CHARTER TOWNSHIP OF VAN BUREN
PLANNING COMMISSION AGENDA
Wednesday, November 11, 2020 – 7:30 PM
REMOTE MEETING – REVISED AGENDA

To mitigate the spread of COVID-19, protect the public health, and provide essential protections to Van Buren Township residents; this Van Buren Township's scheduled regular Planning Commission meeting will be conducted remotely.

- Join by weblink: **https://zoom.us/j/99075240652**
- Or dial in by phone: 1 929 436 2866
- Webinar ID: 990 7524 0652

For instructions on how to join a Zoom meeting, make a public comment, ADA information, and virtual meeting compliance from the State please click here.

CALL TO ORDER:

ROLL CALL:

APPROVAL OF AGENDA:

MINUTES:

ITEM #1: Approval of minutes from the regular meeting of October 28, 2020.

CORRESPONDENCE:

PUBLIC HEARING:

ITEM #1: **CASE 20-012. PUBLIC HEARING: JIFFY LUBE MINOR VEHICLE SERVICE SPECIAL LAND USE**

A request applicant Jiffy Lube International, Inc. on behalf of owner Meijer, Inc. to construct a Minor Vehicle Service use along with related site improvements. The proposed +/- 3,064 square foot, single-story building is located on the south side of Tyler Road east of Belleville Road on a proposed +/- 0.71 outparcel to be divided and created from portions of the 39.4-acre parcel at 9701 Belleville Road (83 058 99 0006 705) and a vacant 1.33-acre parcel (83 058 99 0006 707). The property is zoned C-2 – Extensive Highway Business District and also in the Belleville Road Overlay District (BROD).

Minor vehicle service developments are a Special Land Use in the C-2 District. The proposed Special Land Use requires a public hearing. This hearing is being held in accordance with Article 12, Chapter 3 of the Zoning Ordinance (Administrative

Procedures - Special Land Use Review).

ACTION ITEMS:
A. Planning Commission Opens Public Hearing
B. Public Comment
C. Planning Commission closes Public Hearing

NEW BUSINESS:

ITEM #1: **CASE 20-012. SPECIAL LAND USE: JIFFY LUBE MINOR VEHICLE SERVICE**

A request applicant Jiffy Lube International, Inc. on behalf of owner Meijer, Inc. to construct a Minor Vehicle Service use along with related site improvements. The proposed +/- 3,064 square foot, single-story building is located on the south side of Tyler Road east of Belleville Road on a proposed +/- 0.71 outparcel to be divided and created from portions of the 39.4-acre parcel at 9701 Belleville Road (83 058 99 0006 705) and a vacant 1.33-acre parcel (83 058 99 0006 707). The property is zoned C-2 – Extensive Highway Business District and also in the Belleville Road Overlay District (BROD).

ACTION ITEMS:
A. Presentation from Staff and consultant
B. Planning Commission discussion
C. Planning Commission considers recommendation to the Township Board

ITEM #2: **CASE 20-012. PRELIMINARY SITE PLAN: JIFFY LUBE MINOR VEHICLE SERVICE**

A request applicant Jiffy Lube International, Inc. on behalf of owner Meijer, Inc. to construct a Minor Vehicle Service use along with related site improvements. The proposed +/- 3,064 square foot, single-story building is located on the south side of Tyler Road east of Belleville Road on a proposed +/- 0.71 outparcel to be divided and created from portions of the 39.4-acre parcel at 9701 Belleville Road (83 058 99 0006 705) and a vacant 1.33-acre parcel (83 058 99 0006 707). The property is zoned C-2 – Extensive Highway Business District and also in the Belleville Road Overlay District (BROD).

ACTION ITEMS:
A. Presentation from Staff and consultant
B. Planning Commission discussion
C. Planning Commission considers recommendation to the Township Board

ITEM #3: **RESOLUTION OF ADOPTION: VAN BUREN TOWNSHIP 2020 MASTER PLAN UPDATE**

The Charter Township of Van Buren has completed a draft update to its Master Plan. Consistent with the provisions of Michigan Public Act 33 of 2008, as amended (the Michigan Planning Enabling Act), following a public hearing to hear comments regarding the Draft of the full update to the Master Plan, the Planning

Commission will pass a formal resolution of adoption of the Van Buren Township Master Plan before the Township Board of Trustees considers a resolution to adopt the Master Plan.

ACTION ITEMS:

A. Presentation from Staff
B. Planning Commission discussion
C. Planning Commission considers resolution of adoption

GENERAL DISCUSSION:

ADJOURNMENT:

CHARTER TOWNSHIP OF VAN BUREN
PLANNING COMMISSION - VIRTUAL MEETING ON ZOOM
October 28, 2020
MINUTES - DRAFT

Prior to the start of the meeting, the public was given instructions on how to take part in the meeting.

Chairperson Thompson called the meeting to order at 7:32 p.m.

ROLL CALL:
Present: Jahr, Kelley, Budd and Thompson.
Excused: Atchinson, Boynton and Franzoi.
Staff: Director Power, Director Best and Secretary Harman.
Planning Representatives: McKenna Associate, Vidya Krishnan.
Applicant(s) in Attendance: Adam Cook, Master Plan Consultant, McKenna Associates.
Audience: Three (3).

APPROVAL OF AGENDA:
Motion Jahr, Kelley second to approve the agenda of October 28, 2020 as presented.

Roll Call:
Yeas: Budd, Kelley, Jahr and Thompson.
Nays: None.
Absent: Atchinson, Boynton and Franzoi.
Motion Carried.

APPROVAL OF MINUTES:
Motion Boynton, Franzoi second to approve the regular meeting minutes of October 14, 2020 as presented.

Roll Call:
Yeas: Jahr, Kelley, Budd and Thompson.
Nays: None.
Absent: Atchinson, Boynton and Franzoi.
Motion Carried.

PUBLIC HEARING:

ITEM #1: PUBLIC HEARING: VAN BUREN TOWNSHIP 2020 MASTER PLAN

THE CHARTER TOWNSHIP OF VAN BUREN HAS COMPLETED A DRAFT UPDATE TO ITS MASTER PLAN. CONSISTENT WITH THE PROVISIONS OF MICHIGAN PUBLIC ACT 33 OF 2008, AS AMENDED (THE MICHIGAN PLANNING ENABLING ACT), THE CHARTER TOWNSHIP OF VAN BUREN WILL HOLD A PUBLIC HEARING AND HEAR COMMENTS REGARDING THE DRAF OF THE FULL UPDATE TO ITS MASTER PLAN.

Motion Budd, Jahr second to open the public hearing.

Roll Call:
Yeas: Kelley, Budd, Jahr and Thompson.
Nays: None.
Absent: Atchinson, Boynton and Franzoi.
Motion Carried.

Resident thanked everyone for their hard work on the Master Plan and inquired if there is a plan to open up any single family residentially zoned areas to allow for small businesses or parks. Director Power explained that there is a significant amount of mixed use area in the form of town center edge, town center core or mixed use planned areas. These areas will take on different forms of use depending upon their location. There are several properties located in the Belleville Road and Tyler Road Corridor and south of downtown Belleville. The Master Plan calls for more effort to flush out what the areas will look like and how the housing will grow into them. There is significant room for expansion and the ability for a mix of houses, businesses and park areas.

Adam Cook of McKenna Associates referenced the Future Land Use section of the draft. Single family residential districts total 30% of the Township and the mixed use categories total 9%. The mixed use districts haven't been explicitly defined because we are looking at a large scale township wide strategy. The 9% is a good amount that has been well thought out and discussed with the community and Planning Commission.

Motion Kelley, Jahr second to close the public hearing.

Roll Call:
Yeas: Budd, Kelley, Jahr and Thompson.
Nays: None.
Absent: Atchinson, Boynton and Franzoi.
Motion Carried.

NEW BUSINESS:

ITEM #1: RECOMMENDATION: VAN BUREN TOWNSHIP 2020 MASTER PLAN UPDATE.

THE CHARTER TOWNSHIP OF VAN BUREN HAS COMPLETED A DRAFT UPDATE OF ITS MASTER PLAN. CONSISTENT WITH THE PROVISIONS OF MICHIGAN PUBLIC ACT 33 OF 2008, AS AMENDED (THE MICHIGAN PLANNING ENABLING ACT), FOLLOWING A PUBLIC HEARING TO HEAR COMMENTS REGARDING THE DRAFT OF THE FULL UPDATE TO THE MASTER PLAN, THE PLANNING COMMISSION WILL CONSIDER A RECOMMENDATION .

Director Power provided a brief overview of the Master Plan Update. The Planning Commission discussed and reviewed the full draft of the Master Plan at the July 8, 2020 Planning Commission meeting and forwarded a recommendation to the Township Board to release the full plan for a

63-day review period. On July 21, 2020 the Township Board of Trustees adopted Resolution 2020-11 to formally initiate the 63-day review period and notifications were sent to neighboring jurisdictions, utility and service providers to solicit comments. A notification was also sent regarding the public hearing to be held on October 28, 2020. There have been no changes to the full draft Master Plan since received by the Township Board.

Adam Cook of McKenna Associates displayed a PowerPoint presentation that detailed the next steps for the Master Plan including: making any final revisions, incorporating all revisions in the plan and creating a resolution for adoption. Mr. Cook also discussed using the Master Plan and the different types of formats available such as a PDF file, an interactive PDF online version, interactive online story maps, marketing of the Master Plan and future integration into upcoming efforts. The Township webpage has the interactive story maps available.

Director Power informed the Commission and the audience that the next step is adoption by the Township Board, the Master Plan is updated for 20 years and revisited every 5 years.

Commissioners thanked everyone for their hard work on the Master Plan.

Motion Kelley, Jahr recommend to the Township Board to adopt the Master Plan.

Roll Call:
Yeas: Budd, Kelley, Jahr and Thompson.
Nays: None.
Absent: Atchinson, Boynton and Franzoi.
Motion Carried.

GENERAL DISCUSSION:

Director Power informed the Commission and the audience that the Charter Township of Canton is updating a portion of their Master Plan and is beginning a 42-day review period.

ADJOURNMENT:

Motion Budd, Jahr second to adjourn the meeting at 8:00 p.m. Motion Carried.

Respectfully submitted,

Christina Harman
Recording Secretary

PLANNING & ZONING APPLICATION

Case number _____ ***Date Submitted*** _____

APPLICANT INFORMATION

Applicant Jiffy Lube International, Inc. **Phone** (832) 337-9809

Address 150 N. Dairy Ashford Rd, Building F, Rm F 376 D Fax _____

City, State Houston, TX Zip 77079

E:mail Claire.Gilroy@shell.com Cell Phone Number _____

Property Owner MEIJER INC **Phone** (616) 791-3909
(if different than applicant)

Address 2929 WALKER AVENUE NW Fax _____

City, State GRAND RAPIDS, MI Zip 49544

Billing Contact Claire Gilroy **Phone** (832) 337-9809

Address 150 N. Dairy Ashford Rd, Building F, Rm F 376 D Fax _____

City, State Houston, TX Zip 77079

SITE/ PROJECT INFORMATION

Name of Project Jiffy Lube

Parcel Id No. V125-83- 058 99 0006 707 Project Address 9701 Belleville Rd, Van Buren Township

Attach Legal Description of Property

Property Location: On the South Side of Tyler Road; Between Belleville Road and Morton Taylor Road. Size of Lot Width 143' Depth 219'

Acreage of Site .72 Total Acres of Site to Review .72 Current Zoning of Site C-2

Project Description: New construction of a Jiffy Lube oil change facility.

Is a re-zoning of this parcel being requested? No YES (if yes complete next line) NO

Current Zoning of Site _____ Requested Zoning _____

SPECIAL PERMIT INFORMATION

Does the Proposed Use Require Special Approval? Special Use Approval YES (if yes complete next line) NO

Section of Zoning Ordinance for which you are applying Section 12.301

Is there an official Woodland within parcel? N/A Woodland acreage N/A

List total number of regulated trees outside the Woodland area? _____ Total number of trees _____

Detailed description for cutting trees N/A

If applicable application **MUST** be accompanied with a Tree Survey or statement of no trees, which incorporates all the requirements listed in Section 4.45 of Zoning Ordinance 6-2-92, as amended.

OWNER'S AFFIDAVIT

Matthew Levitt, Real Estate Manager, Meijer, Inc.

Print Property Owners Name

Signature of Property Owner

May 13, 2020

Date

STATE OF MICHIGAN
COUNTY OF WAYNE

The undersigned, being duly sworn, deposes and says that the foregoing statements and answers herein contained and accompanied information and date are in all respects true and correct.

Subscribed and sworn before me this _____ day of _____20____.

_____Notary Public, _____ County, Michigan My Commission expires _____, 20____.

Rev 1/12/06

VAN BUREN
CHARTER TOWNSHIP

MEMO

TO:	Van Buren Township Planning Commission
FROM:	Dan Power– Director of Planning and Economic Development
RE:	Jiffy Lube Preliminary Site Plan / Special Land Use review
DATE:	November 4, 2020

The Van Buren Township Planning Commission is requested to consider a request by applicant Jiffy Lube International, Inc. on behalf of owner Meijer, Inc. to construct a Minor Vehicle Service use along with related site improvements. The proposed +/- 3,064 square foot, single-story building is located on the south side of Tyler Road east of Belleville Road on a proposed +/- 0.72 outparcel. The property is zoned C-2 – Extensive Highway Business District and also in the Belleville Road Overlay District (BROD).

Minor vehicle service is a Special Land Use in the C-2 District which requires a public hearing. This hearing is being held in accordance with Article 12, Chapter 3 of the Zoning Ordinance (Administrative Procedures - Special Land Use Review). The requested Special Land Use will also prompt a review of the general and specific Special Land Use criteria for minor vehicle service developments. If the Special Land Use request is recommended for approval by the Planning Commission, the Township Board of Trustees will then consider the request.

The proposal will also prompt a review of compliance with applicable Township zoning, engineering, and Fire Department standards as well as consistency with the design and architectural requirements of the Township's BROD. This will occur first through a preliminary site plan review during the upcoming Planning Commission meeting. If preliminary site plan and Special Land Use approval are granted, the project will undergo final site plan review. The final site plan review process will involve a detailed review of compliance with applicable Township and Wayne County stormwater, soil erosion, and other engineering regulations as well as Township zoning regulations. The Planning Commission will act on a potential final site plan review at a future date.

I look forward to assisting with this review.

Sincerely,

Dan Power, AICP
Planning and Economic Development Director

Public Services Department
Charter Township of Van Buren

CC: Irwing Gama – Sevan Solutions
Claire Gilroy – Jiffy Lube International, Inc.
Vidya Krishnan – Van Buren Charter Township Principal Planner / Planning Consultant – McKenna Associates
Paul Kammer – Van Buren Township Engineer - Fishbeck
Matthew Best, M.S. - Public Services Director, Van Buren Charter Township

MCKENNA

October 27, 2020

Planning Commission
Charter Township of Van Buren
46425 Tyler Road
Belleville, Michigan 48111

Subject: **VBT-20-012 Jiffy Lube / 9701 Belleville; Special Land Use Review #1; Revised Site Plans Dated September 28, 2020.**

Dear Commissioners:

The applicant, Jiffy Lube International, Inc., proposes to construct a 3,064 square foot building to offer light automotive service repairs, including oil changes, replacement/ replenishment of lubricants, replacement of light bulbs, tire services and battery testing. The site is one of the outlots of Meijer, located on the south side of Tyler Road, between Belleville Road and Morton Taylor Road. The site is zoned C-2 (Extensive Highway Business District). Section 3.112 of the Zoning Ordinance permits Vehicle Service (minor) as special land use in the C-2 District.

We have reviewed the special land use request based on Zoning Ordinance standards and sound planning and design principles. Our comments are as follows (items requiring changes or additional information are underlined):

Special Land Use Review Comments

Section 12.306 of the Zoning Ordinance sets forth criteria for the Planning Commission to consider when reviewing special land use proposals. Following is our review of each criterion:

1. **Will promote the use of land in a socially and economically desirable manner for those persons who will use the proposed land use or activity; for those landowners and residents who are adjacent; and for the Township as a whole.**
   The site is currently vacant and located at the entrance to the main commercial area within the Township. The outlet is located next to a gas station and other commercial enterprises, which include an auto dealership further south on Belleville Road. The proposed development will serve as an automotive service center for the residents of the community and will promote the use of land in a socially and economically desirable manner as planned for the area. Any impacts resulting from the proposed development will be mitigated through setbacks, landscaping and screening, which are reviewed in our site plan review letter under separate cover.

2. **Is necessary for the public convenience at that location.**
   The proposed use is located right off Tyler Road in close proximity to Belleville Road, making access to it convenient for the public. The site is also part of the Belleville Road Overlay District (BROD) which is the main commercial hub for the Township.

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235 East Main Street
Suite 105
Northville, Michigan 48167
O 248.596.0920
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MCKA.COM

3. **Is compatible with adjacent uses of land.**
   There are a multitude of automotive related businesses located on Belleville Road in close proximity to the proposed subject site. Businesses such as O'Reilly's, Water Works Auto Wash, Meijer Gas Station Express, and Quick Lane Tire & Auto Center are located along this corridor which are in the same class of automotive businesses as the proposed use. Therefore, the use is compatible with adjacent uses of land.

4. **Is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.**
   The proposed site changes involve improvements to site landscaping and pedestrian access, which are likely to enhance public health, safety, and welfare. Comments addressing the site layout, circulation and access are discussed in our site plan review letter under separate cover.

5. **Can be adequately served by public services and facilities without diminishing or adversely effecting public services and facilities to existing land uses in the area.**
   We do not anticipate that the proposed site plan will affect the site's current public service capacity. The applicant is working with the Township Engineer to meet all utility requirements.

6. **Will not cause injury to other property in the neighborhood in which it is to be located.**
   The proposed site improvements will not cause injury to other properties in the neighborhood in which it is located. As noted previously, the site is located in a corridor with similar higher intensity commercial uses.

7. **Will consider the natural environment and help conserve natural resources and energy.**
   No trees are proposed to be removed as part of the site plan. Further, the addition of trees and shrubs for landscaping on site help meet this standard.

8. **Is within the provisions of uses requiring special approval as set forth in the various zoning districts herein, is in harmony with the purposes and conforms to the applicable regulations of the zoning district in which it is to be located and meets applicable site design standard for special approval uses.**
   Jiffy Lube is within the provisions of uses requiring special approval, and is in harmony with the purposes and conforms to the applicable regulations of the C-2 zoning district and meets applicable site design standard for special approval uses.

9. **Is related to the valid exercise of the Township's police power and purposes which are affected by the proposed use or activity.**
   The proposed vehicle service use is related to the valid exercise of the Township's police power and purposes which are affected by the proposed use or activity.

Specific Approval Criteria for Vehicle Service (minor) [Section 5.141]: Vehicle service (minor) is permitted as a Special Land Use in the C-2 District, and is subject to the following use specific standards:

1. **Service stations and commercial garages, where permitted, shall be located at least five hundred (500) feet from any entrance or exit to a lot on which public, parochial or private school or a playground, playfield or park is located.** This standard has been met. The nearest public, parochial or

private school or a playground, playfield or park is Heraty Memorial Park, approximately 1,200 feet southwest of the subject site.

2. **The minimum frontage on any one (1) public street shall be at least one hundred fifty (150) feet.** The site plan and proposed lot split to create the outlot have been updated to ensure compliance with this standard.

Recommendation
The proposed use meets the general standards for consideration of special land use approval and the specific conditions related to use. Therefore, we recommend the Planning Commission recommend approval of the special land use to the Township Board of Trustees, subject to site plan approved.

Respectfully,

McKENNA

Vidya Krishnan
Principal Planner

Hunter Whitehill
Associate Planner

c: Matt Best, Van Buren Township Director of Public Services
Dan Power, Van Buren Township Director of Planning and Economic Development
David Potter, FTCH, Township Engineers
David McInally, Van Buren Township Fire Marshal

MCKENNA

October 30, 2020

Planning Commission
Charter Township of Van Buren
46425 Tyler Road
Belleville, Michigan 48111

Subject: **VBT-20-012 Jiffy Lube / 9701 Belleville; Site Plan Review #2; Revised Site Plan Dated September 28, 2020.**

Dear Commissioners:

The applicant, Jiffy Lube International, Inc., proposes to construct a 3,064 square foot building to offer light automotive service repairs, including oil changes, replacement/ replenishment of lubricants, replacement of light bulbs, tire services and battery testing. The site is one of the outlots of Meijer, located on the south side of Tyler Road, between Belleville Road and Morton Taylor Road. We have reviewed the site plan request based on Zoning Ordinance standards and sound planning and design principles. Our comments are as follows (items requiring changes or additional information are underlined):

Site Plan Review Comments

1. **Zoning and Use.** The site is zoned C-2 (Extensive Highway Business District). Section 3.112 of the Zoning Ordinance permits vehicle service (minor) as a special land use in the District.

2. **Required Information.** Section 12.203 of the Zoning Ordinance includes requirements for information on a site plan. All of the required information has been provided. The applicant is requesting a parcel division / boundary adjustment as part of the creation of this parcel. The parcel division / boundary adjustment preliminary approval must be complete prior to final site plan review and the parcel division / boundary adjustment final approval must be complete prior to commencement of construction.

3. **Lot.** The site has a total area of 0.72 acres. The legal description is included with the tax parcel ID number.

4. **Dimensional Requirements.** There is no required minimum lot area or width in the C-2 Extensive Highway Business District.

   The minimum required front, rear, and side yard setbacks for the C-2 District is 35 feet, 20 feet, and 25 feet respectively. The proposed building location complies with all the setback dimensions.

   Maximum permitted building height in the C-2 District is 4 stories and 40 feet. The elevations proposed indicate a building height of 22 feet and 2 inches, compliant with the Zoning Ordinance.

HEADQUARTERS
235 East Main Street
Suite 105
Northville, Michigan 48167

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5. **Access and Circulation.**

   a. **Location of Curb Cuts.** Access to the proposed facility will be provided via the existing driveway off Tyler Rd, with a cross access drive proposed to connect to the existing driveway, which provides access to the Meijer Express Gas Station. The access drive has a proposed width of 24 feet with a lane each for ingress and egress.

   b. **Cross Access.** The outlot has cross access with the main Meijer parcel. The proposed site relies on cross access, egress, and ingress from the adjacent Meijer driveways on Tyler Road to the east and west. An easement agreement which includes graphic exhibits for cross access / ingress / egress between these driveways and the subject site must be provided for review.

   c. **Sidewalks.** The site has an existing sidewalk along its Tyler Road frontage. The plan proposes the construction of a sidewalk connection from the public sidewalk to a new sidewalk on the west side of the proposed building. The connector creates a plaza area along Tyler Road and subsequently narrows to 5 feet. The plaza area is to be installed with two benches and a trash receptacle.

6. **Parking and Loading.**

   a. **Space Dimensions.** Parking spaces on the site are dimensioned at 9.5 feet wide by 20 feet long, compliant with the Zoning Ordinance.

   b. **Number of Parking Spaces.** The parking requirement is two (2) spaces for every service stalls one (1) for each employee in the largest shift. With 4 proposed service stalls and 5 employees in the largest shift, a minimum of 13 parking spaces are required. The site plan includes a total of 9 parking spaces on-site and 4 off-site parking spaces within the Meijer lot. The applicant has stated they have been granted easements from the respective owner to fulfill the total parking count requirement. Copy of an irrevocable shared parking agreement must be provided for review.

      Partial rows of the parking on the Meijer's lot (20) spaces total are to be eliminated as part of these improvements. The applicant has provided parking count justification for these modifications on sheet C1.02. These parking count justifications ensure that Meijer has adequate parking even without the 20 spaces the applicant is proposing to convert to a greenbelt.

   c. **Barrier Free Spaces.** The plan proposes one (1) barrier free space which is ADA compliant. The ramp location has been noted.

   d. **Loading.** As the proposed building is between 0 – 10,001 sq. ft., one (1) 10' x 25' loading space is required. A 10' x 25' loading zone has been detailed on the southwest corner of the site abutting the dumpster. While not ideal, it is most feasible location for the loading zone.

   e. **Bicycle Parking.** Chapter 3 of Article 6 provides standards for buildings within the Belleville Road Overlay District (BROD). Per this chapter, one (1) bicycle parking space shall be provided for each twenty-five (25) vehicle parking spaces or fraction thereof.

With 9 proposed parking spaces, one (1) bicycle parking space is required and has been proposed on the north side of the building abutting the sidewalk connector from Tyler Road.

7. **Landscaping and Screening.** The site is located in the Extensive Highway Business (C-2) district. All sites are strongly encouraged to exceed Zoning Ordinance minimums for landscaping, site design, and building appearance among others. Our comments on individual landscaping requirements are reflected in the following comments:

   a. **Landscaping Adjacent to the Right-of-Way.** Section 10.103(A) requires lot frontage landscaping of 1 deciduous tree/40 lineal feet + 1 ornamental tree/100 lineal feet + 8 shrubs/40 lineal feet. The site has a frontage of 142' on Tyler Road, which requires a total of 4 deciduous trees + 2 ornamental trees + 28 shrubs. The landscape plan proposes 4 deciduous trees + 2 ornamental trees + 31 shrubs along the road frontage on Tyler, compliant with ordinance requirements. Section 6.310 (C) (2) (b) states; In addition to the trees required in the frontage area in Section 10.103(A), deciduous street trees shall be planted within the right-of-way of any streets (i.e., between the sidewalk and the street), in an amount equal to at least one (1) deciduous street tree per each forty (40) linear feet or fraction thereof of frontage. This requires 4 trees between the Tyler Road right-of-way and the existing sidewalk, which has been provided.

   b. **Parking Lot Landscaping.** Section 10.103(B)(1) requires all parking lots to be landscaped and screened from adjoining public or private rights-of-way. Landscaping shall include a landscaped yard at least five (5) feet in width containing an opaque screen of landscaping (evergreen or deciduous hedge) at least three (3) feet in height. As the majority of the parking lot is behind the proposed building, we find that it is adequately screened from Tyler Road. The handicap accessible space on the northeast corner of the building has been screened from Tyler Road by a screen hedge.

      Interior parking lot landscaping. Section 10.103(B)(2) requires the provision of landscaping within islands in a parking lot. Interior landscaping shall account for a minimum of five percent (5%) of all paved parking areas, including parking and loading spaces, driveways, and aisles. The applicant has detailed the total on-site paved area is 11,831 sq. ft. which requires an interior landscape area of 592 sq. ft. The applicant has provided 650 sq. ft. of interior landscaping, compliant with the Zoning Ordinance. Additionally, one (1) deciduous tree shall be planted for each three hundred (300) square feet of interior landscaping, the applicant has provided 2 deciduous trees to satisfy this requirement.

   c. **Loading Area Landscaping.** Section 10.103 (C) of the Zoning Ordinance requires an opaque wall or a greenbelt for required screening. The loading space has been identified and screened with 6-foot evergreen plantings and 24'-30" ornamental grasses.

   d. **Display Area Buffering.** This requirement is not applicable.

   e. **Greenbelt Buffering.** Section 10.103 (E) provides greenbelt buffering standards. A ten (10) foot wide buffer, with one (1) tree per thirty (30) linear feet is required on all sides of the proposed development. A 10-foot-wide buffer has been provided on all sides. With 150 linear feet on the front and rear lot line, 5 greenbelt trees are required; 5 trees have

been proposed in the front and 5 trees in the back, compliant with the zoning ordinance. Additionally, 7 trees are required along the west side lot line and east lot line and have been provided, compliant with the zoning ordinance.

f. Detention Pond Landscaping. The site plan includes a proposal to incorporate a bioretention area into the development. The proposed drainage system is subject to review and approval by the Township Engineer and Wayne County. Any planting around the drainage areas are under Wayne County's jurisdiction. The planting plan for this area must be provided and approved by the County.

g. Specific Landscaping for C-2 Zoning District. Developments in the C-2 District require contiguous outdoor space, independent of sidewalks, pedestrian circulation areas and required landscaping, in an amount not less than one (1) square foot for each twenty-five (25) square feet of principal building and in no case less than two hundred fifty (250) square feet in total. Based on the building size the required open space is under the 250 sq. ft. threshold so 250 sq. ft. of open space is the minimum required for the site. 250 sq. ft. of outdoor gathering space has been provided in the northwest corner of the site and includes two benches and a trash receptacle.

h. BROD Landscape Standards. Section 6.310 provides landscape standards for development projects within the BROD. Some of these standards are discussed in their respective landscape standards above. The following additional points have been addressed and are in compliance on the revised plan:

- 45 linear feet of perennial beds has been provided along the Tyler Road frontage in compliance with Section 10.103(A).
- An eight (8) foot street lawn, five (5) foot wide sidewalk, and five (5) foot buffer area has been provided between the off-street parking and/or vehicular use area and the sidewalk. The street lawn includes trees in accordance with Section 6.310(C)(2). A five (5) foot buffer area extends the length of the parking lot, and includes an opaque screen of landscaping 24" in height. The hedge shall attain opacity and a height of three (3) feet within twelve (12) months of planting under normal growing conditions. The applicant must clarify that the proposed shrubs located around the parking lot will be 3 feet in height within 12 months of planting.

8. Tree Removal Permit. A tree removal permit is required if the applicant proposes to remove any trees of 5" caliper or larger. The applicant has clarified no trees are to be removed so a tree permit is not applicable.

9. Stormwater Pond. As previously stated, the proposed development is to contain a bioretention area. Storm water detention calculations are subject to review and approval by the Township Engineer and Wayne County.

10. Lighting. The photometric plan indicates several wall mounted fixtures on the building façade and a single pole fixture on the south side of the site. Standards from Section 8.105 and 6.309 (D) apply. Manufacturer's cut sheet details for proposed wall and pole mounted fixtures with shielding has been provided and indicates a downward directed shielded fixture. The

illumination intensity must comply with the requirements of Section 8.105 (B) (2). The applicant has noted that there is only one proposed site light the remaining are client standard wall pack lights required to ensure acceptable levels of lighting for customers and employees. The photometric plan does not show any illumination levels at the plaza area along Tyler Road and the sidewalk connection. Illumination for this area even if it is through existing fixtures needs to be shown.

11. **Architecture and Building Details.** The applicant has submitted detailed elevations for the proposed building. The structure is to be constructed of 'thin brick' masonry veneer and provided with an EIFS cornice and metal cap. The east and west facades have several overhead doors, while the north façade facing Tyler Road has 3 windows.

    The site is part of the Belleville Road Overlay District, the Township's primary business district. The Planning Commission has consistently required a high standard of design for developments in this area. Chapter 3 of Article 6 provides standards for buildings within the Belleville Road Overlay District (BROD). The following items have mostly been addressed:

    a. Details of the proposed benches have been included on sheet C1.20.

    b. Location and square footage of decorative paving have been included on C1.20.

    c. Copper canopy elements are proposed on the east, west and north elevations to comply with the Ordinance requirement for addition of awnings and overhangs to building facades.

    d. Nonresidential buildings are required to have a minimum of fifty (50%) glass at the ground floor level facing a street. It is unclear how the applicant calculated compliance with this standard for the façade facing Tyler Road. To meet the standard we recommend the raising of the canopy and the storefront glass an additional 2 feet along the site's Tyler Road frontage.

    e. The intent of the BROD is to avoid developments with architectural elements that look applied, rather than incorporated. For example, building facades that incorporate canopies must provide a pitched roof component to provide depth and give an authentic appearance. While the applicant has significantly revised the elevations since the original submittal, the architecture of the building continues to appear like a standard corporate design. The location of the building at the entrance to the principal shopping district within the Township needs to be enhanced. The addition of brick horizontal bands in an alternate color, or the incorporation of brick set in a different pattern in blank wall areas to create a medallion effect would be some of the suggested changes. The use of thin veneer face brick is not acceptable. True brick, stone and other similar high-quality materials must be incorporated on a façade that has details in the form of banding, columns etc.

12. **Dumpster.** A dumpster pad location has been labeled on the site plan in the southwest corner of the site. The applicant has submitted dumpster enclosure details compliant with the Zoning Ordinance. The proposed dumpster enclosure will shield the dumpster from view.

13. **Signs.** The applicant is proposing one monument sign, one wall sign, and six incidental exit/entry signs. The entry/exit safety signs are considered as exempt signage. For lots with a frontage less than 200 feet, maximum permitted monument sign area is 30 square feet. The proposed sign complies with the height requirements and size requirements and has been provided with a masonry base as required.
    The ordinance permits a maximum of 3 sq. ft of signage per lineal foot of building frontage not to exceed 300 square feet or 50% of the wall faced excluding windows and doorways. The plan proposes a 58 sq. ft wall sign on the north façade compliant with the Zoning Ordinance.

14. **Other.** The plan proposes screening around the transformer shown on the northeast corner of the site.

RECOMMENDATION

Many of the required site plan items have been addressed; however, there still remain several issues that need to be addressed or notes of clarification added. Any items that are either missing or require additional information can be included at final site plan review. Therefore, we recommend that the Planning Commission approve the preliminary site plan, subject to the following conditions:

1. Lot split and combination must be completed prior to start of construction.
2. Copy of an irrevocable shared parking and cross access easement agreement with Meijer must be provided.
3. The proposed stormwater detention system must be reviewed and approved by the Township Engineer and Wayne County. Any planting around the drainage areas are under Wayne County's jurisdiction. The planting plan for this area must be provided and approved by the County.
4. The applicant must clarify that the proposed shrubs located around the parking lot will be 3 feet in height within 12 months of planting.
5. The proposed photometric plan must include the plaza area illumination for safety.
6. The proposed building architecture must be revised to include true brick and additional brick accent bands or alternate designs to comply with the BROD standards as discussed in Comment 11 above.
7. Special land use approval by Township Board of Trustees.

Respectfully,
McKENNA

Vidya Krishnan
Principal Planner

Hunter Whitehill
Associate Planner

c: Matt Best, Van Buren Township Director of Public Services
Dan Power, Director of Planning and Economic Development
David Potter, FTCH, Township Engineers
David McInally, Van Buren Township Fire Marshal

fishbeck
Engineers | Architects | Scientists | Constructors

39500 MacKenzie Drive, Suite 100
Novi, Michigan 48377

248.324.2090 | fishbeck.com

October 27, 2020
Fishbeck Project No. 200630

Carol Thompson
Planning Commission Chairperson
Van Buren Township
46425 Tyler Road
Van Buren Township, MI 48311

Jiffy Lube Multicare Services
Preliminary Site Plan Review

Dear Chairperson Thompson:

At the request of Van Buren Township (Township), Fishbeck has reviewed the Preliminary Site Plan dated September 21, 2020 submitted to the Township for the proposed Jiffy Lube located near the southeast corner of Tyler Road and Belleville Road next to the Meijer parking lot. At this time, Fishbeck examines and reviews the feasibility of the engineering aspects of the site design but will not conduct a full engineering review until the engineering review submittal. The applicant has also submitted a response letter dated September 21, 2020, in response to the Staff Review Letter dated June 26, 2020.

The proposed project entails construction of a retail automotive quick oil change facility at Parcel No. 83058990006707. The plans include construction of a new 3,064 square-foot building, construction of an 8-space asphalt parking lot with reconstruction of a north portion of the existing Meijer parking lot; two access driveways connecting to the Meijer parking lot; construction of storm water improvements including a bioretention french drain, pretreatment structure, and an underground storage system; construction of a public sanitary sewer system; extension of a public water main line; and other various site plan improvements.

Our review comments are as follows:

General

The following items are general requirements established as part of the Engineering Standards Manual, Charter Township of Van Buren (April 2014). The applicant must include the following items as part of the construction plans:

1. According to the applicant, the lot split has been completed as is currently indicated on the plans.
2. Plans indicate the address of 9701 Belleville Road is for the Meijer Store located on the parent parcel. Applicant to supply the development parcel address when available.
3. Any irrigation will be required with the submittal of the Engineering Plans.
4. Applicant must indicate overland stormwater flow route. Showing the pre and post development drainage patterns.
5. The geotechnical investigation report has been submitted as part of the response letter; however, the plan set should include the location of the soil borings on the site plan.
6. Engineering Plans must include the applicable Standard Detail Drawings as found in Appendix A of the Township *Engineering Standards Manual*. Please include the Standard Details as developed by the Township, including note sheets. The easiest inclusion is to use the full-size sheets of multiple details, which the Township can supply upon request.

Water Main Service

Existing: The Township's Geographic Information System (GIS) records indicate a publicly owned 12-inch cast iron water main running east-west along the north side of Tyler Road and two (2) 42-inch water mains running east-west along Tyler Road, which are owned and maintained by the Great Lakes Water Authority (GLWA). Records also indicate an 8-inch water main loop around the Meijer store building.

Proposed: The applicant's plan proposes installing an 8-inch water main connecting into the existing 8-inch water main inside the Meijer parking lot and connecting to the proposed building via a 2-inch copper type K water service line.

Comments:

1. Applicant has indicated that, based on building construction type and square footage, building sprinklers are not required.
2. An easement agreement between Applicant and property owner (Meijer), for the extension of the proposed water main across private property, must be provided. Meijer will be required to grant said easement to the Township for the public water main. The easement must be centered on the water main, including bends.
3. An Michigan Department of Environment, Great Lakes, and Energy (EGLE) Act 399 Public Water Supply Permit will be required. The Applicant is responsible for completing the permit application, supplying the proper plan sets, and working with the Township to finalize the submittal. The Township will submit for the permit once all obligations of the application are met and the plans are finalized.

Sanitary Sewer

Existing: The Township's GIS records indicate that the closest sanitary sewer is a public 10-inch clay sanitary sewer running north-south along the east side of Belleville Road.

Proposed: The applicant's plan proposes a privately owned 6-inch sanitary sewer service, connecting into a newly proposed 8-inch public sanitary sewer running west through the adjacent Meijer gas station parking lot and connecting to the existing 10-inch sanitary sewer along Belleville Road via a wye connection.

Comments:

1. Applicant must provide Basis of Design (BOD) calculations as part of the Engineering submittal. Once a basis of design is determined, and the proposed size is verified, further discussion regarding capacity and connection to the existing public 10-inch clay sanitary sewer along Belleville Road will be conducted.
2. Minimum size for public sanitary sewer shall be ten inches in diameter. If connecting to the existing sanitary system, this must be done at a manhole; existing or proposed.
3. All utilities along Belleville Road must be identified. Previous projects indicate a variety of utilities that will need to be identified and accounted for during connection to the existing sanitary main.
4. A soil boring near the location of the existing sanitary main connection is recommended, due to the need for deep excavations at the connection location.
5. An easement agreement between Applicant and property owner (Meijer), for the extension of the proposed sanitary sewer across private property, must be provided. Meijer will be required to grant said easement to the Township for the public sanitary sewer.
6. The minimum sanitary sewer easement shall be 20 feet.
7. A minimum horizontal separation of ten feet (measured outside of pipe to outside of pipe) must be maintained between the sewer and all other utilities.
8. An EGLE Part 41 Permit will be required for any public sanitary sewer installation. The Applicant is responsible for working with the Township to complete the permit and supplying the proper plan sets. The Township will submit for the permit once all obligations of the application are met and the plans are finalized.

Storm Sewer

Existing: The Township's GIS records indicates a publicly owned 18-inch stormwater pipe running east-west along the south side of Tyler Road, conveying stormwater east. Separately, the majority of the Meijer parking lot development collects stormwater through a series of catch basins, ultimately discharging into an onsite detention basin.

Proposed: The applicant proposes collecting the on-site stormwater runoff through a series of new catch basins and storm sewers, which work in conjunction with a French drain, a pretreatment system, and an underground storage area. The underground storage is proposed to outlet into the existing Wayne County owned stormwater manhole on the south side of Tyler Road.

Comments:

1. The Applicant has provided calculations for the design of the storm sewer system, which has not thoroughly been reviewed, but does appear to follow Township design standards.
2. Applicant must submit for stormwater approval from Wayne County prior to the Township accepting submission for Engineering and Final Site Plan approval. The Township will request to see that Wayne County has reviewed and commented on the stormwater system prior to reviewing the system itself.
3. Applicant shall design storm sewer system to have minimum cover of 4 feet above all storm sewers wherever possible. An absolute minimum cover of 2.5 feet is allowable, upon approval from the Engineer. The applicant has indicated that the roof drain material (ADS N-12) is rated for one (1) foot of cover.
4. Applicant must include details of the French drain with the Engineering Plan submittal and verify that the proposed trees are indicated on the landscape plans will not interfere with the function of the French drain.

Paving and Grading

1. Details for sawcutting and constructing curb and gutter in existing pavement must include tie-in details.
2. Applicant must indicate where each of the two curb and gutter details is used on the plans.

Soil Erosion and Sedimentation Control

1. The SESC plan provided must be in accordance with the Township *Engineering Standards Manual*, Chapter II, Plan Requirements, Paragraph D, SESC Plan Requirements, and in accordance with Wayne County SESC standards. A permit must be acquired from the Wayne County SESC County Enforcing Agency. https://www.waynecounty.com/departments/environmental/landresources/soil-erosion.aspx

Recommendation

We are recommending the Planning Commission grant the Jiffy Lube Multiservice Center Preliminary Site Plan approval for engineering feasibility, subject to the comments listed above and in accordance with the Township's Engineering Standards manual. If you have any questions regarding this project, please contact me at 248.324.2137 or pkammer@fishbeck.com.

Sincerely,

Paul J. Kammer, PE
Senior Civil Engineer

Stephen C. Clayton, PE
Civil Engineer

By email
Attachment
Copy: Matthew Best – Township
Dan Power – Township
Vidya Krishnan– McKenna
Dave Potter – Fishbeck

EX 42" GLWA
WTR MAIN (2)

EXISTING FIRE HYDRANT

TYLER RD

EX 15" STM SWR

EX. 12" CI WATER MAIN

PROJECT
AREA

EX 12" RCP SAN

BELLEVILLE RD

BELLEVILLE

GAS
STATION

EX. 15" STM SWR

EX 8" WTR MAIN

MEIJER DRAINAGE
BASIN

MEIJER
STORE

EX. PRIVATE 8"
SAN SWR SERVICE

NORTH

UTILITY EXHIBIT

NO SCALE

Andrew Lenaghan
Fire Inspector
O: 734-699-8900 ext 9426

Van Buren Township Fire Department
46425 Tyler Rd
Belleville, MI 48111

Oct 28, 2020

Director of Building and Planning
46425 Tyler Road
Belleville, MI 48111

Jiffy Lube
9701 Belleville Rd.

The site plan for 9701 Belleville rd. was reviewed. The business is a minor repair garage (Jiffy Lube) that is to be built on vacant land. The building is a Mercantile occupancy.

Comments for conditional Approval:

1. Two-Way Radio Communication Enhancement Systems are required for all new construction, unless after finished construction the occupant can prove through a signal test with the AHJ that it is not needed. **NFPA 1 2018 11.10.1**

2. An E Knoxbox is required per **NFPA 1 2018 edition 18.2.2.1** per the AHJ

If you have any questions about this plan review report, please feel free to contact me at (734)699-8900 ext.9426

Respectfully submitted,

Andrew Lenaghan
Fire Inspector

CHARTER TOWNSHIP OF VAN BUREN
PLANNING COMMISSION
REMOTE PUBLIC HEARING

Notice is hereby given that the Charter Township of Van Buren Planning Commission will hold a public hearing on **Wednesday, November 11th at 7:30 p.m.** Pending the enactment of legislation which allows for remote public meetings, this meeting will take place electronically due to health concerns associated with COVID-19. Alternatively, if the meeting is to occur in person at the on-site location of 46425 Tyler Road, Van Buren Township, MI, 48111, advance notice will be provided via mail. The Planning Commission will consider the following request:

Case #20-012- A request applicant Jiffy Lube International, Inc. on behalf of owner Meijer, Inc. to construct a Minor Vehicle Service use along with related site improvements. The proposed +/- 3,064 square foot, single-story building is located on the south side of Tyler Road east of Belleville Road on a proposed +/- 0.71 outparcel to be divided and created from portions of the 39.4-acre parcel at 9701 Belleville Road (83 058 99 0006 705) and a vacant 1.33-acre parcel (83 058 99 0006 707). The property is zoned C-2 – Extensive Highway Business District and also in the Belleville Road Overlay District (BROD).

Minor vehicle service developments are a Special Land Use in the C-2 District. The proposed Special Land Use requires a public hearing. This hearing is being held in accordance with Article 12, Chapter 3 of the Zoning Ordinance (Administrative Procedures - Special Land Use Review).

Members of the public may access the agenda materials via the Township website – www.vanburen-mi.org beginning **November 6, 2020.** On this website, members of the public will also gain access to **means of participating in the electronic meeting,** including a unique Zoom weblink and dial-in phone number with a meeting ID for meeting videoconference or teleconference access. The meeting will be available to view live on the Van Buren Township YouTube Channel which can be reached from the live meeting link located on the Van Buren Township website home page (www.vanburen-mi.org). Closed captioning will be available after YouTube fully renders meeting video.

A complete **procedure for public comment by electronic means** is provided on a guide which is accessible on the Van Buren Township website (www.vanburen-mi.org). Participants may also choose to submit written comments that will be read into record during public comment by the Chairperson. Submit any written comments via e-mail to dpower@vanburen-mi.org by **Noon, Tuesday, November 10, 2020,** which is the day before the meeting. Members of the public may also contact dpower@vanburen-mi.org to be connected with members of the Planning Commission prior to the meeting by e-mail.

To comply with the Americans with Disabilities Act (ADA), any citizen requesting accommodation to attend a meeting, and/or to obtain this notice in alternate formats, please contact the Clerk's Office at 734.699.8900 extension 9205.

Posted: 10/16/2020
Published: 10/22/2020

MAILED 10/16/20
PUBLISHED TO NEWSPAPER 10/22/20

JOHN POWER

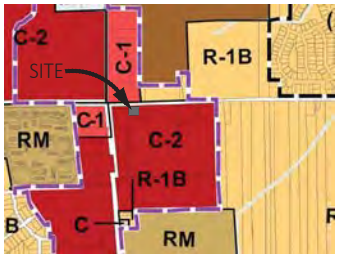
jiffy lube

JIFFY LUBE
MULTICARE SERVICES

9701 BELLEVILLE ROAD
VAN BUREN CHARTER TOWNSHIP,
MI 48111

WAYNE COUNTY

N
LOCATION MAP
SCALE: NTS



N
ZONING MAP
SCALE: NTS

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PROJECT DESCRIPTION		
CONSTRUCTION OF A RETAIL AUTOMOTIVE QUICK OIL CHANGE FACILITY ON AN EXISTING PARCEL CONSISTING OF ONE (1) 3,064 SF BUILDING.		
SITE NOTES		
1.	THE TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY DLZ. DATED: 04.21.2020.	
PARCEL INFORMATION:		
PARCEL NUMBER:		83058990006707
OWNER:		JIFFY LUBE INTERNATIONAL
ACRES:		JIFFY LUBE PARCEL: ±0.68 AC MEIJER PARCEL: ±39.33 AC

BUILDING CODE REVIEW	
ACCESSIBILITY CODE	ANSI/ICC A117.1 - 2009
BUILDING CODE	2015 MICHIGAN BUILDING CODE (MBC), 2015 EDITION WITH STATE AMENDMENTS (BASED ON 2015 IBC)
ELECTRICAL CODE	2017 NEC NATIONAL ELECTRICAL CODE, 2017 EDITION, WITH STATE AMENDMENTS (BASED ON 2015 NEC)
ENERGY CODE	2015 MICHIGAN ENERGY CODE 2015 EDITION, WITH STATE AMENDMENTS
MECHANICAL CODE	2015 MICHIGAN MECHANICAL CODE, 2015 EDITION, WITH STATE AMENDMENTS (BASED ON 2015 IMC)
PLUMBING CODE	2015 MICHIGAN PLUMBING CODE (MPC), 2015 EDITION, WITH STATE AMENDMENTS (BASED ON 2015 IPC)
FIRE CODE	INTERNATIONAL FIRE CODE (IFC) - 2012
ZONING ORDINANCE REVIEW	
ZONING ORDINANCE	CHARTER TOWNSHIP OF VAN BUREN ZONING ORDINANCE EFFECTIVE: JUNE 2, 2017. AS AMENDED DECEMBER 8, 2019.
ZONING MAP	ZONING MAP CHARTER TOWNSHIP OF VAN BUREN JULY 8, 2019
SITE ZONING	C-2, EXTENSIVE HIGHWAY BUSINESS
PERMITTED USE	SPECIAL LAND USE.

BULK REGULATIONS: C-2 EXTENSIVE HIGHWAY DISTRICT			
BUILDING HEIGHT	MAXIMUM	40'	3.112
	ACTUAL	22'-2" (1 STORY WITH BASEMENT)	
BUILDING AREA	MAXIMUM	N/A	3.112
	ACTUAL	3,064 G.S.F.	
LOT COVERAGE	MINIMUM	N/A	3.112
	PROPOSED	10%	
LOT AREA:	MINIMUM	N/A	3.112
	PROVIDED	29,422 S.F.	
LOT WIDTH	MINIMUM	N/A	3.112
	PROVIDED	150.0'	
LOT DEPTH	MINIMUM	N/A	3.112
	PROVIDED	196.19'	
BUILDING SETBACKS:			
FRONT:	MINIMUM:	35'	3.112
	ACTUAL:	50' (NORTH)	
SIDE:	MINIMUM:	25'	3.112
	EAST ACTUAL:	58.8'	
	WEST ACTUAL:	47.9'	
REAR:	MINIMUM:	20'	3.112
	ACTUAL:	53.5' (SOUTH)	
LOADING ZONE:			
SIZE:	MINIMUM:	10' x 25'	9.105
	ACTUAL:	10' x 25'	
LANDSCAPE:			
REQUIRED:	MINIMUM:	1 SF/ 25 SF OF PRINCIPAL BUILDING = 121 SF, NO LESS THAN 250 SF IN TOTAL OF LANDSCAPED 250 SF	10.103
PROPOSED:		11,191 SF	
OFFSTREET PARKING:			
REQUIRED:	2 SPACES/ AUTO SERVICE STALLS + MAX. NUMBER OF EMPLOYEES/ SHIFT = 2 SPACES X 4 AUTO SERVICE STALLS + 5 EMPLOYEES/ SHIFT = 13 STALLS		9.102
PROVIDED:	9 ONSITE + 4 OFFSITE + 1 ADA = 13 SPACES		
REQUIRED SIZE:	MINIMUM:	9.5' x 20.0' (STANDARD SPACES)	9.104
	PROVIDED	9.5' x 20.0' (STANDARD SPACES)	
SIGNS:			
MONUMENT SIGN:	ALLOWED:	YES; 1 PER FRONTAGE OF A LOT OR DEVELOPMENT	11.108
AREA:	MAXIMUM	30.0 S.F. ON LOTS WITH LESS THAN 200 FT OF FRONTAGE. LOT= 150.0'	11.108
	PROVIDED	25 S.F. AREA OF SIGN FACE	
HEIGHT:	MAXIMUM	8.0'	11.108
	PROVIDED	8.0'	
SETBACK:	MINIMUM	10.0' FROM LOT LINE	11.108.B
	PROVIDED	10.0'	
BUILDING:	ALLOWED	3 S.F. PER LINEAR FOOT OF BUILDING FRONTAGE = 43.3' x 3.0' = 129.9 S.F.	11.108.B
	PROVIDED	FRONT (TYLER STREET): 58 S.F. LEFT SIDE: 0 S.F. RIGHT ELEVATION: 0 S.F. REAR ELEVATION: 0 S.F.	

PROJECT DIRECTORY			
	DESCRIPTION	ADDRESS	CONTACT
SITE	OWNER/ DEVELOPER	JIFFY LUBE INTERNATIONAL - SHELL LUBRICANTS BUILDING F, RM F-376 D 150 N. DAIRY ASHFORD RD HOUSTON, TX 77079	CLAIRE GILROY 832.337.9809
	PROJECT MANAGER	SEVAN MULTI-SITE SOLUTIONS 37704 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331	MATTHEW PISKO 734.367.4442
	SURVEYOR	DLZ INDUSTRIAL SURVEYING, INC. 316 TECH DRIVE BURNS HARBOR, IN 46304	ANTHONY J TOSCANI 219.764.4700
DESIGN CONTACT	CIVIL ENGINEER	SEVAN ENGINEERING, PC 37704 HILLS TECH DRIVE FARMINGTON HILLS, MI 48331	TIMOTHY KRATZ, PE 219.841.6535
	ARCHITECT	CASCO + RS 12 SUNNEN DRIVE, SUITE 100 ST. LOUIS, MO 63143	JIM SCHMITT 314.821.1100x252
UTILITY	TELEPHONE	AT&T SERVICE PLANNING DEPARTMENT	TBD
	ELECTRIC	DTE ENERGY SOUTHWEST REGIONAL ENGINEERING 8001 HAGGERTY ROAD, BELLEVILLE, MI 48111	SINDHURA GULLAPELLI 734.398.7926
	GAS	DTE - NATURAL GAS	TBD
	STORMWATER MANAGEMENT	WAYNE COUNTY - STROMWATER MANAGEMENT OFFICE	313.224.3620
	WATER AND SEWER	WATER AND SEWER DIVISION 46425 TYLER ROAD VAN BUREN TOWNSHIP, MI 48111	KAREN PECSENYE 734.699.8944
GOVERNMENT	PLANNING DEPARTMENT (TOWNSHIP)	VAN BUREN CHARTER TOWNSHIP DIRECTOR OF PLANNING & ECONOMIC DEVELOPMENT 46425 TYLER ROAD VAN BUREN TOWNSHIP, MI 48111	DAN POWER 734.699.8913
	TOWNSHIP PLANNING CONSULTANT	MCKENNA ASSOCIATES 235 EAST MAIN STREET SUITE 105 NORTHVILLE, MI 48167	VIDYA KRISHNAN 248.596.0920
	ENGINEER	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES 33809 MICHIGAN AVE. WAYNE, MI 48184	313.224.7600
	BUILDING DEPARTMENT	DIRECTOR OF PUBLIC SERVICES 46425 TYLER ROAD VAN BUREN TOWNSHIP, MI 48111	MATT BEST 734.699.8900

VAN BUREN TOWNSHIP GENERAL NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL CONDITIONS OF THE TOWNSHIP.
2. THE DEVELOPER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE A RESULT OF THE DEVELOPER'S ACTIONS.

LIST OF REQUIRED TOWNSHIP, COUNTY, AND STATE PERMITS:

1.	VBT SPECIAL LAND USE PERMIT
2.	VBT BUILDING PERMIT
3.	WAYNE CO. STORMWATER CONSTRUCTION APPROVAL
4.	VBT WATER DEPARTMENT PERMIT
5.	WAYNE CO. CONSTRUCTION PERMIT

SHEET INDEX

		OWNER REVIEW 02.11.2020	SITE PLAN REVIEW 02.21.2020	SITE PLAN REVIEW #1 03.11.2020						
GENERAL		0	1	2	3	4	5	6	7	8
G0.01	COVER SHEET	●	●	●						
G0.02	GENERAL NOTES	●	●	●						
SURVEY										
1 OF 1	ALTA/NSPS LAND TITLE SURVEY		●	●						
CIVIL										
C1.02	COMPOSITE SITE PLAN - CONSTRUCTION	●	●	●						
C1.10	DEMOLITION SITE PLAN	●	●	●						
C1.11	SOIL EROSION AND SEDIMENTATION CONTROL PLAN	●	●	●						
C1.20	DIMENSION CONTROL SITE PLAN	●	●	●						
C1.21	TRUCK TURN PLAN			●						
C1.30	GRADING PLAN	●	●	●						
C1.31	STORM WATER MANAGEMENT PLAN	●	●	●						
C1.32	STORM WATER MANAGEMENT PLAN		●	●						
C1.40	UTILITY PLAN	●	●	●						
C1.41	SANITARY AND WATER SERVICE CONNECTIONS PLAN	●	●	●						
C5.00	SITE DETAILS	●	●	●						
C5.01	SITE DETAILS	●	●	●						
L1.20	LANDSCAPE PLAN, NOTES AND SCHEDULE	●	●	●						
AG1.01	SITE PLAN - SIGNS			●						
AG2.01	SIGN ELEVATIONS		●	●						
AG5.01	SIGN DETAILS		●	●						
SITE LIGHTING										
ESP-1.0	SITE PHOTOMETRICS		●	●						
ARCHITECTURAL										
A-1	FLOOR PLAN - LOWER BAY		●	●						
A-2	FLOOR PLAN - UPPER BAY		●	●						
A-4	EXTERIOR ELEVATIONS		●	●						
A-5	DUMPSTER ENCLOSURE			●						

sevan ENGINEERING

Regional Office:
37704 Hills Tech Drive
Farmington Hills, MI 48331
734.367.4445 Telephone

Corporate Office:
3025 Highland Parkway, Suite 850
Downers Grove, IL 60515
info@sevansolutions.com www.sevansolutions.com
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REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

COVER SHEET

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
DATE:
CRITERIA:
PROJECT MANAGER: M. PISKO

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SHEET NUMBER

G0.01

FILE NAME: Y:\Shared\Clients\Jiffy Lube\Projects\MI\072_Belleville Road\02_Civil\Cad\Docs\G0.01.dwg LAST SAVED BY: bmerkt, John SAVED DATE: 9/28/2020 7:31 AM PLOTTED: 9/28/2020 7:45 AM

GENERAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO KNOW ALL OBSERVABLE CONDITIONS AND TO CONFORM TO ALL APPLICABLE CODES. THE GENERAL CONTRACTOR SHALL INFORM THE OWNER'S REPRESENTATIVE OF ANY NECESSARY OR APPROPRIATE QUESTIONS OR CLARIFICATIONS. THE GENERAL CONTRACTOR SHALL INCORPORATE ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND STANDARDS, INCLUDING FEDERAL ADA REQUIREMENTS.

2. THE DRAWINGS AND PROJECT MANUAL (INCLUDING ASSOCIATED STUDIES, DRAWINGS, SHOP DRAWINGS AND SIMILAR INSTRUMENTS AS APPLICABLE) CONSTITUTE THE GUIDELINES FOR THE PROJECT AND SHALL BE USED IN CONJUNCTION WITH THE AFOREMENTIONED ENTIRE BODY OF PROJECT INFORMATION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE COMPLETE INFORMATION TO ALL JURISDICTIONAL AUTHORITIES, SUBCONTRACTORS, ALLIED CONSULTANTS, HIRES, AND ASSIGNS.

3. ALL CONSTRUCTION SHALL COMPLY WITH THE DRAWINGS, PROJECT MANUAL, CODES AND STANDARDS OF THE JURISDICTIONAL AUTHORITY OR AUTHORITIES. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS. IN CASE OF DISCREPANCIES, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

4. THE GENERAL CONTRACTOR PERFORMING THE WORK SHALL MAINTAIN A GENERAL "A" LICENSE WITH HAZ MAT CERTIFICATION FROM THE CONTRACTOR'S STATE LICENSE BOARD AND/OR OTHER JURISDICTIONAL AUTHORITY.

5. THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES FOUND DURING THE INVESTIGATION OF EXISTING UTILITIES AND TOPOGRAPHY AND/OR DURING THE CONSTRUCTION PHASE.

6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, PERMIT FEES, LICENSES AND LICENSE FEES. THE GENERAL CONTRACTOR SHALL OBTAIN ALL NECESSARY CONSTRUCTION PERMITS REQUIRED TO PERFORM ALL REQUIRED WORK. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE ALL TRAFFIC CONTROL NECESSARY FOR THIS WORK.

7. WORK SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING AGENCY OR AGENCIES HAVING JURISDICTION. GRADING, PAVING, AND MATERIALS SHALL COMPLY WITH THE JURISDICTIONAL ROADWAY AUTHORITY OR AUTHORITIES (E.G., DEPARTMENT OF TRANSPORTATION) STANDARD SPECIFICATIONS FOR CONSTRUCTION AS WELL AS PROJECT SPECIFICATIONS AND DRAWINGS. IN CASE OF DISCREPANCIES BETWEEN REQUIREMENTS, ATTAIN CLARIFICATION FROM THE OWNER'S REPRESENTATIVE.

8. THE GENERAL CONTRACTOR SHALL ENSURE ALL SITE INSPECTIONS REQUIRED BY CITY AND/OR STATE AGENCIES, AND/OR OTHER JURISDICTIONAL AUTHORITY ARE TO BE SCHEDULED A MINIMUM OF FIVE WORKING DAYS IN ADVANCE OF REQUESTED INSPECTION DATE.

9. THE GENERAL CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE OWNER'S REPRESENTATIVE IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE DRAWINGS, PROJECT MANUAL AND/OR FIELD CONDITIONS SO THAT APPROPRIATE ADJUSTMENTS AND/OR REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICTS BETWEEN THE DRAWINGS AND PROJECT MANUAL SHALL BE IDENTIFIED BY THE GENERAL CONTRACTOR AND CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO BIDDING.

10. MATERIAL TESTING SHALL BE SUPPLIED BY THE OWNER'S REPRESENTATIVE. THE GENERAL CONTRACTOR SHALL COORDINATE WITH TESTING FIRM. ALL RE-TESTING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

11. SOIL SAMPLES MAY BE REQUIRED TO BE TAKEN FOR TESTING AT THE DIRECTION OF HAZ MAT, OTHER JURISDICTIONAL AUTHORITY, OR THE OWNER'S REPRESENTATIVE.

12. THE GENERAL CONTRACTOR SHALL MAINTAIN A CLEAN WORK AREA. TRASH AND WASTE MATERIALS SHALL BE COLLECTED AT A SAFE POINT, AWAY FROM FLAMES OR OTHER FIRE SOURCES. THE GENERAL CONTRACTOR SHALL PREVENT ANY LEAKS OR DRIPS OF HYDRAULIC FLUID, MOTOR OIL, MOTOR FUELS, SOLVENTS, AND OTHER HYDROCARBONS FROM CONTAMINATING THE GROUND. SUCH SPILLS SHALL BE IMMEDIATELY COVERED WITH AN OIL ABSORBING MEDIUM (E.G. "OIL DRY") AND REMOVED FROM THE SITE IN A LEGAL AND ENVIRONMENTALLY SOUND MANNER. TRASH SHALL BE PROPERLY DISPOSED OF DAILY, UNLESS A COVERED DUMPSTER IS PROVIDED AND ITS LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE.

13. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL RUBBISH, TRASH, DEBRIS AND ORGANIC MATERIAL IN A LAWFUL MANNER.

14. PROVIDE ADEQUATE BARRICADES AT DRIVES, ENTRANCES, EXCAVATIONS, OTHER OPENINGS, AND HAZARDOUS AREAS TO KEEP OUT UNAUTHORIZED PERSONS, FOR PUBLIC SAFETY, AND TRAFFIC CONTROL. SAFETY PROVISIONS OF APPLICABLE LAWS SHALL BE OBSERVED AT ALL TIMES. BARRICADES LEFT IN PLACE AT NIGHT SHALL BE LIGHTED.

15. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND FOR DEWATERING TO ACCOMPLISH ALL WORK INDICATED ON PLANS AND TO PERFORM REQUIRED COMPACTION OPERATIONS. DEWATERING SHALL NOT DISCHARGE TO ANY SANITARY SEWER SYSTEM OR BE PUMPED ONTO ANY PUBLIC ROADWAY.

16. PROMPTLY REMOVE ALL DEMOLITIONS, PROJECT DISCARDS, RUBBISH, AND DEBRIS FROM THE LIMITS OF THE OWNER'S PROPERTY AND/OR EFFECTIVE PROJECT LIMITS, AND DISPOSE IN A LEGAL MANNER.

17. ALL EQUIPMENT TO BE INSTALLED SHALL BE UL APPROVED.

18. THE GENERAL CONTRACTOR SHALL PROVIDE A TRAFFIC SEQUENCING AND SCHEDULING PLAN AT THE ON-SITE PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVES AND APPLICABLE LANDLORD'S REPRESENTATIVE(S).

19. THE GENERAL CONTRACTOR'S MANNER AND METHOD OF INGRESS AND EGRESS WITH RESPECT TO THE PROJECT AREA SHALL IN NO WAY PROHIBIT OR DISTURB NORMAL PEDESTRIAN OR VEHICULAR TRAFFIC IN THE VICINITY AND IS SUBJECT TO REGULATION AND WRITTEN APPROVAL OF AFFECTED OWNER(S), JURISDICTIONAL AUTHORITY, AND/OR AUTHORITIES, AS APPLICABLE.

20. ALL CONSTRUCTION SHALL BE CONDUCTED TO CAUSE MINIMAL INTERFERENCE WITH STREETS, DRIVES OR WALKS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC AND SHALL NOT CAUSE THE CLOSURE OR OBSTRUCTION OF STREETS, DRIVES, WALKS OR USER FACILITIES WITHOUT PERMISSION FROM THE OWNER'S REPRESENTATIVE.

21. THE GENERAL CONTRACTOR SHALL PHASE CONSTRUCTION IN SUCH A WAY AS TO MAINTAIN AN ACCESS ROUTE FROM AN ENTRANCE DRIVE TO TRUCK DOCKS AND/OR LOADING AREA(S) AT ALL TIMES.

22. CONTRACTOR SHALL KEEP EXISTING STREETS, ROADS AND DRIVES CLEAR OF DIRT, DEBRIS AND EQUIPMENT.

23. THE GENERAL CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE FOR PARKING AND STORAGE OF EQUIPMENT. THIS AREA, AS WELL AS THE JOB SITE, SHALL BE ENCLOSED IN CHAIN LINK FENCING. A TRAFFIC LANE SHALL BE DESIGNATED FOR INGRESS AND EGRESS FROM THE WORK AREA. IF REQUIRED, FLAG MEN SHALL BE PROVIDED TO PROVIDE FOR SAFE AND EFFICIENT MOVEMENT OF VEHICLES. NO CHANGES TO THE WORK AREA OR TO THE AGREED TRAFFIC PATTERN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER'S REPRESENTATIVE; THE OWNER'S REPRESENTATIVE WILL SECURE APPROVAL FOR SUCH CHANGES, IF APPLICABLE.

24. NO EQUIPMENT OR MATERIAL STORAGE IS PERMITTED WITHIN THE ROAD RIGHT-OF-WAY.

25. FOR THE DURATION OF CONSTRUCTION OPERATIONS, EMPLOYEE(S) WILL PARK IN A LOCATION DESIGNATED BY THE OWNER'S REPRESENTATIVE.

26. RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES, AND OTHER PUBLIC OR PRIVATE STRUCTURES THAT ARE DISTURBED OR DAMAGED AS A RESULT ON CONSTRUCTION ACTIVITIES TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS AND TO THE SATISFACTION OF AFFECTED OWNER(S), JURISDICTIONAL AUTHORITY, AND/OR AUTHORITIES, AS APPLICABLE.

27. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING PLACED AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL SHALL OCCUR WITHIN THE DRIP LINE LIMITS, UNLESS HEREON EXPRESSLY INDICATED OTHERWISE.

28. WRITTEN DIMENSIONS SHALL PREVAIL. NO DIMENSION MAY BE SCALED. REFER ANY UNCLEAR ITEMS TO THE OWNER'S REPRESENTATIVE FOR INTERPRETATION.

29. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PROPOSED DIMENSIONS FOR BUILDINGS, WALLS, CONCRETE SLABS, UTILITY SERVICE POINT CONNECTIONS, ETC., AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.

30. COORDINATES AND/OR DIMENSIONS SHOWN ON THESE DRAWINGS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING FOUNDATIONS, EDGE OF PAVEMENT, OR CENTER OF STRUCTURE OR SIGN UNLESS NOTED OTHERWISE.

31. ANY BEARINGS USED HEREON ARE FOR THE PURPOSE OF ANGULAR MEASUREMENT ONLY AND ARE NOT NECESSARILY REFERENCED TO TRUE OR MAGNETIC NORTH.

32. UNDERGROUND UTILITIES MUST BE MARKED, AS REQUIRED BY PUBLIC ACT 53 OF 1974. TELEPHONE THE REGIONAL UTILITY LOCATOR/ONE-CALL SYSTEM OFFICE BEFORE ANY DIGGING.

33. THE GENERAL CONTRACTOR AT ALL TIMES SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD LINES. IF THE GENERAL CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO UNDERGROUND AND/OR OVERHEAD ELECTRIC LINES, CONTACT THE AFFECTED UTILITY COMPANY AND MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS, PRIOR TO OPERATION.

34. THE GENERAL CONTRACTOR SHALL, AT HIS OR HER EXPENSE, RESTORE ANY AND ALL STRUCTURES, PIPE, UTILITY, PAVEMENT, CURB, SIDEWALK, LANDSCAPED AREA, ETC. DISTURBED WITHIN THE SITE AND/OR ADJOINING PROPERTIES DURING DEMOLITION OR CONSTRUCTION. SUCH FACILITIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE AFFECTED OWNER(S).

35. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION.

36. IN ALL CASES THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS IS ASSUMED TO BE APPROXIMATE. LOCATIONS ARE BASED ON THE BEST AVAILABLE REFERENCE PLANS AND AN ACTUAL FIELD SURVEY OF VISIBLE STRUCTURES. CONTACT THE REGIONAL UTILITY LOCATOR/ONE-CALL SYSTEM OFFICE BEFORE DIGGING.

37. THE GENERAL CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITIES AND/OR SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER, LANDLORD, OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE AFFECTED OWNER, LANDLORD, JURISDICTIONAL AUTHORITY, AND/OR UTILITY COMPANY. INTERRUPTIONS SHALL OCCUR ONLY AFTER ACCEPTABLE TEMPORARY OR PERMANENT SERVICE HAS BEEN PROVIDED.

38. NOT USED.

39. THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND SPECIFICATIONS AND MAKE THEM AVAILABLE TO THE OWNER'S REPRESENTATIVE, SUBCONTRACTORS, AND/OR ALLIED CONSULTANTS THROUGHOUT THE CONSTRUCTION PROCESS.

40. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE TIMELY COMPLETION OF ALL PHASES OF CONSTRUCTION. CONSTRUCTION PROJECT TO BE COMPLETED IN ACCORDANCE WITH ALL DRAWINGS AND PROJECT MANUAL, AND TURNED OVER TO THE OWNER'S REPRESENTATIVE IN FULLY OPERATIONAL CONDITION.

41. UPON COMPLETION OF THE WORK, THERE SHALL BE A FINAL INSPECTION OF THE PROJECT BY THE OWNER'S REPRESENTATIVE. ALL EQUIPMENT SHALL BE TESTED UNDER NORMAL OPERATING CONDITIONS. THE GENERAL CONTRACTOR SHALL HAVE AN ELECTRICIAN AVAILABLE DURING THE OPENING TO IMPLEMENT ANY APPROPRIATE OR REQUIRED ADJUSTMENTS TO THE EQUIPMENT.

42. AFTER ALL WORK HAS BEEN COMPLETED AND THE PROJECT HAS BEEN TESTED AND ACCEPTED, THE GENERAL CONTRACTOR SHALL SWEEP THE ENTIRE WORK AREA CLEAN AND REMOVE ALL DIRT, MUD, TRASH, WASTE MATERIAL, CONSTRUCTION EQUIPMENT, AND VEHICLES. DAMAGED PARKING STRIPES OR STAINED PAVEMENT SHALL BE REFINISHED TO ITS ORIGINAL CONDITION BY THE GENERAL CONTRACTOR.

43. SPECIAL CARE SHALL BE TAKEN DURING ALL TRENCHING OPERATIONS. SHEETING AND BRACING, CRIBBING, ETC. MUST BE INSTALLED AS NECESSARY OR APPROPRIATE TO PROVIDE MAXIMUM SAFETY TO THE GENERAL CONTRACTOR'S WORKERS, AND SHALL BE IN FULL COMPLIANCE WITH OSHA REGULATIONS.

44. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT AS NEEDED TO INSTALL NEW CONCRETE CURBING, WALKS, UNDERGROUND UTILITIES AND/OR NEW BUILDING(S) OR STRUCTURE(S). SAWCUTS SHALL BE MADE A MINIMUM OF 1' BEYOND THE ACTUAL NEW CURB OR WALK LIMITS.

45. REMOVE AND REPLACE EXISTING PAVEMENT AS NEEDED TO MATCH EXISTING AND PROPOSED GRADES.

46. PRIOR TO PROCEEDING FURTHER WITH THE AFFECTED WORK, THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY REGARDING THE PROPOSED WORK OR UNFORESEEN CONDITIONS.

47. ALL PAVEMENTS, ASSOCIATED AGGREGATE MATERIALS AND WORK COMPLETED SHALL BE IN STRICT ACCORDANCE WITH THE STATE DOT OR OTHER JURISDICTIONAL AUTHORITY SPECIFICATIONS AND STANDARD DETAILS UNLESS OTHERWISE EXPRESSLY SPECIFIED IN THE DRAWINGS AND PROJECT MANUAL.

48. PIPE BOLLARDS SHALL BE INSTALLED IN TRAFFIC AND LOADING AREAS AS REQUIRED TO PROTECT BUILDING CORNERS, RECEIVING AREAS, HYDRANTS, TRANSFORMERS, METERS, GENERATORS, COMPACTORS, STEPS AND RAILINGS AS NECESSARY.

49. WHENEVER REQUIRED OR APPROPRIATE, THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS TO THE OWNER'S REPRESENTATIVE, ENGINEER AND JURISDICTIONAL AUTHORITY OR AUTHORITIES, AND SHALL ACQUIRE SHOP DRAWING APPROVAL PRIOR TO FABRICATION AND/OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW AND APPROVAL.

50. THE GENERAL CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING(S), ROOF DRAINS, RAISED CONCRETE SIDEWALKS, RAMPS, STAIRWAYS, ETC.

51. TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE STATE DOT AND/OR OTHER JURISDICTIONAL AUTHORITY STANDARDS, AND TO THE MOST CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

52. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE LOCAL MUNICIPALITY, FIRE DEPARTMENT AND OTHER JURISDICTIONAL AUTHORITY REQUIREMENTS.

53. IF APPLICABLE, THE GENERAL CONTRACTOR SHALL REMOVE ON-SITE CONFLICTING PAVEMENT MARKINGS IN A METHOD APPROVED BY THE OWNER'S REPRESENTATIVE, STATE DOT AND OTHER JURISDICTIONAL AUTHORITY. THE GENERAL CONTRACTOR SHALL EXERCISE CARE TO AVOID INSTALLATION OF CONFLICTING SIGNS AND MARKINGS.

54. AGGREGATE AND BITUMINOUS PAVEMENT MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH STATE DOT AND/OR OTHER JURISDICTIONAL AUTHORITY STANDARDS. THE GENERAL CONTRACTOR SHALL SUBMIT AGGREGATE SIEVE ANALYSES AND JOB-MIX FORMULAS FOR AGGREGATE AND BITUMINOUS PAVEMENT TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL AT LEAST 14 DAYS PRIOR TO PAVEMENT INSTALLATION.

55. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED IN THE DRAWINGS AND PROJECT MANUAL MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE AND OTHER AFFECTED JURISDICTIONAL AUTHORITY PRIOR TO INSTALLATION.

56. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PLANS, SHOP DRAWINGS, LAYOUTS AND SURVEY INFORMATION, AND FOR EXECUTING ALL SURVEY FIELD WORK REQUIRED, TO PERFORM CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS AND PROJECT MANUAL.

57. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO MODIFY THE DETAILS AND STANDARDS OF CONSTRUCTION FOR ALL PRIVATE FACILITIES FROM THOSE INDICATED IN THE DRAWINGS AND PROJECT MANUAL, PROVIDED THAT ANY ALTERNATE STANDARD COMPLIES WITH ALL JURISDICTIONAL AUTHORITY REQUIREMENTS, AND THAT THE GENERAL DESIGN INTENT OF THE PROJECT IS NOT COMPROMISED.

DEMOLITION NOTES:

1. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY SITE DEMOLITION, EXCAVATION OR GRADING.
2. PERFORM CLEARING, STRUCTURE REMOVAL, PAVEMENT REMOVAL AND APPLICABLE STOCKPILING IN ACCORDANCE WITH THE PROJECT DRAWINGS AND PROJECT MANUAL. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE LAWFUL REMOVAL AND DISPOSAL OF ALL RUBBISH, TRASH, DEBRIS, ORGANIC MATERIAL, ETC. SEE GENERAL NOTES #13.
3. NO ATTEMPT IS MADE TO STIPULATE EACH ITEM TO BE REMOVED AND/OR DEMOLISHED, EITHER ON THE DRAWINGS OR IN THE PROJECT MANUAL. THE CONTRACTOR MUST VISIT THE SITE TO ASSESS EXISTING PHYSICAL CONDITIONS, AS WELL AS REVIEW THE DRAWINGS, AND ULTIMATELY DETERMINE WORK NECESSARY TO ACCOMPLISH INTENDED RESULTS DESCRIBED BY THE PROJECT DRAWINGS AND PROJECT MANUAL.
4. COMPLETELY RESTORE ALL DISTURBED AREAS TO CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION AND TO THE SATISFACTION OF AFFECTED OWNER(S) AND/OR GOVERNING AUTHORITY. ALL COSTS FOR CLEAN-UP, RESTORATION WORK AND OTHER RESTORATION OPERATIONS SUCH AS, BUT NOT LIMITED TO, CONSTRUCTION SIGNAGE, STREET SWEEPING AND MAINTAINING EXISTING UTILITIES SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. RESTORATION WORK SHALL BE PERFORMED WITHIN FIVE (5) WORKING DAYS AFTER COMPLETION OF FINAL GRADING.
5. WHERE EXISTING PAVEMENT IS TO BE PARTIALLY REMOVED, SAWCUT PAVEMENT TO FULL DEPTH TO PROVIDE A SMOOTH JOINT WITH PROPOSED PAVEMENT.
6. ALL DEMOLITION WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL AUTHORITY.
7. IF APPROPRIATE, RETAIN SOIL SPOILS FROM CONSTRUCTION EXCAVATION AND STORE AT DESIGNATED LOCATION FOR RE-USE, IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, PROJECT DRAWINGS, AND OWNER'S REPRESENTATIVE APPROVAL(S).

UTILITY NOTES:

1. PROTECT AND MAINTAIN CROSSINGS WITH ANY AND ALL OTHER UTILITY LINES.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE JURISDICTIONAL AUTHORITY OR AUTHORITIES TO PROVIDE FEES AND SECURE PERMITS FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
3. THOROUGH COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES SHALL BE PERFORMED BY THE GENERAL CONTRACTOR TO INSURE THAT ALL UTILITY COMPANY, AND OTHER JURISDICTIONAL AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET.
4. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING SERVICES AND SERVICE LINES, PRIOR TO CONSTRUCTION.
5. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE SEWERS CROSS EXISTING UTILITIES AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE GENERAL CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE IN THE EVENT OF ANY UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
6. THE GENERAL CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR SERVICE INSTALLATIONS AND CONNECTIONS AND MAIN SERVICE RELOCATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK TO BE PERFORMED BY THE VARIOUS UTILITY COMPANIES, PAY ALL FEES AND SECURE ALL PERMITS FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS AND DEMOLITION AS NECESSARY OR APPROPRIATE.
7. THE GENERAL CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS, ETC. WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNER'S REPRESENTATIVE, OTHER AFFECTED OWNER(S), THE UTILITY COMPANIES AND JURISDICTIONAL AUTHORITIES. THE CONTRACTOR SHALL INSTALL AS NECESSARY TEMPORARY SITE LIGHTING, GAS, SANITARY, WATER, STORM, ELECTRIC, TELEPHONE AND CABLE SERVICES TO BUILDING(S) THAT ARE TO REMAIN OPERATIONAL.
8. THE GENERAL CONTRACTOR SHALL PROVIDE SLEEVES UNDER FOOTINGS AND/OR THROUGH FOUNDATIONS FOR UTILITY CONNECTIONS.
9. THE GENERAL CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC. AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING/CANOPY STUB-OUTS, INCLUDING ROOF/FOOTING DRAIN CONNECTIONS AND ROOF LEADERS, AND TO THE STORM DRAINAGE SYSTEM.
10. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION PRIOR TO APPROVAL FOR BACKFILL, IN ACCORDANCE WITH THE UTILITY COMPANY OR COMPANIES, AND OTHER JURISDICTIONAL AUTHORITY REQUIREMENTS.
11. THE GENERAL CONTRACTOR SHALL RESTORE ANY STRUCTURE, PIPE, PAVEMENT, CURBS, SIDEWALKS, APPROPRIATE LANDSCAPE AREAS, ETC. DISTURBED DURING CONSTRUCTION TO THE ORIGINAL CONDITION OR BETTER.
12. PENDING THE GENERAL CONTRACTOR'S NOTIFICATION OF AND APPROVAL BY THE OWNER'S REPRESENTATIVE, UTILITY CONNECTION DESIGN AS REFLECTED IN THE PLANS AND PROJECT MANUAL MAY CHANGE SUBJECT TO UTILITY COMPANY AND JURISDICTIONAL AUTHORITY REVIEW.

BID NOTES:

1. THE GENERAL CONTRACTOR SHALL VISIT THE SITE BEFORE BIDDING.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CALCULATING ALL QUANTITIES.
4. THE CONTRACTOR SHALL INCLUDE THE BITUMINOUS AND CONCRETE PAVING SHOWN ON THE PLANS IN THEIR BASE BID.
5. THE CONTRACTOR SHALL PROVIDE THE UP-CHARGE, IF ANY, TO INSTALL CONCRETE PAVING INSTEAD OF BITUMINOUS PAVING. THIS PRICE SHALL ALSO INCLUDE THE COSTS TO PROTECT THE NEW CONCRETE PAVING FROM WINTER CONDITIONS.
6. THE GENERAL CONTRACTOR SHALL REFER TO GEOTECHNICAL ENGINEERING REPORT, DATED 03.19.2020 PREPARED BY PEA, PROJECT NUMBER 2020-0107.

DISCLAIMERS:

1. THIS SET OF DRAWINGS IS INTENDED AS A SET OF GUIDELINES FOR THE PROJECT AND ARE TO BE USED IN CONJUNCTION WITH THE PROJECT MANUAL AND/OR SUPPLEMENTAL DATA TO BE PROVIDED BY THE OWNER'S REPRESENTATIVE. THEY MUST BE READ TO INCORPORATE ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
2. EXISTING SITE INFORMATION HEREON IS PROVIDED BY THE OWNER, SURVEYOR, PLANS PREPARED BY OTHERS, AND/OR FIELD SURFACE EVIDENCE. ALL LOCATIONS ARE PRESUMED TO BE APPROXIMATE. SEVAN MULTI-SITE SOLUTIONS ASSUMES NO LIABILITY FOR INFORMATION REPRESENTING EXISTING CONDITIONS HEREON. IT IS THE GENERAL CONTRACTOR RESPONSIBILITY TO THOROUGHLY REVIEW THESE DRAWINGS AND SUPPLEMENTAL OWNER PROVIDED DATA WITH ACTUAL SITE CONDITIONS. THE GENERAL CONTRACTOR SHALL NOTE ANY DISCREPANCIES IN THE DRAWINGS AND ACTUAL SITE CONDITIONS, WHETHER SHOWN ON THE PLANS OR NOT, WITH THE OWNER'S REPRESENTATIVE PRIOR TO BIDDING AND CONSTRUCTION.
3. THE DRAWINGS AND PROJECT MANUAL ASSUME THERE ARE NO UNUSUAL SOIL CONDITIONS, UNKNOWN UNDERGROUND STRUCTURES OR IMPEDIMENTS, WIND LOADS, AND/OR SIMILAR UNFORESEEN CIRCUMSTANCES. UNUSUAL CONDITIONS DETECTED BY THE GENERAL CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE OWNER'S REPRESENTATIVE AND MAY REQUIRE SIGNIFICANT CHANGES TO THESE DRAWINGS.
4. THE DRAWINGS AND PROJECT MANUAL ARE AND SHALL REMAIN THE PROPERTY OF JIFFY LUBE INTERNATIONAL. REPRODUCTION OR ALTERATION WITHOUT THE EXPRESS WRITTEN PERMISSION OF JIFFY LUBE INTERNATIONAL IS PROHIBITED. (NOT PUBLISHED: ALL RIGHTS RESERVED).

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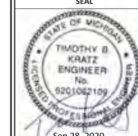
REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.18.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL



Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111

(WAYNE COUNTY)

SHEET TITLE

GENERAL NOTES

SHEET MANAGEMENT

PROJECT NO.:	072_ BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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SHEET NUMBER

G0.02

FILE NAME: Y:\Shared\Clients\Jiffy Lube\Projects\MI\072_Belleville Road\02_Civil\ConDocs\G0.02.dwg LAST SAVED BY: Sinnette, John SAVED DATE: 9/3/2020 12:37 PM PLOTTED: 9/28/2020 7:45 AM

ALTA/NSPS LAND TITLE SURVEY

Basis of Bearings: Michigan Plane, NAD83, South Zone.

NOTE: The record descriptions of the parent parcel shown hereon have a different basis of bearings from this survey. The rotation angle between the bearings in the record descriptions and the bearings shown on this survey is 01°13'09" in a counter-clockwise direction.

30 0 30 60

SCALE: 1" = 30'

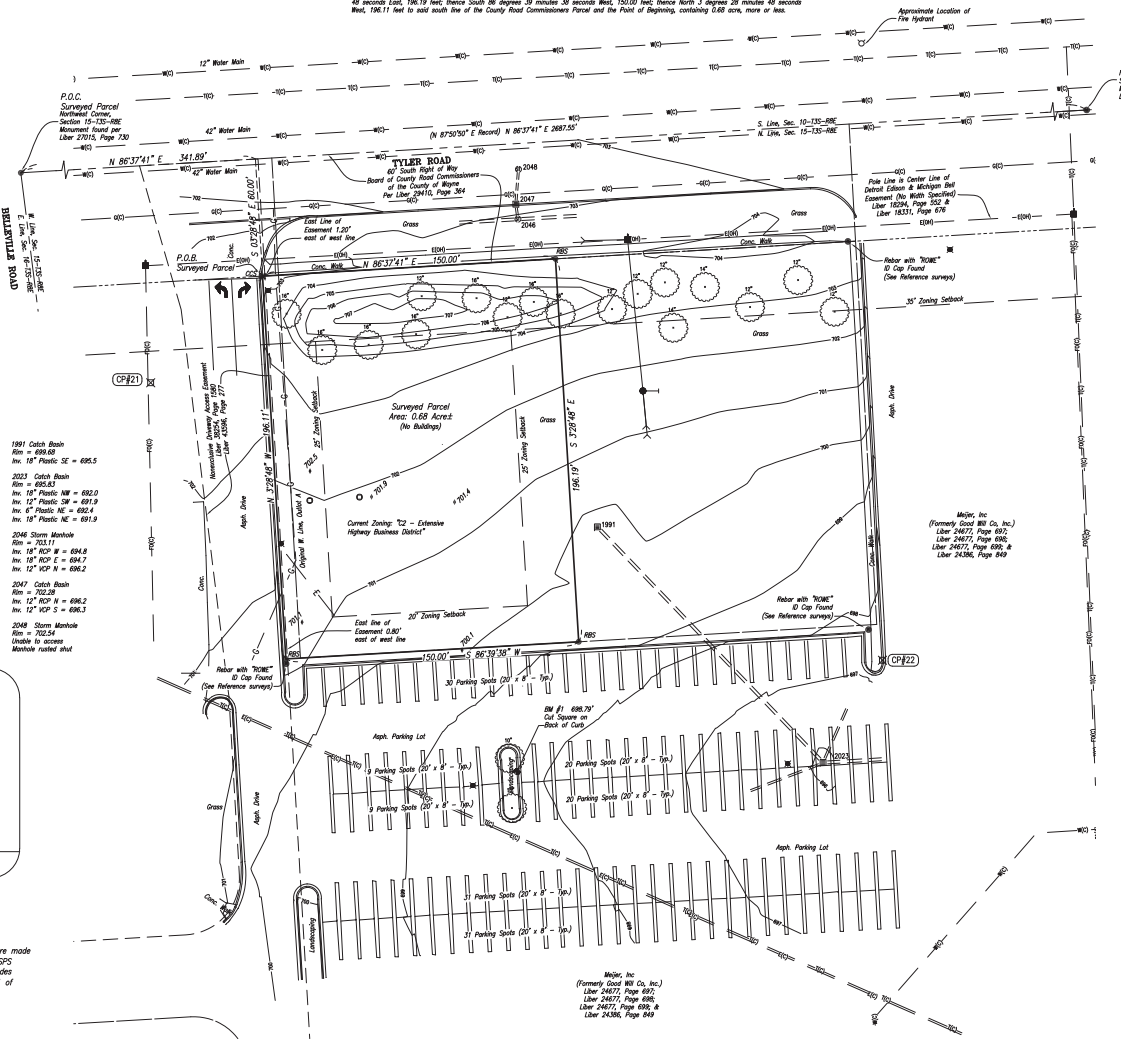
LEGEND

- xx.xx – Dimension based on this survey
- "ROWE" – ID Cap ROWE, Inc
- "Toscani 57516" – ID Cap for Anthony Toscani, PS
- RBS – 5/8" Rebar Set with "Toscani PS57516" ID Cap
- CCS – Cut Cross Set
- (12) – Schedule B2 Item
- CP21 – DLZ Control Point Number
- Drainage Structure
- Light Pole W/ Conc. Base
- Storm Manhole
- Tree (Deciduous)
- Utility Pole
- Guy Anchor
- Guy Pole
- Monitoring Well
- Soil Boring
- Underground Sanitary Sewer/ Storm Line
- E(OH) – Overhead Utility Line
- E – Underground Electric Line
- E(C) – Underground Electric Line (From Map)
- T(C) – Underground AT&T Telephone Line (From Map)
- G – Underground Gas Line
- G(C) – Underground Gas Line (From Map)
- W(C) – Underground Water Line (From Map)
- FO(C) – Underground Fiber Optic Line (From Map)

Property Description: (Per Title Commitment GLT20000060 – Revision 2)

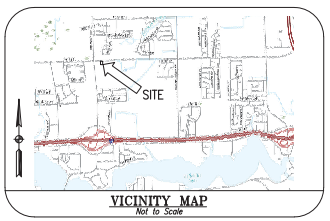
Part of the Northwest Quarter of Section 15, Township 3 South, Range 8 East, Van Buren Township, Wayne County, Michigan being more particularly described as follows:

Commencing at the Northwest corner of said Section 15; thence North 86 degrees 37 minutes 41 seconds East (this and all subsequent bearings are referenced to the Michigan State Plane Coordinate System of 1983, South Zone), 341.89 feet along the north line of said Northwest Quarter; thence South 3 degrees 28 minutes 48 seconds East, 60.00 feet to the south line of a Parcel described to the Board of County Road Commissioners of the County of Wayne in a Grant of Right of Way document recorded in Liber 29410, Page 364, Wayne County Records and the POINT OF BEGINNING; thence North 86 degrees 37 minutes 41 seconds East, along said south line, 150.00 feet; thence South 3 degrees 28 minutes 48 seconds East, 196.19 feet; thence South 86 degrees 39 minutes 38 seconds West, 150.00 feet; thence North 3 degrees 28 minutes 48 seconds West, 196.11 feet to said south line of the County Road Commissioners Parcel and the Point of Beginning, containing 0.68 acre, more or less.



CONTROL POINTS				
Pt. No.	Northing	Easting	Elev.	Description
21	268601.15	1336213B.60	703.31	Cut Cross
22	268459.24	1336212.74	697.63	Cut Cross

Coordinates are relative to the Michigan State Plane Coordinate System of 1983, South Zone



VICINITY MAP
Not to Scale

SURVEYOR'S CERTIFICATE:

To: Fidelity National Title Insurance Company
Jiffy Lube International, Inc.
Meijer, Inc.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 6(b), 7(a), 7(b)(1), 7(b)(2), 8, 9, 11, 13, 17, 18, and 21 of Table 'A' thereof. The field work was completed on April 20, 2020.

Date of Plat or Map: May 18, 2020

PRELIMINARY 9-22-2020

Anthony Joseph Toscani
Michigan Professional Surveyor No. 4001057516
Email: atoscani@dlz.com
www.dlz.com

ALTA/NSPS Land Title Survey Table "A" Items:

1. Found or set monuments are shown hereon. Additional monuments were found along the south right of way of Tyler Road, east of the surveyed parcel, which are not shown hereon.

2. The address of 9701 Belleville Road is for the Meijer Store located on the parent parcel.

3. The accuracy of any flood hazard data shown on this plat is subject to map scale uncertainty and to any other uncertainty in location or elevation on the Flood Insurance Rate Map, ("FIRM"). The Parcel shown and described on this plat appears to lie within Flood Hazard Zone "Unshaded X" as said tracts plot by scale on Map Number 26163C0351E of the FIRM for Charter Township of Van Buren, Michigan, dated February 2, 2012 (Panel Not Printed by FEMA). This statement does not guarantee the surveyed parcel will or will not flood.

4. The Gross Land Area of the Surveyed Parcel was calculated to be 0.68 acre, more or less.

5. The one-foot contours and elevations shown hereon are based on a ground survey of the surveyed parcel and are referenced to the North American Vertical Datum of 1988 (NAVD88) as derived from Network RTK GPS observations of the primary site control to the MDOT CORS network. The site benchmark shown hereon was trigonometrically leveled from the primary control and is described as follows:

The site benchmark is a cut square on back of curb located near the south line of the surveyed parcel as shown hereon. Site Benchmark Elevation: 698.79' (NAVD88)

At this site, NGVD 29 datum elevations are 0.44 foot higher than NAVD 88 datum elevations.
I.E. 700.00' (NAVD 88) = 700.44' (NGVD 29)

6(b). A Zoning Report or Letter was not provided to the surveyor.

Per the Van Buren Township Zoning Map, dated July 7, 2017, the surveyed parcel is currently located in Zoning District "C-2 – Extensive Highway Business District".

The following information is per the Charter Township of Van Buren, Michigan Zoning Ordinance, effective date July 2, 2017:

Minimum Setbacks
Front Yard: 35-feet
Side Yard: 25-feet (50-feet total)
Rear Yard: 20-feet
Maximum Building Height: 40-feet (4-Stories)

7(a), 7(b)(1), 7(b)(2). There are no buildings located on the surveyed parcel.

8. Only improvements which were visible from above ground at the time of the survey and through a normal search and walk through of the site are shown.

9. There were no observed parking spaces located on the surveyed parcel as shown hereon.

11. The locations of utilities, as shown hereon, are based on above ground structures, any markings observed in the course of the field survey and maps provided to the surveyor based on a MISS DIG design ticket request (Ticket Number: B000491O3-000). Additional utilities may be encountered. Utilities are marked with federal highway associations "quality level" designations.
(C) Indicates Quality Level C – Involves surveying visible utility facilities and correlating the information with existing utility records.

13. Names of adjoining owners are based on record documents provided to the surveyor.

17. An attempt was made to contact the Wayne County Engineering Department and the Van Buren Road Commission. These offices are currently closed due to a Shelter In Place order issued by the State of Michigan. There was no observed evidence of recent street or sidewalk construction or repairs at the time of this survey.

18. There were no wetland delineations observed during the course of this survey.

21. Soil borings observed during the course of this survey are shown hereon.

Notes Corresponding to Schedule "B-2"

The commitment for title insurance issued by Fidelity National Title Insurance Company, effective date February 21, 2020, as Commitment No. GLT20000060 – Revision 2, contains no exceptions which are survey matters.

Reference Surveys

The following were referenced during the course of this survey:
1. An ALTA/ACSM Land Title Survey of the parent parcel prepared by Progressive, AE as File Number: 88017-40A, dated January 1, 1990.
2. An unsigned ALTA/ACSM Land Title Survey, marked "Preliminary" of an area that partially encompassed the Surveyed Parcel prepared by ROWE, Inc as Job No. 0502298, dated December, 2005. According to ROWE, the project was canceled during the course of their survey. NOTE: Rebar with "ROWE" ID caps were removed during the course of this survey with that firms permission.

DLZ INDUSTRIAL SURVEYING, INC.
316 TECH DRIVE, BURNS HARBOR, INDIANA 46304
TELEPHONE (219) 764-4700 FAX (219) 764-4156

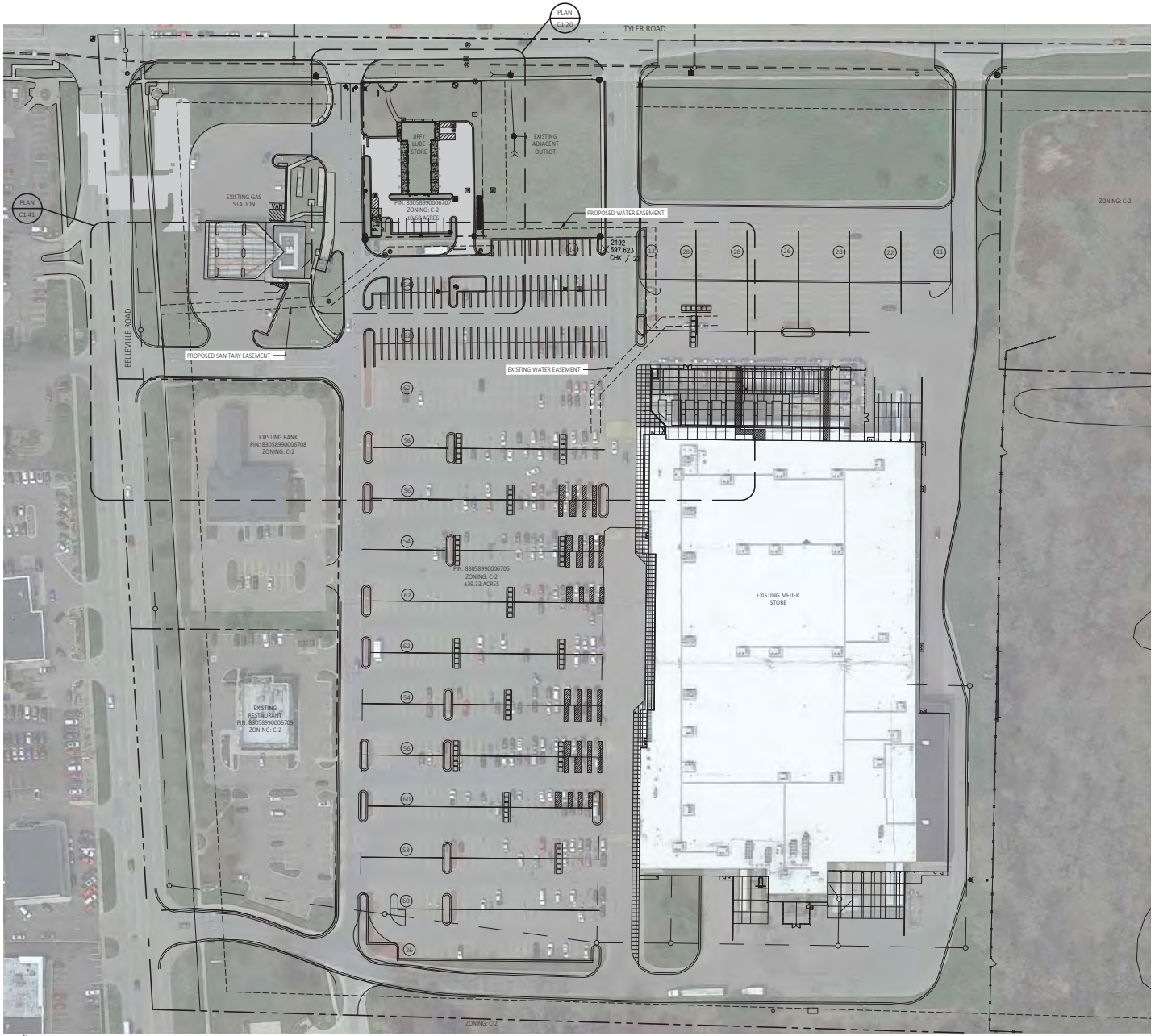
VAN BUREN TOWNSHIP MICHIGAN
ALTA/NSPS LAND TITLE SURVEY
9701 BELLVILLE ROAD

PART OF THE NW 1/4, SECTION 15-T3S-R8E
SEVAN MULTI-SITE SOLUTIONS, LLC.

DRAWN: AJT	CHK'D: RHK	NO.	REVISION	BY	DATE
DESIGNED: –	APPRV'D: AJT	1	Change parcel configuration. Township comments	AJT	9/22/20
DATE: APRIL 21, 2020					
SCALE: 1" = 30'					
PROJECT NUMBER 2011-0057-90					

SHEET 1
OF 1
DRAWING NUMBER 0057AL

R:\PROJ\2011\0057 - VAN BUREN JIFFY LUBE SURVEY\ALTA\0057ALTA.DWG



N

COMPOSITE SITE PLAN - CONSTRUCTION

SCALE: 1" = 60'-0"

0 60' 120'

PARKING CALCULATIONS	
REQUIRED	4.5 STALLS / 1,000 SF OF GROSS FLOOR AREA = 4.5 * 199,661 SF / 1,000 SF = 899 STALLS
PRE-CONSTRUCTION SPACES PROVIDED	971
STALLS REMOVED	-20
RECIPROCAL PARKING FOR JIFFY LUBE	-4
POST-CONSTRUCTION SPACES PROVIDED	947

MISS DIG

3 WORKING DAYS BEFORE YOU DIG OR DRILL CALL 1-800-482-7171 (TOLL FREE)

sevan ENGINEERING

Regional Office:
37704 Hills Tech Drive
Farmington Hills, MI 48331
734.367.4445 Telephone

Corporate Office:
3025 Highland Parkway, Suite 850
Downers Grove, IL 60515
info@sevansolutions.com www.sevansolutions.com

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REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER

Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

COMPOSITE SITE PLAN CONSTRUCTION

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
DATE:
CRITERIA:
PROJECT MANAGER: M. PISKO

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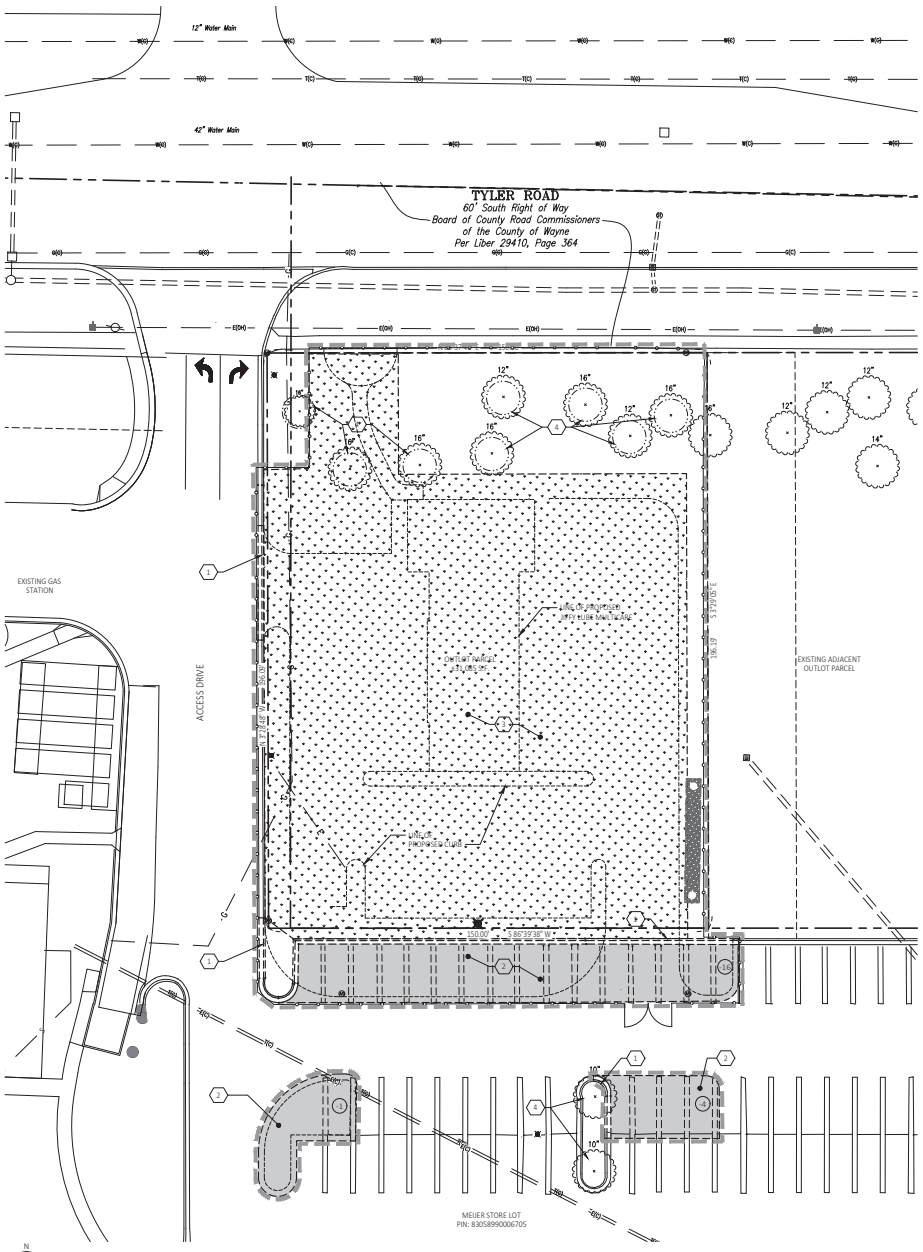
SHEET NUMBER

C1.02

FILENAME: \\Shared\Clients\Jiffy Lube\Projects\WI072_Belleville Road\02_Civil\Construction\C1.02.dwg LAST SAVED BY: Sinnette, John SAVED DATE: 9/28/2020 7:13 AM PLOTTED: 9/28/2020 7:46 AM



DEMOLITION SITE PLAN

SCALE: 1" = 20'-0"

DEMOLITION SITE PLAN KEYNOTES:

1. SAWCUT FULL DEPTH, REMOVE AND DISPOSE OF PORTION OF CONCRETE CURB AND GUTTER.
2. SAWCUT FULL DEPTH, REMOVE AND DISPOSE OF PORTION OF ASPHALT PAVEMENT.
3. STRIP AND STOCKPILE TOPSOIL. ANY TOPSOIL TO BE STORED ON SITE MUST BE SURROUNDED BY SILT FENCE. SEE SOIL EROSION AND SEDIMENT CONTROL PLAN C1.11.
4. EXISTING TREES TO REMAIN- SEE LANDSCAPE PLAN L1.20. PROVIDE AND INSTALL TREE PROTECTION FENCE AS REQUIRED. SEE SHEET C1.11.

EXISTING:

- BM #1 - Benchmark
- - Curb Inlet/ Storm Inlet
- - Cable Riser
- - Electric Transformer
- - Fire Hydrant
- - Light Pole
- - Sanitary Sewer Manhole
- - Storm Manhole
- - Water Manhole
- - Utility Pole
- - Coniferous Tree
- - Deciduous Tree
- X - Chain link Fence
- E(OH) - Overhead Utility Line
- G(C) - Underground Gas Line (From Map)
- - Underground Sanitary Sewer/ Storm Line
- T(C) - Underground AT&T Telephone Line (From Map)
- W - Underground Water Line
- W(C) - Underground Water Line (From Map)
- E(C) - Underground Electric Line (From Map)

LEGEND

MISS DIG
3 WORKING DAYS
BEFORE YOU DIG OR DRILL
CALL
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(TOLL FREE)

sevan ENGINEERING
Regional Office:
37704 Hills Tech Drive
Farmington Hills, MI 48331
734.367.4445 Telephone
Corporate Office:
3025 Highland Parkway, Suite 850
Downers Grove, IL 60515
info@sevansolutions.com www.sevansolutions.com
INTEGRITY | RESPECT | TEAMWORK | EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
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CONSULTANT

SEAL

STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

DEMOLITION
SITE PLAN

SHEET MANAGEMENT

PROJECT NO.:	072_ BELLVILLE
DATE:	
CRITERIA:	C1.10.dwg
PROJECT MANAGER:	M. PISKO

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SHEET NUMBER

C1.10

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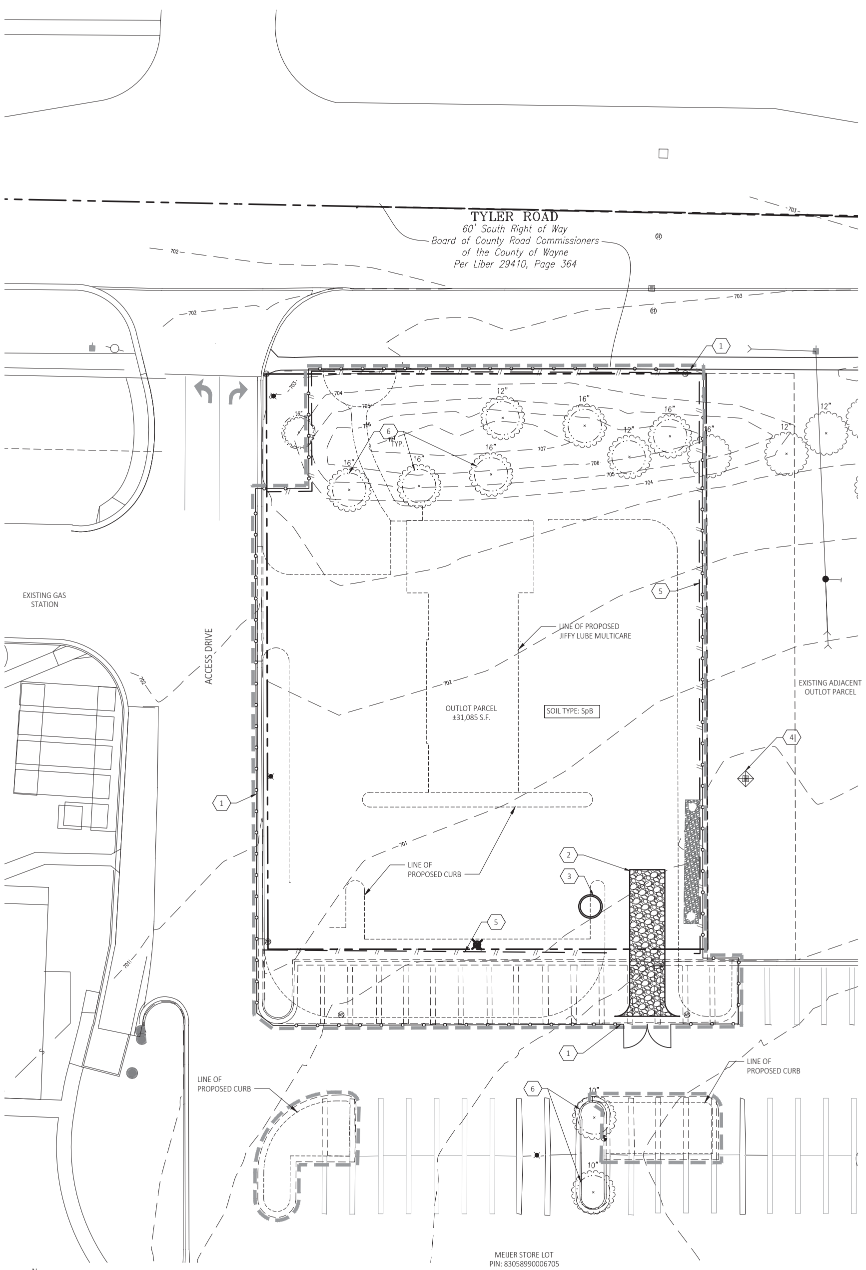

SOIL EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'-0"

0 20' 40'

LEGEND

CONSTRUCTION ENTRANCE

CONSTRUCTION FENCE

SILT FENCE

TREE FENCE

LIMITS OF DISTURBANCE

INLET FILTER

RIP RAP APRON

(X) PROPOSED SITE IMPROVEMENTS

1 INSTALL CONSTRUCTION FENCE. CONTRACTOR TO FIELD VERIFY AND COORDINATE LOCATION(S) OF CONSTRUCTION ACCESS GATE(S) WITH OWNER'S REPRESENTATIVE. INCLUDE SILT FENCE INSIDE OF CONSTRUCTION FENCE.

2 PROVIDE, INSTALL, AND MAINTAIN CONSTRUCTION ENTRANCE. SEE DETAIL 5/C5.00. LOCATION MAY VARY THROUGHOUT THE DURATION OF CONSTRUCTION. GC RESPONSIBLE TO DOCUMENT DEVIATIONS FROM THE APPROVED PLANS.

3 PROVIDE AND INSTALL CONCRETE WASHOUT AREA.

4 PROVIDE AND INSTALL INLET PROTECTION.

5 PROVIDE, INSTALL, AND MAINTAIN SILT FENCE.

6 PROVIDE, INSTALL, AND MAINTAIN TREE PROTECTION FENCE.

CONSTRUCTION SITE DEWATERING NOTES

TAKE CARE WHEN DEWATERING CONSTRUCTION SITES. DO NOT PUMP SEDIMENT-LADEN WATER DIRECTLY TO LAKES, STREAMS, COUNTY DRAINS, STORM DRAINS, WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. THE PROPER WAY TO DEWATER A CONSTRUCTION SITE IS AS FOLLOWS:

- PLACE A GEOTEXTILE FILTER BAG OR GEOTUBE ON THE END OF THE DISCHARGE HOSE.
- DISCHARGE DIRECTLY TO A SEDIMENT BASIN.
- DISCHARGE TO A WELL VEGETATED AREA (NOT WETLANDS).
- DISCHARGE INTO A CONSTRUCTED CONTAINMENT AREA.

DISSIPATE ENERGY TO PREVENT SCOURING, AND INSPECT DEWATERING OPERATIONS SEVERAL TIMES DAILY.

CONSTRUCTION SEQUENCE:

1. INSTALL TRAFFIC AND PEDESTRIAN SAFETY BARRICADES.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES. PROTECT ALL AREAS THAT COULD ALLOW SEDIMENT TO MIGRATE OFF-SITE VIA SURFACE RUNOFF, VIA ENCLOSED DRAINAGE SYSTEMS OR VIA TRACKING CAUSED BY CONSTRUCTION EQUIPMENT, ETC. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING ACTIVITIES.
3. COMPLETE REQUIRED REMOVALS AND LEGALLY DISPOSE OF DEBRIS AND WASTE OFF-SITE.
4. PERFORM MASS GRADING AND CONSTRUCT SITE IMPROVEMENTS.
5. DAILY OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DITCHES, SILT FENCING, SEDIMENT TRAPS, ETC. SEED AND MULCH AS REQUIRED.
6. INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES PER JURISDICTIONAL AUTHORITY REQUIREMENTS.
7. REMOVE TEMPORARY EROSION CONTROL MEASURES WHEN SITE IS STABILIZED.

WAYNE COUNTY SOIL EROSION CONTROL NOTES:

1.) A PERFORATED RISER PIPE WITH STONE FILTER JACKET WILL BE REQUIRED ON ALL SEDIMENT BASINS FOR PROJECTS FIVE ACRES OR MORE IN SIZE.

2.) A TEMPORARY CRUSHED ROCK TRACKING PAD WILL BE INSTALLED AT THE CONSTRUCTION EXIT. THIS TRACKING PAD WILL BE MAINTAINED WITH FRESH STONE. CONSTRUCTION TRAFFIC WILL BE LIMITED TO THE DESIGNATED ENTRANCE AND EXIT.

3.) A STREET SCRAPING AND SWEEPING SCHEDULE. (MINIMUM - AT LEAST ONE SWEEPING A WEEK, AND A SCRAPING AT THE END OF EACH WORKDAY.)

4A.) PAVED STORM SEWER INLETS SHALL BE PROTECTED BY A HIGH FLOW SACK TYPE INLET FILTER CONFORMING TO SILT SACK- HIGH FLOW BY ACF ENVIRONMENTAL OR INLET PRO -HIGH FLOW SEDIMENT BAG BY HANES GEO COMPONENTS OR CATCH-ALL INLET FILTERS BY MARATHON MATERIALS INC. OR DANDY CURB SACK BY DANDY PRODUCTS, INC.

4B.) REAR YARD (BEEHIVE-TYPE) STORM SEWER INLETS SHALL BE PROTECTED BY A SEDCAGE YARD INLET PROTECTION MANUFACTURED BY SEDCATCH ENVIRONMENTAL PRODUCTS. OR, A BOX FILTER FABRIC FENCE CONFORMING TO CSI GEOTURF 36 INCH MDOT SPEC SILT FENCE SECURELY FIXED TO 2" X 2" HARDWOOD STAKES SPACED NO MORE THAN 6.5 FEET ON CENTER, TIED TO 4 FT. STEEL POSTS AT ALL FOUR CORNERS AND TRENCHED A MINIMUM OF 10 INCHES INTO THE GROUND. SEE WAYNE COUNTY DETAIL FOR REAR YARD GUARD.

5.) ALL EXPOSED EARTH SHALL BE STABILIZED WITH SEED AND MULCH OR S O D W I T H I N 5 D A Y S OF FINAL GRADE. SEDIMENT BASINS SHALL BE STABILIZED WITH SEED AND STRAW MULCH BLANKETS. STRAW MULCH BLANKETS SHALL BE STAKED INTO THE GROUND 5 DAYS AFTER THE CONSTRUCTION OF THE SEDIMENT BASIN.

6.) AN UNDISTURBED, VEGETATIVE BUFFER STRIP OF AT LEAST 25 FEET SHALL BE RETAINED AROUND RIVERS, CREEKS, STREAMS, WETLANDS, DRAINS, AND OTHER SENSITIVE AREAS.

7.) STRAW MULCH BLANKETS SHALL BE USED ON SLOPES 3:1 OR GREATER. (THREE FOOT HORIZONTAL, ONE FOOT VERTICAL)

8.) DITCHES, SWALES, AND OTHER AREAS THAT WILL CHANNEL CONCENTRATED RUNOFF MUST BE STABILIZED WITHIN 15 DAYS OF CONSTRUCTION. TEMPORARY ROCK CHECK DAMS WILL BE REQUIRED TO SLOW WATER TO NON-EROSIVE VELOCITIES IN AREAS OF CONCENTRATED FLOW.

9.) NOT USED.

10.) ROAD RIGHT -OF-WAYS MUST BE STABILIZED A MINIMUM WIDTH OF 15 FT. BACK OF CURB WITH SEED AND MULCH WITHIN 5 DAYS OF COMPLETING UTILITY WORK IN THE RIGHT OF WAY.

11.) AREAS OF EARTH CHANGE THAT ARE DISTURBED BEYOND THE FALL SEEDING DEADLINE (NOV. 1) MAY REQUIRE DORMANT SEEDING AND STRAW MULCH SECURELY CRIMPED TO THE GROUND.

12.) RIP RAP WILL BE PLACED IMMEDIATELY FOLLOWING INSTALLATION OF POND OUTLETS AND CULVERTS.

13A.) SINGLE FAMILY LOTS, DURING CONSTRUCTION, MUST HAVE A SILT FENCE BARRIER INSTALLED ACROSS THE FRONT AND REAR LOT LINES WITH A TEMPORARY CRUSHED ROCK TRACKING PAD FOR ACCESS AND EGRESS AT EACH LOT. (SEE DETAIL).

13B.) A SINGLE FAMILY RESIDENCE, PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY, MUST HAVE LAWN OR A TEMPORARY SILT FENCE BARRIER INSTALLED PER PLAN. SILT FENCE SHALL BE SECURELY TRENCHED A MINIMUM OF EIGHT INCHES INTO THE GROUND. OR, PLACE TEMPORARY ANNUAL RYE SEED MIX COVERED BY MINIMUM WIDTH OF 15 FEET OF STRAW MULCH BLANKET ANCHORED TO THE GROUND WITH STAKES AT MINIMUM 15 FEET BACK OF CURB ACROSS THE ENTIRE FRONT OF THE LOT.

	CONSTRUCTION OPERATION TIME SCHEDULE	WEEK										
	CONSTRUCTION SEQUENCE	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**
1	**INSTALL SESC MEASURES**	■										
2	**DEMOLITION**	■	■									
3	**EXCAVATION**		■	■								
4	**BACKFILL**			■	■							
5	**SESC MEASURES INSPECTIONS AND MAINTENANCE**	■	■	■	■	■	■	■	■	■	■	■
6	**COMPLETE EARTH MOVEMENTS**				■	■	■	■	■	■	■	
7	**FINAL GRADING, SEEDING AND MULCHING**										■	■

SOIL EROSION AND SEDIMENT CONTROL AND MAINTENANCE NOTES:

1. A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT, OR SIMILAR PERMIT FROM THE JURISDICTIONAL AUTHORITY, MUST BE SECURED AND POSTED ON-SITE PRIOR TO ANY EARTH CHANGES.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL AUTHORITY.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. THE GENERAL CONTRACTOR SHALL STAGE ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) WORK AS DIRECTED IN THE DRAWINGS AND PROJECT MANUAL, AND AS OTHERWISE NECESSARY OR APPROPRIATE TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SESC DEVICES.
6. THE GENERAL CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SESC MEASURES AS SHOWN IN THE DRAWINGS AND PROJECT MANUAL BEFORE, AND AT ALL TIMES DURING, THE CONSTRUCTION OF THIS PROJECT. ANY MODIFICATIONS OR ADDITIONS TO SESC MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE COMPLIED WITH AS REQUIRED OR AS DIRECTED BY THE JURISDICTIONAL AUTHORITY.
7. IF ANY OF THE SESC MEASURES ON THE SITE ARE DEEMED INADEQUATE OR INEFFECTIVE, THE JURISDICTIONAL AUTHORITY HAS THE RIGHT TO REQUIRE ADDITIONAL SESC MEASURES AT THE EXPENSE OF THE GENERAL CONTRACTOR.
8. THE GENERAL CONTRACTOR SHALL INSPECT THE SESC DEVICES ONCE A WEEK UNDER ANY CIRCUMSTANCES, WITHIN 24 HOURS OF RAINFALL, AND DAILY DURING A PROLONGED RAIN EVENT. A LOG OF INSPECTION REPORTS SHALL BE MAINTAINED AND ACCESSIBLE IN ACCORDANCE WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS. ANY REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
9. INSTALL SILT FENCE AS INDICATED IN THE DRAWINGS AND PROJECT MANUAL, PER ATTACHED DETAILS, AND AT ADDITIONAL AFFECTED AREAS AS NECESSARY.
   A. SILT FENCE SHALL BE INSPECTED ONCE A WEEK UNDER ANY CIRCUMSTANCES, WITHIN 24 HOURS OF RAINFALL, AND DAILY DURING A PROLONGED RAIN EVENT. REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
   B. BUILD-UP OF SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATED TO 1/3 OF THE HEIGHT OF THE SILT FENCE.
   C. IF SILT FENCE DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE SILT FENCE SHALL BE REPLACED PROMPTLY.
10. INSTALL INLET FILTERS ON ALL PAVEMENT CATCH BASINS PER DETAIL.
   A. INLET FILTERS SHALL BE INSPECTED ONCE A WEEK UNDER ANY CIRCUMSTANCES, WITHIN 24 HOURS OF RAINFALL, AND DAILY DURING A PROLONGED RAIN EVENT. REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
   B. BUILD-UP OF SEDIMENT AND DEBRIS SHALL BE REMOVED PROMPTLY.
   C. IF FILTER FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE FILTER FABRIC SHALL BE REPLACED PROMPTLY.
11. INSTALL DRAIN GUARD ON ALL CATCH BASINS PER DETAIL, SEED OR SOD THE AREA BETWEEN THE SILT FENCE AND THE INLET.
   A. DRAIN GUARDS SHALL BE INSPECTED ONCE A WEEK UNDER ANY CIRCUMSTANCES, WITHIN 24 HOURS OF RAINFALL, AND DAILY DURING A PROLONGED RAIN EVENT.
   B. BUILD-UP OF SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE SILT FENCE.
   C. IF FILTER FABRIC DECOMPOSES OR BECOME INEFFECTIVE PRIOR TO THE END OF EXPECTED USABLE LIFE AND THE BARRIER IS STILL REQUIRED, THE FILTER FENCE SHALL BE REPLACED PROMPTLY.
12. ALL STOCKPILED SOILS SHALL BE MAINTAINED IN SUCH A WAY AS TO PREVENT EROSION FROM LEAVING THE SITE. SILT FENCE MUST BE INSTALLED AROUND THE PERIMETER OF THE STOCKPILE. IF THE STOCKPILE WILL BE ON SITE FOR MORE THAN 30 DAYS, THE STOCKPILE MUST BE SEEDED.
   A. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW, SPREAD UNIFORMLY AT THE RATE OF 1 TO 2 TONS PER ACRE OR 100 POUNDS (2-3 BALES) PER 1000 SQUARE FEET.
   B. THE MULCH SHOULD BE ANCHORED WITH DISC TYPE MULCH ANCHORING TOOL OR OTHER MEANS AS APPROVED BY THE JURISDICTIONAL AUTHORITY. MULCH MATTING MAY BE USED IN LIEU OF LOOSE MULCH.
13. IF ANY PUMP-DRIVEN DEWATERING IS NEEDED, IT SHALL BE DISCHARGED THROUGH A FILTER BAG OVER A WELL-VEGETATED AREA. THE PUMP MUST DISCHARGE AT A NON-EROSIVE VELOCITY. IF NECESSARY, AN APPROVED ENERGY DISSIPATER MAY BE USED. IF ANY DEWATERING IS NEEDED OR ANTICIPATED, CONTRACTOR SHALL SUBMIT A DEWATERING PLAN FOR REVIEW.
14. CONSTRUCTION ACCESS TO BE FROM THE EXISTING APPROACH, OR OTHER EXPRESSLY DESIGNATED AREA. NO ACCESS SHOULD BE MADE FROM ADJACENT PROPERTIES WITHOUT PRIOR CONSENT.
15. ALL MUD, DIRT, AND DEBRIS TRACKED ONTO ANY ROADWAY SHALL BE REMOVED IMMEDIATELY BY THE GENERAL CONTRACTOR.
16. STREETS AND/OR PARKING AREAS WILL BE SCRAPED AND SWEPT ON A DAILY BASIS BY THE GENERAL CONTRACTOR.
17. ALL DISTURBED AREAS SHALL BE MAINTAINED FOR DUST CONTROL. SPRINKLING TANK TRUCKS SHALL BE AVAILABLE AT ALL TIMES AND USED ON HAUL ROADS, ON-SITE DISTURBED AREAS, AND OTHER AREAS WHERE DUST BECOMES A PROBLEM AS A RESULT OF CONSTRUCTION ACTIVITY.
18. PERMANENT SESC MEASURES FOR ANY DISTURBED LAND AREA SHALL BE COMPLETED BY THE GENERAL CONTRACTOR WITHIN FIVE (5) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER EARTH CHANGE ACTIVITY CEASES, TEMPORARY SESC MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SESC MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SESC MEASURES ARE IMPLEMENTED.
19. THE GENERAL CONTRACTOR SHALL FINAL GRADE, ESTABLISH VEGETATION, AND/OR LANDSCAPE ALL DISTURBED AREAS NOT BUILT OR PAVED UPON.
20. THE GENERAL CONTRACTOR SHALL REMOVE ALL TEMPORARY SESC DEVICES AFTER PERMANENT STABILIZATION IS ESTABLISHED.
21. 3-4" OF TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.
22. SLOPES STEEPER THAN 1V:6H (16%) SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.
23. EXISTING DRAINAGE OUTLET FOR SITE: OVERLAND FLOW TO EXISTING MEIJER ENCLOSED STORM SYSTEM.
24. PROPOSED DRAINAGE OUTLET FOR SITE: CAPTURE, TREAT, DETAIN, AND OUTLET AT A CONTROLLED RATE TO TYLER ROAD ROW STORM WATER MANAGEMENT SYSTEM.
25. TOTAL AREA OF DISTURBANCE: 32,556 S.F. = 0.75± AC
26. SOIL TYPE: SpB, SPINKS LOAMY SAND, 0-6% SLOPES
27. NAME OF AND DISTANCE TO NEAREST LAKE, STREAM, OR DRAIN: ROBINSON DRAIN, 650 FT.

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NO.	DATE	DESCRIPTION
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1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

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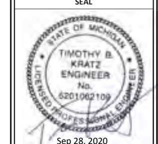

Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD VAN BUREN CHARTER TOWNSHIP, MI 48111

(WAYNE COUNTY)

SHEET TITLE

SOIL EROSION AND SEDIMENT CONTROL PLAN

SHEET MANAGEMENT

PROJECT NO.:	072_ BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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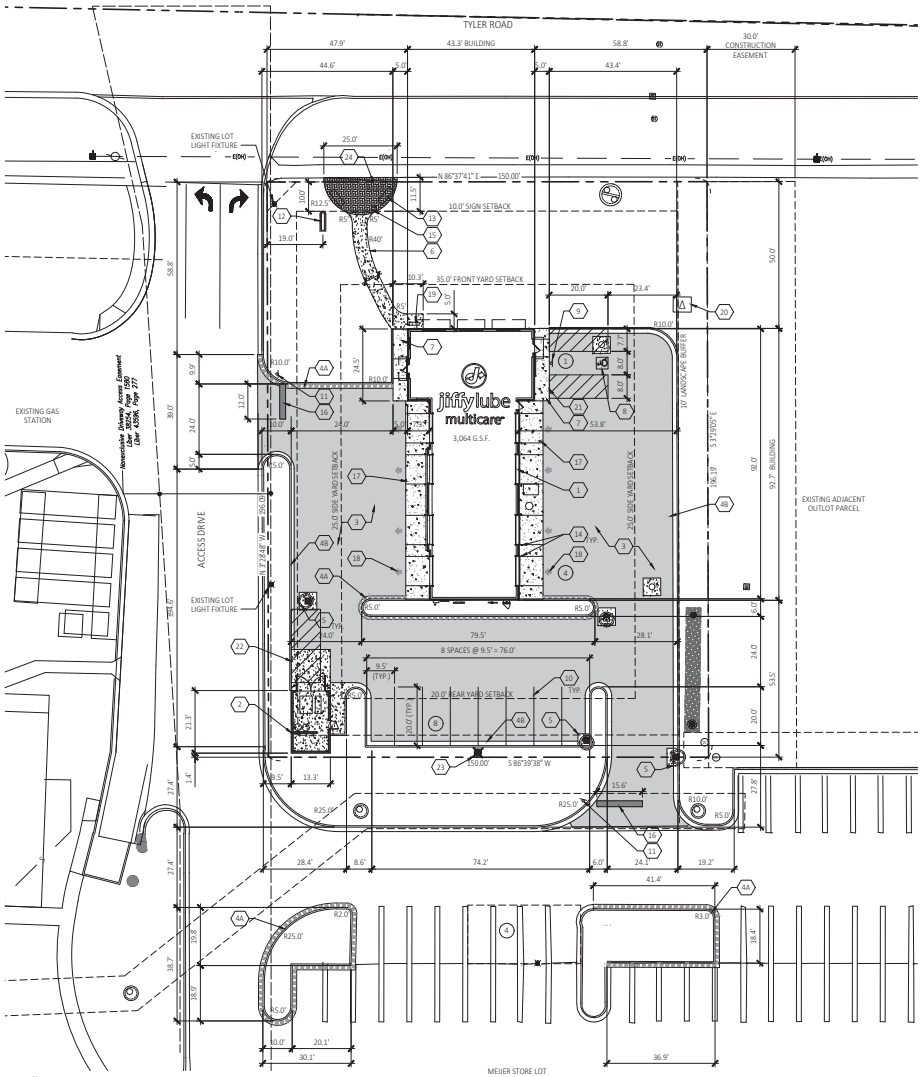

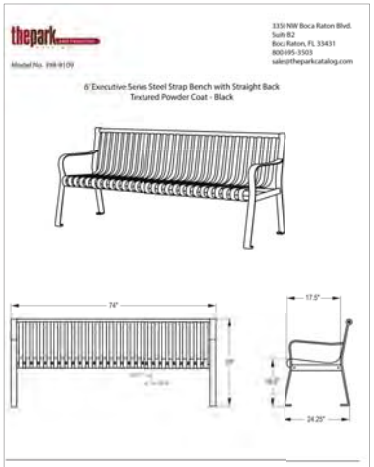

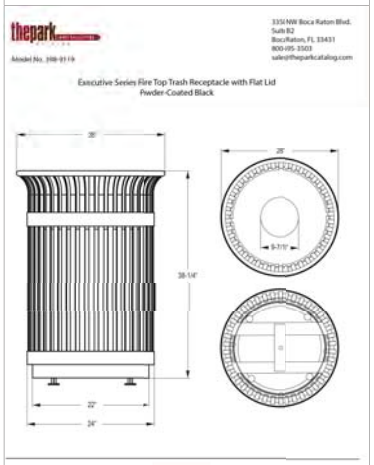

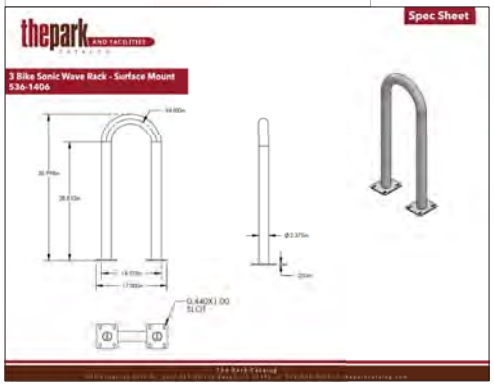

X PROPOSED SITE IMPROVEMENTS

1 JIFFY LUBE BUILDING. SEE ARCHITECTURAL DRAWINGS.
2 TRASH ENCLOSURE, CONCRETE PAD AND PIPE BOLLARDS. SEE ARCHITECTURAL DRAWINGS.
3 HEAVY DUTY BITUMINOUS PAVEMENT. SEE DETAIL 2/CS.00.
4A CONCRETE CURB AND GUTTER TYPE 'A'. SEE DETAIL 3/CS.00.
4B CONCRETE CURB AND GUTTER TYPE 'B'. SEE DETAIL 3/CS.00.
5 CONCRETE COLLAR. SEE DETAIL 3/CS.01.
6 5.0' WIDE CONCRETE SIDEWALK. SEE DETAIL 2/CS.00.
7 CONCRETE BUILDING SIDEWALK. (WIDTH VARIES SEE PLAN).
8 VAN ACCESSIBLE PARKING SPACE WITH PAINTED PARKING SPACE SYMBOL. SEE DETAIL 4/CS.01.
9 BOLLARD MOUNTED VAN ACCESSIBLE PARKING SIGN MOUNTED AT 5.0' A.F.G. SEE DETAIL 4/CS.00.
10 4" PAINTED PARKING STRIPE. COLOR: YELLOW.
11 STOP SIGN. SEE DETAIL 4/CS.00
12 MONUMENT SIGN.
13 BENCH.
14 PIPE BOLLARD. SEE ARCHITECTURAL DRAWINGS.
15 TRASH RECEPTACLE.
16 PAINTED STOP BAR. SEE DETAIL 1/CS.00.
17 INTEGRAL COLOR CONCRETE APRON. SEE ARCHITECTURAL DRAWINGS.
18 DIRECTIONAL ARROW. SEE DETAIL 1/CS.00.
19 BIKE RACK.
20 TRANSFORMER PAD. SEE UTILITY PLAN ON SHEET 1.40.
21 PAVING ALONG THE FRONT OF THE HC PARKING SPACE TO UP SLOPE EVENLY TO BE FLUSH WITH ADJACENT WALK AT LESS THAN 2% SLOPE IN ANY DIRECTION
22 10' X 25' LOADING ZONE.
23 POLE MOUNTED LIGHT.
24 250 sf OF 4"X8" DECORATIVE CONCRETE PAVERS IN HERRINGBONE PATTERN. COLOR TO BE COMPLEMENTARY TO THE BUILDING FINISHES AND APPROVED BY OWNERS REPRESENTATIVE.

NOTE:
PROPOSED PARKING AND BUILDING ARE PARALLEL AND PERPENDICULAR TO THE NORTHERN PROPERTY LINE, N86°37'41".

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NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL
STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
REGISTERED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER
jiffy lube

PROJECT DESCRIPTION
JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION
9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE
DIMENSION CONTROL SITE PLAN

SHEET MANAGEMENT
PROJECT NO.: 072_BELLVILLE
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CRITERIA: -
PROJECT MANAGER: M. PISKO

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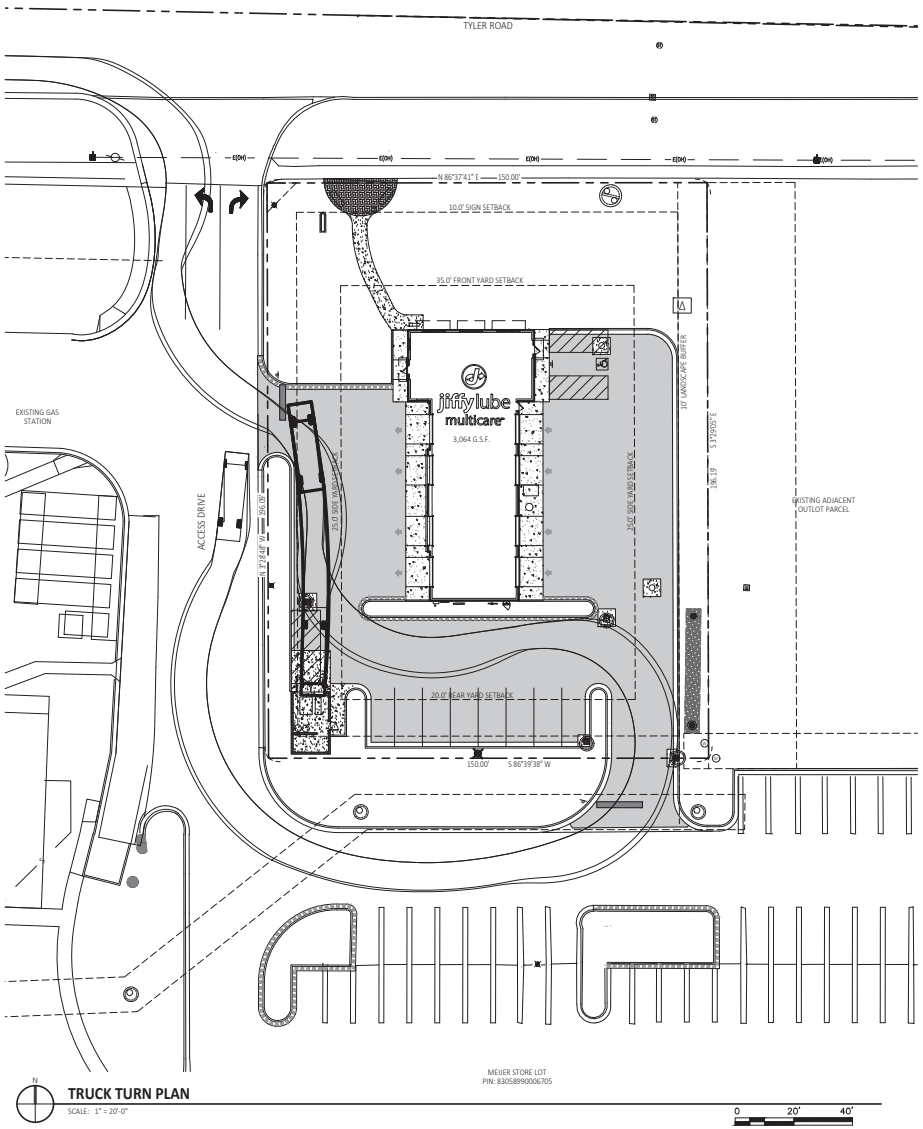

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TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

TRUCK TURN PLAN

SHEET MANAGEMENT

PROJECT NO.:	072_BELLVILLE
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PROJECT MANAGER:	M. PISAO

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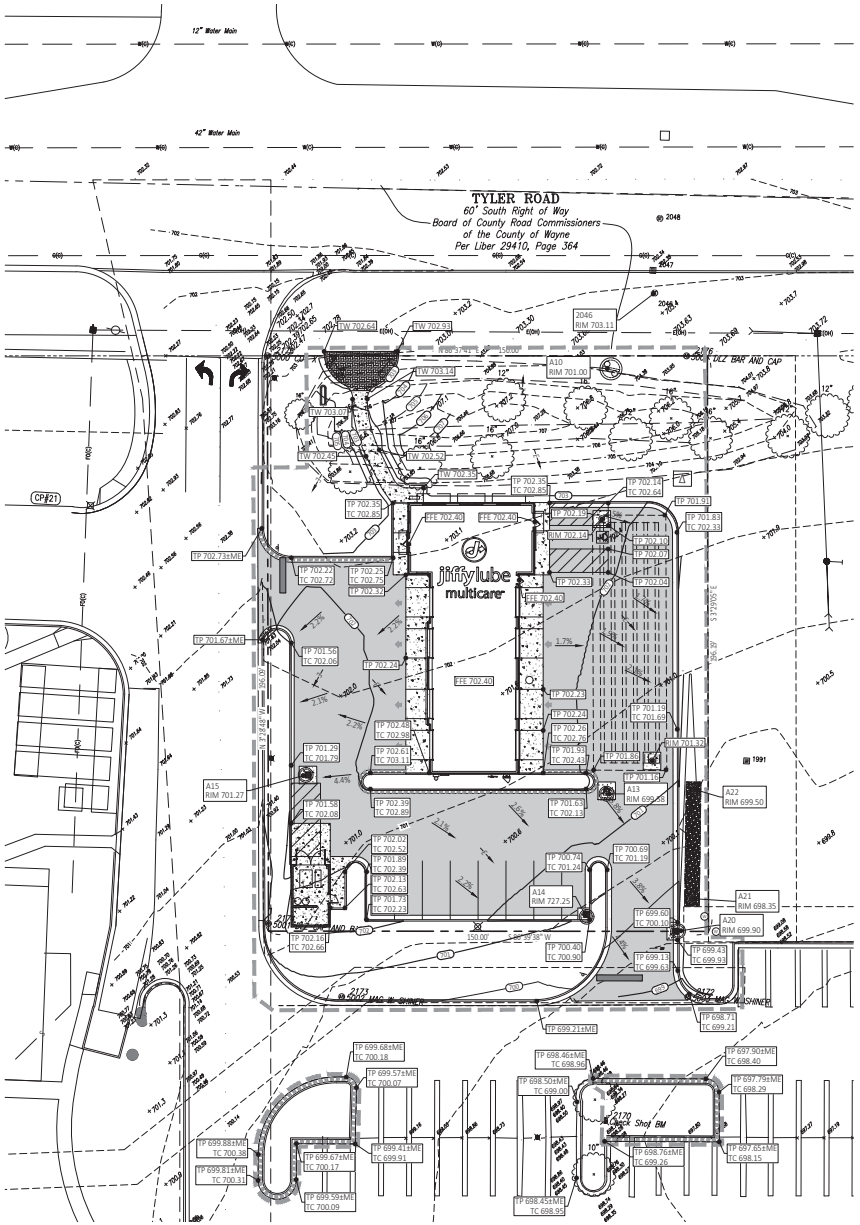
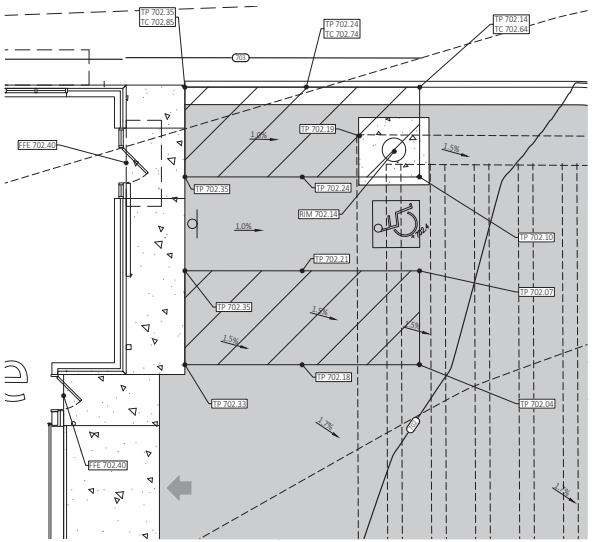


GRADING PLAN

SCALE: 1" = 20'-0"

0 20' 40'



ENLARGED GRADING PLAN

SCALE: 1" = 5'-0"

0 20' 40'

BENCHMARKS:

AS PER SURVEY NOTES:

THE SITE BENCHMARK IS A CUT SQUARE ON BACK OF CURB LOCATED NEAR THE SOUTH LINE OF THE SURVEYED PARCEL AS SHOWN HERON. SITE BENCHMARK ELEVATION: 698.79' (NAVD88)

PAVING LEGEND:

- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT TANK MAT
- CONCRETE PAVEMENT DISPENSER MAT

GRADING NOTES:

1. VERIFY REQUIRED SPOT ELEVATIONS/GRADING IN THE VICINITY OF THE BUILDING WITH THE ARCHITECTURAL PLANS.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE DRAWINGS AND PROJECT MANUAL, AND WITH LOCAL JURISDICTIONAL AUTHORITY STANDARDS AND SPECIFICATIONS.
3. ALL PROPOSED SPOT ELEVATIONS IN PAVED AREAS ARE TO TOP OF PAVEMENT UNLESS NOTED OTHERWISE.
4. THE PROJECT SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES, ENSURING NO AREAS OF STANDING WATER.
5. THE GENERAL CONTRACTOR SHALL, AT HIS OR HER EXPENSE, RESTORE ANY AND ALL STRUCTURES, PIPE, UTILITY, PAVEMENT, CURB, SIDEWALK, LANDSCAPED AREA, ETC. DISTURBED WITHIN THE SITE AND/OR ADJOINING PROPERTIES DURING DEMOLITION OR CONSTRUCTION. SUCH FACILITIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE AFFECTED OWNER(S).
6. UNDERDRAINS MAY BE ADDED, IF DETERMINED NECESSARY BY THE GENERAL CONTRACTOR AND AUTHORIZED BY THE OWNER'S REPRESENTATIVE, AFTER SUBGRADE IS ROUGH GRADED.
7. UNLESS OTHERWISE EXPRESSLY INDICATED HEREON, FINISHED GRADES ARE TO MATCH ADJACENT EXISTING GRADES.
8. THE GENERAL CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. SEE SESC PLAN ON SHEET C1.11 FOR LIMIT OF DISTURBANCE. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING PLACED AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL SHALL OCCUR WITHIN THE DRIP LINE LIMITS, UNLESS HERON EXPRESSLY INDICATED OTHERWISE.
9. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED AND THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS AND MATERIALS OF CONSTRUCTION TO COMPLETE THE CONSTRUCTION PER THE DRAWINGS AND PROJECT MANUAL. ADDITIONALLY, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, AS WELL AS THE IMPORTATION OF ANY BORROW MATERIAL NECESSARY TO COMPLETE THE PROJECT.
10. PER TOWNSHIP STANDARDS, ALL STORMWATER RUNOFF SHALL BE CONTAINED AND COLLECTED ON-SITE TO BE CONVEYED UNDERGROUND TO THE EXISTING STORMWATER MANAGEMENT SYSTEM.

SITE SPECIFIC GRADING GENERAL NOTES:

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY EXISTING SITE IMPROVEMENTS THAT MAY BE DISTURBED DURING CONSTRUCTION. THIS SHALL INCLUDE, AND IS NOT NECESSARILY LIMITED TO:

(A) EXISTING CURB THAT MAY BE DISTURBED
(B) EXISTING ASPHALT THAT MAY BE DISTURBED
(C) EXISTING LANDSCAPING,
(D) EXISTING LIGHT STANDARD(S) AND WIRING.

GRADING LEGEND:

TG	GUTTER GRADE
TC	TOP OF CURB
BW	FINISHED GRADE AT WALL
FG	FINISHED GRADE
FL	DITCH FLOW LINE
TP	TOP OF PAVEMENT
RIM	UNDERGROUND STRUCTURE RIM
TW	TOP OF WALK
FFE	FINISHED FLOOR ELEVATION
ME	MATCH EXISTING
2.0%	PROPOSED SLOPE

→ DIRECTION OF PROPOSED OVERLAND FLOW
→ DIRECTION OF EXISTING OVERLAND FLOW

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CONSULTANT

SEAL

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TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

GRADING PLAN

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
DATE: -
CRITERIA: -
PROJECT MANAGER: M. PISKO

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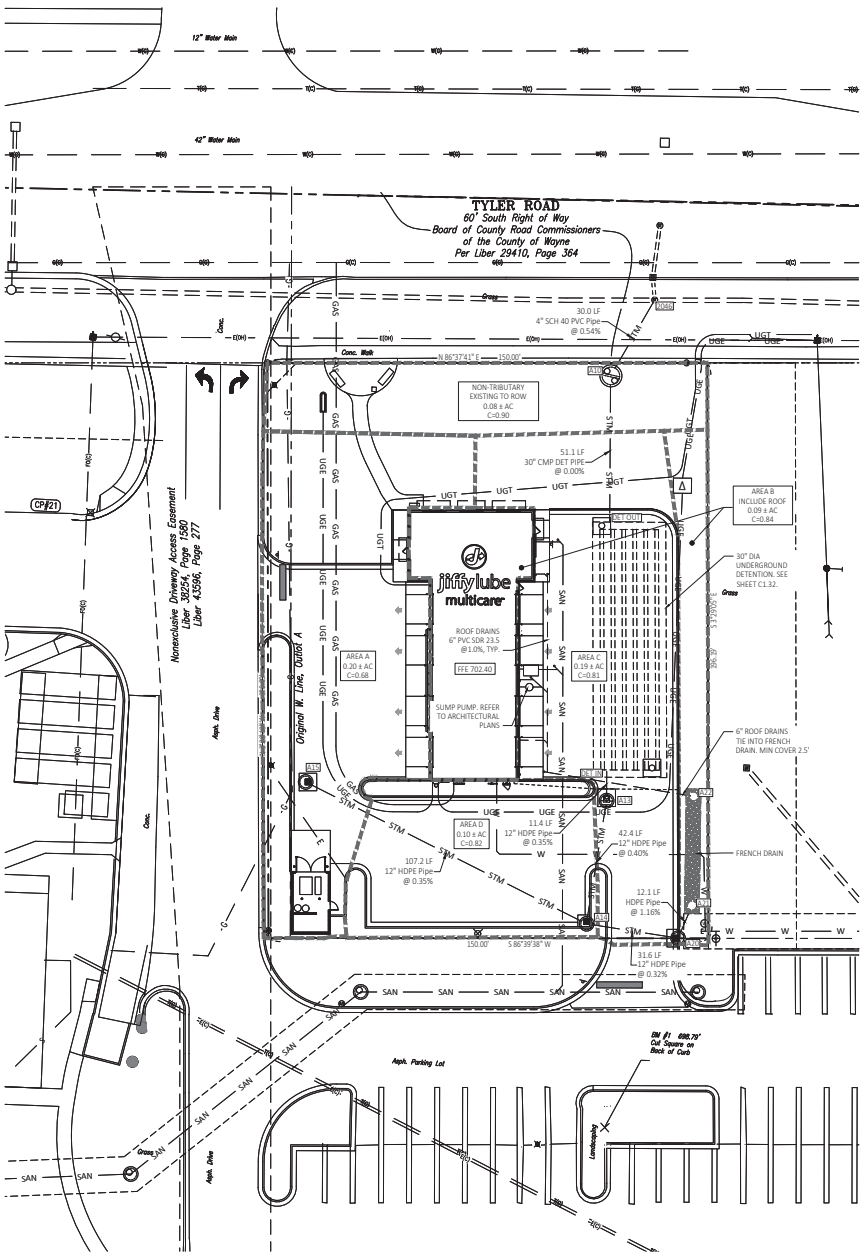

STORM WATER MANAGEMENT PLAN

SCALE: 1" = 20'-0"

0 20' 40'

FILENAME: I:\Shared\Clients\Jiffy Lube\Projects\WI072_Belleville Road\02_Civil\Construct\C1.31.dwg LAST SAVED BY: Sinnette, John SAVED DATE: 9/21/2020 8:35 AM PLOTTED: 9/28/2020 7:47 AM

1991 Catch Basin
Rim = 699.68
Inv. 18" Plastic SE = 695.5

2023 Catch Basin
Rim = 695.63
Inv. 18" Plastic NW = 692.0
Inv. 12" Plastic SW = 691.9
Inv. 8" Plastic NE = 692.4
Inv. 18" Plastic NE = 691.9

2046 Storm Manhole
Rim = 703.11
Inv. 18" RCP W = 694.8
Inv. 18" RCP E = 694.7
Inv. 12" HDP N = 696.2

2047 Catch Basin
Rim = 702.28
Inv. 12" RCP N = 696.2
Inv. 12" HDP S = 696.3

2048 Storm Manhole
Rim = 702.54
Unable to access
Manhole rusted shut

EXISTING STRUCTURES

STRUCTURE TABLE				
NAME:	DETAILS:	DESCRIPTION:	N	E
2046	RIM = 703.11 4" SW INV IN = 695.50 18" W INV OUT = 694.80 18" E INV OUT = 694.70 18" N INV OUT = 696.20	EXIST CONC MH	268684.8	13362326.3
A10	RIM = 701.00 30" S INV IN = 695.66 4" NE INV OUT = 695.66	OUTLET CONTROL STRUCTURE	268658.1	13362312.7
A13	RIM = 699.58 12" S INV IN = 695.70 12" N INV OUT = 695.70	STM TREATMENT STRUCTURE	268513.4	13362320.0
A14	RIM = 727.25 12" NW INV IN = 695.85 12" E INV IN = 695.85 12" N INV OUT = 695.87	48" DIA CONC CB	268471.2	13362315.7
A15	RIM = 701.27 12" SE INV OUT = 696.22	48" DIA CONC CB	268513.8	13362217.3
A20	RIM = 699.90 12" N INV IN = 696.02 12" W INV OUT = 695.95	48" DIA CONC CB	268468.1	13362347.1
A21	RIM = 698.35 12" S INV OUT = 696.16	24" DIA CONC YARD CB	268479.5	13362351.2
A22	RIM = 699.50 6" W INV IN = 697.00	24" DIA CONC YARD CB	268516.7	13362349.6
DET IN	RIM = 701.77 12" S INV IN = 695.66 30" N INV OUT = 695.66	12" DET INLET	268524.8	13362319.5
DET OUT	RIM = 702.10 30" S INV IN = 695.66 30" N INV OUT = 695.66	30" DET OUTLET	268607.1	13362315.5

STRUCTURE TABLE

STORM STRUCTURE NOTES:

1. ALL STORM STRUCTURES TO BE INSTALLED IN ACCORDANCE WITH VBC TOWNSHIP STANDARDS AND DETAILS UNLESS NOTED OTHERWISE.
2. PROVIDE INLET FILTERS FOR ALL INLETS. FILTER SHALL BE REGULARLY MAINTAINED AND REMAIN IN PLACE UNTIL FINAL GRADES HAVE BEEN ESTABLISHED. REFER TO SHEET C1.11.
3. ALL STRUCTURE FRAME AND GRATES TO BE STANDARD UNLESS NOTED OTHERWISE.
4. NORTHING AND EASTING PER COORDINATE SYSTEM PROVIDED IN THE SURVEY AUTOCAD FILE PROVIDED BY DLZ INDUSTRIAL SURVEYING, INC.
5. ALL CATCH BASINS AND INLETS SHALL HAVE UNDERDRAINS INSTALLED, WRAPPED IN GEOTEXTILE AND PLACED IN THE SEWER TRENCH, NOT MORE THAN 3 FEET BELOW THE TOP OF THE CASTING.

UTILITY EASEMENT NOTE:

REFER TO THE BOUNDARY/TOPOGRAPHIC SURVEY PREPARED BY DLZ INDUSTRIAL SURVEYING FOR INFORMATION REGARDING EXISTING EASEMENTS.

PROPOSED:

STORM SEWER	STM
ROOF DRAIN	
SANITARY SEWER	SAN
WATER MAIN/SERVICE	W
GAS MAIN/SERVICE	GAS
ELECTRIC SERVICE	UGE
TELEPHONE SERVICE	UGT
OVERHEAD UTILITIES	OH
PROPOSED UTILITIES BY OTHERS	STM

STORM MANHOLE
CATCH BASIN
YARD BASIN
FLARED END SECTION
SANITARY MANHOLE
CO SANITARY CLEANOUT
TRANSFORMER
LIGHT POLE
WATER VALVE
FIRE HYDRANT
FUEL VENT
AIR TOWER

EXISTING:

BM #1 - Benchmark
- Curb Inlet/ Storm Inlet
- Cable Riser
- Electric Transformer
- Fire Hydrant
- Light Pole
- Sanitary Sewer Manhole
- Storm Manhole
- Water Manhole
- Utility Pole
- Coniferous Tree
- Deciduous Tree
X - Chain link Fence
E(OH) - Overhead Utility Line
G(C) - Underground Gas Line (From Map)
- Underground Sanitary Sewer/ Storm Line
T(C) - Underground AT&T Telephone Line (From Map)
W - Underground Water Line
W(C) - Underground Water Line (From Map)
E(C) - Underground Electric Line (From Map)

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REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW

CONSULTANT

SEAL

TIMOTHY B. KRATZ ENGINEER No. 6201062109 LICENSED PROFESSIONAL ENGINEER STATE OF MICHIGAN
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

STORM WATER MANAGEMENT PLAN

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
DATE: -
CRITERIA: -
PROJECT MANAGER: M. PISKO

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SHEET NUMBER

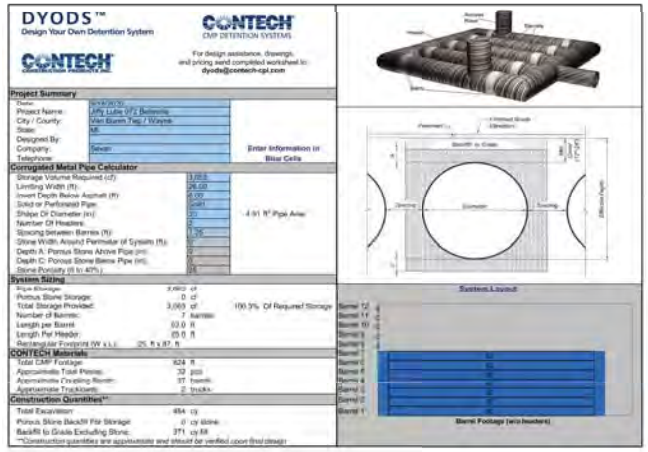
C1.31

CATCHMENT AREA RUNOFF COEFFICIENTS

PIPE CAPACITY CALCULATIONS - 10 YEAR STORM

STORMWATER DETENTION CALCULATIONS

UNDERGROUND DETENTION CALCULATIONS



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SEAL

STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

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PROJECT LOCATION

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TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

STORM WATER MANAGEMENT PLAN

SHEET MANAGEMENT

PROJECT NO.:	072_BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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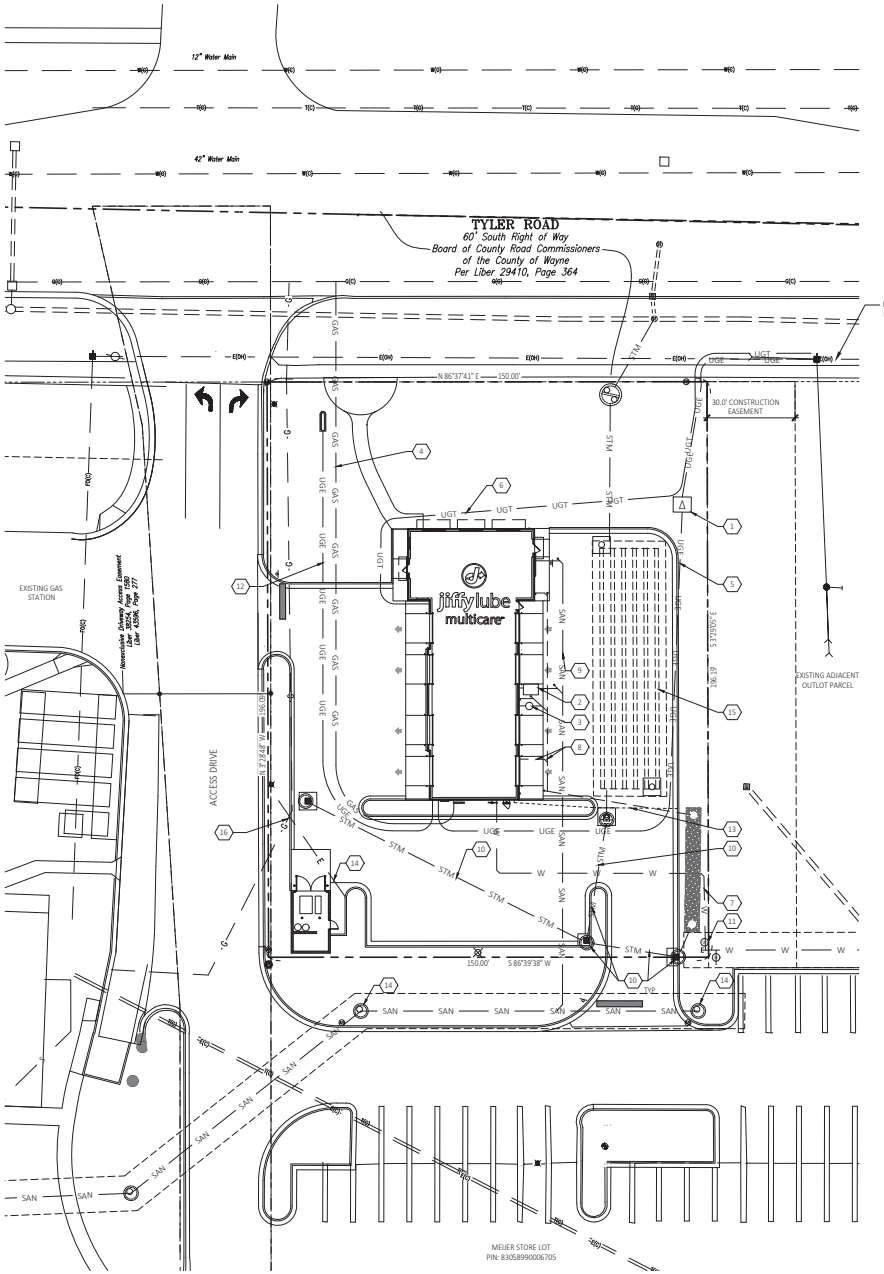
FILENAME: \\SharedClients\Jiffy Lube\Projects\WI072_Belleville Road\02_Civil\Construction\C1.32.dwg LAST SAVED BY: Sinnette, John SAVED DATE: 9/22/2020 10:34 AM PLOTTED: 9/28/2020 7:48 AM



UTILITY PLAN

SCALE: 1" = 20'-0"

0 20' 40'

(X) PROPOSED SITE IMPROVEMENTS

1. UTILITY COMPANY TO PROVIDE TRANSFORMER PAD TEMPLATE TO CONTRACTOR FOR CONDUIT STUB-UP LOCATIONS. GENERAL CONTRACTOR TO PROVIDE AND INSTALL PRE-CAST TRANSFORMER PAD. COORDINATE SERVICE WITH UTILITY COMPANY.
2. OIL/WATER SEPARATOR. SEE ARCHITECTURAL PLANS.
3. SUMP PIT. SEE ARCHITECTURAL PLANS.
4. INCOMING 1 1/4" GAS SERVICE. COORDINATE SERVICE WITH UTILITY COMPANY.
5. PROVIDE AND INSTALL 4" SCHEDULE 40 PVC CONDUITS, (WITH TWO (2) PULL STRINGS) FOR ELECTRIC SUPPLY FROM THE TRANSFORMER TO THE JIFFY LUBE MULTICARE. FIELD VERIFY AND COORDINATE EXACT CONDUIT ROUTING WITH THE JIFFY LUBE CONSTRUCTION REPRESENTATIVE PRIOR TO PROCEEDING. REFER TO ARCHITECTURAL PLANS FOR STUB-UP LOCATION AND ELECTRICAL LOAD REQUIREMENTS.
6. PROVIDE AND INSTALL (2) 2" SCHEDULE 40 PVC CONDUITS FOR COMMUNICATION. FIELD VERIFY AND COORDINATE THE EXACT CONDUIT ROUTING WITH THE JIFFY LUBE CONSTRUCTION REPRESENTATIVE BEFORE PROCEEDING.
7. PROVIDE AND INSTALL 2" COPPER TYPE K WATER SERVICE LINE (MIN. DEPTH 5.0'); PROVIDE 18" CLEARANCE AT ALL UTILITY CROSSINGS. MAKE CONNECTION AT EXISTING SERVICE LEAD PER REQUIRED STANDARDS.
8. ROOF CONDUCTORS. SEE SHEET C1.31 FOR PIPE DIAMETER AND SLOPE.
9. PROVIDE AND INSTALL 6" PVC SDR-35 SANITARY SERVICE AT 1% SLOPE WITH CLEANOUTS 5.0' OUTSIDE OF FOUNDATION AND AT EVERY HORIZONTAL AND VERTICAL BEND PER DETAIL C5.00. TIE INTO EXISTING SANITARY LINE. MAKE CONNECTION TO EXISTING SANITARY LEAD PER REQUIRED STANDARDS.
10. STORMWATER MANAGEMENT SYSTEM. REFER TO C1.31.
11. CURB STOP BOX. INSTALL PER REQUIRED STANDARDS.
12. PROVIDE AND INSTALL (2) 1" PVC SCH 40 CONDUITS TO SITE ID SIGN. SEE ELECTRICAL PLANS.
13. PROVIDE AND INSTALL (1) 1" PVC SCH 40 CONDUITS FOR DRIVE SIGNAL CHIME BELT. DAYLIGHT THOUGH CURB AT GRADE. VERIFY LOCATION WITH OWNER'S CONSTRUCTION REPRESENTATIVE.
14. LOCATE AND MAINTAIN EXISTING ELECTRIC LINE TO PARKING LIGHT.
15. UNDERGROUND DETENTION. REFER TO C1.31 AND C1.32.
16. APPROXIMATE LOCATION OF EXISTING GAS SERVICE. VERIFY IN FIELD.

UTILITY EASEMENT NOTE:

REFER TO THE BOUNDARY/TOPOGRAPHIC SURVEY PREPARED BY DLZ INDUSTRIAL SURVEYING FOR INFORMATION REGARDING EXISTING EASEMENTS.

LEGEND

PROPOSED:

STORM SEWER	STM
ROOF DRAIN	
SANITARY SEWER	SAN
WATER MAIN/SERVICE	W
GAS MAIN/SERVICE	GAS
ELECTRIC SERVICE	UGE
TELEPHONE SERVICE	UGT
OVERHEAD UTILITIES	OH
PROPOSED UTILITIES BY OTHERS	STM

- STORM MANHOLE
- CATCH BASIN
- YARD BASIN
- FLARED END SECTION
- SANITARY MANHOLE
- SANITARY CLEANOUT
- TRANSFORMER
- LIGHT POLE
- WATER VALVE
- FIRE HYDRANT
- FUEL VENT
- AIR TOWER

EXISTING:

- BM #1 - Benchmark
- Curb Inlet/ Storm Inlet
- Cable Riser
- Electric Transformer
- Fire Hydrant
- Light Pole
- Sanitary Sewer Manhole
- Storm Manhole
- Water Manhole
- Utility Pole
- Coniferous Tree
- Deciduous Tree
- X — Chain link Fence
- E(OH) — Overhead Utility Line
- G(C) — Underground Gas Line (From Map)
- Underground Sanitary Sewer/ Storm Line
- T(C) — Underground AT&T Telephone Line (From Map)
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CONSULTANT

SEAL

TIMOTHY B. KRATZ ENGINEER No. 6201042109 LICENSED PROFESSIONAL ENGINEER STATE OF MICHIGAN

Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

UTILITY PLAN

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
DATE: -
CRITERIA: -
PROJECT MANAGER: M. PISKO

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C1.40

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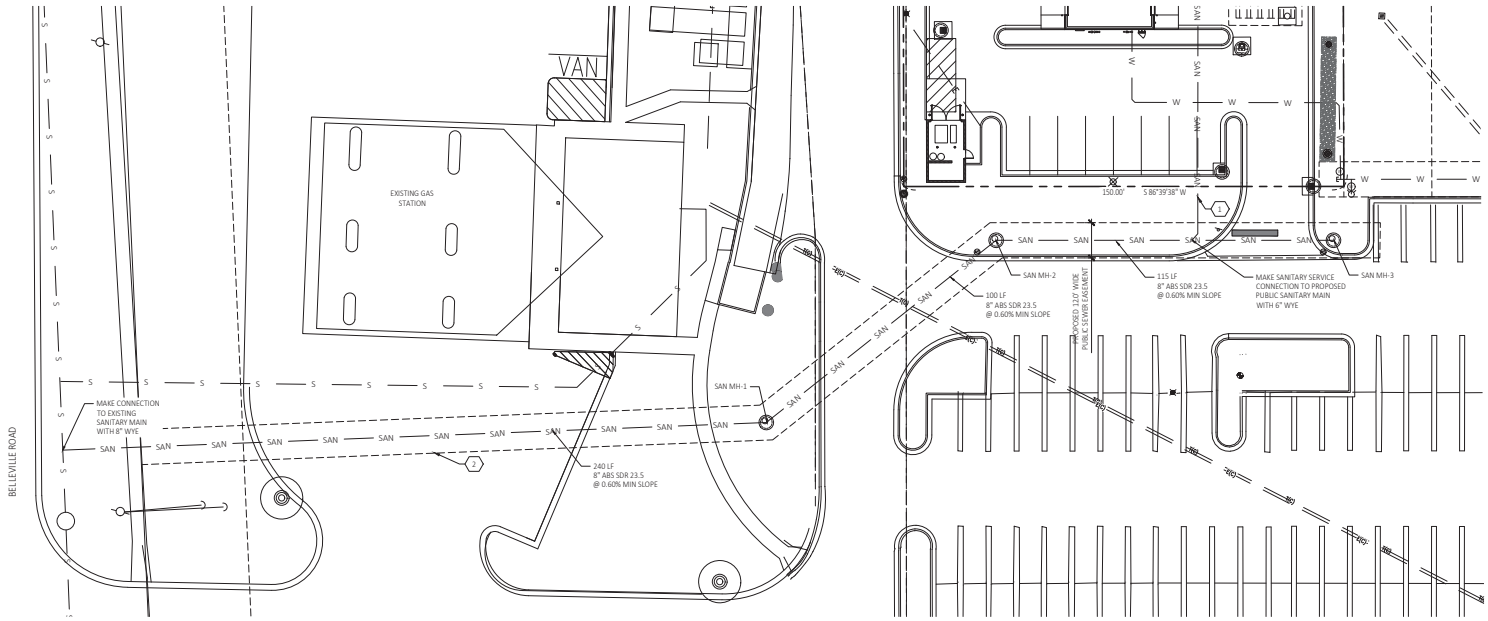
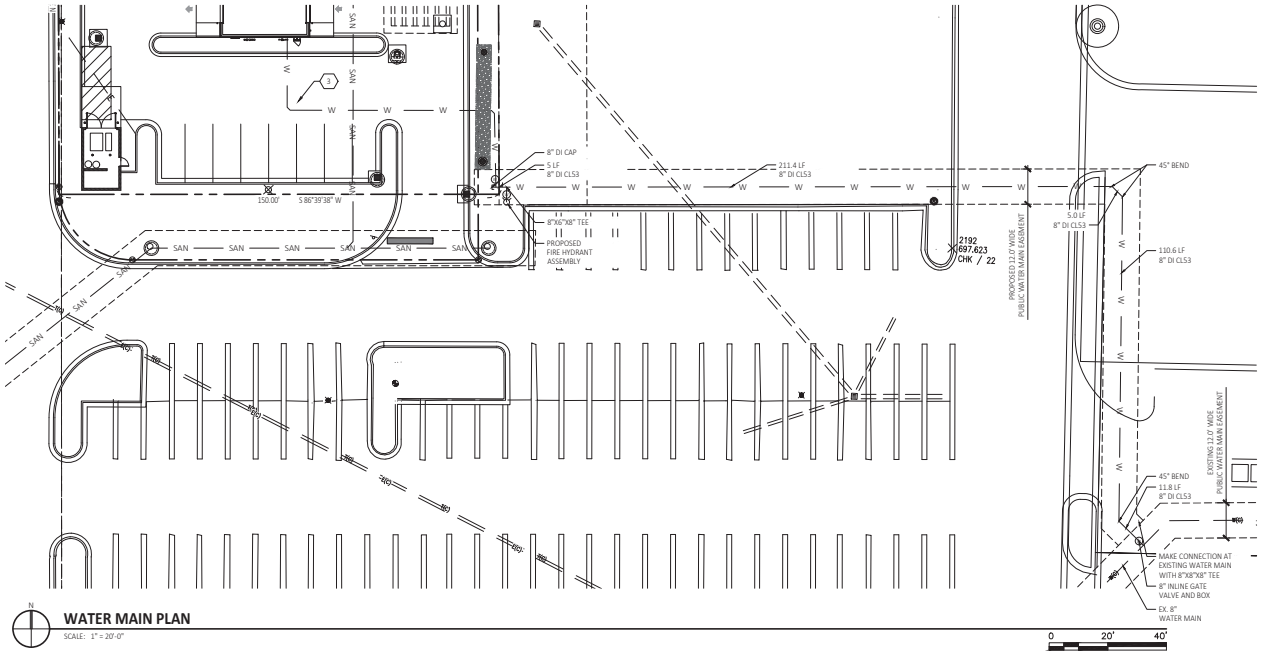


SANITARY SEWER PLAN

SCALE: 1" = 20'-0"

0 20' 40'



WATER MAIN PLAN

SCALE: 1" = 20'-0"

0 20' 40'

KEYNOTES

1 PROVIDE AND INSTALL 6" PVC SDR-35 SANITARY SERVICE AT 1% SLOPE WITH CLEANOUTS 5.0' OUTSIDE OF FOUNDATION AND AT EVERY HORIZONTAL AND VERTICAL BEND PER DETAIL C5.00. TIE INTO EXISTING SANITARY LINE. MAKE CONNECTION TO EXISTING SANITARY LEAD PER REQUIRED STANDARDS.

2 IN AREAS SANITARY SEWER AND WATER MAIN WORK, DEMOLITION OF LANDSCAPE AND PAVED AREAS WILL BE REQUIRED FOR NEW WORK. VERIFY ALL EXISTING CONDITIONS, MINIMIZE EFFECTED AREAS AND REPLACE AND RESTORE TO ORIGINAL CONDITIONS. THIS INCLUDES BUT IS NOT LIMITED TO PLANT MATERIAL, ASPHALT AND CONCRETE PAVING, CURBS OF ANY TYPE AND OTHER AMENITIES THAT MAY BE DISTURBED.

3 PROVIDE AND INSTALL 2" COPPER TYPE K WATER SERVICE LINE (MIN. DEPTH 5.0').

LEGEND

PROPOSED:

STORM SEWER	STM
ROOF DRAIN	
SANITARY SEWER	SAN
WATER MAIN/SERVICE	W
GAS MAIN/SERVICE	GAS
ELECTRIC SERVICE	UGE
TELEPHONE SERVICE	UGT
OVERHEAD UTILITIES	OH
PROPOSED UTILITIES BY OTHERS	STM

STORM MANHOLE, CATCH BASIN, YARD BASIN, FLARED END SECTION, SANITARY MANHOLE, SANITARY CLEANOUT (CO)

TRANSFORMER, LIGHT POLE, WATER VALVE, FIRE HYDRANT, FUEL VENT, AIR TOWER

EXISTING:

BM #1 - Benchmark
- Curb Inlet/ Storm Inlet
- Cable Riser
- Electric Transformer
- Fire Hydrant
- Light Pole
- Sanitary Sewer Manhole
- Storm Manhole
- Water Manhole
- Utility Pole
- Coniferous Tree
- Deciduous Tree
- X — Chain link Fence
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STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

SANITARY AND WATER SERVICE CONNECTION PLANS

SHEET MANAGEMENT

PROJECT NO.: 072_ BELLVILLE
DATE: -
CRITERIA: -
PROJECT MANAGER: M. PISKO

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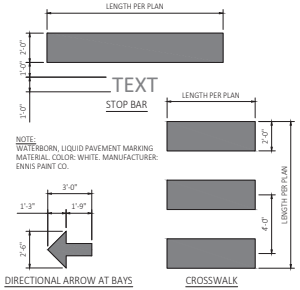
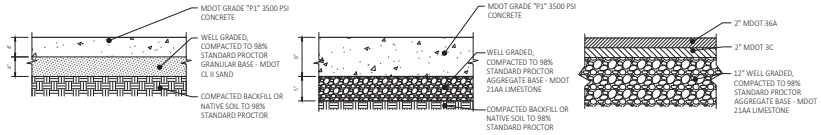


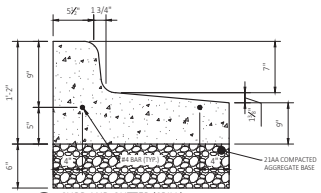
1 PAVEMENT MARKINGS
C5.00 — SCALE: 1/4" = 1'-0"

GEOTECHNICAL CONSTRUCTION NOTE
PAVING SECTIONS PER GEOTECHNICAL SOIL REPORT RECOMMENDATIONS; REFER TO GEOTECHNICAL SOIL REPORT FOR SUBGRADE PREPARATION RECOMMENDATIONS FOR FOOTINGS, TRENCHES, APRONS, AND SURFACE TREATMENTS.

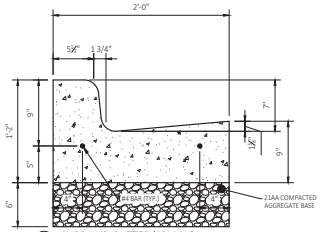


A CONCRETE SIDEWALK — B CONCRETE DUMPSTER PAD — C HEAVY DUTY BITUMINOUS PAVEMENT

2 PAVING DETAILS
C5.00 — SCALE: 1" = 1'-0"

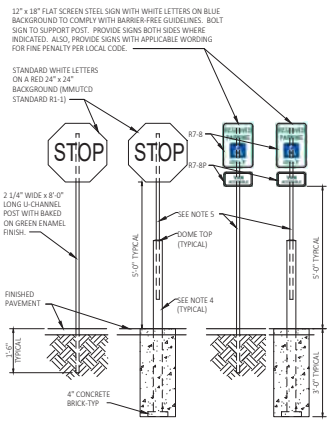


A CURB AND GUTTER (SPILL)



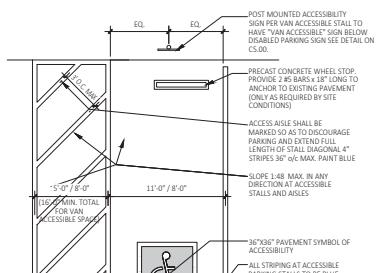
B CURB AND GUTTER (SPLASH)

3 CURB AND GUTTER DETAIL
C5.00 — SCALE: 1 1/2 " = 1'-0"



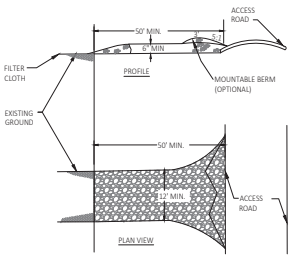
NOTES:
1. INSTALL ALL SIGNS WHERE INDICATED ON SITE PLAN.
2. ADJUST MOUNTING HEIGHTS TO MEET LOCAL CODES WHERE APPLICABLE.
3. SET ALL POSTS IN 16" DIAMETER x 36" DEEP CONCRETE FOUNDATION.
4. INSTALL ALL SIGN PANELS A MINIMUM OF 1.0' BEHIND FACE OF CURB, AND BARRIER-FREE SIGNS A MINIMUM OF 2.0' BEHIND BACK OF CURB.
5. 4" x 6'-0" CONCRETE FILLED STEEL POST CENTERED IN FOUNDATION, PAINTED YELLOW, SEE SPECS.
6. 2 1/4" WIDE x 6'-0" LONG U-CHANNEL POST WITH BAKED ON GREEN ENAMEL FINISH.
7. TYPE 1 - LIGHT DUTY -- LANDSCAPED AREAS and AREAS NOT SUBJECT TO TRUCK TRAFFIC.
   TYPE 2 - HEAVY DUTY -- PAVED AREAS and AREAS SUBJECT TO TRUCK TRAFFIC or NOT PROTECTED IN LANDSCAPED AREAS.

4 TYPICAL SIGN DETAILS
C5.00 — SCALE: NONE



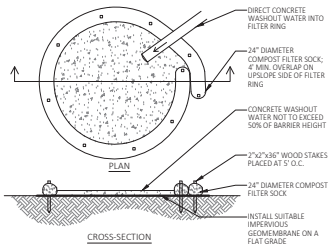
NOTES:
1. BUMPERS ARE REQUIRED WHEN NO CURB OR BARRIER IS PROVIDED WHICH WILL PREVENT ENCROACHMENT OF CARS OVER REQUIRED WIDTH OF WALKWAYS.
2. SPACES SHALL BE LOCATED SO THAT A PERSON/PEOPLE ARE NOT COMPELLED TO WHEEL OR WALK BEHIND PARKED CARS OTHER THAN THEIR OWN.
3. RAMPS SHALL NOT ENCROACH INTO ANY PARKING SPACE OR ACCESS AISLE.
4. ACCESSIBLE SPACE SHALL BE NEAR PRIMARY ACCESSIBLE ENTRANCE OF BUILDING.
5. PEDESTRIAN WAYS WHICH ARE ACCESSIBLE TO PEOPLE WITH DISABILITIES SHALL BE PROVIDED FROM EACH ACCESSIBLE PARKING SPACE TO RELATED FACILITIES, INCLUDING CURB CUTS OR RAMPS AS NEEDED.
6. REFER TO ACCESSIBLE PARKING SIGNS FOR REQUIRED SIGNAGE.
7. THE SURFACE OF EACH PARKING SPACE FOR THE DISABLED IS REQUIRED TO HAVE SYMBOL OF ACCESSIBILITY STENCIL PAINTED BLUE
8. PARKING SPACES SHALL BE MARKED WITH LINES, MEASUREMENTS OF SPACES AND ACCESS AISLE SHALL BE FROM CENTERLINE OF MARKING.
9. ACCESSIBLE SPACES SHALL BE SERVED BY AN ACCESS AISLE 60" WIDE MINIMUM.
10. VAN PARKING STALL POSTED SIGN SHALL HAVE "VAN-ACCESSIBLE" TEXT BELOW SYMBOL OF ACCESSIBILITY
    PARKING SPACES FOR VANS AND ACCESS AISLE AND VEHICLE ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF 98"
11. AISLE MAY BE PLACED ON EITHER SIDE OF VEHICLE EXCEPT FOR VAN PARKING.
12. PARKING SPACES, ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE 98" VERTICAL CLEARANCE.
13. ACCESS AISLES SHALL EXTEND THE FULL REQUIRED LENGTH OF THE PARKING SPACES THEY SERVE.

5 ADA PARKING DETAILS
C5.00 — SCALE: NONE

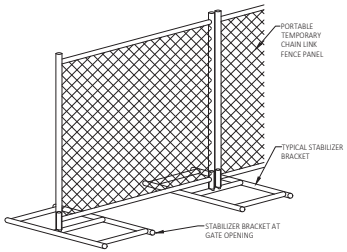


GENERAL NOTES:
1. ALL MATERIALS FOR THE CONSTRUCTION OF A TEMPORARY APPROACH SHALL MEET MDOT 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND BE APPROVED BY THE MDOT INSPECTOR PRIOR TO PLACEMENT.
2. STONE SIZE - USE 1'-3" CRUSHED CONCRETE OR CRUSHED LIMESTONE.
3. WOVEN GEOTEXTILE FABRIC WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY . THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITION DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
5. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

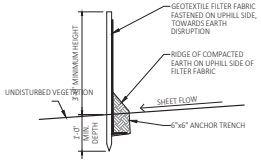
6 TEMPORARY STONE ACCESS DRIVE
C5.00 — SCALE: NONE



7 CONCRETE WASH DETAIL
C5.00 — SCALE: NONE



8 CONSTRUCTION FENCE
C5.00 — SCALE: NONE

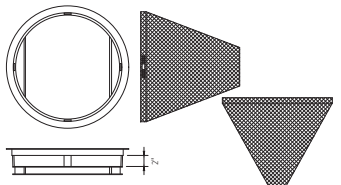


SILT FENCE NOTES:

INSTALLATION NOTES:
1. INSTALL ALONG A CONTOUR LINE ON A SLOPE OF EQUAL ELEVATION.
2. DO NOT INSTALL IN AN AREA OF CONCENTRATED FLOW.
3. INSTALL WITH GEOTEXTILE FABRIC ATTACHED TO FENCE POSTS ON THE UPHILL SIDE.
4. EXCAVATE A 6"x6" ANCHOR TRENCH AND BURYING THE TAIL OF THE GEOTEXTILE FABRIC WITH BACKFILL COMPACTED UP AGAINST IT.

MAINTENANCE REQUIREMENTS:
1. PERFORM FREQUENT INSPECTIONS TO ASSURE THAT SILT FENCE IS FIRMLY ENTRENCHED AND IN GOOD WORKING CONDITION. **AT A MINIMUM**, INSPECT AFTER EACH MAJOR RUN-OFF EVENT.
2. REMOVE ACCUMULATED SEDIMENT WHEN IT IS EQUAL TO APPROXIMATELY 25% OF THE FENCE HEIGHT.
3. REMOVE ANY DAMAGED, TORN, OR KNOCKED DOWN SILT FENCE AND REPLACE IMMEDIATELY.
4. REMOVE SILT FENCE WHEN THE SITE HAS BEEN PERMANENTLY STABILIZED.

9 SILT FENCE
C5.00 — SCALE: NO SCALE



GENERAL NOTES:
FRAME: TOP FLANGE FABRICATED FROM 1 ½"X1 ¼"X1/8" ANGLE. BASE RIM FABRICATED FROM 1 ¼"X¼"X1/8" CHANNEL. HANDLES AND SUSPENSION BRACKETS FABRICATED FROM 1 ½"X⅜" FLAT STOCK. ALL DOMESTIC STEEL CONFORMING TO ASTM-A36. SEDIMENT BAG: BAG FABRICATED FROM 4 OZ/SQ.YD. NON-WOVEN POLYPROPYLENE GEOTEXTILE REINFORCED WITH POLYESTER MESH. BAG SECURED TO BASE RIM WITH A STAINLESS STEEL STRAP AND LOCK.

10 INLET FILTER DETAIL
C5.00 — SCALE: NONE

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REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

SITE DETAILS

SHEET MANAGEMENT

PROJECT NO.: 072_ BELLVILLE
DATE:
CRITERIA:
PROJECT MANAGER: M. PISKO

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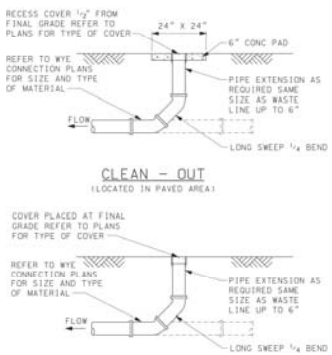
SHEET NUMBER

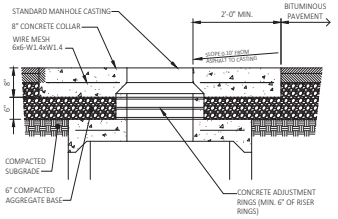
C5.00

FILE NAME: \\Shared\Clients\JiffyLube\Projects\MI072_BellvilleRoad\02_Civil\ConDocs\C5.00 Site Details.dwg LAST SAVED BY: Smette, John SAVED DATE: 9/21/2020 10:07 AM PLOTTED: 9/28/2020 7:48 AM



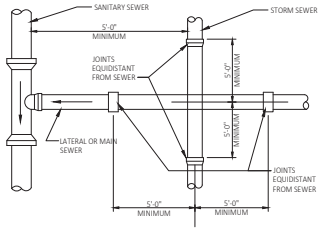
1 C5.01 **CLEAN-OUT DETAIL**

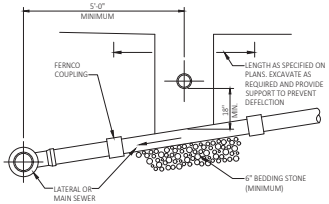
SCALE: NO SCALE



2 C5.01 **CONCRETE COLLAR DETAIL**

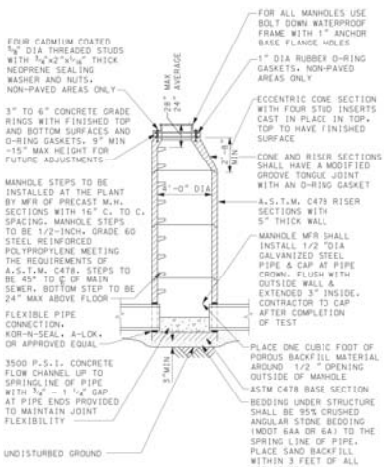
SCALE: NO SCALE





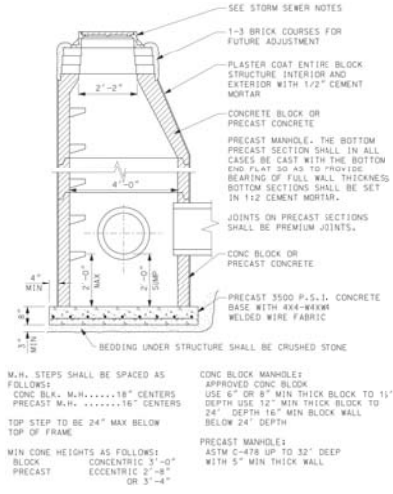
3 C5.01 **STORM/SANITARY SEWER CROSSING DETAIL**

SCALE: NO SCALE



4 C5.01 **SANITARY SEWER MANHOLE**

SCALE: NO SCALE



M.H. STEPS SHALL BE SPACED AS FOLLOWS:
CONC BLK. M.H.....18" CENTERS
PRECAST M.H. .....16" CENTERS

TOP STEP TO BE 24" MAX BELOW TOP OF FRAME

MIN CONE HEIGHTS AS FOLLOWS:

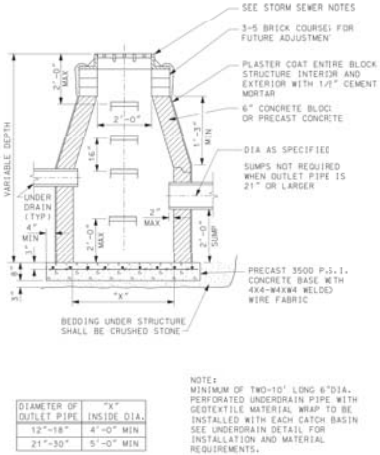
BLOCK	CONCENTRIC 3'-0" ECCENTRIC 2'-8" OR 3'-4"
PRECAST	

CONC BLOCK MANHOLE:
APPROVED CONC BLOCK USE 6" OR 8" MIN THICK BLOCK TO 1½' DEPTH USE 12" MIN THICK BLOCK TO 24' DEPTH 16" MIN BLOCK WALL BELOW 24' DEPTH

PRECAST MANHOLE:
ASTM C-478 UP TO 32' DEEP WITH 5" MIN THICK WALL

5 C5.01 **MANHOLE DETAIL**

SCALE: NO SCALE



DIAMETER OF OUTLET PIPE	"X" INSIDE DIA.
12"-18"	4'-0" MIN
21"-30"	5'-0" MIN

NOTE:
MINIMUM OF TWO-10' LONG 6"DIA. PERFORATED UNDERDRAIN PIPE WITH GEOTEXTILE MATERIAL WRAP TO BE INSTALLED WITH EACH CATCH BASIN SEE UNDERDRAIN DETAIL FOR INSTALLATION AND MATERIAL REQUIREMENTS.

6 C5.01 **CATCH BASIN DETAIL**

SCALE: NO SCALE

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REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
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2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

SITE DETAILS

SHEET MANAGEMENT

PROJECT NO.: 072_BELLVILLE
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SHEET NUMBER

C5.01

FILE NAME: Y:\Shared\Clients\Jiffy Lube\Projects\MI\072_Belleville Road\02_Civil\Cad\Dwg\C5.01 Site Details.dwg LAST SAVED BY: Simetra, John SAVED DATE: 9/17/2020 1:57 PM PLOTTED: 9/28/2020 7:49 AM

MISS DIG

3 WORKING DAYS BEFORE YOU DIG OR DRILL CALL 1-800-482-7171 (TOLL FREE)

SEEDING NOTES

SEED INSTALLATION

1. APPLY STARTER FERTILIZER AT TIME OF SEEDING AT RATE RECOMMENDED BY MANUFACTURER. CONTRACTOR IS RESPONSIBLE FOR THE INITIAL WATERING.
2. SEED WITH COMMERCIAL TURF BLEND FROM APPROVED DOT LIST OF MIXTURES
3. MAXIMUM SEEDING DEPTH SHOULD BE 1/4 INCH ON CLAY SOILS AND 1/2 INCH ON SANDY SOILS, WHEN USING OTHER THAN HYDROSEEDER METHOD OF APPLICATION. STRAW MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING (NON HYDROSEEDING). AT A RATE OF 140 LBS.± (2 BALES) PER 1000 SF. MULCH MAY BE APPLIED BY HAND OR WITH A BLOWER.
4. MULCH SHALL BE CLEAN, WELL SEASONED STRAW FREE OF SEEDS OR ROOTS OF NOXIOUS WEEDS
5. IF HYDROSEEDING IS USED AND THE SEED, FERTILIZER AND MULCH ARE MIXED, THEY WILL BE MIXED ON SITE AND SEEDING SHALL BE IMMEDIATE. MULCH FOR HYDROSEEDING SHALL BE WOOD CELLULOSE FIBER MULCH APPLIED AT A RATE OF 2,000 LBS. / ACRE.

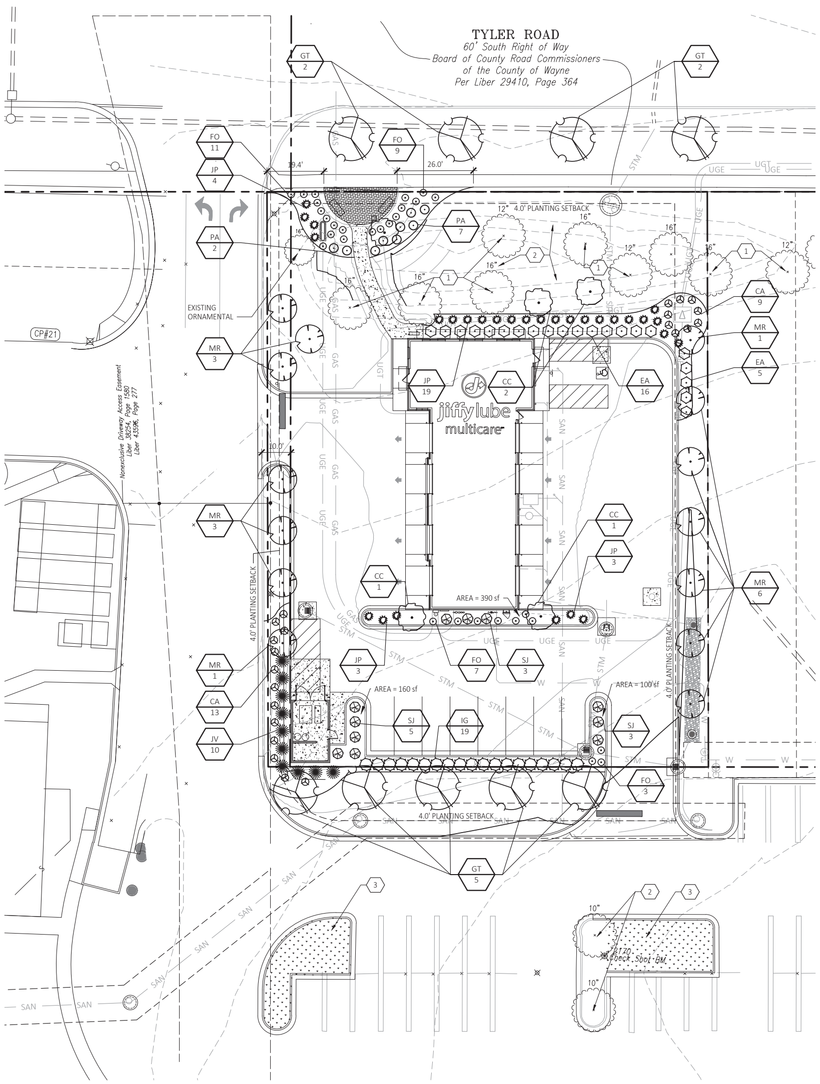
SEEDING NOTES CONTINUED

SITE PREPARATION:

1. SITE TO BE FINE GRADED BEFORE PERMANENT SEEDING OR SODDING.
2. SOIL SHALL BE LOOSENED TO A DEPTH OF (4) INCHES BY DISCING, RAKING, ROTOTILLING OR OTHER ACCEPTABLE MEANS. AND RAKED SMOOTH AND FREE OF ROOTS AND STONES OVER 1"Ø. SEED ALL ON-SITE AND OFF-SITE AREAS DISTURBED BY CONSTRUCTION.
3. ENSURE PROPER DRAINAGE AND CHANNEL FLOW PROTECTION

MAINTENANCE:

1. WATER 1 INCH MIN. WITHIN THE FIRST HOUR OF SOD OR SEED INSTALLATION BEGIN IRRIGATION. SYSTEM DURING THE FOLLOWING 3 DAYS KEEPING THE SODDED OR SEEDED AREA MOIST.
2. CONTINUED MAINTENANCE (MOWING, FERTILIZATION, WEEDING, ECT.) OF THE SODDED OR SEEDED AREA SHOULD BE PROVIDED BY A PROFESSIONAL LANDSCAPE MAINTENANCE CONTRACTOR.



LANDSCAPE PLAN

SCALE: 1" = 20'-0"

0 20' 40'

FILE NAME: Y:\Shared\Clients\Jiffy Lube\Projects\MI\072_Belleville Road\02_Civil\ConDocs\L1.20.dwg LAST SAVED BY: Sinnette, John SAVED DATE: 9/21/2020 4:42 PM PLOTTED: 9/28/2020 7:49 AM

LANDSCAPE MATERIAL LEGEND

KEY	QUANTITY	BOTANICAL NAME COMMON NAME	SIZE CONDITION	NOTES
IG	19	ILEX GLABRA INKBERRY HOLLY	30" min.	EVERGREEN HEDGE Towards BROD SECTION 6.310
JP	29	JUNIPERUS × P. 'GOLD COAST' GOLD COAST JUNIPER	18"-24" #3 gal	GOLDEN EVERGREEN FOLIAGE (15) towards CODE 10.103(A)
EA	21	EUONYMUS ALATUS BURNING BUSH	24"-30" #5 gal	(5) towards CODE 10.103(B)(1) (16) towards CODE 10.103(A)
CA	22	CALAMAGROSTIS ACUTIFLORA KARL FOERSTER FEATHER REED GRASS	12"-15" 2 gal	ORNAMENTAL GRASS
SJ	11	SPIRAEA J.'GOLDMOUND' GOLD MOUND SPIRAEA	18"-24" #3 gal	GOLDEN FOLIAGE WITH PINK BLOMS
PA	9	BUDDLEIA D. 'ROYAL RED' ROYAL RED BUTTERFLY BUSH	6-7 ft B&B	FLOWERING PERENNIAL Towards BROD SECTION 6.310
FO	30	FESTUCA O.G. 'BOULDER BLUE' BOULDER BLUE FESCUE	6-7 ft B&B	BLUE FOLIAGE Towards BROD SECTION 6.310
JV	10	JUNIPERUS V. 'EMERALD SENTINEL' EMERALD SENTINEL RED CEDAR	5' ft B&B	Towards CODE 10.103 (C)
CC	5	CERCIS CANADENSIS EASTERN RED BUD	2" cal. B&B	(2) towards CODE 10.103(B)(2) (1) towards CODE 10.103(A) (2) towards CODE 10.103 (E)
GT	9	GLEDITSIA T. F. INERMIS 'SKYCOLE' SKYLINE SKYLINE HONEYLOCUST	2" cal. B&B	(4) towards CODE 6.310(C)(2)(B) (5) towards CODE 10.103 (E)
MR	14	MALUS 'RED BARRON' RED BARRON CRABAPPLE	2" cal. B&B	(14) towards CODE 10.103 (E)
EXO	1	EXISTING ORNAMENTAL	16'-20'	(1) towards CODE 10.103 (A)
EXS	7	EXISTING SHADE TREES	16" - 18" CAL.	(4) towards CODE 10.103(A) (3) towards code 10.103 (E)

LANDSCAPE KEYNOTES

1. ALL EXISTING ON-SITE & ADJACENT TREES TO BE PROTECTED AND REMAIN.
2. TRIM AND/OR REMOVE OVERGROWN VEGETATION, FIELD VERIFY AND COORDINATE WITH OWNERS CONSTRUCTION REPRESENTATIVE.
3. OFF-SITE AREA FOR GRASS SEEDING.

GENERAL NOTES

1. AT THE TIME OF SITE PREPARATION, CONTRACTOR TEAM (GENERAL, GRADING & LANDSCAPE) TO REVIEW ALL EXISTING VEGETATION, AND TAG MATERIALS TO BE SAVED OR RELOCATED.
2. PRIOR TO INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL INSPECT THE SUBGRADE, GENERAL SITE CONDITIONS, VERIFY ELEVATIONS, UTILITY LOCATIONS, IRRIGATION, APPROVE TOPSOIL PROVIDED BY GENERAL CONTRACTOR AND OBSERVE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. NOTIFY GENERAL CONTRACTOR OF ANY UNSATISFACTORY CONDITIONS AND WORK SHALL NOT PROCEED UNTIL SUCH CONDITIONS HAVE BEEN CORRECTED AND ARE ACCEPTABLE TO THE LANDSCAPE CONTRACTOR.
3. IF THE LANDSCAPE CONTRACTOR OBSERVES ANY DEFICIENCIES IN THE PLANT SELECTIONS, SOIL CONDITIONS OR ANY OTHER CONDITION WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR GUARANTEE, HE SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE PRIOR TO PROCUREMENT AND/OR INSTALLATION.
4. LOCATE ALL UTILITIES PRIOR TO DIGGING, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.. DO NOT PLANT TREES , EVERGREENS , AND SHRUBS OVER ANY EXISTING OR PROPOSED UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. ANY ITEM OR AREAS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO ITS ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE.
5. ALL PLANTING BEDS TO RECEIVE 6" MIN. OF PREPARED BACKFILL MIX. ALL INDIVIDUALLY PLANTED TREES AND SHRUBS TO BE BACKFILLED WITH WITH PREPARED BACKFILL MIX. PREPARED BACKFILL MIXTURES SHALL BE MIXED ON SITE, CONSISTING OF ONE PART TOPSOIL, ONE PART SOIL AMENDMENT, ONE PART SOIL FROM EXCAVATION.
6. PLANT BEDS TO DRESSED WITH PRE-EMERGENT HERBICIDE AND MULCHED WITH 3" OF SHREDDED HARDWOOD WITH . SEE DETAIL THIS SHEET.
7. ALL PLANTING BED EDGES TO BE SMOOTH FLOWING ARCS. BEDS TO BE LAID OUT AND APPROVED BY LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE PRIOR TO PLANTING. LAWN TREES TO BE MULCHED WITH 4' DIAMETER BED WITH 3" MULCH RING
8. SEED OR SOD ALL AREAS, WITHIN CONTRACT LIMITS, NOT COVERED BY PAVING, BUILDINGS OR PLANTING BEDS UNLESS OTHERWISE NOTED. SODDING SHALL NOT BEGIN UNTIL AREA HAS RECEIVED A FINISHED GRADE. SEE SOD/SEED NOTES.
9. SUBSTITUTIONS SHALL BE PERMITTED WITH NOTIFICATION AND WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. SUBSTITUTED MATERIAL SHALL BE THE NEAREST EQUIVALENT SIZE, CONDITION AND GROWTH HABIT HAVING THE SAME ESSENTIAL CHARACTERISTICS WITH AN EQUITABLE ADJUSTMENT IN WHOLESALE PRICE.
10. LANDSCAPING TO COMPLY WITH ALL APPLICABLE ZONING REGULATIONS

PLANTING NOTES

1. ALL TREES AND SHRUBS SHALL BE STAKED IN THE FIELD PER PROVIDED DETAILS
2. PLANT MATERIAL SHALL CONFORM TO THE PLANT LIST AND KEYS ON THE DRAWINGS AND TO THE QUALITY STANDARDS OF 'AMERICAN STANDARD FOR NURSERY STOCK'. ALL PLANTS SHALL EQUAL OR EXCEED THE MEASUREMENTS AND SIZES SPECIFIED IN THE SCHEDULE.
3. PLANT TREES AND SHRUBS GENERALLY NO CLOSER THEN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS, AND PARKING STALLS:
   A. SHADE TREES: 5 FEET
   B. ORNAMENTAL AND EVERGREEN TREES: 10 FEET (CRAB, PINE, SPRUCE, ETC.)
   C. SHRUBS: 4 FEET
4. ALL SHRUB PLANTINGS WITHIN SITE TRIANGLE AREAS TO BE MAXIMUM HEIGHT OF 30", AND FIRST BRANCHING FOR PROPOSED TREES TO BE MINIMUM OF 7' ABOVE PROPOSED GRADES.
5. PLANTINGS SHALL BE FERTILIZED UPON INSTALLATION WITH A SLOW RELEASE GRANULAR COMMERCIAL TREE/SHRUB FERTILIZER. RATE PER MANUFACTURES INSTRUCTIONS. FERTILIZER TO MIXED WITH BACKFILL PREVIOUSLY DESCRIBED. FERTILIZER TABLETS ARE NOT ACCEPTABLE. PLANTING BEDS SHALL BE COVERED WITH PRE-EMERGENT HERBICIDE APPLIED AT PRODUCT SPECIFIED RATE UNLESS OTHERWISE NOTED.
6. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS INSTALLED FOR ONE FULL YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL PLANTS SHALL BE ALIVE AND AT A VIGOROUS RATE OF GROWTH AT THE END OF THE GUARANTEE PERIOD. UNACCEPTABLE PLANT MATERIAL THAT IS DETERMINED DEAD, IN AN UNHEALTHY OR UNSIGHTLY CONDITION, LOST ITS SHAPE DUE TO DEAD BRANCHES OR OTHER SYMPTOM OF POOR, NON-VIGOROUS GROWTH SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR.

LANDSCAPE CODE REQUIREMENTS :

8a 10.103(A) REQUIRES LOT FRONTAGE LANDSCAPING OF 1 DECIDUOUS TREE/40 LINEAL FEET + 1 ORNAMENTAL TREE/100 LINEAL FEET + 8 SHRUBS/40 LINEAL FEET. THE SITE HAS A FRONTAGE OF 150' ON TYLER ROAD, WHICH REQUIRES A TOTAL OF 4 DECIDUOUS TREES + 2 ORNAMENTAL TREES + 30 SHRUBS
(4) EXISTING DECIDUOUS TREES PROVIDED
(1) EX. AND (1) PROPOSED ORNAMENTAL TREES PROVIDED
(31) DECIDUOUS AND EVERGREEN SHRUBS PROVIDED

8a SECTION 6.310 (C) (2) (B) STATES; IN ADDITION TO THE TREES REQUIRED IN THE FRONTAGE AREA IN SECTION 10.103(A), DECIDUOUS STREET TREES SHALL BE PLANTED WITHIN THE RIGHT-OF-WAY OF ANY STREETS (I.E., BETWEEN THE SIDEWALK AND THE STREET), IN AN AMOUNT EQUAL TO AT LEAST ONE (1) DECIDUOUS STREET TREE PER EACH FORTY (40) LINEAR FEET OR FRACTION THEREOF OF FRONTAGE. THIS REQUIRES ANOTHER 4 TREES BETWEEN THE TYLER ROAD RIGHT-OF-WAY AND THE EX. SIDEWALK
(4) TREES PROVIDED WITHIN THE ROW

8b SECTION 10.103(B)(1) REQUIRES ALL PARKING LOTS TO BE LANDSCAPED AND SCREENED FROM ADJOINING PUBLIC OR PRIVATE RIGHTS-OF-WAY. LANDSCAPING SHALL INCLUDE A LANDSCAPED YARD AT LEAST FIVE (5) FEET IN WIDTH CONTAINING AN OPAQUE SCREEN OF LANDSCAPING (EVERGREEN OR DECIDUOUS HEDGE) AT LEAST THREE (3) FEET IN HEIGHT. THE HANDICAP ACCESSIBLE SPACE ON THE NORTHEAST CORNER OF THE BUILDING IS CLEARLY VISIBLE FROM TYLER ROAD AND MUST BE SCREENED AS REQUIRED
SCREEN HEDGE HAS BEEN PROVIDED

8b SECTION 10.103(B)(2) REQUIRES THE PROVISION OF LANDSCAPING WITHIN ISLANDS IN A PARKING LOT. INTERIOR LANDSCAPING SHALL ACCOUNT FOR A MINIMUM OF FIVE PERCENT (5%) OF ALL PAVED PARKING AREAS, INCLUDING PARKING AND LOADING SPACES, DRIVEWAYS, AND AISLES. THE APPLICANT MUST PROVIDE THE SQUARE FOOTAGE OF ALL PAVED AREAS, INCLUDING PARKING AND LOADING SPACES, DRIVEWAYS, AND AISLES. THERE ARE MULTIPLE INTERIOR PARKING LOT ISLANDS THROUGHOUT THE DEVELOPMENT. THE APPLICANT MUST PROVIDE THE TOTAL PROPOSED SQUARE FOOTAGE OF ALL THE INTERIOR PARKING LOT LANDSCAPE ISLANDS
TOTAL ON-SITE PAVED AREA IS 11,831 sf * .05 = 592 sf REQUIRED
TOTAL INTERIOR SPACE PROVIDED = 650 sf

8b ADDITIONALLY, ONE (1) DECIDUOUS TREE SHALL BE PLANTED FOR EACH THREE HUNDRED (300) SQUARE FEET OF INTERIOR LANDSCAPING.
TOTAL INTERIOR LANDSCAPE = 650 SF / 300 = 2 TREES REQUIRED
(2) DECIDUOUS TREES PROVIDED

8c SECTION 10.103 (C) OF THE ZONING ORDINANCE REQUIRES AN OPAQUE WALL OR A GREENBELT FOR REQUIRED SCREENING.
THE LOADING SPACE HAS BEEN IDENTIFIED AND SCREEN WITH 6' EVERGREEN PLANTINGS AND 24"-30" ORNAMENTAL GRASSES

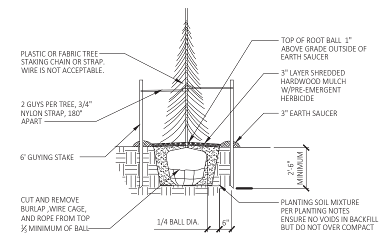
8e SECTION 10.103 (E) PROVIDES GREENBELT BUFFERING STANDARDS. A TEN (10) FOOT WIDE BUFFER, WITH ONE (1) TREE PER THIRTY (30) LINEAR FEET IS REQUIRED ON ALL SIDES OF THE PROPOSED DEVELOPMENT. A 10-FOOT-WIDE BUFFER HAS BEEN PROVIDED ON ALL SIDES EXCEPT THE EAST SIDE LOT LINE. WITH 142 LINEAR FEET ON THE FRONT AND REAR LOT LINE, 5 GREENBELT TREES ARE REQUIRED; 4 TREES HAVE BEEN PROPOSED IN THE FRONT AND 2 TREES IN THE BACK. ADDITIONALLY, 6 TREES ARE REQUIRED ALONG THE WEST SIDE LOT LINE AND 7 TREES ARE REQUIRED ALONG THE EAST SIDE LOT LINE
NORTH PROPERTY LINE = 150' / 30 = 5 TREES REQUIRED - (3) EXIST. & (2) PROPOSED TREES
SOUTH PROPERTY LINE = 150' / 30 = 5 TREES REQUIRED - (5) PROPOSED TREES
EAST PROPERTY LINE = 196' / 30 = 7 TREES REQUIRED - (7) PROPOSED TREES
WEST PROPERTY LINE = 196' / 30 = 7 TREES REQUIRED - (7) PROPOSED TREES

8g DEVELOPMENTS IN THE C-2 DISTRICT REQUIRE CONTIGUOUS OUTDOOR SPACE, INDEPENDENT OF SIDEWALKS, PEDESTRIAN CIRCULATION AREAS AND REQUIRED LANDSCAPING, IN AN AMOUNT NOT LESS THAN ONE (1) SQUARE FOOT FOR EACH TWENTY-FIVE (25) SQUARE FEET OF PRINCIPAL BUILDING AND IN NO CASE LESS THAN TWO HUNDRED FIFTY (250) SQUARE FEET IN TOTAL. BASED ON THE BUILDING SIZE THE REQUIRED OPEN SPACE IS UNDER THE 250 SQ. FT. THRESHOLD SO 250 SQ. FT. OF OPEN SPACE IS THE MINIMUM REQUIRED FOR THE SITE.
PRINCIPLE BUILDING = 3,064 sf / 25 = 250 sf REQUIRED
250 sf PROVIDED OF OUTDOOR SPACE

8h PERENNIAL BEDS, PLANTED IN GROUPS, SHALL BE PLANTED IN TWENTY PERCENT (20%) OF THE REQUIRED LANDSCAPE FRONTAGE AREA DEFINED IN SECTION 10.103(A).
150 lf OF FRONTAGE * (.2) = 30 lf OF FRONTAGE
45 lf OF PERENNIAL BEDS PLANTED ALONG FRONTAGE

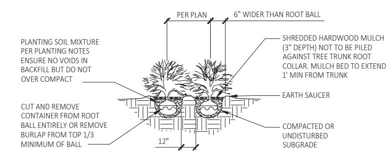
8h A MINIMUM EIGHT (8) FOOT STREET LAWN, FIVE (5) FOOT WIDE SIDEWALK, AND FIVE (5) FOOT BUFFER AREA BETWEEN THE OFF-STREET PARKING AND/OR VEHICULAR USE AREA AND THE SIDEWALK SHALL BE PROVIDED. THE STREET LAWN SHALL INCLUDE TREES IN ACCORDANCE WITH SECTION 6.310(C)(2). THE FIVE (5) FOOT BUFFER AREA SHALL EXTEND THE LENGTH OF THE PARKING LOT, AND INCLUDE AN OPAQUE SCREEN OF LANDSCAPING AT LEAST THREE (3) FEET IN HEIGHT. THE OPAQUE LANDSCAPE SCREEN SHALL BE COMPOSED OF UPRIGHT SHRUBS PLANTED AS A HEDGE. THE HEDGE SHALL ATTAIN OPACITY AND A HEIGHT OF THREE (3) FEET WITHIN TWELVE (12) MONTHS OF PLANTING UNDER NORMAL GROWING CONDITIONS.
A 30" EVERGREEN HEDGE IS PROPOSED ALONG THE SOUTHERN PARKING SPACES

9 TREE REMOVAL PERMIT. A TREE REMOVAL PERMIT IS REQUIRED IF THE APPLICANT PROPOSES TO REMOVE ANY TREES OF 5" CALIPER OR LARGER. THE SITE INCLUDES A ROW OF ESTABLISHED TREES ALONG ITS TYLER ROAD FRONTAGE. THE REST OF THE SITE IS A GRASSY AREA.
ALL TREES ALONG TYLER RD. ARE TO BE PROTECTED & PRESERVED



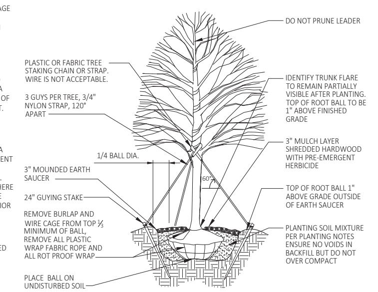
4 / L1.20 **EVERGREEN TREE PLANTING**

SCALE: NO SCALE



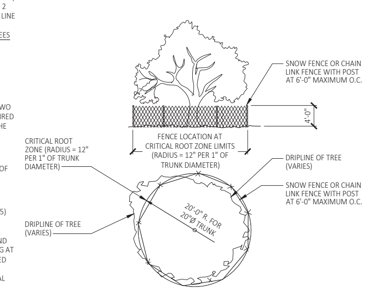
3 / L1.20 **TYPICAL SHRUB PLANTING**

SCALE: NO SCALE



2 / L1.20 **DECIDUOUS TREE PLANTING**

SCALE: NO SCALE



1 / L1.20 **TREE PROTECTION FENCING**

SCALE: NO SCALE

sevan ENGINEERING

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734.367.4445 Telephone

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Downers Grove, IL 60515
info@sevansolutions.com www.sevansolutions.com

INTEGRITY | RESPECT | TEAMWORK | EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION
0	05.01.2020	OWNER REVIEW
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

STATE OF MICHIGAN TIMOTHY B. KRATZ ENGINEER No. 6201062109 LICENSED PROFESSIONAL ENGINEER

Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD VAN BUREN CHARTER TOWNSHIP, MI 48111

(WAYNE COUNTY)

SHEET TITLE

LANDSCAPE PLAN, NOTES AND SCHEDULE

SHEET MANAGEMENT

PROJECT NO.:	072_ BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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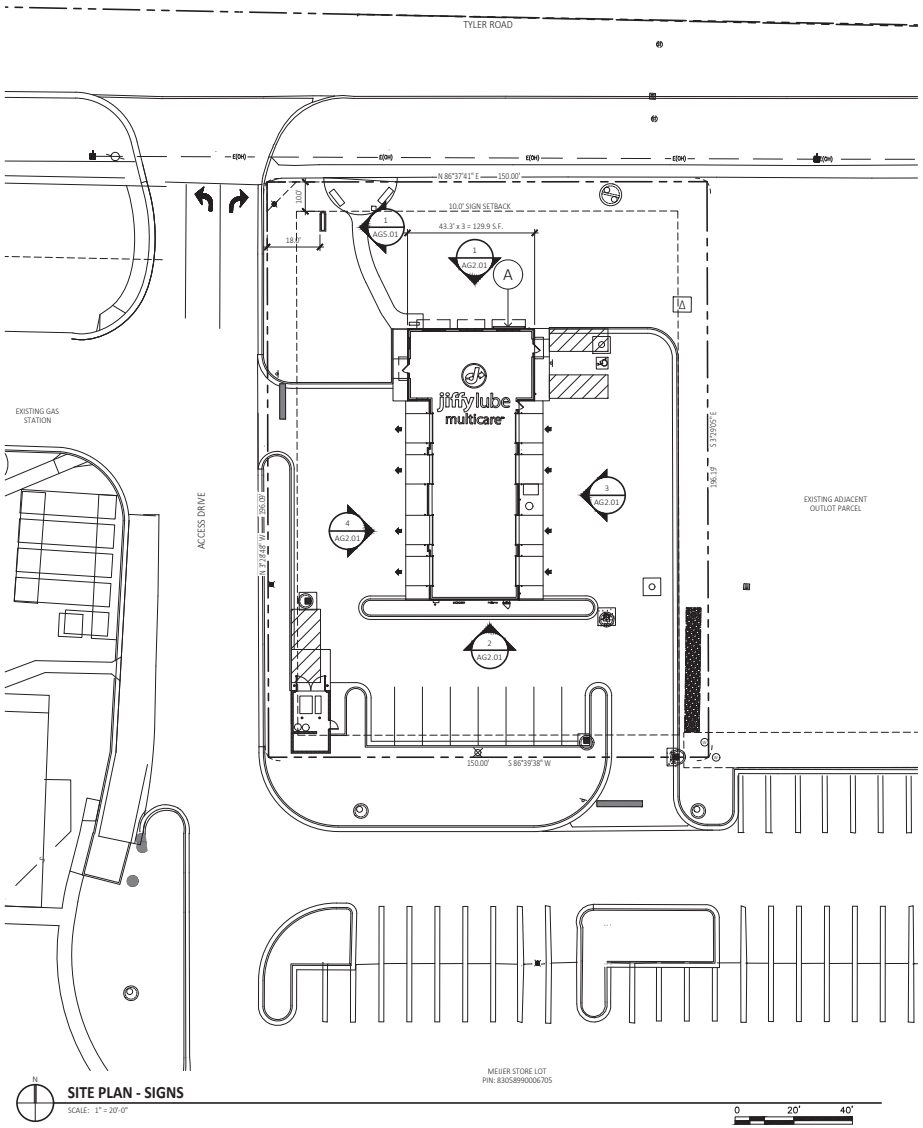
SHEET NUMBER

L1.20



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REVISIONS

NO.	DATE	DESCRIPTION
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2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL

STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE

SITE PLAN - SIGNS

SHEET MANAGEMENT

PROJECT NO.:	072_BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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SHEET NUMBER

AG1.01

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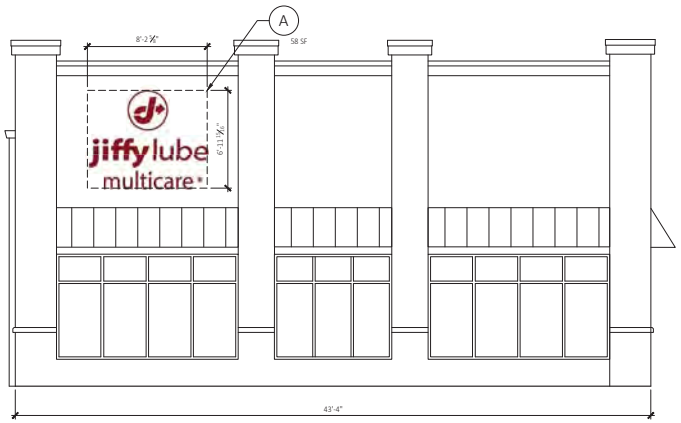
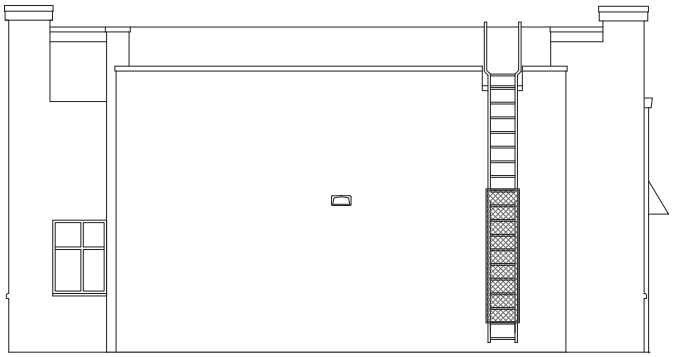


1 AG2.01 **FRONT ELEVATION (NORTH) - EXTERIOR GRAPHICS**

SCALE: 1/4" = 1'-0"



2 AG2.01 **REAR ELEVATION (SOUTH) - EXTERIOR GRAPHICS**

SCALE: 1/4" = 1'-0"

1. FIREWORKS RED SW 6867
2. COLONIAL REVIVAL SW 2827
3. PURE WHITE SW 7005
4. CARMINE RED SW 2905

SIGN CALCULATIONS:
BUILDING:
ALLOWABLE: 3 S.F. PER LINEAR FOOT OF BUILDING FRONTAGE NOT TO EXCEED 300 S.F. PER BUSINESS OR 50% OF THE FACADE EXCLUSIVE OF WINDOW AND DOOR OPENINGS.

BUILDING FRONTAGE (TYLER ROAD): 43.3' x 3 S.F. = 129.9 S.F.

OR

BUILDING FRONT FACADE: (978 S.F. - 235 S.F. (WINDOWS)) 743 S.F. x .5 = 371.5 S.F.

FRONT ELEVATION (TYLER STREET): 58 S.F.
LEFT ELEVATION (FACING ADJACENT OUTLOT): 0 S.F.
RIGHT ELEVATION (FACING ACCESS DRIVE): 0 S.F.
REAR ELEVATION (FACING MEIJER): 0 S.F.

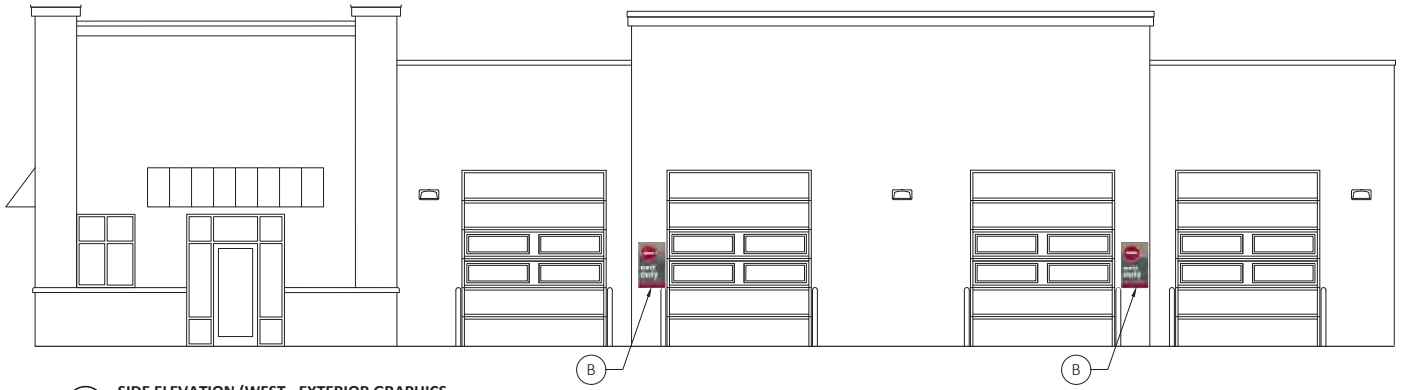
TOTAL BUILDING SIGNS PROVIDED: 58 S.F.

MONUMENT:

ALLOWABLE:	PROVIDED:
AREA = 30 S.F.	AREA = 25 S.F.
HEIGHT = 8'	HEIGHT= 8'

3 AG2.01 **SIDE ELEVATION (EAST) - EXTERIOR GRAPHICS**

SCALE: 1/4" = 1'-0"



4 AG2.01 **SIDE ELEVATION (WEST - EXTERIOR GRAPHICS**

SCALE: 1/4" = 1'-0"

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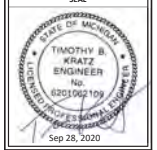
REVISIONS

NO.	DATE	DESCRIPTION
1	05.20.2020	SITE PLAN REVIEW
2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL



Sep 28, 2020

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION

9701 BELLEVILLE RD
VAN BUREN CHARTER
TOWNSHIP, MI 48111

(WAYNE COUNTY)

SHEET TITLE

SIGN ELEVATIONS

SHEET MANAGEMENT

PROJECT NO.:	072_BELLVILLE
DATE:	-
CRITERIA:	-
PROJECT MANAGER:	M. PISKO

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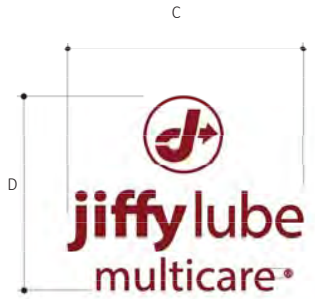


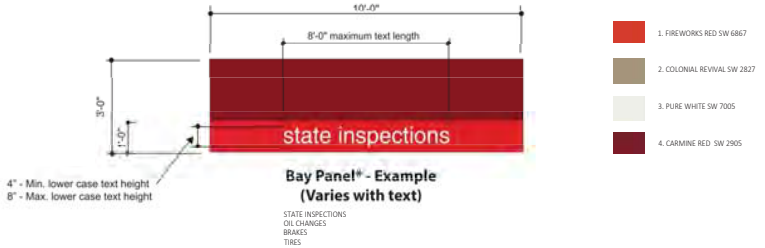
Jiffy Lube Multicare -Vertical Channel Letters

TYPE	C	D	SQ FT
JLM-CL-R-S-34	8'-2 3/8"	6'-11 15/16"	58

A JIFFY LUBE MULTICARE - VERTICAL CHANNEL LETTERS

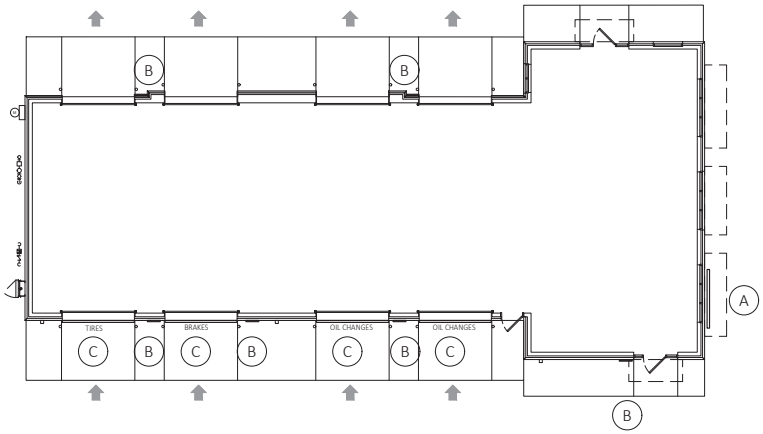
SIZE:
1'-9" x 3'-0"

B ENTRY/EXIT SAFETY SIGN



C BAY PANELS WITH DIRECTIONAL TEXT

1 AG5.01 MONUMENT SIGN ELEVATION
SCALE: 1/2" = 1'-0"



N
SIGN KEY PLAN
SCALE: 1/8" = 1'-0"

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REVISIONS

NO.	DATE	DESCRIPTION
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2	09.21.2020	SITE PLAN REVIEW #1

CONSULTANT

SEAL
STATE OF MICHIGAN
TIMOTHY B. KRATZ
ENGINEER
No. 6201062109
LICENSED PROFESSIONAL ENGINEER
Sep 28, 2020

CUSTOMER
jiffy lube

PROJECT DESCRIPTION
JIFFY LUBE
MULTI-CARE SERVICES

PROJECT LOCATION
9701 BELLEVILLE RD
VAN BUREN CHARTER TOWNSHIP, MI 48111
(WAYNE COUNTY)

SHEET TITLE
SIGN DETAILS

SHEET MANAGEMENT
PROJECT NO.: 072_BELLVILLE
DATE:
CRITERIA:
PROJECT MANAGER: M. PISKO

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SHEET NUMBER
AG5.01

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Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens	Input Watts	LLF	Mounting
	F	10	GE LIGHTING SOLURA(R) Pathway, Potential, Vision, Recreation, Responsive, Public, Sidewalk, Site, Stairway, Walkway, Direct, Security, Step, Wall Wash, Wet Location	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	1.0	84
	S1	1	Lithonia Lighting	DSX1 LED P6 HO 84K T4M MVOLT HS	DSX1 LED P6 HO 84K T4M MVOLT with Houseside Shield	LED	1	29211 LED (P6, 40K, T4M, MVOLT, HS) [illegible]	194.24	1.0	200

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Area of Property	+	1.4 fc	6.2 fc	0.0 fc	N/A	N/A
Paved Areas	+	2.5 fc	6.2 fc	0.4 fc	N/A	N/A
Property Line	+	0.1 fc	0.3 fc	0.0 fc	N/A	N/A

General Requirements

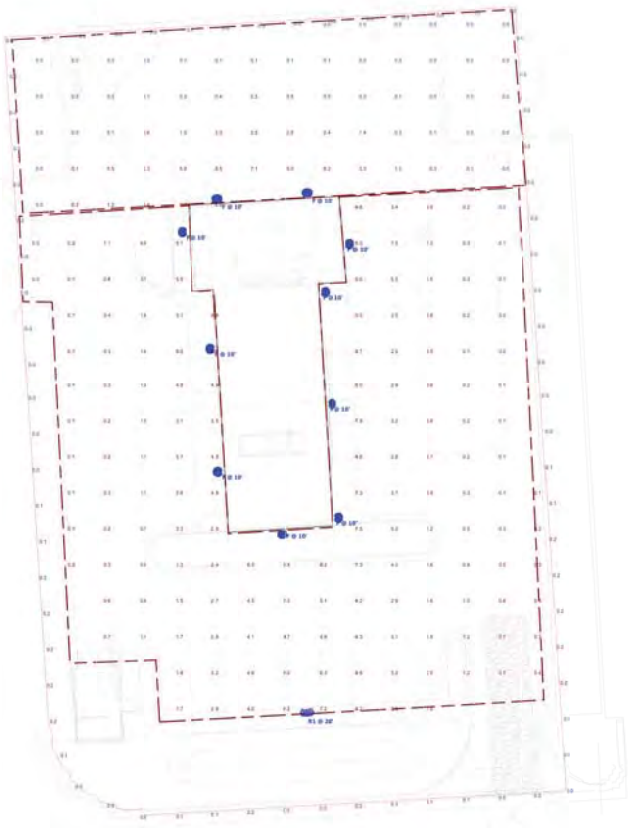
Shielding:
c. All outdoor lighting in all use districts other than residential shall be shielded so the surface of the source of the light shall not be visible from adjacent residential districts, adjacent residences, and public right-of-way. All outdoor lighting in all use districts shall be directed toward and confined to the ground areas. Full cut-off fixtures shall be used to prevent light from projecting above a ninety (90) degree horizontal plane

Illumination:
c. Sufficient lighting, as specified in the table below, shall be required for parking areas, walkways, driveways, building entrances, loading areas, and public common areas to ensure security of property and safety of persons:

Location	Maximum Level of Illumination (Footcandle) for the Average of the Area
Off-Street Parking Area:	1.0
Off-Street Loading Area:	1.0
Sidewalks (Residential Areas-Public [only where required by this Ordinance or the Planning Commission])	1.0
Sidewalks (Non-Residential Areas)	1.0
Building Entrances (Frequent Use)	5.0
Building Entrances (Infrequent Use)	1.0
Gas Station (Directly Under Canopy)	20.0
Other Outdoor Areas Not Listed	At the discretion of the Planning Director, with a maximum not to exceed 20.0

Light Trespass:
c. The light trespass from a property shall not exceed 0.5 ft candles at the property line, measured 5 feet from the ground.
c. All outdoor lighting in all use districts shall be directed toward and confined to the ground areas of lawns or parking lots.

Height:
c. The height of light fixtures shall be measured from the finished grade to the top of the fixture.
c. All lighting fixtures in non-industrial districts shall not exceed twenty-five (25) feet in height.



Plan View
Scale - 1" = 10ft

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MULTI-CARE SERVICES
CRITERIA V2019.07-1X4
BELLEVILLE, MI.
9701 BELLEVILLE RD.

REVISIONS

STATE OF MICHIGAN
HARRY J. AUMAN
No. 56272
PROFESSIONAL ENGINEER
5/11/20

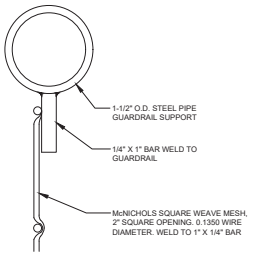
PROFESSIONAL OF RECORD
HARRY J. AUMAN
License NO. 56272
Expiration Date 10/31/21
PROFESSIONAL OF RECORD
PHONE: 314-821-1100

Drawn /Checked By:	XXX / XXX
Project Number	920374
Bid Date	XXXX
Permit Date	XXXXX

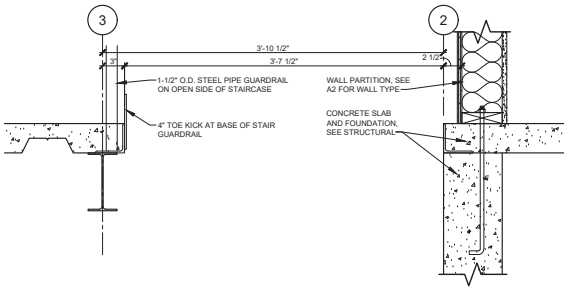
SITE PHOTOMETRICS

ESP-1.0

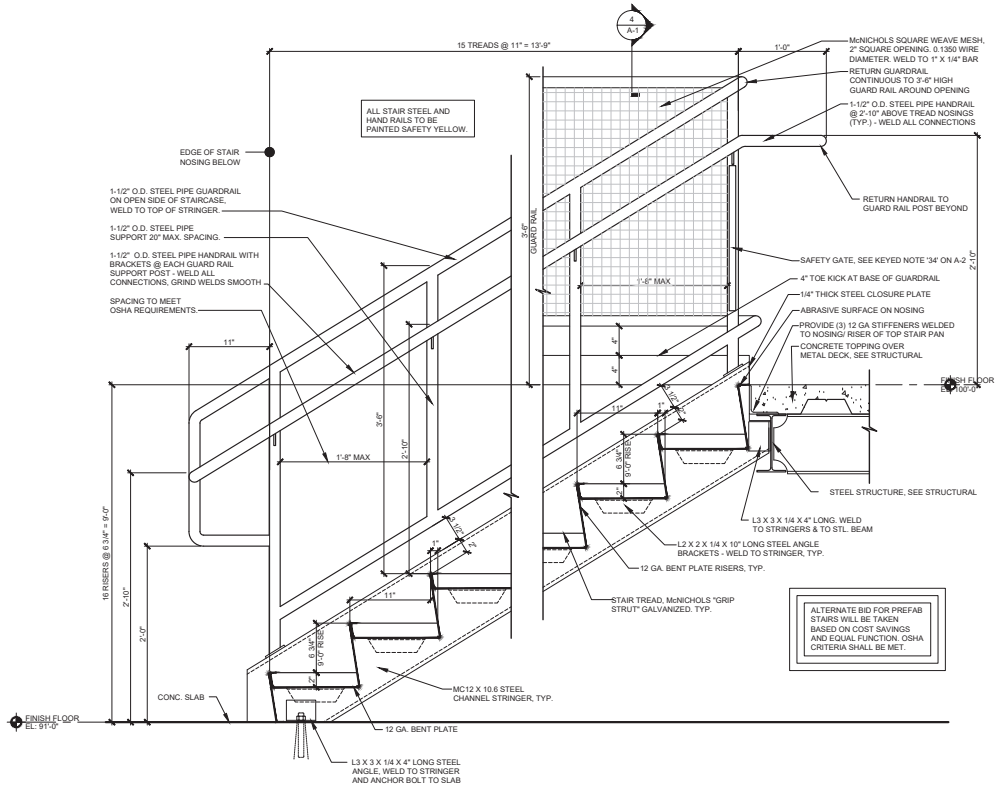
CITY PROJECT NUMBER - LSD 19-0051



4 A-1 **MESH ATTACHMENT**
SCALE: 1:1

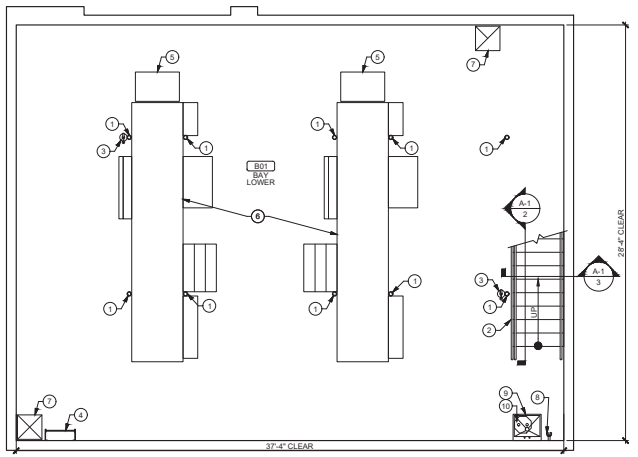


3 A-1 **SECTION AT STAIR OPENING**
SCALE: 1-1/2" = 1'-0"



2 A-1 **STAIR SECTION**
SCALE: 1-1/2" = 1'-0"

# SYMBOL	BASEMENT KEY NOTES	
1.	COLUMN. REFER TO STRUCTURAL FOR LOCATION.	6. SERVICE PLATFORM, (SUPPLIED BY DEVON OR EQUAL) SEE 2/A-13.1.
2.	STAIR, SEE 2 & 3/A-1 FOR DETAILS.	7. DUCT THROUGH FLOOR ABOVE, COORDINATE WITH STRUCTURAL AND MECHANICAL DRAWINGS.
3.	FIRE EXTINGUISHER (BY G.C.) VERIFY LOCATION W/ FIRE MARSHAL.	8. EYE WASH STATION, SEE PLUMBING SCHEDULE FOR SPECS.
4.	LADDER W/ FLOOR OPENING ABOVE, SEE DETAIL 6/A-7.1.	9. SERVICE SINK - REFER PLUMBING DRAWINGS.
5.	OIL DRAIN PAN (LOCATED ABOVE), THIS AREA TO REMAIN CLEAR OF PIPING TO ALLOW FOR MOVEMENT OF PAN. SEE DETAIL 4/A-13.2.	11. LIFT STATION - REFER TO PLUMBING DRAWINGS.TOPP INDUSTRIES SUMP BASIN (B2200) W/ 1/4" SOLID STEEL COVER (C18WSH)



PLAN NORTH

1 A-1 **LOWER BAY FLOOR PLAN**
SCALE: 1/4" = 1'-0"

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jiffy lube®
MULTI-CARE SERVICES
CRITERIA V2019.07-1X4
BELLEVILLE, MI.
9701 BELLEVILLE RD.

REVISIONS

SCHMITT, JAMES A.
LIC. NO. 1310046489 EXP. DATE 10/31/21
PROFESSIONAL OF RECORD
PHONE: 314-821-1100

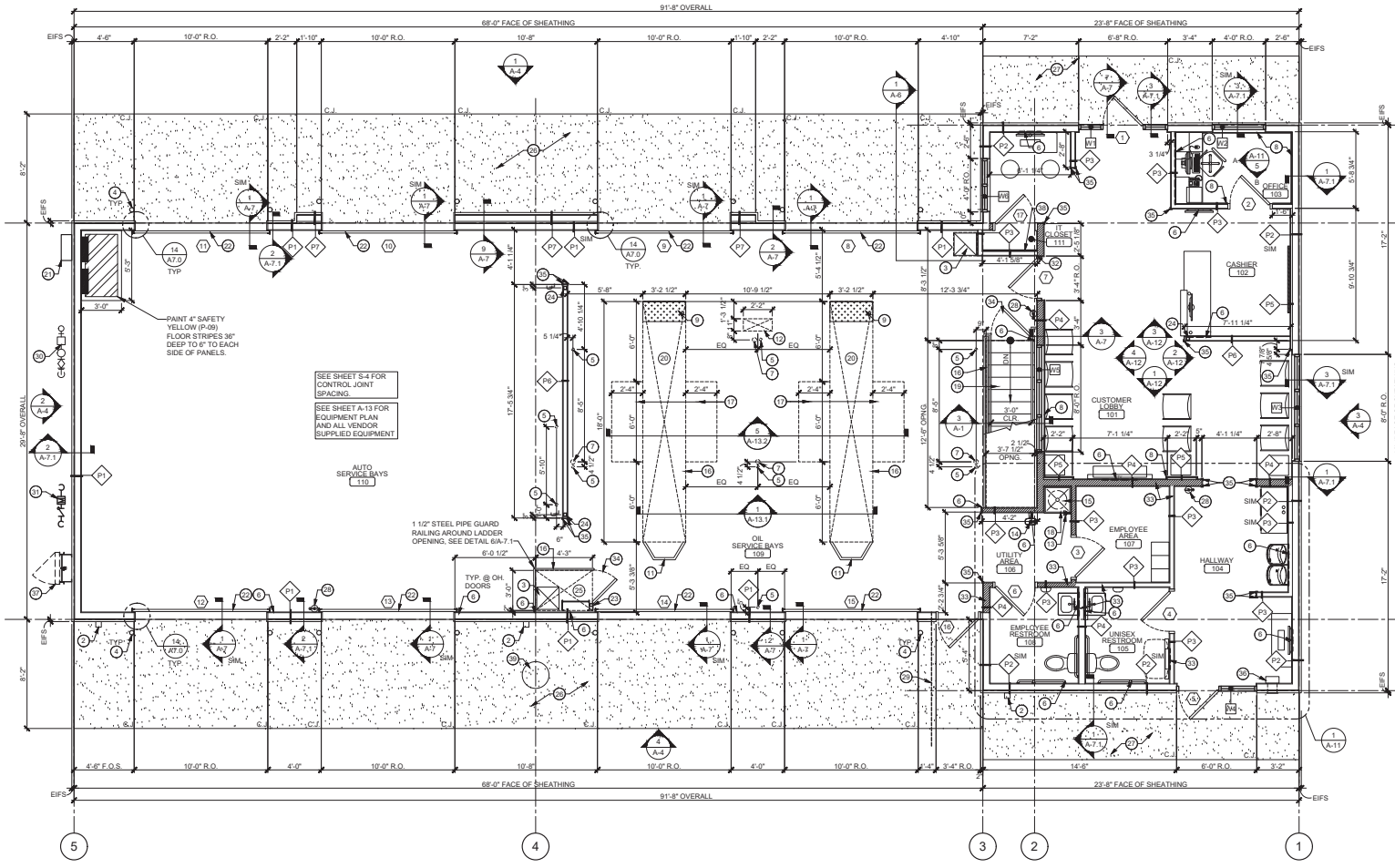
5/19/20

Drawn /Checked By:	XXX / XXX
Project Number	920374
Bid Date	XXXX
Permit Date	XXXXX

FLOOR PLAN - LOWER BAY

A-1

CITY PROJECT NUMBER - LSD 19-0051



1 A-2 UPPER BAY FLOOR PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO FACE STUD. UNLESS NOTED OTHERWISE.
2. COORDINATE CONCRETE WALKS AND STOOPS WITH CIVIL PLANS.
3. PROVIDE BLOCKING AND JUNCTION BOX WITH ACCESS FOR SIGN INSTALLATION AT EACH LOCATION. COORDINATE WITH NATIONAL SIGN VENDORS (AGI - JODY MUNSEY, PHONE: 865-692-1242 OR ICON - JON LUCAS, PHONE: 281-693-7646) FOR SIGN SPECIFICATIONS. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
4. **ALL HATCHED** INTERIOR PARTITIONS BETWEEN GRID LINES '1' AND '3' SHOULD EXTEND FULL HEIGHT TO UNDERSIDE OF DECK. **ALL NON-HATCHED** PARTITIONS SHOULD STOP 6" ABOVE CEILING.

(#) SYMBOL PLAN KEY NOTES

1. NOT USED
2. DOWNSPOUT - SEE SHEET A-3 FOR MORE INFORMATION
3. SLAB OPENINGS FOR DUCT, COORDINATE WITH STRUCTURAL AND MECHANICAL DRAWINGS
4. PIPE BOLLARD - SEE DETAIL 6/A-13.2 FOR MORE INFORMATION
5. 2-1/2" SLEEVE OPENING FOR AIR BELOW
6. GC TO PROVIDE BLOCKING IN WALL FOR MOUNTING OF EQUIPMENT AND FIXTURES
7. 4" DIA. PVC SLEEVE OPENING FOR VACUUM
8. CHAIR RAIL - INPRO 2500 CHAIR RAIL (TAUPE 0113) - GC TO CONFIRM MOUNTING HEIGHT IS ADJUSTED TO PREVENT BACK OF CHAIR FROM HITTING WALL
9. DIAMOND PLATE, TYP OF (2). SEE DETAIL1/A-13.2
10. NOT USED
11. WHEEL GUARD, TYP OF (2). SEE DETAIL1/A-13.2
12. BLOCKOUT FOR PRODUCT DISPENSE CONSOLE, VERIFY WITH OWNER'S REP
13. EYEWASH STATION - SEE PLUMBING DRAWINGS
14. WATER BUBBLER - SEE PLUMBING DRAWINGS
15. WATER HEATER LOCATED ABOVE. - SEE PLUMBING DRAWINGS
16. EXPOSED STEEL PLATE TOE KICK ALONG BASE OF GUARDRAIL (4") AND PIT OPENING (2"). SEE STRUCTURAL
17. RECESSED VEHICLE LIFT - PROVIDE BLOCKOUT FOR LIFT. SEE DETAIL 5/A-13.2
18. MOP SINK - SEAL PERIMETER OF MOP SINK TO WALL ON THREE WALLED SIDES -SEE PLUMBING DRAWINGS.
19. STAIR - SEE 2/A-1 FOR DETAILS
20. SLAB OPENING FOR SERVICE
21. DISCONNECT AND METER SYSTEM, SEE ELECTRICAL
22. REFER TO STRUCTURAL FOR DOOR RECESS AT ALL OVERHEAD DOOR LOCATIONS.
23. 2 1/2" STEEL POST WELD TO BOTTOM OF FLOOR BEAM AND PERIMETER ANGLE, PROVIDE ANGLE BRACKET BACK TO WALL AT TOP, TO SUPPORT SAFETY GATE.
24. STEEL POST SUPPORTS IN LOW WALL, TYP., SEE DETAIL 9/A-7.1
25. FLOOR ACCESS LADDER FROM LOWER BAY AREA, SEE DETAIL 6/A-7.1
26. CONCRETE APRON, FINISH TO BE F04. SEE STRUCTURAL FOR REINFORCEMENT
27. SIDEWALK - SEE CIVIL
28. FIRE EXTINGUISHER (BY GC). VERIFY EXACT LOCATION WITH FIRE MARSHAL
29. PROVIDE 1" CONDUIT UNDER SLAB ALONG CURB. DAYLIGHT THROUGH CURB AT DIRECTION OF JLI REP.
30. GAS METER - SEE PLUMBING DRAWINGS
31. DOMESTIC WATER SERVICE - SEE PLUMBING DRAWINGS
32. SET CLOSET WALL TO ALLOW GYP. BD. BEHIND DOOR JAMB.
33. PROVIDE SOUND BATTS IN THIS WALL
34. PROVIDE YELLOW SAFETY GATE SKU #SGNA036PC-A SIMPLIFIED SAFETY (866) 527-2275 OUT OF ROCHESTER NY.
35. PROVIDE 1 1/2" X 60" TALL (48" IN LOBBY) STAINLESS STEEL CORNER GUARDS AT LOCATIONS NOTED. SECURE WITH 3 M HEAVY DUTY DOUBLE STICK CARPET TAPE, MODIFY AT SHORT WALL.
36. KEY DROP BOX WDC-160 PROTEX WALL DROP BOX WITH ADJUSTABLE CHUTE, SEE EXTERIOR ELEVATIONS A-4
37. ROOF ACCESS LADDER - SEE 4/A-7.1
38. 3/4" x 4'-0" x 8'-0" FRT. PLYWOOD AT REAR OF CLOSET, SEE ELECTRICAL FOR MORE INFORMATION.
39. APPROXIMATE SUMP PUMP LOCATION - SEE PLUMBING FOR MORE INFORMATION

PARTITION LEGEND

- P1 — 2 X 6 WOOD STUDS WITH R21 BATT INSULATION IN CAVITIES, WITH 1/2" PLYWOOD & 2" EIFS ON EXTERIOR SIDE, 1/2" PLYWOOD W/ FRP TO 96" A.F.F. & GYP ABOVE INSIDE. (SEE STRUCT. FOR STUD SPACING)
- P2 — 2 X 6 WOOD STUDS WITH R21 BATT INSULATION IN CAVITIES, WITH 1/2" PLYWOOD AND 2" EIFS ON EXTERIOR SIDE, 5/8" GYP BD. ON INTERIOR SIDE. (SEE STRUCT. FOR STUD SPACING)
- P3 — 2 X 4 WOOD STUDS @ 16" O.C., WITH 5/8" GYP BD. EA. SIDE. SEE GENERAL NOTE #33. PROVIDE M.R. GYP BOARD IN WET AREAS.
- P4 — 2 X 6 WOOD STUDS @ 16" O.C., WITH SOUND BATT INSULATION IN CAVITIES, WITH 5/8" GYP BD. EA. SIDE. PROVIDE M.R. GYP BOARD IN WET AREAS. ON DEMISING WALL BETWEEN CUSTOMER LOBBY ROOM AND OIL SERVICE BAYS, PROVIDE 1/2" PLYWOOD W/ FRP TO 96" A.F.F. **ON SERVICE BAY SIDE ONLY.**
- P5 — 1 1/2" WALL FURRING STRIPS @ 24" O.C. FLAT FRAMED WITH 5/8" GYP BD. EA. SIDE.
- P6 — LOW WALL 42" HIGH, 2 X 4 WOOD STUDS @ 16" O.C., SEE DETAIL 9/A-7.1 FOR STEEL POST WALL REINFORCEMENT. (SERVICE AREA) FRP OVER 1/2" PLYWOOD. EACH SIDE. CAP WITH 2x6 PAINTED P01. (LOBBY) 5/8" GYP. BD. PAINTED. CAP WITH MELAMINE WRAPPED 1X6 BY MILLWORK VENDOR
- P7 — 2 X 6 WOOD STUDS ON HORIZONTAL 2X BRIDGING WITH 1/2" PLYWOOD & 2" EIFS ON EXTERIOR SIDE OVER WALL TYPE 'P1'. (SEE STRUCT. FOR STUD SPACING)

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9701 BELLEVILLE RD.

REVISIONS

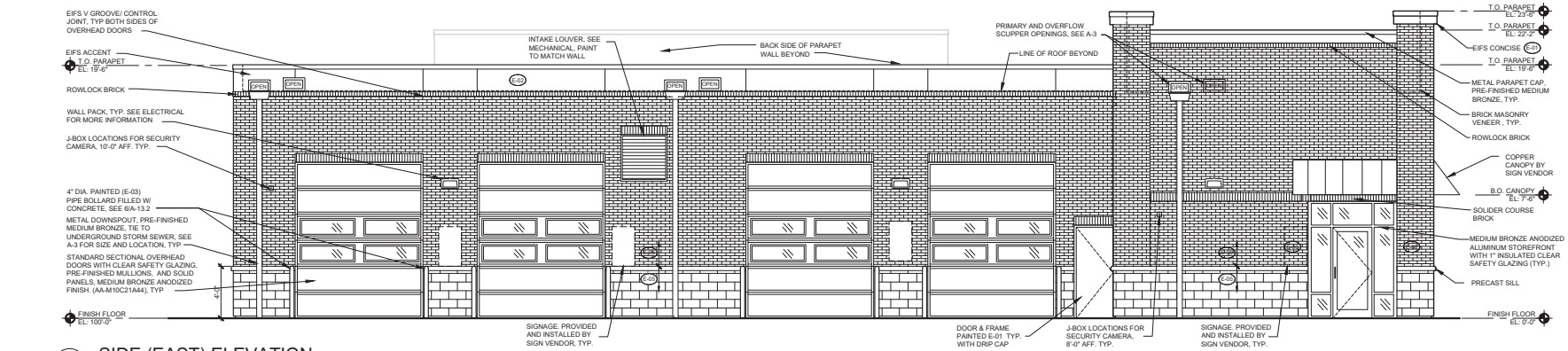
SCHMITT, JAMES A.
LIC. NO. 1310464B EXP. DATE 10/31/21
PROFESSIONAL OF RECORD
PHONE: 314-821-1100
5/19/20

Drawn /Checked by:	MDS / JAS
Project Number	920374
Bid Date	XXXX
Permit Date	XXXXX

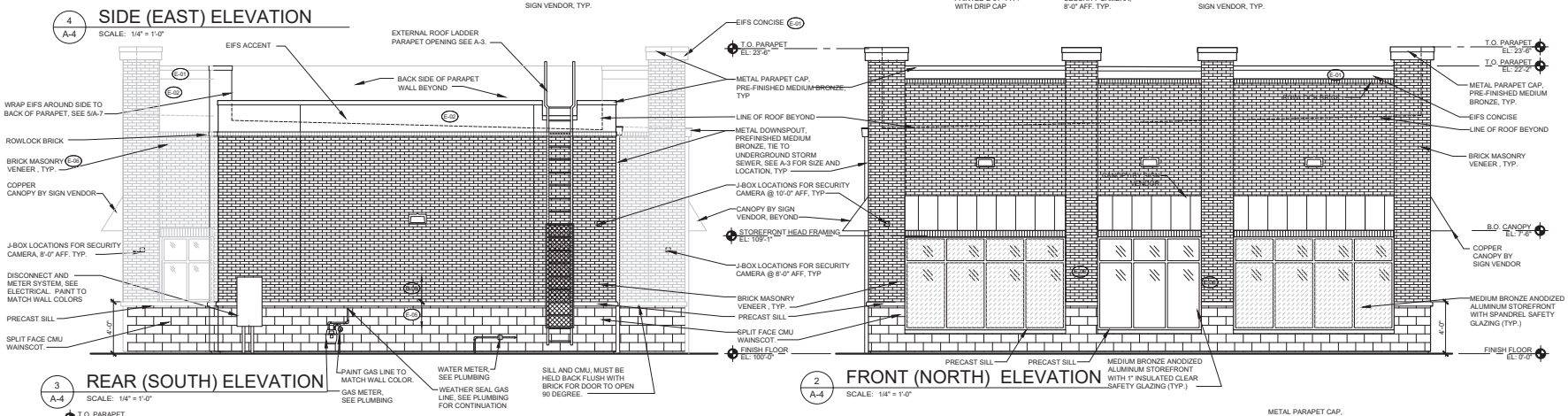
FLOOR PLAN - UPPER BAY

A-2

CITY PROJECT NUMBER - LSD 19-0051

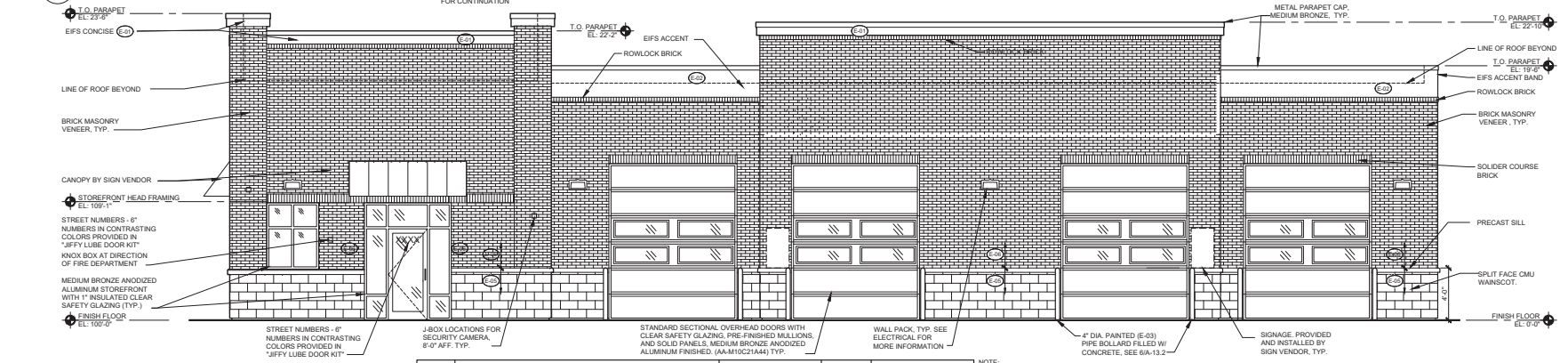


4 A-4 SIDE (EAST) ELEVATION
SCALE: 1/4" = 1'-0"



3 A-4 REAR (SOUTH) ELEVATION
SCALE: 1/4" = 1'-0"

2 A-4 FRONT (NORTH) ELEVATION
SCALE: 1/4" = 1'-0"



1 A-4 SIDE (WEST) ELEVATION
SCALE: 1/4" = 1'-0"

MARK	EXTERIOR FINISH SCHEDULE:	MATERIAL	MFR #	COLOR
E01	EXT. WALLS: SIGN POLES / FENCES / EXT. DOORS AND TRIM	PAINT (SATIN / SEMI-GLOSS)	SW2827	COLONIAL REVIVAL STONE
E02	EXT. WALLS: ABOVE WAINSCOT/ EIFS (PAREX SYSTEM) WITH STUCCO FINISH.	INTEGRAL TO MATCH	SW9120	TUMBLIN TUMBLEWEED
E03	EXT. WALLS: TRAFFIC BOLLARDS	PAINT (SEMI-GLOSS)	SW2905	CARMINE
E04	EXT. WALLS: APPLY OVER CARMINE COLOR ABOVE	PAINT (SEMI-GLOSS)	CLEAR COAT	SHER-CLEAR
E05	EXT. WALLS: WAINSCOT / PILASTER	SPLIT FACE CMU	-	TBD
E06	EXT. WALLS: BRICK VENEER	BRICK	-	TBD

NOTE:
1. ALL COLOR NAMES INDICATED ARE FOR SELECTION PURPOSES ONLY. SEE PAINT SPECS FOR SPECIFIC REQUIREMENTS. DESCRIPTION: (ALL "SHERWIN / WILLIAMS" NUMBERS 'SW' COLORS)
2. APPLY CLEAR COAT (E-04) OVER CARMINE (E-03) ON EXTERIOR APPLICATIONS.
3. ALL SIGNAGE SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. ALL SIGNAGE IS UNDER SEPARATE PERMIT AND FINAL DESIGN IS BY SIGNAGE VENDOR.

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9701 BELLEVILLE RD.

REVISIONS	
MODIFIED ELEVATIONS	8/13/20
MODIFIED ELEVATIONS	8/27/20
REMOVED BRAND SIGNAGE	9/15/20

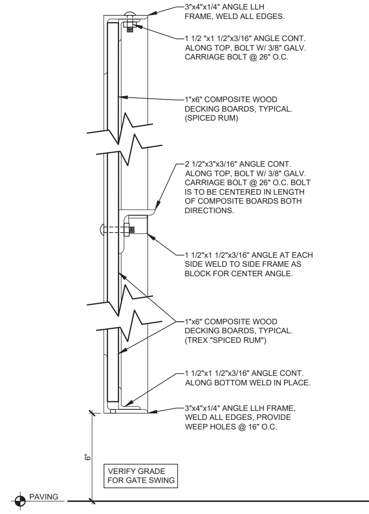
PROFESSIONAL OF RECORD
PHONE: 314-821-1100

Drawn /Checked By:	XXX / XXX
Project Number	920374
Bid Date	XXXX
Permit Date	XXXXX

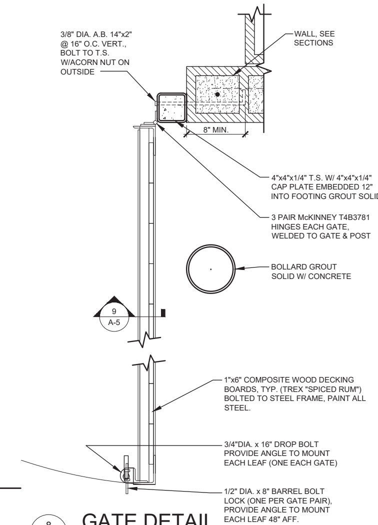
PRELIMINARY ELEVATIONS

A-4

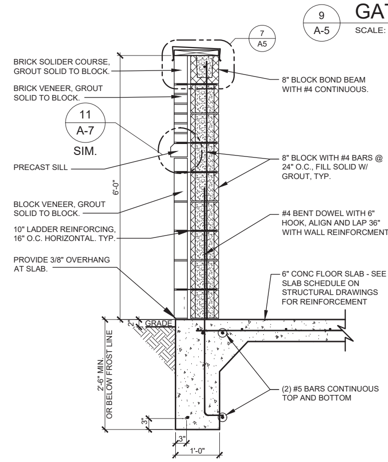
CITY PROJECT NUMBER - LSD 19-0051



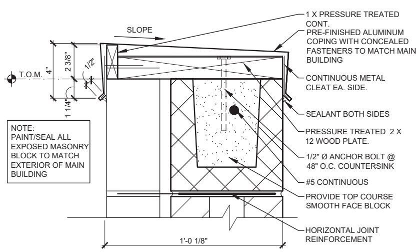
9 A-5 GATE SECTION
SCALE: 3" = 1'-0"



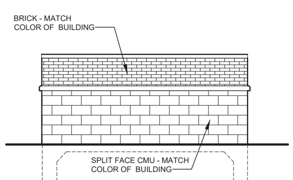
8 A-5 GATE DETAIL
SCALE: 1-1/2" = 1'-0"



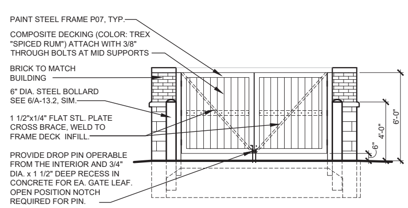
5 A-5 WALL SECTION
SCALE: 3/4" = 1'-0"



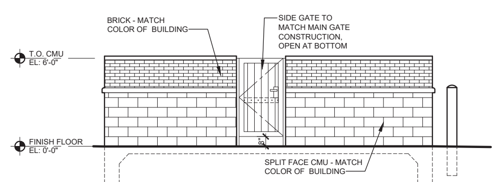
7 A-5 CAP FLASHING DETAIL
SCALE: 3" = 1'-0"



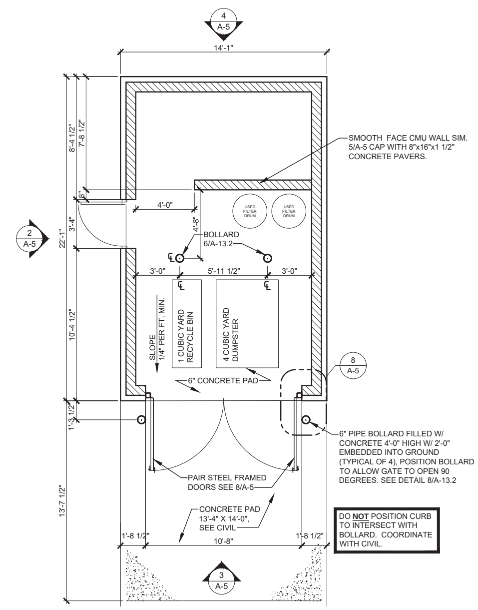
4 A-5 REAR ELEVATION
SCALE: 1/4" = 1'-0"



3 A-5 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



2 A-5 SIDE ELEVATION
SCALE: 1/4" = 1'-0"



1 A-5 CMU DUMPSTER ENCLOSURE
SCALE: 1/4" = 1'-0"

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REVISIONS

JAMES A. SCHMITT
LIC. NO. 131046489
EXP. DATE 10/31/21
PROFESSIONAL OF RECORD
PHONE: 314-821-1100

Drawn /Checked By:	XXX / XXX
Project Number	920374
Bid Date	XXXX
Permit Date	XXXXX

DUMPSTER ENCLOSURE

A-5

CITY PROJECT NUMBER - LSD 19-0051

September 21, 2020

Planning Department
Van Buren Township
46425 Tyler Road
Belleville, Michigan 48111

Re: Jiffy Lube Belleville

Dear Planning Commission Members:

We respectfully submit the attached revised plans and calculations for the above referenced project and are responding to the comments by the Township Engineer dated June 23, 2020. Note that the items highlighted in gray are statements of conformance or general information related to the development and do not require a response. Please find the comments listed and our responses below:

Site Plan Review Comments

1. Zoning and Use. The site is currently zoned C-2 (Extensive Highway Business District). Section 3.112 of the Zoning Ordinance permits vehicle service (minor) as a special land Use in the C-2 Extensive Highway Business District.

2. Required Information. Section 12.203 of the Zoning Ordinance includes requirements for information on a site plan. The following items must be included on the site plan:
   - Notation of any required Township, County, or State permits.

   List of required permits is listed on G0.01.

3. Lot. The application has indicated that the site is a total area of 0.72 acres. The legal description is included with the tax parcel ID number.

4. Specific Approval Criteria for Vehicle Service [Section 5.141]: The following item must be addressed:

   a. The minimum frontage on any one (1) public street shall be at least one hundred fifty (150) feet. The outlot has a width of 141.9 feet, 9.1 feet short of what's required. This issue needs to be resolved through acquisition of additional land to meet the width requirement.
   The width of the outlot has been updated to be 150 feet on all plans.

5. Dimensional Requirements. There is no required minimum lot area or width in the C-2 Extensive Highway Business District.

   The minimum required front, rear, and side yard setbacks for the C-2 District is 35 feet, 20 feet, and 25 feet respectively. The proposed building location complies with all the setback dimensions.

   Maximum permitted building height in the C-2 District is 4 stories and 40 feet. The elevations proposed indicate a building height of 22 feet and 2 inches, compliant with the Zoning ordinance.

6. Access and Circulation.

a. Location of Curb Cuts. Access to the proposed facility will be provided via the existing driveway off Tyler Rd, with a cross access drive proposed to connect to the existing driveway, which provides access to the Meijer Express Gas Station. The access drive has a proposed width of 24 feet with a lane each for ingress and egress.

b. Cross Access. Access to the site is being provided through a cross access drive.

c. Sidewalks. The site has an existing sidewalk along its Tyler Road frontage. The plan proposes the construction of a sidewalk connection from the public sidewalk to a new sidewalk on the west side of the proposed building. The connector creates a plaza area along Tyler Road and subsequently narrows to 5 feet. The plaza area is to be installed with two benches and a trash receptacle.
250 sf outdoor gathering space has been proposed in the Northwest corner and includes (2) benches and a trash receptacle as shown on sheet C1.20

7. Parking and Loading.

a. Space Dimensions. Parking spaces on the site are dimensioned at 9.5 feet wide by 20 feet long, compliant with the Zoning Ordinance.

b. Number of Parking Spaces. The parking requirement is one (1) space for every two (2) service stalls one (1) for each employee in the largest shift. With 4 proposed service stalls, at least 8 parking spaces are required in addition to one (1) for each employee in the largest shift. The site plan must include notation of the number of employees in the largest shift. The site plan includes a total of 9 parking spaces. Four (4) additional spaces are shown in front of the overhead doors on the west side of the building and are counted towards parking spaces, which is not acceptable. The overhead doors serve as a one way exit from the building's service bays, and required parking cannot be striped to block the circulation path. Also, clarify the plan is to eliminate half of a row of parking for Meijer that is on the south end of outlot.
The cover sheet, G0.01, has been updated to include the number of employees in the largest shift. (13) spaces required & (9) spaces provided on-site AND (4) OFF-SITE. On sheet C1.02 (4) off-site spaces within the Meijer lot have been granted easements from respective owner to fulfill the total parking count requirement.

Partial rows of parking on the Meijer's lot (20) spaces total are to be eliminated as part of these improvements. See parking count justification for these modification on sheet C1.02

c. Barrier Free Spaces. The plan proposes one (1) barrier free space which is ADA compliant; however, the ramp location must be clearly labeled.
The ramp location has been clarified on C1.20.

d. Loading. As the proposed building is between 0 – 10,001 sq. ft., one (1) 10' x 25' loading space is required. The required loadings pace must be clearly dimensioned on the site plan.
A loading zone has been added to the western side of the site. See C1.20.

e. Bicycle Parking. Chapter 3 of Article 6 provides standards for buildings within the Belleville Road Overlay District (BROD). Per this chapter, one (1) bicycle parking space shall be provided for each twenty-five (25) vehicle parking spaces or fraction thereof. With 9 proposed parking

spaces, one (1) bicycle parking space is required and has been proposed along the building front, compliant with the Zoning Ordinance.

8. Landscaping and Screening. The site is located in the Extensive Highway Business (C-2) district. All sites are strongly encouraged to exceed Zoning Ordinance minimums for landscaping, site design, and building appearance among others. Our comments on individual landscaping requirements are reflected in the following comments:
The following comments have been addressed on sheet L1.20

a. Landscaping Adjacent to the Right-of-Way. Section 10.103(A) requires lot frontage landscaping of 1 deciduous tree/40 lineal feet + 1 ornamental tree/100 lineal feet + 8 shrubs/40 lineal feet. The site has a frontage of 142' on Tyler Road, which requires a total of 4 deciduous trees + 2 ornamental trees + 28 shrubs. The landscape plan proposes 4deciduous trees + 0 ornamental trees + 9 shrubs along the road frontage on Tyler, deficient of ordinance requirements.
(4) Existing deciduous trees provided
(1) Existing and (1) proposed ornamental trees provided
(31) Deciduous and evergreen shrubs provided

Section 6.310 (C) (2) (b) states; In addition to the trees required in the frontage area in Section 10.103(A), deciduous street trees shall be planted within the right-of-way of any streets (i.e., between the sidewalk and the street), in an amount equal to at least one (1) deciduous street tree per each forty (40) linear feet or fraction thereof of frontage. This requires another 4 trees between the Tyler Road right-of-way and the existing sidewalk, which has not been provided.
(4) Trees provided within the row

b. Parking Lot Landscaping. Section 10.103(B)(1) requires all parking lots to be landscaped and screened from adjoining public or private rights-of-way. Landscaping shall include a landscaped yard at least five (5) feet in width containing an opaque screen of landscaping (evergreen or deciduous hedge) at least three (3) feet in height. As the majority of the parking lot is behind the proposed building, we find that it is adequately screened from Tyler Road. However, the handicap accessible space on the northeast corner of the building is clearly visible from Tyler Road and must be screened as required.
A screen hedge has been provided

Interior parking lot landscaping. Section 10.103(B)(2) requires the provision of landscaping within islands in a parking lot. Interior landscaping shall account for a minimum of five percent (5%) of all paved parking areas, including parking and loading spaces, driveways, and aisles. The applicant must provide the square footage of all paved areas, including parking and loading spaces, driveways, and aisles. There are multiple interior parking lot islands throughout the development. The applicant must provide the total proposed square footage of all the interior parking lot landscape islands.
Total on-site paved area is 11,831 sf * .05 = 592 sf required
Total interior space provided = 650 sf

Additionally, one (1) deciduous tree shall be planted for each three hundred (300) square feet of interior landscaping. Compliance with this standard will be determined when the applicant submits the information required above.
(2) Deciduous trees provided

c. Loading Area Landscaping. Section 10.103 (C) of the Zoning Ordinance requires an opaque wall or a greenbelt for required screening. The site plan does not provide the location of a loading zone and compliance with this standard will be determined when the applicant details a loading zone on a newly submitted site plan.
The loading space has been identified and screen with 6' evergreen plantings and 24"-30" ornamental grasses

d. Display Area Buffering. This requirement is not applicable.

e. Greenbelt Buffering. Section 10.103 (E) provides greenbelt buffering standards. A ten (10) foot wide buffer, with one (1) tree per thirty (30) linear feet is required on all sides of the proposed development. A 10-foot-wide buffer has been provided on all sides except the east side lot line. With 142 linear feet on the front and rear lot line, 5 greenbelt trees are required; 4 trees have been proposed in the front and 2 trees in the back. Additionally, 6 trees are required along the west side lot line and 7 trees are required along the east side lot line, but none have been proposed along either lot line. The greenbelt along the east lot line and all of the required trees must be included on a revised plan.
North property line = 150' / 30 = 5 trees required - (3) exist. & (2) proposed trees
South property line = 150' / 30 = 5 trees required - (5) proposed trees
East property line = 196' / 30 = 7 trees required - (7) proposed trees
West property line = 196' / 30 = 7 trees required - (7) proposed trees

f. Detention Pond Landscaping. The site plan includes a proposal to incorporate a bioretention area into the development. The proposed drainage system is subject to review and approval by the Township Engineer and Wayne County. Any planting around the drainage areas are under Wayne County's jurisdiction. The planting plan for this area must be provided and approved by the County.

g. Specific Landscaping for C-2 Zoning District. Developments in the C-2 District require contiguous outdoor space, independent of sidewalks, pedestrian circulation areas and required landscaping, in an amount not less than one (1) square foot for each twenty-five (25) square feet of principal building and in no case less than two hundred fifty (250) square feet in total. Based on the building size the required open space is under the 250 sq. ft. threshold so 250 sq. ft. of open space is the minimum required for the site. The plan notes the provision of 11,191 square feet of open space; however, it is unclear which areas were included in this number. Clarify.
Principle building = 3,064 sf / 25 = 250 sf required
250 sf provided of outdoor space

h. BROD Landscape Standards. Section 6.310 provides landscape standards for development projects within the BROD. Some of these standards are discussed in their respective landscape standards above. The following additional points need to be addressed on a revised plan:

- Perennial beds, planted in groups, shall be planted in twenty percent (20%) of the required landscape frontage area defined in Section 10.103(A).
  150 lf of frontage * (.2) = 30 lf of frontage
  45 lf of perennial beds planted along frontage
- A minimum eight (8) foot street lawn, five (5) foot wide sidewalk, and five (5) foot buffer area between the off-street parking and/or vehicular use area and the sidewalk shall be provided. The

street lawn shall include trees in accordance with Section 6.310(C)(2). The five (5) foot buffer area shall extend the length of the parking lot, and include an opaque screen of landscaping at least three (3) feet in height. The opaque landscape screen shall be composed of upright shrubs planted as a hedge. The hedge shall attain opacity and a height of three (3) feet within twelve (12) months of planting under normal growing conditions.
A 30" evergreen hedge is proposed along the southern parking spaces

- Since the landscape requirements are extensive and involve requirements from various Ordinance sections, we recommend that the applicant include a list with each requirement on the landscape plan and note how the requirement is being met.
The landscape legend has been revised to reflect associated code requirements

9. Tree Removal Permit. A tree removal permit is required if the applicant proposes to remove any trees of 5" caliper or larger. The site includes a row of established trees along its Tyler Road frontage. The rest of the site is a grassy area. Clarify is any of the frontage trees are to be removed.
No trees along the frontage are to be removed so a tree permit is not applicable.

10. Stormwater Pond. As previously stated, the proposed development is to contain a bioretention area. Storm water detention calculations are subject to review and approval by the Township Engineer and Wayne County.

11. Lighting. The photometric plan indicates several wall mounted fixtures on the building façade and a single pole fixture on the south side of the site. Standards from Section 8.105 and 6.309 (D) apply. The following items must be addressed:

a. Manufacturer's cut sheet details for proposed wall and pole mounted fixtures with shielding must be provided.
Cut sheets have been included at the end of this response letter

b. The light pole location must be shown on the site and landscape plans.
The light pole location has been shown on the C1.20 and L1.20 sheets.

c. The illumination intensity must comply with the requirements of Section 8.105 (B) (2). There are several examples of where the proposed average illumination of the area exceeds what's permitted.
There is only 1 proposed site light the remaining are client standard wall pack lights required to ensure acceptable levels of lighting for customers and employees. The light level at all surrounding roadways is generally 0.0 with only small areas only up to .3 foot-candles

d. Light fixtures within parking lots that are not located in a landscape island or median shall be designed with raised bases to protect them from damage by vehicles. The light pole in the parking lot appears to be proposed right on the curb. If it is not proposed to be within the landscape island it must be designed with a raised base. Additionally, the applicant must clarify that the location of the proposed light pole will not affect the bioretention area.
The proposed light fixture is located within the landscape area. See sheet C1.20 for location.

12. Architecture and Building Details. The applicant has submitted detailed elevations for the proposed building. The structure is to be constructed of 'thin brick' masonry veneer and

provided with an EIFS cornice and metal cap. The east and west facades have several overhead doors, while the north façade facing Tyler Road has 3 windows.

The site is part of the Belleville Road Overlay District, the Township's primary business district. The Planning Commission has consistently required a high standard of design for developments in this area. Chapter 3 of Article 6 provides standards for buildings within the Belleville Road Overlay District (BROD). The following items from Chapter 3 of Article 6 must be addressed:

a. Details of the proposed benches in the front plaza area must be provided.
Details of the proposed benches have been included on C1.20.

b. Decorative special paving shall be used to enhance site design but should be used as an accent and should serve a specific purpose. It appears the proposed sidewalk within the front yard may incorporate decorative paving but clarification is required.
Location and square footage of decorative paving have been included on C1.20.

c. Awnings and overhangs shall be used in conjunction with street trees to provide shade for pedestrians. It appears the applicant is proposing awnings as they are labeled on the sign plan but they are labeled as "sign canopy" on the elevations. Please clarify.
Copper canopy elements are proposed on the East, West and North elevations as shown on revised elevations and site plans.

d. Nonresidential buildings shall have a minimum of fifty (50%) glass at the ground floor level facing a street, with other exterior wall surfaces at upper stories not exceeding fifty (50%) glass. The proposed elevations do not comply.
Revised building elevations have been provided for review

e. The intent of the BROD is to avoid developments with architectural elements that look applied, rather than incorporated. For example, building facades that incorporate canopies must provide a pitched roof component to provide depth and give an authentic appearance. The proposed architecture does not meet BROD standards. The use of thin veneer face brick is not acceptable. True brick, stone and other similar high-quality materials must be incorporated on a façade that has details in the form of banding, columns etc. As proposed the structure lacks visual appeal.
Revised building elevations have been provided for review

f. The proposed elevations for a building located at the entrance to a major store in the principal shopping district within the Township is not acceptable. The elevations would need a complete revision to incorporate some roof pitch details, higher quality materials, different design overhead doors that integrate into the building design and complete façade enhancement.
Revised building elevations have been provided for review

13. Dumpster. A dumpster pad location has been labeled on the site plan in the southwest corner of the site. However, the details for this dumpster enclosure has not been included. Typical details showing a masonry (brick) enclosure with steel reinforced wood gates and bollards must be noted. We have concerns that the location of the dumpster places it in direct view of the main entrance into the Meijer site off Tyler Road.
Dumpster details have been included. See A-5.

14. Signs. The applicant is proposing one monument sign, eight wall signs, and five incidental exit/entry signs. The entry/exit safety signs are considered as exempt signage. The proposed monument sign exceeds the maximum height permitted. The sign also exceeds the maximum area for monument signs for a lot with less than 200 feet of frontage. A total of 100 sq. ft. of wall signage is permitted for the site. The eight proposed wall signs greatly exceed this 100 sq. ft. of permitted wall signage. The Jiffy Lube multicare fascia sign alone exceeds the 100 sq. ft. limit. As the sign area is measured by the outer perimeter forming the rectangle including the open space between the "jiffylube multicare" sign and the "Pennzoil" sign, the proposed wall signage greatly exceeds what's permitted on the site. Signage must be revised to comply with Ordinance requirements.
Signage plans have been revised to meet the ordinance and provided for review

15. Other. The plan proposes no screening around the transformer shown on the northeast corner of the site.
Proposed landscape screening at transformer has been added to sheet L1.20

Engineering - General

The following items are general requirements established as part of the Engineering Standards Manual, Charter Township of Van Buren (April 2014). The applicant must include the following items as part of the construction plans:

1. According to the plans, parcel boundary lines are based on a field survey completed by DLZ dated 4-21-2020. If the parcel as it is currently drawn on the plans has not been recorded at the time of plan submittal, applicant must include the existing parcel legal description & show existing parcel dimensions on plan view.
   Lot split has been completed and new boundaries provided and under review

2. Plans indicate that the address of 9701 Belleville Road is for the Meijer Store located on the parent parcel. Applicant to supply the development parcel address when available.

3. Plans must indicate relocating and/or addressing the existing overhead utility poles. Plans must indicate the location of proposed relocated overhead utility poles if within the project area.
   No overhead utilities are to be relocated as part of these improvements

4. Any irrigation will be required with the submittal of the Engineering Plans.
   Once landscape design is approved irrigation plans will be completed and provided for review

5. All easements, proposed and existing, must be indicated on the plans.
   Easements are shown on sheet 0057AL, C1.20 and C1.41.

6. All benchmark information must be listed on the plans with all elevations listed in National Geodetic Vertical Datum 29 (NGVD 29) or include a conversion factor to the NGVD 29 datum.
   ALTA revised to show a conversion factor NAVD 88 to NGVD 29

7. Applicant to verify compliance with Township planning department regarding the removal of 14 parking spaces from the adjacent Meijer parkinglot.

ALTA revised to show both water mains.

8. Applicant must indicate overland stormwater flow route. Showing the pre and post development drainage patterns.
   Existing and proposed flow arrows shown on sheet C1.30.

9. Soil boring information, including the ground water elevations, must be provided.
   Geotechnical report provided within this response package

10. Plans must include the following required notes:
    a. All construction shall conform to the current standards, specifications, and general conditions of the Township.
    b. The applicant is responsible for resolving any drainage problems on adjacent properties which are the result of the applicant's actions.
    The notes have been added to sheet G0.01.

11. Engineering Plans must include the applicable Standard Detail Drawings as found in Appendix A of the Township Engineering Standards Manual. The Township can provide full size sheets of multiple details upon request.
    Details have been replaced with Van Buren Township Standard details as applicable. See sheet C5.01.

Water Main Service Comments:

1. Applicant must show both existing GLWA water mains along Tyler Road. Plans currently only show one GLWA main.
   ALTA and current plans revised to show both water mains.

2. A minimum size of two inches shall be required for commercial or industrial developments.
   The size of the proposed water service has been updated on sheet C1.40 & C1.41.

3. Any crossing of the existing GLWA water main(s), will require permit review and approval by GLWA. The Township can supply GLWA Permit contact info upon request.
   No crossings of the existing water main lines are being proposed or are anticipated

4. Applicant must verify the type, if any, of fire service connection needed and whether the building will include sprinklers.
   Based on building construction type and square footage building sprinklers are not required

5. No part of any building or structure shall be more than 250 feet from a hydrant. The distance shall be measured along the shortest feasible exterior route for laying fire hose. Applicant must indicate location of closest existing hydrant or show extension of existing water system to provide proper adequate coverage, as approved by the Township Fire Marshal.
   ALTA revised to show the fire hydrant on the north side of Belleville Road. A new hydrant is proposed as part of this project.

Sanitary Sewer Comments:

1. The internal discussion is still ongoing on the capacity and connection to the existing public 10-inch

clay sanitary sewer along Belleville Road. Discussion will continue and further information will be provided at the Staff Review Meeting.

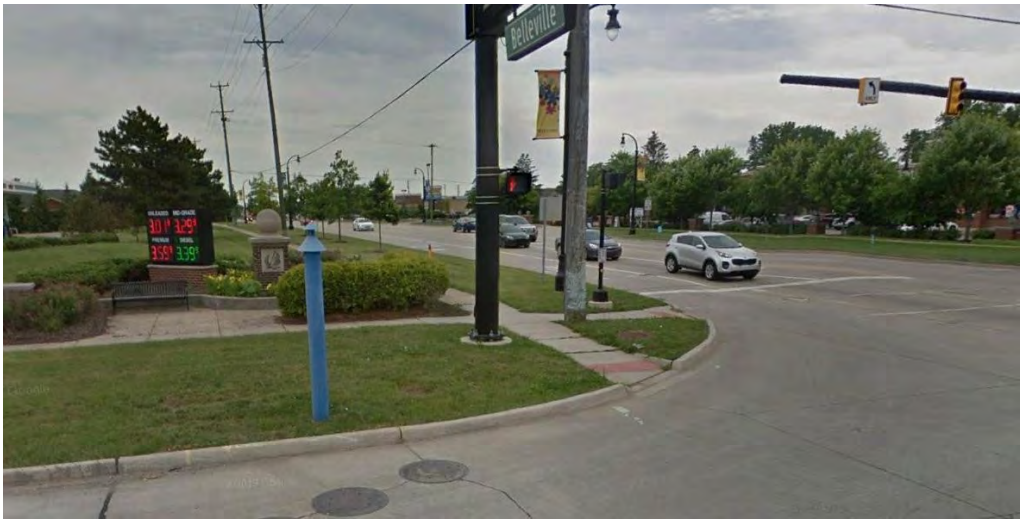
2. The Township has concerns with the ability to construct the sanitary sewer as currently proposed, due to existing utilities, above ground features, and the overall intersection configuration of Tyler Road and Belleville Road [See Image #1].

The sanitary sewer route has been revised. Refer to sheet C1.40.

3. Applicant must complete a full topographic survey of the intersection, including but not limited to: existing utilities, manhole inventories, above ground site features, and conduct a private utility investigation (Miss Dig). Applicant must then indicate the method in which they plan to construct the sanitary sewer within the footprint of the existing features.

The topographic survey of the intersection will no longer be required. Jiffy Lube intends to complete additional survey work for the sanitary sewer and watermain areas prior to final engineering.

IMAGE #1



4. The 6-inch sewer service lead must tap into the proposed 10-inch sanitary sewer line downstream of the proposed manhole via a wye branch. Service connections cannot tap directly into manholes.

Design will proceed accordingly

Storm Sewer Comments:

1. Calculations for the design of the storm sewer system must be provided in accordance with the Township Design Standard Manual. The maximum allowable discharge in the Township for detention basins in 0.1 cfs/acre.

Calculations for the storm sewer design provided on C1.32. Allowable outflow from the basin for this site is 0.075 cfs based on disturbed acreage.

2. Applicant must submit for stormwater approval from Wayne County prior to the Township accepting submission for Engineering and Final Site Plan approval. The Township will request to see that Wayne County has reviewed and commented on the stormwater system prior to reviewing the system itself.

3. Applicant shall design storm sewer system to have minimum cover of 4 feet above all storm sewers wherever possible. An absolute minimum cover of 2.5 feet is allowable, upon approval from the Engineer. Roof drain cover must be indicated on plans.

All pipes have at least two and a half (2.5) feet of cover, with most having at least four (4) feet of cover. Roof drain labeled with minimum required cover and designed to discharge to French Drain. ADS N-12 Pipe has ben tested to meet H-25 and HS-25 loading with one (1) foot of cover for diameters up to 48". As such, there should be no structural concerns with the pipe cover as shown on the plan.

Paving and Grading

1. Flow arrows on the grading plans shall indicate general slopes of the area, verifying that minimum and maximum slopes/grades allowable by the Township Engineering Standards Manual are met.

Flow arrows have been added to sheet C1.30.

2. As part of the Engineering review process, the applicant will be required to provide more detailed grading plans that indicate detailed ramp grades for sidewalk ramp areas needing to comply with the Americans with Disabilities Act 2010 (ADA).

An enlarged grading plan has been to detail the sidewalk ramp area. See sheet C1.30.

3. Truck turning movements must indicate full paths of all wheels of the largest truck anticipated onsite.

A truck turn plan has been added to show the path. See sheet C1.21.

Soil Erosion and Sedimentation Control

1. The SESC plan provided must be in accordance with the Township *Engineering Standards Manual*, Chapter II, Plan Requirements, Paragraph D, SESC Plan Requirements, and in accordance with Wayne County SESC standards. A permit must be acquired from the Wayne County SESC County Enforcing Agency. https://www.waynecounty.com/departments/environmental/landresources/soil-erosion.aspx

Sheet C1.11 has been added to fulfill this requirement.

Thank you for your time and attention to this matter. If you have any further questions, please feel free to contact me at 219.841.6535 or by email at Tim.Kratz@sevansolutions.com .

Sincerely,

Tim Kratz, PE
Project Executive

Catalog number: EWN-B-0-A3-7-40-1-N-DKBZ

Type: F wallpack

Evolve™ LED Wall Pack

N Series (EWNB)

current
powered by GE

Product Features

The next generation of the GE Evolve™ LED Wall Pack is designed to efficiently illuminate walkways, area, and general lighting applications. The EWNB features an advanced LED optical system that provides high uniformity, excellent vertical light distribution, reduced on-site glare and effective security light levels. The EWNB Wall Pack offers identical photometrics to the EANB Area Light, which allows lighting designers to capitalize on the same features without compromising site layouts. In keeping with a sleek design strategy, this product offers a modern look, balancing the need for photometric scalability with reliable workhorse performance.

Applications

- Wall mounted, site, area and general lighting utilizing an advanced LED optical system providing uniformity, vertical light distribution, reduced on-site glare and effective security light levels.

Housing

- Die-cast aluminum housing.
- Slim architectural design incorporates an integral heat sink and light engine, ensuring maximum heat transfer, long LED life, and a reduced Effective Projected Area (EPA).
- 3G vibration per ANSI C136.31-2010. For 2G rating contact manufacturer.

LED & Optical Assembly

- Structured LED array for optimized area light and wall pack photometric distribution.
- Evolve™ LED light engine utilizes reflective technology to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 3000K, 4000K & 5000K typical.

Lumen Maintenance

- Projected L90>50,000 hours per IES TM-21
- Projected Lxx per IES TM-21 at 25°C for reference:

	LXX (10K)@HOURS		
SKU	25,000 HR	50,000 HR	100,000 HR
EWNB	L98	L95	L90

NOTES: 1) Projected Lxx based on LM-80 (10,000 hour testing).
2) DOE Lighting Facts Verification Testing Tolerances apply to initial luminous flux and lumen maintenance measurements.

Lumen Ambient Temperature Factors:

LUMEN AMBIENT TEMPERATURE FACTORS:	
AMBIENT TEMPERATURE (°C)	INITIAL FLUX FACTOR
10	1.02
20	1.01
25	1.00
30	0.99
40	0.98
50	0.97

Ratings

- ⓊL/cⓊL listed, suitable for wet locations.
- IP66 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at –40° to 50°C.
- Upward Light Output Ratio (ULOR) = 0
- Title 24 compliant with "H" motion sensor option.
- Compliant with the material restriction requirements of RoHS.

Mounting

- Flush wall mount with convenient tab and slot mounting for easy "J" box installation. 1/2" conduit holes are included for non-"J" box installation.

Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black and Dark Bronze.
- RAL & custom colors available.

Electrical

- 120-277 VAC and 347-480 VAC available.
- System power factor is >90% and THD <20%.
- ANSI C136.41 7-pin dimming receptacle, standard.
- ANSI photo electric sensors (PE) available for all voltages. Light Grid compatible.
- Dimming/Occupancy:
  - Wired 0-10V continuous dimming
  - DALI digital dimming. Contact manufacturer for availability.
  - Standalone motion sensor based dimming using "H" option code.
- Surge Protection per ANSI C136.2-2015.
  – 6kV/3kA "Basic" surge protection, standard.
  – 10kV/5kA "Enhanced" surge protection optional.

Accessories

- Escutcheon Plates - See page 6
- PE Accessories - See Page 3

Ordering Number Logic

Evolve LED Wall Pack N Series (EWNB)

E W N B _ _ _ 7 _ _ _ _ _ _ _ _

PROD. ID	PHOTOMETRIC SERIES	VOLTAGE	OPTICAL CODE	CRI	LED COLOR TEMP	PE FUNCTION	MOUNTING ARM	COLOR	OPTIONS
E = Evolve **W** = Wall Pack **N** = Housing Series	**B** = Photometric Series "B"	**0** = 120-277* **1** = 120 **2** = 208 **3** = 240 **4** = 277 **5** = 480 **D** = 347 **H** = 347-480V* *Not available with Fusing. Must choose a discreet voltage with F Option.		**7** = 70 (min)	**30** = 3000K **40** = 4000K **50** = 5000K	**1** = None **3** = Button PE* **A** = ANSI C136.41 7-pin PE Receptacle # **D** = ANSI C136.41 7-pin PE Receptacle with Shorting Cap # *Only available with voltage 1,2,3 and 4. # Order Dimming/Control PE as a separate item. See accessories section of this datasheet for ordering information.	**N** = None Required	**BLCK** = Black **DKBZ** = Dark Bronze **GRAY** = Gray **WHTE** = White Contact manufacturer for other colors.	**D** = External Dimming Leads Provided (0-10Volt Input) **F** = Fusing **L** = Tool less entry **R** = 10kV Enhanced Surge Protection **H** = Motion Sensor # **U** = DALI Dimming+^ **XXX** = Special Options # R & H options cannot be purchased together. Not available with voltage 5, D and H. + Compatible with LightGrid 2.0 nodes. ^ Not compatible at 347-480V, with A-level optical code, or with motion sensor control.

	OPTICAL CODE	TYPE	TYPICAL INITIAL LUMENS 3000K	TYPICAL INITIAL LUMENS 4000K & 5000K	TYPICAL SYSTEM WATTAGE 120-277V, 347-480V	BUG RATING 3000K B-U-G	BUG RATING 4000K & 5000K B-U-G	IES FILE NUMBER 3000K	IES FILE NUMBER 4000K	IES FILE NUMBER 5000K
TYPE IV	A4	Asymmetric Forward	4,000	4,300	44	B1-U0-G1	B1-U0-G1	EWNB_A4730__.IES	EWNB_A4740__.IES	EWNB_A4750__.IES
	B4	Asymmetric Forward	5,800	6,200	58	B1-U0-G2	B1-U0-G2	EWNB_B4730__.IES	EWNB_B4740__.IES	EWNB_B4750__.IES
	C4	Asymmetric Forward	7,500	8,000	70	B1-U0-G2	B1-U0-G2	EWNB_C4730__.IES	EWNB_C4740__.IES	EWNB_C4750__.IES
	D4	Asymmetric Forward	9,200	9,800	89	B1-U0-G2	B2-U0-G2	EWNB_D4730__.IES	EWNB_D4740__.IES	EWNB_D4750__.IES
	E4	Asymmetric Forward	10,800	11,500	98	B2-U0-G2	B2-U0-G2	EWNB_E4730__.IES	EWNB_E4740__.IES	EWNB_E4750__.IES
	F4	Asymmetric Forward	12,900	13,700	125	B2-U0-G3	B2-U0-G3	EWNB_F4730__.IES	EWNB_F4740__.IES	EWNB_F4750__.IES
TYPE III	A3	Asymmetric Wide	4,300	4,600	44	B1-U0-G1	B1-U0-G1	EWNB_A3730__.IES	EWNB_A3740__.IES	EWNB_A3750__.IES
	B3	Asymmetric Wide	6,200	6,600	58	B1-U0-G1	B1-U0-G1	EWNB_B3730__.IES	EWNB_B3740__.IES	EWNB_B3750__.IES
	C3	Asymmetric Wide	8,100	8,600	70	B1-U0-G2	B1-U0-G2	EWNB_C3730__.IES	EWNB_C3740__.IES	EWNB_C3750__.IES
	D3	Asymmetric Wide	9,900	10,500	89	B2-U0-G2	B2-U0-G2	EWNB_D3730__.IES	EWNB_D3740__.IES	EWNB_D3750__.IES
	E3	Asymmetric Wide	11,600	12,400	98	B2-U0-G2	B2-U0-G2	EWNB_E3730__.IES	EWNB_E3740__.IES	EWNB_E3750__.IES
	F3	Asymmetric Wide	13,900	14,700	125	B2-U0-G2	B2-U0-G2	EWNB_F3730__.IES	EWNB_F3740__.IES	EWNB_F3750__.IES
TYPE II	A2	Asymmetric Narrow	4,200	4,500	44	B1-U0-G1	B1-U0-G1	EWNB_A2730__.IES	EWNB_A2740__.IES	EWNB_A2750__.IES
	B2	Asymmetric Narrow	6,100	6,500	58	B1-U0-G1	B1-U0-G1	EWNB_B2730__.IES	EWNB_B2740__.IES	EWNB_B2750__.IES
	C2	Asymmetric Narrow	7,900	8,400	70	B2-U0-G2	B2-U0-G2	EWNB_C2730__.IES	EWNB_C2740__.IES	EWNB_C2750__.IES
	D2	Asymmetric Narrow	9,700	10,300	89	B2-U0-G2	B2-U0-G2	EWNB_D2730__.IES	EWNB_D2740__.IES	EWNB_D2750__.IES
	E2	Asymmetric Narrow	11,400	12,100	98	B2-U0-G2	B2-U0-G2	EWNB_E2730__.IES	EWNB_E2740__.IES	EWNB_E2750__.IES
	F2	Asymmetric Narrow	13,600	14,400	125	B2-U0-G2	B2-U0-G2	EWNB_F2730__.IES	EWNB_F2740__.IES	EWNB_F2750__.IES

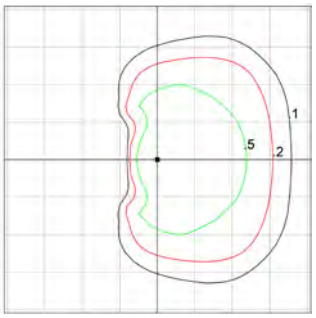
PE Accessories (to be ordered separately)

SAP Number	Part Number	Description
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

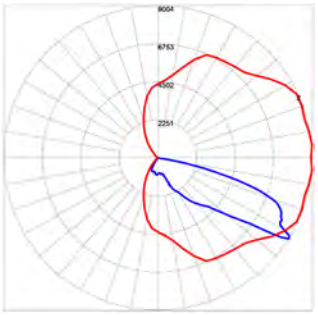
SAP Number	Part Number	Description
28299	PEC0TL	STANDARD 120-277V
28294	PEC5TL	STANDARD 480V
80436	PECDTL	STANDARD 347V
73251	SCCL-PECTL	Shorting cap

Photometrics

EWNB Type IV - Asymmetric Forward (F4)
13,700 Lumens, 5000K (EWNB_F4750___.IES)

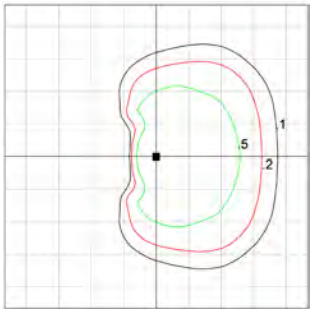


Grid Distance in Units
of Mounting Height at 30' Initial
Footcandle Values at Grade



— Vertical plane through horizontal angle
of maximum candlepower at 45°
— Vertical plane through horizontal angle of 72.5°

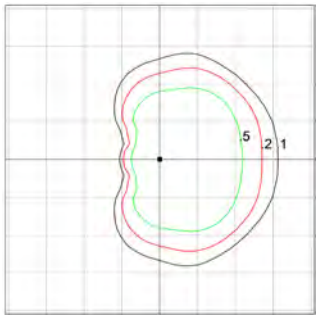
EWNB Type IV - Asymmetric Forward (A4)
4,300Lumens, 5000K (EWNB_A4750___.IES)



Grid Distance in Units
of Mounting Height at 15' Initial
Footcandle Values at Grade

— Vertical plane through horizontal angle
of maximum candlepower at 45°
— Vertical plane through horizontal angle of 72.5°

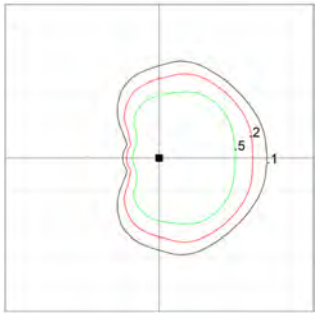
EWNB Type III - Asymmetric Wide (F3)
14,700 Lumens, 5000K (EWNB_F3750___.IES)



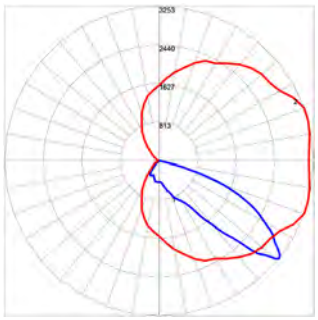
Grid Distance in Units
of Mounting Height at 30' Initial
Footcandle Values at Grade

— Vertical plane through horizontal angle
of maximum candlepower at 20°
— Vertical plane through horizontal angle of 52.5°

EWNB Type III - Asymmetric Wide (A3)
4,600 Lumens, 5000K (EWNB_A3750___.IES)

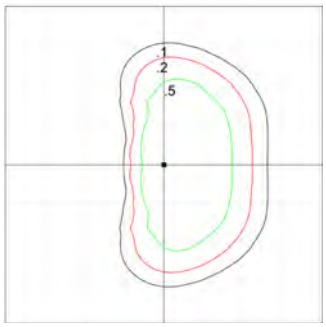


Grid Distance in Units
of Mounting Height at 15' Initial
Footcandle Values at Grade



— Vertical plane through horizontal angle
of maximum candlepower at 20°
— Vertical plane through horizontal angle of 52.5

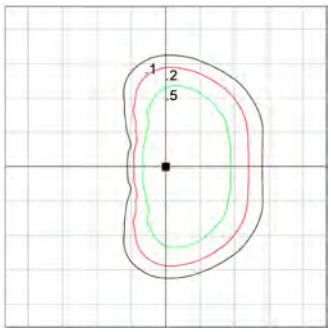
EWNB Type II - Asymmetric Narrow (F2)
14,400 Lumens, 5000K (EWNB_F2750___.IES)



Distance in Units
of Mounting Height at 30' Initial
Footcandle Values at Grade

— Vertical plane through horizontal angle
of maximum candlepower at 65°
— Vertical plane through horizontal angle of 60°

EWNB Type II - Asymmetric Narrow (A2)
4,500 Lumens, 5000K (EWNB_A2750___.IES)

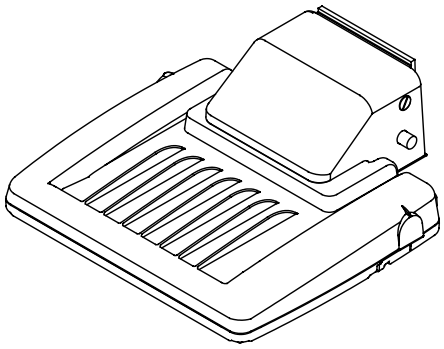


Grid Distance in Units
of Mounting Height at 15' Initial
Footcandle Values at Grade

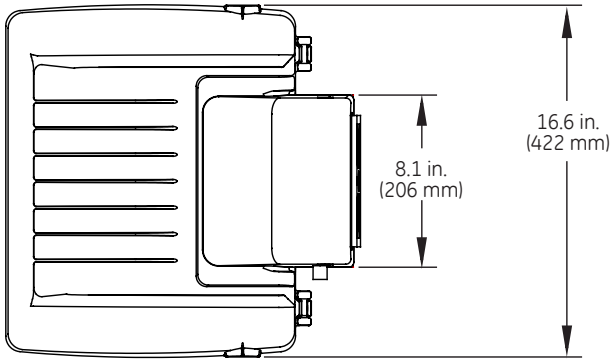
— Vertical plane through horizontal angle
of maximum candlepower at 65°
— Vertical plane through horizontal angle of 60°

Product Dimensions

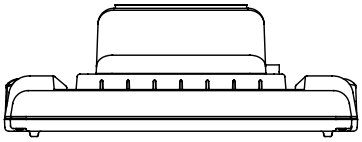
Isometric View



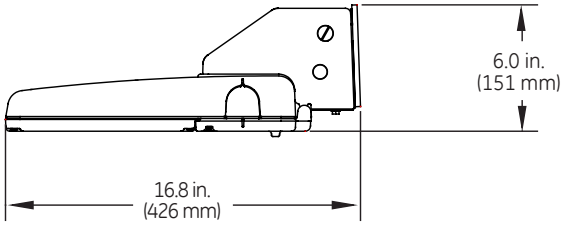
Top View



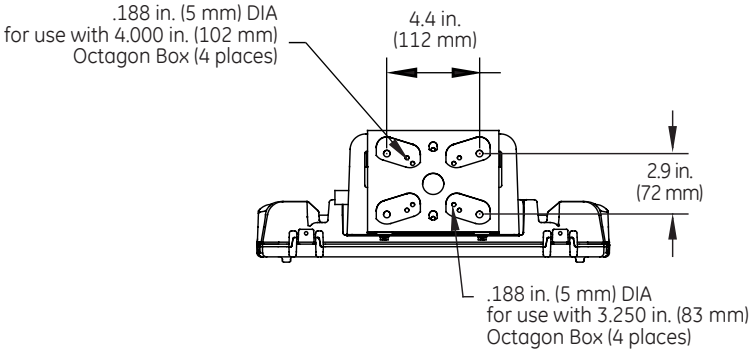
Front View



Side View



Back View



DATA

- Approximate Net Weight: 17 lbs (7.71 kgs)
- Effective Projected Area (EPA): 0.42 sq ft max (0.04 sq. m)

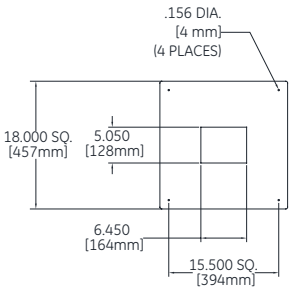
Accessories:

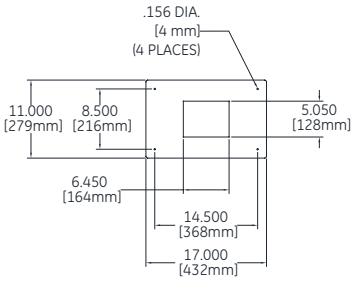
Escutcheon Plates

Cover unsightly debris and marks left behind from replacing HID product with escutcheon plates. Available in square and rectangular sizes, as well as in an assortment of colors to match the luminaire. Accessories are ordered and shipped separately from the luminaire.

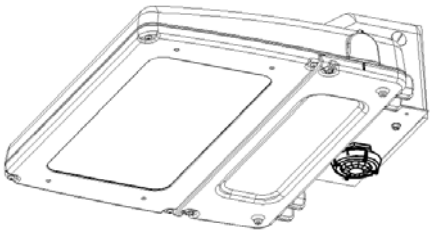
E W N **E** _ ____

PROD. ID	PHOTOMETRIC SERIES	DETAIL	COLOR
E = Evolve **W** = Wall Pack **N** = Housing Series	**E** = Escutcheon Plate	**1** = 17" x 11" **2** = 18" x 18"	**BLCK** = Black **DKBZ** = Dark Bronze **GRAY** = Gray **WHTE** = White RAL custom colors available. Contact Manufacturer.



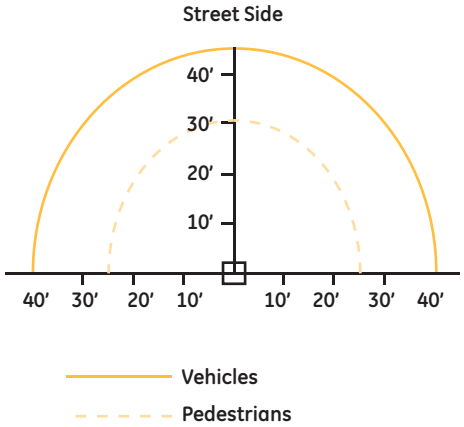


H-Motion Sensing Option:



- Intended for mounting applications between 8-25ft.
- Provides a coverage area radius for walking motion of 15-20ft (4.57-6.10m).
- Provides 180° of coverage (~180° is blocked by the wall).
- Delivered factory setting of 50% dimmed light output with no occupancy.
- May be reprogrammed using additional remote programmer.
  Remote Programmer part number: WS FSIR-100 PROGRAMMER (197634).
- Photoelectric control is integrated through the motion sensor, and is offered as standard.

Sensor Pattern:



Sensing Pattern Wall Pack Fixture
8 – 25 ft.

current powered by GE

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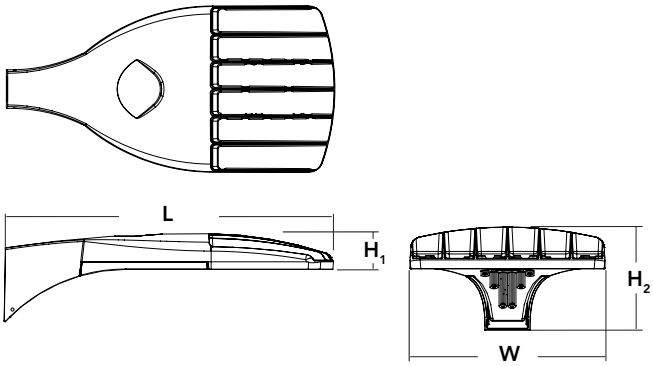
D-Series Size 0
LED Area Luminaire

Catalog Number	DSX0 LED-P4-40K-BLC-MVOLT-SPA-DDBXD
Notes	
Type	S1 pole light

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.95 ft² (.09 m²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height$_1$:	3" (7.62 cm)
Height$_2$:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX0 LED	**Forward optics** P1 P4[1] P7[1] P2 P5 P3 P6 **Rotated optics** P10[2] P12[2] P11[2] P13[1,2]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short[3] T5S Type V short[3] T5M Type V medium[3] T5W Type V wide[3] BLC Backlight control[4] LCCO Left corner cutoff[4] RCCO Right corner cutoff[4]	MVOLT[5,6] 120[6] 208[6] 240[6] 277[6] 347[6] 480[6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting[7] WBA Wall bracket[3] SPUMBA Square pole universal mounting adaptor[8] RPUMBA Round pole universal mounting adaptor[8] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[9]

Control options		Other options	Finish *(required)*	
Shipped installed		**Shipped installed**		
NLTAIR2	nLight AIR generation 2 enabled[10,11]	HS House-side shield[19]	DDBXD	Dark bronze
PIRHN	Network, high/low motion/ambient sensor[12]	SF Single fuse (120, 277, 347V)[6]	DBLXD	Black
PER	NEMA twist-lock receptacle only (control ordered separate)[13]	DF Double fuse (208, 240, 480V)[6]	DNAXD	Natural aluminum
PER5	Five-pin receptacle only (control ordered separate)[13,14]	L90 Left rotated optics[2]	DWHXD	White
PER7	Seven-pin receptacle only (leads exit fixture) (control ordered separate)[13,14]	R90 Right rotated optics[2]	DDBTXD	Textured dark bronze
DMG	0-10V dimming extend out back of housing for external control (control ordered separate)[15]	DDL Diffused drop lens[19]	DBLBXD	Textured black
PIR	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[16,17]	HA 50°C ambient operations[1]	DNATXD	Textured natural aluminum
PIRH	High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[16,17]	**Shipped separately**	DWHGXD	Textured white
PIR1FC3V	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[16,17]	BS Bird spikes[20]		
PIRH1FC3V	High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[16,17]	EGS External glare shield		
FAO	Field adjustable output[18]			

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Ordering Information

Accessories

Ordered and shipped separately.

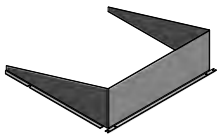
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [21]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [21]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [21]
DSHORT SBK U	Shorting cap [21]
DSX0HS 20C U	House-side shield for P1,P2,P3 and P4 [19]
DSX0HS 30C U	House-side shield for P10,P11,P12 and P13 [19]
DSX0HS 40C U	House-side shield for P5,P6 and P7 [19]
DSX0DDL U	Diffused drop lens (polycarbonate) [19]
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish) [22]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [9]
DSX0EGS (FINISH) U	External glare shield

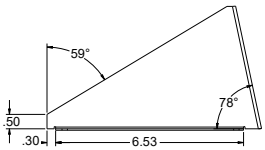
For more control options, visit DTL and ROAM online. Link to nLight Air 2

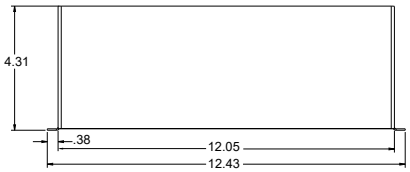
NOTES

1 HA not available with P4, P7, and P13.
2 P10, P11, P12 and P13 and rotated options (L90 or R90) only available together.
3 Any Type 5 distribution with photocell, is not available with WBA.
4 Not available with HS or DDL.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
6 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
7 Suitable for mounting to round poles between 3.5" and 12" diameter.
8 Universal mounting brackets intended for retrofit on existing pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
9 Must order fixture with SPA mounting. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
10 Must be ordered with PIRHN.
11 Sensor cover available only in dark bronze, black, white and natural aluminum colors.
12 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link
13 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
14 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
15 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
16 Reference Controls Options table on page 4.
17 Reference Motion Sensor Default Table on page 4 to see functionality.
18 Not available with other dimming controls options.
19 Not available with BLC, LCCO and RCCO distribution.
20 Must be ordered with fixture for factory pre-drilling.
21 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
22 For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8

EGS – External Glare Shield

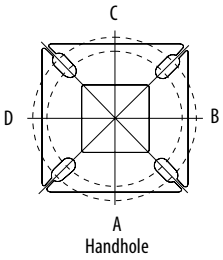


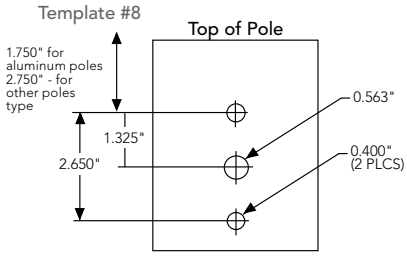




Drilling

HANDHOLE ORIENTATION
(from top of pole)





Tenon Mounting Slipfitter

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 90°	3 at 120°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-390	AST20-320	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
		Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"		3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"		4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 LED	0.950	1.900	1.830	2.850	2.850	3.544

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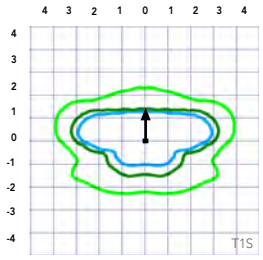
Photometric Diagrams

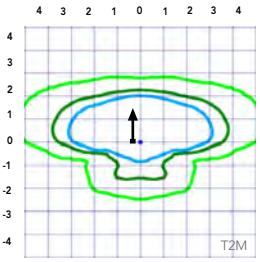
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 0 homepage.

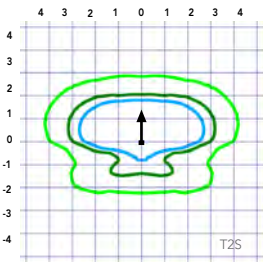
Isofootcandle plots for the DSX0 LED 40C 1000 40K. Distances are in units of mounting height (20').

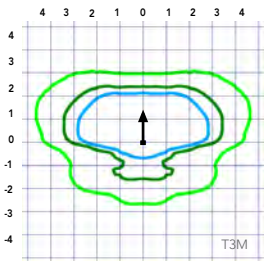
LEGEND

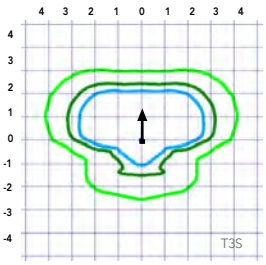
- 0.1 fc
- 0.5 fc
- 1.0 fc

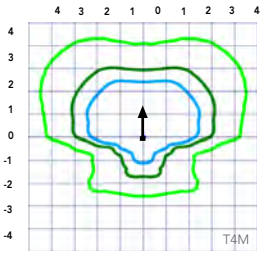


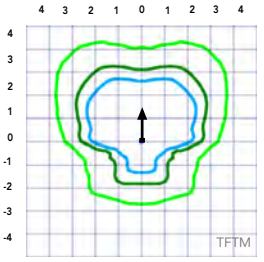


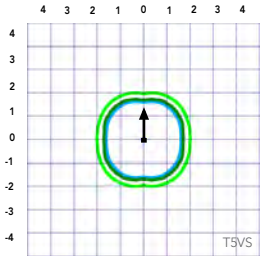


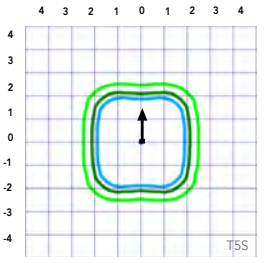


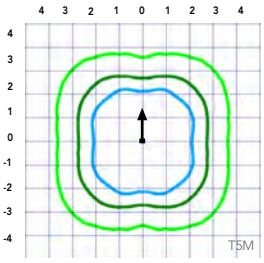


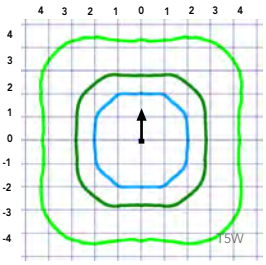


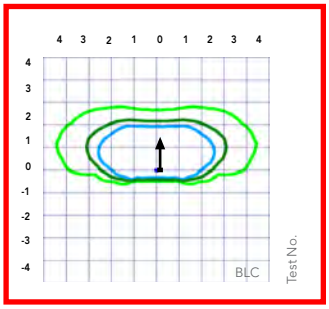


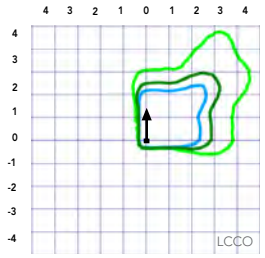


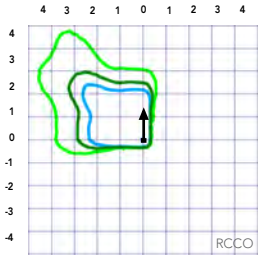












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Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°C**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use with separate Dusk to Dawn or timer.						

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	20	530	38	0.32	0.18	0.15	0.15	0.10	0.08
	P2	20	700	49	0.41	0.23	0.20	0.19	0.14	0.11
	P3	20	1050	71	0.60	0.37	0.32	0.27	0.21	0.15
	P4	20	1400	92	0.77	0.45	0.39	0.35	0.28	0.20
	P5	40	700	89	0.74	0.43	0.38	0.34	0.26	0.20
	P6	40	1050	134	1.13	0.65	0.55	0.48	0.39	0.29
	P7	40	1300	166	1.38	0.80	0.69	0.60	0.50	0.37
Rotated Optics (Requires L90 or R90)	P10	30	530	53	0.45	0.26	0.23	0.21	0.16	0.12
	P11	30	700	72	0.60	0.35	0.30	0.27	0.20	0.16
	P12	30	1050	104	0.88	0.50	0.44	0.39	0.31	0.23
	P13	30	1300	128	1.08	0.62	0.54	0.48	0.37	0.27

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	20	530	38W	T1S	4,369	1	0	1	115	4,706	1	0	1	124	4,766	1	0	1	125
				T2S	4,364	1	0	1	115	4,701	1	0	1	124	4,761	1	0	1	125
				T2M	4,387	1	0	1	115	4,726	1	0	1	124	4,785	1	0	1	126
				T3S	4,248	1	0	1	112	4,577	1	0	1	120	4,634	1	0	1	122
				T3M	4,376	1	0	1	115	4,714	1	0	1	124	4,774	1	0	1	126
				T4M	4,281	1	0	1	113	4,612	1	0	2	121	4,670	1	0	2	123
				TFTM	4,373	1	0	1	115	4,711	1	0	2	124	4,771	1	0	2	126
				T5VS	4,548	2	0	0	120	4,900	2	0	0	129	4,962	2	0	0	131
				T5S	4,552	2	0	0	120	4,904	2	0	0	129	4,966	2	0	0	131
				T5M	4,541	3	0	1	120	4,891	3	0	1	129	4,953	3	0	1	130
				T5W	4,576	3	0	2	120	4,929	3	0	2	130	4,992	3	0	2	131
				BLC	3,586	1	0	1	94	3,863	1	0	1	102	3,912	1	0	1	103
				LCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77
				RCCO	2,668	1	0	1	70	2,874	1	0	2	76	2,911	1	0	2	77
P2	20	700	49W	T1S	5,570	1	0	1	114	6,001	1	0	1	122	6,077	2	0	2	124
				T2S	5,564	1	0	2	114	5,994	1	0	2	122	6,070	2	0	2	124
				T2M	5,593	1	0	1	114	6,025	1	0	1	123	6,102	1	0	1	125
				T3S	5,417	1	0	2	111	5,835	1	0	2	119	5,909	2	0	2	121
				T3M	5,580	1	0	2	114	6,011	1	0	2	123	6,087	1	0	2	124
				T4M	5,458	1	0	2	111	5,880	1	0	2	120	5,955	1	0	2	122
				TFTM	5,576	1	0	2	114	6,007	1	0	2	123	6,083	1	0	2	124
				T5VS	5,799	2	0	0	118	6,247	2	0	0	127	6,327	2	0	0	129
				T5S	5,804	2	0	0	118	6,252	2	0	0	128	6,332	2	0	1	129
				T5M	5,789	3	0	1	118	6,237	3	0	1	127	6,316	3	0	1	129
				T5W	5,834	3	0	2	119	6,285	3	0	2	128	6,364	3	0	2	130
				BLC	4,572	1	0	1	93	4,925	1	0	1	101	4,987	1	0	1	102
				LCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76
				RCCO	3,402	1	0	2	69	3,665	1	0	2	75	3,711	1	0	2	76
P3	20	1050	71W	T1S	7,833	2	0	2	110	8,438	2	0	2	119	8,545	2	0	2	120
				T2S	7,825	2	0	2	110	8,429	2	0	2	119	8,536	2	0	2	120
				T2M	7,865	2	0	2	111	8,473	2	0	2	119	8,580	2	0	2	121
				T3S	7,617	2	0	2	107	8,205	2	0	2	116	8,309	2	0	2	117
				T3M	7,846	2	0	2	111	8,452	2	0	2	119	8,559	2	0	2	121
				T4M	7,675	2	0	2	108	8,269	2	0	2	116	8,373	2	0	2	118
				TFTM	7,841	2	0	2	110	8,447	2	0	2	119	8,554	2	0	2	120
				T5VS	8,155	3	0	0	115	8,785	3	0	0	124	8,896	3	0	0	125
				T5S	8,162	3	0	1	115	8,792	3	0	1	124	8,904	3	0	1	125
				T5M	8,141	3	0	2	115	8,770	3	0	2	124	8,881	3	0	2	125
				T5W	8,204	3	0	2	116	8,838	4	0	2	124	8,950	4	0	2	126
				BLC	6,429	1	0	2	91	6,926	1	0	2	98	7,013	1	0	2	99
				LCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73
				RCCO	4,784	1	0	2	67	5,153	1	0	2	73	5,218	1	0	2	73
P4	20	1400	92W	T1S	9,791	2	0	2	106	10,547	2	0	2	115	10,681	2	0	2	116
				T2S	9,780	2	0	2	106	10,536	2	0	2	115	10,669	2	0	2	116
				T2M	9,831	2	0	2	107	10,590	2	0	2	115	10,724	2	0	2	117
				T3S	9,521	2	0	2	103	10,256	2	0	2	111	10,386	2	0	2	113
				T3M	9,807	2	0	2	107	10,565	2	0	2	115	10,698	2	0	2	116
				T4M	9,594	2	0	2	104	10,335	2	0	3	112	10,466	2	0	3	114
				TFTM	9,801	2	0	2	107	10,558	2	0	2	115	10,692	2	0	2	116
				T5VS	10,193	3	0	1	111	10,981	3	0	1	119	11,120	3	0	1	121
				T5S	10,201	3	0	1	111	10,990	3	0	1	119	11,129	3	0	1	121
				T5M	10,176	4	0	2	111	10,962	4	0	2	119	11,101	4	0	2	121
				T5W	10,254	4	0	3	111	11,047	4	0	3	120	11,186	4	0	3	122
				BLC	8,036	1	0	2	87	8,656	1	0	2	94	8,766	1	0	2	95
				LCCO	5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71
				RCCO	5,979	1	0	2	65	6,441	1	0	2	70	6,523	1	0	3	71

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Performance Data

Lumen Output

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Forward Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P5	40	700	89W	T1S	10,831	2	0	2	122	11,668	2	0	2	131	11,816	2	0	2	133
				T2S	10,820	2	0	2	122	11,656	2	0	2	131	11,803	2	0	2	133
				T2M	10,876	2	0	2	122	11,716	2	0	2	132	11,864	2	0	2	133
				T3S	10,532	2	0	2	118	11,346	2	0	2	127	11,490	2	0	2	129
				T3M	10,849	2	0	2	122	11,687	2	0	2	131	11,835	2	0	2	133
				T4M	10,613	2	0	3	119	11,434	2	0	3	128	11,578	2	0	3	130
				TFTM	10,842	2	0	2	122	11,680	2	0	2	131	11,828	2	0	2	133
				T5VS	11,276	3	0	1	127	12,148	3	0	1	136	12,302	3	0	1	138
				T5S	11,286	3	0	1	127	12,158	3	0	1	137	12,312	3	0	1	138
				T5M	11,257	4	0	2	126	12,127	4	0	2	136	12,280	4	0	2	138
				T5W	11,344	4	0	3	127	12,221	4	0	3	137	12,375	4	0	3	139
				BLC	8,890	1	0	2	100	9,576	1	0	2	108	9,698	1	0	2	109
				LCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81
				RCCO	6,615	1	0	3	74	7,126	1	0	3	80	7,216	1	0	3	81
P6	40	1050	134W	T1S	14,805	3	0	3	110	15,949	3	0	3	119	16,151	3	0	3	121
				T2S	14,789	3	0	3	110	15,932	3	0	3	119	16,134	3	0	3	120
				T2M	14,865	3	0	3	111	16,014	3	0	3	120	16,217	3	0	3	121
				T3S	14,396	3	0	3	107	15,509	3	0	3	116	15,705	3	0	3	117
				T3M	14,829	2	0	3	111	15,975	3	0	3	119	16,177	3	0	3	121
				T4M	14,507	2	0	3	108	15,628	3	0	3	117	15,826	3	0	3	118
				TFTM	14,820	2	0	3	111	15,965	3	0	3	119	16,167	3	0	3	121
				T5VS	15,413	4	0	1	115	16,604	4	0	1	124	16,815	4	0	1	125
				T5S	15,426	3	0	1	115	16,618	4	0	1	124	16,828	4	0	1	126
				T5M	15,387	4	0	2	115	16,576	4	0	2	124	16,786	4	0	2	125
				T5W	15,506	4	0	3	116	16,704	4	0	3	125	16,915	4	0	3	126
				BLC	12,151	1	0	2	91	13,090	1	0	2	98	13,255	1	0	2	99
				LCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74
				RCCO	9,041	1	0	3	67	9,740	1	0	3	73	9,863	1	0	3	74
P7	40	1300	166W	T1S	17,023	3	0	3	103	18,338	3	0	3	110	18,570	3	0	3	112
				T2S	17,005	3	0	3	102	18,319	3	0	3	110	18,551	3	0	3	112
				T2M	17,092	3	0	3	103	18,413	3	0	3	111	18,646	3	0	3	112
				T3S	16,553	3	0	3	100	17,832	3	0	3	107	18,058	3	0	3	109
				T3M	17,051	3	0	3	103	18,369	3	0	3	111	18,601	3	0	3	112
				T4M	16,681	3	0	3	100	17,969	3	0	3	108	18,197	3	0	3	110
				TFTM	17,040	3	0	3	103	18,357	3	0	4	111	18,590	3	0	4	112
				T5VS	17,723	4	0	1	107	19,092	4	0	1	115	19,334	4	0	1	116
				T5S	17,737	4	0	2	107	19,108	4	0	2	115	19,349	4	0	2	117
				T5M	17,692	4	0	2	107	19,059	4	0	2	115	19,301	4	0	2	116
				T5W	17,829	5	0	3	107	19,207	5	0	3	116	19,450	5	0	3	117
				BLC	13,971	2	0	2	84	15,051	2	0	2	91	15,241	2	0	2	92
				LCCO	10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68
				RCCO	10,396	1	0	3	63	11,199	1	0	3	67	11,341	1	0	3	68

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

Power Package	LED Count	Drive Current	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	30	530	53W	T1S	6,727	2	0	2	127	7,247	3	0	3	137	7,339	3	0	3	138
				T2S	6,689	3	0	3	126	7,205	3	0	3	136	7,297	3	0	3	138
				T2M	6,809	3	0	3	128	7,336	3	0	3	138	7,428	3	0	3	140
				T3S	6,585	3	0	3	124	7,094	3	0	3	134	7,183	3	0	3	136
				T3M	6,805	3	0	3	128	7,331	3	0	3	138	7,424	3	0	3	140
				T4M	6,677	3	0	3	126	7,193	3	0	3	136	7,284	3	0	3	137
				TFTM	6,850	3	0	3	129	7,379	3	0	3	139	7,472	3	0	3	141
				T5VS	6,898	3	0	0	130	7,431	3	0	0	140	7,525	3	0	0	142
				T5S	6,840	2	0	1	129	7,368	2	0	1	139	7,461	2	0	1	141
				T5M	6,838	3	0	1	129	7,366	3	0	2	139	7,460	3	0	2	141
				T5W	6,777	3	0	2	128	7,300	3	0	2	138	7,393	3	0	2	139
				BLC	5,626	2	0	2	106	6,060	2	0	2	114	6,137	2	0	2	116
				LCCO	4,018	1	0	2	76	4,328	1	0	2	82	4,383	1	0	2	83
				RCCO	4,013	3	0	3	76	4,323	3	0	3	82	4,377	3	0	3	83
P11	30	700	72W	T1S	8,594	3	0	3	119	9,258	3	0	3	129	9,376	3	0	3	130
				T2S	8,545	3	0	3	119	9,205	3	0	3	128	9,322	3	0	3	129
				T2M	8,699	3	0	3	121	9,371	3	0	3	130	9,490	3	0	3	132
				T3S	8,412	3	0	3	117	9,062	3	0	3	126	9,177	3	0	3	127
				T3M	8,694	3	0	3	121	9,366	3	0	3	130	9,484	3	0	3	132
				T4M	8,530	3	0	3	118	9,189	3	0	3	128	9,305	3	0	3	129
				TFTM	8,750	3	0	3	122	9,427	3	0	3	131	9,546	3	0	3	133
				T5VS	8,812	3	0	0	122	9,493	3	0	0	132	9,613	3	0	0	134
				T5S	8,738	3	0	1	121	9,413	3	0	1	131	9,532	3	0	1	132
				T5M	8,736	3	0	2	121	9,411	3	0	2	131	9,530	3	0	2	132
				T5W	8,657	4	0	2	120	9,326	4	0	2	130	9,444	4	0	2	131
				BLC	7,187	3	0	3	100	7,742	3	0	3	108	7,840	3	0	3	109
				LCCO	5,133	1	0	2	71	5,529	1	0	2	77	5,599	1	0	2	78
				RCCO	5,126	3	0	3	71	5,522	3	0	3	77	5,592	3	0	3	78
P12	30	1050	104W	T1S	12,149	3	0	3	117	13,088	3	0	3	126	13,253	3	0	3	127
				T2S	12,079	4	0	4	116	13,012	4	0	4	125	13,177	4	0	4	127
				T2M	12,297	3	0	3	118	13,247	3	0	3	127	13,415	3	0	3	129
				T3S	11,891	4	0	4	114	12,810	4	0	4	123	12,972	4	0	4	125
				T3M	12,290	3	0	3	118	13,239	4	0	4	127	13,407	4	0	4	129
				T4M	12,058	4	0	4	116	12,990	4	0	4	125	13,154	4	0	4	126
				TFTM	12,369	4	0	4	119	13,325	4	0	4	128	13,494	4	0	4	130
				T5VS	12,456	3	0	1	120	13,419	3	0	1	129	13,589	4	0	1	131
				T5S	12,351	3	0	1	119	13,306	3	0	1	128	13,474	3	0	1	130
				T5M	12,349	4	0	2	119	13,303	4	0	2	128	13,471	4	0	2	130
				T5W	12,238	4	0	3	118	13,183	4	0	3	127	13,350	4	0	3	128
				BLC	10,159	3	0	3	98	10,944	3	0	3	105	11,083	3	0	3	107
				LCCO	7,256	1	0	3	70	7,816	1	0	3	75	7,915	1	0	3	76
				RCCO	7,246	3	0	3	70	7,806	4	0	4	75	7,905	4	0	4	76
P13	30	1300	128W	T1S	14,438	3	0	3	113	15,554	3	0	3	122	15,751	3	0	3	123
				T2S	14,355	4	0	4	112	15,465	4	0	4	121	15,660	4	0	4	122
				T2M	14,614	3	0	3	114	15,744	4	0	4	123	15,943	4	0	4	125
				T3S	14,132	4	0	4	110	15,224	4	0	4	119	15,417	4	0	4	120
				T3M	14,606	4	0	4	114	15,735	4	0	4	123	15,934	4	0	4	124
				T4M	14,330	4	0	4	112	15,438	4	0	4	121	15,633	4	0	4	122
				TFTM	14,701	4	0	4	115	15,836	4	0	4	124	16,037	4	0	4	125
				T5VS	14,804	4	0	1	116	15,948	4	0	1	125	16,150	4	0	1	126
				T5S	14,679	3	0	1	115	15,814	3	0	1	124	16,014	3	0	1	125
				T5M	14,676	4	0	2	115	15,810	4	0	2	124	16,010	4	0	2	125
				T5W	14,544	4	0	3	114	15,668	4	0	3	122	15,866	4	0	3	124
				BLC	7919	3	0	3	62	8531	3	0	3	67	8639	3	0	3	67
				LCCO	5145	1	0	2	40	5543	1	0	2	43	5613	1	0	2	44
				RCCO	5139	3	0	3	40	5536	3	0	3	43	5606	3	0	3	44

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FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.95 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern (template #8). Optional terminal block and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C to 50°C ambient with HA option. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
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All values are design or typical values, measured under laboratory conditions at 25 °C.
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Geotechnical Investigation

Proposed Jiffy Lube
9701 Belleville Road-Out lot 1A
Belleville, Wayne County, Michigan

Mr. Jeffery Berntsen
Groundwater & Environmental Services, Inc.
55820 Grand River Avenue, Suite 275
New Hudson, Michigan 48165

March 19, 2020

PEA Project No. 2020-0107

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March 19, 2020
PEA Project No: 2020-0107

via email: JBerntsen@gesonline.com

Mr. Jeffery Berntsen
Groundwater & Environmental Services, Inc.
55820 Grand River Avenue, Suite 275
Hew Hudson, MI 48165

RE: Geotechnical Investigation
Proposed Jiffy Lube Multi-Care Services
9701 Belleville Rd, Out lot 1A
Belleville, Wayne County, Michigan

Dear Mr. Berntsen:

PEA, Inc. has performed a geotechnical investigation for the proposed Jiffy Lube International, Inc. (JLI) Jiffy Lube Multi-Care Services development located in Belleville, Michigan. The purpose of our investigation was to determine the general subsurface conditions at the building and parking lot locations in order to provide foundation and related site preparation recommendations.

Based on our investigation, the site soils generally consist of granular soils overlying cohesive soils. Granular soils extend 18.5 to 23.5 feet bgs at the test boring locations. Below the upper granular soils, stiff cohesive soils were encountered at three of the four test borings, and extended to termination depth of those borings.

Groundwater was encountered in each of the soil borings during drilling activities in the granular soils at depths ranging from 6 to 8.5 feet bgs. We expect some seepage from the granular soils during service pit basement excavation. We expect any groundwater encountered to be controllable by properly constructed sumps during construction or utility installation.

We anticipate a minimal amount of earthwork will be needed to achieve final design grades. We anticipate cuts of about 10 feet for basements and fills of about 1-2 feet in preparation of floor slabs. Following successful completion of earthwork operations, we recommend that the proposed building be supported by shallow foundations bearing on engineered fill or on the native soils. We recommend that earthwork be performed in the dry season. We caution that if site conditioning and earthwork operations are during wet or cold weather (i.e. any time other that late spring to early fall) significant difficulty should be anticipated.

The data obtained during this investigation along with our evaluations, analysis and recommendations are presented in the subsequent portions of this report.

SITE CONDITIONS AND PROPOSED CONSTRUCTION

The site for the proposed Jiffy Lube Multi-Care development is located on out lot A1 at 9701 Belleville Road. The proposed site is part of a larger commercial development which is bordered by Tyler Road to the north and Belleville Road to the west. The out lot is relatively flat and grass covered, bordering a entrance/exit driveway and parking spaces of the existing development on both the east and west

sides. A gas station borders the site to the west of the driveway, with other undeveloped out lots to the east, and a Meijer grocery store to the south.

Based on the extensive use of the commercial parcel, we assume underground utilities, such as storm and sanitary sewers, water mains and gas lines currently exist throughout the commercial parcel and along Tyler Road. Refer to the Test Boring Location Plan for the existing site features.

Concept Site Plan Option 1, by Sevan Engineering dated 7-11-2019, shows construction of a single story slab on-grade building with a basement. While not called out on the plan, we anticipate bituminous concrete pavement will be added to the site for parking areas, as well as concrete pavement for the proposed trash enclosure.

Although no specific loading information was available for the proposed JLI multi-care development, we anticipate slab-on-grade construction and loads not exceeding 150 kips for interior columns and 3,000 pounds per linear foot for walls. We assume at this time that the proposed finish floor elevation for the structure will be within 1 foot of the existing elevations. We anticipate cuts of about 10 feet for basement construction and fills of 1 to 2 feet to achieve design grades for the area where the proposed building will be constructed. We also assume that any existing underground utilities would be reused, if applicable.

REGIONAL GEOLOGY AND SEISMIC ACTIVITY

A review of available sources indicates that several ice sheets (i.e. glaciers) advanced and retreated over the site with the most recent being during the late Wisconsin period. Based on the 1982 Quaternary Geology Map of Southern Michigan and the *Oakland* County Surficial Geology Map, the site soils were generally deposited as lake or lacustrine sediments in areas formally inundated by glacial great lakes. According to the 1969 *State of Michigan Geology for Land and Groundwater Development of Wayne County*, the site is underlain by Shale bedrock at about elevation 450 or about 200 feet below the surface.

Southeastern Michigan and Belleville are considered to have a relatively low seismic risk. The appropriate geotechnical design considerations for seismic conditions should be applied based on the Michigan Building Code. Based on our interpretation of the test borings and understanding of the soil conditions below the depth of exploration, we recommend the site be classified as a Class E Site.

FIELD INVESTIGATION

Subsurface conditions at the site were investigated on March 2, 2020. Stock Drilling Company drilled 5 test borings, designated TB-1 to TB-5. The test borings were supervised and logged in the field by Groundwater & Environmental Services, Inc. (GES). TB-1 was drilled in the north end of the existing parking lot, potentially for a monument sign location. TB-2 through TB-4 were drilled at the proposed building location, and TB-5 was drilled at the proposed trash enclosure. Latitude and longitude coordinates for each of the test borings were recorded in the field during drilling. The locations are shown on the Test Boring Location Plan. Ground surface elevations were estimated from Google Earth.

The test borings were extended to a depth of 25 feet bgs. The borings were advanced with 3 ¼ inch inside-diameter direct push casings. Soil samples were taken at intervals of generally 2.5 feet within the upper 10 feet and at 5-foot intervals below 10 feet. These test boring samples were taken by the Standard Penetration Test method (ASTM D-1586). The drill rig used on this project utilized an automatic hammer, which typically results in blow counts that are about 2/3 to 3/4 of the blow counts obtained using a manual hammer.

The soil samples obtained with the split-barrel sampler were sealed in containers and shipped to our laboratory for further classification and testing. We will retain these soil samples for 60 days after the date of this report. At that time, we will dispose of the samples unless otherwise instructed.

PRESENTATION OF DATA

We evaluated the soil and groundwater conditions encountered in the test borings and have presented these conditions in the form of individual Logs of Test Borings on Figures 1 through 5. The nomenclature used on the boring logs and elsewhere are presented on the Soil Terminology sheet, Figure 6. The stratification shown on the test boring logs represents the soil conditions at the actual boring locations. Variations may occur between the borings. The stratigraphic lines represent the approximate boundary between the soil types, however, the transition may be more gradual than what is shown. We have prepared the logs included with this report on the basis of field classification supplemented by laboratory classification and testing.

LABORATORY TESTING

The soil samples obtained from the test borings were also classified in our laboratory. Selected samples were tested to determine natural moisture contents, Atterberg limits, and grain-size distribution. Testing was performed in accordance with current ASTM standards. The results of these tests are presented on the individual Logs of Test Borings and as Figures 7 and 8.

In addition to the laboratory testing, pocket penetrometer measurements of the unconfined compressive strengths of cohesive soils were determined in the laboratory. The strength values determined by the penetrometer are also presented on the test boring logs.

SOIL CONDITIONS AND EVAULATIONS

From the information obtained during this investigation, subsoil conditions are generally similar throughout the site. Topsoil overlies native soils consisting of loose to medium compact sand with varying silt content, overlying cohesive soils consisting of stiff silty clay with trace sand and gravel.

The surface is blanketed with moderately organic topsoil. No information regarding topsoil was reported during field activities. We assume about 1 foot of topsoil was present at the test boring locations. We do not consider the topsoil suitable for the support of building foundations, floor slabs, pavements or for use as engineered fill material. However, this material can be reused for landscaping.

Underlying the topsoil, 5 to 7.5 feet of loose to medium compact silty sand or sand with little silt was encountered in each of the test borings. Laboratory test results for particle size distribution of granular soil in TB-2 at about 3.5 feet bgs meets the requirements for use as MDOT class II granular material. Beginning at 8.5 feet in TB-1, TB-2, TB-3, and 6 feet in TB-4 and TB-5, wet silty sand was encountered and extends to 18.5 to 23.5 feet bgs. A compact layer of sand was encountered in TB-4 beginning at 8.5 feet bgs. Moisture content increased with depth below the encountered ground water elevations. TB-1 terminated in granular soils at a depth of 25 feet bgs.

A stratum of stiff silty clay soil underlies the granular soil at TB-2, TB-3, TB-4, and TB-5, and extended to the termination depth of 25 feet at those locations.

The native soils underlying the topsoil are considered suitable for the direct support of foundations, floor slabs, and pavement and reuse as compacted fill. Where new engineered fill extends to native soils, foundations may be placed on the engineered fill and not require extra depth.

All excavations should be conducted to OSHA and all local/federal governing standards. The layered soils encountered at the boring locations may be classified as OSHA Type B soil above the water table, and OSHA Type C soil below the water. Refer to regulations for proper excavation protection for the soil conditions and proposed excavation depth.

GROUNDWATER CONDITIONS AND CONTROL

Water level observations were made at each of the test borings during drilling operations. Groundwater was encountered at approximately 6 to 8.5 feet bgs at each boring location. At completion, water observations were not reported. The observed water levels range from about Elevation 694 feet to 695 feet. The results of the individual water level measurements are shown on the respective Logs of Test Borings. Fluctuations in groundwater levels should be anticipated due the seasonal variations and following periods of prolonged precipitation or drought.

Groundwater observations were limited to areas where granular soils were encountered. In view of these high permeability soils we anticipate that moderate volumes of groundwater could be encountered if excavations extend below the groundwater level. A “quick” condition may develop as groundwater migrates towards the excavation. This may result in the disturbance of the soils and a reduction of their supporting capability. Based on these considerations, we recommend that groundwater control measures be employed before making any excavations below the groundwater table. If excavations extend only 1 to 2 feet below the groundwater table, it may be feasible to control groundwater by pumping with properly constructed sumps.

We anticipate perched water seepage from the upper soils during basement excavation should be controllable by pumping from properly constructed sumps. It may be necessary to place a layer of 6AA stone at the basement grade to maintain a stable working surface at the basement elevation.

Based on the observed soil conditions, we expect some level of water will likely be present long term within the upper granular soils. As such, we recommend a sub-drain system for the basement walls and floor to limit the buildup of hydrostatic pressures. Four (4) inch diameter drain tile should be installed along the exterior and interior edge of the footings as well as under the floor, spaced twenty (20) feet on center. The interior and exterior drain tile should be separate systems. If these systems drain to a sump pit, there exists a possibility that during a power outage the basement could flood and as such, a battery backup system should be provided. If the outside tile is set in a coarse material like pea stone, it should be separated from the silt and fine sand soil with a filter fabric.

If excavations extend to greater depths below the groundwater table, such as those required for utility installation, positive methods of groundwater control such as pumping from construction sumps likely will be required for effective groundwater control.

SITE PREPARATION

We recommend that all earthwork operations be performed under adequate specifications and be properly monitored in the field. We expect the earthwork to consist of cuts of about 10 feet and fills of 1 to 2 feet to bring the site to grade preparing for floor slabs and pavement. We recommend the following earthwork operations be performed.

- Any surface vegetation should be cleared. Topsoil or any other organic soils, if encountered, should be removed in their entirety from the building and parking areas.

- Abandoned utilities inside the proposed building should be removed in their entirety. Outside the building, the abandoned utilities should either be removed or plugged.

- Where granular soils are exposed prior to fill placement in fill areas, and after rough grade has been achieved in cut areas (if any), the subgrade should be thoroughly compacted with vibratory roller by making a minimum of 10 passes in each of two perpendicular directions covering the proposed floor area. In addition to detecting unstable areas, the proof-compaction operation should serve to densify the shallow granular deposits that overlie the site.

- We expect that some areas of the site will not proof-roll satisfactorily. Any areas that exhibit excessive pumping and yielding during proof-rolling and compaction should be stabilized by aeration, drying, and compaction if weather conditions are favorable or removal and replacement with engineered fill (undercutting).

- Undercutting also can include the use of geotextiles and geogrids. In general, removing wet pumping soils to find suitable stable soil may not work on this site. Thus, in order to backfill an excavation, 1 by 3 concrete or a geogrid is recommended to stabilize the bottom and begin the refilling process.

- Following proof-rolling and repair of unsuitable areas, the upper foot of the subgrade should be compacted to 95 percent of the maximum dry density as determined by the Modified Proctor Compaction Test, (ASTM D-1557) prior to placement of fill.

We recommend materials meeting the following criteria be used for backfill or engineered fill to achieve design grades:

- The material should be non-organic and free of debris.

- Frozen material should not be used as fill nor should fill be placed on a frozen subgrade.

- The on-site soils may be used for engineered fill provided that they are approximately at the optimum moisture content. The granular soils may require moisture conditioning before they can be properly compacted.

- Some of the granular deposits on the site may meet the requirements for granular fill, and may be re-used accordingly. Due to the varying nature of the soil on this site, the soil should be inspected for its conformance to MDOT requirements before being used in an application with restricted granular fill requirements.

- Pea gravel is not recommended as engineered fill. Although pea gravel can easily be compacted, since it is rounded and very narrowly graded, it is unstable under wheel loads. In order to support loads, it must be confined laterally.

- Common Fill: The on-site soils may be used for common fill material. Common fill should be used in large areas that can be compacted by large earth moving equipment.

- Granular Fill: Granular fill should be used in confined areas such as trenches and backfill around foundations. Granular fill should meet the following gradation:

Sieve Size	**Percent Passing**
6 inch	100
3 inch	95-100
Loss by Wash	0-15

MDOT Class III meets the requirements for Granular Fill.

Alternately the following also can be used:

Sieve Size	Percent Passing
3 inch	100
1 inch	60-100
No. 30	0-30
Loss by Wash	0-10

MDOT Class II meets the requirements for Granular Fill. Some restrictions apply to some applications

- Sand-Gravel Fill: Sand-gravel fill should be used where free-draining material is required. Free-draining material is recommended for underfloor fill and retaining wall backfill. Sand and gravel fill should meet the following gradation:

Sieve Size	Percent Passing
2 inch	100
1/2 inch	45-85
No. 4	20-85
No. 30	5-30
Loss by Wash	0-5

MDOT Class I material meets the requirements for sand and gravel.

- Crushed Stone Fill: Crushed stone fill should be used for aggregate base and for any over-excavated foundations. Crushed stone should meet the following gradations:

Sieve Size	Percent Passing
1-1/2 inch	100
1 inch	85-100
1/2 inch	50-75
No. 8	20-45
Loss by Wash	0-10

MDOT 21AA meets the gradation.

The fill should be placed in uniform horizontal layers. The thickness of each layer should be in accordance with the following:

Compaction Method	Maximum Loose Lift Thickness
Hand-operated vibratory plate or light roller In confined areas	4 inches
Hand-operated vibratory roller weighing at Least 1,000 pounds	6 inches
Vibratory roller drum roller, minimum dynamic Force, 2,000 pounds	9 inches

Vibratory drum roller, minimum dynamic force, 30,000 pounds	12 inches
Sheep's-foot roller	8 inches

The vibrating roller thicknesses are for compacting granular soils. If vibrating drum rollers are used for cohesive soils, the recommended lift thickness is one-third the tabulated value. The lift thicknesses may be increased if field compaction testing demonstrate the specified compaction is achieved throughout the lift.

The fill should be compacted to achieve the specified maximum dry density as determined by the Modified Proctor compaction test (ASTM D-1557). The specified compaction for fill placed in various area should be as follows:

Area	Percent Compaction
Within building	95
Below foundations	95
Pavement base	95
Within one foot of pavement subgrade	95
Below one foot of pavement subgrade	92
Landscaped area	88

Trench backfill shall be compacted to above standards. The building is considered to extend 10 feet beyond the foundations of the structure. Pavement is considered to extend 5 feet beyond the edge plus a one-on-one slope to the original grade.

The site conditioning procedures discussed above are expected to result in fairly stable subgrade conditions throughout most of the site.

FOUNDATION RECOMMENDATIONS

Based on an evaluation of the subsurface data obtained, and successful completion of the earthwork procedures previously outlined, we recommend that the proposed building be supported on shallow spread and/or strip footings. Foundation excavations adjacent to utilities, streets, driveways, and sidewalks require caution, and care shall be given.

Exterior footings should be founded at a depth of at least 3.5 feet below the exposed finished grade for protection against frost penetration. Interior footings not exposed to frost penetration during or after construction can be installed at shallower depths provided that suitable bearing soils are present. Also, to mitigate frost heave, the sides of all footings should have vertical walls and not be allowed to be larger at the top. The existing granular soils are not anticipated to allow vertical side walls without the use of forms.

Adjacent spread footings at different levels should be designed and constructed so that the least lateral distance between them is equivalent to or more than the difference in their bearing levels. To achieve a change in the level of a strip footing, the footing should be gradually stepped at a grade no steeper than two units horizontal to one unit vertical.

We recommend a uniform net allowable soil bearing pressure of 2,500 pounds per square foot (psf) be

used for the design of footings bearing on undisturbed native soil and engineered fill. In using a net allowable soil pressure, the weight of the footing, backfill over the footing, or floor slabs need not be included in the structural loads for sizing footings. For both the vertical load and the horizontal load, the allowable bearing may be increased by one third for transient loads resulting from wind or seismic loads. However, strip footings should be at least 12 inches in width, and isolated spread footings should be at least 18 inches in their dimension, regardless of the resulting bearing pressure. All foundation excavations should be observed and tested to verify that adequate in-situ bearing pressures, compatible with the design value, are achieved.

If the recommendations outlined in this report are adhered to, total and differential settlements for the completed structure should be within approximately 1 inch and 1/2 inches, respectively. We recommend that all strip footings be suitably reinforced to minimize the effects of differential settlements associated with local variations in subsoil conditions.

FLOOR SLABS

The subgrade resulting from the satisfactory completion of site preparation operations can be used for the support of concrete floor slabs. Based on the anticipated finish floor grade, the slab may be supported by engineered fill, and native soils. A modulus of subgrade reaction, k, of 100 pounds per cubic inch may be used for design. We recommend that all concrete floor slabs be suitably reinforced and separated from the foundation system to allow for independent movement. Reinforcement such as wire mesh or fiberglass may reduce the spread of small cracks that form in the floor slab over time.

We recommend a porous granular blanket consisting of MDOT Class I sand at least 4 inches thick under the floor slab. We also recommend a vapor barrier for floor covering materials affected by moisture from the subgrade, such as us typically found in office areas. Where warranted, the slab designer and contractor should refer to American Concrete Institute (ACI) 302 and 360 for guidance in use and placement.

PAVEMENT CONSIDERATIONS

The subgrade resulting from the satisfactory completion of site preparation operations can also be used for the support of pavements. The granular subgrade soils consist of silty sand soil which can be classified as SM, according to the Unified Soil Classification System (USCS). Soils of these types tend to have poor drainage characteristics, are frost susceptible, and are generally stable under repeated loading. Based on the results of our investigation and the anticipated frost and moisture conditions, these soils may be assigned an estimated California Bearing Ratio (CBR) value of 4 for the design of pavements.

Criteria for an engineered design has not been furnished. In addition to traffic loads, criteria also includes the design life, reliability and defining the condition at the end of the design period. We anticipate that light duty conventional pavement of asphalt with aggregate base will be used. In addition, a concrete pavement may be used for parking and truck traffic areas.

Typical pavements for similar projects have included:

Conventional Asphalt on Aggregate Base

Parking:	3 inches of Asphalt Surface Course 8 inches of Aggregate Base
Heavy Duty Drive Areas:	4 inches of Asphalt Surface Course 12 inches of Aggregate Base

Portland Cement Concrete on Aggregate Base

Heavy Duty Drive Areas:	8 inches of Portland Cement Concrete 6 inches of Aggregate Base

Acceptable asphalt pavement mixes should be sourced from a registered and approved Michigan Department of Transportation (MDOT) supplier and meet the specifications for MDOT 13A, 36A, 3C, 4C. The aggregate base should meet criteria for MDOT 21AA.

The above aggregate base thicknesses are based on using natural aggregate as discussed in the Site Preparation Section. At present the readily available natural aggregate is limestone. If crushed concrete is used, it should meet all the MDOT requirements for gradation that includes the loss by wash and percent building material. **Additionally, we recommend increasing the aggregate layer thickness by 20% when using crushed concrete instead of natural stone.**

While the natural water table underlying the site is beyond frost depth, the subsurface soils have poor drainage characteristics and are frost susceptible. Therefore, for pavement areas we recommend that "stub" or "finger" edge drains be provided around catch basins and other low parts of the site to minimize the accumulation of water above and within the frost susceptible subgrade soils. We also recommend edge drains along parking perimeters where upgrade surface water can flow onto or under pavement. Such edge drains could be connected to nearby catch basins. The pavement should be properly sloped to promote effective surface drainage and prevent water ponding.

The pavement recommendations provided in this report are intended to provide serviceable pavement for about 20 years. However, all pavements require regular maintenance and occasional repairs. The need for such maintenance is not necessarily indicative of premature pavement failure. If such activities are not performed in a timely manner, the service life of the pavement can be substantially reduced. Most pavements require preservation treatments about 15 years into their life from environmental causes.

In trash dumpster pick-up areas, heavy concentrated wheel loads will be subjected upon the pavement. This type of activity frequently results in rutting of asphalt pavement and ultimately can lead to premature failure. Therefore, we recommend that suitably reinforced concrete pavement at least 8 inches in thickness be given consideration in these areas. Asphalt pavement in truck unloading areas may also experience rutting due to forklift traffic and/or truck turning movements. We further recommend that concrete pavement be placed in such areas.

LATERAL EARTH AND HYDROSTATIC PRESSURES FOR BELOW GRADE WALLS.

We anticipate the proposed development will have a basement extending about 10 feet below the ground which must have walls designed to withstand anticipated lateral earth pressures. Above the groundwater level, or where adequate footing drains are provided, an equivalent fluid pressure of 50 psf per foot of depth may be used for design if the walls are considered fixed at the top. Below the groundwater level, the design should be based on a combined lateral earth and hydrostatic pressure of 85 psf per foot of depth. If the walls are considered to yield at the top, the equivalent fluid pressure may be reduced by 20 percent.

It should be noted that the lateral earth pressures are significantly influenced by the type and intensity of backfill compaction. We recommend that only small compaction equipment be used to compact backfill placed against below grade walls and structures. Furthermore, only free draining granular material should be used for backfill adjacent to walls. We recommend that no utilities carrying water be placed within the reinforcement zone of the retaining wall.

FIELD MONITORING

Soil conditions at the site could vary from those generalized on the basis of test borings made at specific locations. We recommend that a qualified geotechnical engineer be retained to provide soil engineering services during the site preparation, excavation, and foundation phases of the proposed project. This is to observe compliance with the design concepts, specifications, and recommendations. Also, this allows modifications to the made in the event that subsurface conditions differ from those anticipated prior to the start of construction. Additionally, material testing should be done prior to and during subgrade preparation and utility construction (i.e. materials suitability assessment of on-site and imported fill, compaction testing, asphalt and concrete testing, etc.).

The foundation installations should also be monitored and evaluated by a qualified engineer or soils technician to ensure that the bearing material is consistent with the design bearing intended by the geotechnical report engineer. The on-site review of the condition of the bearing soils as the foundations are constructed is an integral part of the geotechnical design function.

LIMITATIONS OF THE REPORT

This report is intended solely for the use of Groundwater & Environmental Services (GES) and other parties explicitly identified in this report. It is prohibited for others to use this report without the explicit written consent of PEA. Any unauthorized reuse, redistribution of or reliance on this report shall be at the Client and recipient's sole risk without liability to PEA. Client shall defend, indemnify and hold PEA harmless from any liability arising from or related to Client's unauthorized distribution of the report. No portion of this report may be used as a separate entity; it is to be read in its entirety and shall include all supporting drawings and attachments.

The recommendations made in this report are in accordance with our present understanding of the project and the current site use, conditions and ground surface elevations. Our recommendations are based on the work scope approved by the Client and described in this report. The services were performed in a manner consistent with the level of analysis typically exercised by geotechnical engineering professionals currently practicing under similar conditions in the same locality. No other representations and no warranties or representations of any kind, either expressed or implied, are made. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

By issuing this report, PEA is the geotechnical engineer of record. It is recommended the PEA be retained during construction and earthwork operations to confirm the conditions of the subsoil are actually similar to those observed during construction and our interpolations were correct. The intent of this requirement is to verify that conditions encountered during construction are consistent with the findings in the report and that inherent knowledge developed as part of our study is correctly carried forward to the construction phases.

It is important to emphasize that a subsurface investigation is a random sampling of the site and the comments included in this report are based on the results obtained at the test locations only. The subsurface conditions may vary at other locations than what was observed in our soil borings. The subsurface conditions can be significantly altered due to construction activities or by exposing the soils to humidity, dry periods or frost. Soil and groundwater conditions between and beyond the soil boring locations may differ both horizontally and vertically from those encountered at the soil borings; these conditions may become apparent during construction which could not be detected or anticipated at the time of our investigation. Should any conditions at the site encountered during construction differ than those encountered during this investigation, we request that we be notified immediately in order to reassess our recommendations. If changed conditions are encountered during construction, no matter

how minor, the recommendations in this report shall be considered invalid until a sufficient review is completed by PEA and is documented in a written form.

GENERAL COMMENTS

We have formulated the evaluations and recommendations presented in this report, relative to site preparation and building foundations, on the basis of data provided to us relating to the location of the proposed building. Any significant change to this data should be brought to our attention for review and evaluation with respect to the prevailing subsurface conditions.

The scope of the present investigation was limited to evaluation of subsurface conditions for the support of building foundations, pavements, and other related aspects of development. No chemical, environmental, or hydrogeological testing or analysis was included in the scope of this investigation.

If you have any questions regarding this report, or if we may be of further assistance to you in any respect, please feel free to contact us. We appreciate the opportunity to have been of service to you.

Sincerely,

PEA, Inc.

Jonathan Andare
Staff Engineer II

Rebecca Bentley, P.E.
Project Manager

Attachments: Log of Test Boring
Soil Terminology
Lab Testing Results
Location Plan

LOG OF TEST BORING NO. TB-1

PROJECT NAME: *Proposed Jiffy Lube Multi-Care Services*
LOCATION: *Outot-9701 Belleville Rd*

PEA Job No.: *2020-0107*
Reviewed by: *JJA*

SUBSURFACE PROFILE

GROUND SURFACE ELEVATION 703

DEPTH FEET	SAMPLE TYPE	BLOWS /6"	SPT "N"	Moisture Content (%)	Dry Density (pcf)	Unconf. Comp. Str. (psf)	Failure Strain (%)
0							
	1-S	2 3 6	9	9			
4	2-S	2 4 4	8	7			
	3-S	5 9 10	19	19			
8	4-S	5 12 12	24	24			
12	5-S	5 8 12	20	20			
16	6-S	WH 1 3	4	20			
20	7-S	10 5 4	9	22			
24							

700 — 696 — 692 — 688 — 684 — 680

TOPSOIL — 1.0

Loose Brown SILTY SAND, Little Clay — 6.0

Medium Compact Brown SILTY SAND, Trace Clay — 18.5

Very Loose-Loose Grey SILTY SAND, Trace Clay

END OF BORING

Total Depth: *25*
Drilling Date: *3-2-2020*
Inspector: *GES*
Contractor: *Stock Driling*

Drilling Method: *GeoProbe-Casings Autohammer*
Plugging procedure: *Auger Cuttings*

Water Level Observation: *8.5 ft encountered*
Unknown at completion

Notes: **Pocket Penetrometer*

LOG OF TEST BORING NO. TB-2

PROJECT NAME: *Proposed Jiffy Lube Multi-Care Services*
LOCATION: *Outot-9701 Belleville Rd*

PEA Job No.: *2020-0107*
Reviewed by: *JJA*

SUBSURFACE PROFILE

GROUND SURFACE ELEVATION 702

Elevation	Description	Depth (feet)
	TOPSOIL	0
1.0	Medium Compact Brown SAND, Trace Silt	
13.5	Loose Grey SITLY SAND	
23.5	Stiff Grey SILTY CLAY, Trace Sand	
	END OF BORING	

Elevation scale: 700, 696, 692, 688, 684, 680, 676

SOIL SAMPLE DATA

DEPTH FEET	SAMPLE TYPE	BLOWS /6"	SPT "N"	Moisture Content (%)	Dry Density (pcf)	Unconf. Comp. Str. (psf)	Failure Strain (%)
0							
	1-S	3 4 7	11	5			
4	2-S	4 7 9	16	8			
	3-S	7 8 9	17	22			
8	4-S	7 12 23	25	24			
12							
	5-S	3 3 6	9	28			
16							
	6-S	1 2 4	6	25			
20							
24	7-S	5 8 14	22	18	*4000		

Total Depth: *25*
Drilling Date: *3-2-2020*
Inspector: *GES*
Contractor: *Stock Driling*

Drilling Method: *GeoProbe-Casings Autohammer*
Plugging procedure: *Auger Cuttings*

Water Level Observation: *8.5 ft encountered*
Unknown at completion

Notes: **Pocket Penetrometer*

LOG OF TEST BORING NO. TB-3

PROJECT NAME: *Proposed Jiffy Lube Multi-Care Services*
LOCATION: *Outot-9701 Belleville Rd*

PEA Job No.: *2020-0107*
Reviewed by: *JJA*

SUBSURFACE PROFILE

GROUND SURFACE ELEVATION 703

DEPTH FEET	SAMPLE TYPE	BLOWS /6"	SPT "N"	Moisture Content (%)	Dry Density (pcf)	Unconf. Comp. Str. (psf)	Failure Strain (%)
0							
	1-S	3 4 4	8	5			
4	2-S	5 5 5	10	5			
	3-S	6 7 8	15	19			
8	4-S	10 11 13	24	24			
12	5-S	1 1 2	3	22			
16	6-S	3 4 4	8	26			
20	7-S	5 8 8	16	17	*5000		
24							

700 — 696 — 692 — 688 — 684 — 680

TOPSOIL — 1.0

Loose-Medium Compact Brown SILTY SAND

13.5

Very Loose-Loose Grey SILTY SAND

23.5

Stiff Grey SILTY CLAY, Trace Sand

END OF BORING

Total Depth: *25*

Drilling Date: *3-2-2020*

Inspector: *GES*

Contractor: *Stock Driling*

Drilling Method: *GeoProbe-Casings Autohammer*

Plugging procedure: *Auger Cuttings*

Water Level Observation: *8.5 ft encountered*
Unknown at completion

Notes: **Pocket Penetrometer*

LOG OF TEST BORING NO. TB-4

PROJECT NAME: *Proposed Jiffy Lube Multi-Care Services*
LOCATION: *Outot-9701 Belleville Rd*

PEA Job No.: *2020-0107*
Reviewed by: *JJA*

SUBSURFACE PROFILE

GROUND SURFACE ELEVATION 701

Elevation	Description	Depth (ft)
	TOPSOIL	0
700	Loose-Medium Compact Brown SILTY SAND	1.0
696		
692	Compact Brown SAND, Trace Silt	8.5
688		
684	Loose Grey SILTY SAND	13.5
680	Stiff Grey SILTY CLAY, Trace Sand, Trace Gravel	18.5
676	END OF BORING	

SOIL SAMPLE DATA

DEPTH FEET	SAMPLE TYPE	BLOWS /6"	SPT "N"	Moisture Content (%)	Dry Density (pcf)	Unconf. Comp. Str. (psf)	Failure Strain (%)
0							
	1-S	3 4 4	8	6			
4	2-S	3 4 10	14	10			
	3-S	7 10 11	21	25			
8	4-S	7 18 21	39	20			
12							
	5-S	1 1 3	4	21			
16							
	6-S	2 3 3	6	17	*3000		
20							
24	7-S	5 6 7	13	18	*3000		

Total Depth: *25*
Drilling Date: *3-2-2020*
Inspector: *GES*
Contractor: *Stock Driling*

Drilling Method: *GeoProbe-Casings Autohammer*
Plugging procedure: *Auger Cuttings*

Water Level Observation: *6 ft encountered*
Unknown at completion

Notes: **Pocket Penetrometer*

LOG OF TEST BORING NO. TB-5

PROJECT NAME: *Proposed Jiffy Lube Multi-Care Services*
LOCATION: *Outot-9701 Belleville Rd*

PEA Job No.: *2020-0107*
Reviewed by: *JJA*

SUBSURFACE PROFILE

GROUND SURFACE ELEVATION 701

Elevation	Description	Depth (ft)
	TOPSOIL	0
700	Medium Compact Brown SILTY SAND	1.0
696		
692	Loose Brown SILTY SAND	8.5
688		
684	Very Loose Grey SILTY SAND	13.5
680		
676	Stiff Grey SILTY CLAY, Trace Sand	23.5
	END OF BORING	

SOIL SAMPLE DATA

DEPTH FEET	SAMPLE TYPE	BLOWS /6"	SPT "N"	Moisture Content (%)	Dry Density (pcf)	Unconf. Comp. Str. (psf)	Failure Strain (%)
0							
	1-S	7 7 10	17	6			
4	2-S	4 7 8	15	18			
	3-S	7 12 12	24	23			
8	4-S	2 4 4	8	20			
12							
	5-S	2 2 3	4	19			
16							
	6-S	1 1 2	3	19			
20							
24	7-S	4 5 6	11	17	*4500		

Total Depth: *25*
Drilling Date: *3-2-2020*
Inspector: *GES*
Contractor: *Stock Driling*

Drilling Method: *GeoProbe-Casings Autohammer*
Plugging procedure: *Auger Cuttings*

Water Level Observation: *6 ft encountered*
Unknown at completion

Notes: **Pocket Penetrometer*

SOIL TERMINOLOGY

Unless otherwise noted, all terms utilized herein refer to the Standard Definitions presented in ASTM D-653.

PARTICLE SIZES

Boulders - Greater than 12 inches (305 mm)

Cobbles - 3 inches (76.2 mm) to 12 inches (305 mm)

Gravel:

< Coarse - 3/4 inches (9.05 mm) to 3 inches (76.2 mm)
< Fine - No. 4 (4.75 mm) to 3/4 inches (19.05 mm)

Sand:

< Coarse - No. 10 (2.00 mm) to No. 4 (4.74 mm)
< Medium - No. 40 (0.425 mm) to No. 10 (2.00 mm)
< Fine - No .200 (0.074 mm) to No. 40 (0.425 mm)

Silt - 0.005 mm to 0.074 mm

Clay - Less than 0.005 mm

CLASSIFICATION

The major soil constituent is the principal noun (i.e., clay, silt, sand, gravel). The minor constituents are reported as follows:

Modifiers to Main Constituent
(Percent by Weight)

Trace	-	01 to 10%
Little	-	10 to 20%
Some	-	20 to 30%
Adjective	-	Over 30%

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier (i.e., silty clay). Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils (i.e., silty clay, trace of sand, little gravel).

Consistency	Unconfined Compressive Strength (PSF)	Approximate Range of N
Very Soft	Below 500	0 to 2
Soft	500 to 1,000	3 to 4
Medium	1,000 to 2,000	5 to 8
Stiff	2,000 to 4,000	9 to 15
Very Stiff	4,000 to 8,000	16 to 30
Hard	8,000 to 16,000	31 to 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon as elevation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

COHESIONLESS SOILS

Density Classification	Relative Density %	Approximate Range of N
Very Loose	0 to 15	0 to 4
Loose	16 to 35	5 to 10
Medium Compact	36 to 65	11 to 30
Compact	66 to 85	31 to 50
Very Compact	86 to 100	Over 50

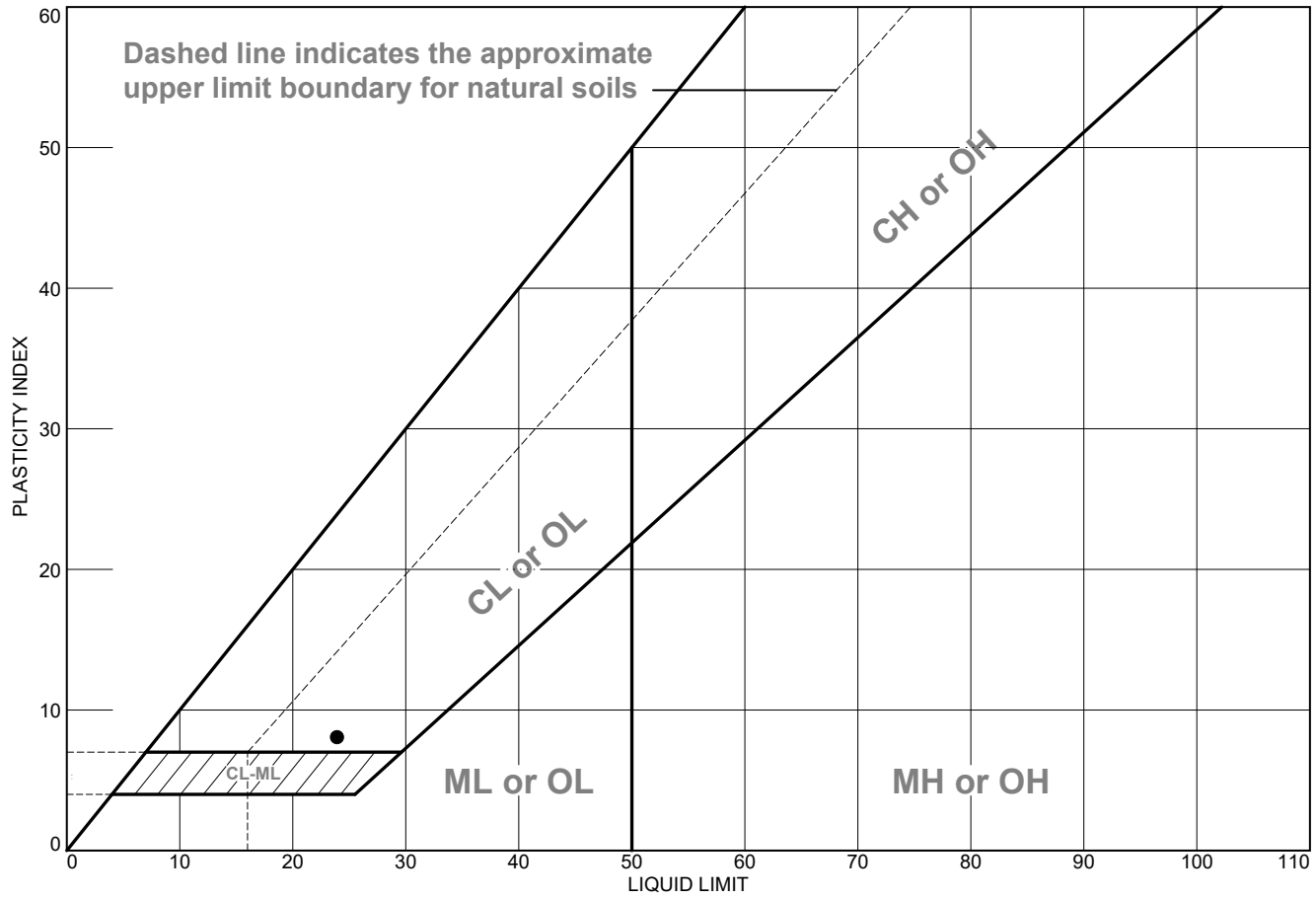
Relative Density of Cohesionless Soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

SAMPLE DESIGNATIONS

C - Core
D - Directly from Auger Flight or Miscellaneous Sample
S - Split Spoon Sample - ASTM D-1586
LS - S - Sample with liner insert
ST - Shelby Tube Sample - 3 inch diameter unless otherwise noted
PS - Piston Sample - 3 inch diameter unless otherwise noted
RC - Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D-1586) - a 2.0-inch outside diameter, 1-3/8-inch inside diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely.

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Grey SILTY CLAY	24	16	8			CL

Project No. 2020-0107 **Client:**

Project: Proposed Jiffy Lube Multi-Care Services

●**Source of Sample:** TB-4 **Depth:** 18.5

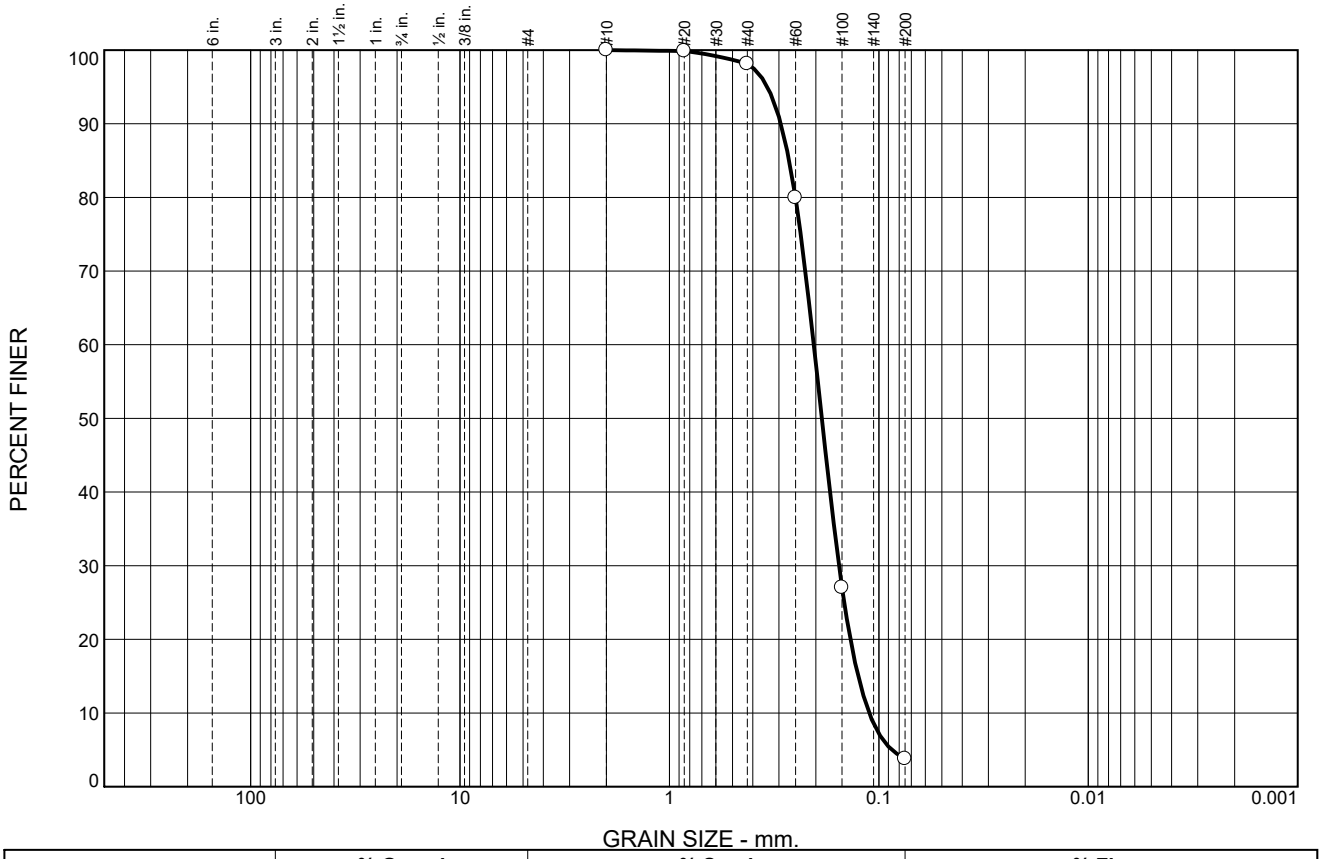
Remarks:

Professional Engineering Associates, Inc.

Figure 7

Tested By: KW **Checked By:** JA

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay

MATERIAL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	TB-2		3.5	Medium Compact Brown SAND, Trace Silt	SP

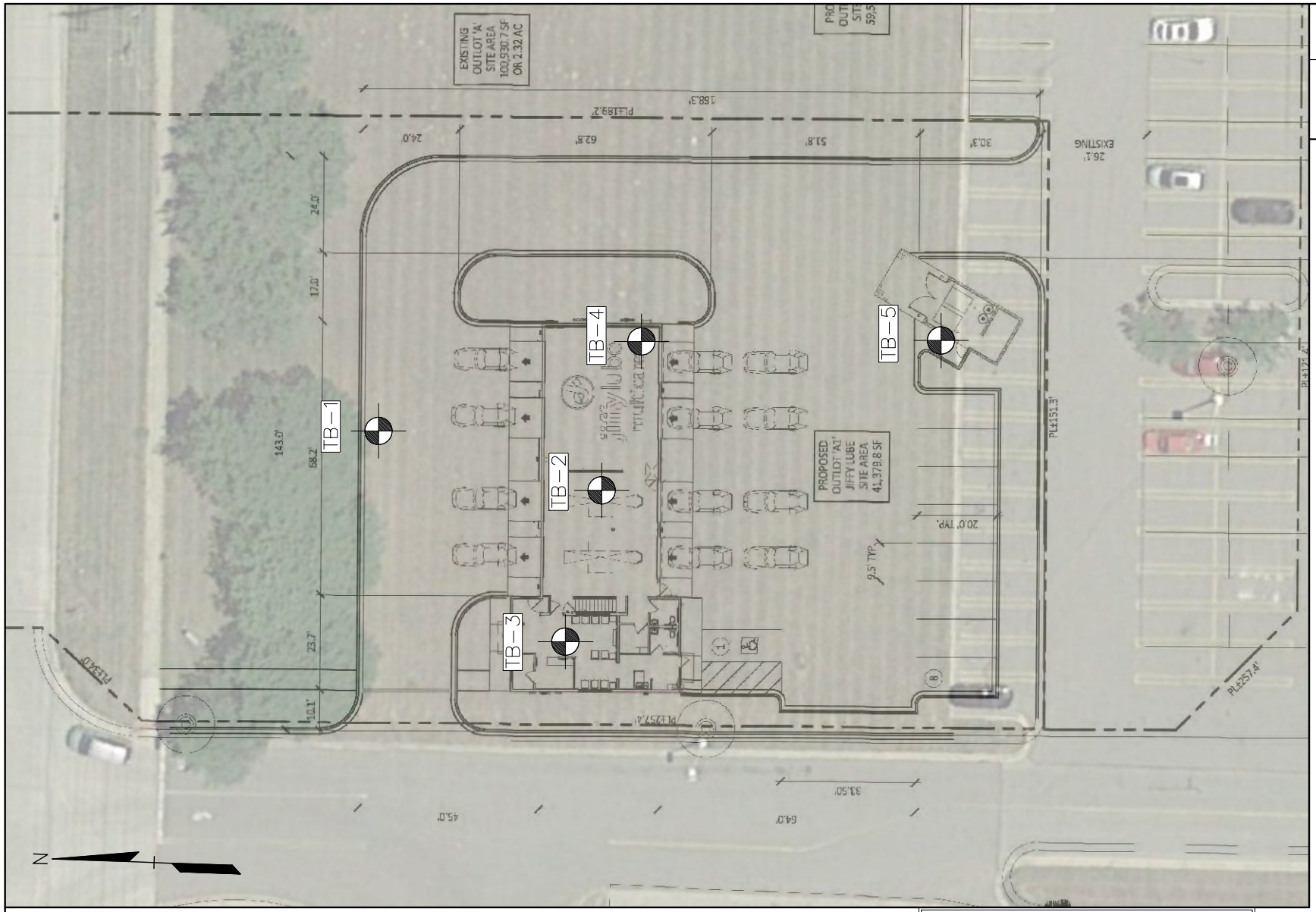
Professional Engineering Associates, Inc.

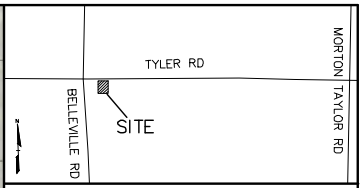
Client: GES

Project: Proposed Jiffy Lube Multi-Care Services

Project No.: 2020-0107 **Figure** 8

Tested By: KW **Checked By:** JA





BORING LEGEND

TB-1 TEST BORING BY PERFORMED BY STOCK DRILLING ON MARCH 2, 2020 UNDER TECHNICAL SUPERVISION OF GES.

DATE: 3/12/2020

PEA JOB NO. 2020-0107

PEA, Inc.
2430 Rochester Ct, Ste 100
Troy, MI 48083-1872
t: 248.689.9090
f: 248.689.1044
www.peainc.com

PROPOSED JIFFY LUBE

TEST BORING LOCATION MAP

9701 BELLEVILLE ROAD OUT LOT A1
BELLEVILLE, WAYNE COUNTY, MICHIGAN

MCKENNA

Memorandum

To: Van Buren Charter Township Planning Commission
Dan Power, Director of Planning and Economic Development
Matt Best, Director of Public Services

From: Adam A. Cook, CNU-A, Planning Consultant

Date: November 9, 2020

Subject: **2020 Van Buren Township Master Plan – Draft Distribution**

We are pleased to embark on an Adoption Copy version of the 2020 Van Buren Township Master Plan for your review. You have spent considerable time and effort guiding the preparation of this document – congratulations on getting to this final draft milestone!

Since your last meeting on October 28, 2020, we have begun revisions to the Draft, dated July 2020, concerning the following:

1. General updates to the text for typos, grammar, and polish of written content (non-substantive changes that do not affect future land use direction);
2. Stylistic updates to the Future Land Use Map to enhance clarity and readability (i.e. movement of labels and footnotes). Again, these changes are non-substantive, and do not affect future land use direction.
3. Insertion of "Acknowledgements" and "Table of Contents" sections; please review your name for accuracy.

During the aforementioned Planning Commission meeting on October 28, 2020, a public hearing was held on the Draft Master Plan. Your body then voted to take the next step in the process prescribed by the State of Michigan for adoption of the Plan, which is to recommend that the Van Buren Charter Township Board of Trustees take up the issue of reviewing the Plan for formal adoption at an upcoming meeting. Please find attached to this Memorandum suggested language for a formal Resolution of Adoption that can be used by the Planning Commission.

We look forward to taking these final steps with you in the coming weeks; please let us know if you have any questions or comments.

HEADQUARTERS
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MCKA.COM

Charter Township of Van Buren, Wayne County, Michigan
2020 Master Plan
RESOLUTION of ADOPTION

WHEREAS the Michigan Planning Enabling Act (Public Act 33 of 2008), as amended, provides for a Township planning commission to prepare and adopt a Master Plan for physical development of the community; and

WHEREAS the Van Buren Charter Township Planning Commission has prepared such a Master Plan for the Township's physical development in compliance with the Michigan Planning Enabling Act, including relevant charts, maps and text; and

WHEREAS the Van Buren Charter Township Planning Commission has provided multiple opportunities for public participation in the planning process; and

WHEREAS the Van Buren Charter Township Board of Trustees approved the draft Plan for distribution on July 21, 2020, and subsequently the Master Plan was so distributed for review by surrounding communities and other public agencies as required by the Michigan Planning Enabling Act; and

WHEREAS the Van Buren Charter Township Planning Commission held a formal public hearing on the draft Master Plan on October 28, 2020 in order to provide additional opportunity for public comment; and

WHEREAS all comments received during the planning process have been carefully considered and the Planning Commission is satisfied that the Master Plan is ready for adoption.

NOW THEREFORE BE IT RESOLVED that the Van Buren Charter Township Planning Commission hereby adopts the 2020 Van Buren Charter Township Master Plan, as presented at the public hearing held on October 28, 2020, subject to incorporation of the following revisions, which are non-substantive and do not impact future land use direction:

1. General updates to the text for typos, grammar, and polish of written content;
2. Stylistic updates to the Future Land Use Map to enhance clarity and readability;
3. Insertion of "Acknowledgements" and "Table of Contents" sections.

BE IT FURTHER RESOLVED that the Van Buren Charter Township Planning Commission directs the Commission Chairperson and Commission Secretary to sign this Resolution signifying the adoption of the Van Buren Charter Township Master Plan, to file an attested copy with the Township Clerk, and to request that the Master Plan, as revised (if applicable), be placed on the next available agenda of the Township Board of Trustees for consideration and adoption consistent with the Michigan Planning Enabling Act.

Motion by _____ and seconded by _____

AYES: _____

NAYS: _____

ABSENT: _____

Resolution Declared Adopted.

_____
Carol Thompson, Chairperson
Van Buren Charter Township Planning Commission

_____
Tina Harman, Recording Secretary
Van Buren Charter Township Planning Commission