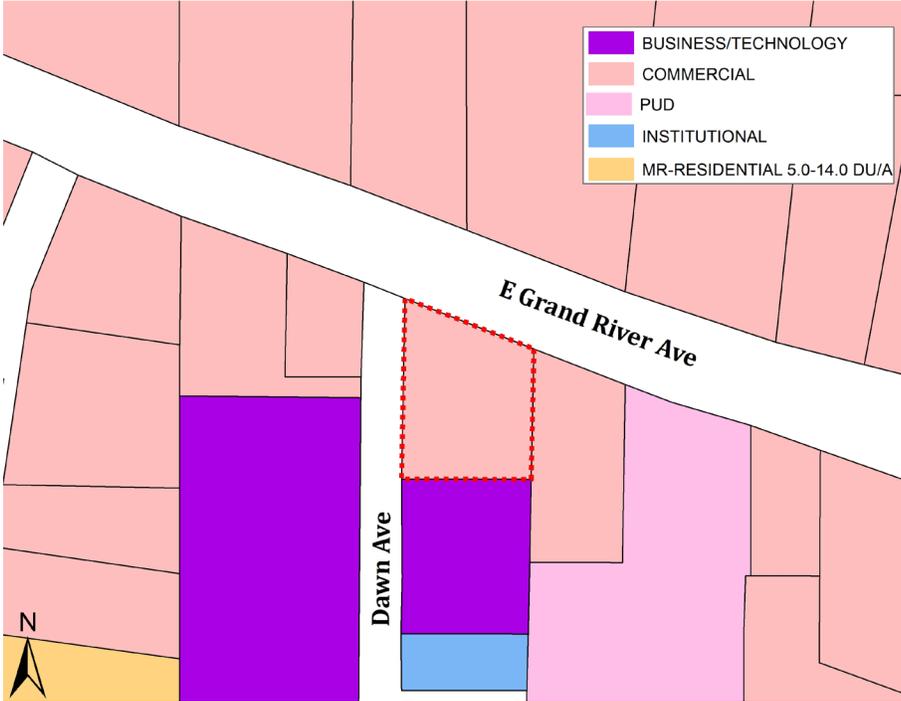
LOCATION MAP



Master Plan

The Future Land Use Map from the 2017 Master Plan designates the subject property in the Commercial category. The proposed use is consistent with the future land use Commercial category.

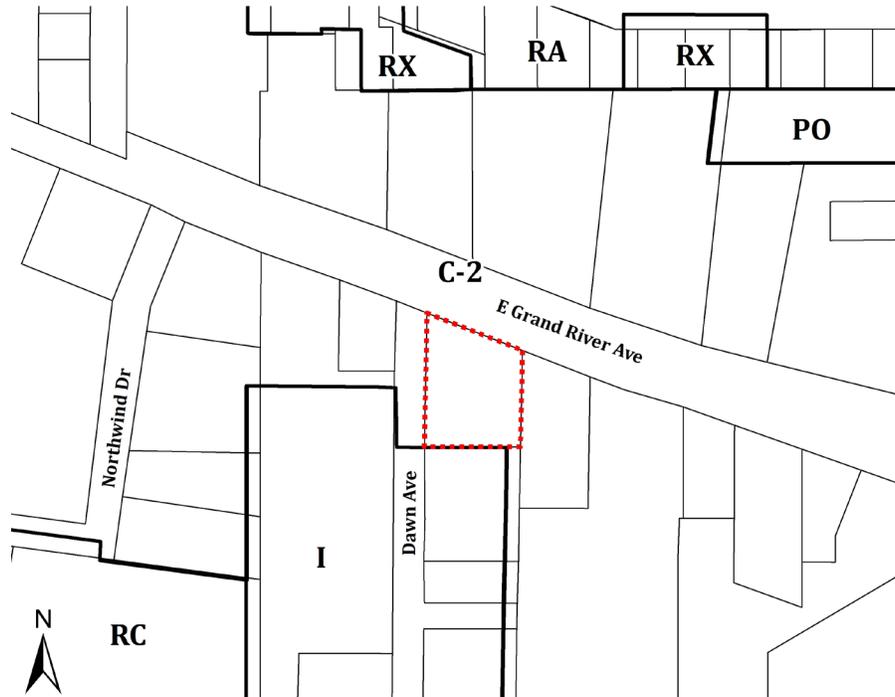
FUTURE LAND USE MAP



Zoning

Drive-through car wash facilities are allowed by special use permit in the C-2 zoning district. The subject site is zoned C-2 (Commercial) which requires a minimum of 100 feet of lot frontage and 4,000 square feet of lot area. The subject site has 196.5 feet of lot frontage along Grand River Avenue and 253.3 feet of lot frontage along Dawn Avenue and has 38,116 square feet, or 0.88 acre, of lot area.

ZONING MAP



Physical Features

The approximate 0.88 acre site is located at the corner of Grand River Avenue and Dawn Avenue. Currently, the site is developed with a 2,873 square foot building constructed in 1946. The building previously contained Paul Revere's Tavern. The site does not have any special designation on the Township Greenspace Plan and is not located in a floodplain or near any wetlands.

Streets and Traffic

The approximate 0.88 acre site is located on the south side of Grand River Avenue, east of Dawn Avenue. Access to the site is provided on Dawn. A seven foot wide pathway is installed along Grand River Avenue.

Grand River Avenue has four lanes and a center turn lane with curb and gutter installed. It is classified as a Principal Arterial Street, which requires a setback of 100 feet from the centerline of the right-of-way. Dawn Avenue has two lanes with curb and gutter. It is classified as a local street and requires a 25' setback from the street right-of-way line.

The most recent (2019) traffic count information from the Michigan Department of Transportation (MDOT) Annual Average Daily Traffic (AADT) map showed a total of 27,464 two-way vehicle trips in a 24 hour period on this segment of Grand River Avenue.

The applicant submitted a trip generation analysis which estimates future vehicle trips that could be generated by the proposed development. The Institute of Transportation Engineers (ITE) trip generation rates for a Tunnel Automated Car Wash (Land Use Code 948) was selected to represent the proposed development. The manual only includes traffic counts for PM Peak Hour and Saturday midday peak hour and does not include a weekday total. The following table summarizes findings from the submitted trip generation analysis.

Description	PM Peak Hour			Saturday Midday Peak Hour		
	In	Out	Total	In	Out	Total
Tunnel Automated Car Wash, Code 948	39	39	78	50	50	100

A traffic assessment is required for new special uses which could generate between 50 and 99 directional trips during morning and afternoon peak hours of traffic. A traffic impact study is required for new special uses which would generate over 100 directional trips during morning and afternoon peak hours of traffic, or over 750 trips on an average day. An average day is the average 24-hour total of all vehicle trips counted to and from a study site from Monday through Friday. Key findings of the submitted study include:

1. Under the proposed development plan, a 3,300-square-foot car wash would be constructed on the subject property with access proposed via one (1) full-movement driveway along Dawn Avenue.
2. The proposed car wash development with drive-through service is projected to generate 39 new entering trips and 39 new exiting trips during the weekday evening peak hour and generate 50 new entering trips and 50 new exiting trips during the Saturday midday peak hour.
3. The proposed car wash would provide enough storage for a 15-vehicle queue outside of the washing tunnel.
4. Based on the Meridian Township Ordinance, the proposed development would require 15 standing spaces and two (2) parking spaces. The site would provide 17 total standing spaces and two (2) parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand.

Utilities

The site is served by public water and sanitary sewer.



Setbacks

The submitted site plan shows the existing building has an 80.8 foot front yard setback from the centerline of Grand river Avenue. The Zoning Ordinance requires 100 feet from the centerline of Grand River Avenue. Also the parking lot landscape buffer along Grand River Avenue is 3.8 feet. A 20 foot parking lot landscape buffer is required by the Zoning Ordinance. The parking lot near the south property line is shown six feet from the rear property line. When abutting nonresidential uses, the Zoning Ordinance requires a 15' parking lot landscape buffer. The applicant will be required to receive variances from the Zoning Board of Appeals for these setbacks.

Parking

There are 17 vacuum parking spaces that are shown as 12' wide. The Zoning Ordinance requires parking spaces to be 9' or 10' wide based on how they are angled. A total of 19 parking spaces are shown on site. There are two parking spaces shown for employees. There are 15 stacking spaces shown on the plan and the Zoning Ordinance requires 15 stacking spaces.

Staff Analysis

The existing building will be demolished and a new parking lot along with landscaping will be added to the site. The submitted landscape plan does not meet the requirements of the Zoning Ordinance. An updated landscape plan that meets the Ordinance will need to be submitted for site plan review.

On the subject site the applicant intends to have one access point that will be located on Dawn Avenue. The existing two drives that are located on Grand River will be closed. The proposed drive-through car wash will be one car lane wide. There are 18 vacuums located in the front yard of the property. The Zoning Ordinance states no noise exceeding 70 dBA shall be emitted, as measured from a property line. The applicant will be required to demonstrate noise levels for the site will not exceed 70 dBA. Direct pedestrian access from the building to the sidewalk is required by the Zoning Ordinance.

The submitted architectural plan shows that the building will be constructed of block. The special use permit criteria state a project should be designed and constructed as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity. There was no materials board submitted and the applicant will be required to do so for Site Plan Review. Section 86-126 of the Code of Ordinances, the general special use permit criteria, should be used by the Planning Commission in considering the proposed request. There are four specific standards for drive-through car washes in the C-2 zoning district noted in Section 86-404(e)(13)(c) of the Code of Ordinances, which are as follows:

1. In self-service car washes, no equipment, such as a vacuum cleaner, shall be located in the front yard.
2. Buildings shall be set back a minimum of 500 feet from an abutting residential district.

3. Storage of flammable products. Outside aboveground tanks for the storage of gasoline, oil or other flammable liquids or gases, other than liquid petroleum gas, for sale shall be prohibited.
4. Car washes, including self-service types, shall not be allowed to operate so as to adversely affect the adjacent residential properties and surrounding area.

The Planning Commission has the ability to place conditions on the SUP to ensure there are no conflicts between the drive-through car wash and adjacent residences or businesses.

Planning Commission Options

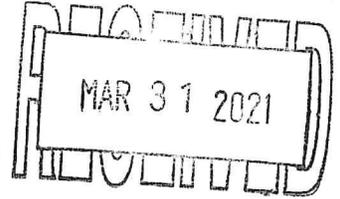
The Planning Commission may approve, approve with conditions, or deny the special use permit. A resolution will be provided at a future meeting.

Attachments

1. Special use permit application and attachments.
2. Site plan prepared by Stonefield Engineering & Design dated March 26, 2021 and received by the Township on March 31, 2021.
3. Architectural/Floor Plans prepared by REB Architects dated July 17, 2020 and received by the Township on March 31, 2021.
4. Traffic Impact Assessment prepared by Stonefield Engineering & Design dated April 9, 2021 and received by the Township on April 22, 2021.

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**CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PLANNING DIVISION PHONE: (517) 853-4560, FAX: (517) 853-4095**



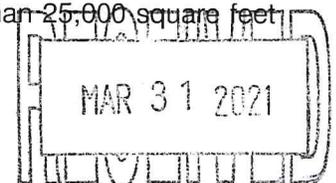
SPECIAL USE PERMIT APPLICATION

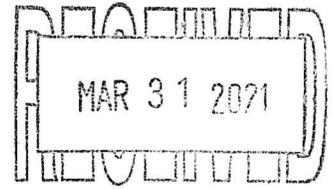
Before submitting this application for review, an applicant may meet with the Director of Community Planning and Development to discuss the requirements for a special use permit and/or submit a conceptual plan for review to have preliminary technical deficiencies addressed prior to submittal of the application. If the property or land use is located in the following zoning districts RD, RC, RCC, RN then the applicant must meet with the Planning Director to discuss technical difficulties before filing a formal application.

Part I

- A. Applicant EROP, LLC (Attn Jeff Justice)
 Address of Applicant 2703 E GRAND RIVER MERIDIAN TWP, MI
 Telephone - Work 217-972-4296 Home _____ Fax _____ Email JEFFJ@RAINSTORMCARWASH.COM
 Interest in property (circle one): Owner _____ Tenant _____ Option Other _____
 (Please attach a list of all persons with an ownership interest in the property.)
- B. Site address / location / parcel number 2703 E GRAND RIVER AVE MERIDIAN TWP, MI / 33-02-02-20-203-012
 Legal description (please attach if necessary) SEE ATTACHED (SHEET C-1)
 Current zoning C-2
 Use for which permit is requested / project name CAR WASH / HYPERSHINE CAR WASH
 Corresponding ordinance number 86-404(13)
- C. Developer (if different than applicant) SAME AS APPLICANT
 Address _____
 Telephone – Work _____ Home _____ Fax _____
- D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name STONEFIELD ENGINEERING & DEISGN. LLC
 Address 607 SHLEBY ST SUITE 200 DETROIT, MI 48226
 Telephone – Work 248-247-1115 Home N/A Fax N/A
- E. Acreage of all parcels in the project: Gross .88 AC Net .88 AC
- F. Explain the project and development phases: PROPOSED 3,300 SF CAR WASH WITH 2 EMPLOYEE PARKING SPACES, 17 VACCUUM SPACES, UTILITY LEADS, STORMWATER INFRASTRUCTURE, LANDSCAPING AND LIGHTING IMPROVEMENTS.
- G. Total number of:
 Existing: structures 1 bedrooms - _____ offices - _____ parking spaces _____ carports - _____ garages - _____
 Proposed: structures 1 bedrooms - _____ offices - _____ parking spaces _____ carports - _____ garages - _____
- H. Square footage: existing buildings 2,847 proposed buildings 3,300
 Usable Floor area: existing buildings 2,278 proposed buildings 2,640
- I. If employees will work on the site, state the number of full time and part time employees working per shift and hours of operation: 2 employees at maximum shift, open 8 AM - 7 PM daily
- J. Existing Recreation: Type N/A Acreage N/A
 Proposed Recreation: Type N/A Acreage N/A
 Existing Open Space: Type LANDSCAPING. GRASS Acreage .29
 Proposed Open Space: Type LANDSCAPING. GRASS Acreage .31

- M. Any other information specified by the Director of Community Planning and Development which is deemed necessary to evaluate the application.
- N. In addition to the above requirements, for zoning districts, **RD, RC, RCC, RN, and CV** and **Group Housing Residential Developments** the following is required:
1. Existing and proposed contours of the property at two foot intervals based on United States Geological Survey (USGS) data.
 2. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
 3. Ten copies of a report on the intent and scope of the project including, but not limited to: Number, size, volume, and dimensions of buildings; number and size of living units; basis of calculations of floor area and density and required parking; number, size, and type of parking spaces; architectural sketches of proposed buildings.
 4. Seven copies of the project plans which the Township shall submit to local agencies for review and comments.
- O. In addition to the above requirements, a special use application in zoning district **RP** requires the following material as part of the site plan:
1. A description of the operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards or safety hazards or the emission of any potentially harmful or obnoxious matter or radiation.
 2. Engineering and architectural plans for the treatment and disposal of sewerage and industrial waste tailings, or unusable by-products.
 3. Engineering and architectural plans for the handling of any excessive traffic congestion, noise, glare, air pollution, or the emission of any potentially harmful or obnoxious matter or radiation.
- P. In addition to the above requirements, a special use application for a use in the Floodway Fringe of zoning district **CV** requires the following:
1. A letter of approval from the State Department of Environmental Quality.
 2. A location map including existing topographic data at two-foot interval contours at a scale of one inch representing 100 feet.
 3. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits, extent, and elevations of the proposed fill, excavation, and occupation.
 4. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.
- Q. In addition to the above requirements, a special use application for a use in the Groundwater Recharge area or zoning district **CV** requires the following:
1. A location map including existing topographic data at two-foot interval contours.
 2. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits and extent of the proposed fill, excavation, and occupation.
 3. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.
- R. In addition to the above requirements, the Township Code of Ordinances, Article VI, should be reviewed for the following special uses: group housing residential developments, mobile home parks, nonresidential structures and uses in residential districts, planned community and regional shopping center developments, sand or gravel pits and quarries, sod farms, junk yards, sewage treatment and disposal installations, camps and clubs for outdoor sports and buildings greater than 25,000 square feet in gross floor area.





Part II

SUP REQUEST STANDARDS
Township Code of Ordinances, Section 86-126

Applications for Special Land Uses will be reviewed with the standards stated below. An application that complies with the standards stated in the Township Ordinance, conditions imposed pursuant to the Ordinance, other applicable Ordinances, and State and Federal statutes will be approved. Your responses to the questions below will assist the Planning Commission in its review of your application.

- (1) The project is consistent with the intent and purposes of this chapter.
(2) The project is consistent with applicable land use policies contained in the Township's Master Plan of current adoption.
(3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.
(4) The project will not adversely affect or be hazardous to existing neighboring uses.
(5) The project will not be detrimental to the economic welfare of surrounding properties or the community.
(6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.
(7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and storm water are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.
(8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
(9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

Part III

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

[X] Yes [] No (Please check one)

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

Jeff Justice

3/01/2021

Signature of Applicant

Date

JEFF JUSTICE

Type/Print Name

Fee: \$500.00

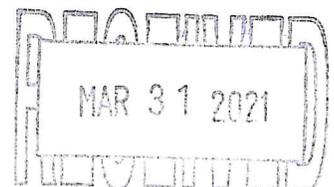
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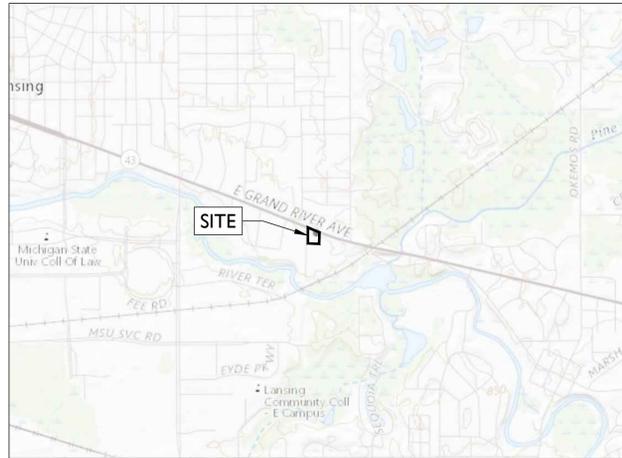
[Signature] 3/31/21

**Special Use Permit Application Attachment
Site Plan Requirements Per Section 86-124(c)(4)**

A site plan, drawn to a legible scale, containing the following information where applicable:

- a. Boundaries of the subject property.
- b. Total area of the subject property.
- c. Location of all existing and proposed structures.
- d. Approximate location and distance of all structures within 100 feet of the subject property.
- e. Uses of existing and proposed buildings, on the subject site.
- f. Proposed means of vehicular and pedestrian ingress and egress to the subject property.
- g. Public and private roads and streets, rights-of-way, and easements, indicating names and widths, which abut or cross the site.
- h. Existing and proposed parking spaces, and vehicular and pedestrian circulation patterns.
- i. The buildable area of the subject property indicating all required setbacks, yards and open space.
- j. Zoning classification of the subject and adjacent properties.
- k. Existing and proposed fencing, screening, landscaping, and buffers.
- l. Location and sizes of existing utilities including power lines and towers, both above and below the ground.
- m. Amount and location of all impervious surfaces.
- n. The verified boundaries of all natural water features and required setback lines.





SOURCE: USGS ONLINE MAPS

LOCATION MAP

SCALE: 1" = 2,000'±

SITE DEVELOPMENT PLANS

FOR



HYPERSHINE

PROPOSED CAR WASH

PARCEL ID: 33-02-02-20-203-012
 2703 E GRAND RIVER AVENUE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

APPLICANT

EROP, LLC
 2390 E FEDERAL DRIVE
 DECATUR, IL 62526
 (215)-521-2348
 JEFF@RAINSTORMCARWASH.COM

OWNER

OREILLY AUTO ENTERPRISES LLC
 2703 E GRAND RIVER AVENUE
 MERIDIAN TOWNSHIP, MI 48823

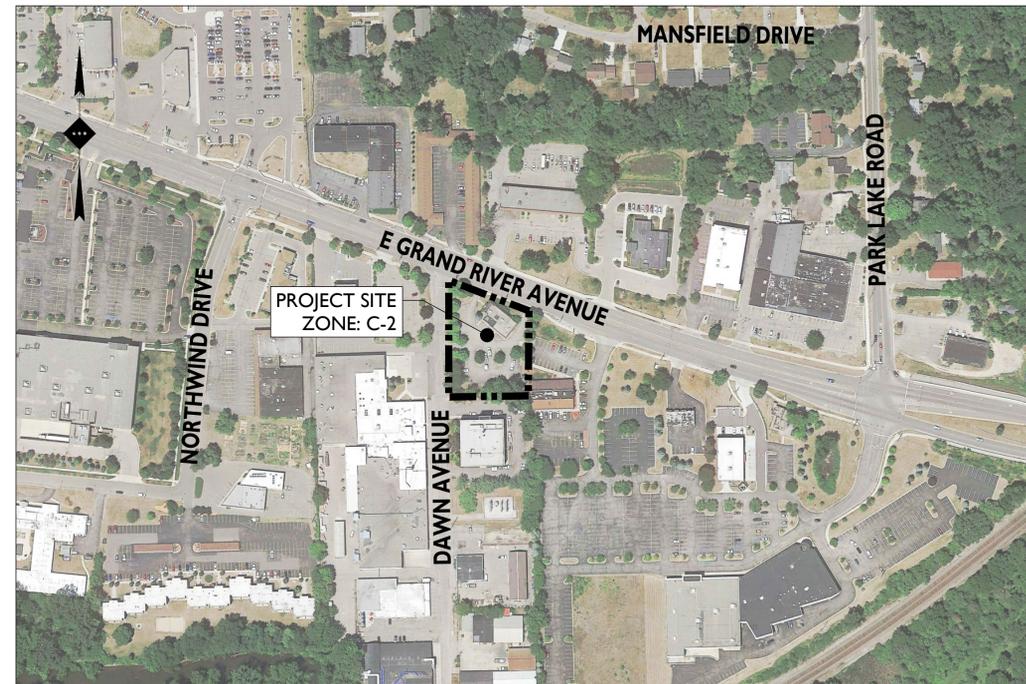
ISSUE	DATE	BY	DESCRIPTION
2	03/26/2021	ECM/JRC	SITE PLAN SUBMISSION
1	03/01/2021	ECM	FOR CLIENT REVIEW

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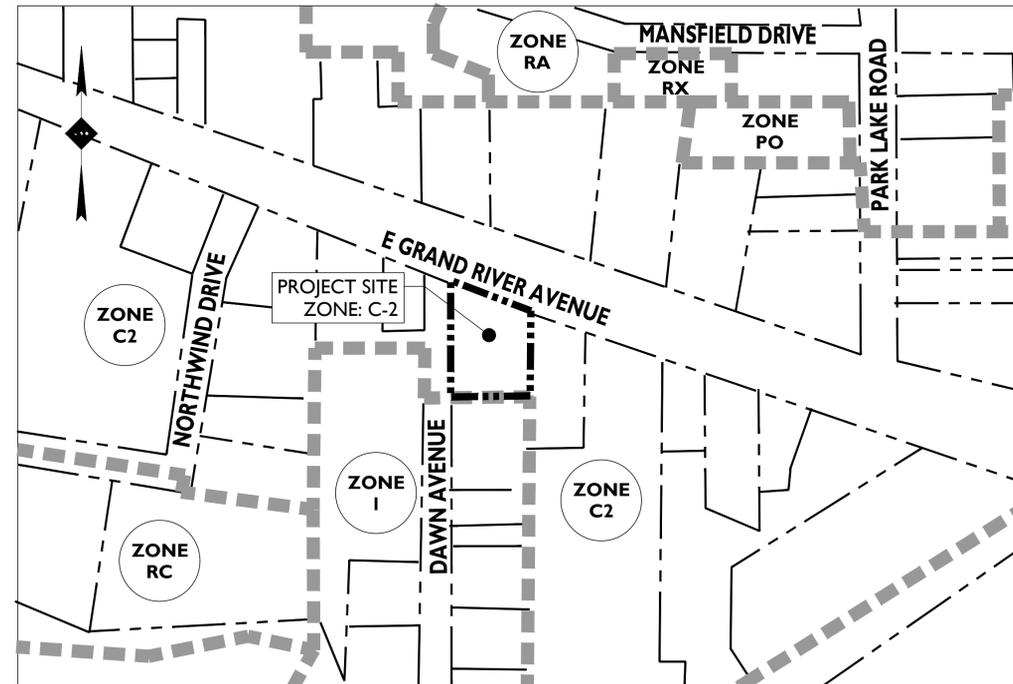
607 Shelby Suite 200, Detroit, MI 48226
 Phone 248.247.1115



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 200'±



SOURCE: MERIDIAN TOWNSHIP ZONING MAP 2018

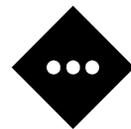
ZONING MAP

SCALE: 1" = 200'±

PLANS PREPARED BY:



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PROPERTY DESCRIPTION:

LOCATED IN THE TOWNSHIP OF MERIDIAN, COUNTY OF INGHAM, STATE OF MICHIGAN AND DESCRIBED AS:

ALL OF LOTS 4, 5 AND 6, AND ALL OF LOT 7 EXCEPT THE SOUTH 60 FEET THEREOF, CEDAR RIVER HOMES, MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 11, PAGE 30 (LIBER 31, PAGES 47 AND 48 PER WARRANTY DEED), INGHAM COUNTY RECORDS, ALSO BEING DESCRIBED AS: BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 4, ALSO BEING THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF EAST GRAND RIVER AVENUE (M-43)(110' WIDE) AND THE EAST RIGHT-OF-WAY LINE OF DAWN AVENUE (50' WIDE); THENCE S. 70°00'00"E. 196.75 FEET (RECORDED AS 196.5 FEET) ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID E. GRAND RIVER AVE. TO THE NORTHEAST CORNER OF SAID LOT 4; THENCE S.01°26'33"E 172.42 FEET (RECORDED AS S.01°05'W. 172 FEET); THENCE S.88°42'36"W. 183.13 FEET (RECORDED AS 183.5 FEET) TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SAID DAWN AVE.; THENCE N.01°26'33"W. 243.86 FEET (RECORDED AS N.01°05'E. 253.3 FEET) ALONG THE EAST RIGHT-OF-WAY LINE OF SAID DAWN AVE. TO THE POINT OF BEGINNING.

PLAN REFERENCE MATERIALS:

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA / NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC DATED 12/4/2020
 - ARCHITECTURAL PLANS PREPARED BY REB ARCHITECTS DATED XX/XX/XXXX
 - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO 02/21/2021
 - LOCATION MAP OBTAINED FROM USGS MAPS ONLINE 02/24/2021
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
SITE PLAN	C-2
GRADING PLAN	C-3
STORMWATER MANAGEMENT PLAN	C-4
UTILITY PLAN	C-5
LIGHTING PLAN	C-6
LANDSCAPING PLAN	C-7
CONSTRUCTION DETAILS	C-8 TO C-9

ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	1 OF 1

SITE DEVELOPMENT PLANS

HYPERSHINE

PROPOSED CAR WASH



PARCEL ID: 33-02-02-20-203-012
 2703 E GRAND RIVER AVENUE
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN

STONEFIELD
 engineering & design

SCALE: AS SHOWN PROJECT ID: DET-200226

TITLE:

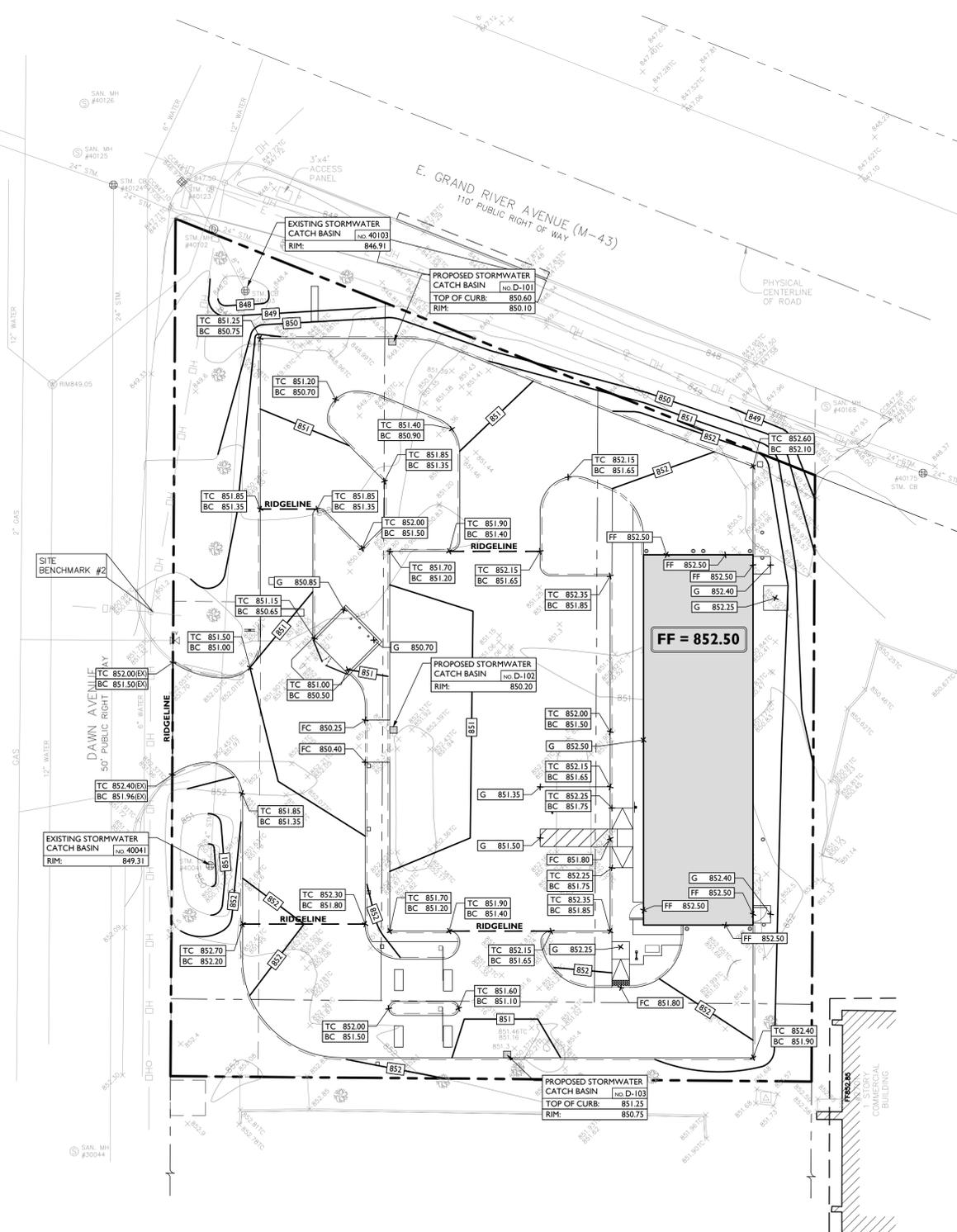
COVER SHEET

DRAWING:

C-1

NORTHWEST CORNER OF SAID LOT 4, ALSO BEING THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF EAST GRAND RIVER AVENUE (M-43)(110' WIDE) AND THE EAST RIGHT-OF-WAY LINE OF DAWN AVENUE (50' WIDE); THENCE S. 70°00'00"E. 196.75 FEET (RECORDED AS 196.5 FEET) ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID E. GRAND RIVER AVE. TO THE NORTHEAST CORNER OF SAID LOT 4; THENCE S.01°26'33"E 172.42 FEET (RECORDED AS S.01°05'W. 172 FEET); THENCE S.88°42'36"W. 183.13 FEET (RECORDED AS 183.5 FEET) TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF SAID DAWN AVE.; THENCE N.01°26'33"W. 243.86 FEET (RECORDED AS N.01°05'E. 253.3 FEET) ALONG THE EAST RIGHT-OF-WAY LINE OF SAID DAWN AVE. TO THE POINT OF BEGINNING.

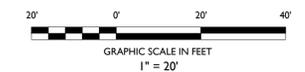
SITE BENCHMARK #3



SYMBOL	DESCRIPTION
---	PROPERTY LINE
—100—	PROPOSED GRADING CONTOUR
—RIDLIN—	PROPOSED GRADING RIDGELINE
←	PROPOSED DIRECTION OF DRAINAGE FLOW
X G 100.00	PROPOSED GRADE SPOT SHOT
X TC 100.50 BC 100.00	PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT
X FC 100.00	PROPOSED FLUSH CURB SPOT SHOT

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

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



ISSUE	DATE	BY	DESCRIPTION
2	03/26/2021	ECM/JRC	SITE PLAN SUBMISSION
1	03/01/2021	ECM	FOR CLIENT REVIEW

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HYPERSHINE
PROPOSED CAR WASH

PARCEL ID: 33-02-02-20-203-012
2703 E GRAND RIVER AVENUE
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

J. REID COOKSEY, P.E.
MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

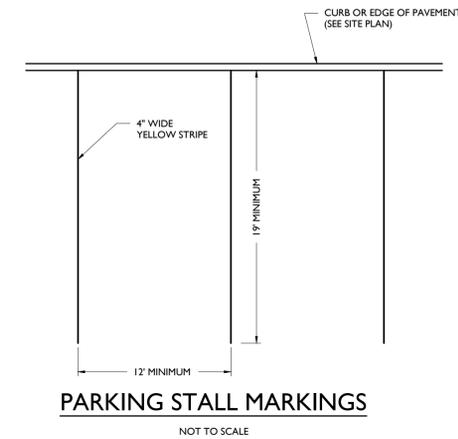
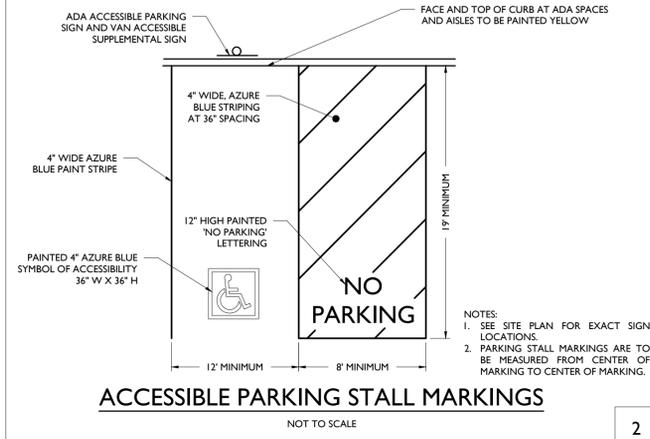
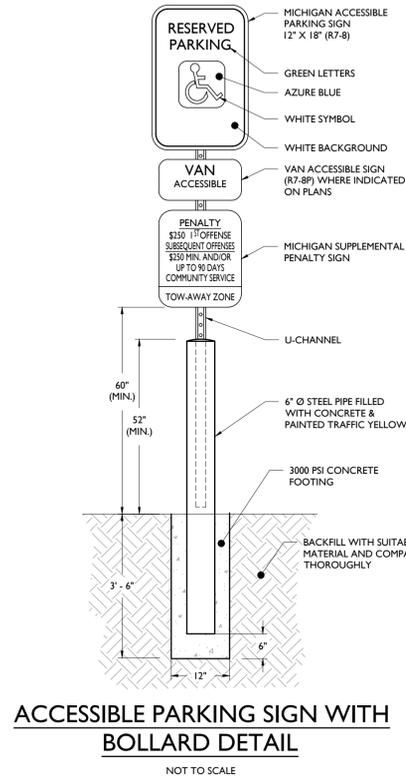
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engineering & design

SCALE: 1" = 20' PROJECT ID: DET-200226

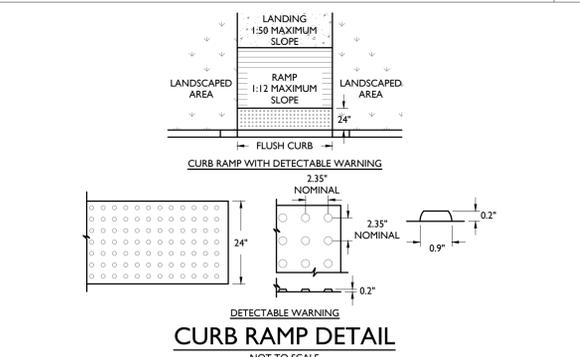
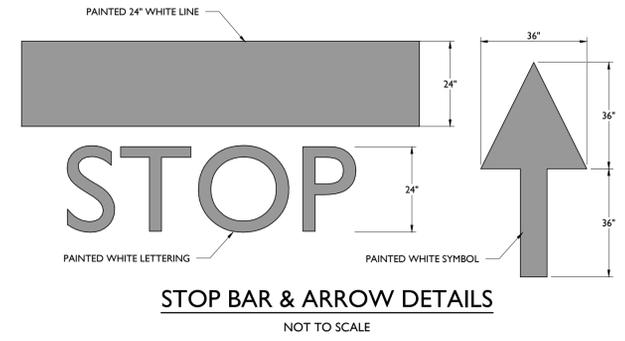
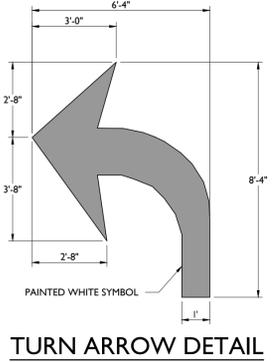
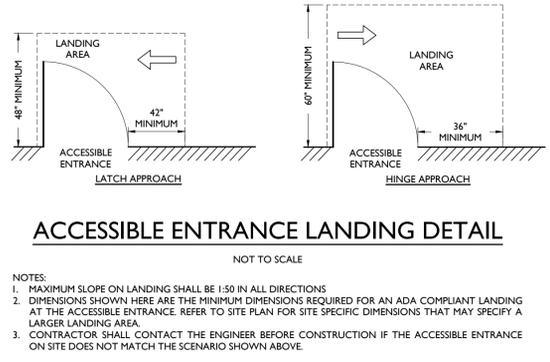
TITLE:
GRADING PLAN

DRAWING:
C-3

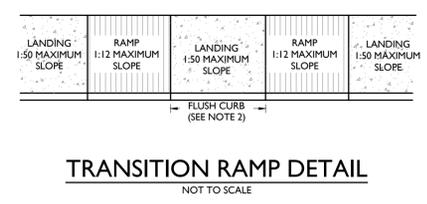
V:\012020\DET-200226\MAIN\TDR\CAR WASH\2703 E GRAND RIVER EAST LANDING - PROPOSED CAR WASH GRADING



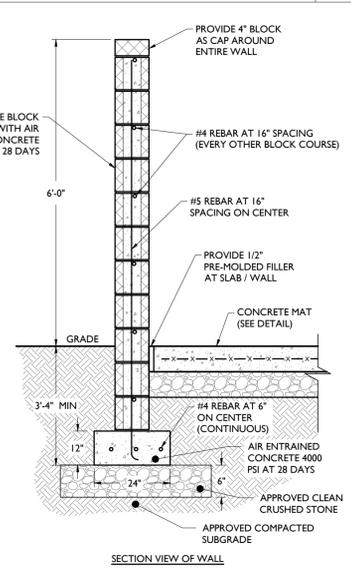
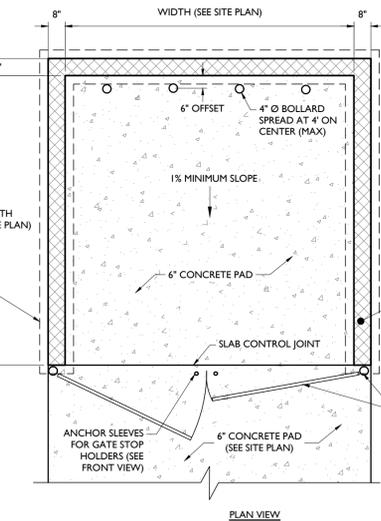
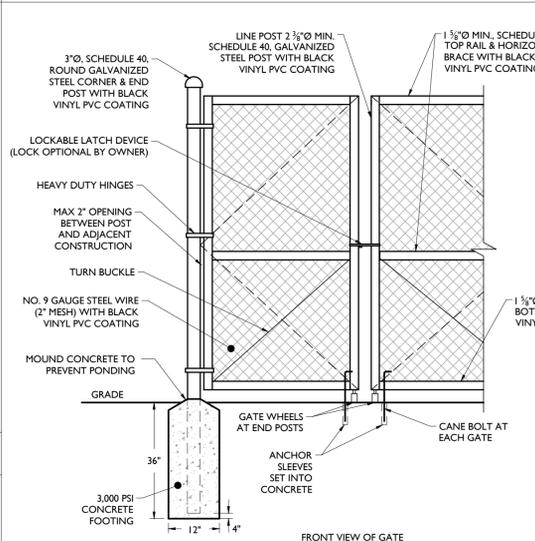
- PAVEMENT STRIPING & MARKINGS NOTES:**
1. ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
 2. ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
 3. PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
 4. UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
 5. UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.



- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
 3. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
 4. VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE.
 5. DETECTABLE WARNING STRIP REQUIRED WHERE RAMP DIRECTS PEDESTRIAN TRAFFIC TOWARDS VEHICLE TRAVEL WAY. WARNING STRIP SHALL BE CAST-IN-PLACE.
 6. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
 3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



NOTE: BLOCK COLOR TO MATCH BUILDING OR AS SPECIFIED BY OWNER

TRASH / RECYCLE ENCLOSURE DETAIL
NOT TO SCALE

ACCESSIBLE PARKING SIGN WITH BOLLARD DETAIL
NOT TO SCALE

ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE

PARKING STALL MARKINGS
NOT TO SCALE

ACCESSIBLE ENTRANCE LANDING DETAIL
NOT TO SCALE

TURN ARROW DETAIL
NOT TO SCALE

STOP BAR & ARROW DETAILS
NOT TO SCALE

CURB RAMP DETAIL
NOT TO SCALE

TRANSITION RAMP DETAIL
NOT TO SCALE

FRONT VIEW OF GATE

PLAN VIEW

SECTION VIEW OF WALL

V:\01230501\2022\MANITOWISH\CONTRACTS\2022\1-15-22\GANDER RIVER EAST LANDING - HICAD\DWG\2022-08-09\01230501.DWG

NO.	DATE	ISSUE	BY	DESCRIPTION
2	03/26/2021	ECM / JRC		SITE PLAN SUBMISSION
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SITE DEVELOPMENT PLANS

HYPERSHINE

PROPOSED CAR WASH

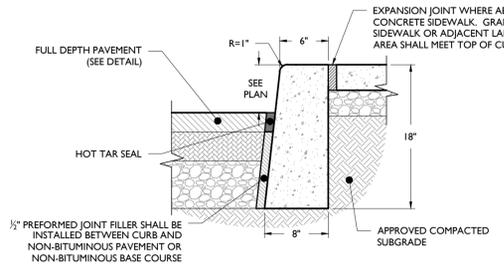
PARCEL ID: 33-02-02-203-012
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MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN PROJECT ID: DET-200226

TITLE: **CONSTRUCTION DETAILS**

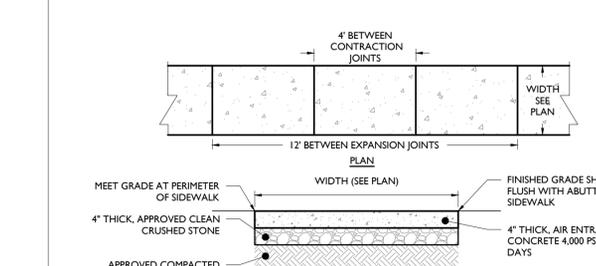
DRAWING: **C-8**



CONCRETE CURB

NOT TO SCALE

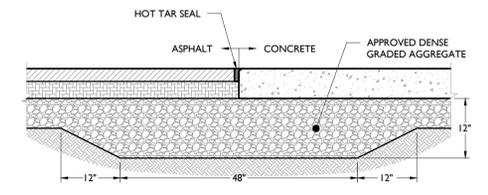
- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



CONCRETE WALKWAY

NOT TO SCALE

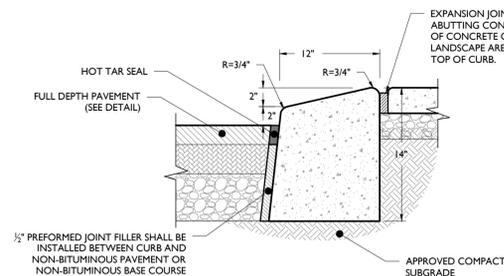
- NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE 1/4" PER FOOT.
 2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
 4. EXPANSION JOIN SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.



CONCRETE TO ASPHALT TRANSITION

NOT TO SCALE

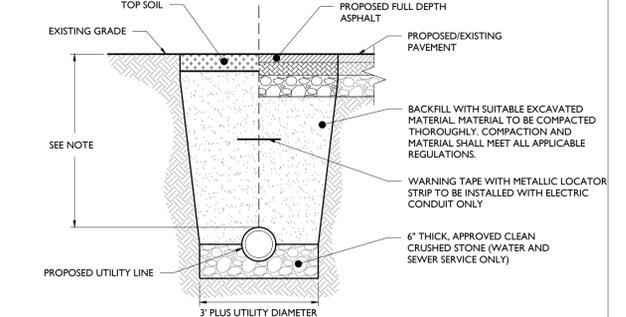
- NOTES:
1. 1/2" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
 2. 1" DEEP BY 1/2" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
 3. CONCRETE SHALL RECEIVE BROOM FINISH.
 4. ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.



MOUNTABLE CONCRETE CURB

NOT TO SCALE

- NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
 2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
 3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
 4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

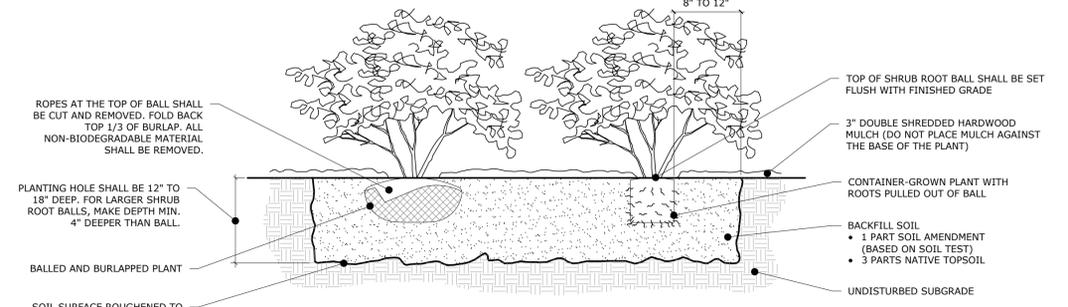


UTILITY TRENCH

NOT TO SCALE

- NOTE:
- MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
- ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - SEWER SERVICE - 36" MINIMUM
 - WATER SERVICE - 48" MINIMUM

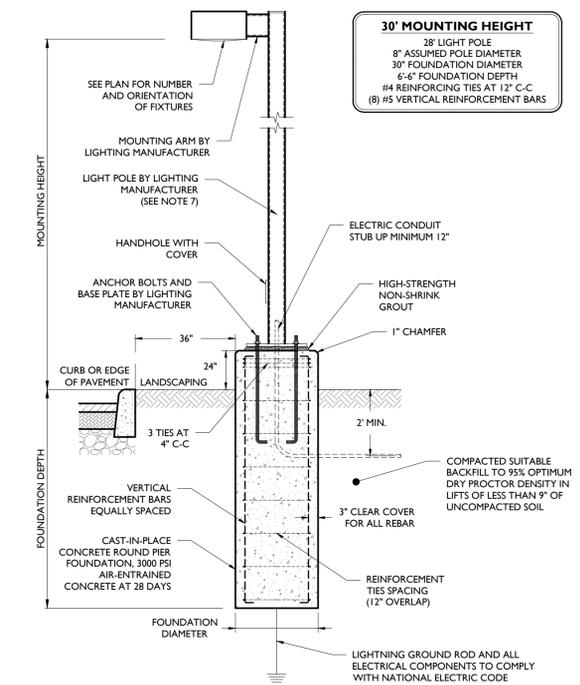
- NOTES:
1. FOR THE CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
 2. THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST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



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

- REFERENCES ARCHITECTURAL GRAPHIC STANDARDS COPYRIGHT 2000



LIGHT POLE INSTALLATION

NOT TO SCALE

- NOTES:
1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
 2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
 3. ALL REBAR TO BE NEW GRADE 60 STEEL.
 4. PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
 5. CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
 6. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCES).
 7. POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANS/AISC 7-93.
 8. POLE TO BE TERMINATED AT A FORM.
 9. WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
 10. CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

Mirada Medium Outdoor LED Area Light

ORDERING GUIDE

Luminaire Profile	Light Source	Lumen Package	Light Output	Distribution	Orientation	Voltage	Driver
MRM - Mirada	LED	FL - 3,000 lms RL - 3,000 lms VL - 18,000 lms SL - 36,000 lms 2KL - 36,000 lms 4KL - 48,000 lms	FL - 3,000 lm RL - 3,000 lm VL - 18,000 lm SL - 36,000 lm 2KL - 36,000 lm 4KL - 48,000 lm	2 - Type 2 3 - Type 3 SW - Type 5 Wide FF - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	NW - Universal Voltage (120-277V) HW - High Voltage (347-480V)	DM - 0-10V Dimmer (0-10%)

Color Temp	Color Rendering	Finish	Options
40-1000 CCT	TCOR-70 CCT	BLK - Black	(blank) - None
40-1000 CCT		BLK - Black	IL - Integral Linear (Clear, Silver Light Castoff)
40-1000 CCT		GPT - Graphite	
40-1000 CCT		MSV - Metallic Silver	
40-1000 CCT		WHT - White	
40-1000 CCT		PLP - Platinum Plus	
40-1000 CCT		SVG - Satin Verde Green	

Accessory	Order Number	Description	Order Number
PC190 Protocol for use with CRFP option (1200P)	122514	Universal Mounting Bracket	684819L2R
PC190-077 Protocol for use with CRFP option (200L, 240L, 371V)	122515	Adjustable Slip Ring (2" - 2.38" Throw)	688138L2R
Twist Lock Protocol (24V) for use with CRFP	122516	Horizontal Slip Ring (2" - 2.38" Throw)	657819L2R
Twist Lock Protocol (480V) for use with CRFP	1223139	Quick Mount Pole Bracket (Square Pole)	687020L2R
Quick Mount Pole Bracket (4" Round Pole)	681449	Quick Mount Pole Bracket (4" Round Pole)	689902L2R
Quick Mount Pole Bracket (4" Round Pole)	681449	15 TPI Quick Mount Pole Bracket (Square Pole)	688002L2R
Quick Mount Pole Bracket (4" Round Pole)	681449	15 TPI Quick Mount Pole Bracket (4" Round Pole)	689902L2R
Quick Mount Pole Bracket (4" Round Pole)	681449	Wall Mount Bracket	382120L2R
Quick Mount Pole Bracket (4" Round Pole)	148228	Wall Pole Bracket (8" Maximum Pole Clearance)	751219L2R

- FOOTNOTES:
1. Custom luminaire and wattage packages available, consult factory. Values are within industry standard tolerances but not DCL listed.
 2. Not available in HV.
 3. Consult Factory for availability.
 4. Not available in HV.
 5. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
 6. Control device or shoring cap must be ordered separately. See Accessory Ordering Information.
 7. Accessories are shipped separately and field installed.
 8. Factory installed CRFP option requires See Options.
 9. "CLIP" denotes Finish. See Finish options.
 10. Only available with ALSC/ALSC/CH control options.
 11. Finings must be located in hand hole of side.
 12. Only available in 9L and 12L Luminaire Packages. Consult factory for lead time and availability.

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SPECIFICATIONS FOR FIXTURES 'A' & 'B'

NOT TO SCALE

9

Mirada Wall Sconce (XWM)

ORDERING GUIDE

Luminaire Profile	Distribution	LED Technology	Lumen Package	Color Temperature	Voltage
XWM - Mirada Wall Sconce	2 - Type 2 3 - Type 3 FF - Type 4 Forward Throw	LED	SL - 3,000 lms RL - 3,000 lms VL - 18,000 lms SL - 36,000 lms 2KL - 36,000 lms 4KL - 48,000 lms 12L - 12,000 lms	30-3000K 40-4000K 50-5000K	UE - Universal Voltage (120-277V) HW - High Voltage (347-480V)

Finish	Wireless Controls	Options
BLK - Black	ALSC - ArLink Wireless Control System	BB - Battery Back-up
GPT - Graphite	ALSC207 - ArLink Wireless Control System with 8-12" Motion Sensor	CPWA - Cold Weather Battery Backup
MSV - Metallic Silver	ALSC207 - ArLink Wireless Control System with 15-30" Motion Sensor	CPMA - Pole Mounting Bracket
WHT - White	ALSC21 - ArLink Blue Wireless Motion & Photo Sensor Controller (8-24" mounting height)	SP1 - 100V Surge Protection
PLP - Platinum Plus	ALSC22 - ArLink Blue Wireless Motion & Photo Sensor Controller (25-40" mounting height)	TB - Terminal Block
SVG - Satin Verde Green	ALSC23 - ArLink Blue Wireless Motion & Photo Sensor Controller (25-40" mounting height)	

Accessory	Order Number	Description	Order Number
XWM SW BLK - Surface Wiring Box (Available in black only)	356815L2L	DFK - Double Fusing	DFK208P
FX120 - Single Fusing	FK120P	DFK - Double Fusing (240V)	DFK240P
FX277 - Single Fusing	FK277P	DFK - Double Fusing (480V)	DFK480P
FX347 - Single Fusing	FK347P	10' Linear Bird Spike Kit (2" Recommended per Luminaire)	736795P

- FOOTNOTES:
1. Consult Factory for availability.
 2. Not available in HV.
 3. Consult Factory for Site Layout.
 4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
 5. Fusing must be located in a hand hole for pole or in the junction box.
 6. Custom luminaire and wattage packages available, consult factory. Values are within industry standard tolerances but not DCL listed.

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SPECIFICATIONS FOR FIXTURE 'C'

NOT TO SCALE

10

ISSUE	DATE	BY	DESCRIPTION
2	03/26/2021	ECM/JRC	SITE PLAN SUBMISSION FOR CLIENT REVIEW
1	03/01/2021	ECM	

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
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607 Shelby Street 200, Detroit, MI 48226
Phone 248.247.1115

HYPERSHINE

PROPOSED CAR WASH

PARCEL ID: 33-02-02-203-012
2703 E GRAND RIVER AVENUE
MERIDIAN TOWNSHIP
INGHAM COUNTY, MICHIGAN

J. REID COOKSEY, P.E.
MICHIGAN LICENSE NO. 6201069428
LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN PROJECT ID: DET-200226

TITLE: CONSTRUCTION DETAILS

DRAWING: C-9

Traffic Impact Assessment of

Proposed Car Wash Development

2703 E Grand River Avenue
Meridian Charter Township, Ingham County, Michigan 48823

Applicant Information:
Carrols Restaurant Group, Inc.
968 James Street
Syracuse, New York 13203

Prepared: April 9, 2021



Charles D. Olivo, PE, PTOE
Michigan P.E. License #6201058003

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1. Professional Resume
2. Michigan Department of Transportation Traffic Counts

Executive Summary

The Applicant is proposing to construct a 3,300-square-foot car wash development located at the southeasterly quadrant of the intersection of East Grand River Avenue and Dawn Avenue in Meridian Township, Ingham County, Michigan. The subject property is designated as Parcel ID 33-02-02-20-203-012. Construction and full occupancy are expected by 2023.

The existing site contains a vacant one (1)-story restaurant with access provided via one (1) ingress-only driveway and one (1) egress-only driveway along East Grand River Avenue and one (1) full-movement driveway along Dawn Avenue. Under the proposed development program, the existing structure would be razed, and a 3,300-square-foot car wash development would be constructed on the subject property. Access is proposed via one (1) full-movement driveway along Dawn Avenue.

This Traffic Impact Assessment was prepared by Stonefield Engineering & Design, LLC utilizing accepted traffic engineering practices for Traffic Impact Assessments laid out in the Michigan Department of Transportation's Geometric Design Guidance Document.

The key findings and conclusions developed in this study are as follows:

1. Under the proposed development plan, a 3,300-square-foot car wash would be constructed on the subject property with access proposed via one (1) full-movement driveway along Dawn Avenue.
2. The proposed car wash development with drive-through service is projected to generate 39 new entering trips and 39 new exiting trips during the weekday evening peak hour and generate 50 new entering trips and 50 new exiting trips during the Saturday midday peak hour.
3. The proposed car wash would provide enough storage for a 15-vehicle queue outside of the washing tunnel.
4. Based on the Meridian Township Ordinance, the proposed development would require 15 standing spaces and two (2) parking spaces. The site would provide 17 total standing spaces and two (2) parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand.

Introduction

The Applicant is proposing to construct a 3,300-square-foot car wash development located at 2703 E Grand River Avenue.

The subject property is located at the southeasterly quadrant of the intersection of East Grand River Avenue and Dawn Avenue in Meridian Township, Ingham County, Michigan. The site location is shown on **Figure I**. The subject property's Parcel Identification Number (PIN) is 33-02-02-20-203-012. The site has approximately 197 feet of frontage along East Grand River Avenue and approximately 244 feet of frontage along Dawn Avenue. The existing site contains a vacant one (1)-story restaurant building and associated surface parking lot. Under the proposed development program, the existing structure would be razed, and a 3,300-square-foot car wash development would be constructed on the subject property. Construction and full occupancy is expected by 2023.

Existing access is provided via one (1) ingress-only driveway and one (1) egress-only driveway along East Grand River Avenue and one (1) full-movement driveway along Dawn Avenue. Under the proposed development program, one (1) full-movement driveway along Dawn Avenue would be constructed.

This Traffic Impact Assessment prepared by Stonefield Engineering & Design, LLC, utilized accepted traffic engineering practices for Traffic Impact Assessments laid out in the Michigan Department of Transportation's Geometric Design Guidance Document.

Existing Conditions

Roadway Characteristics

East Grand River Avenue (M-43) is a State Trunkline classified on the National Functional Classification Map as a Principle Arterial Roadway with a general east-west orientation and is under the jurisdiction of the Michigan Department of Transportation. Along site frontage the roadway provides two (2) lanes of travel in each direction, separated by a two-way left-turn lane, and has a posted speed limit of 45 mph. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. East Grand River Avenue provides east-west mobility for a mix of commercial, retail, and residential uses along its length and provides access to M-69 to the west of the site.

Dawn Avenue is a local roadway with a general north-south orientation and is under the jurisdiction of Meridian Township. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb and sidewalk are not provided along either side of the roadway, shoulders are not provided, and on-street parking is permitted along the westerly side of the roadway. Dawn Avenue is a dead-end roadway providing access to M-43 at its northerly terminus for a mix of industrial and retail uses along its length.

East Grand River Avenue and Dawn Avenue intersect to form an unsignalized T- intersection with the northbound approach of Dawn Avenue operating under stop control. The eastbound approach of East Grand River Avenue provides one (1) two-way left-turn lane, one (1) exclusive through lane, and one (1) shared through/right turn lane and the westbound approach of East Grand River Avenue provides one (1) two-way left-turn lane, one (1) exclusive through lane, and one (1) shared through/right turn lane. The northbound approach of Dawn Avenue provides one (1) shared left-turn/right-turn lane. A crosswalk is provided across the south leg of the intersection.



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**Proposed Car Wash Development
2703 East Grand River Road
Meridian Township, Ingham County, Michigan
Traffic Impact Assessment**

**FIGURE I
Site Location Map**

Pandemic Traffic Volumes

It is important to note that per the date of this report, traffic volumes are atypical on the surrounding roadway network due to the ongoing COVID-19 pandemic. In order to provide an accurate and conservative analysis of the adjacent roadway network, Stonefield used historical data rather than conducting counts of the existing roadway condition.

East Grand River Avenue Traffic Volumes

Stonefield utilized 24-hour traffic volume counts provided by the Michigan Department of Transportation’s (MDOT’s) Transportation Data Management System to determine the hourly traffic volume along East Grand River Avenue. Specifically, Stonefield utilized 24-hour counts conducted on Tuesday, April 18, 2017 along East Grand River Road located between North Hagadorn Road and Park Lake Road. The total daily traffic count data is shown in **Table 1**.

TABLE 1 – 2019 TRAFFIC VOLUME DATA

Street	Location	Direction	24-Hour Traffic Volume
East Grand River Avenue	Between North Hagadorn Road and Park Lake Road	EB	17,248
		WB	17,038

Based on a review of the count data, the weekday evening peak hour occurred from 5:00 p.m. to 6:00 p.m. The MDOT traffic counts forecast a 0% increase in traffic between 2018 and 2019. As such, the 2017 MDOT counts were utilized to calculate the 2021 existing traffic volumes. The MDOT traffic volume data along East Grand River Avenue utilized in this report is provided within the appendix. **Table 2** summarizes the 2021 existing weekday morning and weekday evening peak hour traffic volumes along East Grand River Road.

TABLE 2 – 2021 EXISTING EAST GRAND RIVER AVENUE TRAFFIC VOLUMES

Peak Hour	Direction	Peak Hour Traffic Volume
PM Peak Hour	EB	1,780
	WB	1,236

Existing Site Access & Circulation

The existing site contains vacant restaurant on the north-westerly portion of the property. Access to the site is provided via one (1) ingress-only driveway and one (1) egress-only driveway along East Grand River Avenue and one (1) full-movement driveway along Dawn Avenue. The separate ingress and egress driveways along East Grand River Avenue is consistent with other retail and commercial developments along this portion of the corridor.

Future Conditions

Proposed Trip Generation

Trip generation projections for the proposed car wash development were prepared utilizing the Institute of Transportation Engineers’ (ITE) Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 948 “Automated Car Wash” were cited for the proposed 3,300-square-foot car wash development. The ITE provides trip generation calculations based on several different criteria, including number of wash tunnels and gross floor area of the facility. **Table 3** provides the weekday evening and Saturday midday peak hour trip generation volumes associated with the proposed development in terms of number of tunnels and gross floor area.

TABLE 3 – TRIP GENERATION PROJECTIONS – COMPARISON OF VARIABLES

Land Use	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
One (1) Tunnel Automated Car Wash <i>ITE Land Use 948</i>	39	39	78	19	22	41
3,300 SF Automated Car Wash <i>ITE Land Use 948</i>	24	23	47	50	50	100

As shown in Table 3, the proposed car wash is expected to generate 78 trips during the weekday evening peak hour (based on the number of tunnels) and 100 trips during the Saturday midday peak hour (based on gross floor area). To maintain a conservative analysis, the maximum trip generation for each peak hour was utilized in this report. **Table 4** provides the anticipated trip generation of the proposed development using a mix of dimensional criteria.

TABLE 4 – TRIP GENERATION PROJECTIONS

Land Use	Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Proposed Automated Car Wash <i>ITE Land Use 948</i>	39	39	78	50	50	100

Trip Distribution

For the purpose of the distribution, the trips were routed to and from the site driveway according to the existing travel patterns along the roadway. **Figures 2 and 3** provide the Site-Generated Trip Distribution and Site-Generated Traffic Volumes for the proposed development.

Traffic Impacts

Volume Impacts

Based on the trips generated by the proposed development, the traffic volumes along East Grand River Avenue are projected to increase approximately 2.6% percent during the weekday evening peak hour.

Level of Service Impacts

The proposed development is projected to generate 39 new entering trips and 39 new exiting trips during the weekday evening peak hour and generate 50 new entering trips and 50 new exiting trips during the Saturday midday peak hour. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed car wash development is not anticipated to significantly impact the operations of the adjacent roadway network.



East Grand River Avenue

45%

55%

55%
45%

100%

100%

Proposed Car Wash
Development

Dawn Avenue

LEGEND

- Existing Roadway
- - - Proposed Driveway
- ← IN OUT Site-Generated Trip Distribution

not to scale

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Proposed Car Wash Development
2703 East Grand River Road
Meridian Township, Ingham County, Michigan
Traffic Impact Assessment

FIGURE 2
Site-Generated Trip
Distribution



East Grand River Avenue

18 (23)

(27) 21

(27) 21
(23) 18

39 (50)

39 (50)

Proposed Car Wash Development

Dawn Avenue

LEGEND

- Existing Roadway
- - - Proposed Driveway
- ← PM (SAT) Peak Hour Volumes

not to scale

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Proposed Car Wash Development
2703 East Grand River Road
Meridian Township, Ingham County, Michigan
Traffic Impact Assessment

FIGURE 3
Site-Generated Traffic
Volumes

Site Circulation/Parking Supply

A review was conducted of the proposed car wash development using the Site Plan prepared by our office, dated March 26, 2021. In completing this review, particular attention was focused on the site access and parking supply.

Under the proposed development program, a 3,300-square-foot car wash development would be constructed on the subject property. Access is proposed via one (1) full-movement driveway along Dawn Avenue. Upon entering the site, vehicles would be directed to the southerly portion and travel in a counter-clockwise direction through the car wash tunnel. The proposed car wash would provide enough storage for a 15 vehicle queue outside of the washing tunnel. A surface parking lot containing vacuum spaces and standing spaces would be provided on the center of the site. A trash enclosure would be located on the westerly portion of the site.

Regarding the parking requirements for the proposed development, the Township of Meridian Ordinance requires 15 standing spaces for each washing bay, plus one (1) space for each two (2) employees. For the proposed 3,300 SF car wash with one washing bay and two (2) employees, this equates to 16 required spaces. The site would provide 19 total parking spaces, inclusive of 17 parking spaces and two (2) passenger vehicle parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand. The spaces standing would be 12 feet wide by 20 feet deep and the passenger vehicle spaces would be nine (9) feet wide by 20 feet deep in accordance the Charter Township of Meridian Ordinance industry standards.

Key Findings and Conclusions

The key findings and conclusions developed in this study are as follows:

1. Under the proposed development plan, a 3,300-square-foot car wash would be constructed on the subject property with access proposed via one (1) full-movement driveway along Dawn Avenue.
2. The proposed car wash development with drive-through service is projected to generate 39 new entering trips and 39 new exiting trips during the weekday evening peak hour and generate 50 new entering trips and 50 new exiting trips during the Saturday midday peak hour.
3. The proposed car wash would provide enough storage for a 15-vehicle queue outside of the washing tunnel.
4. Based on the Meridian Township Ordinance, the proposed development would require 15 standing spaces and two (2) parking spaces. The site would provide 17 total standing spaces and two (2) parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand.

TECHNICAL APPENDIX

PROFESSIONAL RESUME

CHARLES D. OLIVO, PE

PRINCIPAL/FOUNDER

Education

BS Civil Engineering

University of Notre Dame, 2002

Licensure

Professional Engineer

Michigan
Indiana
Ohio
New Jersey
New York
Pennsylvania
Connecticut
Maine
Massachusetts
Rhode Island
Maryland
North Carolina
New Hampshire

Professional Traffic Operations Engineer

Associations

Institute of Transportation Engineers (ITE)

American Society of Civil Engineers (ASCE)

Urban Land Institute (ULI)

Mr. Charles Olivo is accomplished in numerous aspects of Civil, Infrastructure, Highway, and Traffic and Transportation Engineering having completed projects for private development/redevelopment entities, public jurisdictional agencies, and local municipalities. Serving clients throughout the Northeast and Midwest, he has professional experience designing and managing the unique and diverse elements of land development and infrastructure design. Mr. Olivo is involved with engineering design from project inception and conceptual development through the entitlement and construction process. His experience in the Civil Engineering field has involved the shaping of development parcels inclusive of both on-site and off-site impacts and access management features.

Preparation of detailed traffic and civil engineering findings during the Due Diligence/Site Assessment process for over 300 development sites to serve as the cornerstone of project viability and create a critical reference point during feasibility assessment. Through thorough research of local development codes and an understanding of development opportunities and constraints, Mr. Olivo has successfully prepared numerous Site and Traffic Analyses for development/redevelopment projects and programs.

Preparation of engineered Site Plan and Traffic Roadway Plan documents to serve as essential components in the land use permitting and entitlement process. Mr. Olivo has been integrally involved in the preparation of over 300 construction document sets, studies, analyses, and assessments associated with land development projects. He has established a reputation of high-quality design, innovative thinking, and understanding of client objectives throughout his experience.

Mr. Olivo has been a key advocate in urban infill development and the advancement of smart growth techniques. He has been the transportation engineer of record for numerous development and redevelopment plans.

Mr. Olivo has been qualified as a traffic and site Engineering Expert and provided testimony before approximately 100 Land Use Boards throughout the country. In addition, he has presented to client groups, public governing bodies, and civic associations to explain the impacts of private development/redevelopment projects and the proposed improvement/mitigation measures associated with these projects.

Mr. Olivo's project experience includes traffic analysis, traffic signal and intersection improvement design, zoning review, site investigation and due diligence, concept preparation, stormwater management and stormwater conveyance system design, grading utility design, soil erosion and sediments, control design, and project coordination.

MICHIGAN DEPARTMENT OF TRASPORTATION TRAFFIC COUNTS



Volume Count Report

LOCATION INFO	
Location ID	33-2019
Type	SPOT
Funct'l Class	3
Located On	M-43 GR. RIVER
Loc On Alias	M 43
SE OF	N Hagadorn Rd
Direction	2-WAY
County	Ingham
Community	East Lansing
MPO ID	
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 4/18/2017
End Date	Wed 4/19/2017
Start Time	10:00:00 AM
End Time	10:00:00 AM
Direction	2-WAY
Notes	
Station	4138
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	78	67	75	47	267
1:00-2:00	41	41	36	29	147
2:00-3:00	23	20	17	19	79
3:00-4:00	10	12	18	10	50
4:00-5:00	12	13	24	26	75
5:00-6:00	28	31	60	103	222
6:00-7:00	90	98	127	227	542
7:00-8:00	198	314	460	564	1,536
8:00-9:00	469	425	415	473	1,782
9:00-10:00	438	371	385	441	1,635
10:00-11:00	448	414	381	403	1,646
11:00-12:00	446	455	524	591	2,016
12:00-13:00	649	663	580	584	2,476
13:00-14:00	556	540	531	519	2,146
14:00-15:00	562	615	558	627	2,362
15:00-16:00	609	561	552	626	2,348
16:00-17:00	615	674	762	682	2,733
17:00-18:00	758	767	762	712	2,999
18:00-19:00	673	683	598	608	2,562
19:00-20:00	566	596	525	540	2,227
20:00-21:00	457	462	393	367	1,679
21:00-22:00	384	354	347	305	1,390
22:00-23:00	300	238	176	169	883
23:00-24:00	154	130	106	94	484
Total					34,286
AADT					27,292
AM Peak					11:45-12:45 2,483
PM Peak					17:00-18:00 2,999

Volume Count Report

LOCATION INFO	
Location ID	33-2019_SE
Type	SPOT
Funct'l Class	3
Located On	M-43 GR. RIVER
Loc On Alias	M 43
SE OF	N Hagadorn Rd
Direction	SE
County	Ingham
Community	East Lansing
MPO ID	
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 4/18/2017
End Date	Wed 4/19/2017
Start Time	10:00:00 AM
End Time	10:00:00 AM
Direction	
Notes	
Station	4138
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	41	38	33	21	133
1:00-2:00	28	30	18	16	92
2:00-3:00	12	8	9	12	41
3:00-4:00	6	4	12	5	27
4:00-5:00	4	7	10	13	34
5:00-6:00	13	16	27	41	97
6:00-7:00	32	29	46	71	178
7:00-8:00	60	92	116	145	413
8:00-9:00	135	126	137	178	576
9:00-10:00	214	171	163	211	759
10:00-11:00	197	208	193	218	816
11:00-12:00	234	228	288	328	1,078
12:00-13:00	376	344	295	283	1,298
13:00-14:00	264	254	254	268	1,040
14:00-15:00	286	327	281	340	1,234
15:00-16:00	332	313	314	350	1,309
16:00-17:00	351	416	441	414	1,622
17:00-18:00	459	449	438	434	1,780
18:00-19:00	361	361	340	275	1,337
19:00-20:00	281	317	263	263	1,124
20:00-21:00	221	235	193	188	837
21:00-22:00	191	179	165	157	692
22:00-23:00	180	122	101	85	488
23:00-24:00	71	73	45	54	243
Total					17,248
AM Peak					11:45-12:45 1,343
PM Peak					17:00-18:00 1,780

Volume Count Report

LOCATION INFO	
Location ID	33-2019_NW
Type	SPOT
Funct'l Class	3
Located On	M-43 GR. RIVER
Loc On Alias	M 43
SE OF	N Hagadorn Rd
Direction	NW
County	Ingham
Community	East Lansing
MPO ID	
HPMS ID	
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Start Date	Tue 4/18/2017
End Date	Wed 4/19/2017
Start Time	10:00:00 AM
End Time	10:00:00 AM
Direction	
Notes	
Station	3779
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	37	29	42	26	134
1:00-2:00	13	11	18	13	55
2:00-3:00	11	12	8	7	38
3:00-4:00	4	8	6	5	23
4:00-5:00	8	6	14	13	41
5:00-6:00	15	15	33	62	125
6:00-7:00	58	69	81	156	364
7:00-8:00	138	222	344	419	1,123
8:00-9:00	334	299	278	295	1,206
9:00-10:00	224	200	222	230	876
10:00-11:00	251	206	188	185	830
11:00-12:00	212	227	236	263	938
12:00-13:00	273	319	285	301	1,178
13:00-14:00	292	286	277	251	1,106
14:00-15:00	276	288	277	287	1,128
15:00-16:00	277	248	238	276	1,039
16:00-17:00	264	258	321	268	1,111
17:00-18:00	299	318	324	278	1,219
18:00-19:00	312	322	258	333	1,225
19:00-20:00	285	279	262	277	1,103
20:00-21:00	236	227	200	179	842
21:00-22:00	193	175	182	148	698
22:00-23:00	120	116	75	84	395
23:00-24:00	83	57	61	40	241
Total					17,038
AM Peak					07:30-08:30 1,396
PM Peak					17:30-18:30 1,236



To: Planning Commission

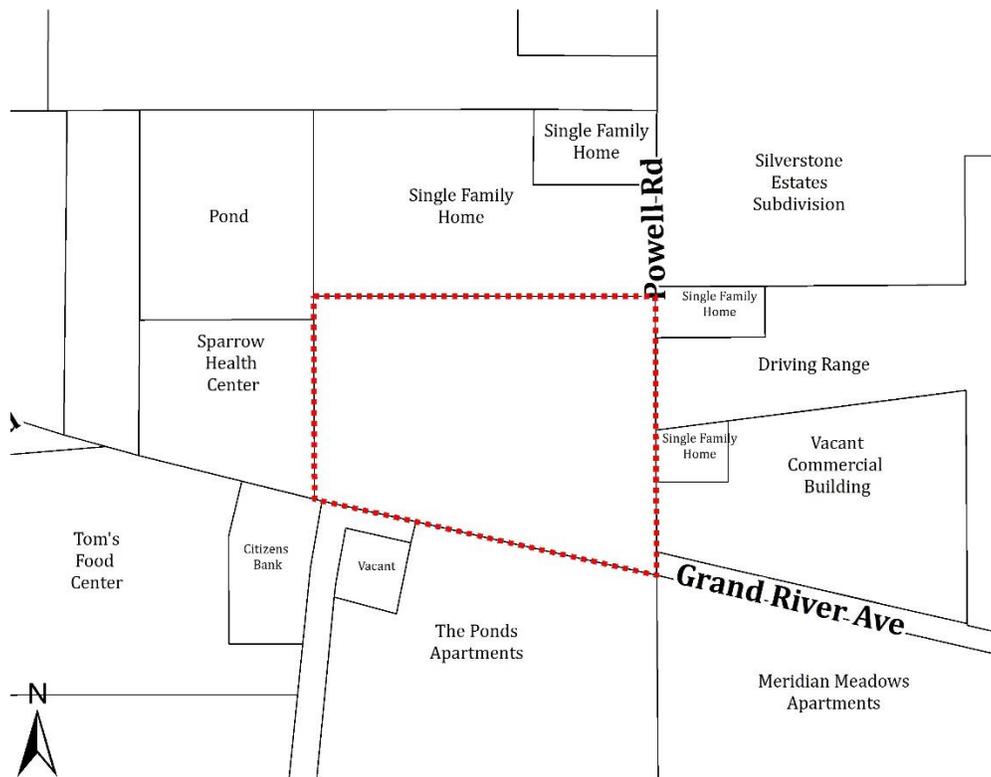
From: Mark Kieselbach, Director of Community Planning & Development

Date: April 23, 2021

Re: Rezoning #21040 (Okemos IL-AL Investors, LLC), rezone two parcels of approximately 9.07 acres located at 1510 and 1560 Grand River Avenue from C-2 (Commercial) to RA (Single Family, Medium Density).

Okemos IL-AL Investors, LLC have requested to rezone two parcels at 1510 and 1560 Grand River Avenue located on the north side of Grand River Avenue and west of Powell Road from C-2 (Commercial) to RA (Single Family, Medium Density). The two parcels combined are 9.07 acres and have 762.50 feet of frontage on Grand River Avenue and 618.44 feet of frontage on Powell Road.

LOCATION MAP



Condition Offered

The applicant has voluntarily offered the following condition as part of the rezoning request:

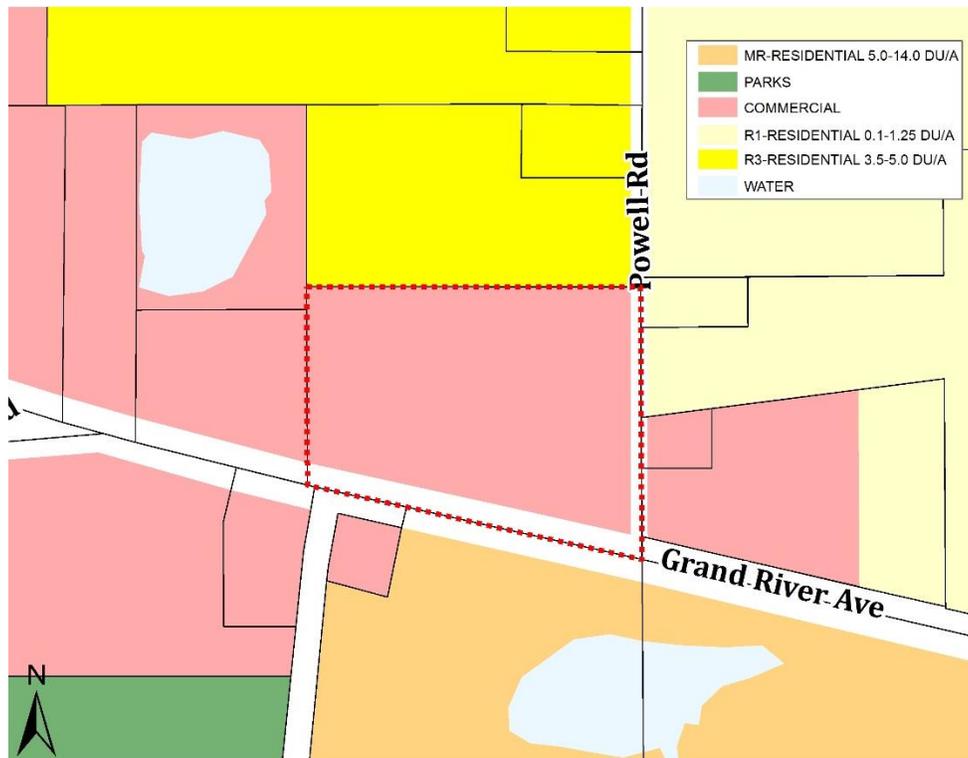
Okemos IL-AL Investors, LLC becoming fee simple owner of the property pursuant to a PSA (Purchase Sale Agreement) dated February 8, 2021 on or before September 19, 2022 unless such condition is expressly waived by Okemos IL-AL Investors, LLC.

A rezoning condition runs with the land and applies to the current owner and any future owner of the subject property. Township Board approval is needed to amend or remove a zoning condition.

Master Plan

The Future Land Use Map from the 2017 Master Plan designates the subject property in the Commercial category. The proposed rezoning is not consistent with the Future Land Use Map designation.

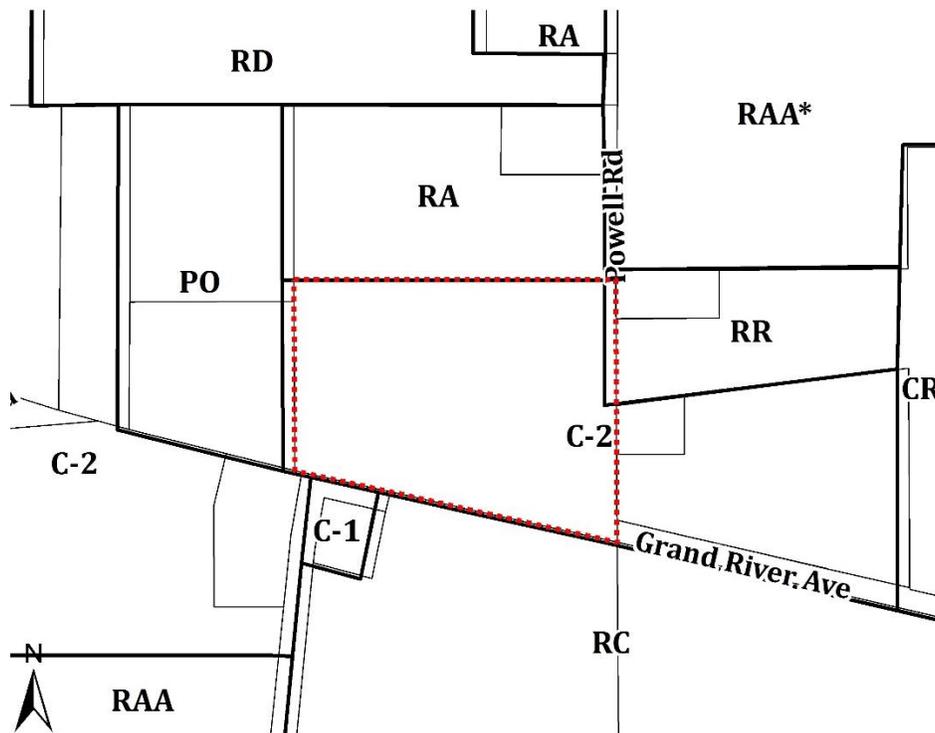
2017 FUTURE LAND USE MAP



Zoning

The subject property is zoned C-2 (Commercial). The Township Board approved a rezoning of the property in 2015 from PO (Professional and Office) to C-2 (Commercial). The C-2 zoning district requires a minimum of 100 feet of lot width and 4,000 square feet of lot area. The requested RA zoning district requires a minimum of 80 feet of lot width and 10,000 square feet of lot area. With 762.50 feet of frontage on Grand River Avenue, 618.44 feet of frontage on Powell Road and 9.07 acres of lot area the subject property meets the minimum lot area and minimum lot width requirements for both the current C-2 zoning district and the requested RA zoning district.

ZONING MAP



Physical Features

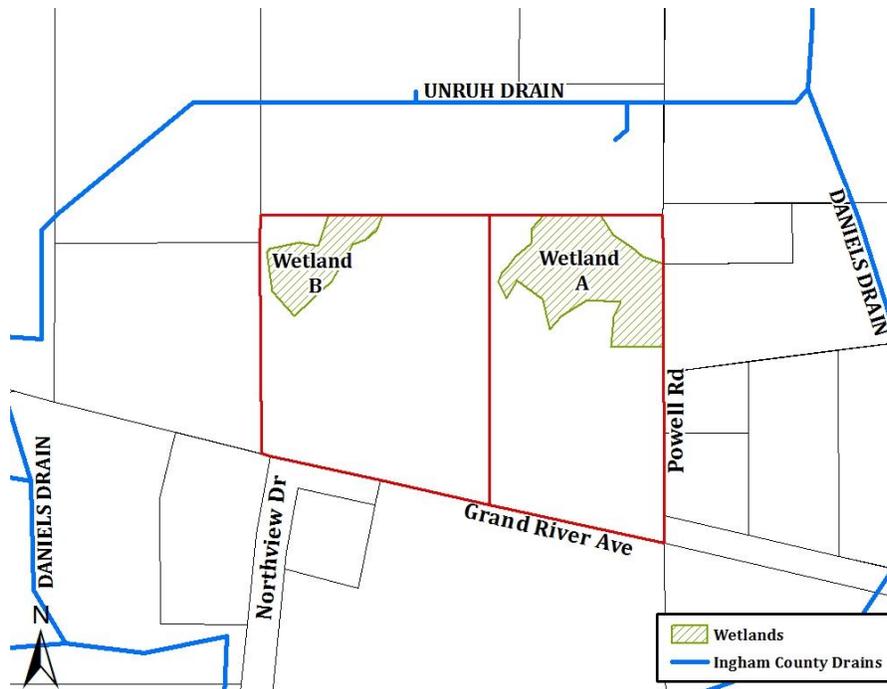
The subject property slopes from the low areas in the northeast and the northwest corners to a high point in the southwest portion of the property. The Flood Insurance Rate Map (FIRM) indicates the property is not located in a floodplain. The site has no special designation on the Township Greenspace Plan.

Wetlands

Two wetlands have been identified on the subject property. Wetland A is a 1.24 acre wetland located in the northeast portion of the property. Wetland A discharges into a catch basin located on the west side of Powell Road which runs north to the Unruh Drain approximately 300 feet to the north. Wetland B is a 0.30 acre wetland located in the northwest portion of the property. Wetland B is connected through a drainage way to a two acre pond and a larger wetland complex to the northwest of the property. Both wetlands are regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Meridian Township as they are located within 500 feet of the ordinary high watermark of an inland lake, stream, river, or pond. In this case, Wetland A is within 500 feet of the Unruh Drain to the north and Wetland B is within 500 feet of the two acre pond to the northwest. Due to their regulatory status, a 20 foot setback/natural vegetation strip is required from the delineated boundary of each wetland.

The Planning Commission in 2019 approved Wetland Use Permit #19-03 for the proposed automobile dealership to discharge stormwater from an on-site detention pond into Wetland A.

WETLANDS MAP



Streets & Traffic

The subject property has frontage on both Grand River Avenue and Powell Road. Grand River Avenue is a four lane road with curb and gutter and center turn lane. Powell Road is a two lane road that was recently paved along the frontage of the property. Grand River Avenue is classified as a Principal Arterial and Powell Road is classified as a collector on the Street Setbacks and Service Drives Map in the Zoning Ordinance. The Pedestrian and Bicycle Pathway Map shows a required seven foot wide pathway along the Grand River Avenue frontage and a paved shoulder along the Powell Road Frontage. The most recent (2008) traffic count information from the Ingham County Road Department (ICRD) for Powell Road, between Grand River Avenue and Tihart Road, showed a total of 121 vehicles in a 24 hour period. The most recent (2016) traffic count from the Michigan Department of Transportation (MDOT) for Grand River Avenue, between Dobie Road and Cornell Road, showed a total of 15,980 vehicles in a 24 hour period.

The applicant submitted a trip generation traffic analysis that compares a Shopping Center (Land Use Code 820) for the existing C-2 zoning to Senior Adult Housing (Land Use Code 252) and Assisted Living (Land Use Code 254) for the proposed RA zoning. The submitted materials used adjacent street when looking at trips generated during peak hours. We do not use adjacent street but the difference is minimal between adjacent street peak hour and peak hour. Even with the using just peak hour it would not necessitate a Traffic Assessment or Traffic Study per the Ordinance.

Utilities

Municipal water and sanitary sewer serve the subject site. The location and capacity of utilities for any proposed development will be reviewed in detail by the Department of Public Works and Engineering at the time of a development submittal.

Staff Analysis

When evaluating a rezoning request the Planning Commission needs to consider all uses permitted by right or special use permit in the current and proposed zoning districts, as well as the reasons for the rezoning listed on page two of the rezoning application (attached).

The subject property was rezoned in 2015 from PO (Professional and Office) to C-2 (Commercial). The Township Board stated the rezoning to C-2 would result in a logical and orderly development pattern for the area along Grand River Avenue between Central Park Drive and Powell Road. The Planning Commission on August 26, 2019 approved a Special Use Permit (SUP #19101) to allow for a 24,902 square foot automobile dealership. Site Plan Review #19-17 was approved in December 2019 and a building permit was issued in March 2020. Once the building permit was issued the property owner had the site graded. Since that time the property owner has decided not to build the automobile dealership. The Special Use Permit will expire on August 26, 2021 unless an extension is approved.

Rezoning #21040 (Okemos IL-AL Investors, LLC)
Planning Commission (April 26, 2021)
Page 6

The applicant stated in the rezoning application their intent is to develop a senior living community with independent living, assisted living, and memory care units. A senior living community is an allowed use by special use permit in a residential zoning district but does require a minimum lot area of 10 acres. The applicant offered a condition of the rezoning if they did not purchase the property by September 19, 2022 the rezoning would revert back to C-2.

While the proposed RA zoning would allow other nonresidential uses such as churches, hospitals, schools, nursing or convalescent homes and adult or child care centers. The proposed RA zoning would allow for the development of a platted subdivision, a planned unit development (PUD), a planned residential development (PRD), or metes and bounds lots. Depending on the type of development the estimated density could range from a low of four metes and bounds lots to a high of 40 units in a PUD. The number of dwelling units is only an estimate and does not factor in topography, soils, utilities, site layout or other factors that may limit buildable area.

Planning Commission Options

The Planning Commission may recommend approval or denial of the request, or it may recommend a different zoning designation than proposed by the applicant to the Township Board. A resolution will be provided at a future meeting.

Attachments

1. Rezoning application dated March 26, 2021 and received by the Township on March 30, 2021.
2. Traffic Analysis prepared by H.F. Lenz Company dated April 22, 2021 and received by the Township April 22, 2021.
3. Rezoning criteria.

G:\Community Planning & Development\Planning\REZONINGS (REZ)\2021\REZ 21040 (Okemos IL-AL Investors, LLC)\REZ 21040.pc1.doc

**CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PHONE: (517) 853-4560, FAX: (517) 853-4095**

REZONING APPLICATION

Part I, II and III of this application must be completed. Failure to complete any portion of this form may result in the denial of your request.

Applicant/Okemos IL-AL Investors, LLC rezoning request is conditioned on Okemos IL-AL Investors, LLC becoming the fee simple owner of the property pursuant to a PSA dated February 8, 2021 on or before September 19, 2022, unless such condition is expressly waived by Okemos IL-AL Investors, LLC.

Part I

A. Owner/**Applicant** Okemos IL-AL Investors, LLC

Address of applicant **4423 Pheasant Ridge Rd SW, Suite 301, Roanoke, VA 24014**

Telephone: **Work 540-774-7762**

Fax **540-772-6470** Email **msons@smithpackett.com**

If there are multiple owners, list names and addresses of each and indicate ownership interest. Attach additional sheets if necessary. If the applicant is not the current owner of the subject property, the applicant must provide a copy of a purchase agreement or instrument indicating the owner is aware of and in agreement with the requested action.

B. Applicant's Representative, Architect, Engineer or Planner responsible for request:

Name / Contact Person **Michele Sons, Development Manager, Smith/Package Med-Com, LLC**

Address **as above**

Phone **as above**

Fax **as above**

Email **msons@smithpackett.com**

C. Site address/location **1510 & 1560 Grand River Ave, Okemos, MI 48864**

Legal description (Attach additional sheets if necessary) **see attached**

Parcel number **22-426-007 & 22-426-006**

Site acreage **9.07**

D. Current zoning **C-2** Requested zoning **RA Conditional Rezone with SUP for Senior Living use and building size. This is a proposed senior living community with independent living, assisted living, and memory care units along with associated common areas.**

E. The following support materials must be submitted with the application:

1. Nonrefundable fee **to be followed by mail**

2. Evidence of fee or other ownership of the subject property **enclosed**

3. A rezoning traffic study prepared by a qualified traffic engineer based on the most current edition of the handbook entitled *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation, is required for the following requests:

a. Rezoning when the proposed district would permit uses that could generate more than 100 additional directional trips during the peak hour than the principal uses permitted under the current zoning.

b. Rezoning having direct access to a principal or minor arterial street, unless the uses in the proposed zoning district would generate fewer peak hour trips than uses in the existing zoning district.

Please note that our use would generate fewer trips than the approved use in the current zoning.

4. Other information deemed necessary to evaluate the application as specified by the Director of Community Planning and Development.

Part II

REASONS FOR REZONING REQUEST

Respond only to the items which you intend to support with proof. Explain your position on the lines below, and attach supporting information to this form.

A. Reasons why the present zoning is unreasonable:

- 1) There is an error in the boundaries of the Zoning Map, specifically: _____
- 2) The conditions of the surrounding area have changed in the following respects: _____
- 3) The current zoning is inconsistent with the Township's Master Plan, explain: _____
- 4) The Township did not follow the procedures that are required by Michigan laws, when adopting the Zoning Ordinance, specifically: _____
- 5) The Township did not have a reasonable basis to support the current zoning classification at the time it was adopted; and the zoning has exempted the following legitimate uses from the area: _____
- 6) The current zoning restrictions on the use of the property do not further the health safety or general welfare of the public, explain: _____

B. Reasons why the requested zoning is appropriate:

- 1) Requested rezoning is consistent with the Township's Master Plan, explain: _____
- 2) Requested rezoning is compatible with other existing and proposed uses surrounding the site, specifically: **Rezoning to RA would be contiguous with RA zoning of parcels directly north of site. Our use is compatible with the Grand Reserve planned development and would serve as a good transition between Grand Reserve and Grand River Avenue corridor. Proposed zone is essentially a "downzone" and proposed use is a better/less intense use than that previously approved (car dealership).**
- 3) Requested rezoning would not result in significant adverse impacts on the natural environment, explain: **Proposed senior living use stays out of wetland and buffer areas, and can include screening with vegetation along north side of property. Approved wetland use permit already secured for prior planned development.**
- 4) Requested rezoning would not result in significant adverse impacts on traffic circulation, water and sewer systems, education, recreation or other public services, explain: **Senior living use generates very low traffic volume with peak periods at shift change offset from peak usage along Grand River Avenue. No burden to schools due to age of resident population.**
- 5) Requested rezoning addresses a proven community need, specifically: **Significant unmet demand in Okemos indicated by high age and income qualified population with limited competitive supply relative to this qualified population.**
- 6) Requested rezoning results in logical and orderly development in the Township, explain: _____
- 7) Requested rezoning will result in better use of Township land, resources and properties and therefore more efficient expenditure of Township funds for public improvements and services, explain: _____

Part III

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

Yes No (Please check one)

By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

please see attached letter from Owner _____
Signature of Owner

3-26-21 _____
Date

Type/Print Name



Signature of Applicant

Hunter D. Smith

Type/Print Name

Fee: _____

Received by/Date: _____

Legal Description

Land situated in the Township of Meridian, County of Ingham, State of Michigan, and described as:

Parcel 1:

Beginning 24 rods South and 321 feet West of East 1/4 post of Section 22, Town 4 North, Range 1 West, Meridian Township, Ingham County, Michigan; thence West parallel to 1/4 line, 421 feet; thence South parallel to East Section line, 442 feet to center of Grand River Road; thence Southeasterly down the center of said road to point 321 feet West of the East Section line; thence North to the place of beginning.

Parcel 2:

Commencing 24 rods South of the East 1/4 post of Section 22, Town 4 North, Range 1 West, Meridian Township, Ingham County, Michigan; thence West parallel with the 1/4 line, 321 feet; thence South parallel with the East Section line to the center of Grand River Road; thence Southeasterly down the center of said road to the East Section line; thence North along Section line to the place of beginning.

Parcels 1 and 2 now Surveyed as:

A parcel of land in the Southeast 1/4 of Section 22, Town 4 North, Range 1 West, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the East 1/4 corner of said Section 22; thence South 00 degrees 19 minutes 28 seconds East along the East line of said Section 22, a distance of 396.00 feet to the point of beginning of this description; thence continuing South 00 degrees 19 minutes 28 seconds East along said East line, 618.44 feet to the centerline of W. Grand River Avenue; thence North 77 degrees 00 minutes 11 seconds West along said centerline, 762.50 feet; thence North 00 degrees 19 minutes 28 seconds West parallel with said East line, 447.04 feet; thence South 89 degrees 59 minutes 34 seconds East parallel with the East-West 1/4 line of said Section 22, a distance of 742.00 feet to the point of beginning.



**H.F. LENZ
COMPANY**

Michigan Corporation

Engineering

1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814-269-9300

April 22, 2021

Ms. Michele Sons
Development Manager
Smith/Packett MED-COM, LLC
4423 Pheasant Ridge Road, SW
Suite 301
Roanoke, VA 24014

Subject: Harmony at Okemos, Ingham County, East Lansing, MI 48864
Charter Township of Meridian Township, Ingham County, Michigan
Trip Generation Traffic Analysis
HFL File No. 2020-8006.96

To Ms. Sons:

This letter and its attachments constitute the trip generation analysis for the property located at 1510/1560 Grand River Avenue, Ingham County, Michigan.

Narrative:

Data prepared from The Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, by Herbert, Rowland & Grubic, Inc.

- **C-2 (Commercial Zoning) - ITE Land Use Code 820 - Shopping Center (50,000GSF) produces Total Daily Trips of 3,752.**
- **Proposed Use - ITE Land Use Code 252 - Senior Adult Housing (IL) - Attached and ITE Land Use Code 254 - Assisted Living (AL/MC combined use), 190,000GSF produces Total Daily Trips of 604.**

Should you have any questions, please contact this office.

Sincerely,

H.F. LENZ COMPANY
MICHIGAN CORPORATION

Julian R. Beglin, GISP
Associate | Project Manager

Shopping Center Land Use for current Zoning C-2

ITE Trip Generation Manual, 10th Edition

820 Shopping Center

ITE Land Use Code	Description	Variable	1000 Sq. Ft. GLA	Time Period	ITE Rate	ITE Equation	R ² Value	Percent Entering	Percent Exiting	Total Trips (Rate)	Total Trips (Equation)	Use Rate or Equation	Total Trips Entering	Total Trips Exiting
820	Shopping Center	1000 Sq. Ft. GLA	50	Weekday	37.75	$\ln(T) = 0.68 \ln(X) + 5.57$	0.76	50%	50%	1888	3752	Equation	1876	1876
820	Shopping Center	1000 Sq. Ft. GLA	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	0.94	$T = 0.50X + 151.78$	0.50	62%	38%	47	177	Equation	110	67
820	Shopping Center	1000 Sq. Ft. GLA	50	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	3.81	$\ln(T) = 0.74 \ln(X) + 2.89$	0.82	48%	52%	191	325	Equation	156	169

Proposed Senior Living Residential Development
ITE Trip Generation Manual, 10th Edition

252 Senior Adult Housing - Attached

ITE Land Use Code	Description	Variable	Dwelling Units	Time Period	ITE Rate	ITE Equation	R ² Value	Percent Entering	Percent Exiting	Total Trips (Rate)	Total Trips (Equation)	Use Rate or Equation	Total Trips Entering	Total Trips Exiting
252	Senior Adult Housing - Attached	Dwelling Units	90	Weekday	3.70	$T = 4.02X - 25.37$	0.99	50%	50%	333	336	Equation	168	168
252	Senior Adult Housing - Attached	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	0.20	$T = 0.20X - 0.18$	0.98	35%	65%	18	18	Equation	6	12
252	Senior Adult Housing - Attached	Dwelling Units	90	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	0.26	$T = 0.24X + 2.26$	0.96	55%	45%	23	24	Equation	13	11

254 Assisted Living

ITE Land Use Code	Description	Variable	Beds	Time Period	ITE Rate	ITE Equation	R ² Value	Percent Entering	Percent Exiting	Total Trips (Rate)	Total Trips (Equation)	Use Rate or Equation	Total Trips Entering	Total Trips Exiting
254	Assisted Living	Beds	103	Weekday	2.60	Not Given	-	50%	50%	268	-	Rate	134	134
254	Assisted Living	Beds	103	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	0.19	Not Given	-	63%	37%	20	-	Rate	13	7
254	Assisted Living	Beds	103	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	0.26	Not Given	-	38%	62%	27	-	Rate	10	17

Peak	Total	Entering	Exiting
ADT	604	302	302
AM	38	19	19
PM	51	23	28

Part II

REASONS FOR REZONING REQUEST

Respond only to the items which you intend to support with proof. Explain your position on the lines below, and attach supporting information to this form.

A. Reasons why the present zoning is unreasonable:

- 1) There is an error in the boundaries of the Zoning Map, specifically: _____

- 2) The conditions of the surrounding area have changed in the following respects: _____

- 3) The current zoning is inconsistent with the Township's Master Plan, explain: _____

- 4) The Township did not follow the procedures that are required by Michigan laws, when adopting the Zoning Ordinance, specifically: _____

- 5) The Township did not have a reasonable basis to support the current zoning classification at the time it was adopted; and the zoning has exempted the following legitimate uses from the area: _____

- 6) The current zoning restrictions on the use of the property do not further the health safety or general welfare of the public, explain: _____

B. Reasons why the requested zoning is appropriate:

- 1) Requested rezoning is consistent with the Township's Master Plan, explain: _____

- 2) Requested rezoning is compatible with other existing and proposed uses surrounding the site, specifically: _____

- 3) Requested rezoning would not result in significant adverse impacts on the natural environment, explain: _____

- 4) Requested rezoning would not result in significant adverse impacts on traffic circulation, water and sewer systems, education, recreation or other public services, explain: _____

- 5) Requested rezoning addresses a proven community need, specifically: _____

- 6) Requested rezoning results in logical and orderly development in the Township, explain: _____

- 7) Requested rezoning will result in better use of Township land, resources and properties and therefore more efficient expenditure of Township funds for public improvements and services, explain: _____



To: Planning Commission Members

**From: Derek N. Perry, Deputy Township Manager
Director of Public Works & Engineering**

Date: 04.20.2021

Re: Pathway Master Plan Update

The Meridian Township Pathway system was started in 1974, and currently encompasses over 70 miles of pathway and 36 miles of paved shoulders. The program is funded by a dedicated pathway millage consistently approved by the voters of the Township. The current millage (0.3308) approved in 2016, annually provides approximately \$600,000 to maintain, leverage grant funding and construct new pathways throughout the community as identified in the Pathway Master Plan.

Our most recent update to the Pathway Master Plan was in 2016, and we aspire to have a formal review and affirmation every five (5) years to keep it current and reflective of the needs of the community. To accomplish this review, we present the existing plan to various Boards and Commissions to solicit input from the membership and the community at-large, and ultimately have the Township Board formally adopt the vetted Master Plan update.

The update has two parts, and includes a recommended 5-year priority plan identified by the Department of Public Works (DPW) and a list of additions recommended for inclusion in the revised plan. These recommendations originate from a variety of sources including the public.

The attached priority list provides the DPW team with a short-term annual working plan, and the recommended additions provide for future long-range forecasting of the plan as a whole.

For your reference, the first three years of the 2021-2025 Priority List are tied to grant funding obligations, but for years 2024-2025, the goal is to develop a plan that works to eliminate the historical gaps in the pathway network. As you review the Master Plan, the 2024-2025 gap projects (year-priority) have been identified on the map in *red* with a location arrow.

The ten (10) recommended new routes are identified on the map in *yellow* and have a corresponding number for identification. These include 1. Green Road Extension, 2. Carlton Road connector, 3. Towner Road connector, 4. Hillbrook Park connector, 5. Consumers Energy – Haslett to Grand River connector, 6. Consumers Energy - Grand River to Legg Park connector, 7. Sturk Land Preserve connector, 8. Delta Dental Middle School connector, 9. Lodges Loop, and 10. Raby connector.

We look forward to your review, potential additions and comments.

2021-2025 Pathway Master Plan Priority List

2021

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 1)	20	Trail along Red Cedar River	North	Hagadorn	Grand River/Park Lake
2	RRFB	12, 15	At Haslett west of Van Atta, and Central Park Drive by new Farmer's Market	Both		
3	MSU- LL (Ph 2)	16	Trail within Campus Hills apt & Rysberg preserve	N/A	Grand River	Okemos
4	MSU- LL (Ph 2b)	16	Okemos	N/A	Gaylord C Smith	Old Interurban
5	MSU- LL (Ph 3 Connector)	10	Shaw Street	East side south of Lake Dr, west side north of Lake Dr.	Haslett	Lake Lansing Road
6	Misc. pathway Repairs	Township - wide				

2022

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 1)	20	Trail along Red Cedar River	North	Hagadorn	Grand River/Park Lake
2	East Lansing Norther Tier Connector	6	Towar	West	Lake Lansing Rd.	East Lansing City limits
3	MSU- LL (Ph 3)	1, 2, 11	Along CE ROW	Northwestern side of CNRR	Marsh/Interurban	County Parks/Green Road
4	Misc. pathway Repairs	Township - wide				

2023

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 3)	1, 2, 11	Along CE ROW	Northwestern side of CNRR	Marsh/Interurban	County Parks /Green Road
2	Misc. pathway Repairs	Township - wide				

2024

Priority	Project Description	Section	Street	Side	From	To
1	System Gap	9	Okemos	West	Raby Road	Existing pathway
2	System Gap	3	Marsh	East	W Reynolds	South of Mack
3	System Gap	12	Haslett	North	East of Crooked Creek	West of Copper Creek Way
4	Misc. pathway Repairs	Township - wide				

2025

Priority	Project Description	Section	Street	Side	From	To
1	System Gap	5	Park Lake	East	Lake Lansing Rd	Pine Hollow
2	Misc. pathway Repairs	Township - wide				

