VILLAGE OF DOWNERS GROVE
Report for the Village
5/16/2023

SUBJECT:	SUBMITTED BY:
2539 Ogden Avenue - Special Use for a Personal Vehicle Repair and Maintenance Use	Stan Popovich, AICP Director of Community Development

SYNOPSIS

The petitioner is requesting approval of a Special Use for a Personal Vehicle Repair and Maintenance use at 2539 Ogden Avenue.

STRATEGIC PLAN ALIGNMENT

The goals for 2021-2023 include a *Strong and Diverse Local Economy*.

FISCAL IMPACT

N/A

RECOMMENDATION

UPDATE & RECOMMENDATION

This item was discussed at the May 9, 2023 Village Council meeting. Staff recommends approval on the May 16, 2023 Active Agenda.

The Village has not received any odor or noise complaints within the past year concerning personal vehicle repair and maintenance facilities.

At the March 6, 2023 public hearing, a motion to recommend approval of the project failed by a vote of 2:4. The four dissenting Commissioners stated concerns with noise impacts, private tree removal on the south side of the site, and traffic and parking concerns related to Drendel Road.

In response to public comments and the Plan Commission deliberation and recommendation, the petitioner revised the development plan by:

- Redesigning the façade by replacing the standard service bay doors with a carriage style, fully opaque service door and providing a limestone/cast stone base.
- Removes four light fixtures from the southern façade and installing shields to luminaires on sides abutting residential properties to block light.
- Replacing the solid fence with a masonry wall.
- Providing additional landscaping on the southern end of the site.

- Enclosing the pedestal grinder in a separate room to conform with noise regulations.
- Provided a sound study which demonstrates compliance with the noise ordinance.
- Providing confirmation of their proposed test drive route, highlighting that vehicles will not be tested through residential neighborhoods.
- Further restricting vehicle traffic from turning left (exiting southbound) onto Drendel Road by installing a mountable curb median in the driveway.

In response to the public comments received prior to and during the public hearing, the Village managed temporary no parking restrictions on both the west and east sides of Drendel Road, adjacent to the B-3 zoned properties. A separate ordinance is provided for Village Council consideration for permanent implementation of the parking restrictions.

BACKGROUND

Property Information & Zoning Request

The petitioner is proposing to locate a vehicle repair and maintenance business, Belle Tire, at 2539 Ogden Avenue. The site is comprised of five adjacent parcels, all zoned B-3, General Services and Highway Business, requiring an administrative lot consolidation. The petitioner is requesting a Special Use for the proposed personal vehicle repair and maintenance business, pursuant to Section 28.5.010, as vehicle repair and maintenance is listed as an allowable special use in the B-3 zoning district.

Compliance with the Comprehensive Plan

The property is designated Corridor Commercial and Single Family Detached in the Comprehensive Plan. As mentioned below, the Comprehensive Plan encourages commercial expansion by increasing lot depth along the Ogden Avenue on a case-by-case basis give location, context, use, and screening.

The Comprehensive Plan is an aspirational document, which provides a vision of the future. The Zoning Ordinance is the regulatory tool that dictates how a property owner may use and develop their lots. The entire subject property is zoned B-3. The proposal meets several goals of the Comprehensive Plan, including:

- Strengthens the economy by creating more local jobs
- Encourages commercial expansion by increasing lot depth on a case-by-case basis give location, context, use and screening
- Implements the recommendations of the Economic Development Plan to Enhance the Sales Tax
- Provides parking lot screening and landscaping, in addition to dumpster enclosure and screening
- Nearby residential areas to be buffered from impacts of commercial use

Compliance with the Zoning Ordinance

The entire site is zoned B-3, General Services Highway Business. A proposed vehicle repair and maintenance business is listed as an allowable Special Use in the district. Bulk requirements can be found in Plan Commission report. The development will met all Village Zoning requirements.

Traffic and Circulation

The proposed development and use is complementary to uses along the corridor and is not anticipated to have any negative impact on the existing traffic patterns in the area. A minimum of 36 parking spaces are required and 40 have been provided. IDOT has restricted access to Ogden Avenue to a right-in/right-out movement. As such, access to the site will also be provided on Drendel Road. To mitigate impacts to the residential neighborhood to the south of the development, a condition of approval has been added which prohibits left turns onto Drendel Road. Additionally, as noted above, the petitioner has added a mountable curb island to

further deter exiting vehicles to turn left, while still allowing access into the site for business related deliveries, emergency vehicles, and trash pickup.

Public Improvements
In accordance with the Village's Stormwater Ordinance, post construction best management practices (PCBMPs) are required to reduce and treat stormwater runoff from the development. PCBMPs are provided for in a rain garden that is directly north of the Drendel Road driveway. Additional engineering improvements include re-grading the southern portion of the lot to ensure capture of stormwater flows from the north and the east of the site.

Public Comment
During the Plan Commission meeting, the public expressed concerns as listed below. The Village offers the following comments:

Concern	Response
Drendel Road Use and Access	• Test drives are only permitted on arterial streets and a test drive route has been provided by Belle Tire. • Left turns onto Drendel Road are prohibited and identified with signs. • A mountable curb has been added into the Drendel Road curb cut to discourage left turns. • No parking restrictions on both sides of Drendel Road adjacent to the site have been installed and will be made permanent as part of this approval process.
Noise	• Belle Tire uses electric tools that have reduced noise levels from the traditional pneumatic tools. • Belle Tire has provided additional information regarding noise levels and mitigation measures to address noise concerns. • Belle Tire updated their application to provide a solid masonry wall and enhanced landscaping along the east and south property lines. • Belle Tire is required to comply with noise regulations outlined in Section 28.10.040(b) of the Zoning Ordinance.
Stormwater/Drainage	• As currently proposed, the development will comport with the Village's Stormwater and Floodplain Ordinance.
Rezoning/Future Land Use Plan Designation	• The entire site is currently zoned B-3, General Services and Highway Business. A map amendment (rezoning) is not part of this request. • The Comprehensive Plan is an aspirational document while the Zoning Ordinance is the regulatory tool that dictates how a property owner may use and develop their property. • The Comprehensive Plan encourages commercial expansion by increasing lot depth along Ogden Avenue on a case-by-case basis given location, context, use and screening.

ATTACHMENTS

Ordinance
Aerial Map
Updated drawings dated March 27, 2023 and narrative dated March 30, 2023
Staff Report with attachments dated March 6, 2023

Approved Minutes of the Plan Commission Hearing dated March 6, 2023
Public Correspondence (Prior to Plan Commission)
Public Correspondence (Prior to Village Council)

VILLAGE OF DOWNERS GROVE

COUNCIL ACTION SUMMARY

INITIATED: Village Attorney (Name) **DATE:** May 16, 2023

RECOMMENDATION FROM: _____ (Board or Department) **FILE REF:** 23-PLC-0030

NATURE OF ACTION:

X Ordinance

__ Resolution

__ Motion

__ Other

STEPS NEEDED TO IMPLEMENT ACTION:

Motion to adopt "AN ORDINANCE AUTHORIZING A SPECIAL USE FOR 2539 OGDEN AVENUE TO PERMIT A PERSONAL VEHICLE REPAIR AND MAINTENANCE BUSINESS", as presented.

SUMMARY OF ITEM:

Adoption of this ordinance shall authorize a special use for 2539 Ogden Avenue to permit a personal vehicle repair and maintenance business.

RECORD OF ACTION TAKEN:

_____

_____

_____

l\mw\cas.23\SU-2539-Ogden-23-PLC-0030

ORDINANCE NO. _____

AN ORDINANCE AUTHORIZING A SPECIAL USE FOR 2539 OGDEN AVENUE TO PERMIT A PERSONAL VEHICLE REPAIR AND MAINTENANCE BUSINESS

WHEREAS, the following described property, to wit:

LOTS 6, 7, 8, 11, AND 12 IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S BELMONT GOLF ADDITION, BEING A SUBDIVISION IN THE SOUTH WEST QUARTER OF SECTION 1 AND THE NORTH WEST QUARTER OF SECTION 12, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING THE PLAT THEREOF RECORDED SEPTEMBER 14, 1925, AS DOCUMENT 199614, IN DUPAGE COUNTY, ILLINOIS.

Commonly known as: 2539 Ogden Avenue, Downers Grove, IL 60515
PINs: 08-01-305-003; -004, -005, -011, -012

(hereinafter referred to as the "Property") is presently zoned in the *"B-3, General Services and Highway Business District"* under the Comprehensive Zoning Ordinance of the Village of Downers Grove; and

WHEREAS, the owner of the Property has filed with the Plan Commission, a written petition conforming to the requirements of the Zoning Ordinance, requesting that a Special Use per Section 28.12.050 of the Zoning Ordinance be granted to permit a personal vehicle repair and maintenance business; and

WHEREAS, such petition was referred to the Plan Commission of the Village of Downers Grove, and said Plan Commission has given the required public notice, has conducted a public hearing for the petition on March 6, 2023 and has made its findings and recommendations, all in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove; and,

WHEREAS, the Plan Commission did not recommend approval of the Special Use; and,

WHEREAS, Village staff recommends approval of the Special Use, subject to certain conditions; and,

WHEREAS, the Village Council finds that the evidence presented in support of said petition, is such as to establish the following:

1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located;
2. That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.
3. That the proposed use will not, in the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.

NOW, THEREFORE, BE IT ORDAINED by the Council of the Village of Downers Grove, in DuPage County, Illinois, as follows:

SECTION 1. That Special Use of the Property is hereby granted to permit a personal vehicle repair and maintenance business.

SECTION 2. This approval is subject to the following conditions:

1. The Special Use shall substantially conform to the staff report dated March 6, 2023, the architectural and engineering drawings prepared by Enright Architects dated September 30, 2022, and revised on March 27, 2023 and March 31, 2023 except as such plans may be modified to conform to Village codes, ordinances, and policies.

2. An approved permit from the Illinois Department of Transportation must be provided to the Village before issuance of a building permit.

3. A lot consolidation plat must be recorded prior to the issuance of any building permits.

4. No vehicles may be test driven in residential neighborhoods. All test drives are limited to arterial streets as defined in the Comprehensive Plan and as provided by the test drive route provided by the petitioner. Arterial streets include Ogden Avenue, Belmont Road, Warren Avenue, and Main Street.

5. Inoperable vehicles are not permitted to be stored outside overnight.

6. The photometric plan shall conform to the Village Zoning Ordinance, and be consistent with petitioner's updated narrative dated March 30, 2023.

7. All vehicle maintenance must occur in the service bays of the proposed building. No vehicle maintenance may occur outside of the building.

8. Southbound (left) turns are prohibited from the Drendel Road access point and a mountable curb median in the driveway must be installed and include traffic signage as approved by the Village of Downers Grove.

9. The pedestal grinder shall be fully enclosed in a separate room as recommended by the sound study dated May 2, 2023.

10. No business activities may occur on Drendel Road.

11. All signage shall conform to the Zoning Ordinance.

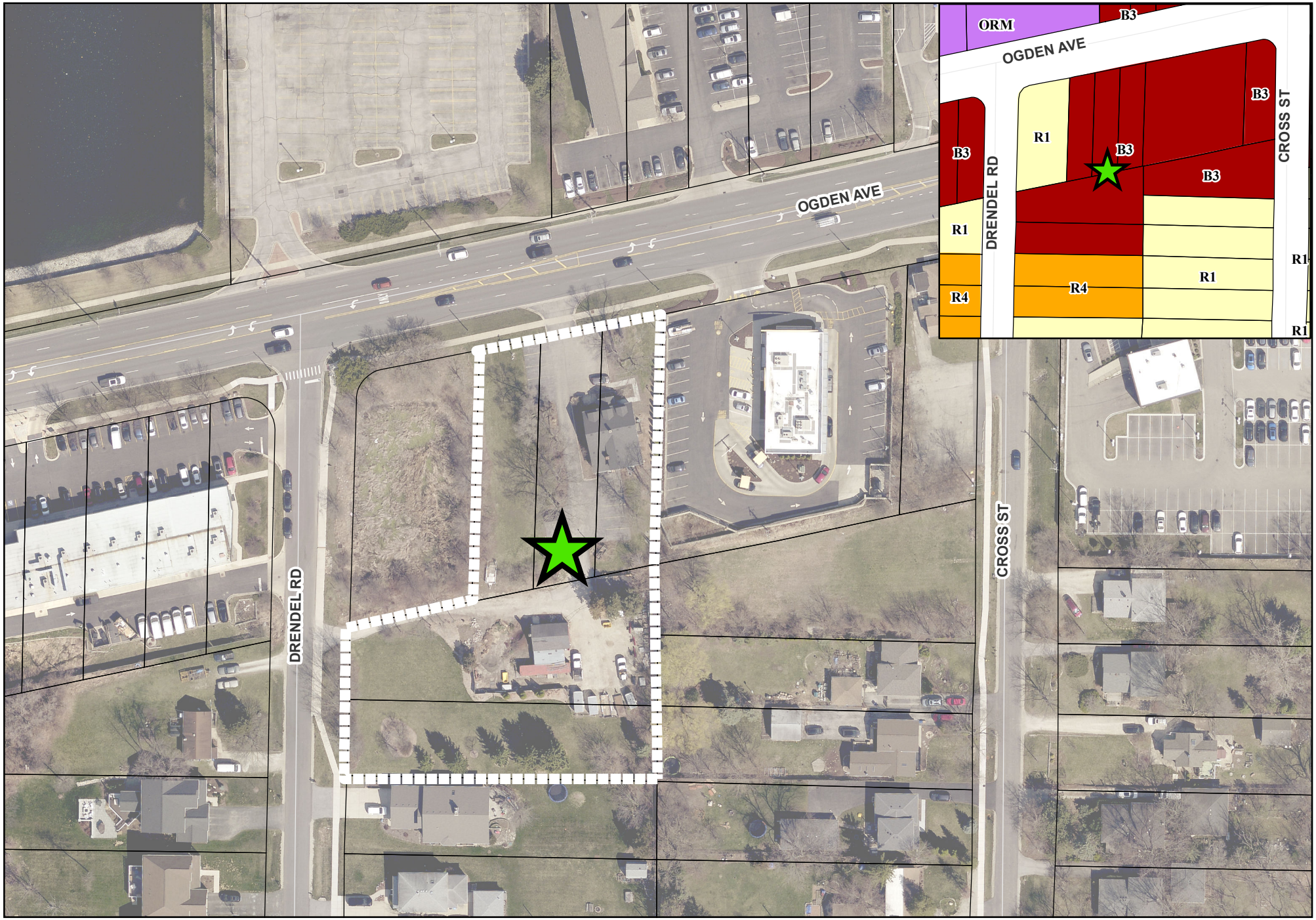
SECTION 3. The above conditions are hereby made part of the terms under which the Special Use is granted. Violation of any or all of such conditions shall be deemed a violation of the Village of Downers Grove Zoning Ordinance, the penalty for which may include, but is not limited to, a fine and/or revocation of the Special Use granted herein.

SECTION 4. It is the Petitioner's obligation to maintain compliance with all applicable Federal, State, County and Village laws, ordinances, regulations, and policies.

SECTION 5. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

_____
Mayor

Passed:
Published:
Attest: _____
Village Clerk



N

0 50 100 200 Feet

2539 Ogden Avenue - Location Map - UPDATED Site Boundary

Subject Property

Project Location

CHRISTOPHER ENRIGHT ARCHITECTS

A PROFESSIONAL CORPORATION

Jason Zawila, AICP, Planning Manager
Community Development Department
Village of Downers Grove
801 Burlington Avenue
Downers Grove, IL 60515

RE: Belle Tire Downers Grove
Supplemental Response to March 6, 2023 Plan Commission Recommendation

March 30, 2023

Mr. Zawila,

On March 6, 2023, our team presented our Petition to the Village of Downers Grove Plan Commission for a new Belle Tire store to be located on the properties currently addressed as 2539 & 2939 Ogden Avenue approximately 200 feet east of the Drendel Road and US 34 (Ogden Avenue) intersection. Our proposal includes the demolition of existing buildings and the construction of a new 9,800 square foot single story brick and cast stone veneer building with related infrastructure improvements.

For our proposed development, we were requesting approvals for:

1. Special Use: Personal Vehicle Repair and Maintenance facility in the B-3 General Services and Highway Business District
2. Plat Consolidation of the existing five (5) lots

During this meeting, several residential neighbors voiced frustrations regarding existing conditions: Including parking on both sides of Drendel by Hertz Rental Car and long-term existing drainage problems within the subdivision. Concerns were also voiced regarding the new Belle Tire development. These concerns were related to traffic circulation and access, potential for noise, drainage, test drive routes, and any potential visual impacts.

Our development team takes all concerns by residents seriously. We have shared these concerns with Belle Tire and want to communicate modifications we have made to address each of these concerns. No modifications were required or needed to address stormwater concerns. Drainage will be improved with this development. Stormwater is reviewed with the Final Engineering process with the Village of Downers Grove.

<u>Drendel Road Entrance – Traffic, Deliveries, Parking</u>

Resident Concern: Traffic entering/exiting site on Drendel and employees utilizing residential streets for test driving vehicles

Phone: 248.258.6485 (o)
248.330.9395 (c)
628 E. Parent Avenue
Suite 100
Royal Oak, MI 48067
cenright@enrightarchitects.com

- The Site Plan has been revised with a new Drendel driveway configuration that is full access entering the Belle parcel and Right-Out only when exiting. No left turns from the Belle drive are allowed onto southbound Drendel. The curbing has been designed to direct all exiting traffic north, and to discourage / make difficult left hand turns going south into the neighborhood. Pavement markings and signage are provided for additional visual instruction to drivers. Truck access is maintained at this driveway via mountable curb on the island in the driveway. Please see attached **C200 Site Plan**.

- Belle has internal training for their mechanics and staff. Testing of vehicles is part of this training. Belle Tire is committed to instructing staff to perform test drives per the included **Test Drive Route**, not through the residential neighborhood. Please see the attached **email from Lisa Hudzinski**, Vice President, Training & Customer Support. In addition, the neighborhood does not provide the appropriate conditions to test the car.

Resident Concern: Existing parking on both sides of Drendel Road by Hertz Rental Care causes congestion and could prohibit truck deliveries to Belle Tire

- Belle shares this same concern if Hertz is parking on both sides of Drendel as Belle would not be able to access the Drendel driveway with delivery trucks. Per conversations with Village staff, it is our understanding that staff is working to install “No Parking” signs on both sides of Drendel Road from Ogden Road to approx. 200 feet south of the intersection. This should be an enforceable way to eliminate parking on Drendel, not only by Hertz but also other commercial users in the area to promote traffic safety and to decrease / eliminate congestion.

<u>Noise Impacts</u>

Resident Concern: Resident believes noise from Belle Tire operations will be disruptive to neighbors

- A few years ago, Belle Tire began testing electric tire equipment as opposed to pneumatic tools to reduce potential for noise impacts to visiting customers and neighbors.

- In July 2020, Soundscape Engineering visited the Belle Tire store located in New Hudson, Michigan, to measure the sound levels at five locations during operation. Various sound sources were recorded during the measurements including, but not limited to, grinders, air compressors, mechanical wrenches, and banging on metal. During the first visit, technicians used pneumatic air wrenches, and during the second visit, battery-powered wrenches were used. The results indicated a 2 dBA to 9 dBA decrease with the use of battery-powered equipment.
    - These operations noise levels were then compared to the measured ambient noise at the Naperville site coming from Ogden Avenue. The battery-powered equipment levels were 7 dBA to 13 dBA above traffic noise. A solid wood or masonry acoustical barrier was recommended to

prevent sound from going over the barrier and being a disruption to residential neighbors located 60-feet from the building.

- The proposed building on this Downers Grove site has purposefully been placed as far north on the property as possible, 180 feet from the nearest home, with the bay doors facing west away from residential neighbors. The previous proposal included an 8-foot-high wood shadowbox fence. We are now proposing to install an 8-foot-high masonry wall to assist with potential visual and noise impacts. See attached **Colored Site Landscape Plan**.
- To measure potential noise related to the Downers Grove Belle site, a Sound Plan and Sound Graphic plan have been created utilizing the information obtained in previous studies. Please see attached **Sound Plan** and **Sound Graphic Plan**.

Visual Impacts

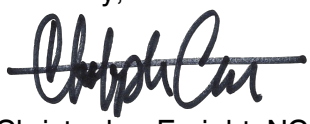
Resident Concern: This new commercial development will be a visual annoyance to residential neighbors.

- In addition to the masonry wall, we are proposing to add additional landscaping with more mature plantings at the time of installation.
    - Previous proposal included:
        - Twenty-one (21) 6-foot high Evergreen Trees
        - Seven (7) 4-foot high Ornamental Trees
        - Seventeen (17) 2.5” caliper Shade Trees, approx. 12-14’ installation height
    - Our current proposal includes:
        - Twenty-five (25) 6-foot high Evergreens Trees
        - Seven (7) 6-foot high Ornamental Trees
        - Nineteen (19) 4” caliper Shade Trees, approx. 16-18’ installation height
    - Please see attached **Landscape Plans**

- We are also proposing to use fully opaque “carriage (residential) style” overhead doors with accompanying decorative hardware. Further, as an additional level of detail we are proposing a limestone / cast stone base around the building. Please refer to the attached **Elevations and Renderings**.

Please refer to all exhibits attached herein. We appreciate the opportunity to address resident concerns and believe the plan presented here not only addresses concerns but is above and beyond. Belle looks forward to developing at this location along this Ogden commercial corridor. Please reach out with any questions.

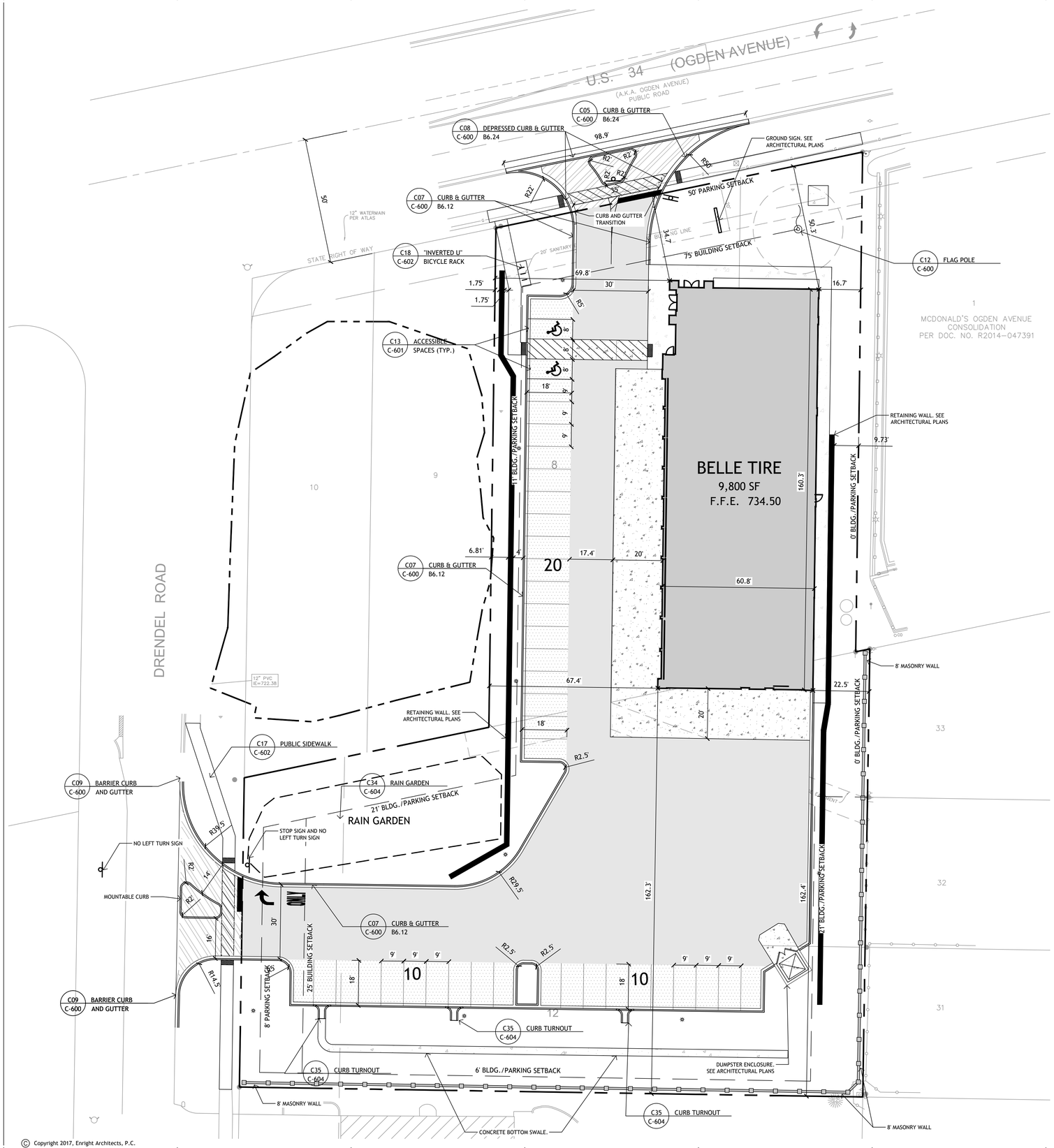
Sincerely,



Christopher Enright, NCARB

List of Exhibits:

1. C200 – Site Plan
2. DR-1 – Test Drive Route
3. Email from Lisa Hudzinski Belle Tire
4. SP.1 – Color Site Landscape Plan
5. SS-1 – Sound Plan
6. SS-2 – Sound Graphic Plan
7. L.1-L.3 – Landscape Plans
8. A201-A203 – Building Elevations
9. R101-R105 – 3D Color Renderings



Know what's below. Call before you dig.

Call Before You Dig JULIE ILLINOIS ONE CALL SYSTEM

0 20 40

1" = 20'

LEGEND

	C01 C-600	HEAVY DUTY ASPHALT PAVEMENT
	C02 C-600	LIGHT DUTY ASPHALT PAVEMENT
	C03 C-600	HEAVY DUTY CONCRETE PAVEMENT
	C04 C-600	CONCRETE SIDEWALK
	C20 C-601	HEAVY DUTY CONCRETE PAVEMENT AT R/W

BID ALTERNATE #1:
INSTALLATION OF LIGHT AND HEAVY DUTY CONCRETE PAVEMENT (DETAILS ON C600) IN LIEU OF ALL LIGHT AND HEAVY DUTY ASPHALT PAVEMENT.

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR ADDITIONAL INFORMATION.
2. THE BASIS FOR THE GEOMETRIC LAYOUT IS A BEST FIT LINE ALONG EAST PROPERTY LINE ADJACENT TO PARKING.
3. DIMENSIONS ARE TO FRONT OF CURB IN ALL PAVED AREAS, BACK OF CURB IN GRASS/LANDSCAPE AREAS AND OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ANY CONTRACTOR DAMAGE TO EXISTING PAVEMENT OR CURBS TO REMAIN SHALL BE REMOVED AND RESTORED TO PROPOSED SPECIFICATIONS.
5. EXISTING CONDITIONS ARE AS SHOWN PER SURVEY BY OTHERS.

SITE SUMMARY

LOT SIZE:	±1.54 AC.
ZONING:	B-3, GEN SERVICES AND HWY BUSINESS
BUILDING SIZE:	9,800 SF.
BUILDING HEIGHT:	21'-4"
BUILDING/PARKING SETBACKS:	
FRONT	75 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	21 FT. (EAST - ZONED R-1) (20'+1' BLDG)
	11 FT. (WEST - ZONED R-1) (10'+1' BLDG)
	25 FT. (WEST - DRENDELL FRONTAGE)
REAR	6 FT. (SOUTH - ZONED R-4) (5'+1' BLDG)
PARKING SETBACKS:	
FRONT	50 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	21 FT. (EAST - ZONED R-1)
	11 FT. (WEST - ZONED R-1)
	8 FT. (WEST - DRENDELL FRONTAGE)
REAR	6 FT. (SOUTH - ZONED R-4)
SURROUNDING ZONING:	R-1 (EAST/WEST)
	R-4 (SOUTH)
	B-3 (EAST/NORTH)

PARKING SUMMARY

MIN. SIZE:	9 FT. x 18 FT.
MIN. DRIVE WIDTH:	24 FT.
MIN. SPACES REQUIRED:	36 (1/BAY PARKING + 2/BAY STACKING + 3.5 SPACES PER 1000 SQ FT OF RETAIL SPACE)
SPACES PROVIDED:	40
ADA SPACES REQUIRED:	2
ADA SPACES PROVIDED:	2

Project Name:	**Belle Tire - Downers Grove**				
Address:	**2539 Ogden Avenue, Downers Grove, IL 60515**				
PIN(s):	08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012				
Zoning District:	B-3 General Services and Highway Business				
Existing Use:	Lanscaping and Landscaping Materials Business				
Proposed Use:	Auto Service and Repair				
Petition Type:	Commercial Development - Special Use				
Requirement	Factor	Required	Proposed	Meets?	Difference
Lot Frontage (ft)	Minimum	100	150	Yes	50
Lot Area (acres)	Minimum	0.24 (10,500 sq ft)	1.54 (67,099 sq ft)	Yes	1.30
Lot Width (ft)	Minimum	100	150	Yes	50
Street Yard (ft)	Minimum	75	85	Yes	10
Side Yard (ft) B3 Adj.	Minimum	0	17	Yes	17
Side Yard (ft) R1 Side Adj.	Minimum	11	67	Yes	56
Side Yard (ft) R1 Rear Adj.	Minimum	21	22.5	Yes	1.5
Rear Yard (ft) R4 Adj.	Minimum	6	162	Yes	156
Height (ft)	Maximum	60	21'-4"	Yes	38'-8"
Open Space (%)	Minimum	10	37.6 (25,267 sq ft)	Yes	22.60%
FAR (%)	Maximum	75	14.6 (9,800 sq ft)	Yes	60.40%
Parking (spaces)*	Minimum	36	40	Yes	4
Donations	NA	NA	NA	NA	NA

Remarks:
* based on unit type/count
1 per bay + 2 per bay stacking + 3.5 per 1,000 SF of Retail Space

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

SITE PLAN

Issued for

2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL
2023.03.20 - DRIVEWAY REVISIONS
2023.03.27 - BOARD RESUBMITTAL

Project Number

21-350

Sheet Number

C 200

N

Drive Route

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Drive Route

Issued for

Village Re-Submittal: March 21, 2023

Project Number

21-350

Sheet Number

DR-1

Angela Smith

From: cenright enrightarchitects.com
Sent: Friday, March 10, 2023 3:16 PM
To: jzawila@downers.us; Emily Hepworth
Cc: John Nierzwicki; Angela Smith
Subject: FW: Downers Grove

Jason and Emily,
See below from Belle regarding test drives
Chris

Christopher Enright, NCARB
Principal Architect
628 E. Parent Avenue
Suite 100
Royal Oak, MI 48067
248.330.9395 Cell
248.258.6485 Office

CONTOUR LAND GROUP
DESIGN • ENGINEERING

From: Lisa Hudzinski <lhudzinski@belletire.com>
Sent: Friday, March 10, 2023 3:01 PM
To: cenright enrightarchitects.com <cenright@contourlandgroup.com>
Cc: Quentin Jeffries <qjeffries@belletire.com>
Subject: RE: Downers Grove

Hi Chris,
I talked with two members of my team and also with two of the Directors of Operations for Chicago about test drives in Downers Grove. My team indicated that the area you identified on the map would be more than sufficient for the majority of test drives. The DROs have absolutely no concerns about ensuring that the auto technicians do not test drive vehicles in the neighborhood south of the store. Most importantly, the DROs are in a position to enforce this requirement.

A few things to note about test drives:

- The routes are only as long as necessary to 1) verify a customer's concern or 2) to verify that the repair has resolved the concern.
- The routes need to provide the conditions that will enable the auto tech to duplicate the customer's concern (certain speed limits or road conditions like bumps, etc.).
- Our technicians are paid on commission so there is no incentive to spend any more time test driving a vehicle than is necessary.

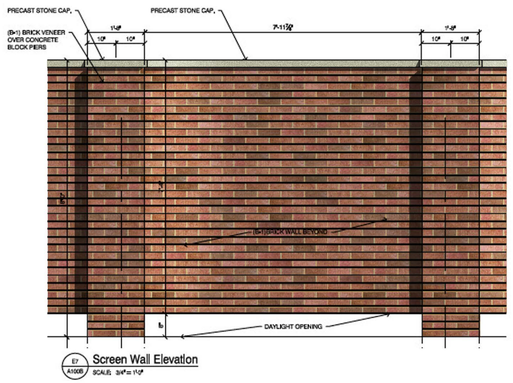
One final thing, when we conduct orientation for the auto technicians who will work in this store, we will cover the test drive routes as part of that orientation.

Please let me know if you have any other questions or concerns.

LISA HUDZINSKI
Vice President, Training & Customer Support
Belle Tire | 1000 Enterprise Dr. | Allen Park, MI 48101

PLAN COMPARISON

PREVIOUS LANDSCAPE PLAN		CURRENT LANDSCAPE PLAN	
17	2.5" CAL. SHADE TREES	19	4.0" CAL. SHADE TREES
7	4' MULTI. ORN. TREES	7	6' MULTI. ORN. TREES
21	6' EVERGREENS	25	6' EVERGREENS
85	24" MEDIUM SHRUBS	98	24" MEDIUM SHRUBS
120	36" LARGE SHRUBS	128	36" LARGE SHRUBS
223	PERENNIALS	223	PERENNIALS



E7 / A1005 Screen Wall Elevation
SCALE: 3/4"=1'-0"

LANDSCAPE LEGEND

EXISTING TREE

PROPOSED SHADE TREE

PROPOSED EVERGREEN TREE

PROPOSED ORNAMENTAL TREE

PROPOSED LARGE SHRUB

PROPOSED MEDIUM SHRUB

PROPOSED EVERGREEN SHRUB

PROPOSED LOW SHRUB

PROPOSED ORNAMENTAL GRASS

PROPOSED PERENNIAL PLANTING

SODDED LAWN

NATIVE SEEDED RAIN GARDEN

PLANT LIST

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
ACF	4.0" CAL.	4	ACER FREEMANII 'SIENNA'	SIENNA GLEN MAPLE	B&B
CEO	4.0" CAL.	4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	B&B
GDE	4.0" CAL.	4	GYMNOCLADUS DIOIC. 'ESPRESSO'	ESPRESSO KENTUCKY COFFEETREE	B&B
GTS	4.0" CAL.	4	GLEDITSIA TRI. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B
TCG	4.0" CAL.	3	TILIA AMERICANA 'MCKSENTRY'	AMERICAN SENTRYLINDEN	B&B
ORNAMENTAL TREES					
AGP	6' MULTI	3	AMELANCHIER GRAN. 'PRINCESS DI'	PRINCESS DIANA SERVICEBERRY	B&B
COM	6' MULTI	2	CORNUS MAS	CORNELIANCHERRY DOGWOOD	B&B
MDW	6' MULTI	2	MALUS 'DONALD WYMAN'	DONALD WYMAN CRABAPPLE	B&B
EVERGREEN TREES					
PGD	6' HT.	5	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	B&B
PIA	6' HT.	7	PICEA ABIES	NORWAY SPRUCE	B&B
PIP	6' HT.	5	PICEA PUNGENS	COLORADO GREEN SPRUCE	B&B
TON	6' HT.	8	THUA OCCIDENTALIS 'NIGRA'	DARK GREEN ARBORVITAE	B&B
DECIDUOUS SHRUBS					
AAB	36" HT.	14	ARONIA ARBUT. 'BRILLIANTISSIMA'	BRILLIANT RED CHOKEBERRY	B&B
AMA	18" HT.	36	ARONIA MELANO. 'ELATA'	ELATA CHOKEBERRY	B&B
CAM	36" HT.	33	CORNUS ALBA 'ARGENTEO MARG.'	CREAM EDGE DOGWOOD	B&B
FOS	24" HT.	9	FORSYTHIA X INTERMED. 'SUNRISE'	SUNRISE FORSYTHIA	B&B
HYA	18" HT.	30	HYDRANGEA ARBOR. 'ANNABELLE'	ANNABELLE HYDRANGEA	B&B
POB	36" HT.	30	PYHSOCARPUS OPUL. 'DIABOLO'	DIABOLO NINEBARK	B&B
SYM	24" HT.	12	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	B&B
VCC	18" HT.	11	VIBURNUM CARLESII 'COMPACTUM'	DWARF KOREANSPICE VIBURNUM	B&B
VDS	36" HT.	13	VIBURNUM DENT. 'CHICAGO LUSTRE'	CHICAGO LUSTRE ARROWWOOD	B&B
VTC	36" HT.	37	VIBURNUM TRILOBUM 'ALFREDO'	ALFREDO AMER.CRANBERRY BUSH	B&B
EVERGREEN SHRUBS					
JCS	18" HT.	19	JUNIP. CHIN. 'SEA GREEN'	SEA GREEN JUNIPER	B&B
ORNAMENTAL GRASSES					
CAA	#1 CONT.	19	CALAMAGROSTIS ACUT. 'STRICTUS'	STRICTUS FEATHER REED GRASS	
PAV	#1 CONT.	12	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH RED SWITCH GRASS	
GROUNDCOVER / PERENNIALS					
ACH	#1 CONT.	29	ACHILLEA MILLE. 'PAPRIKA'	PAPRIKA YARROW	18" O.C.
ALS	#1 CONT.	40	ALLUM TANGUT. 'SUMMER BEAUTY'	SUMMER BEAUTY WILD ONION	18" O.C.
HEM	#1 CONT.	37	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	15" O.C.
LAV	#1 CONT.	12	LAVENDULA 'MUNSTEAD STRAIN'	MUNSTEAD ENGLISH LAVENDAR	24" O.C.
PHD	#1 CONT.	53	PHLOX DIVARICATA	BLUE PHLOX	15" O.C.
SED	#1 CONT.	21	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	18" O.C.
SOD	SQ. YD.	800	SODDED LAWN		
SEED	SQ. YD.	420	NATIVE SEEDED RAIN GARDEN - SEE BELOW		

NATIVE SEEDED RAIN GARDEN TO BE SEEDED WITH MOIST MEADOW - RAIN GARDEN MIX AVAILABLE THROUGH PRAIRIE NURSERY, WESTFIELD, WI. 1-800-476-9453. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND SEED RATES.

1 SITE PLAN

N SHEET SCALE 1"=20'
0' 10' 20' 40' 60'

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

LG Landscape Architecture
Site Planning
Illustration
Workshop, LLC
1955 N. Wilmot Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

Issued for

PERMIT SUBMITTAL: MARCH 24,2023
PERMIT RESUBMITTAL: AUGUST 5, 2022
REVISED STORM STR RIMS: AUGUST 15, 2022
PERMIT RESUBMITTAL: NOVEMBER 30, 2022
REVISED SITE PLAN: JANUARY 26, 2023
REVISED TREE REMOVALS: MARCH 3, 2023
REVISED PER VILLAGE COMMENT: MARCH 24, 2023

Project Number

21-350 SITE PLAN

Sheet Number

SP.1

Soundscape Engineering
Practical Solutions from Professional Engineers

May 2, 2023

Christopher Enright, NCARB
248.258.6485 Office
cenright@enrightarchitects.com

Enright Architects
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067

Subject: Belle Tire - Sound Level Study
Downers Grove, Illinois

Dear Chris:

Soundscape Engineering has completed the sound study for the future Belle Tire Downers Grove site. The purpose of the study was to predict the sound levels at the site due to the various tool use and make mitigation recommendations if the predicted level is not compliant with the Village noise ordinance. The sound mitigation recommendations are presented along with the analysis. A glossary of acoustical terminology is provided in Appendix A in case you wish to refer to it while reading the report.

Executive Summary

- An eight foot high masonry wall for sound reduction will be constructed along the south and southeast property lines.
- The pedestal grinder, which is used for a few minutes per hour, is the loudest tool used on site. The recommended sound mitigation measures are listed below.
    - Locate the large grinder in its own room or in a sound booth. The booth should be constructed of combination sound absorbing and sound blocking panels.
- Based on the average sound levels measured at the New Hudson store for the various tools, **we predict the Downers Grove Noise Ordinance is met at the residential property lines**.

Project Background

We understand that Belle Tire is petitioning for a store at 2539 Ogden Avenue in Downers Grove, Illinois. It is near a single family residential neighborhood as shown in Figure 1. The approximate

property lines are shown in red. An 8-foot masonry wall is planned along the south and southeast property lines.

Nearby residents have expressed concern about sound coming from the future store. Consequently, Belle Tire has hired Soundscape Engineering to make a prediction of the sound level on the property and adjacent residential properties and make any needed sound mitigation steps in addition to the wall already planned.

Figure 1: Area around the future Belle Tire location in Downers Grove

The Village of Downers Grove noise ordinance is reproduced below for reference.

1. *Noise*
    1. Unless otherwise expressly stated in this Section, it a violation of this zoning ordinance to operate in any manner that causes the daytime noise level to exceed 65 dB(A) or that causes the nighttime noise level to exceed 50 dB(A) on property located within an R zoning district. For the purposes of administering and enforcing these noise regulations:
        1. daytime hours include the hours from 7:00 a.m. to 8:00 p.m.;
        2. nighttime hours include the hours from 8:01 p.m. to 6:59 a.m.; and
        3. noise levels must be determined by measuring the dB(A) taken at least ten feet (10') inside the property line of the R-zoned property.
    2. It is not a violation of applicable noise standards if the noise source does not:
        1. exceed 5 dB(A) over the dB(A) allowed if the noise source operates at that level for less than fifteen (15) minutes in any one-hour period;
        2. exceed 10 dB(A) over the dB(A) allowed if the noise source operates at that level for less than six (6) minutes in any one-hour period;
        3. exceed 15 dB(A) over the dB(A) allowed if the noise source operates at that level for less than one and one half (1.5) minutes in any one-hour period; or
        4. occur as part of the typical operation of the Premises, including mowing, construction, tree trimming, and waste removal.

This Belle Tire location will close no later than 8 pm, and all of its operating hours are classed as daytime hours per the ordinance. Consequently, the nighttime ordinance limit does not apply.

Soundscape previously recorded typical sound levels from various pieces of equipment at the Belle Tire in New Hudson, Michigan. We used those measurements for the sound source levels at the Downers Grove facility. This includes the use of quieter battery powered hand tools. Also, those measurements showed that the pedestal grinder was the loudest source of sound and not the hand tools.

Previous Equipment Sound Level Measurements

Soundscape visited the Belle Tire location in New Hudson, Michigan on Wednesday, June 17, 2020 to measure the sound level during operation. During this visit, the technicians used pneumatic air wrenches in addition to two types of grinders, air compressors, and hammering. The second visit occurred on Monday, July 13, 2020 and the technicians used battery-powered wrenches instead. The five measurements recorded on each occasion were used to calibrate the Downers Grove sound propagation model.

A comparison of the battery and pneumatic air wrench sound spectra is shown in Figure 2 for measurements of a pneumatic powered wrench and a battery power wrench taking on/off tire lug nuts taken at 3 feet from the tools. The sound amplitude is shown on the vertical axis and the frequency of the sound (low sound on the left and high sound on the right) is on the horizontal axis. The results revealed that the battery powered wrench was approximately 2 dBA quieter than the pneumatic wrench. While this difference may not be large, the character of the sound is notably different as evidenced by the five decibel reduction in the mid frequencies. Subjectively, the battery powered wrench was considered a less annoying sound than the standard “whorl sound” of a pneumatic tool.

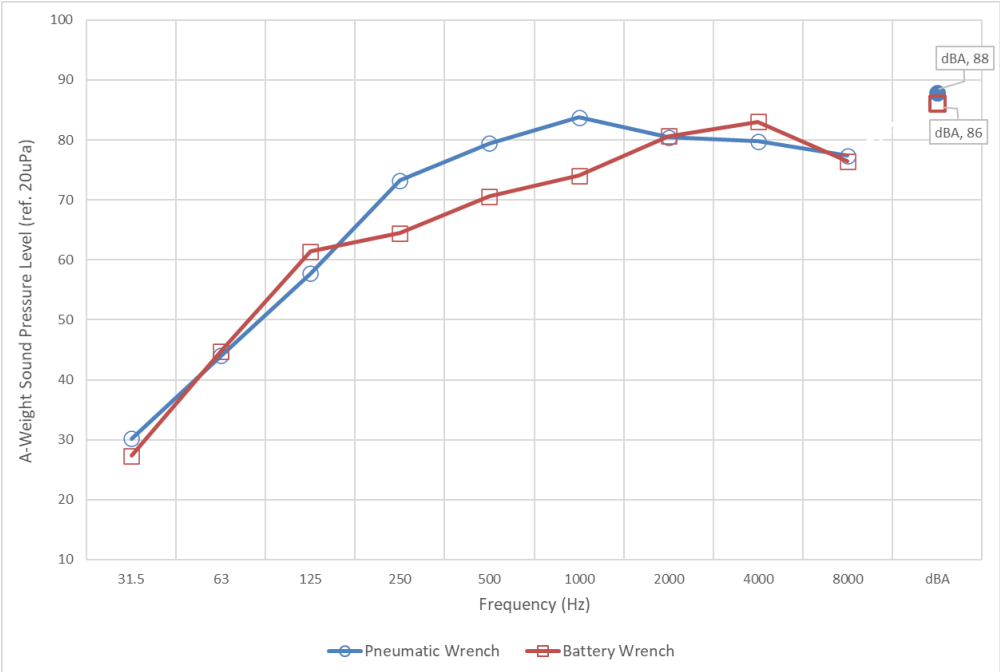


Figure 2: Measured Sound Pressure Level of Pneumatic and Battery Powered Wrenches

Sound Propagation Modeling and Recommendations

An image of the sound propagation model with the property line acoustical barrier is shown in Figure 3. Buildings appear as gray blocks. The garage doors are peach squares along the west face of the proposed building. The 8-foot masonry wall appears as a cyan ribbon along the south and east property lines. The red numbers and notes projected onto the ground are the points used for calibrating the model and are not otherwise relevant to the Downers Grove site.

Masonry is an excellent sound blocking material, though it should be mentioned that other materials are also acceptable. Please contact us if you wish to discuss alternates. A general discussion of barrier design and materials can be found in Appendix B.

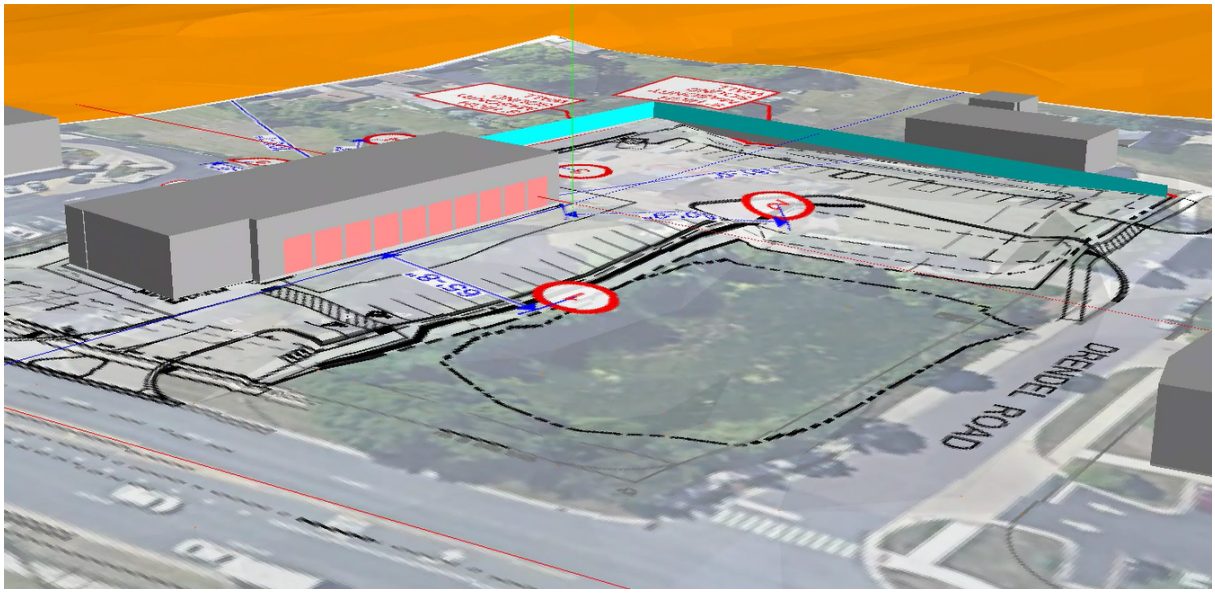


Figure 3: Acoustical Model 3D View of Site Looking toward the Southeast

Based on our Michigan measurements, the pedestal grinder is by far the loudest tool as measured outside the vehicle bay doors. It exceeded hammering, compressed air sounds and the wrench sounds by 13 to 18 dBA. We understand that this tool is used at most once per hour at typically 1 to 2 minutes per use. This means that the time usage adjustment in the noise ordinance allows the sound level to be 10 dBA higher than the baseline limit, resulting in an allowable level of 75 dBA for this short period of time.

The pedestal grinder approaches this level if positioned in the open garage area, so we offer one of the following recommendations to reduce its sound level outside the building.

1. **Mitigation Option 1: Pedestal Grinder Room**

   Relocate the pedestal grinder to its own room. A hollow metal door with sound seals at the head, jamb and threshold should be specified. Operational procedures should require that the door be closed during use of the grinder. If a visual connection is needed into this room for safety, we recommend insulated glass with ¼" thick glass panes separated by a ½" air gap or a single pane 3/8" laminated glass. Neoprene seals or acoustical caulk should be used around the glass perimeter to seal airtight. We also recommend that 2" thick acoustical panels (minimum Noise Reduction Coefficient of NRC 0.95) be installed from 3' to 7' above the finished floor in the room on two adjacent walls along with an acoustical lay-in ceiling (minimum NRC 0.55) to reduce the sound level within the space. A cut sheet for an example product is provided in Appendix C. Other equivalent products exist.

   This will reduce the pedestal grinder sound by 25 dBA or more outside the building.

2. **Mitigation Option 2: Pedestal Grinder Booth or Room**

   Construct a three-sided sound booth with a lid to reduce the sound level outside the building. The opening to the booth should be toward the side of the room opposite the garage doors. The booth should be constructed of combination sound blocking and absorbing panels, with the absorbing side facing the grinder. The acoustical panel should be rated at a minimum NRC 0.95 and have a minimum Sound Transmission Class of STC 35.

   We predict this will reduce the pedestal grinder sound by 7 to 10 dBA outside the building.

Sound Propagation Predictions

The Downers Grove noise ordinance is met with the adoption of mitigation Step 1 or 2 listed in the previous section. Figure 4 (sound levels at selected property line locations) and Figure 5 (sound mapping over the entire property and onto neighboring properties) present the computer model predictions. These predictions are based on the measured average sound level from the first site visit to the New Hudson, Michigan location. Since the pedestal grinder at this location must be sound isolated, the next loudest source of hammering was used in the model.

In Figure 4, the yellow dots are selected locations for a sound level prediction at 5 feet above the ground and the accompanying number shows the A-weighted sound level. Locations 2, 5, and 6 are of particular interest since they are at residential property lines. Yellow dots 1, 3, and 4 were used for calibration and can be disregarded. Same for the red circles with numbers.

The green dot denotes a prediction at both the first and second levels of the residence. The first level is quieter since it is more shielded by the acoustical wall, but the second level prediction still meets the noise ordinance when one of the pedestal grinder recommendations is adopted.

The green line shows the location where the sound is reduced to the ordinance level of 65 dBA.

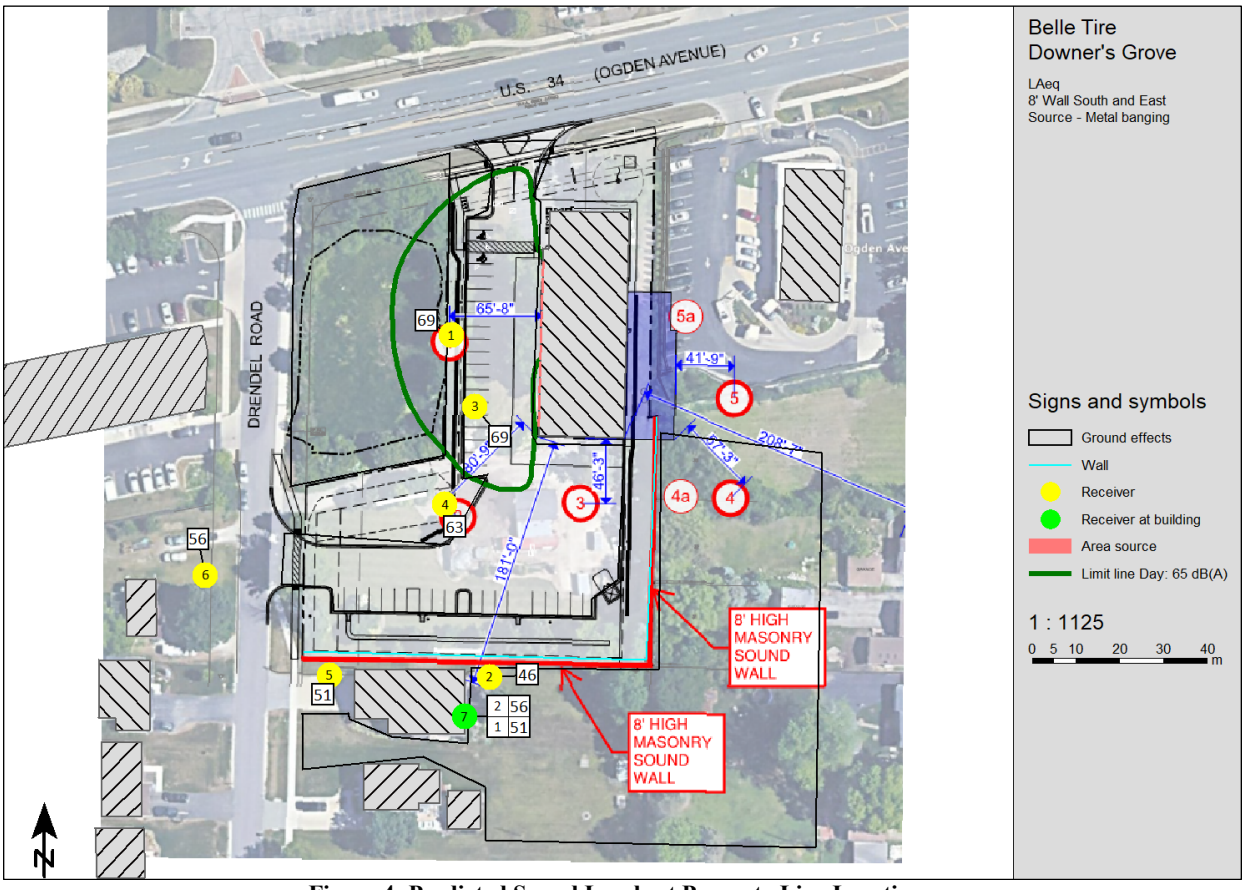


Figure 4: Predicted Sound Levels at Property Line Locations

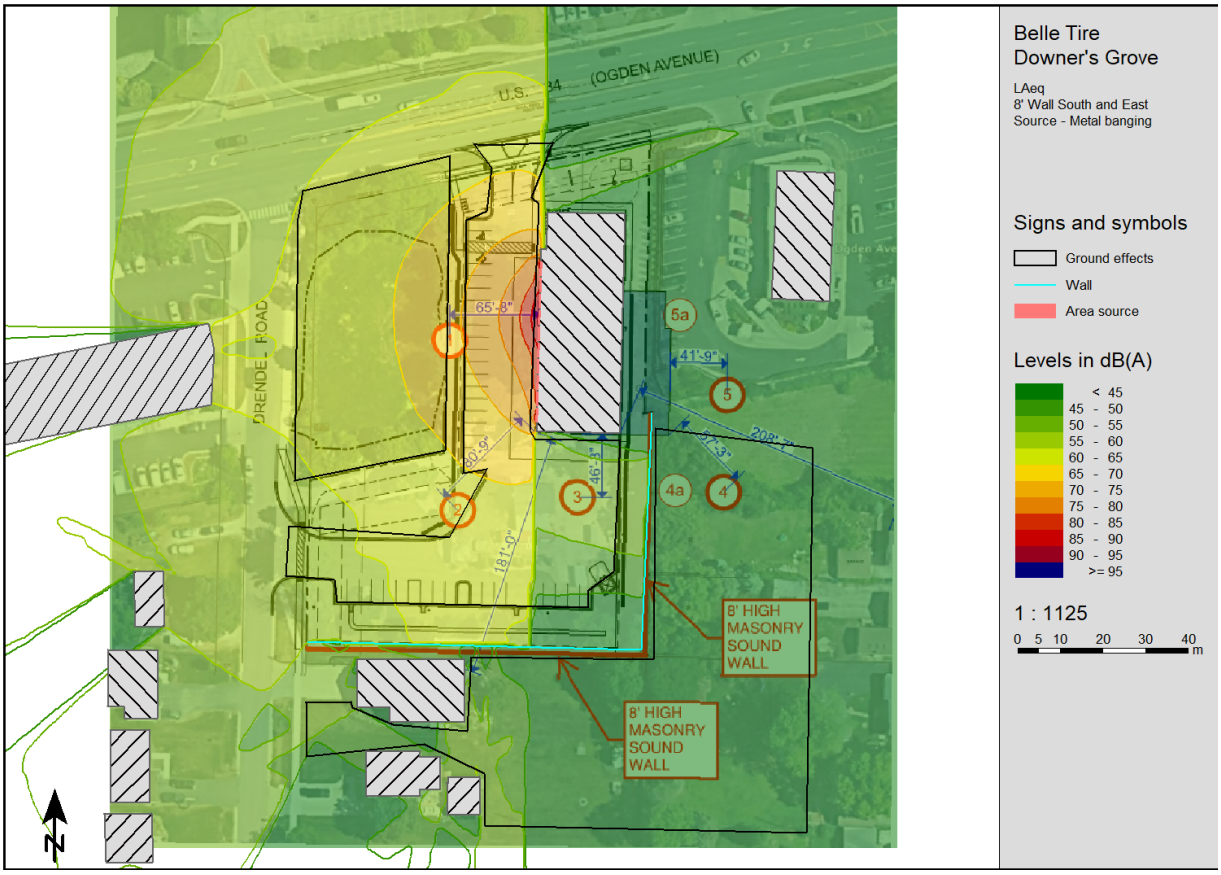


Figure 5: Predicted Sound Level Propagation

Final Note

Please note that our recommendations and comments are exclusive to acoustics. We cannot comment on such things as local codes, life-safety requirements, or any other non-acoustic issues.

This concludes our measurement report. We will be happy to elaborate on anything contained within this report.

Sincerely,

Soundscape Engineering
Per:

Mandy Kachur, PE, INCE.Bd.Cert.
Principal Consultant
mkachur@SoundscapeEngineering.com
direct: (734) 494-0322

Anna Catton, Consultant
MSAE
acatton@SoundscapeEngineering.com
(734) 418-8663 x106

Appendix A: Acoustics Terminology
Appendix B: Acoustical Barrier Screen Walls
Appendix C: Acoustical Wall Panel Cut Sheet
Appendix D: Sound Blocking and Absorbing Acoustical Booth Panel Cut Sheet

Appendix A: Acoustics Terminology

Sound level is measured in units called decibels (abbreviated dB). Decibels are logarithmic rather than linear quantities and thus a doubling of the sound level does not translate to a mathematical doubling of decibels. Also, the human ear does not interpret a doubling of sound energy (two sources instead of one) as a doubling of loudness. The logarithmic nature of dB and the human subjective perception of relative sound levels result in the following approximate rules for judging increases in sound.

- 3 dB sound level increase or decrease - just noticeable
  (the addition of one identical sound source to an existing source)
- 5 dB sound level increase or decrease - clearly perceptible and is often considered significant
  (the addition of two identical sound sources to an existing source)
- 10 dB sound level increase or decrease - perceived as twice as loud/half as loud
  (the addition of nine identical sound sources to an existing source)

These perceived changes in the sound level are mostly independent of the absolute sound level. That is, a 35 dB sound will be perceived as twice as loud as a 25 dB sound, and a 60 dB sound will be perceived as twice as loud as a 50 dB sound.

Audible sound occurs over a wide frequency range, from low pitched sounds at approximately 20 hertz (Hz) to high pitched sounds at 20,000 Hz. These frequencies are commonly grouped into octave bands or 1/3 octave bands. Building mechanical systems generally produce noise in the 63 Hz to 1000 Hz octave bands, with the lower frequency noise generated by large fans. Human speech is predominantly contained in the 250 Hz to 2000 Hz octave bands.

A-weighted sound level - Humans do not hear equally well at all frequencies. We are especially poor at hearing low frequency sound and are best at hearing sound in the frequency range of speech. A microphone does not have these same characteristics. Therefore, when sound is being measured to determine how well people will be able to hear it, a "weighting" or microphone-to-human correction factor is applied to the sound level measured using a microphone. The most common weighting is the "A-weighting" and the resulting sound level is expressed in A-weighted decibels (dBA). This weighting reduces the low frequency sound, slightly increases the sound at the dominant frequencies of speech, and slightly lowers the sound level at high frequencies.

Decibel addition is not on an arithmetic basis but on a logarithmic basis. This means that the level produced from two sound sources of 60 dBA is 63 dBA and not 120 dBA. While acoustics consultants use the mathematical formulas for this calculation, this table provides a shorthand method of calculation. To add up a spectrum of multiple bands, the logarithmic process has to be repeated multiple times.

When two dB values differ by…	…add the following dB to the higher value.
0 or 1	3
2 or 3	2
4 to 8	1
9 or more	0

Examples:

43 dB + 44 dB = 47 dB
43 dB + 48 dB = 49 dB
43 dB + 53 dB = 53 dB (sounds that are 10 dB or more less do not affect the final level)

Equivalent Sound Level (L_{eq}) is essentially the average sound level in an environment. However, the L_{eq} is not a simple arithmetic average of the sound level over time, but is a logarithmic average of the sound energy level over a period of time. L_{eq} can be measured for any time period, but is typically measured for some increment or fraction of an hour such as 15 minutes, 1 hour, or 24 hours. Steady sounds, such as fan noise, can be accurately measured for much shorter periods of time, such as 30 to 60 seconds.

Sound Transmission Class (STC) is a single number rating of the amount of sound blocked by a partition (a window glazing unit, door, wall, floor-ceiling assembly) measured in a laboratory under ideal conditions. STC is a single number reduction calculated from the measured one-third octave band spectrum. This metric is mathematically normalized and can be compared other partitions or test data. STC is most appropriately used to assess the ability of a partition to block sound in the frequency range of speech. The original sound transmission test reports should be consulted when the sound source contains low frequencies, such as music or mechanical noise. A higher number indicates better performance.

Sound absorption coefficient (α) is a measure of the amount of sound absorbed by a material. It is measured in a reverberation chamber and is specified at octave band center frequencies. In theory, it ranges from 0.00 (perfect reflector) to 1.00 (perfect absorber). In reality, for highly absorptive materials, the test method can result in absorption coefficients higher than 1.00, occasionally as high as 1.20. The absorption coefficient can be used to compare the acoustical performance of sound absorbing materials. It is also used in calculations to estimate sound reverberation time and reverberant sound level in enclosed spaces.

Noise Reduction Coefficient (NRC) is basically the average percentage of incident sound that is absorbed by a material in the speech frequencies. It is a single number rating derived by averaging the measured absorption coefficients for the 250 Hz, 500 Hz, 1000 Hz, and 2000 Hz octave bands. Theoretically, NRC 1.0 (100% of sound absorbed) is the best performance achievable, but NRC's higher than 1.0 are sometimes encountered as a result of the testing and calculation procedure. Most manufacturers of sound absorbing acoustical products provide the NRC for their products. NRC is mostly used as a convenient means of comparing the acoustical performance of products. If low frequency absorption (125 Hz) is required, then NRC cannot be used and the octave band absorption coefficient at 125 Hz must be evaluated.

Insertion Loss (IL) is the reduction in decibels with and without a barrier or attenuator being placed between the sound source and the measurement location. For example, if the sound level at the measurement location is 55 dBA with no barrier and 48 dBA with the barrier, then the insertion loss is 7 dBA. Larger numbers indicate more sound being blocked.

Appendix B: Acoustical Barrier Screen Walls

Acoustical barrier screen walls and berms are often used to reduce the sound level at a listener's location. The sound is referred to as the source and the listener as the receiver.

In order for a screen wall or berm to have acoustical value, it must break the line of sight between the source and receiver. Otherwise, the sound traveling along the direct path without the barrier (i.e., in the direct line of sight of the source) is not attenuated by the barrier, but by distance and atmospheric absorption only.

The taller the wall is with respect to the source and receiver, the more effective it is acoustically. The acoustical performance of a screen wall or berm is referred to as the insertion loss, measured in dB. This is the difference in sound level at a receiver location with and without the barrier in place. The barrier performance is frequency dependent, with higher frequency sounds being more easily blocked than low frequency sounds.

Figure 6 provides an illustration of an acoustical barrier and how it blocks sound. The sound source is shown as a person and the receiver can be assumed for our purposes to be halfway between the house and barrier.

An acoustical barrier blocks sound in an area called the shadow zone of the barrier. This is depicted in Figure 6 as the shaded area on the house side of the barrier wall. The sound level in this shaded area depends on the sound level of the source and the amount of sound diffracted (or bent downward) over the top of the wall. The amount of diffraction depends on the frequency of the sound (shown as "angle of diffraction"). This amount is calculated by an equation.

Acoustical barrier walls have a practical upper performance limit of approximately 24 dB of reduction in the higher frequencies. The performance is less in the lower frequencies because the diffraction phenomenon over the top and ends of the wall is more prevalent at lower frequencies. Also, the performance is dependent on how close the source and receiver are to the barrier and the distance that the barrier breaks the line of sight.

Different materials can be used for the acoustical barrier as long as the following conditions are met:

1. The amount of sound going through the barrier material is much less than the sound going (diffracting) over the barrier. For practical purposes, this means that the barrier material must be at least STC 33.

2. The material has no gaps or acoustically weak points that allow sound to pass through.

3. The selected material is appropriate for the amount of maintenance that it will receive.

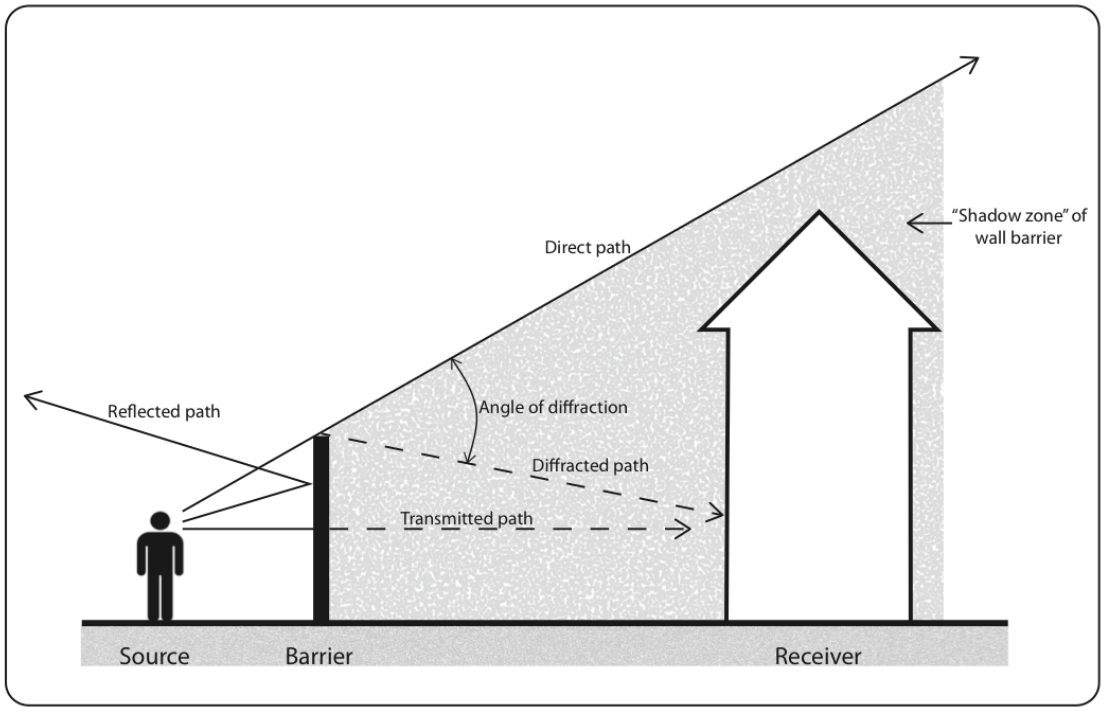


Figure 6: Acoustical barrier wall sound paths

A description of various acoustical barrier materials is provided for your consideration. Further details can be found in the Noise Barrier Design Handbook at the US Department of Transportation - Federal Highway Administration website at the link below.

https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design00.cfm

- ***Concrete:*** Cast-in-place or precast panels can form the barrier. Concrete is a durable material that easily meets the STC requirement of a barrier wall. Precast panels can be erected quickly.

- ***Brick and Masonry Block:*** Hand-laid or preassembled panels are options with this material. A continuous concrete foundation is required. Both materials meet the STC requirements for an acoustical barrier wall. This type of material may not be as durable as concrete should it come into contact with deicing salts.

- ***Metal:*** These panels are lighter than concrete or masonry. Typical materials are steel, aluminum, or stainless steel. The STC of these panels may not meet the minimum requirement, but corrugations or ribs will improve the performance. The manufacturer should submit test data to demonstrate the STC performance. Also, the typical 18 to 22 gauge thickness may not be structurally strong enough to withstand impact or other types of damage.

- ***Wood:*** Pressure preservative treated lumber, plywood and glue laminated products are common materials used for wood barrier walls. This material may be aesthetically more desirable near residential areas. The main issues with wood are warping and shrinkage, which can open up cracks and gaps. This can be partially solved by specifying deeper than standard tongue and groove construction or screwing multiple sheet layers together. The STC rating of the material should be verified so that it meets the required performance.

- ***Transparent Panels:*** These panels block sound while allowing scenic views and reducing the visual impact of the barrier. They can cost up to twenty times that of concrete or steel panels.

- ***Plastics:*** These engineered panels of polyethylene, PVC and fiberglass are lightweight and potentially recyclable. Some materials or products may not be dimensionally stable and over time and could deform, opening cracks in the wall.

- ***Recycled Rubber:*** This material should be tested for its STC rating prior to selection. Some products may be too porous to meet the required performance.

- ***Composites:*** Combinations of the above materials may be available. Again, the STC rating of the assembly should be verified prior to specification.

Appendix C: Acoustical Wall Panel Cut Sheet

Noise Barriers LLC – QuietPerf perforated metal sound absorbing panels
https://www.noisebarriers.com/panels

QuietPerf™

INDUSTRIAL

Durable perforated metal acoustic panels designed to control reverberation and reduce noise.

Features and Options:

- 16 gauge "Z", "J" and "Hat" channel mounting systems
- Polyester powder-coating available in all RAL colors
- High abuse resistance for harsh environments
- Concealed mounting brackets available
- Poly-bagged fill protection is available
- Graffiti resistant coatings are available
- Custom sizes and configurations are available

Standard Panels:

- NB-II, 2" thick x 18" wide x up to 144" long
- NB-III, 3" thick x 16" wide x up to 144" long
- NB-IV, 4" thick x 14" wide x up to 144" long

Acoustic Performance Data:

Sound Absorption Coefficients

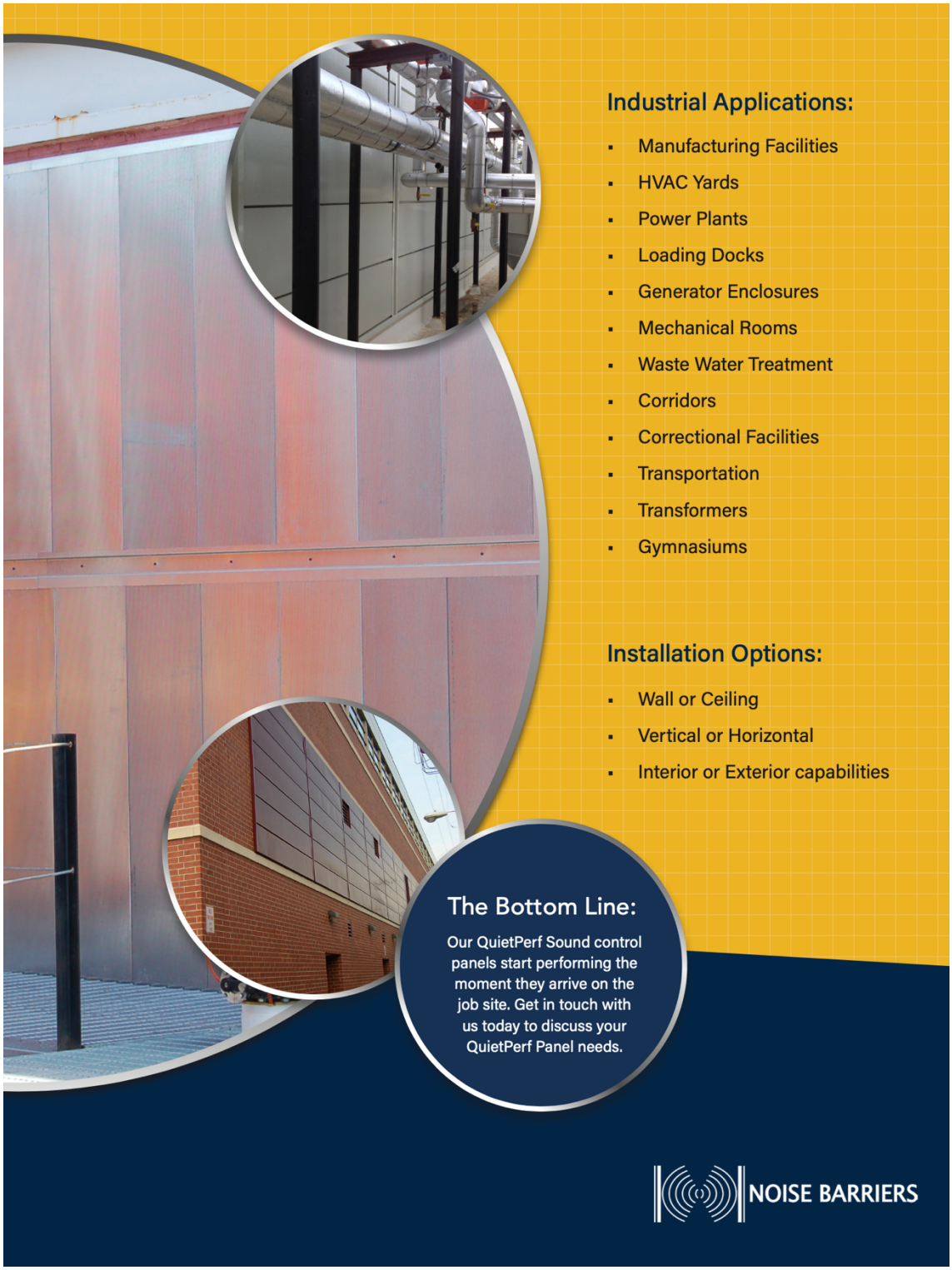
Absorption Panels

1/3 Octave Band Center Frequency, Hz	125	250	500	1K	2K	4K	NRC
NB-II Aluminum (2")	0.27	0.63	1.09	1.06	1.04	1.03	0.95
NB-II (2")	0.25	0.65	1.06	1.13	1.11	1.06	1.05
NB-II-B (2")	0.35	0.63	1.08	1.12	0.94	0.77	0.95
NB-II (2-1/2" V-RIDGE)	0.46	0.88	1.36	1.20	1.03	0.83	1.10

Absorption Panels

1/3 Octave Band Center Frequency, Hz	125	250	500	1K	2K	4K	NRC
NB-IV Aluminum (4")	0.87	1.26	1.18	1.04	1.08	1.00	1.15
NB-IV (4")	0.88	1.16	1.34	1.25	1.20	1.13	1.25
NB-IV-B (4")	0.78	1.10	1.19	1.04	1.02	0.81	1.10
NB-III (3" STEEL)	0.13	0.91	1.15	1.07	0.99	0.99	1.05

All tests performed by Riverbank Acoustical Laboratories, an independent NVLAP accredited acoustical testing facility. The test method Conforms with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-90a and E795-00.


Industrial Applications:
Manufacturing Facilities
HVAC Yards
Power Plants
Loading Docks
Generator Enclosures
Mechanical Rooms
Waste Water Treatment
Corridors
Correctional Facilities
Transportation
Transformers
Gymnasiums
Installation Options:
Wall or Ceiling
Vertical or Horizontal
Interior or Exterior capabilities
The Bottom Line:
Our QuietPerf Sound control panels start performing the moment they arrive on the job site. Get in touch with us today to discuss your QuietPerf Panel needs.
NOISE BARRIERS

Appendix D: Sound Blocking and Absorbing Acoustical Booth Panel Cut Sheet

Noise Barriers LLC – QuietMod sound blocking and absorbing modular panels
https://www.noisebarriers.com/modular-sound-control

MODULAR SOLUTIONS TO NOISE PROBLEMS

- Machinery Enclosures
- Test Cells
- Printing Plant Quiet Rooms
- Barrier Walls
- Quality Control Test Areas
- Thermal Spray Rooms
- Coordinate Measuring Machine Rooms
- Process Enclosures
- Factory Offices
- Control Rooms
- Power Plant Offices
- Guard Houses
- Quiet Rooms-Single or Double Wall
- HVAC Plenums
- Blower Enclosures
- Compressor Enclosures
- Recording Studios
- Broadcasting Facilities
- Educational Study Centers
- Music Practice Rooms
- Voice Isolation Booths
- Audiometric Test Rooms
- Hearing or Speech Test Centers

PRE-ENGINEERED MODULAR SOLUTIONS TO NOISE PROBLEMS

THE QUIETMOD ADVANTAGE

Noise Barriers' QuietMod pre-engineered panel system includes wall and ceiling panels, doors, windows, and silenced ventilation systems. Isolated floors, access panels, and removable wall and ceiling panels are also available when necessary. All materials are acoustically rated by independent testing laboratories to ensure the appropriate noise reduction for every application.

THE NOISE BARRIERS MODULAR SYSTEM:

- Guaranteed acoustical performance (single source responsibility)
- Easy and quick to install, move, or reconfigure
- Standard components, custom solutions
- No construction mess
- Tax benefits

Acoustical Performance Data Sound Transmission Loss Data, dB

Octave Band Center Frequency, Hz	125	250	500	1K	2K	4K	STC
QuietMod Panels							
H/P 38 – 2" Thick	24	25	33	43	50	55	38
H/P 42 – 4" Thick	23	31	40	49	56	62	42
H/P 44 – 4" Thick	27	34	41	46	43	59	44
H/P 50 – 4" Thick	29	37	48	56	57	54	50
H/H 50 – 4" Thick	26	44	50	54	57	64	50
H/H 52 – 4" Thick	37	43	47	53	54	57	52
H/H 54 – 4" Thick	40	46	51	55	58	62	54
H/H 59 – 10" Thick	43	45	56	66	67	77	59

All tests performed by Riverbank Acoustical Laboratories and USG, both independent NVLAP accredited acoustical testing facilities. The test method conforms with ASTM Designations E90-99 or E90-02 and E413-87.

Sound Absorption Coefficients

Octave Band Center Frequency, Hz	125	250	500	1K	2K	4K	NRC	
QuietMod Panels								
H/P 38 – 2" Thick	0.26	0.53	1.00	1.03	0.97	1.02	0.90	
H/P 42 – 4" Thick	0.68	1.06	1.12	1.08	1.03	0.98	0.95	1.05)
H/P 44 – 4" Thick	0.45	0.96	1.15	1.10	1.05	0.97	1.05	

All tests performed by Riverbank Acoustical Laboratories and USG, both independent NVLAP accredited acoustical testing facilities. The test method conforms with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Methods: ASTM C423-90a and E795-00.

NOISE BARRIERS.

A CATALYST ACOUSTICS GROUP COMPANY

www.noisebarriers.com | 100 S. Saunders Rd, Suite 140, Lake Forest, IL 60045 | 847-843-0500

SURVEY OF EXISTING TREES

BEST 5

TREE #	SIZE	SCIENTIFIC NAME	COMMON NAME	CONDITION	COMMENTS
101	26"	ACER SACCHARINUM	SILVER MAPLE	3	REMOVE
102	14"	ULMUS PUMILA	SIBERIAN ELM	2	LEANING - REMOVE
103	16"	ACER SACCARINUM	SILVER MAPLE	4	REMOVE
104	14"	ACER SACCARINUM	SILVER MAPLE	4	REMOVE
105	15"	FRAX. PENNSYLVANICA	GREEN ASH	3	REMOVE
106	12"	ACER SACCARINUM	SILVER MAPLE	3	REMOVE
107	14"	ULMUS PUMILA	SIBERIAN ELM	3	REMOVE
108	8"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
109	9"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
110	7"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
111	7"	ACER PLATANOIDES	NORWAY MAPLE	2	CROWDED/LEANING - REMOVE
112	8"	ACER PLATANOIDES	NORWAY MAPLE	3	REMOVE
113	5"	ACER PLATANOIDES	NORWAY MAPLE	3	CROWDED - REMOVE
114	8"	ACER PLATANOIDES	NORWAY MAPLE	3	REMOVE
115	6"	QUERCUS ALBA	WHITE OAK	4	REMOVE
116	6"	JUNIPER SSP.	JUNIPER SSP.	3	REMOVE
117	7"	JUNIPER SSP.	JUNIPER SSP.	2	REMOVE
118	8,8,6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
119	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
120	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
121	9"	PICEA ABIES	NORWAY SPRUCE	4	PRESERVE
122	4,4,3"	SYRINGA RETICULATA	JAPANESE TREE LILAC	3	REMOVE
123	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
124	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
125	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
126	6,6,5"	MALUS SSP.	CRABAPPLE SSP.	4	REMOVE
127	10"	PICEA GLAUCA	GREEN SPRUCE	4	PRESERVE
128	5"	PICEA GLAUCA	GREEN SPRUCE	4	PRESERVE
129	8"	ACER PLATANOIDES	NORWAY MAPLE	3	PRESERVE
130	6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
131	6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
132	8"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE

TOTAL TREES REMOVED = 28 = 271 TOTAL CAL. INCHES

TREE PROTECTION & REMOVAL LEGEND

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

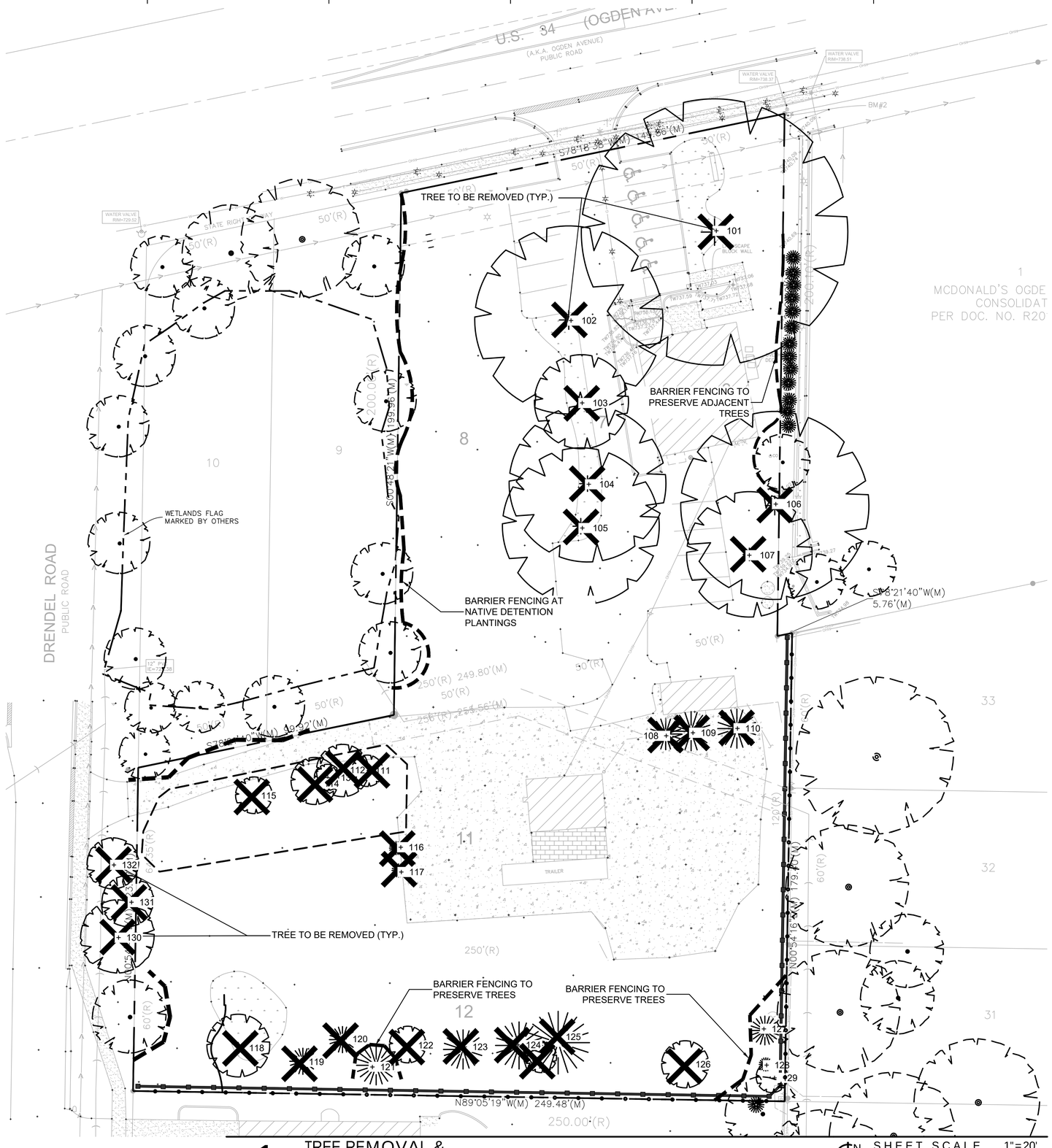
BARRIER FENCING TO BE INSTALLED

EXISTING VEGETATION DESCRIPTION

THE PROJECT SITE CONSISTS OF VACANT RETAIL SITE. VARIOUS MATURE TREES EXIST ON THE SITE RANGING FROM MAPLES, OAKS AND JUNIPERS TO SIBERIAN ELM AND SILVER MAPLE. 28 TREES WILL BE REMOVED FOR DEVELOPMENT.

TREE PROTECTION & REMOVAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS AND PERMISSIONS TO PRUNE, REMOVE, AND/OR TRANSPLANT ANY TREES ON SITE.
2. DEAD AND DYING MATERIAL ON THE SITE SHALL BE REMOVED OR PRUNED. MATERIALS NOT LABELED ON THE PROTECTION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR REMEDIATION.
3. DURING CONSTRUCTION EXISTING TREES OVER FOUR INCHES IN CALIPER SHALL BE PROTECTED WITH BARRIER FENCING.
4. BARRIER SHALL BE CONSTRUCTED OF A MIN. 3' TALL SNOW FENCE OR SIMILAR AND SUPPORT POSTS MIN. 6' O.C. AND SHALL BE ERECTED ONE FOOT BEYOND THE DRIP LINE OFF ALL EXISTING TREES ON SITE AND ADJACENT SITES TO REMAIN.
5. BARRIER FENCING SHOWN ON THE PLAN IS APPROXIMATE. CONTRACTOR SHALL ADJUST LOCATION OF BARRIER TO POSITION OUTLINED IN COMMENT 4.
6. NO EXCESS SOIL OR ADDITIONAL FILL, BUILDING MATERIALS OR DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE BARRIER.
7. NO VEHICLES OR HEAVY MACHINERY SHALL BE ALLOWED TO WORK WITHIN THE BARRIER AREA.
8. NO ATTACHMENTS OR WIRES, OTHER THAN PROTECTIVE GUY WIRES, SHALL BE ATTACHED TO ANY OF THE TREES WHICH ARE WITHIN PROTECTIVE BARRIER.
9. STUMPS OR TREE REMAINS NOT TO BE FULLY EXCAVATED SHALL BE REMOVEED. A STUMP GRINDER SHALL BE USED TO REMOVE ALL REMAINING ROOTS AND WOODY MATERIAL. WITHIN A 24" RADIUS OF THE TREE TRUNK TO MIN. 6" BELOW GRADE. DISTURBED AREA SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO MEET SURROUNDING GRADES.



1 TREE REMOVAL & PROTECTION PLAN

SHEET SCALE 1"=20'
0' 10' 20' 40' 60'

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6495 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

LG Workshop, LLC
Landscape Architecture
Site Planning
Illustration
1955 N. Wilmot Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR.
157-001000
STATE OF ILLINOIS

EXPIRES 08/2023

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

Issued for

PERMIT SET: JUNE 14, 2022
PERMIT RESUBMITTAL: AUGUST 5, 2022
REVISED STORM STR RIMS: AUGUST 15, 2022
PERMIT RESUBMITTAL: NOVEMBER 30, 2022
REVISED SITE PLAN: JANUARY 26, 2023
REVISED TREE REMOVALS: MARCH 3, 2023
REVISED PER VILLAGE COMMENT: MARCH 24, 2023
REVISED PER VILLAGE COMMENT: MARCH 31, 2023

Project Number

21-350

TREE PROTECTION & REMOVAL PLAN

Sheet Number

L.1

VILLAGE LANDSCAPE REQUIREMENT CALCULATIONS

OPEN SPACE

LOT SIZE	VILLAGE REQ. OPEN SPACE	PROPOSED OPEN SPACE	VILLAGE REQ. STREETYARD OS	PROPOSED STREETYARD OS
67,099 SF	10% = 6,709 SF	20,776 SF = 30.6%	50% = 3,355 SF	83% = 3,788 SF

SEC 28.8.020 PARKING LOT PERIMETER LANDSCAPING

PERIMETER LOCATION	LENGTH	REQUIRED COVERAGE	PROPOSED COVERAGE	REQUIRED TREES	PROPOSED TREES
NORTH (OGDEN)	150 LF	75%= 112.5 LF	110 LF	150 / 30= 5	5 TREE
EAST	386 LF	50%= 193 LF	370 LF	386 / 30 = 13	24 TREES
SOUTH	250 LF	50%= 125 LF	225 LF	250 / 30 = 9	14 TREES
WEST	376 LF	50%= 189 LF	340 LF	376 / 30 = 13	9 TREES

LANDSCAPE LEGEND

EXISTING TREE

PROPOSED SHADE TREE

PROPOSED EVERGREEN TREE

PROPOSED ORNAMENTAL TREE

PROPOSED LARGE SHRUB

PROPOSED MEDIUM SHRUB

PROPOSED EVERGREEN SHRUB

PROPOSED LOW SHRUB

PROPOSED ORNAMENTAL GRASS

PROPOSED PERENNIAL PLANTING

SODDED LAWN

NATIVE SEEDED RAIN GARDEN

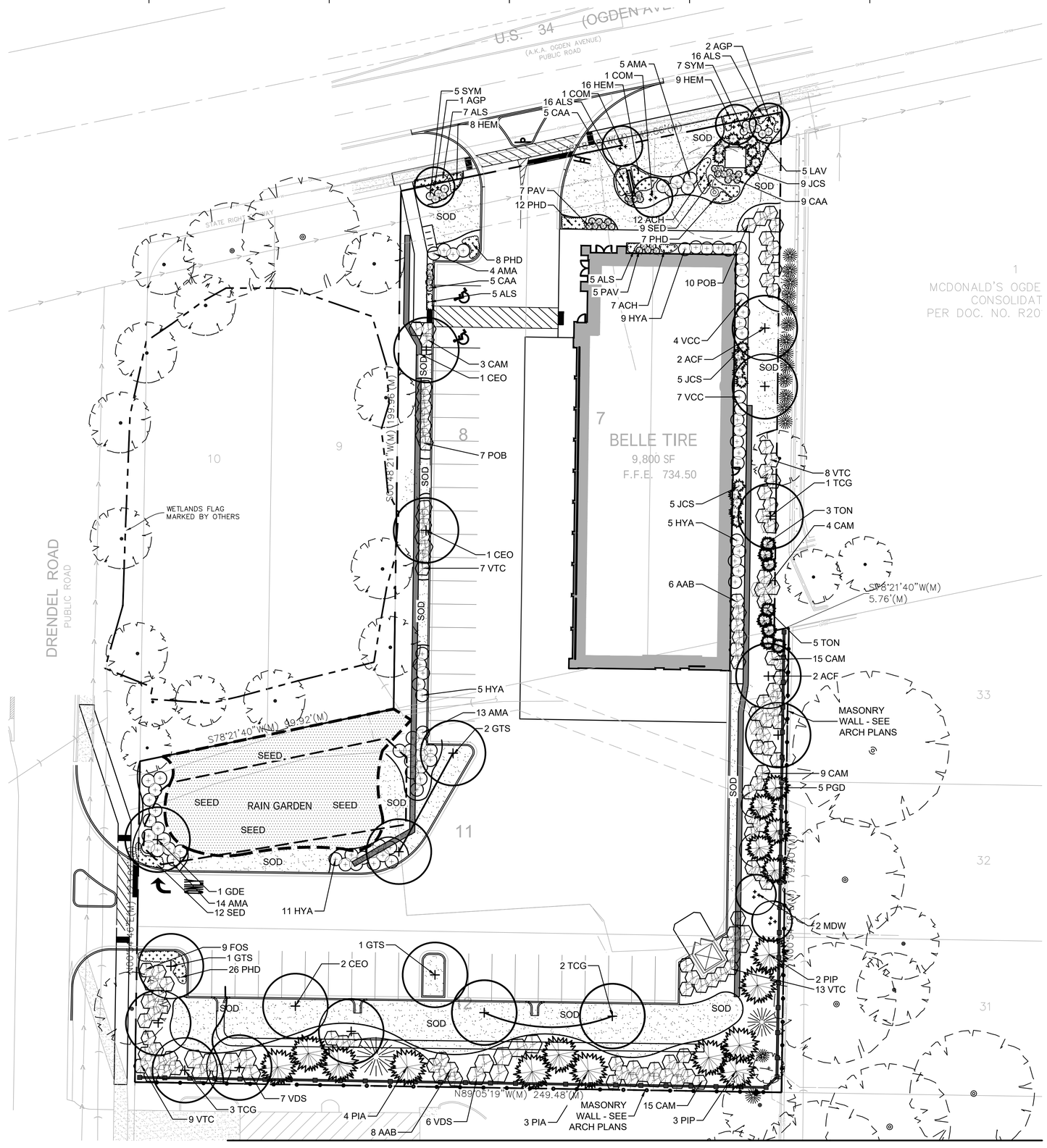
PLAN COMPARISON

PREVIOUS LANDSCAPE PLAN		CURRENT LANDSCAPE PLAN	
17	2.5" CAL. SHADE TREES	19	4.0" CAL. SHADE TREES
7	4' MULTI. ORN. TREES	7	6' MULTI ORN. TREES
21	6' EVERGREENS	25	6' EVERGREENS
85	24" MEDIUM SHRUBS	98	24" MEDIUM SHRUBS
120	36" LARGE SHRUBS	128	36" LARGE SHRUBS
223	PERENNIALS	223	PERENNIALS

PLANT LIST

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
ACF	4.0" CAL.	4	ACER FREEMANII 'SIENNA'	SIENNA GLEN MAPLE	B&B
CEO	4.0" CAL.	4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	B&B
GDE	4.0" CAL.	4	GYMNOCLADUS DIOIC. 'ESPRESSO'	ESPRESSO KENTUCKY COFFEETREE	B&B
GTS	4.0" CAL.	4	GLEDITSIA TRI. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B
TCG	4.0" CAL.	3	TILIA AMERICANA 'MCKSENTRY'	AMERICAN SENTRYLINDEN	B&B
ORNAMENTAL TREES					
AGP	6' MULTI	3	AMELANCHIER GRAN. 'PRINCESS DI'	PRINCESS DIANA SERVICEBERRY	B&B
COM	6' MULTI	2	CORNUS MAS	CORNELIANCHERRY DOGWOOD	B&B
MDW	6' MULTI	2	MALUS 'DONALD WYMAN'	DONALD WYMAN CRABAPPLE	B&B
EVERGREEN TREES					
PGD	6' HT.	5	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	B&B
PIA	6' HT.	7	PICEA ABIES	NORWAY SPRUCE	B&B
PIP	6' HT.	5	PICEA PUNGENS	COLORADO GREEN SPRUCE	B&B
TON	6' HT.	8	THUA OCCIDENTALIS 'NIGRA'	DARK GREEN ARBORVITAE	B&B
DECIDUOUS SHRUBS					
AAB	36" HT.	14	ARONIA ARBUT. 'BRILLIANTISSIMA'	BRILLIANT RED CHOKEBERRY	B&B
AMA	18" HT.	36	ARONIA MELANO. 'ELATA'	ELATA CHOKEBERRY	B&B
CAM	36" HT.	33	CORNUS ALBA 'ARGENTEO MARG.'	CREAM EDGE DOGWOOD	B&B
FOS	24" HT.	9	FORSYTHIA X INTERMED. 'SUNRISE'	SUNRISE FORSYTHIA	B&B
HYA	18" HT.	30	HYDRANGEA ARBOR. 'ANNABELLE'	ANNABELLE HYDRANGEA	B&B
POB	36" HT.	30	PYHSOCARPUS OPUL. 'DIABOLO'	DIABOLO NINEBARK	B&B
SYM	24" HT.	12	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	B&B
VCC	18" HT.	11	VIBURNUM CARLESII 'COMPACTUM'	DWARF KOREANSPICE VIBURNUM	B&B
VDS	36" HT.	13	VIBURNUM DENT. 'CHICAGO LUSTRE'	CHICAGO LUSTRE ARROWWOOD	B&B
VTC	36" HT.	37	VIBURNUM TRILOBUM 'ALFREDO'	ALFREDO AMER.CRANBERRY BUSH	B&B
EVERGREEN SHRUBS					
JCS	18" HT.	19	JUNIP. CHIN. 'SEA GREEN'	SEA GREEN JUNIPER	B&B
ORNAMENTAL GRASSES					
CAA	#1 CONT.	19	CALAMAGROSTIS ACUT. 'STRICTUS'	STRICTUS FEATHER REED GRASS	
PAV	#1 CONT.	12	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH RED SWITCH GRASS	
GROUNDCOVER / PERENNIALS					
ACH	#1 CONT.	29	ACHILLEA MILLE. 'PAPRIKA'	PAPRIKA YARROW	18" O.C.
ALS	#1 CONT.	40	ALLUM TANGUT. 'SUMMER BEAUTY'	SUMMER BEAUTY WILD OINION	18" O.C.
HEM	#1 CONT.	37	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	15" O.C.
LAV	#1 CONT.	12	LAVENDULA 'MUNSTEAD STRAIN'	MUNSTEAD ENGLISH LAVENDAR	24" O.C.
PHD	#1 CONT.	53	PHLOX DIVARICATA	BLUE PHLOX	15" O.C.
SED	#1 CONT.	21	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	18" O.C.
SOD	SQ. YD.	800	SODDED LAWN		
SEED	SQ. YD.	420	NATIVE SEEDED RAIN GARDEN - SEE BELOW		

NATIVE SEEDED RAIN GARDEN TO BE SEEDED WITH MOIST MEADOW - RAIN GARDEN MIX AVAILABLE THROUGH PRAIRIE NURSERY, WESTFIELD, WI. 1-800-476-9453. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND SEED RATES.



1 LANDSCAPE PLAN

N

SHEET SCALE 1"=20'
0' 10' 20' 40' 60'

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

LG Workshop LLC
Landscape Architecture
Site Planning
Illustration
1955 N. Wilmot Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR.
157-001000
STATE OF ILLINOIS

EXPIRES 08/2023

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

Issued for

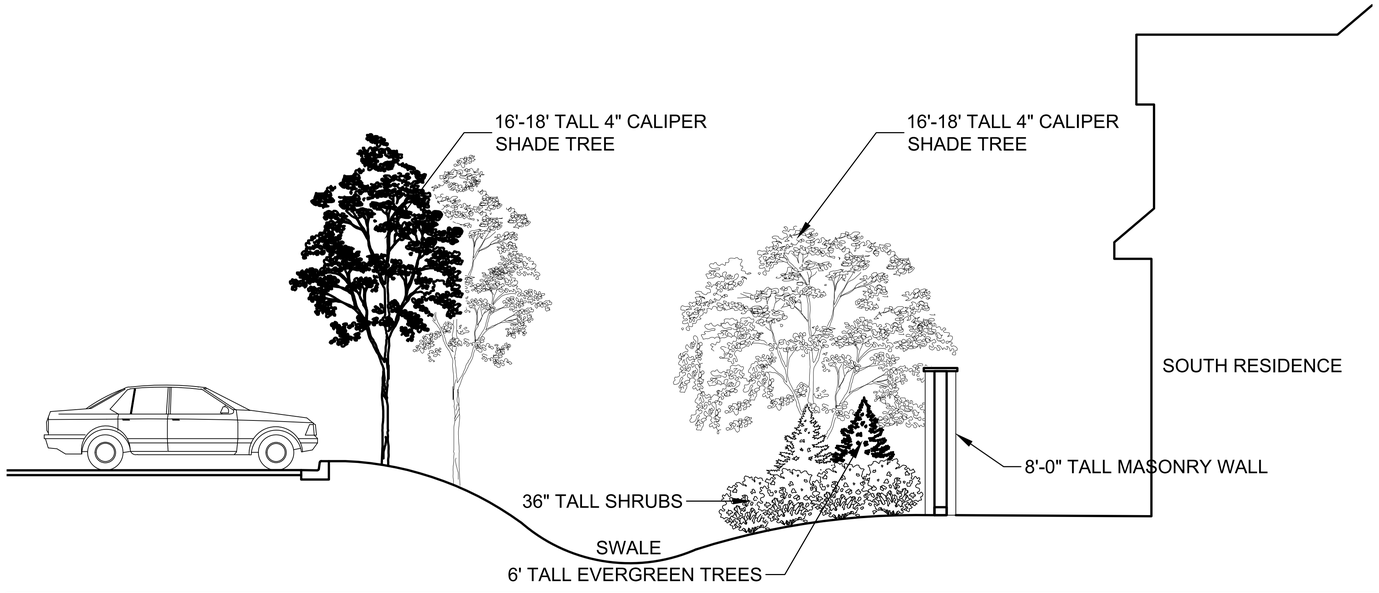
PERMIT SET: JUNE 14, 2022
PERMIT RESUBMITTAL: AUGUST 5, 2022
REVISED STORM STR RIMS: AUGUST 15, 2022
PERMIT RESUBMITTAL: NOVEMBER 30, 2022
REVISED SITE PLAN: JANUARY 26, 2023
REVISED TREE REMOVALS: MARCH 3, 2023
REVISED PER VILLAGE COMMENT: MARCH 24, 2023
REVISED PER VILLAGE COMMENT: MARCH 31, 2023

Project Number

21-350 LANDSCAPE PLAN
PROJECT SITE

Sheet Number

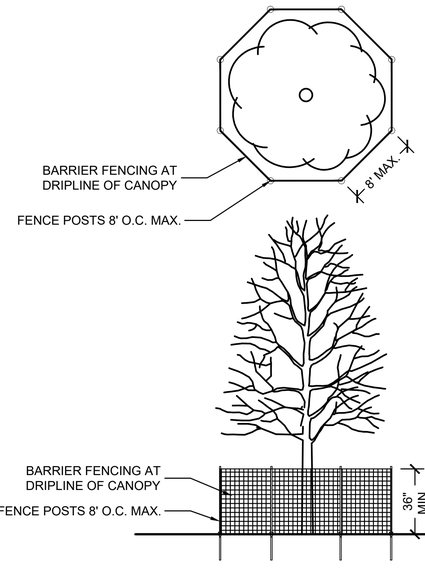
L.2



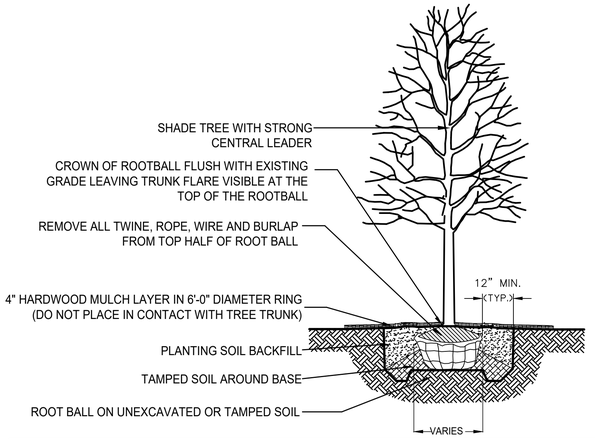
6 SECTION / ELEVATION @ SOUTHERN PROPERTY LINE — NOT TO SCALE

LANDSCAPE NOTES

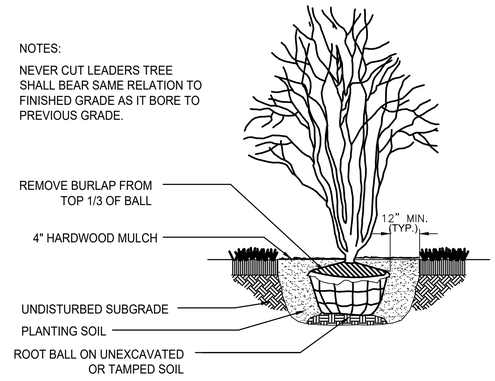
1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL PERMITS AND PERMISSIONS TO INSTALL THE PROPOSED IMPROVEMENTS
2. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE VILLAGE OF BRADLEY LANDSCAPING CODES AND ZONING ORDINANCES.
3. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL HAVE DIGGERS HOTLINE LOCATE AND MARK ALL UNDERGROUND UTILITY FACILITIES AND LINES.
4. ALL PLANT MATERIALS (EXCEPT FOR GROUNDCOVER, ANNUALS, AND PERENNIALS) SHALL BE BALLED AND BURLAPPED STOCK AND MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK (ANSI 260.1-1986) OR EQUAL. PLANT MATERIALS MUST BE SUPPLIED WITHIN A 150 MILE RADIUS OF PROJECT SITE WITHIN NORTHEAST ILLINOIS. CONTRACTOR MAY SUBSTITUTE CONTAINER STOCK FOR SHRUBS IF SIZES ARE EQUAL TO SPECIFIED B&B STOCK, WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, PLANTS WITH SIMILAR WHOLESALE VALUE AND LANDSCAPE CHARACTERISTICS MAY BE SUBSTITUTED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT AND VILLAGE STAFF.
6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE TOP 4 INCHES OF SOIL.
7. DISTURBED AREAS TO RECEIVE SOD SHALL BE TILLED TO 6" DEPTH AND FINE GRADED TO PROVIDE SMOOTH BASE SURFACE. IF EXISTING SOIL IS A MAJORITY OF CLAY OR UNSUITABLE, 4" OF FINE GRADED TOPSOIL SHALL BE ADDED PRIOR TO TILLING. EXISTING SOD AREAS SHALL HAVE TURF REMOVED WITH AUTOMATED SODCUTTER OR HAND SPACE TO REMOVE ALL BLADES AND ROOTS. 1" OF FIND GRADED TOPSOIL SHALL BE TILLED AND GRADED.
8. TREE AND SHRUB BACKFILL MIXTURE SHALL BE 2 PARTS EXIST. NATIVE TOPSOIL AND 1 PART SPHAGNUM PEAT MOSS W/ DECOMPOSED MANURE.
9. ALL SHRUB BEDS AND GROUNDCOVER BEDS TO BE MULCHED WITH A MINIMUM OF 3 INCHES OF CLEAN DOUBLE SHREDDED BARK MULCH, COLOR BLACK, OVER A 4.1 OZ.., WOVEN POLYPROPYLENE, NEEDLE-PUNCHED FABRIC WEED BARRIER, EXCEPT UNDER PERENNIAL AND ANNUAL FLOWERS.
10. NURSERY TAGS (SPECIES, SIZE) FOR ALL SHADE TREES SHALL REMAIN ATTACHED TO TREES UNTIL FINAL APPROVAL FROM MUNICIPALITY.
11. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT (BEGINNING ON THE OWNER'S POSSESSION DATE). THIS AGREEMENT SHALL COVER MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL DEAD OR DAMAGED LANDSCAPING TO PRESERVE THE SAME QUANTITY AND QUALITY AS INITIALLY APPROVED.
12. SITE TO BE 100% IRRIGATED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM THAT IS DESIGN BUILD BY CONTRACTOR. CONTRACTOR SHALL UTILIZE HUNTER HYDROWISE MODEL -PHC WIFI IRRIGATION TIMERS.
13. TREES AND SHRUBS SHALL NOT BE LOCATED CLOSER THAN FIFTEEN (15) FEET TO STREETLIGHT, UTILITY POLE, OVERHEAD WIRES, FIRE HYDRANT, DRIVEWAY, OR ALLEY. ANY DISCREPANCY ON THE PLAN RELATED TO THESE PROXIMATE UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.



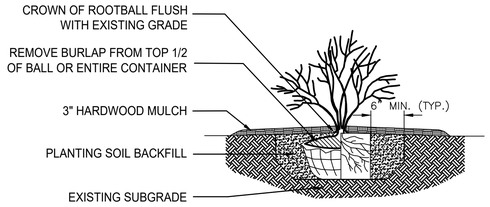
5 TREE PRESERVATION FENCING DETAIL — NOT TO SCALE



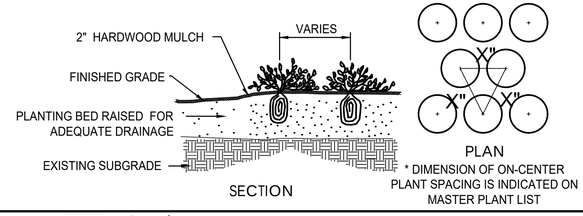
1 SHADE TREE PLANTING DETAIL — NOT TO SCALE



2 ORNAMENTAL TREE PLANTING DETAIL — NOT TO SCALE



3 SHRUB PLANTING DETAIL — NOT TO SCALE



4 PERENNIAL / ANNUAL PLANTING DETAIL — NOT TO SCALE

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

LG Workshop,LLC
Landscape Architecture
Site Planning
Illustration
1955 N. Wilmot Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR.
157-001000
STATE OF ILLINOIS

EXPIRES 08/2023

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

Issued for

PERMIT SET: JUNE 14, 2022
PERMIT RESUBMITTAL: AUGUST 5, 2022
REVISED STORM STR RIMS: AUGUST 15, 2022
PERMIT RESUBMITTAL: NOVEMBER 30, 2022
REVISED SITE PLAN: JANUARY 26, 2023
REVISED TREE REMOVALS: MARCH 3, 2023
REVISED PER VILLAGE COMMENT: MARCH 24, 2023
REVISED PER VILLAGE COMMENT: MARCH 31, 2023

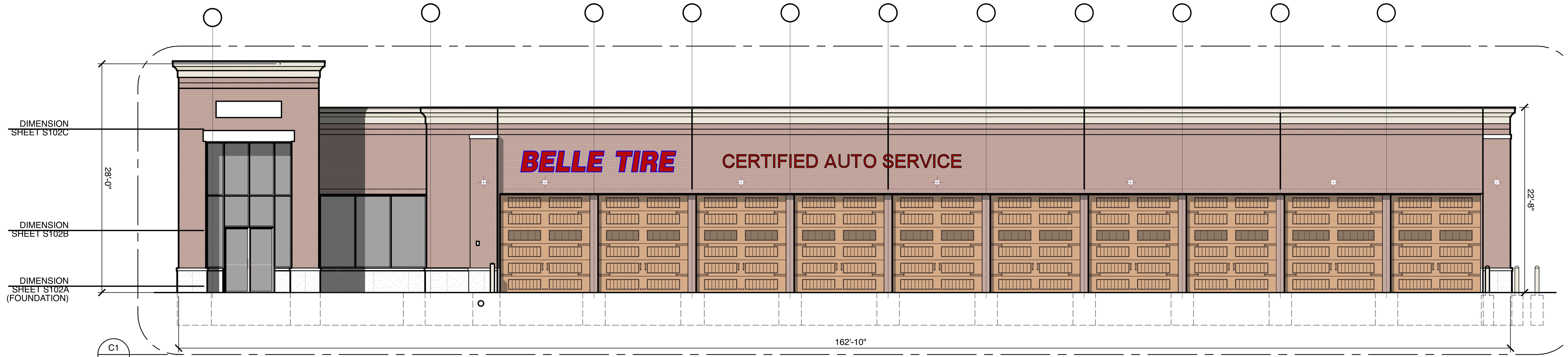
Project Number

21-350

LANDSCAPE DETAILS & NOTES

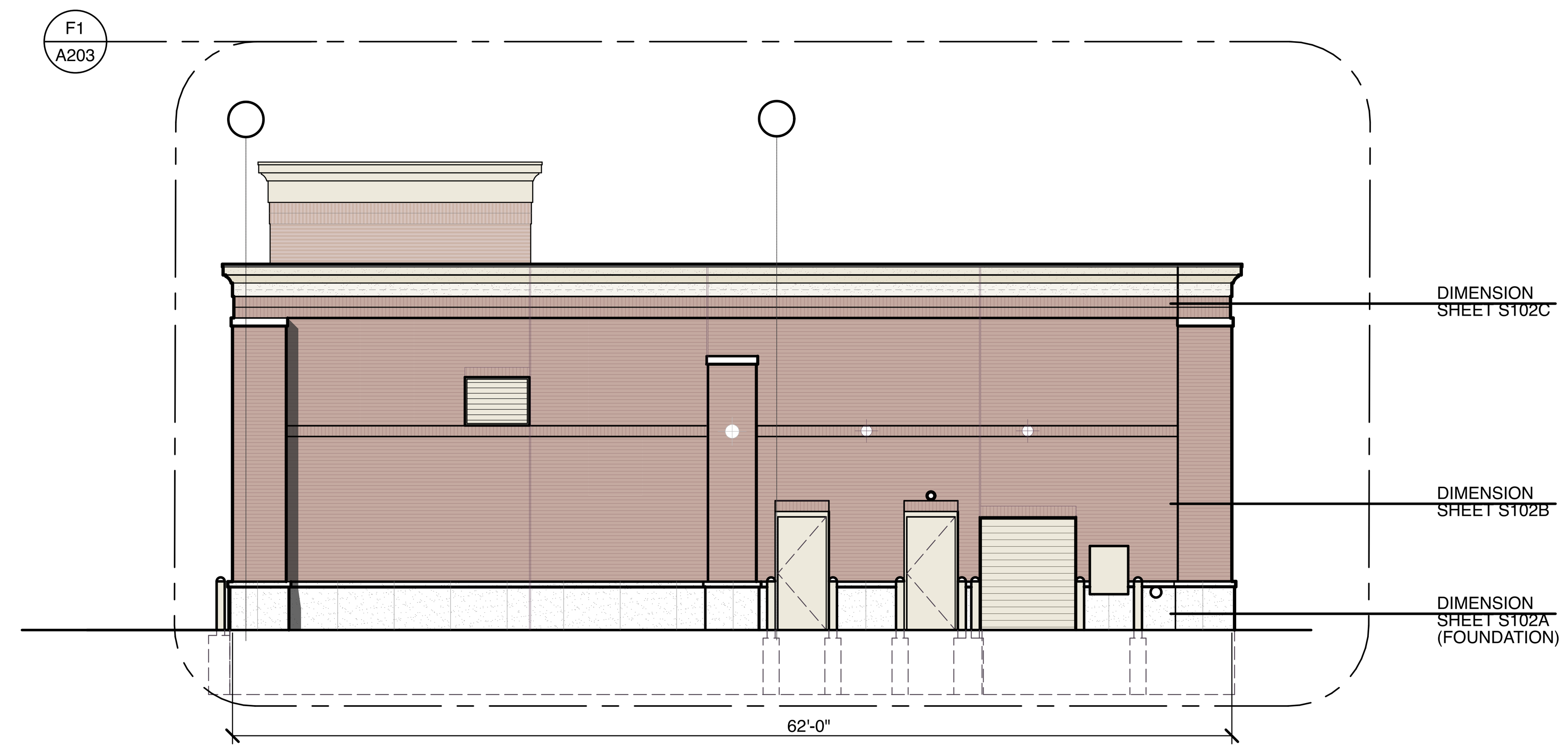
Sheet Number

L.3

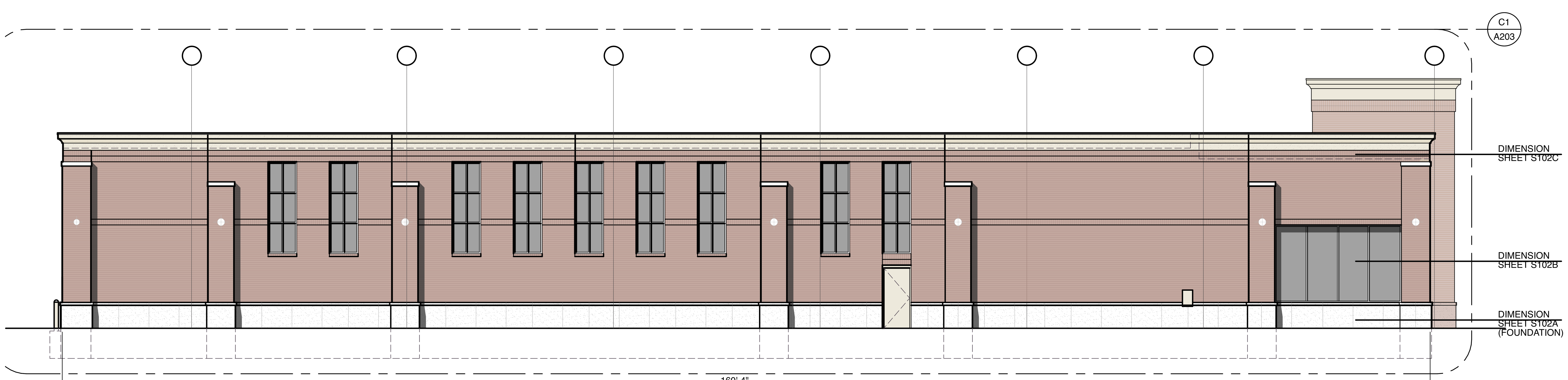


B1 A201 **West Elevation**
SCALE: 1/8" = 1'-0"

D1 A201 **North Elevation**
SCALE: 1/8" = 1'-0"



D5 A201 **South Elevation**
SCALE: 1/8" = 1'-0"



F1 A201 **East Elevation**
SCALE: 1/8" = 1'-0"

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR = FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

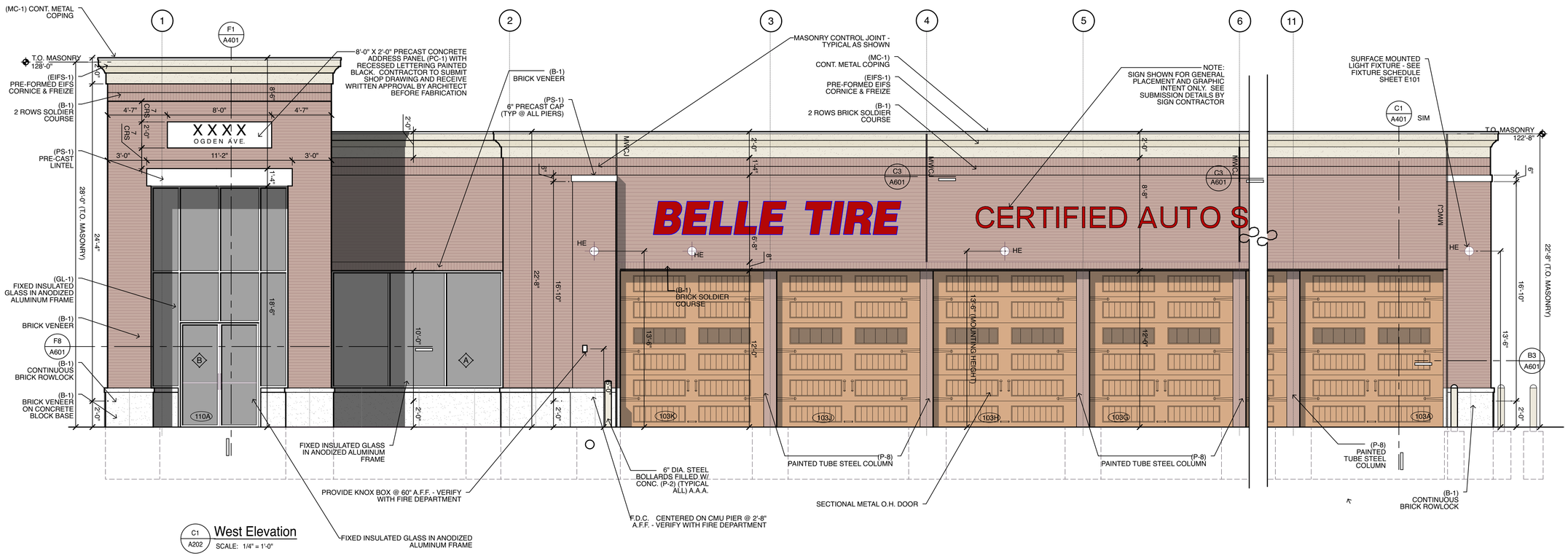
Building Elevations

Issued for

Village Submittal:	September 30, 2022
Village Re-Submittal:	March 21, 2023

Project Number
21-350

Sheet Number
A201



C1 / A202 **West Elevation**

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

F1 / A202 **North Elevation**

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

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR = FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Building Elevations

Issued for

Village Submittal: September 30, 2022

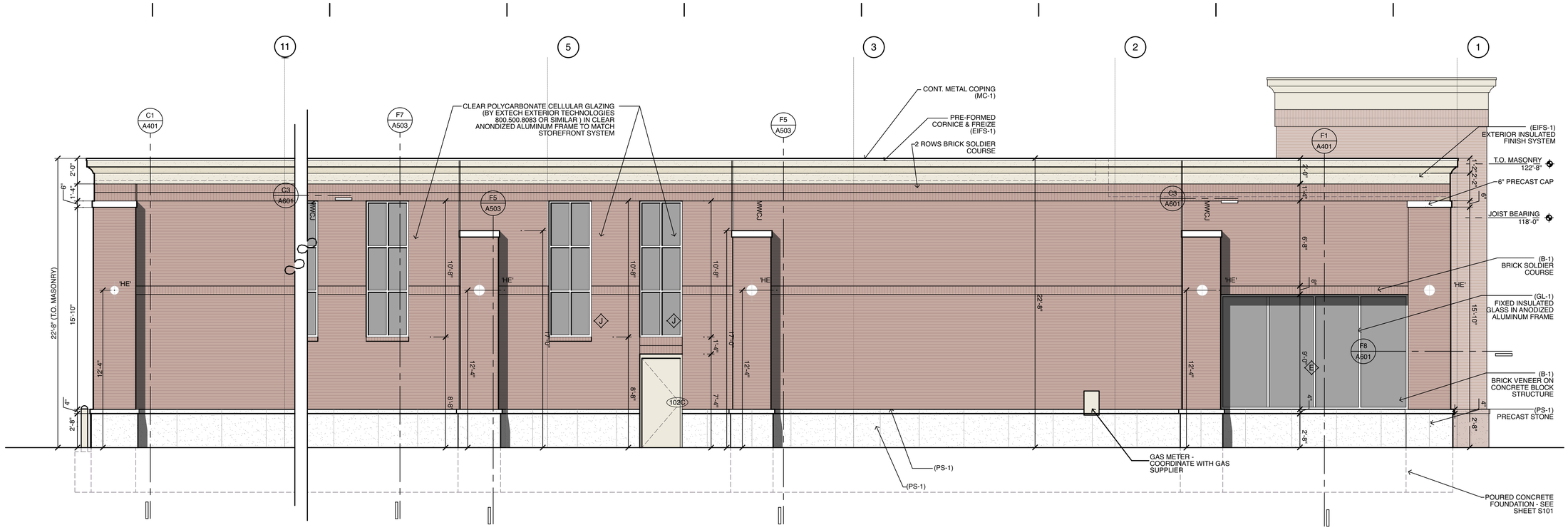
Village Re-Submittal: March 21, 2023

Project Number

21-350

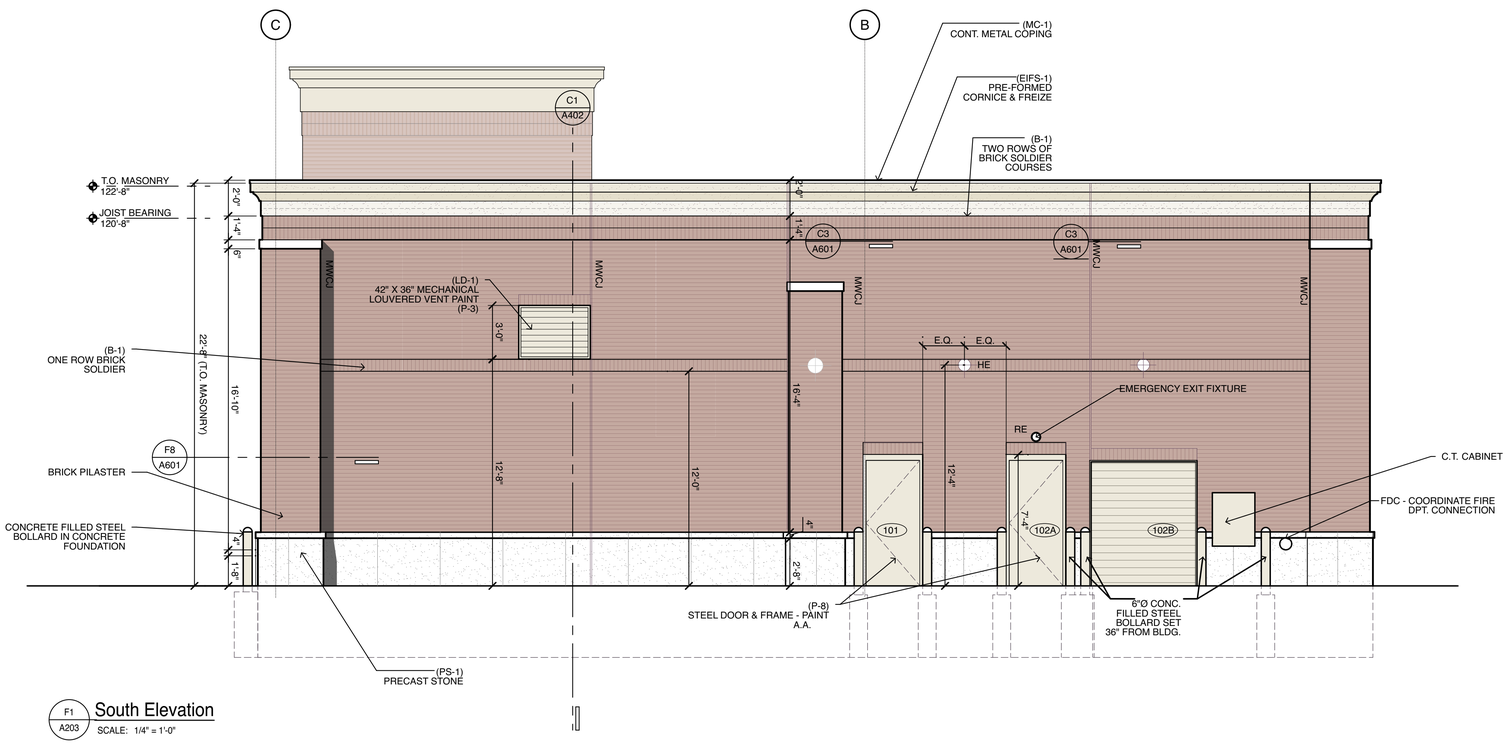
Sheet Number

A202



C1 A203 East Elevation

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



F1 A203 South Elevation

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

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR = FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	STONE	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Building Elevations

Issued for

Village Submittal: September 30, 2022

Village Re-Submittal: March 21, 2023

Project Number

21-350

Sheet Number

A203

View From North

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Renderings

Issued for

Village Submittal: September 30, 2022

Project Number

21-350

Sheet Number

R101

View From North East

Seal

LICENSED ARCHITECT
CHRISTOPHER
VINCENT
ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Renderings

Issued for

Village Re-Submittal: March 21, 2023

Project Number
21-350

Sheet Number
R102

View From North West

Seal

LICENSED ARCHITECT
CHRISTOPHER
VINCENT
ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Renderings

Issued for

Village Submittal: September 30, 2022

Project Number

21-350

Sheet Number

R103

View From North East

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Renderings

Issued for

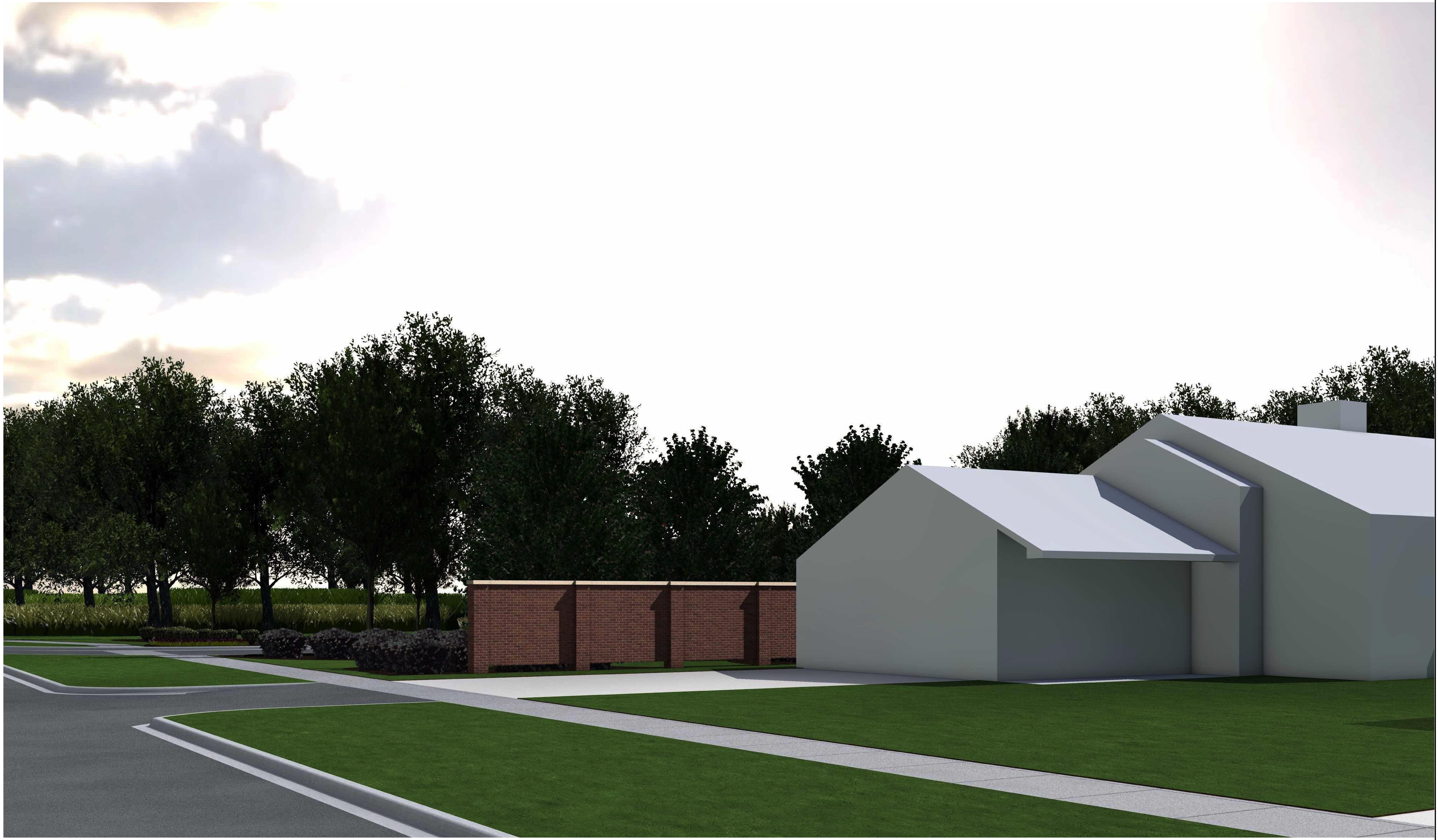
Village Submittal: September 30, 2022

Project Number

21-350

Sheet Number

R104



View From South on Drendel Road

Seal

LICENSED ARCHITECT
CHRISTOPHER VINCENT ENRIGHT
001-024653
STATE OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Renderings

Issued for

Village Submittal: September 30, 2022

Project Number

21-350

Sheet Number

R105

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLAN COMMISSION
MARCH 6, 2023 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
22-PLC-0030 2539 Ogden Avenue	Special Use for a Personal Vehicle Repair and Maintenance Use	Emily Hepworth, AICP Planner

REQUEST
The petitioner is requesting approval of a Special Use for a Personal Vehicle Repair and Maintenance use at 2539 Ogden Avenue.

NOTICE
The application has been filed in conformance with applicable procedural and public notice requirements.

GENERAL INFORMATION

OWNER: Willard D. Kubes Trust (2.24.02)
c/o Lori D. Budimir
PO BOX 520
Lisle, IL 60532

PETITIONER: Christopher Enright Architects
628 E Parent Ave., Ste. 100
Royal Oak, MI 48067

PROPERTY INFORMATION

EXISTING ZONING: B-3, General Services and Highway Business
EXISTING LAND USE: Office
PROPERTY SIZE: 67,099 square feet (1.54 acres)
PINS: 08-01-305-003, -004, -005, -011, -012

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	O-R-M, Office-Research-Manufacturing B-3, General Services and Highway Business	Corridor Commercial
SOUTH:	R-4, Residential Detached House 4	Single Family Detached
EAST:	B-3, General Services and Highway Business R-1, Residential Detached House 1	Corridor Commercial Single Family Detached
WEST:	R-1, Residential Detached House 1	Corridor Commercial

ANALYSIS

SUBMITTALS

This report is based on the following documents, which are on file with the Department of Community Development:

1. Location Map
2. Plat of Survey
3. Project Narrative
4. Approval Criteria
5. Engineering Plans
6. Architectural Plans
7. Plat of Subdivision – Consolidation
8. Traffic Study

PROJECT DESCRIPTION

The petitioner is proposing to locate a new Belle Tire store at 2539 Ogden Avenue. The property is zoned B-3, General Services and Highway Business. The site is currently developed with a landscape contracting business and professional offices.

The petitioner is requesting a Special Use for the proposed personal vehicle repair and maintenance business, pursuant to Section 28.5.010 of the Zoning Ordinance. A personal vehicle repair and maintenance use is listed as an allowable Special Use in the B-3 zoning district. The subject property is comprised of five adjacent lots of record, as such the petitioner will be required to administratively consolidate the property into one lot.

Site access currently exists from Ogden Avenue and Drendel Road, and the proposed project will maintain access to both streets. The Drendel Road access point will be moved to the south to accommodate a proposed rain garden, which will provide stormwater management for water runoff on the site. Access from Ogden Avenue will be restricted to right turn in and out, as required by the Illinois Department of Transportation. The Drendel Road access for the development will be restricted through a reduced radius approach and a no left turn (southbound) restriction for all vehicles exiting the site at this location, with signage prohibiting left turn movements.

The new building exterior will consist of a brick façade, precast concrete cornice and details, with aluminum framed windows and bay doors. The petitioner is proposing to construct the new building on the northeastern portion of the lot, with parking along the western and southern property lines.

Vehicle circulation on the site will be bidirectional to the west of the building. The rear parking lot is set back 33 feet from the adjacent residentially zoned property, where the minimum required setback of six (6) feet is required from the southern property line. The setback area will include landscaped green space and an eight (8) foot solid fence to provide a buffer and screening for the adjacent residential property.

COMPLIANCE WITH THE ZONING ORDINANCE

The property is zoned B-3, General Services and Highway Business District. The proposed vehicle repair and maintenance facility is listed as an allowable Special Use in this district. The bulk requirements of the proposed facility in the B-3 zoning district are summarized in the following table:

2539 Ogden | B-3 Zoning District	Required	Proposed
Building Setbacks		
Street Building Setback (North) (from Center Line of Ogden Avenue)	75 feet	85 feet
Side Building Setback (East – B-3 adjacent)	0 feet	16.7 feet
Side Building Setback (West – R-1 adjacent)	11 feet	67 feet
Rear Building Setback (South)	6 feet	162 feet
Parking Setbacks		
Street Parking Setback (North) (from Center Line of Ogden Avenue)	50 feet	80 feet
Side Parking Setback (West – R-1 adjacent)	10 feet	13 feet
Side Parking Setback (East – R-1 adjacent)	20 feet	39 feet
Rear Parking Setback	6 feet	33 feet
Other Bulk Regulations		
Parking (Including Stacking) Spaces	36	40
Min. Landscaped Open Space	10%	31%
Maximum Height	60 feet	21.4 feet

Parking
The Zoning Ordinance requires vehicle repair facilities to provide one space per service bay, plus stacking spaces per Section 28.7.130, which will require 30 parking spaces. Additionally, 3.5 spaces per 1,000 square feet of retail space is required, which will require 6 spaces. In total, a minimum of 36 spaces are required and 40 total are provided, exceeding the minimum requirements.

Signage
All signage proposed for the development will comply with the Zoning Ordinance requirements through a separate sign permit application.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The property is designated as both Corridor Commercial and Single Family Residential Detached in the Comprehensive Plan. Corridor Commercial uses include a range of retail, service, office, and business activities, while catering to the automobile. These uses serve a dual role by providing for the daily needs of the local residents while continuing to provide goods and service to the larger region. Single Family Residential Detached typically recommends detached single households per lot. However, as highlighted below, the Comprehensive Plan also encourages commercial expansion by increasing lot depth along Ogden Avenue on a case-by-case basis given location, context, use, and screening.

The Comprehensive Plan is an aspirational document that provides a vision for the future while offering a variety of recommendations for land uses, transportation, parks and community facilities. The Zoning Ordinance is the regulatory tool that dictates how a property owner may use and develop their lot(s). In this case the entire subject property is zoned B-3.

The proposal meets several additional goals of the Comprehensive Plan, including:

- Strengthens the economy by creating more local jobs
- Encourages commercial expansion by increasing lot depth on a case-by-case basis given location, context, use, and screening
- Implements the recommendations of the Economic Development Plan to Enhance the Sales Tax
- Provides parking lot screening and landscaping, in addition to dumpster enclosure and screening
- Nearby residential areas to be buffered from impacts of commercial use

TRAFFIC AND CIRCULATION

The proposed use is a complementary use that is not anticipated to have any negative impact on the

existing traffic patterns in the area. Based on the traffic summary, the proposed traffic generated for the use is expected to generate a limited amount of traffic during peak hours and appropriate for the use and corridor. Due to the current striping conditions on Ogden Avenue, access to the site will be provided from curb cuts on both Drendel Road and Ogden Avenue.

IDOT is requiring a right-in/right-out access point with a traffic divider (island) to Ogden Avenue, which limits the ability for delivery trucks to enter the site from Ogden Avenue, necessitating secondary access from Drendel Road. IDOT has granted preliminary approval for the Ogden Avenue access. To mitigate impacts to the residential properties to the south of the site, a condition of approval has been added which prohibits left turns onto Drendel Road. Parking related to the business operations, will also be prohibited along Drendel Road. Lastly, the petitioner will be required to place 'No Left Turn' signs at the Drendel Road curb cut, in addition to across the road in the Drendel Road right-of-way.

ENGINEERING/PUBLIC IMPROVEMENTS

New water and sanitary sewer service lines are proposed to service the development. A new pedestrian connection leading from the sidewalk on Ogden Avenue to the front of the building will create a safe pedestrian access point.

In accordance with the Village's Stormwater Ordinance, post construction best management practices (PCBMPs) are required to reduce and treat stormwater runoff from the development. PCBMPs are provided for in a rain garden proposed directly north of the Drendel Road driveway. Additional engineering improvements include re-grading the southern portion of the property to ensure stormwater runoff flows to the north and west into the rain garden and storm sewer infrastructure on Drendel Road. This will help prevent additional stormwater runoff from flowing south into the existing residential neighborhood. Retaining walls are provided along the western edge of the site to direct stormwater runoff from the parking lot to the rain garden.

The subject property is immediately adjacent to a property owned by DuPage County that is utilized as a detention basin. In review of the development proposal, the Village is taking this facility into account while reviewing the proposed stormwater improvements. All improvements will comply with the Village's Stormwater Ordinance. Because the stormwater requirements are regulatory in nature they are reviewed by the Village at the time of building permit to ensure compliance with the Village's ordinances.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division reviewed the proposed development and determined that sufficient access to and around the site is provided for emergency vehicles. The building will be required to include a fire alarm and sprinkler system that meet the Village's code requirements.

NEIGHBORHOOD COMMENT

Notice was provided to all property owners 250 feet or less from the property line, a public hearing sign was posted, and a legal notice in the *Daily Herald* was published. Staff received five inquiries from the public. Three of the inquiries were general in nature, requesting information about the project or how to provide public comment. Staff met with the property owner to the immediate south of the subject property who wanted an understanding of the stormwater plan for the development, screening requirements, Drendel Road access and operations for Belle Tire. The fifth inquiry is attached to this report. In reference to the attached correspondence, it should be clarified that the petitioner is not seeking a map amendment ("rezoning") for the project; the only request is for a special use, which is allowed in the B-3 Zoning District.

STANDARDS OF APPROVAL

The petitioner is requesting a Special Use approval for vehicle repair and maintenance. The review and approval criteria is listed below.

The petitioner has submitted a narrative that attempts to address all the standards of approval. The Plan Commission should consider the petitioner's documentation, the staff report, and the discussion at the Plan Commission meeting in determining whether the standards for approval have been met.

VoDG.8.12.050.H Standards of Approval for Special Uses

No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is constituent with and in substantial compliance with all Village Council policies and plans and that the petitioner has presented evidence to support each of the following conclusions:

(1) That the proposed use is expressly authorized as a Special Use in the district in which it is to be located.
(2) That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.
(3) That the proposed use will not, in the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.

DRAFT MOTION

Staff will provide a recommendation at the March 6th, 2023 meeting. Should the Plan Commission find that the request meets the standards of approval for a Special Use, staff has prepared a draft motion that the Plan Commission may make for the recommended approval of 22-PLC-0030:

Based on the petitioner's submittal, the staff report, and the testimony presented, I find that the petitioner has met the standards of approval for a Special Use as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Plan Commission recommend to the Village Council approval of 22-PLC-0030, subject to the following conditions:

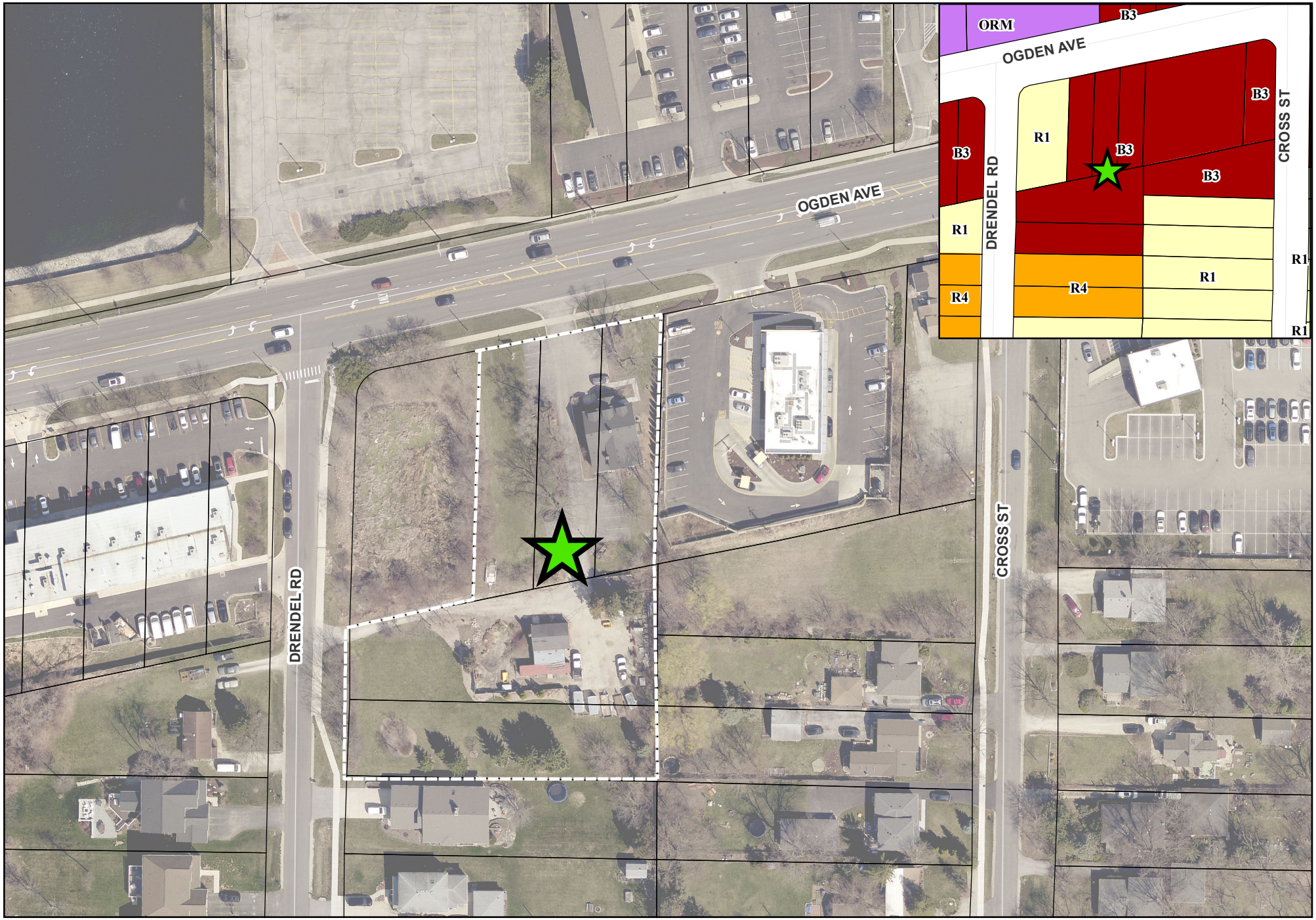
1. The Special Use shall substantially conform to the staff report, the architectural and engineering drawings prepared by Enright Architects dated September 30, 2022, and revised on January 27, 2023 except as such plans may be modified to conform to Village codes, ordinances, and policies.
2. An approved permit from the Illinois Department of Transportation must be provided to the Village before issuance of a building permit.
3. A lot consolidation plat must be recorded prior to the issuance of any building permits.
4. No vehicles may be test driven in residential neighborhoods. All test drives are limited to arterial streets as defined in the Comprehensive Plan. Arterial streets include Ogden Avenue, Belmont Road, Warren Avenue, and Main Street.
5. Inoperable vehicles are not permitted to be stored outside overnight.
6. The photometric plan shall conform to the Village Zoning Ordinance.
7. All vehicle maintenance must occur in the service bays of the proposed building. No vehicle maintenance may occur outside of the building.
8. Southbound (left) turns are prohibited from the Drendel Road access point and must include traffic signage as approved by the Village of Downers Grove.
9. No business activities may occur on Drendel Road.

10. All signage shall conform to the Zoning Ordinance.

Staff Report Approved By:

Stanley J. Popovich, AICP
Director of Community Development

SP; eh
-att



N

0 50 100 200 Feet

2539 Ogden Avenue - Location Map - UPDATED Site Boundary

Subject Property

Project Location

CHRISTOPHER ENRIGHT ARCHITECTS

A PROFESSIONAL CORPORATION

Jason Zawila, AICP, Planning Manager
Community Development Department
Village of Downers Grove
801 Burlington Avenue
Downers Grove, IL 60515

RE: Belle Tire Downers Grove
Petition for Plan Commission

September 30, 2022, *Revised February 21, 2023*

Mr. Zawila,

We are pleased to present our Petition for Plan Commission to the Village of Downers Grove for a new Belle Tire store to be located on the properties currently addressed as 2539 & 2939 Ogden Avenue approximately 200 feet east of the Drendel Road and US 34 (Ogden Avenue) intersection. Our proposal includes the demolition of existing buildings and the construction of a new 9,800 square foot single story brick and cast stone veneer building with related infrastructure improvements.

For our proposed development, we are respectfully requesting approvals for:

1. Special Use: Personal Vehicle Repair and Maintenance facility in the B-3 General Services and Highway Business District
2. Plat Consolidation of the existing five (5) lots

We are not anticipating any variation requests for this development. We are cognizant of our residential neighbors on the west, south, and east sides of the property.

Recognizing the potential sensitivity with our proposed use, we are proposing the following accommodations:

1. Location of the building as close to Ogden Avenue as possible.
2. Bay doors face west toward existing trees on the neighboring property. Belle Tire technicians use electric tire equipment thus reducing any potential noise concerns.
3. Per the traffic study dated September 30, 2022, the proposed Belle Tire will generate a limited amount of traffic during the peak hours and on a daily basis and have a limited impact on the roadway network and adjacent intersections.
4. In addition to multiple landscape plantings around the development's boundary, we are proposing to install an 8-foot high screen fence along the entire south boundary and southern portion of the east boundary.

Phone: 248.258.6485 (o)
248.330.9395 (c)
628 E. Parent Avenue
Suite 100
Royal Oak, MI 48067
cenright@enrightarchitects.com

Proposed Development Introduction

Belle Tire, celebrating 100 years last year, is a company privately owned by the Barnes family headquartered in Allen Park, Michigan. The company was started by Mr. Sam Waze in 1922 who named the business after his wife, Belle. The Waze family eventually partnered with the Barnes family, who purchased the interests in the early 1960's and is now in the third generation of ownership. Currently, Belle employs more than 2,000 people and has over 130 locations in Michigan, Ohio, Indiana, and Illinois. Construction is currently underway in 8 locations (Westmont, Palatine, Carpentersville, Crestwood, Batavia, Carol Stream, Sycamore, and Hoffman Estates) with 17 recently opened (Villa Park, Naperville, Joliet, Shorewood, Aurora, Mokena, St. Charles, West Chicago, Yorkville, Montgomery, Romeoville, Orland Park, Elgin, Bloomingdale, Melrose Park, Huntley, and Bradley) in Illinois with 50 planned in 3 years.

Belle sells and installs passenger vehicle tires, various automotive parts and offers minor automotive repairs such as brakes, alignments, batteries, shocks and struts and oil changes. No major engine, transmission repair or body work is conducted in the facility. All repair and installation work will take place inside the building and though rare, if vehicles are left overnight, they are stored inside. All scrap tires are stored in a specifically designated area inside the facility and are picked up by Belle vehicles on a regular basis. All floor drains in the service area are connected to an oil / water separator to prevent any unapproved chemicals from reaching the sanitary system. No outdoor displays are used.

Sales staff and porters handle all customer vehicles for service, and customers are discouraged from entering the service area. A well-appointed customer lounge is provided for those who choose to wait for service and installation to be completed. Since the service doors are clear glass, staff will not use vehicle horns to alert staff to open doors. There are no outdoor annunciators, PA systems or other noxious exterior noise sources. Electric tire equipment will reduce any potential noise concerns. Belle Tire has created a significant in-house Property Management group that is responsible for all maintenance, repair and care of the property and building after construction. Should the Village require to contact Belle for any reason, staff at headquarters is available 24 hours a day, seven days a week.

Hours of operation in all stores is Tuesday, Wednesday and Friday – 8:00 a.m. to 6:00 p.m., Monday and Thursday – 8:00 a.m.to 8:00 p.m., Saturday – 8:00 a.m. to 5:00 p.m. and closed on Sunday. This location anticipates a maximum employee shift of 10 to 15 employees on staff in various capacities. Business deliveries occur 2-3 times a week for approximately 30 minutes per visit.

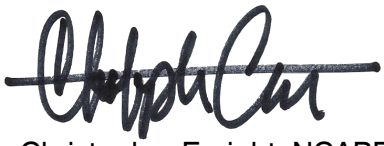
The exterior of the facility is comprised of brick veneer, cast stone detailing, small continuous EIFS cornice, clear glazing and aluminum frame at the showroom, striated clear glazing and aluminum frame at the remaining inventory areas, and wall washing feature lighting at the perimeter of the building. All landscape, lighting and site elements meet or exceed Village standards. One HVAC roof top unit is proposed and will be obscured by parapet walls and the proposed entry tower. All other roof elements such as plumbing vents, exhaust fans and the like will be obscured by the parapet walls at the rear portion of the building. The interior of the facility is completely suppressed with a NFPA approved sprinkler system.

Included Submittal Documents

- Petition for Plan Commission including a Letter of Authorization
- Plat of Survey
- Project Summary/Narrative Letter (this document)
- Review and Approval Criteria: Special Uses
- Certification of Public Notice Information, List of Surrounding Property Owners
- Final Plat of Subdivision, Belle Tire Downers Grove Consolidation
- Engineering Site Plans including Lighting Plan, Landscape Plan, Sign Plan, Typical Floor Plan, Building Elevations, and Sign Plan
    - Please refer to the photos below for google street views showing more accurate depictions of the building colors.
- Downers Grove Sanitary District Will-Serve Letter
- EcoCAT report noting possible Northern Long-eared Bat Habitat Trees on the property; A study was completed and Exhibit prepared identifying trees that should be removed between November 1 and March 31 when the bats are likely hibernating off site.
- Kane-DuPage Land Use Opinion Application (online submittal completed 9/9)
- Stormwater Management Report

We are looking forward to working with you and Village staff on this new development.

Sincerely,



Christopher Enright, NCARB

NW Joliet (Shorewood), IL

St. Charles, IL

Mokena, IL

Villa Park, IL

Yorkville, IL

Review and Approval Criteria

SPECIAL USES

Plan Commission Number & Title: 22-PLC-0030

A DETAILED RESPONSE TO ALL OF THE STANDARDS SHALL BE PROVIDED, SPECIFYING HOW EACH STANDARD IS OR IS NOT MET.

Section 28.12.050.H Approval Criteria (Special Uses)

No special use may be recommended for approval or approved unless the respective review or decision-making body determines that the proposed special use is constituent with and in substantial compliance with all Village Council policies and plans and that the applicant has presented evidence to support each of the following conclusions:

1. ***That the proposed use is expressly authorized as a Special Use in the district in which it is to be located.***

   Per Village of Downers Grove Zoning Code Article 28, Section 5.050 Commercial Use Category: Personal Vehicle Repair and Maintenance is a Special Use in the B-3 General Services and Highway Business District.

2. ***That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.***

   The proposed development's location has been thoroughly vetted by Belle Tire Property Management as an excellent location for their future store. Belle Tire's use is consistent with neighboring commercial businesses, including (but not limited to): BOB Auto Repair, Lisle Automotive & Tire, V&R Tire & Auto Repair, and Gerber Collision & Glass.

3. ***That the proposed use will not, in the particular case, be detrimental to the health, safety or general welfare of persons residing or working in the vicinity or be injurious to property values or improvements in the vicinity.***

   The proposed development will meet all engineering, public health, safety and general welfare standards of the Village. The building will be fully fire suppressed and meet all aspects of NFPA as well as provide visual and audible security systems. The development will not require any special security of safety support from the Village other than standard emergency services. This multi-million dollar development will increase property values. The proposed building is a single story, 9,800 square foot facility, similar in use, size and quality of the surrounding commercial properties. Hours of operation are similar or more restrictive to those of our neighbors. The proposed use has very limited peak hour vehicular trips and will not create traffic congestion. All illumination shall be full "cut-off" to limit any light pollution. Electronic tire equipment will reduce any potential noise concerns. Belle has a very active Property Management department that services and maintains their buildings on a scheduled basis so quality is maintained.

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY

VICINITY MAP
NO SCALE

LEGAL DESCRIPTION

LOTS 6, 7, 8, 11, AND 12 IN BLOCK 2 IN ARTHUR T. MCINTOSH AND COMPANY'S BELMONT GOLF ADDITION, BEING A SUBDIVISION IN THE SOUTH WEST QUARTER OF SECTION 1 AND THE NORTH WEST QUARTER OF SECTION 12, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED SEPTEMBER 14, 1925, AS DOCUMENT 199614, IN DUPAGE COUNTY, ILLINOIS.

SCHEDULE B EXCEPTIONS

7. TERMS, PROVISIONS AND CONDITIONS AS CONTAINED IN THE PERMANENT DRAINAGE EASEMENT AND TEMPORARY CONSTRUCTION EASEMENT RECORDED MARCH 10, 1999, AS DOCUMENT NO. R99-058232.
8. TERMS, PROVISIONS AND CONDITIONS AS CONTAINED IN THE PERMANENT EASEMENT AGREEMENT RECORDED JULY 25, 2008, AS DOCUMENT NO. R2008-116621.
9. BUILDING LINE AS SHOWN ON PLAT OF ARTHUR T. MC INTOSH AND COMPANY'S BELMONT GOLF ADDITION, RECORDED SEPTEMBER 14, 1925 AS DOCUMENT NO. 199614 AFORESAID.

SCHEDULE B EXCEPTIONS 1, 2, 3, 4, 5, 6 AND 11 ARE NOT SURVEY RELATED AND THEREFORE NOT SHOWN.

SCHEDULE B EXCEPTION 10 IS THE OPINION OF ANOTHER SURVEYOR.

NOTES

1. THIS SURVEY IS BASED ON THE LEGAL DESCRIPTION AND EASEMENTS OF RECORD AS IDENTIFIED IN TITLE COMMITMENT NUMBER NCS-1127455-MICH ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY HAVING AN EFFECTIVE DATE OF MAY 11, 2022.
2. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 83 (2011), ZONE 1201 (ILLINOIS EAST)
3. THIS SITE FALLS WITHIN "OTHER AREAS NO SCREEN" ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS DEFINED BY THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 170204 0166 J, MAP NUMBER 17043C0166J, HAVING A REVISED DATE OF AUGUST 1, 2019.
4. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYS, AND IS BASED ON FIELD WORK PERFORMED ON JUNE 20, 2022.
5. THE SURVEYOR CONTACTED J.U.L.I.E. FOR A DESIGN STAGE REQUEST FOR THIS SITE WHICH WAS ASSIGNED A DIG NUMBER OF A221384281. INQUIRIES WERE SENT OUT TO THE VARIOUS UTILITY COMPANIES REQUESTING MAPS AND/OR ATLASES OF THEIR RESPECTIVE FACILITIES. THE INFORMATION RECEIVED TO DATE IS SHOWN HEREON.
6. IN ACCORDANCE WITH TABLE A ITEMS 6(A) AND 6(B), A ZONING REPORT OR LETTER WAS NOT PROVIDED TO THE SURVEYOR FOR REVIEW.
7. IN ACCORDANCE WITH TABLE A ITEM 16, NO OBSERVED EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
8. IN ACCORDANCE WITH TABLE A ITEM 17, NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES BASED ON INFORMATION RECEIVED FROM THE CONTROLLING JURISDICTION AT THE TIME OF THE SURVEY. NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

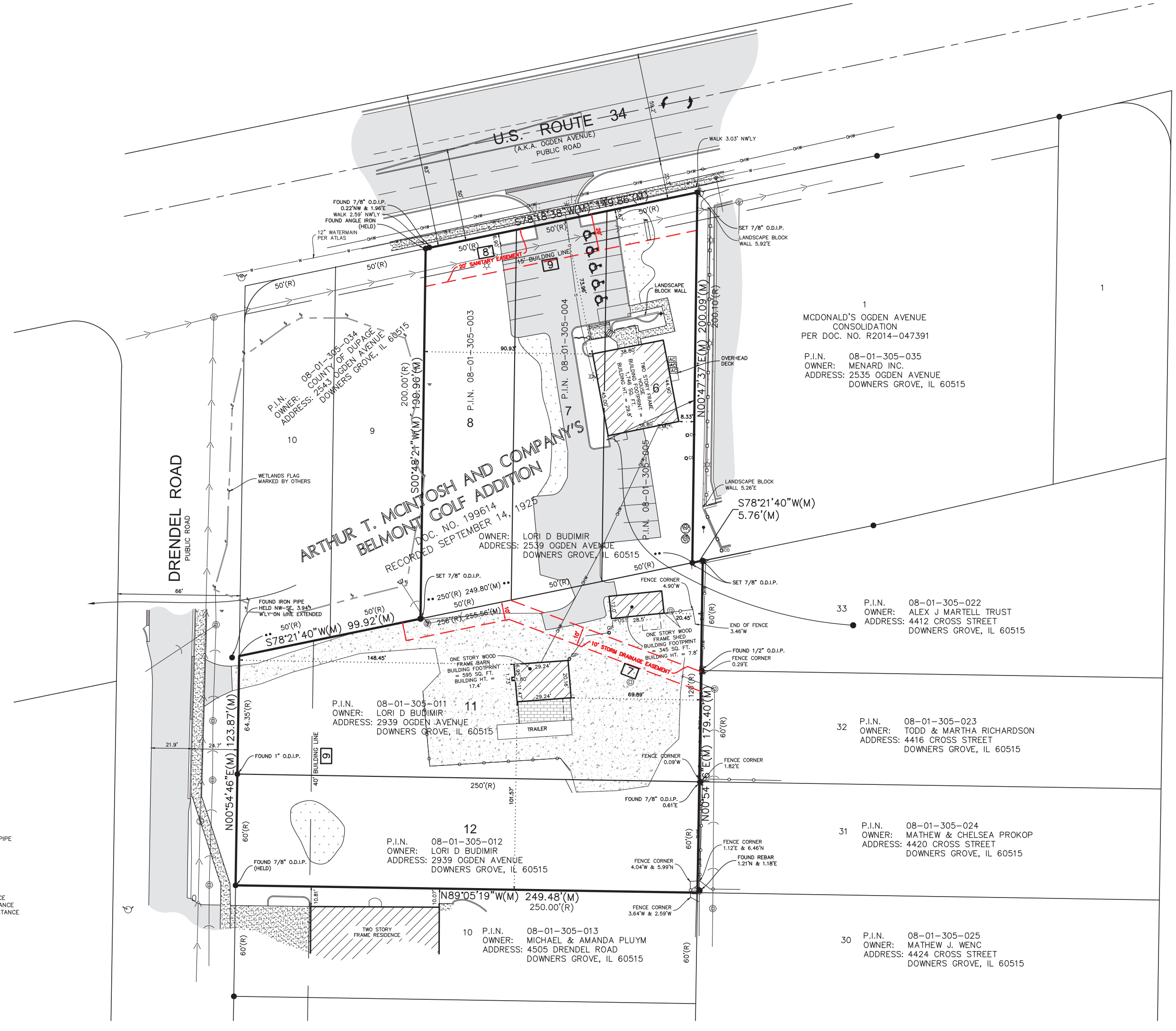
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

AREA SUMMARY
(TO HEAVY LINES)
67,099 SQUARE FEET
OR
1.540 ACRES
(BASED ON MEASURED VALUES)

STRIPED PARKING DATA
REGULAR SPACES = 9
ACCESSIBLE SPACES = 5
TOTAL SPACES = 14



LEGEND

FOUND 7/8" O.D.I.P. UNLESS OTHERWISE NOTED (HELD LOCATION)	GAS METER
CONCRETE MONUMENT	GAS VALVE
CROSS IN CONCRETE	GAS MARKER
MANHOLE	DOWN SPOUT
STORM STRUCTURE	BORING HOLE
SANITARY MANHOLE	MONITORING WELL
CLEANOUT	GATE POST
FLARED END SECTION	BOLLARD POLE
TRANSFORMER PAD	SIGN
ELECTRIC MANHOLE	FLAG POLE
ELECTRIC BOX	MAILBOX
ELECTRIC PEDESTAL	SANITARY SEWER
ELECTRIC MARKER	STORM SEWER
ELECTRIC METER	WATER MAIN
UTILITY POLE	GAS MAIN
UTILITY POLE W/LIGHT	ELECTRIC LINE
UTILITY POLE W/TSF	OVERHEAD WIRES
GUY POLE	TELEPHONE LINE
OVERHEAD TRAFFIC SIGNAL	CONIFEROUS TREE W/APPROX. DIAMETER
TRAFFIC SIGNAL MANHOLE	DECIDUOUS TREE W/APPROX. DIAMETER MS=MULTI-STEM (DRIP LINE SHOWN IS APPROXIMATE)
LIGHT	TREE LINE
LIGHT POLE	+ ELEVATION
HAND HOLE	BITUMINOUS PAVEMENT
VALVE VAULT	CONCRETE SURFACE
FIRE HYDRANT	DEPRESSED CURB
IRRIGATION CONTROL VALVE	GRAVEL SURFACE
POST INDICATOR VALVE	LANDSCAPE AREA
SIAMESE WATER CONNECTION	STONE SURFACE
WATER MARKER	DETECTABLE TACTILE WARNING SURFACE
WATER METER	BRICK PAVERS
VALVE BOX	WOOD FENCE
B/BOX	CHAIN LINK FENCE
SPRINKLER CONTROL VALVE	METAL FENCE
TELEPHONE MANHOLE	METAL GUARDRAIL
TELEPHONE NETWORK INTERFACE	OVERHEAD TRAFFIC ARM
TELEPHONE MARKER	
TELEPHONE PEDESTAL	
CABLE TELEVISION PEDESTAL	

ABBREVIATIONS

O.D.I.P. = OUTSIDE DIAMETER IRON PIPE
TF = TOP OF FOUNDATION
FF = FINISHED FLOOR
FES = FLARED END SECTION
VCP = VITRIFIED CLAY PIPE
DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
(R) = RECORD BEARING OR DISTANCE
(M) = MEASURED BEARING OR DISTANCE
(C) = CALCULATED BEARING OR DISTANCE
(D) = DEED BEARING OR DISTANCE
N = NORTH
S = SOUTH
E = EAST
W = WEST
A = ARC LENGTH
R = RADIUS
CH = CHORD
CB = CHORD BEARING
B.S.L. = BUILDING SETBACK LINE
U.E. = UTILITY EASEMENT
D.E. = DRAINAGE EASEMENT
P.U.E. = PUBLIC UTILITY EASEMENT
P.O.C. = POINT OF COMMENCEMENT
P.O.B. = POINT OF BEGINNING
P.U. & D.E. = PUBLIC UTILITY AND DRAINAGE EASEMENT

LINE LEGEND

LIMITS OF LAND PER LEGAL DESCRIPTION
ADJACENT LAND
PARCEL LINE
EASEMENT LINE
CENTERLINE
BUILDING SETBACK LINE
SECTION LINE

UTILITY CONTACTS

CABLE
COMCAST – MARTHA GIERAS
224-229-5862
MARTHA_GIERAS@COMCAST.COM

ELECTRIC
COMED
630-576-7094

GAS
NICOR GAS
GASMAPS@NICOR.COM

COMMUNICATIONS
AT&T
G11629@ATT.COM

CROWN CASTLE
888-632-0931XOPTION2
FIBER.DIG@CROWNCASTLE.COM

MCI/VERIZON
ASG.INVESTIGATIONSTEAM@ASGINC.US
CC: INVESTIGATIONS@VERIZON.COM

LEVEL 3 (CENTURYLINK)
877-366-8344X2
NATIONALRELO@CENTURYLINK.COM

WATER / SANITARY / STORM
DOWNERS GROVE SANITARY DISTRICT – KEITH SHAFFNER
630-353-3610
KSHAFFNER@DGSD.ORG

VILLAGE OF DOWNERS GROVE – JOHN WELCH
630-434-5494
630-878-1167
JWELCH@DOWNERS.US

SURVEYOR'S CERTIFICATION

TO: BARNES DEVELOPMENT COMPANY, LLC AND FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A), 7(A), 7(B1), 7(C), 8, 9, 11(A), 13, 14, 16, 17 AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 20, 2022.

COMPASS SURVEYING LTD
PROFESSIONAL DESIGN FIRM
LAND SURVEYOR CORPORATION NO. 184-002778
LICENSE EXPIRES 4/30/2023

DATE OF PLAT OR MAP: JUNE 23, 2022

BY: ____________________
DAVID P. FILIPSKI
IL PROFESSIONAL LAND SURVEYOR NO. 3352
LICENSE EXPIRES 11/30/22

J:\PSDATA\2022 PROJECTS\22.0173\22.0173 LTS TOPO.DWG

GRID NORTH

Know what's below. Call before you dig.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD EVIDENCE AND EXISTING DRAWINGS, MAPS AND RECORDS SUPPLIED TO SURVEYOR. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE SURVEYOR HAS PHYSICALLY LOCATED VISIBLE STRUCTURES; HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.

DATE: 6-22-22 | PC AW | DRAWN BY BT | CHECKED BY DF | BOOK 636 PG 5-7

NO.	REVISIONS	DATE	BY
1.	PER ATTORNEY COMMENTS	7-1-22	BT
2.	LOCATE WETLANDS FLAGS	11-9-22	BT

PROJECT
BELLE TIRE
U.S. ROUTE 34
DOWNERS GROVE, IL

CLIENT
CHRISTOPHER ENRIGHT ARCHITECTS
628 E. PARENT AVENUE, SUITE 100
ROYAL OAK, MI 48067

COMPASS SURVEYING LTD
ALTA SURVEYS • TOPOGRAPHY • CONSTRUCTION STAKING
2631 GINGER WOODS PARKWAY, STE. 100
AURORA, IL 60502
PHONE: (630) 820-9100 FAX: (630) 820-7030 EMAIL: ADMIN@CLSURVEYING.COM

SCALE: 1" = 30'

1 OF 2

PROJ. NO.: 22.0173

LEGEND

- FULL DEPTH PAVEMENT REMOVAL (ASPHALT & CONCRETE)
- CONCRETE GUTTER REMOVAL
- CURB LINE REMOVAL
- FULL DEPTH SAWCUT LINE
- TREE REMOVAL

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO CLEAR AND GRUB EXISTING VEGETATION COMPLETELY. STRIP TOPSOIL COMPLETELY AND STOCKPILE FOR REDISTRIBUTION. SEE EROSION CONTROL PLANS.
3. ANY UNSUITABLE SOILS IN STRUCTURAL FILL AREAS SHALL BE ADDRESSED PER THE GEOTECHNICAL REPORT RECOMMENDATIONS.
4. DIMENSIONS ARE TO FACE OF CURB.
5. ANY CONTRACTOR DAMAGE TO EXISTING PAVEMENT OR CURBS TO REMAIN SHALL BE REMOVED AND RESTORED TO PROPOSED SPECIFICATIONS.

REFERENCE BENCHMARKS

REFERENCE BENCHMARK:
DUPAGE COUNTY BENCHMARK #LI03002
(NAVD 88 DATUM)

DISK ON THE NORTHEAST CORNER OF A BRIDGE FOR WARRENVILLE ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER. 33.4' NORTH OF THE CENTERLINE OF WARRENVILLE ROAD, 0.5 WEST OF THE EAST END OF THE NORTH BRIDGE HEADWALL.

ELEVATION=670.86

DUPAGE COUNTY BENCHMARK #0166
(NAVD 88 DATUM)

DISK ALONG THE EAST SIDE OF FINLEY ROAD AT THE OVERPASS FOR INTERSTATE 88. STATION IS 110.0' NORTH OF THE CENTERLINE OF A CAR DEALERSHIP ENTRANCE AND 32.0' EAST OF THE CENTERLINE OF FINLEY ROAD (NORTHBOUND). DISK LOCATED ON THE SOUTH END OF THE EAST BRIDGE WALL FOR THE OVERPASS.

ELEVATION=771.01

SITE BENCHMARKS:
SITE BENCHMARK #1
NORTHWEST BOLT ON FIRE HYDRANT NEAR THE SOUTHWEST CORNER OF SUBJECT PROPERTY, WEST RIGHT OF WAY OF DRENDEL ROAD

ELEVATION = 730.54

SITE BENCHMARK #2
NORTHWEST BONNET BOLT ON FIRE HYDRANT LOCATED AT THE NORTHEAST CORNER OF SITE, SOUTH RIGHT OF WAY OF U.S. ROUTE 34

ELEVATION = 739.75

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

JULIE ILLINOIS ONE-CALL SYSTEM

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

DEMOLITION PLAN

Issued for

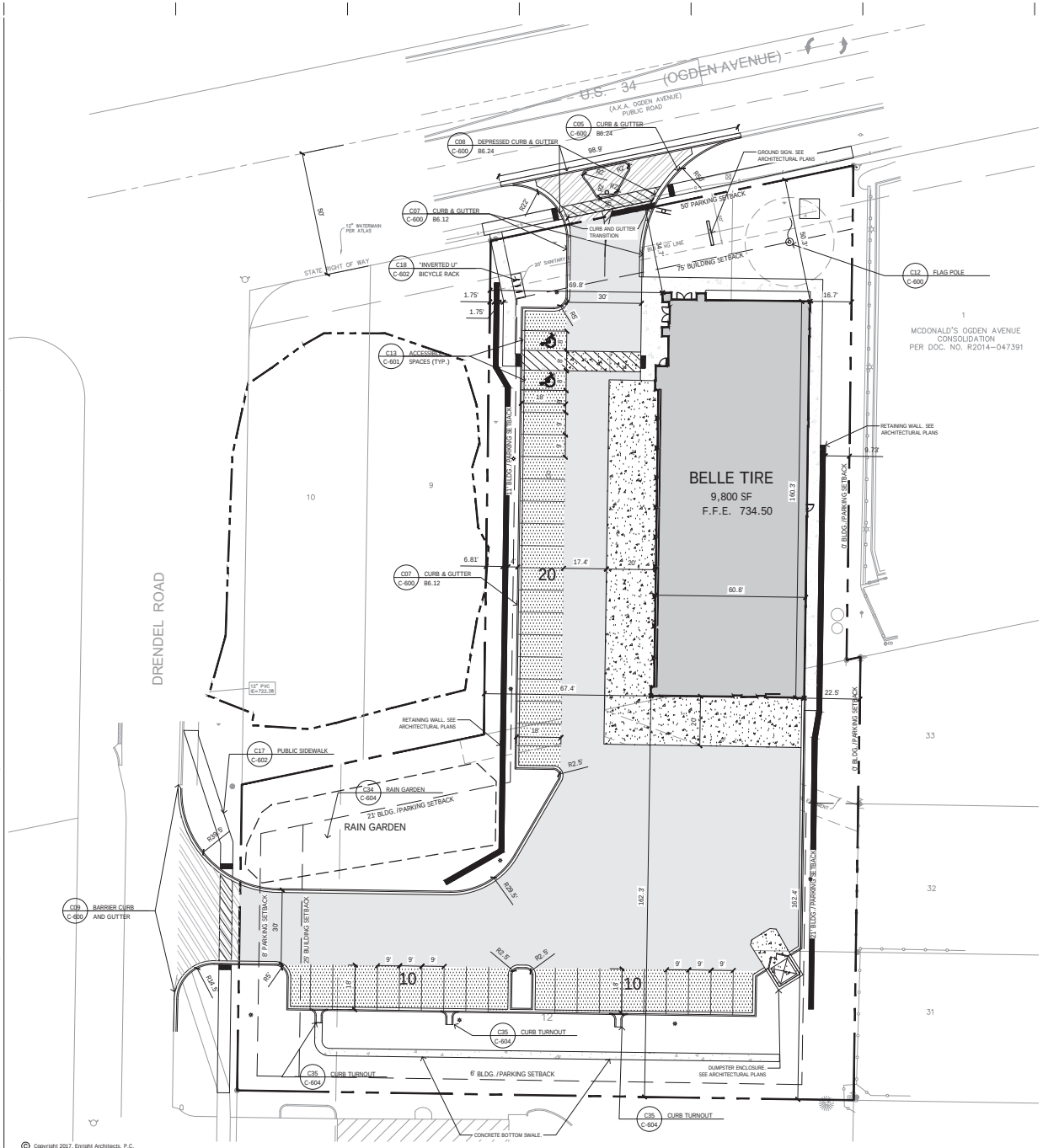
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number

21-350

Sheet Number

C 100



Know what's below. Call before you dig.

811 JULIE ILLINOIS ONE-CALL SYSTEM

0 20 40
1" = 20'

LEGEND

	C01 C-600	HEAVY DUTY ASPHALT PAVEMENT
	C02 C-600	LIGHT DUTY ASPHALT PAVEMENT
	C03 C-600	HEAVY DUTY CONCRETE PAVEMENT
	C04 C-600	CONCRETE SIDEWALK
	C20 C-601	HEAVY DUTY CONCRETE PAVEMENT AT R/W

BID ALTERNATE #1:
INSTALLATION OF LIGHT AND HEAVY DUTY CONCRETE PAVEMENT (DETAILS ON C600) IN LIEU OF ALL LIGHT AND HEAVY DUTY ASPHALT PAVEMENT.

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR ADDITIONAL INFORMATION.
2. THE BASIS FOR THE GEOMETRIC LAYOUT IS A BEST FIT LINE ALONG EAST PROPERTY LINE ADJACENT TO PARKING.
3. DIMENSIONS ARE TO FRONT OF CURB IN ALL PAVED AREAS, BACK OF CURB IN GRASS/LANDSCAPE AREAS AND OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ANY CONTRACTOR DAMAGE TO EXISTING PAVEMENT OR CURBS TO REMAIN SHALL BE REMOVED AND RESTORED TO PROPOSED SPECIFICATIONS.
5. EXISTING CONDITIONS ARE AS SHOWN PER SURVEY BY OTHERS.

SITE SUMMARY

LOT SIZE:	±1.54 AC.
ZONING:	B-3, GEN SERVICES AND HWY BUSINESS
BUILDING SIZE:	9,800 SF.
BUILDING HEIGHT:	21'-4"
BUILDING/PARKING SETBACKS:	
FRONT	75 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	21 FT. (EAST - ZONED R-1) (20'+1' BLDG)
	11 FT. (WEST - ZONED R-1) (10'+1' BLDG)
	25 FT. (WEST - DRENDELL FRONTAGE)
REAR	6 FT. (SOUTH - ZONED R-4) (5'+1' BLDG)
PARKING SETBACKS:	
FRONT	50 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	21 FT. (EAST - ZONED R-1)
	11 FT. (WEST - ZONED R-1)
	8 FT. (WEST - DRENDELL FRONTAGE)
REAR	6 FT. (SOUTH - ZONED R-4)
SURROUNDING ZONING:	R-1 (EAST/WEST)
	R-4 (SOUTH)
	B-3 (EAST/NORTH)

PARKING SUMMARY

MIN. SIZE:	9 FT. x 18 FT.
MIN. DRIVE WIDTH:	24 FT.
MIN. SPACES REQUIRED:	36 (1/BAY PARKING + 2/BAY STACKING + 3.5 SPACES PER 1000 SQ FT OF RETAIL SPACE)
SPACES PROVIDED:	40
ADA SPACES REQUIRED:	2
ADA SPACES PROVIDED:	2

Project Name:	Belle Tire - Downers Grove				
Address:	2539 Ogden Avenue, Downers Grove, IL 60515				
PIN(s):	08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012				
Zoning District:	B-3 General Services and Highway Business				
Existing Use:	Lanscaping and Landscaping Materials Business				
Proposed Use:	Auto Service and Repair				
Petition Type:	Commercial Development - Special Use				
Requirement	Factor	Required	Proposed	Meets?	Difference
Lot Frontage (ft)	Minimum	100	150	Yes	50
Lot Area (acres)	Minimum	0.24 (10,500 sq ft)	1.54 (67,099 sq ft)	Yes	1.30
Lot Width (ft)	Minimum	100	150	Yes	50
Street Yard (ft)	Minimum	75	85	Yes	10
Side Yard (ft) B3 Adj.	Minimum	0'	17	Yes	17
Side Yard (ft) R1 Side Adj.	Minimum	11	67	Yes	56
Side Yard (ft) R1 Rear Adj.	Minimum	21	22.5	Yes	1.5
Rear Yard (ft) R4 Adj.	Minimum	6	162	Yes	156
Height (ft)	Maximum	60	21'-4"	Yes	38'-8"
Open Space (%)	Minimum	10	37.6 (25,267 sq ft)	Yes	23.60%
FAR (%)	Maximum	75	14.6 (9,800 sq ft)	Yes	60.40%
Parking (spaces)*	Minimum	36	40	Yes	4
Donations	NA	NA	NA	NA	NA

Remarks:
* based on unit type/count
1 per bay + 2 per bay stacking + 3.5 per 1,000 SF of Retail Space

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Belle Tire
Downers Grove, IL

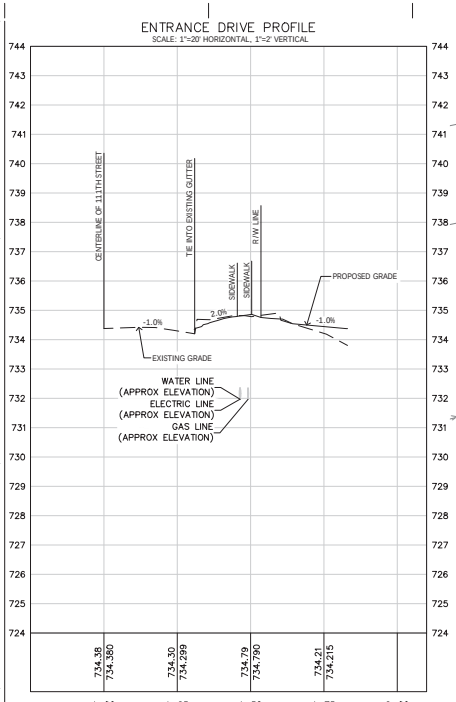
2539 Ogden Avenue
Downers Grove, IL 60515

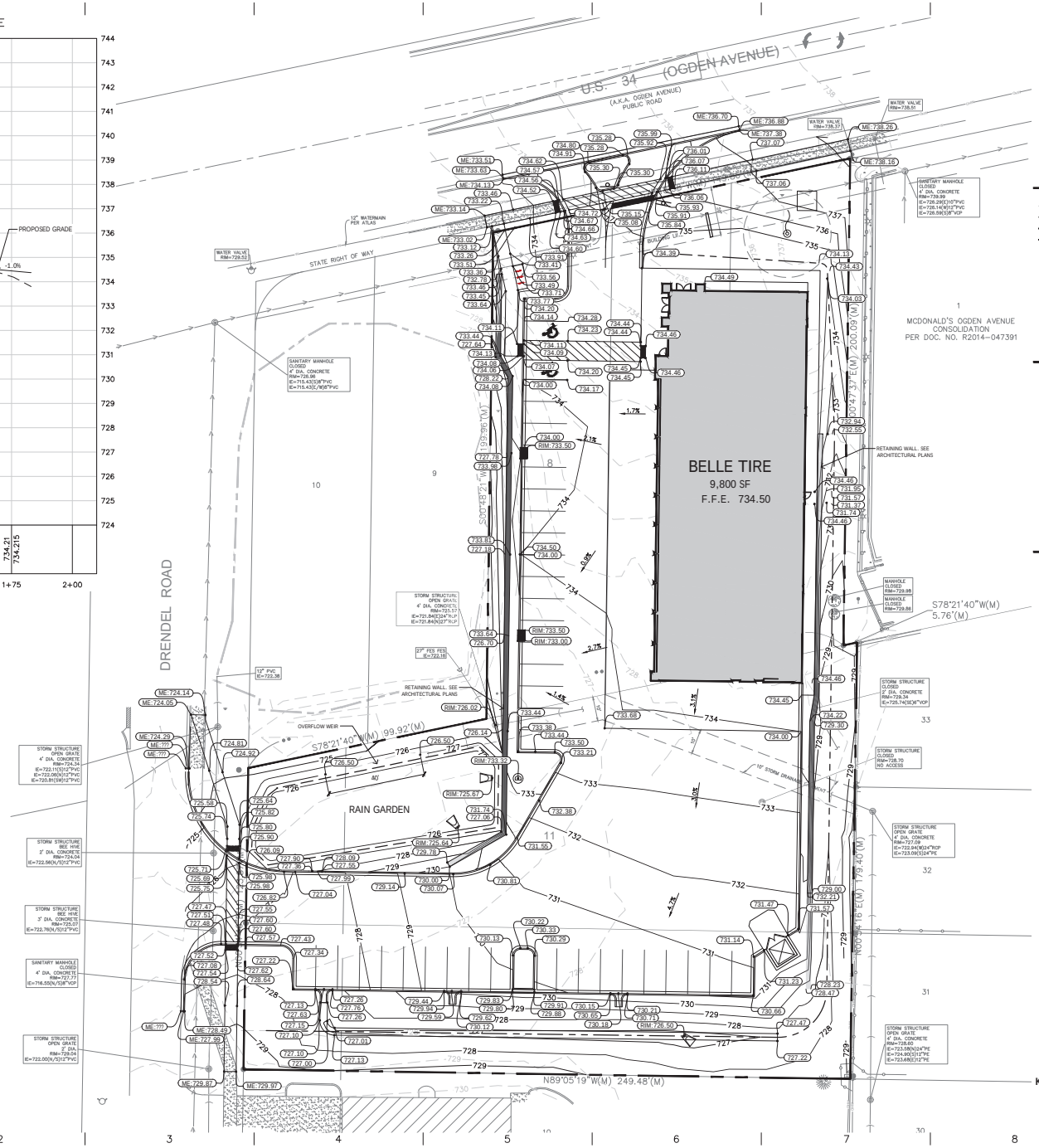
SITE PLAN

Issued for
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number
21-350

Sheet Number
C 200





LEGEND

641	EXISTING CONTOUR
640	PROPOSED CONTOUR
	SWALE/CHANNEL FLOWLINE
RIDGE LINE	RIDGE LINE
	GRADE FLOW ARROW
640.00	PAVEMENT/GROUND ELEVATIONS
RIM:640.00	RIM ELEVATIONS
TC:640.00	TOP OF CURB ELEVATIONS
ME: (640.00)	MATCH EXISTING (APPROX. ELEV.)

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR PERTINENT INFORMATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, IDENTIFY AND PROTECT ANY EXISTING UTILITIES. ANY PROPOSED WORK NEAR OR WITH EXISTING UTILITIES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANY.
3. PROPER COVER OVER EXISTING OR NEWLY INSTALLED UTILITIES SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
4. FOR AREAS DESIGNED TO FLOW AWAY FROM THE CURB AND GUTTER, CONTRACTOR SHALL PROVIDE REVERSE SLOPED CURB AND GUTTER.
5. CONTRACTOR SHALL FOLLOW CURRENT ADA ACCESSIBILITY GUIDELINES FOR SLOPES WITHIN ACCESSIBLE PARKING SPACES, LOADING ZONES AND ALL ACCESSIBLE ROUTES.

REFERENCE BENCHMARKS

REFERENCE BENCHMARK:
DUPAGE COUNTY BENCHMARK #LI03002
(NAVD 88 DATUM)

DISK ON THE NORTHEAST CORNER OF A BRIDGE FOR WARRENVILLE ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER. 33.4' NORTH OF THE CENTERLINE OF WARRENVILLE ROAD, 0.5' WEST OF THE EAST END OF THE NORTH BRIDGE HEADWALL.

ELEVATION=670.86

DUPAGE COUNTY BENCHMARK #0166
(NAVD 88 DATUM)

DISK ALONG THE EAST SIDE OF FINLEY ROAD AT THE OVERPASS FOR INTERSTATE 88. STATION IS 110.0' NORTH OF THE CENTERLINE OF A CAR DEALERSHIP ENTRANCE AND 32.0' EAST OF THE CENTERLINE OF FINLEY ROAD (NORTHBOUND). DISK LOCATED ON THE SOUTH END OF THE EAST BRIDGE WALL FOR THE OVERPASS.

ELEVATION=771.01

SITE BENCHMARKS:
SITE BENCHMARK #1
NORTHWEST BOLT ON FIRE HYDRANT NEAR THE SOUTHWEST CORNER OF SUBJECT PROPERTY, WEST RIGHT OF WAY OF DRENDEL ROAD

ELEVATION = 730.54

SITE BENCHMARK #2
NORTHWEST BONNET BOLT ON FIRE HYDRANT LOCATED AT THE NORTHEAST CORNER OF SITE, SOUTH RIGHT OF WAY OF U.S. ROUTE 34

ELEVATION = 739.75

Know what's below. Call before you dig.

Call Before You Dig. JULIE ILLINOIS ONE-CALL SYSTEM

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

Project
Belle Tire
Downers Grove, IL

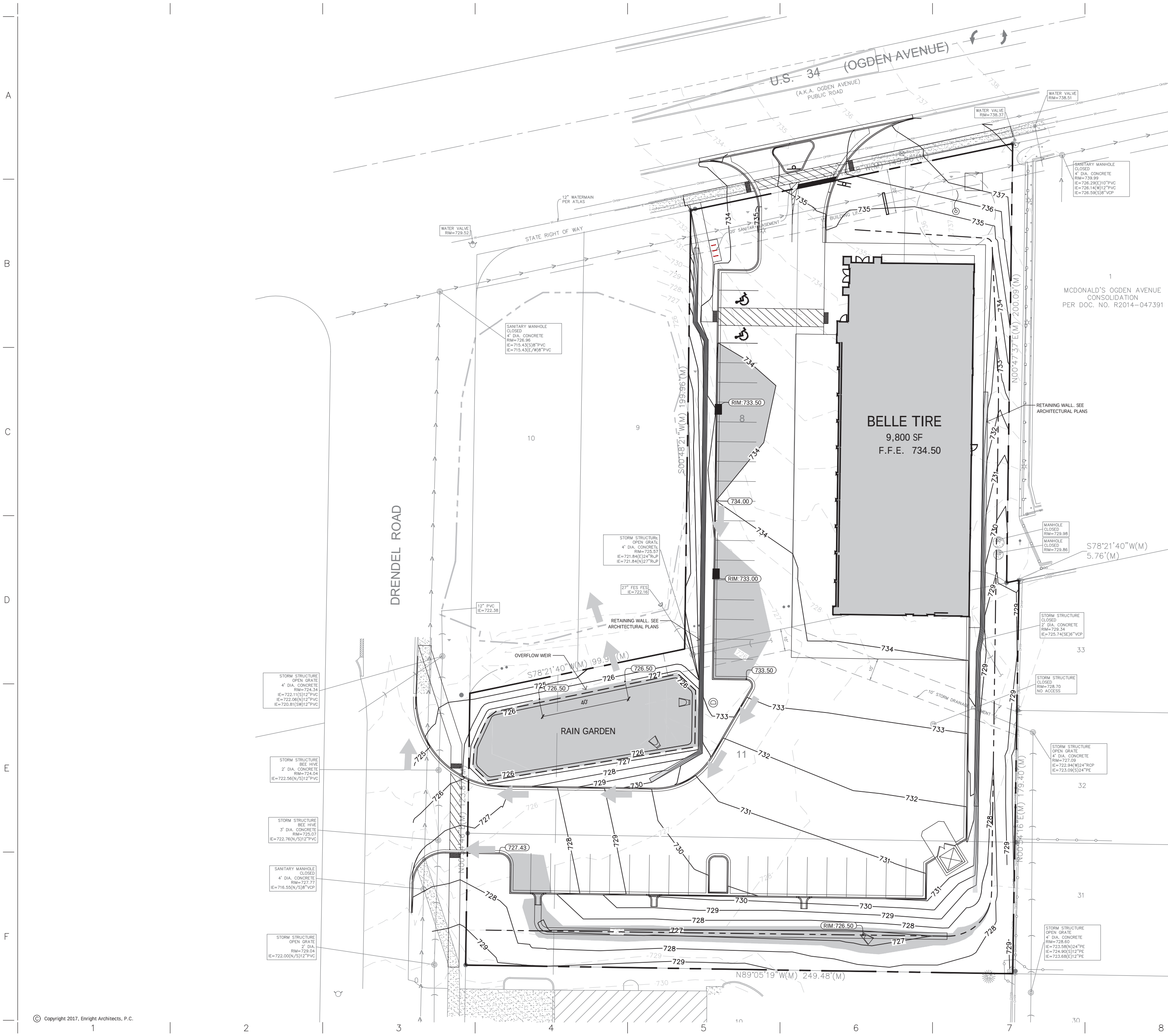
2539 Ogden Avenue
Downers Grove, IL 60515

Sheet
GRADING PLAN

Issued for
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number
21-350

Sheet Number
C 300



LEGEND

- EXISTING CONTOUR
- 640 PROPOSED CONTOUR
- SWALE/CHANNEL FLOWLINE
- EMERGENCY OVERFLOW ROUTE
- PONDING LIMITS

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR PERTINENT INFORMATION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, IDENTIFY AND PROTECT ANY EXISTING UTILITIES. ANY PROPOSED WORK NEAR OR WITH EXISTING UTILITIES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANY.
3. PROPER COVER OVER EXISTING OR NEWLY INSTALLED UTILITIES SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
4. FOR AREAS DESIGNED TO FLOW AWAY FROM THE CURB AND GUTTER, CONTRACTOR SHALL PROVIDE REVERSE SLOPED CURB AND GUTTER.
5. CONTRACTOR SHALL FOLLOW CURRENT ADA ACCESSIBILITY GUIDELINES FOR SLOPES WITHIN ACCESSIBLE PARKING SPACES, LOADING ZONES AND ALL ACCESSIBLE ROUTES.

REFERENCE BENCHMARKS

REFERENCE BENCHMARK:

DUPAGE COUNTY BENCHMARK #LI03002
(NAVD 88 DATUM)

DISK ON THE NORTHEAST CORNER OF A BRIDGE FOR WARRENVILLE ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER. 33.4' NORTH OF THE CENTERLINE OF WARRENVILLE ROAD, 0.5' WEST OF THE EAST END OF THE NORTH BRIDGE HEADWALL.

ELEVATION=670.86

DUPAGE COUNTY BENCHMARK #0166
(NAVD 88 DATUM)

DISK ALONG THE EAST SIDE OF FINLEY ROAD AT THE OVERPASS FOR INTERSTATE 88. STATION IS 110.0' NORTH OF THE CENTERLINE OF A CAR DEALERSHIP ENTRANCE AND 32.0' EAST OF THE CENTERLINE OF FINLEY ROAD (NORTHBOUND). DISK LOCATED ON THE SOUTH END OF THE EAST BRIDGE WALL FOR THE OVERPASS.

ELEVATION=771.01

SITE BENCHMARKS:

SITE BENCHMARK #1
NORTHWEST BOLT ON FIRE HYDRANT NEAR THE SOUTHWEST CORNER OF SUBJECT PROPERTY, WEST RIGHT OF WAY OF DRENDEL ROAD

ELEVATION = 730.54

SITE BENCHMARK #2
NORTHWEST BONNET BOLT ON FIRE HYDRANT LOCATED AT THE NORTHEAST CORNER OF SITE, SOUTH RIGHT OF WAY OF U.S. ROUTE 34

ELEVATION = 739.75

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

Call Before You Dig JULIE ILLINOIS ONE-CALL SYSTEM

Seal

BRANDEN C. FERRO 062-069857 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

OVERLAND FLOW ROUTING PLAN

Issued for

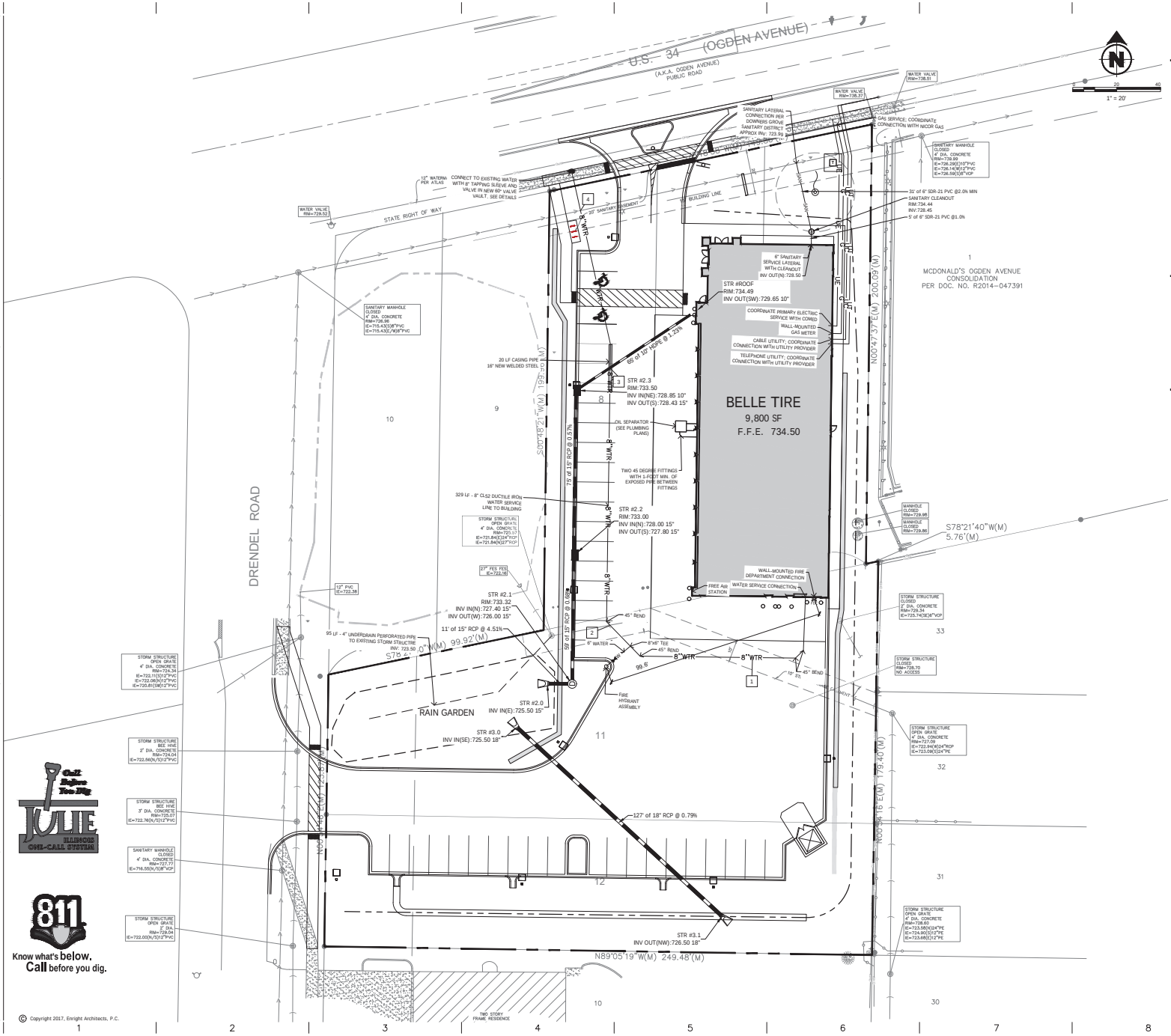
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number

21-350

Sheet Number

C 300A



LEGEND

- STORM SEWER
- STORM INLET
- STORM MANHOLE
- SANITARY SEWER
- SANITARY MANHOLE
- CLEANOUT
- 8"WTR — WATER LINE
- FP — FIRE PROTECTION LINE
- FDC — FIRE DEPARTMENT CONNECTION
- WATER VALVE VAULT
- GAS METER
- UE — UNDERGROUND ELECTRIC
- TRANSFORMER
- UT — UNDERGROUND TELEPHONE
- UC — COMMUNICATIONS CABLE

UTILITY CROSSINGS

1	24" STORM T.O.P. 8" WATER B.O.P.	724.81' 727.83' (18" MIN. SEPARATION)
2	24" STORM T.O.P. 8" WATER B.O.P.	724.35' 727.53' (18" MIN. SEPARATION)
3	10" STORM B.O.P. 8" WATER T.O.P.	729.10' 727.10' (18" MIN. SEPARATION)
4	10" SANITARY T.O.P. 8" WATER B.O.P.	721.06' 726.35' (18" MIN. SEPARATION)

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR ADDITIONAL STANDARDS AND SPECIFICATIONS, AS WELL AS DETAIL SHEETS.
2. ALL PROPOSED WATER MAINS SHALL MAINTAIN THE FOLLOWING MINIMUM SEPARATION FROM ALL OTHER SEWERS:
   - 2.1. 10' HORIZONTALLY FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE
   - 2.2. 18" VERTICALLY FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE
3. ANY CONTRACTOR DAMAGE TO EXISTING PAVEMENT OR CURBS TO REMAIN SHALL BE REMOVED AND RESTORED TO PROPOSED SPECIFICATIONS.
4. FOR CLOSED LID STORM STRUCTURES, SANITARY MANHOLES AND WATER VAULT, FRAME AND COVER SHALL BE EAST JORDAN 1050Z1 EMBOSSED WITH THE RESPECTIVE "STORM", "SANITARY", OR 1020A HD "WATER" AND "VILLAGE OF DOWNERS GROVE".

Know what's below. Call before you dig.

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Sheet

UTILITY PLAN

Issued for

2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number

21-350

Sheet Number

C 400

SURVEY OF EXISTING TREES

BEST 5

TREE #	SIZE	SCIENTIFIC NAME	COMMON NAME	CONDITION	COMMENTS
101	26"	ACER SACCHARINUM	SILVER MAPLE	3	REMOVE
102	14"	ULMUS PUMILA	SIBERIAN ELM	2	LEANING - REMOVE
103	16"	ACER SACCARINUM	SILVER MAPLE	4	REMOVE
104	14"	ACER SACCARINUM	SILVER MAPLE	4	REMOVE
105	15"	FRAX. PENNSYLVANICA	GREEN ASH	3	REMOVE
106	12"	ACER SACCARINUM	SILVER MAPLE	3	REMOVE
107	14"	ULMUS PUMILA	SIBERIAN ELM	3	REMOVE
108	8"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
109	9"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
110	7"	JUNIPER SSP.	JUNIPER SSP.	4	REMOVE
111	7"	ACER PLATANOIDES	NORWAY MAPLE	2	CROWDED/LEANING - REMOVE
112	8"	ACER PLATANOIDES	NORWAY MAPLE	3	REMOVE
113	5"	ACER PLATANOIDES	NORWAY MAPLE	3	CROWDED - REMOVE
114	8"	ACER PLATANOIDES	NORWAY MAPLE	3	REMOVE
115	6"	QUERCUS ALBA	WHITE OAK	4	REMOVE
116	6"	JUNIPER SSP.	JUNIPER SSP.	3	REMOVE
117	7"	JUNIPER SSP.	JUNIPER SSP.	2	REMOVE
118	8,8,6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
119	9"	PICEA ABIES	NORWAY SPRUCE	4	PRESERVE
120	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
121	9"	PICEA ABIES	NORWAY SPRUCE	4	PRESERVE
122	4,4,3"	SYRINGA RETICULATA	JAPANESE TREE LILAC	3	REMOVE
123	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
124	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
125	9"	PICEA ABIES	NORWAY SPRUCE	4	REMOVE
126	6,6,5"	MALUS SSP.	CRABAPPLE SSP.	4	PRESERVE
127	10"	PICEA GLAUCA	GREEN SPRUCE	4	PRESERVE
128	5"	PICEA GLAUCA	GREEN SPRUCE	4	PRESERVE
129	8"	ACER PLATANOIDES	NORWAY MAPLE	3	PRESERVE
130	6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
131	6"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE
132	8"	ULMUS PUMILA	SIBERIAN ELM	2	REMOVE

TOTAL TREES REMOVED = 25 = 249 TOTAL CAL. INCHES

TREE PROTECTION & REMOVAL LEGEND

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

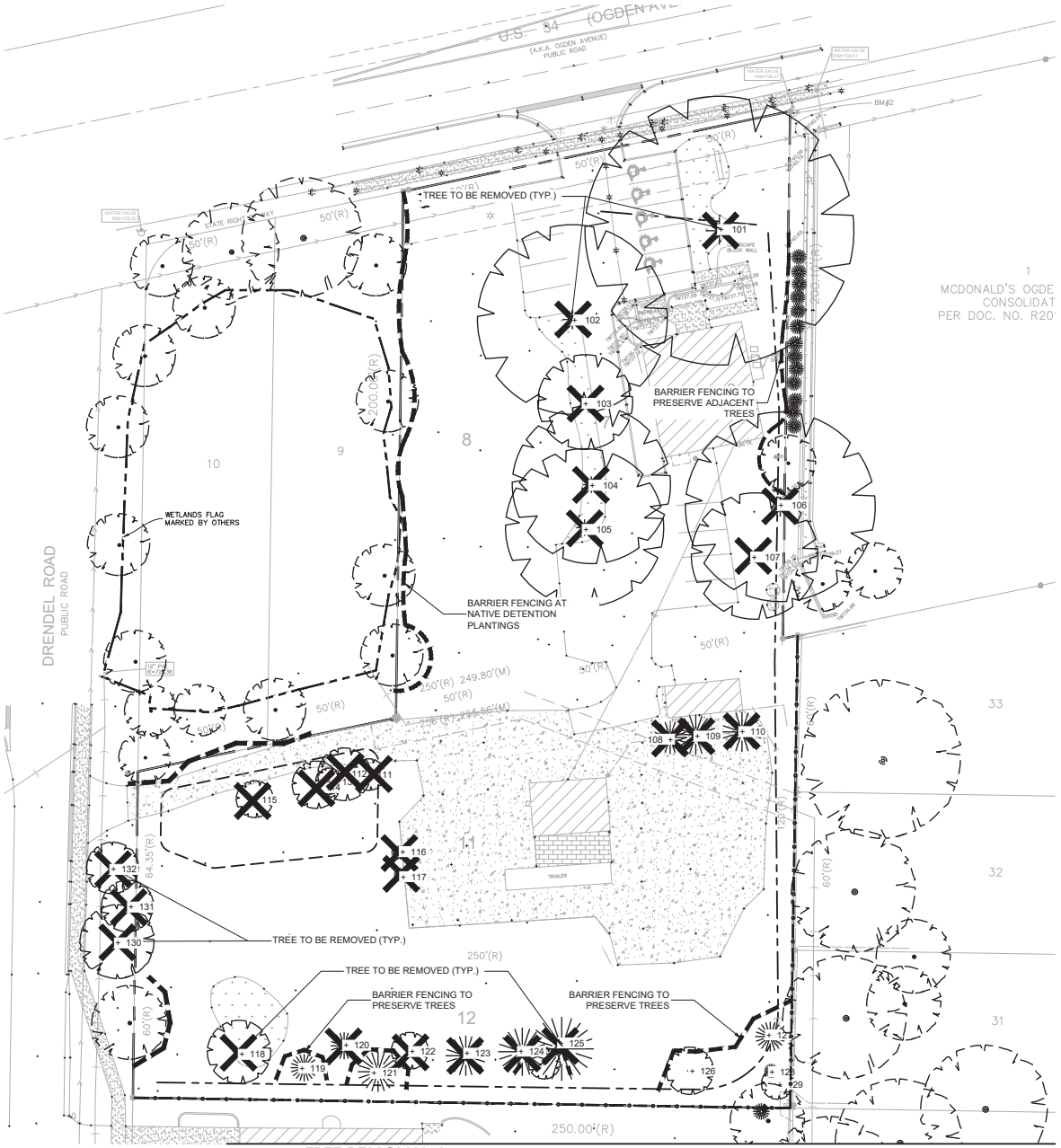
BARRIER FENCING TO BE INSTALLED

EXISTING VEGETATION DESCRIPTION

THE PROJECT SITE CONSISTS OF VACANT RETAIL SITE. VARIOUS MATURE TREES EXIST ON THE SITE RANGING FROM MAPLES, OAKS AND JUNIPERS TO SIBERIAN ELM AND SILVER MAPLE. 22 TREES WILL BE REMOVED FOR DEVELOPMENT.

TREE PROTECTION & REMOVAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS AND PERMISSIONS TO PRUNE, REMOVE, AND/OR TRANSPLANT ANY TREES ON SITE.
2. DEAD AND DYING MATERIAL ON THE SITE SHALL BE REMOVED OR PRUNED. MATERIALS NOT LABELED ON THE PROTECTION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR REMEDIATION.
3. DURING CONSTRUCTION EXISTING TREES OVER FOUR INCHES IN CALIPER SHALL BE PROTECTED WITH BARRIER FENCING.
4. BARRIER SHALL BE CONSTRUCTED OF A MIN. 3' TALL SNOW FENCE OR SIMILAR AND SUPPORT POSTS MIN. 6' O.C. AND SHALL BE ERECTED ONE FOOT BEYOND THE DRIP LINE OFF ALL EXISTING TREES ON SITE AND ADJACENT SITES TO REMAIN.
5. BARRIER FENCING SHOWN ON THE PLAN IS APPROXIMATE. CONTRACTOR SHALL ADJUST LOCATION OF BARRIER TO POSITION OUTLINED IN COMMENT 4.
6. NO EXCESS SOIL OR ADDITIONAL FILL, BUILDING MATERIALS OR DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE BARRIER.
7. NO VEHICLES OR HEAVY MACHINERY SHALL BE ALLOWED TO WORK WITHIN THE BARRIER AREA.
8. NO ATTACHMENTS OR WIRES, OTHER THAN PROTECTIVE GUY WIRES, SHALL BE ATTACHED TO ANY OF THE TREES WHICH ARE WITHIN PROTECTIVE BARRIER.
9. STUMPS OR TREE REMAINS NOT TO BE FULLY EXCAVATED SHALL BE REMOVEED. A STUMP GRINDER SHALL BE USED TO REMOVE ALL REMAINING ROOTS AND WOODY MATERIAL. WITHIN A 24" RADIUS OF THE TREE TRUNK TO MIN. 6" BELOW GRADE. DISTURBED AREA SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO MEET SURROUNDING GRADES.



1 TREE REMOVAL & PROTECTION PLAN

N SHEET SCALE 1" = 20'
0' 10' 20' 40' 60'

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

LG Workshop LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

EXPIRES 08/2023

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

21-350 TREE PROTECTION & REMOVAL PLAN

L.1

VILLAGE LANDSCAPE REQUIREMENT CALCULATIONS

OPEN SPACE

LOT SIZE	VILLAGE REQ. OPEN SPACE	PROPOSED OPEN SPACE	VILLAGE REQ. STREETYARD OS	PROPOSED STREETYARD OS
67,099 SF	10% = 6,709 SF	20,776 SF = 30.6%	50% = 3,355 SF	83% = 3,788 SF

SEC 28.8.020 PARKING LOT PERIMETER LANDSCAPING

PERIMETER LOCATION	LENGTH	REQUIRED COVERAGE	PROPOSED COVERAGE	REQUIRED TREES	PROPOSED TREES
NORTH (OGDEN)	150 LF	75%= 112.5 LF	110 LF	150 / 30= 5	5 TREE
EAST	386 LF	50%= 193 LF	370 LF	386 / 30 = 13	24 TREES
SOUTH	250 LF	50%= 125 LF	225 LF	250 / 30 = 9	14 TREES
WEST	376 LF	50%= 189 LF	340 LF	376 / 30 = 13	9 TREES

LANDSCAPE LEGEND

EXISTING TREE

PROPOSED SHADE TREE

PROPOSED ORNAMENTAL TREE

PROPOSED LARGE SHRUB

PROPOSED MEDIUM SHRUB

PROPOSED EVERGREEN SHRUB

PROPOSED LOW SHRUB

PROPOSED ORNAMENTAL GRASS

PROPOSED PERENNIAL PLANTING

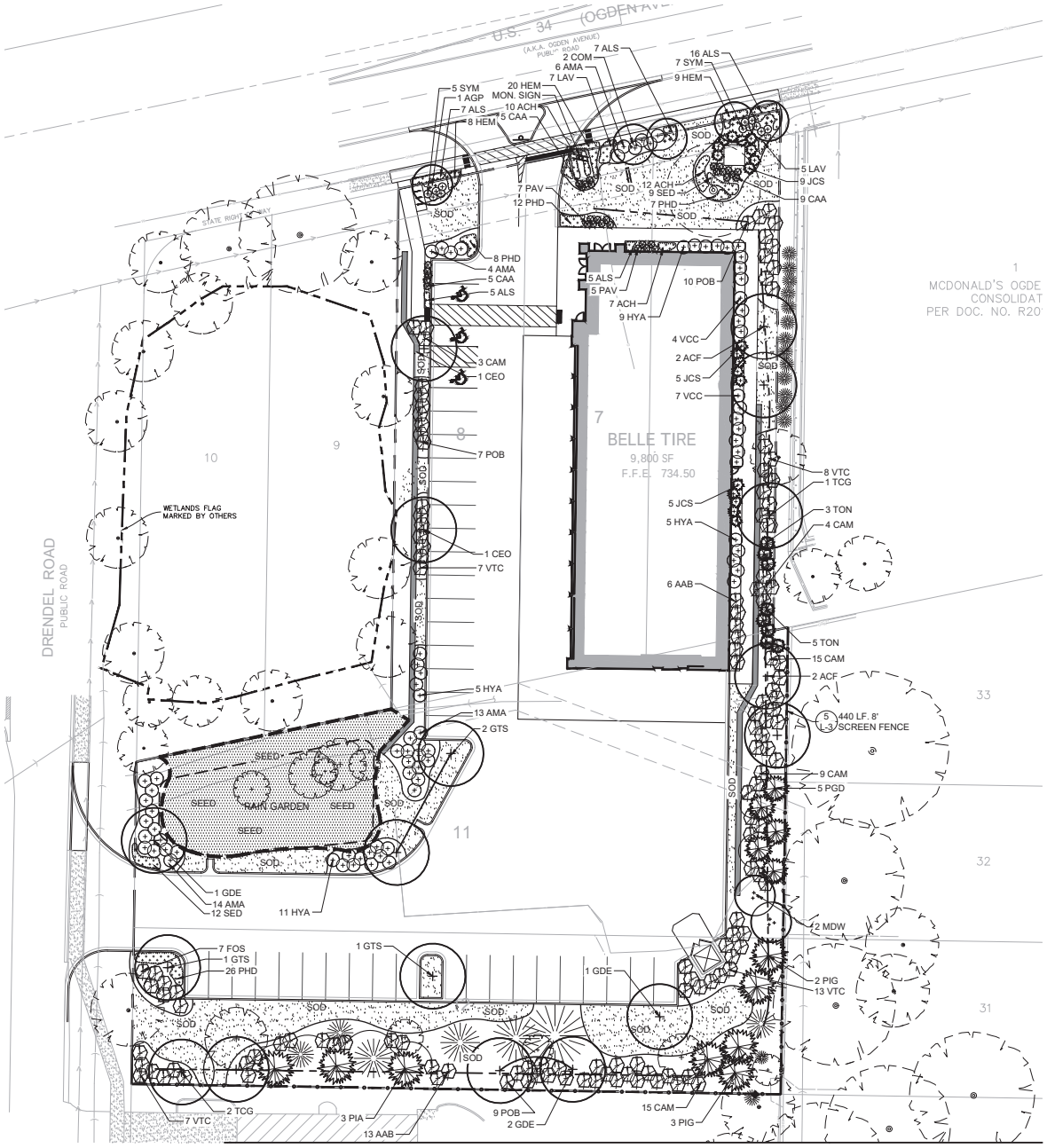
SODDED LAWN

NATIVE SEEDED RAIN GARDEN

PLANT LIST

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
ACF	2.5" CAL.	4	ACER FREEMANII 'SIENNA'	SIENNA GLEN MAPLE	B&B
CEO	2.5" CAL.	2	CELTIS OCCIDENTALIS	COMMON HACKBERRY	B&B
GDE	2.5" CAL.	4	GYMNOCLADUS DIOIC. 'ESPRESSO'	ESPRESSO KENTUCKY COFFEETREE	B&B
GTS	2.5" CAL.	4	GLEDITSIA TRI. 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B
TCG	2.5" CAL.	3	TILIA AMERICANA 'MCKSENTRY'	AMERICAN SENTRYLINDEN	B&B
ORNAMENTAL TREES					
AGP	4' MULTI	3	AMELANCHIER GRAN. 'PRINCESS DI'	PRINCESS DIANA SERVICEBERRY	B&B
COM	4' MULTI	2	CORNUS MAS	CORNELIANCHERRY DOGWOOD	B&B
MDW	4' MULTI	2	MALUS 'DONALD WYMAN'	DONALD WYMAN CRABAPPLE	B&B
EVERGREEN TREES					
PGD	6' HT.	5	PICEA GLAUCA 'DENSATA'	BLACK HILLS SPRUCE	B&B
PIA	6' HT.	3	PICEA ABIES	NORWAY SPRUCE	B&B
PIP	6' HT.	5	PICEA PUNGENS	COLORADO GREEN SPRUCE	B&B
TON	6' HT.	8	THUA OCCIDENTALIS 'NIGRA'	DARK GREEN ARBORVITAE	B&B
DECIDUOUS SHRUBS					
AAB	36" HT.	19	ARONIA ARBUT. 'BRILLIANTISSIMA'	BRILLIANT RED CHOKEBERRY	B&B
AMA	18" HT.	37	ARONIA MELANO. 'ELATA'	ELATA CHOKEBERRY	B&B
CAM	36" HT.	33	CORNUS ALBA 'ARGENTEO MARG.'	CREAM EDGE DOGWOOD	B&B
FOS	24" HT.	7	FORSYTHIA X INTERMED. 'SUNRISE'	SUNRISE FORSYTHIA	B&B
HYA	18" HT.	30	HYDRANGEA ARBOR. 'ANNABELLE'	ANNABELLE HYDRANGEA	B&B
POB	36" HT.	39	PYHSOCARPUS OPUL. 'DIABOLO'	DIABOLO NINEBARK	B&B
VCC	18" HT.	11	VIBURNUM CARLESII 'COMPACTUM'	DWARF KOREANSPICE VIBURNUM	B&B
VTC	36" HT.	35	VIBURNUM TRILOBUM 'ALFREDO'	ALFREDO AMER.CRANBERRY BUSH	B&B
EVERGREEN SHRUBS					
JCS	18" HT.	19	JUNIP. CHIN. 'SEA GREEN'	SEA GREEN JUNIPER	B&B
ORNAMENTAL GRASSES					
CAA	#1 CONT.	19	CALAMAGROSTIS ACUT. 'STRICTUS'	STRICTUS FEATHER REED GRASS	
PAV	#1 CONT.	12	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH RED SWITCH GRASS	
GROUNDCOVER / PERENNIALS					
ACH	#1 CONT.	29	ACHILLEA MILLE. 'PAPRIKA'	PAPRIKA YARROW	18" O.C.
ALS	#1 CONT.	40	ALLUM TANGUT. 'SUMMER BEAUTY'	SUMMER BEAUTY WILD OINION	18" O.C.
HEM	#1 CONT.	37	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	15" O.C.
LAV	#1 CONT.	12	LAVENDULA 'MUNSTEAD STRAIN'	MUNSTEAD ENGLISH LAVENDAR	24" O.C.
PHD	#1 CONT.	53	PHLOX DIVARICATA	BLUE PHLOX	15" O.C.
SED	#1 CONT.	21	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	18" O.C.
SOD	SQ. YD.	800	SODDED LAWN		
SEED	SQ. YD.	420	NATIVE SEEDED RAIN GARDEN - SEE BELOW		

NATIVE SEEDED RAIN GARDEN TO BE SEEDED WITH MOIST MEADOW - RAIN GARDEN MIX AVAILABLE THROUGH PRAIRIE NURSERY, WESTFIELD, WI. 1-800-476-9453. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND SEED RATES.



1 LANDSCAPE PLAN

N

SHEET SCALE 1"=20'
0' 10' 20' 40' 60'

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

LG Workshop LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

EXPIRES 08/2023

Belle Tire
Downers Grove, IL

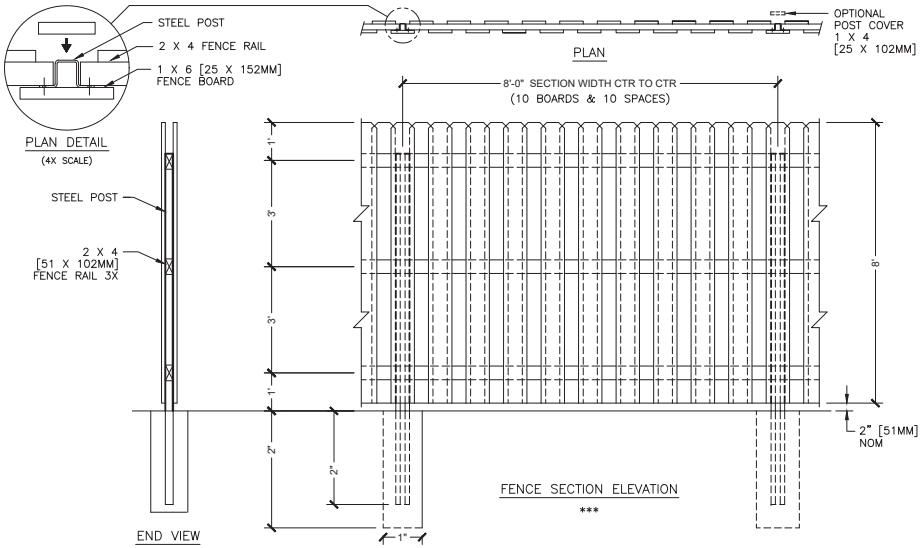
2539 Ogden Avenue
Downers Grove, IL 60515

Issued for:
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

Project Number
21-350

LANDSCAPE PLAN
PROJECT SITE

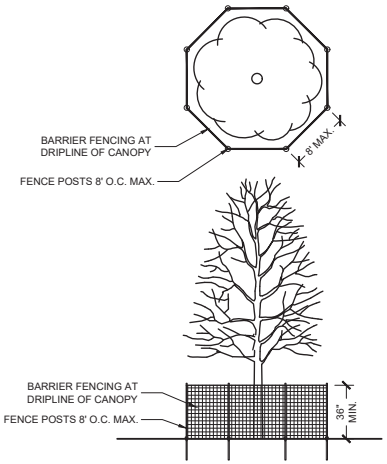
Sheet Number
L.2



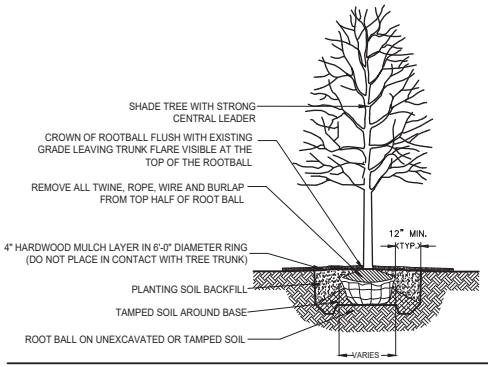
5 8' HEIGHT SHADOWBOX FENCE DETAIL — NOT TO SCALE

LANDSCAPE NOTES

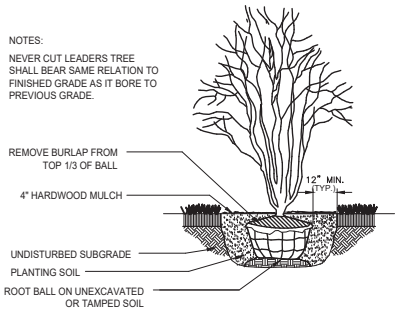
1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL PERMITS AND PERMISSIONS TO INSTALL THE PROPOSED IMPROVEMENTS
2. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE VILLAGE OF BRADLEY LANDSCAPING CODES AND ZONING ORDINANCES.
3. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL HAVE DIGGERS HOTLINE LOCATE AND MARK ALL UNDERGROUND UTILITY FACILITIES AND LINES.
4. ALL PLANT MATERIALS (EXCEPT FOR GROUNDCOVER, ANNUALS, AND PERENNIALS) SHALL BE BALLED AND BURLAPPED STOCK AND MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK (ANSI 260.1-1986) OR EQUAL. PLANT MATERIALS MUST BE SUPPLIED WITHIN A 150 MILE RADIUS OF PROJECT SITE WITHIN NORTHEAST ILLINOIS. CONTRACTOR MAY SUBSTITUTE CONTAINER STOCK FOR SHRUBS IF SIZES ARE EQUAL TO SPECIFIED B&B STOCK, WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, PLANTS WITH SIMILAR WHOLESALE VALUE AND LANDSCAPE CHARACTERISTICS MAY BE SUBSTITUTED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT AND VILLAGE STAFF.
6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE TOP 4 INCHES OF SOIL.
7. DISTURBED AREAS TO RECEIVE SOD SHALL BE TILLED TO 6" DEPTH AND FINE GRADED TO PROVIDE SMOOTH BASE SURFACE. IF EXISTING SOIL IS A MAJORITY OF CLAY OR UNSUITABLE, 4" OF FINE GRADED TOPSOIL SHALL BE ADDED PRIOR TO TILLING. EXISTING SOD AREAS SHALL HAVE TURF REMOVED WITH AUTOMATED SODCUTTER OR HAND SPACE TO REMOVE ALL BLADES AND ROOTS. 1" OF FIND GRADED TOPSOIL SHALL BE TILLED AND GRADED.
8. TREE AND SHRUB BACKFILL MIXTURE SHALL BE 2 PARTS EXIST. NATIVE TOPSOIL AND 1 PART SPHAGNUM PEAT MOSS W/ DECOMPOSED MANURE.
9. ALL SHRUB BEDS AND GROUNDCOVER BEDS TO BE MULCHED WITH A MINIMUM OF 3 INCHES OF CLEAN DOUBLE SHREDDED BARK MULCH, COLOR BLACK, OVER A 4.1 OZ.., WOVEN POLYPROPYLENE, NEEDLE-PUNCHED FABRIC WEED BARRIER, EXCEPT UNDER PERENNIAL AND ANNUAL FLOWERS.
10. NURSERY TAGS (SPECIES, SIZE) FOR ALL SHADE TREES SHALL REMAIN ATTACHED TO TREES UNTIL FINAL APPROVAL FROM MUNICIPALITY.
11. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT (BEGINNING ON THE OWNER'S POSSESSION DATE). THIS AGREEMENT SHALL COVER MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL DEAD OR DAMAGED LANDSCAPING TO PRESERVE THE SAME QUANTITY AND QUALITY AS INITIALLY APPROVED.
12. SITE TO BE 100% IRRIGATED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM THAT IS DESIGN BUILD BY CONTRACTOR. CONTRACTOR SHALL UTILIZE HUNTER HYDROWISE MODEL -PHC WIFI IRRIGATION TIMERS.
13. TREES AND SHRUBS SHALL NOT BE LOCATED CLOSER THAN FIFTEEN (15) FEET TO STREETLIGHT, UTILITY POLE, OVERHEAD WIRES, FIRE HYDRANT, DRIVEWAY, OR ALLEY. ANY DISCREPANCY ON THE PLAN RELATED TO THESE PROXIMATE UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.



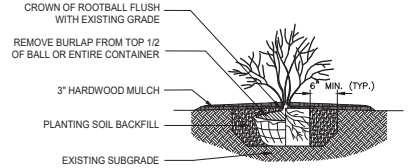
6 TREE PRESERVATION FENCING DETAIL — NOT TO SCALE



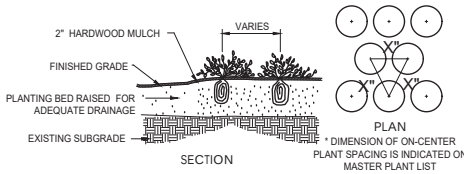
1 SHADE TREE PLANTING DETAIL — NOT TO SCALE



2 ORNAMENTAL TREE PLANTING DETAIL — NOT TO SCALE



3 SHRUB PLANTING DETAIL — NOT TO SCALE



4 PERENNIAL / ANNUAL PLANTING DETAIL — NOT TO SCALE

CHRISTOPHER ENRIGHT ARCHITECTS
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

LG Workshop LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

EXPIRES 08/2023

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

Issued for:
2022.09.30 - PERMIT SUBMITTAL
2022.11.30 - PERMIT RESUBMITTAL
2023.01.27 - PERMIT RESUBMITTAL

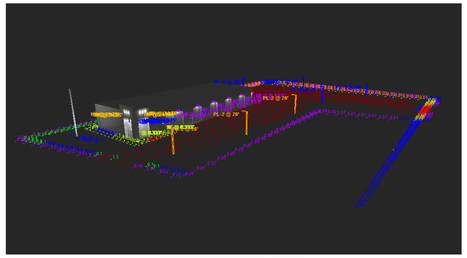
Project Number: 21-350

LANDSCAPE DETAILS & NOTES

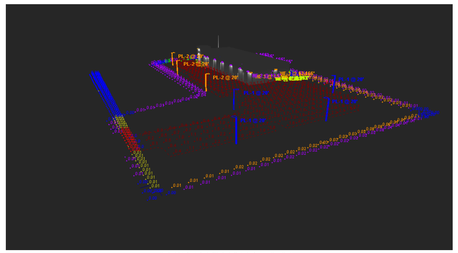
Sheet Number: L.3

Luminaire Locations

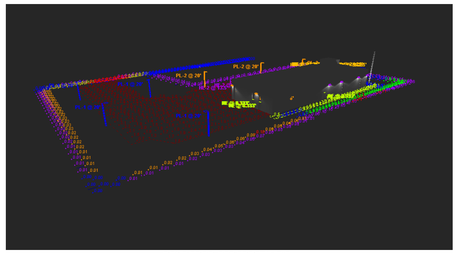
		Location						Aim	
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
34	HB	174.18	307.34	18.15	18.15	2.29	0.00	174.18	307.34	0.00
35	HB	177.80	307.39	18.15	18.15	2.29	0.00	177.80	307.39	0.00
39	HK	171.44	309.92	24.23	24.25	0.51	-50.53	171.27	291.20	8.82
40	HK	173.97	309.88	24.23	24.25	0.51	-50.53	173.81	291.16	8.82
41	HK	176.43	309.85	24.23	24.25	0.51	-50.53	176.26	291.14	8.82
42	HK	163.85	297.36	24.23	24.25	270.43	-50.53	182.57	297.21	8.82
43	HK	163.89	299.89	24.23	24.25	270.43	-50.53	182.61	299.75	8.82
44	HK	163.91	302.35	24.23	24.25	270.43	-50.53	182.63	302.21	8.82
45	HJ	210.62	327.43	1.01	1.00	256.09	-165.42	210.86	327.49	1.98
46	HJ	223.11	330.70	1.01	1.00	74.56	-165.42	222.86	330.64	1.98
47	RE	204.79	144.85	8.33	8.33	359.79	0.00	204.79	144.85	0.00
48	RE	206.15	144.86	8.33	8.33	359.79	0.00	206.15	144.86	0.00
49	RE	195.12	144.92	8.33	8.33	0.20	0.00	195.12	144.92	0.00
50	RE	196.47	144.91	8.33	8.33	0.20	0.00	196.47	144.91	0.00
51	RE	164.83	279.84	8.33	8.33	359.01	0.00	164.83	279.84	0.00
52	RE	166.19	279.86	8.33	8.33	359.01	0.00	166.19	279.86	0.00
53	RE	173.24	306.35	8.33	8.33	359.69	0.00	173.24	306.35	0.00
54	RE	174.59	306.35	8.33	8.33	359.69	0.00	174.59	306.35	0.00
55	RE	224.48	222.21	8.33	8.33	89.35	0.00	224.48	222.21	0.00
56	RE	224.50	220.85	8.33	8.33	89.35	0.00	224.50	220.85	0.00
57	PL-2	122.54	308.83	20.00	20.00	92.01	0.00	123.54	308.80	0.00
58	PL-2	105.03	241.47	20.00	20.00	92.01	0.00	106.03	241.43	0.00
59	PL-2	103.90	148.29	20.00	20.00	92.01	0.00	104.90	148.26	0.00
60	PL-1	99.63	78.85	20.00	20.00	123.34	0.00	100.47	78.30	0.00
62	PL-1	63.20	14.61	20.00	20.00	0.97	0.00	63.21	15.61	0.00
63	PL-1	153.53	13.94	20.00	20.00	0.00	0.00	153.53	14.94	0.00
64	PL-1	225.18	71.33	20.00	20.00	270.00	0.00	224.18	71.33	0.00
65	HB	166.53	296.25	18.15	18.15	275.03	0.00	166.53	296.25	0.00
66	HB	166.67	299.71	18.15	18.15	275.03	0.00	166.67	299.71	0.00
67	HB	166.79	303.33	18.15	18.15	275.03	0.00	166.79	303.33	0.00
68	HE-2	162.26	271.24	16.50	13.50	269.71	0.00	162.26	271.24	3.00
70	HE-2	160.53	147.21	16.50	13.50	269.71	0.00	160.53	147.21	3.00
71	HE-2	225.02	284.57	15.17	12.17	90.18	0.00	225.02	284.57	3.00
72	HE-2	224.56	250.49	15.17	12.17	89.87	0.00	224.56	250.49	3.00
73	HE-2	224.17	228.91	15.17	12.17	90.78	0.00	224.17	228.91	3.00
75	HE-2	225.40	303.47	15.17	12.17	91.44	0.00	225.40	303.47	3.00
80	HE-2	162.06	167.57	16.50	13.50	270.29	0.00	162.06	167.57	3.00
81	HE-2	162.41	191.21	16.50	13.50	270.96	0.00	162.41	191.21	3.00
82	HE-2	162.81	215.25	16.50	13.50	270.14	0.00	162.81	215.25	3.00
83	HE-2	163.14	238.80	16.50	13.50	271.20	0.00	163.14	238.80	3.00
84	HE-2	163.40	263.94	16.50	13.50	270.02	0.00	163.40	263.94	3.00
85	HE-3	200.44	144.83	15.17	12.17	181.10	0.00	200.44	144.83	3.00
87	HE-3	162.54	145.09	15.17	12.17	182.06	0.00	162.54	145.09	3.00
33	HB	170.72	307.32	18.15	18.15	2.29	0.00	170.72	307.32	0.00



RENDERED PERSPECTIVE VIEW



RENDERED PERSPECTIVE 2



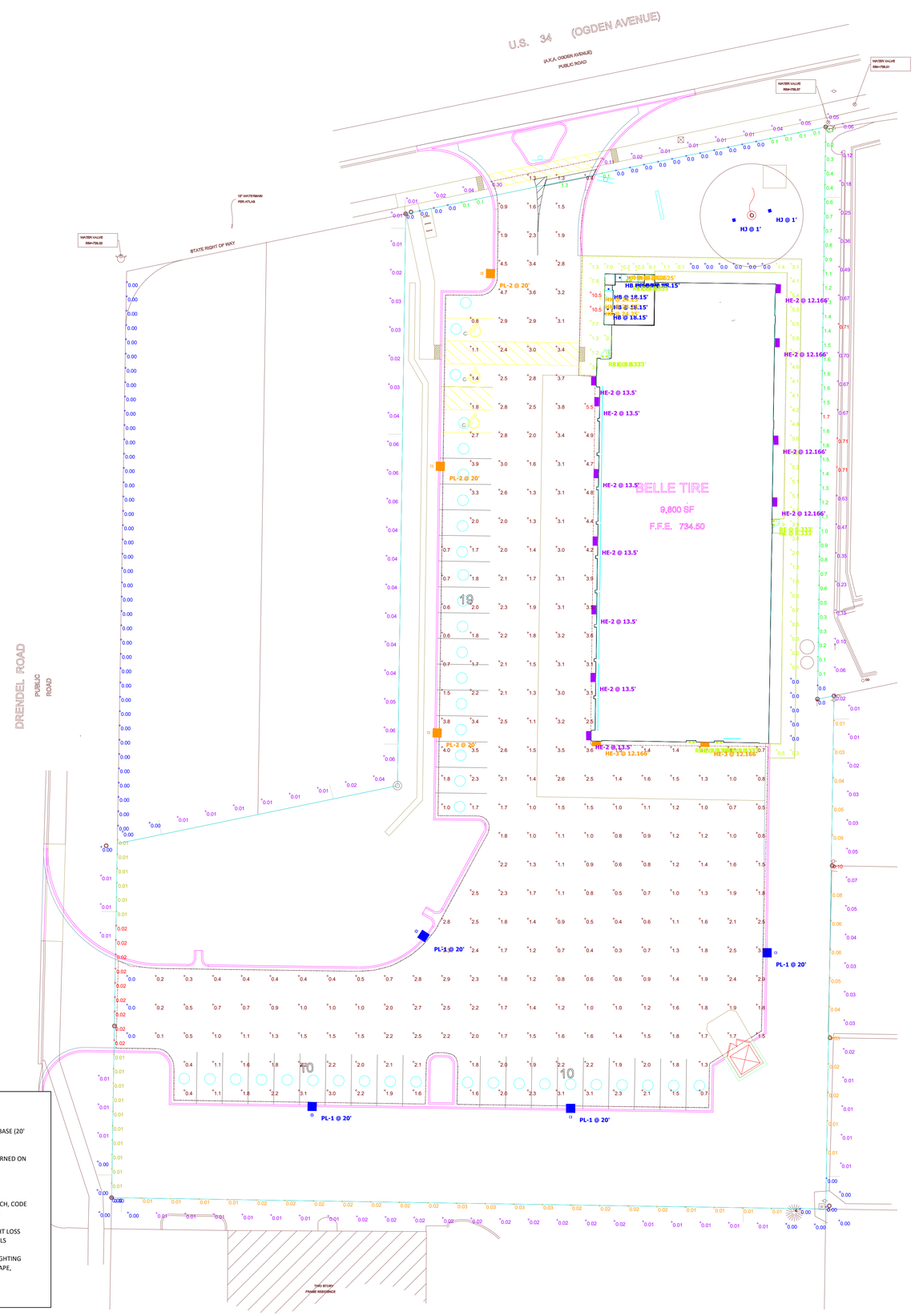
RENDERED PERSPECTIVE 3

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
COMMERCIAL LOT LINE	+	0.6 fc	1.7 fc	0.0 fc	N/A	N/A
E & S RESI ADJACENT LOT LINE	+	0.03 fc	0.10 fc	0.00 fc	N/A	N/A
PARKING & CIRCULATION	+	1.8 fc	5.5 fc	0.0 fc	N/A	N/A
SIDEWALK	+	3.1 fc	10.5 fc	0.0 fc	N/A	N/A
W. RESI ADJACENT LOT LINE	+	0.01 fc	0.02 fc	0.00 fc	N/A	N/A
5 FOOT LINE	+	0.09 fc	0.71 fc	0.00 fc	N/A	N/A

Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power	Polar Plot
	HB		6	WILLIAMS INDOOR	6DR-TL-L20-835-DIM-UNV-DW-OF-CS-WET-CC	6" RND RECESSED LED CAST HOUSING DOWNLIGHT OPEN SEMI-SPEC SPUN ALUMINUM REFLECTOR (WIDE)	1	1699	0.9	19	Max: 1613cd
	HE-2		11	NLS Lighting LLC	NV-W-T2-16L-35-40K-UNV	LED LUMINAIRE	1	2620	0.9	19	Max: 3203cd
	HE-3		2	NLS Lighting LLC	NV-W-T4-16L-35-40K-UNV	LED LUMINAIRE	1	2617	0.9	19	Max: 1905cd
	HJ		2	NLS LIGHTING	NV-F2-30-32L-80W-40K	LED LUMINAIRE, 30Â° NEMA-800mA	1	9657	0.9	80	Max: 18708cd
	HK		6	Troy CSL Lighting Inc	LBLED	LS SERIES LED BULLET 25DEG	1	739	0.9	14	Max: 3896cd
	PL-1		4	NLS Lighting	NV-1-T4-48L-7-40K-UNV--HSS	T4 OPTICS WITH BLACK HSS	1	6866	0.9	104	Max: 7268cd
	PL-2		3	NLS Lighting LLC	NV-1-T3-48L-7-40K-UNV--HSS	NV SERIES WITH T3 OPTICS, BLACK HOUSE SIDE SHIELD	1	6971	0.9	104	Max: 10953cd
	RE		0	BEST LIGHTING	LED R1 12 LED	MOLDED WHITE PLASTIC HOUSING, TWO MOLDED WHITE PLASTIC SWIVEL HEAD ASSEMBLIES, EACH HEAD ASSEMBLY CONSISTS OF: MOLDED WHITE PLASTIC HOUSING, ONE CIRCUIT BOARD WITH 12 LEDS, MOLDED PLASTIC REFLECTOR WITH SPECULAR FINISH AND ONE APERTURE PER LED, CLEAR PRISMATIC PLASTIC LENS. ONLY ONE HEAD ASSEMBLY ENERGIZED FOR THIS TEST.	12	5	1	0.788	Max: 107cd



NOTES

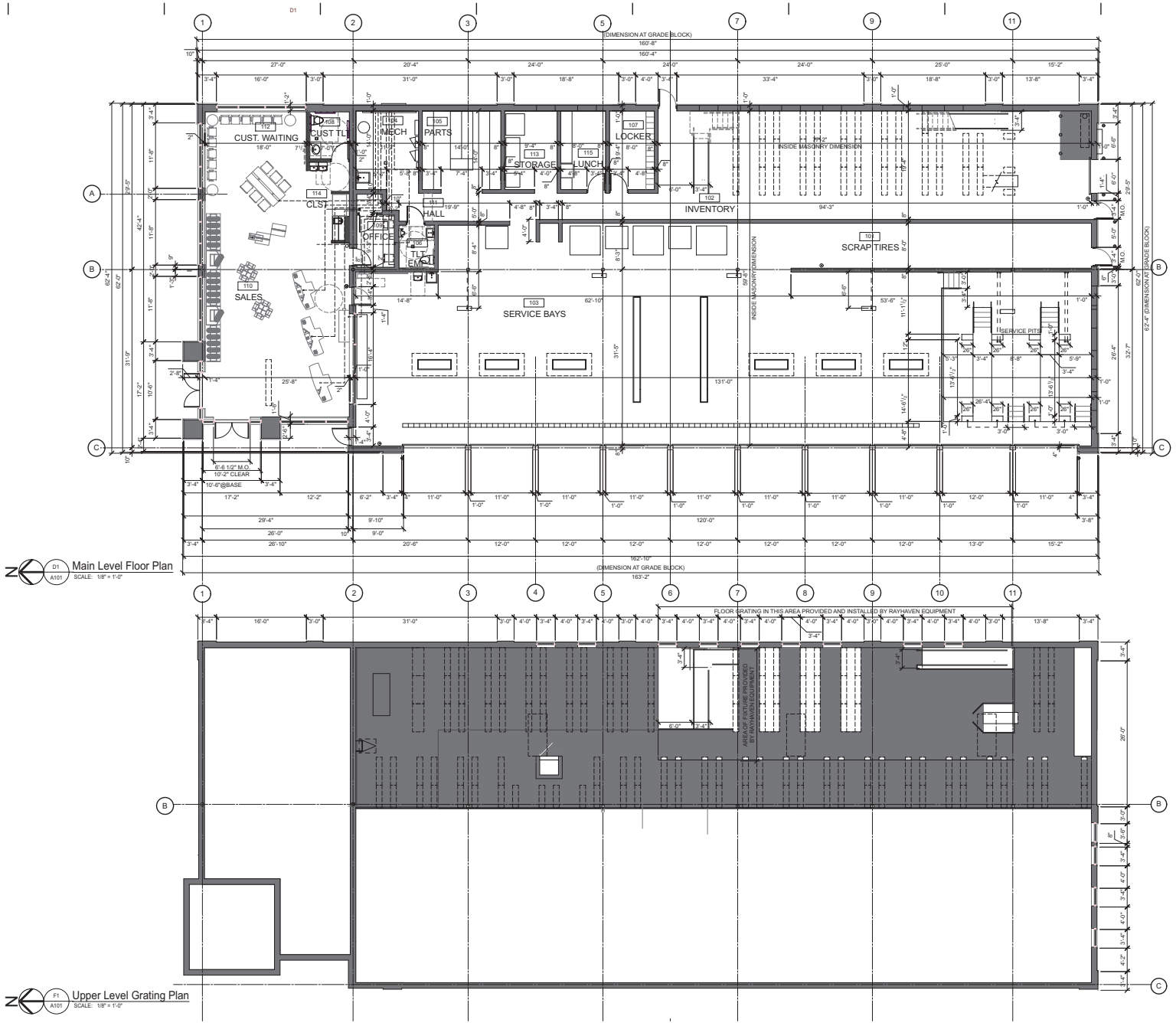
1. POLE MOUNT LUMINAIRES ARE INTENDED TO BE PLACED ON TOP OF 3'-0" TALL PIER BASE (20' OVERALL HEIGHT). PIER BASES OMITTED IN STUDY.
2. TYPE RE REMOTE EMERGENCY HEADS ARE SHOWN FOR REFERENCE, BUT ARE NOT TURNED ON IN NORMAL CALCULATIONS
3. CALCULATION GRID POINTS SET AT 10'-0" O.C.
4. PRO-TECH IS NEITHER LICENSED NOR INSURED TO CERTIFY CODE COMPLIANCE. AS SUCH, CODE COMPLIANCE REVIEW AND CERTIFICATION IF REQUIRED, TO BE PROVIDED BY OTHERS
5. OBSTRUCTIONS, CHANGES TO REFLECTANCE VALUES, FIXTURE TYPE, LOCATIONS, LIGHT LOSS FACTORS, LUMEN OUTPUT OR DIMENSIONAL DATA WILL AFFECT ILLUMINATION LEVELS
6. PHOTOMETRIC MODELS ARE A MATHEMATICAL APPROXIMATION OF REAL-WORLD LIGHTING APPLICATION RESULTS AND CANNOT ACCOUNT FOR VAIRANCES IN TERRAIN, LANDSCAPE, OBSTRUCTIONS OR ATMOSPHERIC CONDITIONS

PRO-TECH LIGHTING & CONTROLS

BELLE TIRE
DOWNERS GROVE, IL
PREPARED FOR ENRIGHT ARCHITECTS

Designer
KI
Date
03/01/2023
Scale
1" = 20'
Drawing No.

Summary
SITE LIGHTING



D1 A101 Main Level Floor Plan
SCALE: 1/8" = 1'-0"

F1 A101 Upper Level Grating Plan
SCALE: 1/8" = 1'-0"

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Floor Plan

Issued for

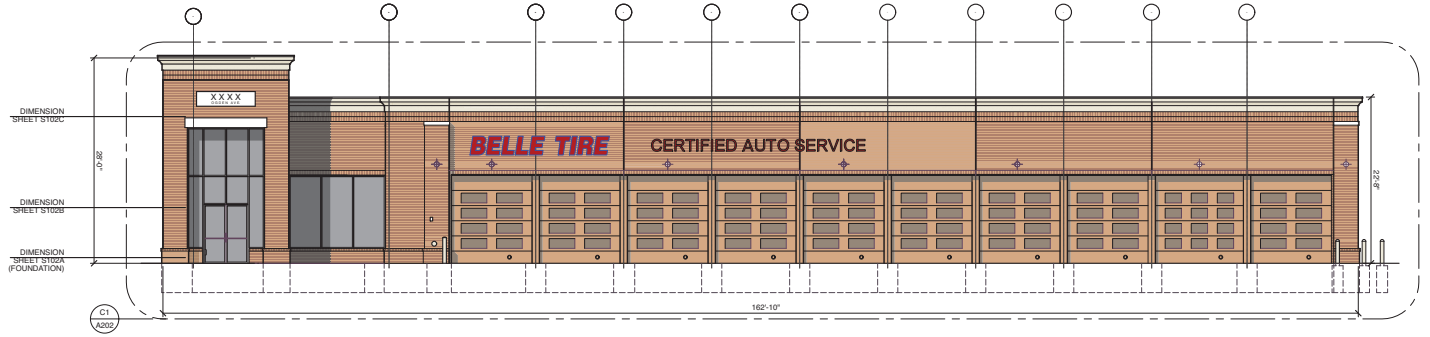
Village Submittal: September 30, 2022

Project Number

21-350

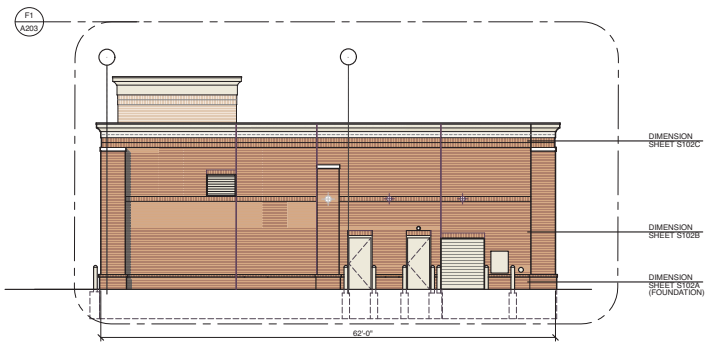
Sheet Number

A101

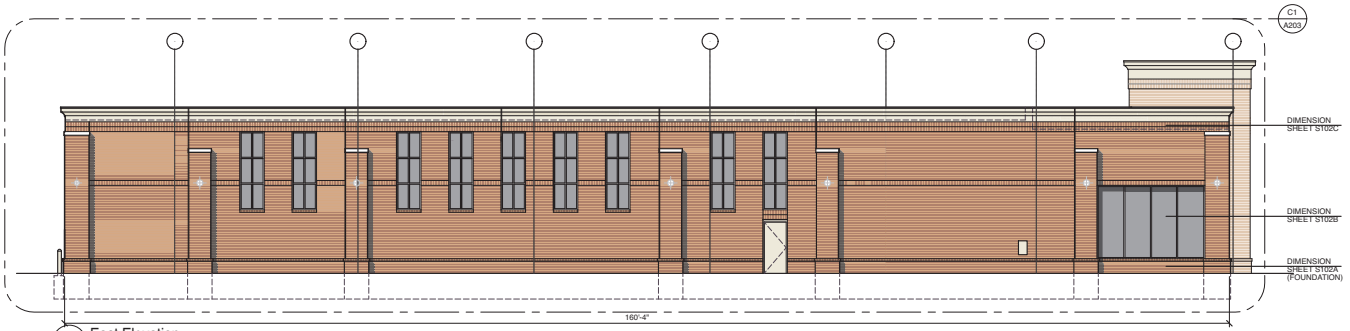


B1 A201 West Elevation
SCALE: 1/8" = 1'-0"

D1 A201 North Elevation
SCALE: 1/8" = 1'-0"



D5 A201 South Elevation
SCALE: 1/8" = 1'-0"



F1 A201 East Elevation
SCALE: 1/8" = 1'-0"

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR – FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECTS APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION
628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project
Belle Tire
Downers Grove, IL

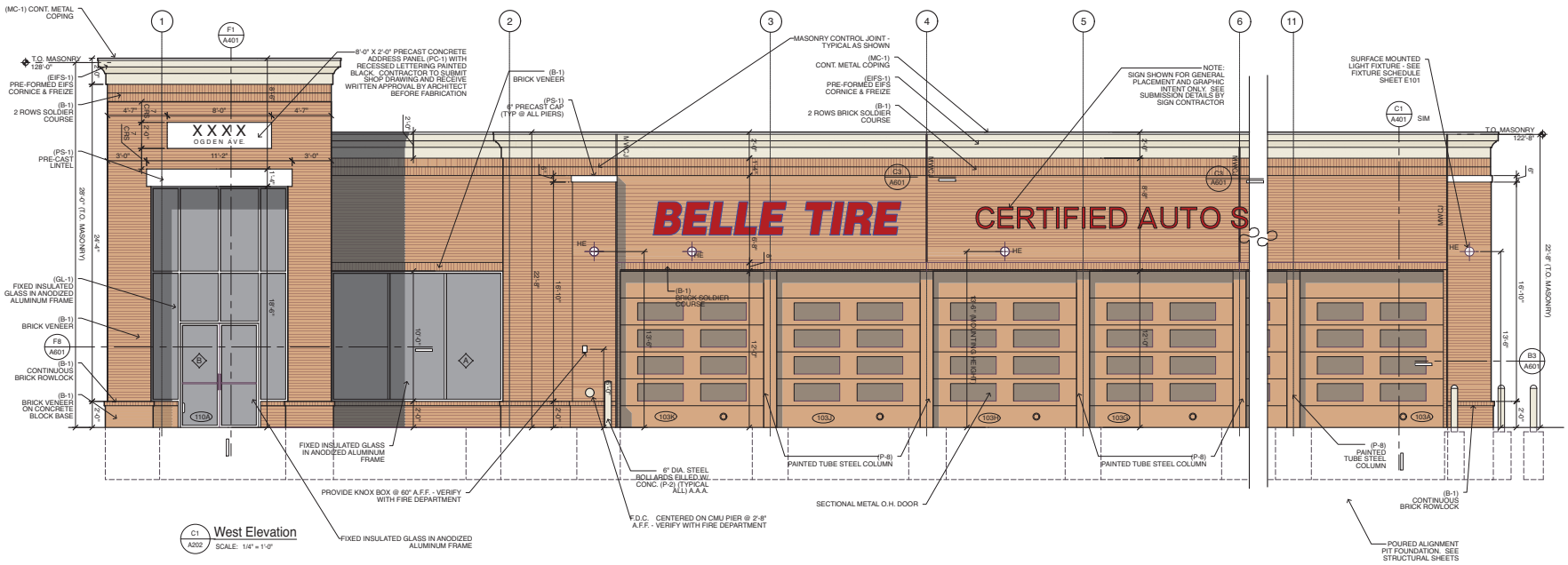
XXXX Ogden Ave.
Downers Grove IL
60515

Sheet
Building Elevations

Issued for
Village Submittal: September 30, 2022

Project Number
21-350

Sheet Number
A201



MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR – FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW ⅛" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECTS APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Building Elevations

Issued for

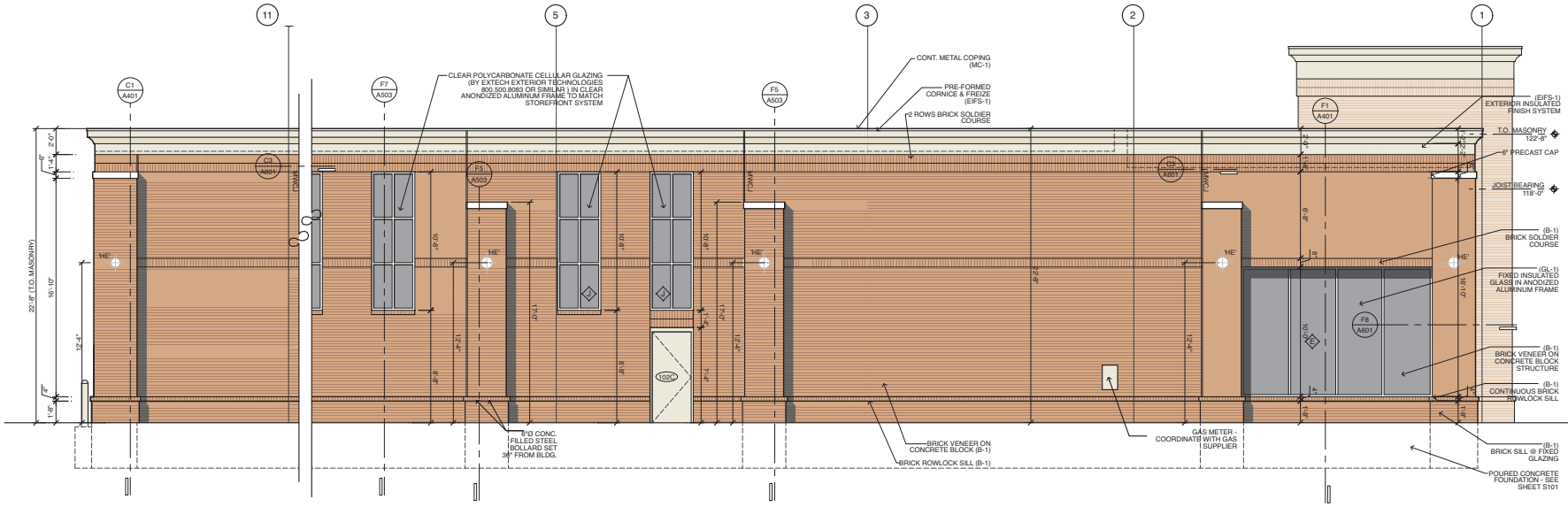
Village Submittal: September 30, 2022

Project Number

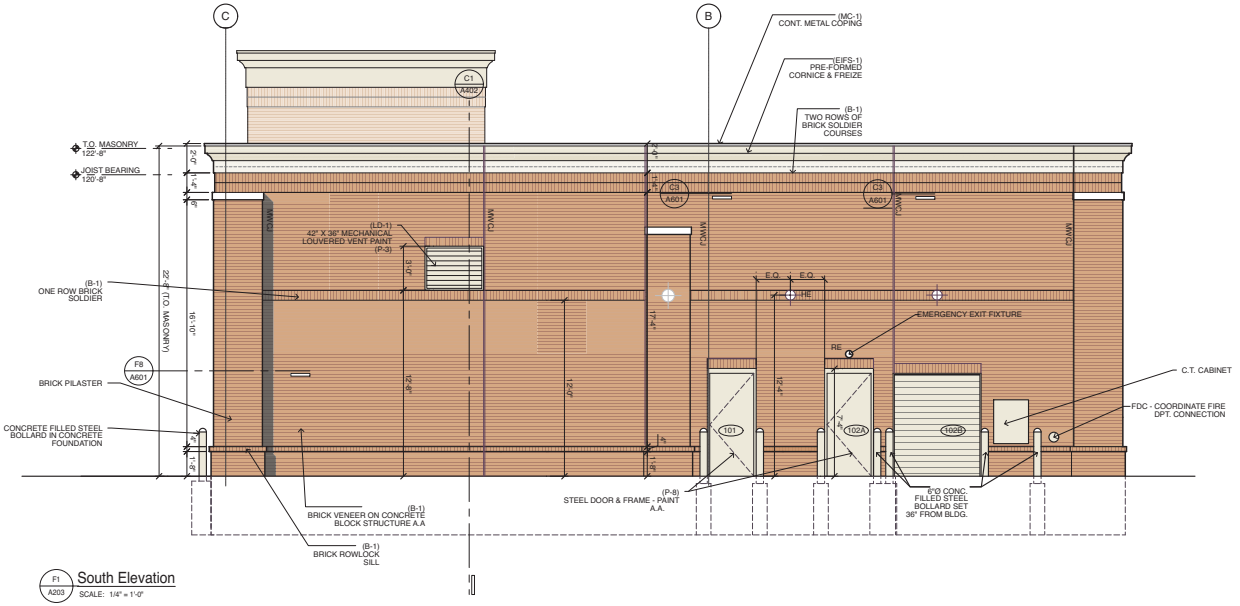
21-350

Sheet Number

A202



C1 / A203 East Elevation
SCALE: 1/4" = 1'-0"



F1 / A203 South Elevation
SCALE: 1/4" = 1'-0"

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR – FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECTS APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Building Elevations

Issued for

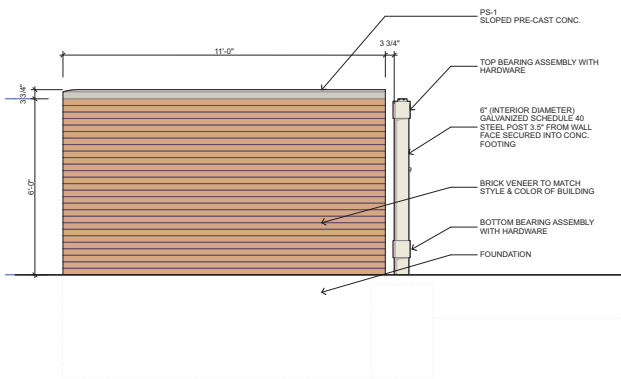
Village Submittal: September 30, 2022

Project Number

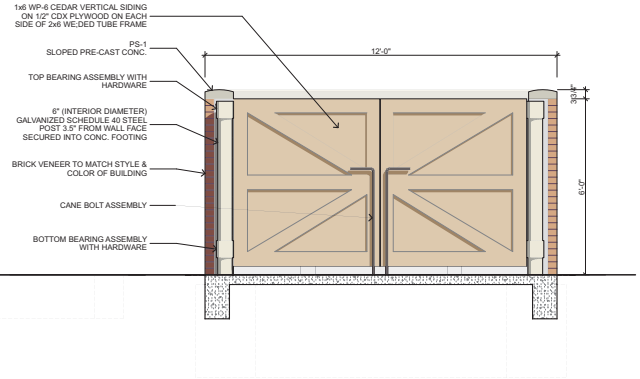
21-350

Sheet Number

A203



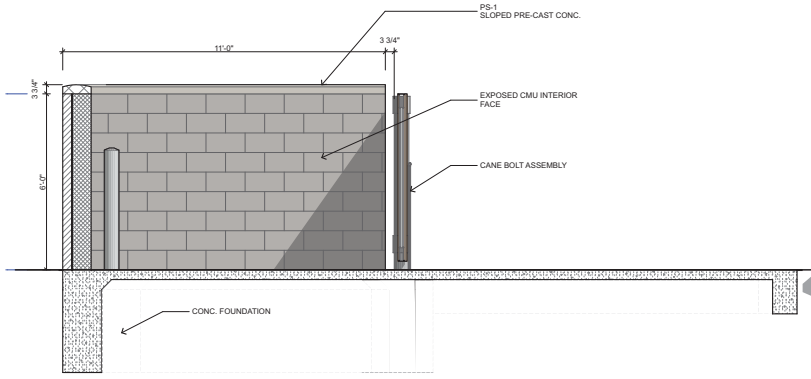
C1 A204 **Side Elevation**
SCALE: 1/2" = 1'-0"



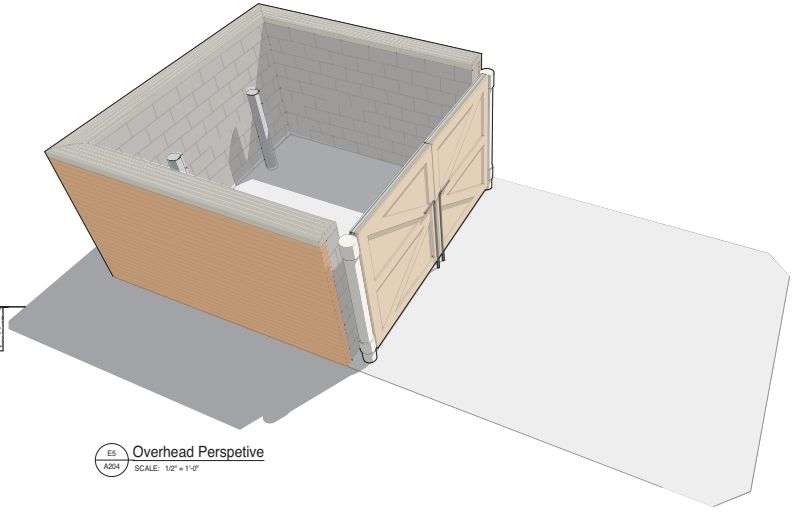
C5 A204 **Front Elevation**
SCALE: 1/2" = 1'-0"

MATERIALS:

MARK	MATERIAL	DESCRIPTION
EIFS-1	E.I.F.S.	STO-STOLIT 1.0 MOONLIT SAND 10611-64
B-1	FACE BRICK	HEARTLAND WOODBURY BY GLEN-GERY BRICK CO.
GB-1	GLAZED BLOCK	TRENWYTH ASTRA-GLAZE-SW + SERIES -COLOR = FIRESTONE RED
GL	GLAZING SYSTEM	GLAZING: 1" INSUL. - PPG SOLARBRAND 60 SOLAR CONTROL LOW "E" CLEAR, LOW REFLECTIVE INSULATING GLASS - IN CLEAR ANODIZED FRAMING SYSTEM SERIES 200 BY TUBELIGHT CORP. PROVIDE TEMPERED GLASS AS REQUIRED
MC-1	COPING	DURO-LAST 2 PIECE SNAP-ON METAL FASCIA - KYNAR FINISH - COLOR TO MATCH EIFS
PS-1	COPING	PRE-CAST CONCRETE STONE - BUFF SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL
P-1	PAINT	#2333 CAPE COD GREY - INDUSTRIAL ENAMEL PRATT & LAMBERT / #7666 GRAY MATTERS SHERWIN WILLIAMS
P-2	PAINT	GRENADIER RED - PRATT & LAMBERT
P-3	PAINT	PAINT TO MATCH EIFS
P-4	PAINT	DRYFALL - BRILLIANT WHITE
P-5	PAINT	GENERAL WHITE - INDUSTRIAL ENAMEL PRATT & LAMBERT
P-7	PAINT	BLACK SEMI-GLOSS - ALL MANUFACTURERS
P-8	PAINT	HC-75 MARYVILLE BROWN



E1 A204 **Section**
SCALE: 1/2" = 1'-0"



E5 A204 **Overhead Perspetive**
SCALE: 1/2" = 1'-0"

Seal

CHRISTOPHER ENRIGHT ARCHITECTS
A PROFESSIONAL CORPORATION

628 Parent Avenue
Suite 100
Royal Oak, MI 48067
TEL: 248.330.9395
cenright@enrightarchitects.com

Consultant

Project

Belle Tire
Downers Grove, IL

XXXX Ogden Ave.
Downers Grove IL
60515

Sheet

Dumpster

Issued for

Village Submittal: September 30, 2022

Project Number

21-350

Sheet Number

A204

Traffic Impact Study
Proposed Belle Tire

Downers Grove, Illinois

Prepared For:

Enright Architects

Kenig, Lindgren, O'Hara, Aboona, Inc.

January 23, 2023

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Belle Tire to be located in Downers Grove, Illinois. The site is located at 2539 Ogden Avenue and is proposed to be developed with an approximate 9,800 square-foot building to be occupied by Belle Tire. Access to the site, which will provide 39 parking spaces, is proposed via a restricted access drive off Ogden Avenue and a full movement access drive off Drendel Road.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

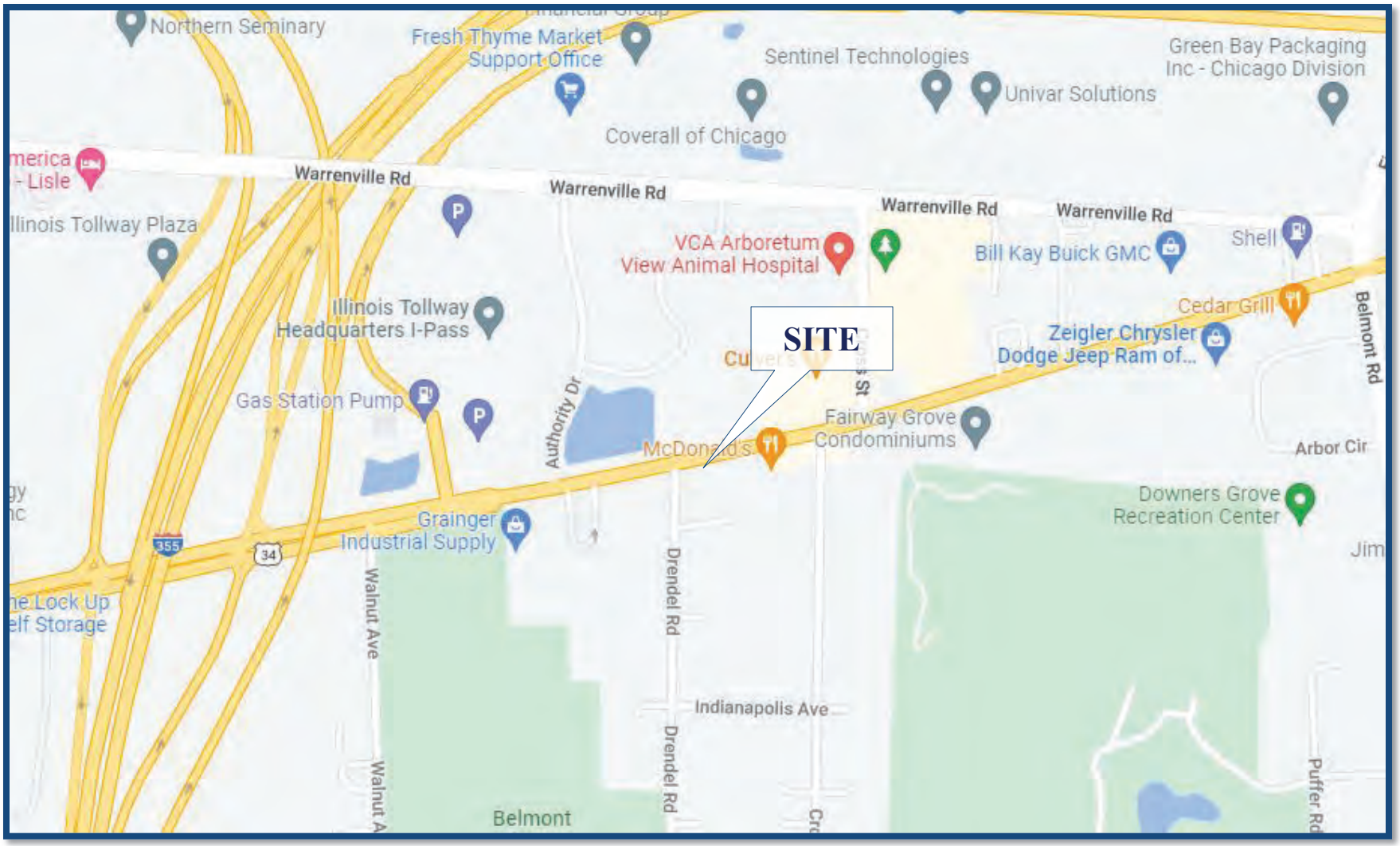
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening, and Saturday midday peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the adequacy of the parking supply

Traffic capacity analyses were conducted for the weekday morning, weekday evening, and Saturday midday peak hours for the following conditions:

1. Base Conditions - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area adjusted to reflect normal conditions.

2. No-Build Conditions - Analyzes the capacity of the future roadway system using base peak hour traffic volumes increased by an ambient area growth factor (growth not attributable to any particular development). In addition, traffic that will be generated by the proposed hotel/restaurant development to be located at the intersection of Ogden Avenue with Walnut Avenue was also included to the no-build traffic conditions.

3. Projected Conditions – Analyzes the projected traffic volumes which include the base traffic volumes, the background traffic volumes, and the traffic estimated to be generated by the proposed subject development.



Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site is located at 2539 Ogden Avenue in Downers Grove. Land uses in the vicinity of the site are primarily commercial including a McDonald`s restaurant to the east, Culver`s and InTown Suites Extended Stay to the north, and Hertz Car Rental to the west.

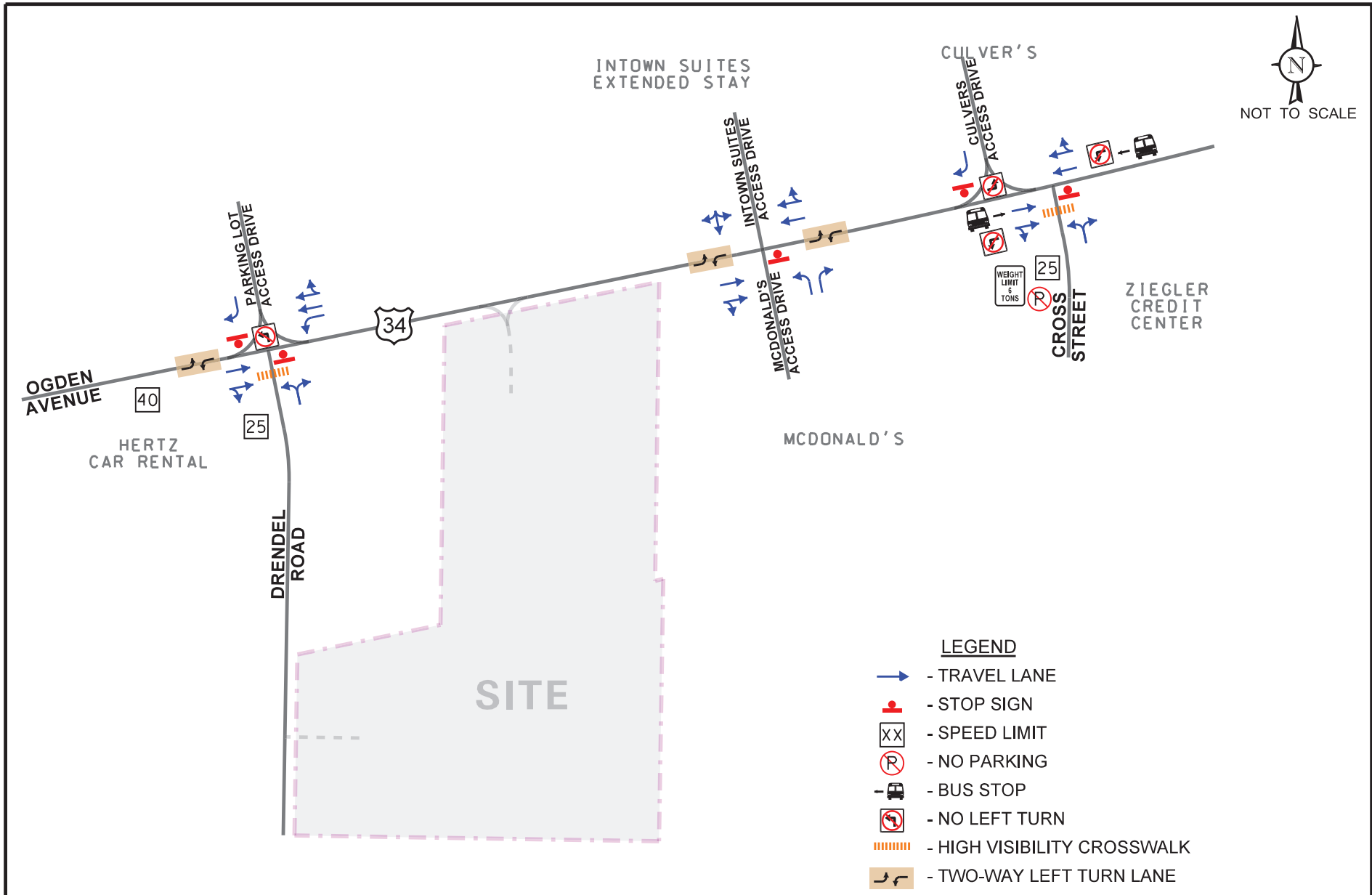
Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**.

Ogden Avenue (US 34) is an east-west other principal arterial roadway that provides two through lanes in each direction. At its unsignalized intersection with Drendel Road, Ogden Avenue provides a through lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with the McDonald`s/InTown Suites Extended Stay access drives, Ogden Avenue provides a through lane and a shared through/right-turn lane on the eastbound and westbound approaches with left-turn movements accommodated via the existing two-way left-turn lane. Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an Average Annual Daily Traffic (AADT) volume of 27,700 vehicles (IDOT 2021), and has a posted speed limit of 40 miles per hour in the vicinity of site.

Drendel Road is a north-south local road that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Ogden Avenue/parking lot access drive, Drendel Road provides a shared left-turn/right-turn lane on the northbound approach under stop sign control. A high visibility crosswalk is provided on the south leg. The access drive that forms the north leg of this intersection is restricted to right-in/right out movements only. Drendel Road is under the jurisdiction of the Village of Downers Grove and has a posted speed limit of 25 miles per hour.

Cross Street is a north-south local road that provides one lane in each direction in the vicinity of the site. At its unsignalized intersection with Ogden Avenue/Culver`s access drive, Cross Street provides a shared left-turn/right-turn lane on the northbound approach that is under stop sign control. A high visibility crosswalk is provided on the south leg. The Culver`s restaurant, located on the north side of Ogden Avenue, has a restricted right-in/right-out access drive. Cross Street is under the jurisdiction of the Village of Downers Grove and has a posted speed limit of 25 miles per hour.



Belle Tire
Downers Grove, Illinois

Existing Roadway Characteristics

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 3

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle, pedestrian, and bicycle traffic counts using Miovision Video Scout Collection Units on Thursday, September 1, 2022 during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods and on Saturday, September 24, 2022 during the midday peak period (12:00 P.M. to 2:00 P.M.) at the following intersections:

- Ogden Avenue with Drendel Road/parking lot access drive
- Ogden Avenue with McDonald`s access drive/InTown Suites Extended Stay access drive
- Ogden Avenue with Cross Street/Culver`s access drive

The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M., the weekday evening peak hour of traffic occurs from 4:15 P.M. to 5:15 P.M., and the Saturday midday peak hour of traffic occurs from 12:30 P.M. to 1:30 P.M.

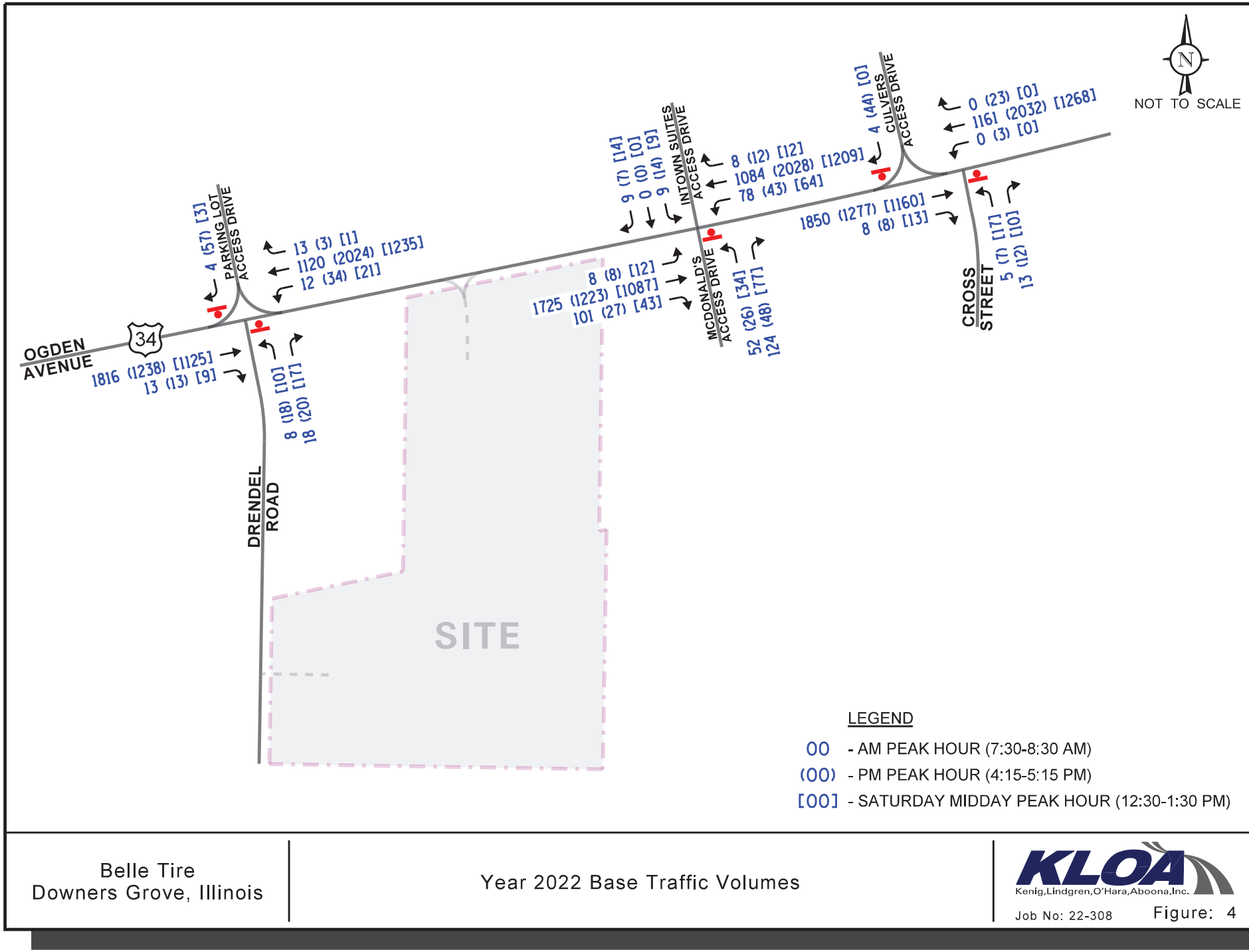
To ensure the traffic counts reflect normal traffic conditions, the Year 2022 traffic counts were compared with previous count data conducted in the area along Ogden Avenue. The results of the comparison showed that the 2022 traffic volumes were approximately 30 percent lower during all three peak hours. As such, the 2022 traffic volumes were increased accordingly.

Figure 4 illustrates the Year 2022 base peak hour traffic volumes. Summaries of the traffic counts are included in the Appendix.

Crash Analysis

KLOA, Inc. obtained crash data[1] from IDOT for the most recent available five years (2017 to 2021) for the intersections of Ogden Avenue with Drendel Road, Ogden Avenue with the McDonald`s access drive, and Ogden Avenue with Cross Street. The crash data for these intersections are summarized in **Tables 1** through **3**. A review of the crash data indicated that no fatalities were reported at any of these intersections during the studied period.

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.



Belle Tire
Downers Grove, Illinois

Year 2022 Base Traffic Volumes

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 4

Table 1
OGDEN AVENUE WITH DRENDEL ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	1	0	1
2021	0	0	1	0	0	1	0	2
Total	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**3**
Average	**--**	**--**	**<1.0**	**--**	**--**	**<1.0**	**--**	**<1.0**

Table 2
OGDEN AVENUE WITH MCDONALD`S ACCESS DRIVE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	1	0	0	0	1
2018	0	0	0	0	1	1	0	2
2019	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**3**
Average	**--**	**--**	**--**	**<1.0**	**<1.0**	**<1.0**	**--**	**<1.0**

Table 3
OGDEN AVENUE WITH CROSS STREET – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	2	1	3	0	6
2018	0	0	0	3	1	3	0	7
2019	0	0	0	0	0	5	0	5
2020	0	0	0	1	0	1	0	2
2021	0	0	0	0	1	2	0	3
Total	**0**	**0**	**0**	**6**	**3**	**14**	**0**	**23**
Average	**--**	**--**	**--**	**1.2**	**<1.0**	**2.8**	**--**	**4.6**

3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Development Plan

As proposed, the site will be developed with an approximate 9,800 square-foot building to be occupied by Belle Tire. Access will be provided via a proposed restricted access drive off Ogden Avenue approximately 175 feet east of Drendel Road and a full movement access drive off Drendel Road approximately 315 feet south of Ogden Avenue. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control.

A site plan depicting the proposed Belle Tire development is included in the Appendix.

Directional Distribution

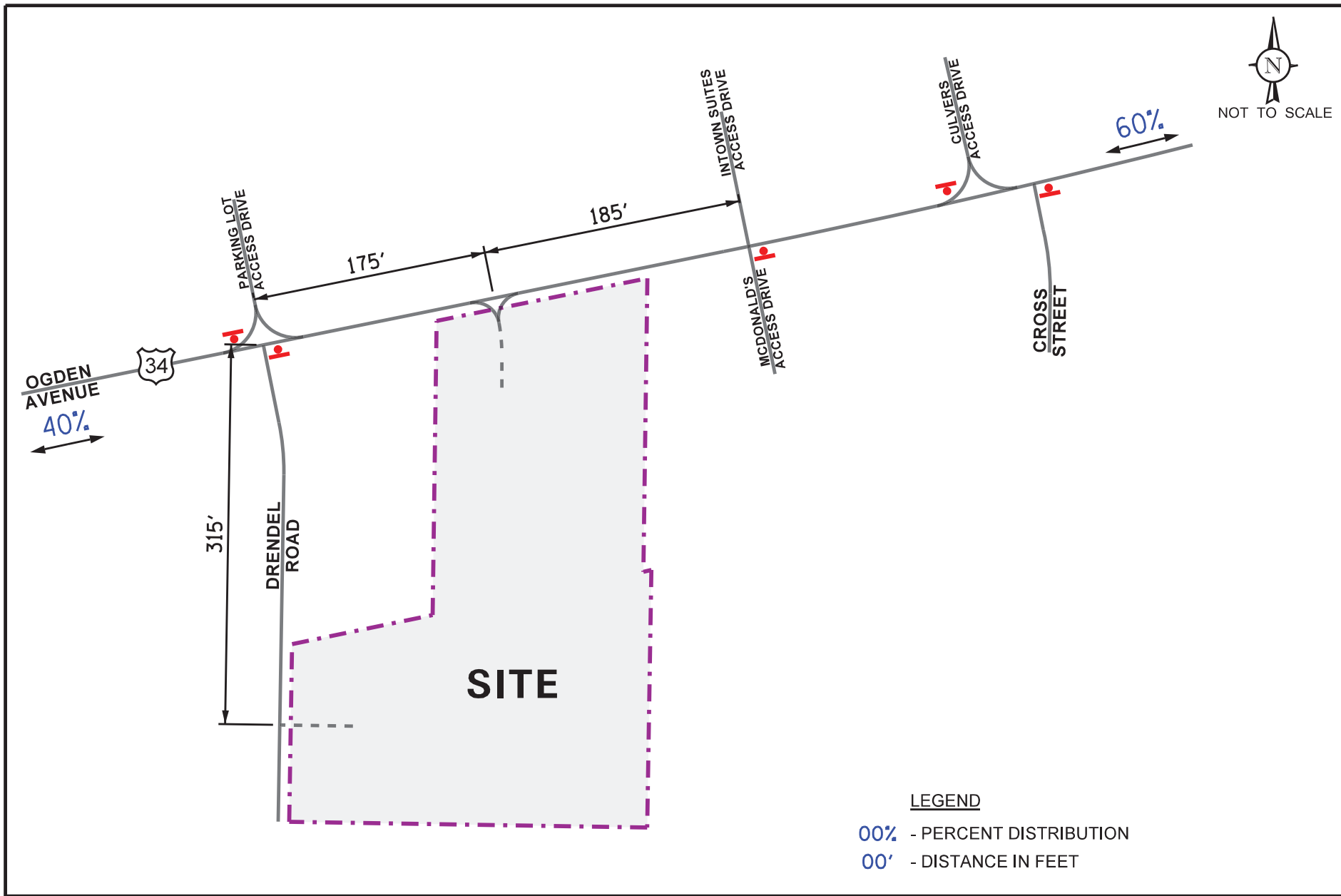
The directions from which patrons and employees of the proposed Belle Tire development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.

Development-Generated Traffic Volumes

The estimate of vehicle traffic to be generated by the proposed Belle Tire development is based upon the proposed land use types and sizes using data published in the ITE *Trip Generation Manual*, 11th Edition. **Table 4** shows the estimated vehicle trip generation for the weekday morning, weekday evening, and Saturday midday peak hours as well as the daily traffic volumes. Copies of the ITE trip generation summary sheets are included in the Appendix.

Table 4
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Evening Peak Hour			Daily
		In	Out	Total	In	Out	Total	In	Out	Total	
848	Tire Shop (9,800 s. f.)	16	10	26	16	21	37	23	26	49	272



Belle Tire
Downers Grove, Illinois

Directional Distribution

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 5

4. Projected Traffic Conditions

The total projected traffic volumes include the base traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

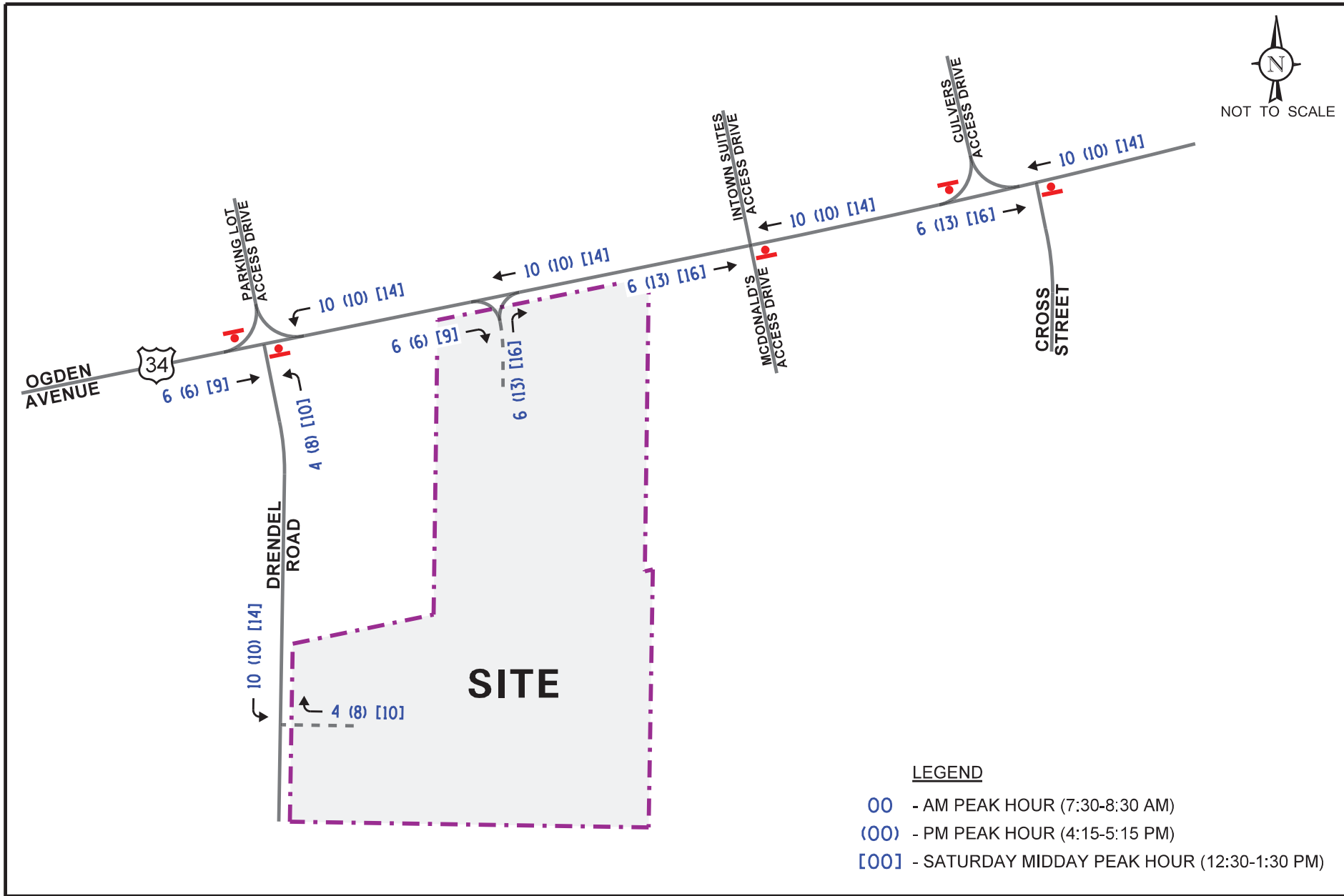
The estimated weekday morning, weekday evening, and Saturday midday peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the traffic assignment of the new trips that will be generated by the proposed Belle Tire development.

No-Build Traffic Conditions

The base traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any planned development). Based on AADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the base traffic volumes are projected to increase by an annual compounded growth rate of approximately 0.33 percent per year. As such, traffic volumes were increased by two percent total (one-year buildout plus five years) to represent Year 2028 total projected conditions. In addition, traffic that will be generated by the proposed hotel/restaurant development to be located at the intersection of Ogden Avenue with Walnut Avenue was also included to the no-build traffic conditions. **Figure 7** illustrates the no-build traffic conditions. A copy of the CMAP projections letter is included in the Appendix.

Total Projected Traffic Volumes

The development-generated traffic (Figure 6) was added to the base traffic volumes increased by a regional growth factor (Figure 7) to determine the Year 2028 total projected traffic volumes as illustrated in **Figure 8**.

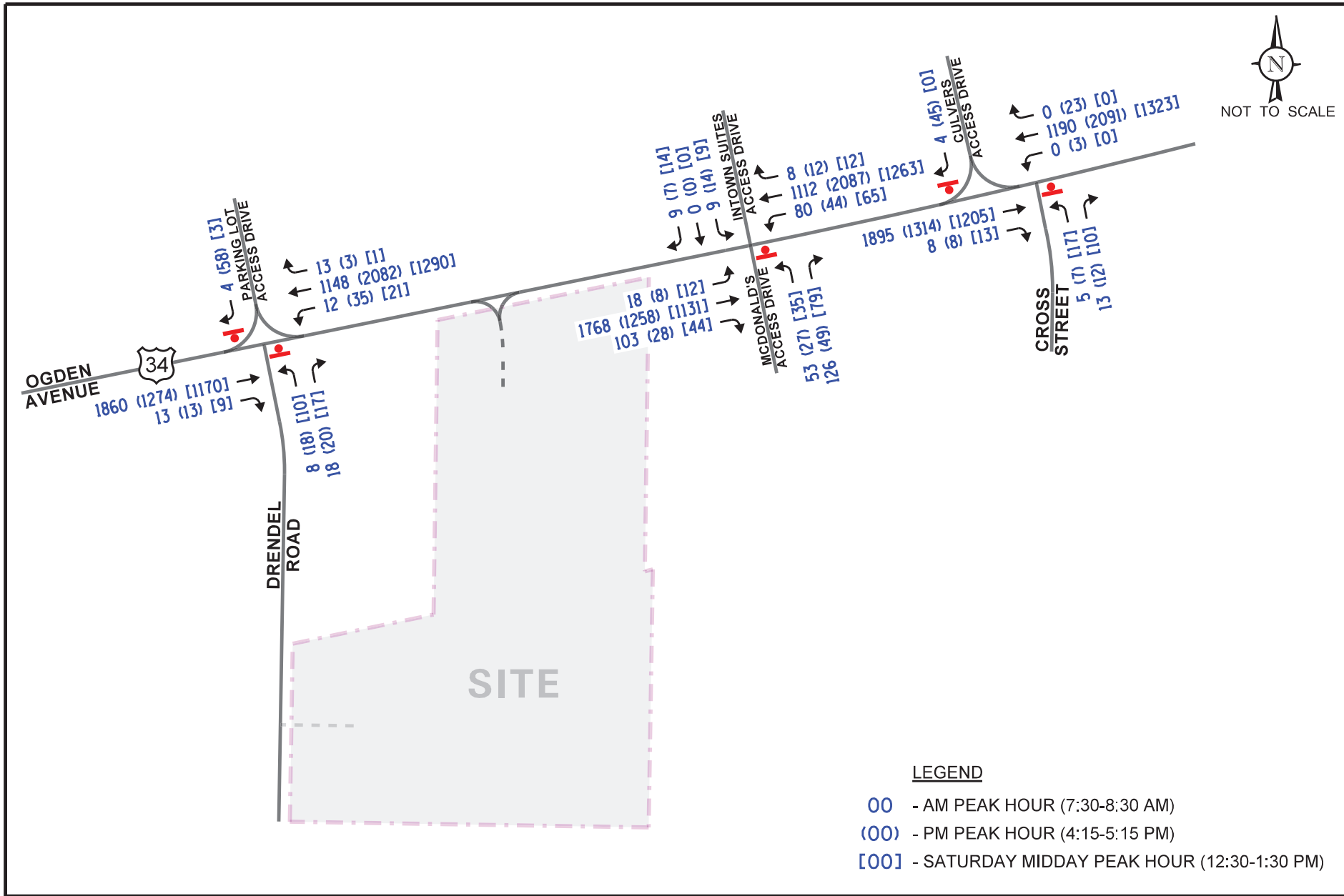


Belle Tire
Downers Grove, Illinois

Site-Generated Traffic Volumes

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 6

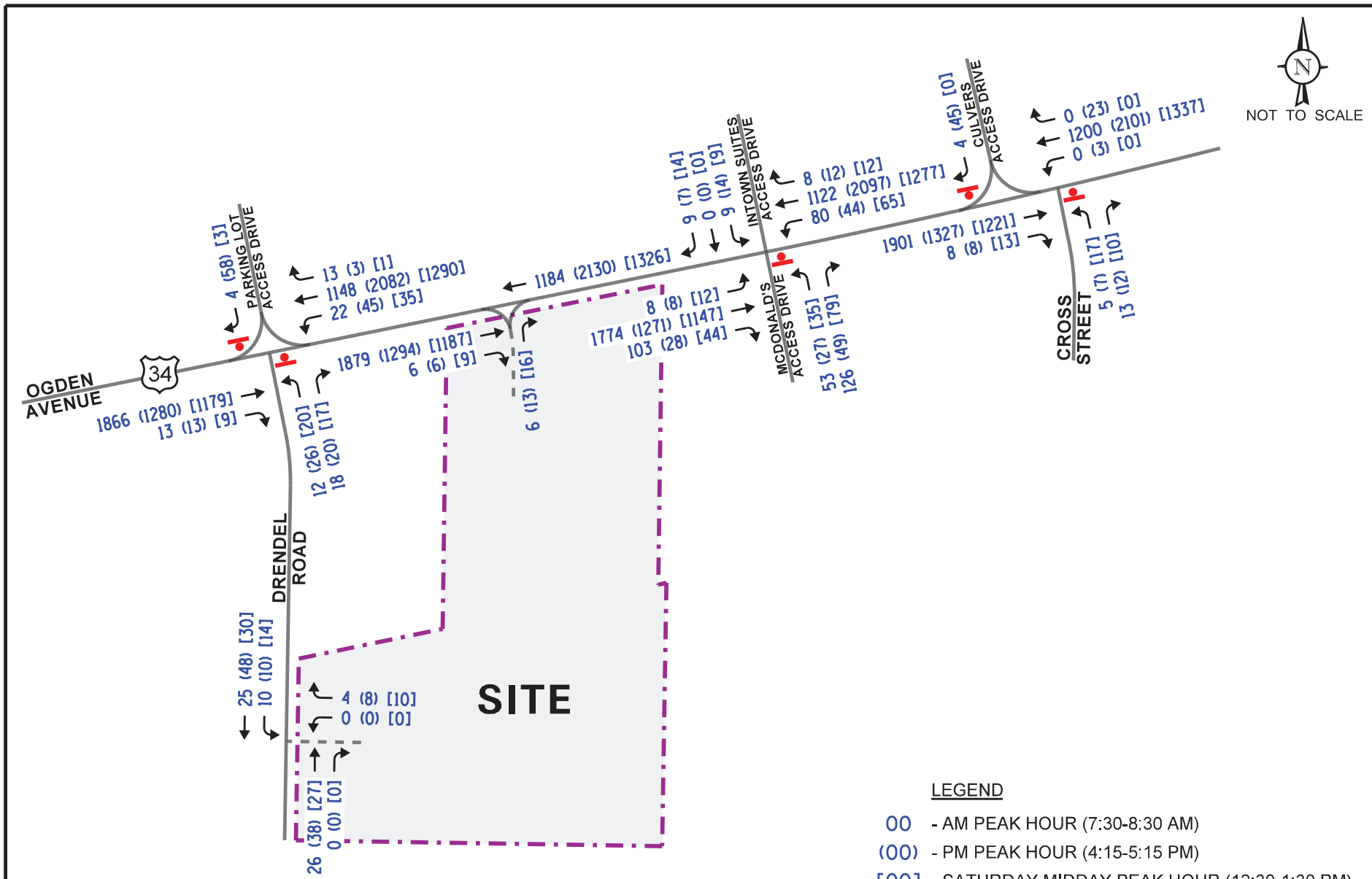


Belle Tire
Downers Grove, Illinois

Year 2028 No-Build Traffic Volumes

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 7



Belle Tire
Downers Grove, Illinois

Year 2028 Total Projected Traffic Volumes

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 22-308 Figure: 8

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday evening, and Saturday midday peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for the base (Year 2022), Year 2028 no-build, and Year 2028 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 6th Edition and analyzed using Synchro/SimTraffic 11 software.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the base, Year 2028 no-build, and Year 2028 total projected conditions are presented in **Tables 5** through **7.** A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – BASE CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Ogden Avenue with Drendel Road /Parking Lot Access Drive						
Northbound Approach	C	19.8	D	25.1	B	12.8
Southbound Approach	B	10.7	C	23.4	B	11.2
Westbound Left Turn	B	13.2	A	9.3	A	8.9
Ogden Avenue with McDonald`s Access Drive/InTown Suites Access Drive						
Southbound Approach	D	26.9	D	29.6	B	13.4
Northbound Left Turn	D	30.7	D	28.0	C	16.0
Northbound Right Turn	C	19.6	B	11.7	B	11.2
Eastbound Left Turn	A	9.0	B	14.6	A	9.1
Westbound Left Turn	B	12.5	A	9.3	A	8.9
Ogden Avenue with Cross Street/Culver`s Access Drive						
Northbound Approach	C	20.1	C	16.6	B	14.9
Southbound Approach	B	10.5	C	17.3	A	0.1
Westbound Left Turn	A	0.1	A	9.3	A	0.1

LOS = Level of Service
Delay is measured in seconds.

Table 6
CAPACITY ANALYSIS RESULTS – NO-BUILD CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Ogden Avenue with Drendel Road /Parking Lot Access Drive						
Northbound Approach	C	20.0	D	28.0	B	13.2
Southbound Approach	B	10.9	D	25.9	B	11.4
Westbound Left Turn	B	13.2	A	9.4	A	9.0
Ogden Avenue with McDonald`s Access Drive/InTown Suites Access Drive						
Southbound Approach	D	30.3	D	32.0	B	13.9
Northbound Left Turn	D	33.1	D	33.2	C	16.7
Northbound Right Turn	C	21.1	B	11.7	B	11.5
Eastbound Left Turn	A	9.1	C	15.6	A	9.3
Westbound Left Turn	B	13.1	A	9.3	A	9.1
Ogden Avenue with Cross Street/Culver`s Access Drive						
Northbound Approach	C	21.1	C	17.1	C	15.7
Southbound Approach	B	10.5	C	18.3	A	0.1
Westbound Left Turn	A	0.1	A	9.3	A	0.1

LOS = Level of Service
Delay is measured in seconds.

Table 7
CAPACITY ANALYSIS RESULTS –PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Ogden Avenue with Drendel Road /Parking Lot Access Drive						
Northbound Approach	C	22.5	D	33.9	B	14.7
Southbound Approach	B	10.9	D	25.9	B	11.4
Westbound Left Turn	B	14.0	A	9.5	A	9.1
Ogden Avenue with McDonald`s Access Drive/InTown Suites Access Drive						
Southbound Approach	D	30.5	D	32.4	B	14..2
Northbound Left Turn	D	33.1	D	32.4	C	17.3
Northbound Right Turn	C	21.1	B	12.0	B	11.8
Eastbound Left Turn	A	9.1	C	15.6	A	9.3
Westbound Left Turn	B	13.1	A	9.5	A	9.2
Ogden Avenue with Cross Street/Culver`s Access Drive						
Northbound Approach	C	21.1	C	18.2	C	15.7
Southbound Approach	B	10.5	C	19.5	A	0.1
Westbound Left Turn	A	0.1	A	9.5	A	0.1
Ogden Avenue with Proposed North Access Drive						
Northbound Approach	C	17.7	B	11.8	B	11.2
Drendel Road with Proposed West Access Drive						
Westbound Approach	A	8.4	A	8.5	A	8.5
Southbound Left-Turn	A	7.3	A	7.3	A	7.3

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

Ogden Avenue with Drendel Road/Parking Lot Access Drive

The results of the capacity analysis indicate that currently the northbound approach operates at Level of Service (LOS) C during the weekday morning peak hour, LOS D during the weekday evening peak hour, and LOS B during the Saturday midday peak hour. The southbound approach operates at LOS B during the weekday morning and Saturday midday peak hours and LOS C during the weekday evening peak hour. The westbound left-turn movement operates at LOS B during the weekday morning peak hour and LOS A during the weekday evening and Saturday midday peak hours.

Under Year 2028 no-build conditions, this intersection will generally continue operating at the same existing levels of service during all three peak hours with increases in delay of approximately three seconds or less.

Under Year 2028 total projected conditions, the northbound approach, southbound approach, and westbound left-turn movement are projected to continue operating at the same levels of service as in no-build conditions during all three peak hours with increases in delay of less than six seconds. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the development and no roadway improvements or traffic control modifications are required.

Ogden Avenue with McDonald`s Access Drive/InTown Suites Access Drive

The results of the capacity analysis indicate that the southbound approach currently operates at LOS D during the weekday morning and weekday evening peak hours and LOS B during the Saturday midday peak hour. The northbound left-turn and right-turn movements operate at LOS D or better during all three peak hours. The eastbound and westbound left-turn movements operate at LOS B or better during all three peak hours.

Under Year 2028 no-build conditions, the southbound approach will continue to operate at the same existing levels of service during all three peak hours with increases in delay of less than four seconds. The northbound left-turn and right-turn movements will operate at the same existing levels of service during all three peak hours with increases in delay of less than six seconds. The eastbound left-turn movement is projected to operate at LOS A during the weekday morning and Saturday midday peak hours and LOS C during the weekday evening peak hour with increases in delay of approximately one second or less. The westbound left-turn movement is projected to continue operating at the existing levels of service during al three peak hours with increases in delay of less than one second.

Under Year 2028 total projected conditions, the southbound approach and the northbound left-turn and right-turn movements are projected to operate at the same existing levels of service during all three peak hours with increases in delay of less than less than one second over no-build conditions. The eastbound and westbound left-turn movements are projected to operate at the same levels of service as in no-build conditions during all the peak hours with increases in delay of less than one second. As such, the traffic that will be generated by the proposed development will have a limited impact on the operation of this intersection and no roadway improvements or traffic control modifications are required.

Ogden Avenue with Cross Street/Culver`s Access Drive

The results of the capacity analysis indicate that the northbound and southbound approaches currently operate at LOS C during the weekday morning and weekday evening peak hours, and LOS B during the Saturday midday peak hour. The westbound left-turn movement operates at LOS A during all the peak hours.

Under Year 2028 no-build conditions, all the approaches and their critical movements are projected to continue operating the same existing levels of service during all three peak hours with increases in delay of approximately one second or less over no-build conditions.

Under Year 2028 total projected conditions, all the approaches and the critical movements are projected to continue operating at the same levels of service as in no-build conditions during all the peak hours with increases in delay of less than two seconds. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the development and roadway improvements or traffic control modifications are required.

Ogden Avenue with the Proposed Restricted North Access Drive

Under Year 2028 total projected conditions, the northbound approach is projected to operate at LOS C during the weekday morning peak hour and LOS B during the weekday evening and Saturday midday peak hours. A comparison of the projected volumes with the right-turn lane warrants published in Chapter 36 of the IDOT *Bureau of Design and Environment* (BDE) Manual shows that none of the criteria are met and an exclusive right-turn lane will **not be** warranted on Ogden Avenue serving the site access drive. A copy of the turn lane warrant diagram is included in the Appendix.

As such, the proposed access drive will be adequate accommodating the traffic that will be generated by the proposed development efficiently.

Drendel Road with the Proposed West Access Drive

Under Year 2028 total projected conditions, the westbound approach and the southbound left-turn movement are projected to operate at LOS A during all three peak hours. As such, the proposed access drive will be adequate accommodating the traffic that will be generated by the proposed development efficiently.

Parking Requirements

In order to assess the adequacy of the parking supply in meeting the parking requirements of the proposed development, the parking needs were determined based on the following criteria:

- The Village of Downers Grove Municipal Code
- ITE *Parking Generation Manual*

Based on the Village of Downers Grove Municipal Code, a retail space is required to provide 3.5 parking spaces per every 1,000 square feet. As such, Belle Tire should provide 35 parking spaces, resulting in a surplus of four parking spaces.

Based on a review of survey data published by the Institute of Transportation Engineers (ITE) in the *Parking Generation Manual*, 5th Edition for Land-Use Code 848 (Tire Store), a total of 28 parking spaces are required during a weekday. As such, the 39 parking spaces provided by Belle Tire meet this requirement and this results in a surplus of 11 parking spaces.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The proposed Belle Tire will generate a limited amount of traffic during the peak hours and on a daily basis.
- The results of the capacity analysis show that the traffic projected to be generated by the proposed development will have a limited impact on the roadway network and adjacent intersections.
- The access system that will serve the proposed development, which includes one full-movement access drive off Drendel Road and a restricted access drive off Ogden Avenue, will be adequate in accommodating site traffic.
- An exclusive right-turn lane will **not** be warranted at the intersection of Ogden Avenue with the restricted access drive.
- The proposed 39 parking spaces will be adequate in accommodating the parking needs of the proposed development.

Appendix

Traffic Count Summary Sheets
Site Plan
ITE Trip Generation Summary Sheets
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Turn Lane Warrant Diagram

Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with Cross St
Site Code:
Start Date: 09/24/2022
Page No: 1

Turning Movement Data

Start Time	Ogden ave Eastbound					Ogden ave Westbound					Cross St Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:00 PM	0	219	1	0	220	0	0	236	0	236	0	2	1	0	3	459
12:15 PM	0	207	4	0	211	0	0	233	0	233	0	0	4	1	4	448
12:30 PM	0	243	5	0	248	0	0	233	0	233	0	3	3	1	6	487
12:45 PM	0	206	2	0	208	0	0	242	0	242	0	3	1	0	4	454
Hourly Total	0	875	12	0	887	0	0	944	0	944	0	8	9	2	17	1848
1:00 PM	0	223	3	0	226	0	0	248	0	248	0	4	1	0	5	479
1:15 PM	0	220	0	0	220	0	0	232	0	232	0	3	3	0	6	458
1:30 PM	0	219	2	0	221	0	0	216	0	216	0	0	6	1	6	443
1:45 PM	0	205	2	0	207	0	0	262	0	262	0	0	3	0	3	472
Hourly Total	0	867	7	0	874	0	0	958	0	958	0	7	13	1	20	1852
Grand Total	0	1742	19	0	1761	0	0	1902	0	1902	0	15	22	3	37	3700
Approach %	0.0	98.9	1.1	-	-	0.0	0.0	100.0	-	-	0.0	40.5	59.5	-	-	-
Total %	0.0	47.1	0.5	-	47.6	0.0	0.0	51.4	-	51.4	0.0	0.4	0.6	-	1.0	-
Lights	0	1709	19	-	1728	0	0	1878	-	1878	0	15	22	-	37	3643
% Lights	-	98.1	100.0	-	98.1	-	-	98.7	-	98.7	-	100.0	100.0	-	100.0	98.5
Buses	0	9	0	-	9	0	0	4	-	4	0	0	0	-	0	13
% Buses	-	0.5	0.0	-	0.5	-	-	0.2	-	0.2	-	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	14	0	-	14	0	0	11	-	11	0	0	0	-	0	25
% Single-Unit Trucks	-	0.8	0.0	-	0.8	-	-	0.6	-	0.6	-	0.0	0.0	-	0.0	0.7
Articulated Trucks	0	10	0	-	10	0	0	9	-	9	0	0	0	-	0	19
% Articulated Trucks	-	0.6	0.0	-	0.6	-	-	0.5	-	0.5	-	0.0	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with Cross St
Site Code:
Start Date: 09/24/2022

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Ogden ave Eastbound					Ogden ave Westbound					Cross St Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:30 PM	0	243	5	0	248	0	0	233	0	233	0	3	3	1	6	487
12:45 PM	0	206	2	0	208	0	0	242	0	242	0	3	1	0	4	454
1:00 PM	0	223	3	0	226	0	0	248	0	248	0	4	1	0	5	479
1:15 PM	0	220	0	0	220	0	0	232	0	232	0	3	3	0	6	458
Total	0	892	10	0	902	0	0	955	0	955	0	13	8	1	21	1878
Approach %	0.0	98.9	1.1	-	-	0.0	0.0	100.0	-	-	0.0	61.9	38.1	-	-	-
Total %	0.0	47.5	0.5	-	48.0	0.0	0.0	50.9	-	50.9	0.0	0.7	0.4	-	1.1	-
PHF	0.000	0.918	0.500	-	0.909	0.000	0.000	0.963	-	0.963	0.000	0.813	0.667	-	0.875	0.964
Lights	0	878	10	-	888	0	0	943	-	943	0	13	8	-	21	1852
% Lights	-	98.4	100.0	-	98.4	-	-	98.7	-	98.7	-	100.0	100.0	-	100.0	98.6
Buses	0	2	0	-	2	0	0	2	-	2	0	0	0	-	0	4
% Buses	-	0.2	0.0	-	0.2	-	-	0.2	-	0.2	-	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	4	0	-	4	0	0	5	-	5	0	0	0	-	0	9
% Single-Unit Trucks	-	0.4	0.0	-	0.4	-	-	0.5	-	0.5	-	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	8	0	-	8	0	0	5	-	5	0	0	0	-	0	13
% Articulated Trucks	-	0.9	0.0	-	0.9	-	-	0.5	-	0.5	-	0.0	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with Drendel Rd (Weekend)
Site Code:
Start Date: 09/24/2022
Page No: 1

Turning Movement Data

Start Time	Ogden ave Eastbound						Ogden ave Westbound						Drendel rd Northbound						Lot Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	0	216	3	0	219	0	7	228	0	0	235	0	2	0	4	0	6	0	0	0	0	0	0	460
12:15 PM	0	1	191	0	0	192	0	4	226	0	0	230	0	3	0	1	0	4	0	0	0	0	0	0	426
12:30 PM	0	0	239	2	0	241	0	6	227	1	0	234	0	2	0	8	0	10	0	1	0	1	0	2	487
12:45 PM	0	0	207	3	0	210	0	2	250	0	0	252	0	4	0	0	0	4	0	0	0	0	0	0	466
Hourly Total	0	1	853	8	0	862	0	19	931	1	0	951	0	11	0	13	0	24	0	1	0	1	0	2	1839
1:00 PM	0	0	210	1	0	211	0	3	238	0	0	241	0	1	0	2	0	3	0	0	0	0	2	0	455
1:15 PM	0	0	207	1	0	208	1	4	235	0	0	240	0	1	0	3	0	4	0	0	0	1	0	1	453
1:30 PM	0	0	211	5	0	216	0	0	215	0	0	215	0	2	0	2	0	4	0	0	0	0	0	0	435
1:45 PM	0	0	204	3	0	207	0	4	244	0	0	248	0	1	0	3	0	4	0	0	0	0	1	0	459
Hourly Total	0	0	832	10	0	842	1	11	932	0	0	944	0	5	0	10	0	15	0	0	0	1	3	1	1802
Grand Total	0	1	1685	18	0	1704	1	30	1863	1	0	1895	0	16	0	23	0	39	0	1	0	2	3	3	3641
Approach %	0.0	0.1	98.9	1.1	-	-	0.1	1.6	98.3	0.1	-	-	0.0	41.0	0.0	59.0	-	-	0.0	33.3	0.0	66.7	-	-	-
Total %	0.0	0.0	46.3	0.5	-	46.8	0.0	0.8	51.2	0.0	-	52.0	0.0	0.4	0.0	0.6	-	1.1	0.0	0.0	0.0	0.1	-	0.1	-
Lights	0	1	1652	18	-	1671	1	30	1839	1	-	1871	0	16	0	23	-	39	0	1	0	2	-	3	3584
% Lights	-	100.0	98.0	100.0	-	98.1	100.0	100.0	98.7	100.0	-	98.7	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.4
Buses	0	0	9	0	-	9	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	14
% Buses	-	0.0	0.5	0.0	-	0.5	0.0	0.0	0.3	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	12	0	-	12	0	0	11	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	23
% Single-Unit Trucks	-	0.0	0.7	0.0	-	0.7	0.0	0.0	0.6	0.0	-	0.6	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Articulated Trucks	0	0	12	0	-	12	0	0	8	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	20
% Articulated Trucks	-	0.0	0.7	0.0	-	0.7	0.0	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with Drendel Rd (Weekend)
Site Code:
Start Date: 09/24/2022

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Ogden ave Eastbound						Ogden ave Westbound						Drendel rd Northbound						Lot Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:30 PM	0	0	239	2	0	241	0	6	227	1	0	234	0	2	0	8	0	10	0	1	0	1	0	2	487
12:45 PM	0	0	207	3	0	210	0	2	250	0	0	252	0	4	0	0	0	4	0	0	0	0	0	0	466
1:00 PM	0	0	210	1	0	211	0	3	238	0	0	241	0	1	0	2	0	3	0	0	0	0	2	0	455
1:15 PM	0	0	207	1	0	208	1	4	235	0	0	240	0	1	0	3	0	4	0	0	0	1	0	1	453
Total	0	0	863	7	0	870	1	15	950	1	0	967	0	8	0	13	0	21	0	1	0	2	2	3	1861
Approach %	0.0	0.0	99.2	0.8	-	-	0.1	1.6	98.2	0.1	-	-	0.0	38.1	0.0	61.9	-	-	0.0	33.3	0.0	66.7	-	-	-
Total %	0.0	0.0	46.4	0.4	-	46.7	0.1	0.8	51.0	0.1	-	52.0	0.0	0.4	0.0	0.7	-	1.1	0.0	0.1	0.0	0.1	-	0.2	-
PHF	0.000	0.000	0.903	0.583	-	0.902	0.250	0.625	0.950	0.250	-	0.959	0.000	0.500	0.000	0.406	-	0.525	0.000	0.250	0.000	0.500	-	0.375	0.955
Lights	0	0	847	7	-	854	1	15	940	1	-	957	0	8	0	13	-	21	0	1	0	2	-	3	1835
% Lights	-	-	98.1	100.0	-	98.2	100.0	100.0	98.9	100.0	-	99.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.6
Buses	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
% Buses	-	-	0.2	0.0	-	0.2	0.0	0.0	0.3	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	6	0	-	6	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	10
% Single-Unit Trucks	-	-	0.7	0.0	-	0.7	0.0	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	8	0	-	8	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	-	-	0.9	0.0	-	0.9	0.0	0.0	0.3	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Drendel Rd TMC
Site Code:
Start Date: 09/01/2022
Page No: 1

Turning Movement Data

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Drendel Rd Northbound						Access Dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	287	1	0	288	0	1	186	2	0	189	0	1	0	1	0	2	0	0	0	1	0	1	480
7:15 AM	0	1	299	0	0	300	0	0	235	2	0	237	0	4	0	2	1	6	0	0	0	1	0	1	544
7:30 AM	0	0	393	1	0	394	0	3	214	1	0	218	0	2	0	0	0	2	0	0	0	0	0	0	614
7:45 AM	1	0	366	2	0	369	0	1	213	4	0	218	0	3	0	7	0	10	0	0	0	2	0	2	599
Hourly Total	1	1	1345	4	0	1351	0	5	848	9	0	862	0	10	0	10	1	20	0	0	0	4	0	4	2237
8:00 AM	0	0	339	5	0	344	0	2	187	1	0	190	0	1	0	1	0	2	0	0	0	1	0	1	537
8:15 AM	0	0	299	2	0	301	0	3	214	4	0	221	0	0	0	6	0	6	0	0	0	0	0	0	528
8:30 AM	0	0	269	0	0	269	0	1	206	4	0	211	0	5	0	1	0	6	0	0	0	1	0	1	487
8:45 AM	0	0	283	1	0	284	0	4	198	1	0	203	0	0	0	1	0	1	0	1	0	0	0	1	489
Hourly Total	0	0	1190	8	0	1198	0	10	805	10	0	825	0	6	0	9	0	15	0	1	0	2	0	3	2041
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	218	0	0	218	0	3	406	0	0	409	0	2	0	6	0	8	0	0	0	11	2	11	646
4:15 PM	0	0	234	0	0	234	0	9	376	1	0	386	0	2	0	2	0	4	0	0	0	6	0	6	630
4:30 PM	0	0	246	3	0	249	0	6	387	1	2	394	0	2	0	4	2	6	0	0	0	17	0	17	666
4:45 PM	0	0	217	5	0	222	0	7	371	0	0	378	0	6	0	5	0	11	0	0	0	10	0	10	621
Hourly Total	0	0	915	8	0	923	0	25	1540	2	2	1567	0	12	0	17	2	29	0	0	0	44	2	44	2563
5:00 PM	0	1	255	2	0	258	0	4	380	0	0	384	0	4	0	4	0	8	0	0	0	11	0	11	661
5:15 PM	0	0	247	2	0	249	0	0	341	0	0	341	0	0	0	3	0	3	0	0	0	7	0	7	600
5:30 PM	0	0	254	1	0	255	0	4	332	0	0	336	0	2	1	5	0	8	0	0	0	3	0	3	602
5:45 PM	0	0	244	1	0	245	0	4	311	0	0	315	0	2	0	3	1	5	0	0	0	4	0	4	569
Hourly Total	0	1	1000	6	0	1007	0	12	1364	0	0	1376	0	8	1	15	1	24	0	0	0	25	0	25	2432
Grand Total	1	2	4450	26	0	4479	0	52	4557	21	2	4630	0	36	1	51	4	88	0	1	0	75	2	76	9273
Approach %	0.0	0.0	99.4	0.6	-	-	0.0	1.1	98.4	0.5	-	-	0.0	40.9	1.1	58.0	-	-	0.0	1.3	0.0	98.7	-	-	-
Total %	0.0	0.0	48.0	0.3	-	48.3	0.0	0.6	49.1	0.2	-	49.9	0.0	0.4	0.0	0.5	-	0.9	0.0	0.0	0.0	0.8	-	0.8	-
Lights	1	1	4295	23	-	4320	0	49	4439	20	-	4508	0	35	1	50	-	86	0	1	0	73	-	74	8988
% Lights	100.0	50.0	96.5	88.5	-	96.5	-	94.2	97.4	95.2	-	97.4	-	97.2	100.0	98.0	-	97.7	-	100.0	-	97.3	-	97.4	96.9
Buses	0	0	14	2	-	16	0	0	19	0	-	19	0	0	0	1	-	1	0	0	0	0	-	0	36
% Buses	0.0	0.0	0.3	7.7	-	0.4	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	2.0	-	1.1	-	0.0	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	1	114	0	-	115	0	3	69	1	-	73	0	0	0	0	-	0	0	0	0	2	-	2	190
% Single-Unit Trucks	0.0	50.0	2.6	0.0	-	2.6	-	5.8	1.5	4.8	-	1.6	-	0.0	0.0	0.0	-	0.0	-	0.0	-	2.7	-	2.6	2.0
Articulated Trucks	0	0	27	1	-	28	0	0	30	0	-	30	0	1	0	0	-	1	0	0	0	0	-	0	59
% Articulated Trucks	0.0	0.0	0.6	3.8	-	0.6	-	0.0	0.7	0.0	-	0.6	-	2.8	0.0	0.0	-	1.1	-	0.0	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Drendel Rd TMC
Site Code:
Start Date: 09/01/2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Drendel Rd Northbound						Access Dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	0	393	1	0	394	0	3	214	1	0	218	0	2	0	0	0	2	0	0	0	0	0	0	614
7:45 AM	1	0	366	2	0	369	0	1	213	4	0	218	0	3	0	7	0	10	0	0	0	2	0	2	599
8:00 AM	0	0	339	5	0	344	0	2	187	1	0	190	0	1	0	1	0	2	0	0	0	1	0	1	537
8:15 AM	0	0	299	2	0	301	0	3	214	4	0	221	0	0	0	6	0	6	0	0	0	0	0	0	528
Total	1	0	1397	10	0	1408	0	9	828	10	0	847	0	6	0	14	0	20	0	0	0	3	0	3	2278
Approach %	0.1	0.0	99.2	0.7	-	-	0.0	1.1	97.8	1.2	-	-	0.0	30.0	0.0	70.0	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	61.3	0.4	-	61.8	0.0	0.4	36.3	0.4	-	37.2	0.0	0.3	0.0	0.6	-	0.9	0.0	0.0	0.0	0.1	-	0.1	-
PHF	0.250	0.000	0.889	0.500	-	0.893	0.000	0.750	0.967	0.625	-	0.958	0.000	0.500	0.000	0.500	-	0.500	0.000	0.000	0.000	0.375	-	0.375	0.928
Lights	1	0	1363	8	-	1372	0	7	782	10	-	799	0	6	0	14	-	20	0	0	0	3	-	3	2194
% Lights	100.0	-	97.6	80.0	-	97.4	-	77.8	94.4	100.0	-	94.3	-	100.0	-	100.0	-	100.0	-	-	-	100.0	-	100.0	96.3
Buses	0	0	2	2	-	4	0	0	10	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	14
% Buses	0.0	-	0.1	20.0	-	0.3	-	0.0	1.2	0.0	-	1.2	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	26	0	-	26	0	2	27	0	-	29	0	0	0	0	-	0	0	0	0	0	-	0	55
% Single-Unit Trucks	0.0	-	1.9	0.0	-	1.8	-	22.2	3.3	0.0	-	3.4	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	2.4
Articulated Trucks	0	0	6	0	-	6	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	15
% Articulated Trucks	0.0	-	0.4	0.0	-	0.4	-	0.0	1.1	0.0	-	1.1	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Drendel Rd TMC
Site Code:
Start Date: 09/01/2022
Page No: 4

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Drendel Rd Northbound						Access Dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:15 PM	0	0	234	0	0	234	0	9	376	1	0	386	0	2	0	2	0	4	0	0	0	6	0	6	630
4:30 PM	0	0	246	3	0	249	0	6	387	1	2	394	0	2	0	4	2	6	0	0	0	17	0	17	666
4:45 PM	0	0	217	5	0	222	0	7	371	0	0	378	0	6	0	5	0	11	0	0	0	10	0	10	621
5:00 PM	0	1	255	2	0	258	0	4	380	0	0	384	0	4	0	4	0	8	0	0	0	11	0	11	661
Total	0	1	952	10	0	963	0	26	1514	2	2	1542	0	14	0	15	2	29	0	0	0	44	0	44	2578
Approach %	0.0	0.1	98.9	1.0	-	-	0.0	1.7	98.2	0.1	-	-	0.0	48.3	0.0	51.7	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	36.9	0.4	-	37.4	0.0	1.0	58.7	0.1	-	59.8	0.0	0.5	0.0	0.6	-	1.1	0.0	0.0	0.0	1.7	-	1.7	-
PHF	0.000	0.250	0.933	0.500	-	0.933	0.000	0.722	0.978	0.500	-	0.978	0.000	0.583	0.000	0.750	-	0.659	0.000	0.000	0.000	0.647	-	0.647	0.968
Lights	0	0	911	9	-	920	0	26	1495	2	-	1523	0	13	0	15	-	28	0	0	0	43	-	43	2514
% Lights	-	0.0	95.7	90.0	-	95.5	-	100.0	98.7	100.0	-	98.8	-	92.9	-	100.0	-	96.6	-	-	-	97.7	-	97.7	97.5
Buses	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Buses	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	1	32	0	-	33	0	0	13	0	-	13	0	0	0	0	-	0	0	0	0	1	-	1	47
% Single-Unit Trucks	-	100.0	3.4	0.0	-	3.4	-	0.0	0.9	0.0	-	0.8	-	0.0	-	0.0	-	0.0	-	-	-	2.3	-	2.3	1.8
Articulated Trucks	0	0	8	1	-	9	0	0	4	0	-	4	0	1	0	0	-	1	0	0	0	0	-	0	14
% Articulated Trucks	-	0.0	0.8	10.0	-	0.9	-	0.0	0.3	0.0	-	0.3	-	7.1	-	0.0	-	3.4	-	-	-	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with McDonalds Access
Site Code:
Start Date: 09/24/2022
Page No: 1

Turning Movement Data

Start Time	Ogden ave Eastbound						Ogden ave Westbound						McDonalds Access Drive Northbound						Hotel Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	4	194	5	0	203	0	11	219	1	0	231	0	1	0	13	0	14	0	0	0	3	0	3	451
12:15 PM	0	1	214	7	0	222	0	16	220	2	0	238	0	3	0	16	0	19	0	0	0	0	0	0	479
12:30 PM	0	2	205	10	1	217	0	12	247	0	0	259	0	8	0	16	2	24	0	1	0	2	0	3	503
12:45 PM	0	2	210	10	0	222	0	10	224	1	0	235	0	6	0	17	0	23	0	0	0	4	0	4	484
Hourly Total	0	9	823	32	1	864	0	49	910	4	0	963	0	18	0	62	2	80	0	1	0	9	0	10	1917
1:00 PM	0	1	187	10	0	198	0	14	243	5	0	262	0	5	0	14	0	19	0	5	0	3	0	8	487
1:15 PM	0	4	211	3	0	218	0	13	205	3	0	221	0	7	0	12	0	19	0	1	0	2	0	3	461
1:30 PM	0	1	212	6	0	219	0	7	226	2	0	235	0	3	0	17	0	20	0	3	0	2	1	5	479
1:45 PM	0	1	181	8	0	190	0	11	248	2	0	261	0	6	0	10	0	16	0	1	0	0	0	1	468
Hourly Total	0	7	791	27	0	825	0	45	922	12	0	979	0	21	0	53	0	74	0	10	0	7	1	17	1895
Grand Total	0	16	1614	59	1	1689	0	94	1832	16	0	1942	0	39	0	115	2	154	0	11	0	16	1	27	3812
Approach %	0.0	0.9	95.6	3.5	-	-	0.0	4.8	94.3	0.8	-	-	0.0	25.3	0.0	74.7	-	-	0.0	40.7	0.0	59.3	-	-	-
Total %	0.0	0.4	42.3	1.5	-	44.3	0.0	2.5	48.1	0.4	-	50.9	0.0	1.0	0.0	3.0	-	4.0	0.0	0.3	0.0	0.4	-	0.7	-
Lights	0	16	1582	59	-	1657	0	94	1810	16	-	1920	0	39	0	115	-	154	0	11	0	16	-	27	3758
% Lights	-	100.0	98.0	100.0	-	98.1	-	100.0	98.8	100.0	-	98.9	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.6
Buses	0	0	9	0	-	9	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	14
% Buses	-	0.0	0.6	0.0	-	0.5	-	0.0	0.3	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	14	0	-	14	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	23
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.8	-	0.0	0.5	0.0	-	0.5	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Articulated Trucks	0	0	9	0	-	9	0	0	8	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	17
% Articulated Trucks	-	0.0	0.6	0.0	-	0.5	-	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden ave with McDonalds Access
Site Code:
Start Date: 09/24/2022

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Ogden ave Eastbound						Ogden ave Westbound						McDonalds Access Drive Northbound						Hotel Access Drive Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:30 PM	0	2	205	10	1	217	0	12	247	0	0	259	0	8	0	16	2	24	0	1	0	2	0	3	503
12:45 PM	0	2	210	10	0	222	0	10	224	1	0	235	0	6	0	17	0	23	0	0	0	4	0	4	484
1:00 PM	0	1	187	10	0	198	0	14	243	5	0	262	0	5	0	14	0	19	0	5	0	3	0	8	487
1:15 PM	0	4	211	3	0	218	0	13	205	3	0	221	0	7	0	12	0	19	0	1	0	2	0	3	461
Total	0	9	813	33	1	855	0	49	919	9	0	977	0	26	0	59	2	85	0	7	0	11	0	18	1935
Approach %	0.0	1.1	95.1	3.9	-	-	0.0	5.0	94.1	0.9	-	-	0.0	30.6	0.0	69.4	-	-	0.0	38.9	0.0	61.1	-	-	-
Total %	0.0	0.5	42.0	1.7	-	44.2	0.0	2.5	47.5	0.5	-	50.5	0.0	1.3	0.0	3.0	-	4.4	0.0	0.4	0.0	0.6	-	0.9	-
PHF	0.000	0.563	0.963	0.825	-	0.963	0.000	0.875	0.930	0.450	-	0.932	0.000	0.813	0.000	0.868	-	0.885	0.000	0.350	0.000	0.688	-	0.563	0.962
Lights	0	9	799	33	-	841	0	49	907	9	-	965	0	26	0	59	-	85	0	7	0	11	-	18	1909
% Lights	-	100.0	98.3	100.0	-	98.4	-	100.0	98.7	100.0	-	98.8	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.7
Buses	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.3	0.0	-	0.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	5	0	-	5	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	10
% Single-Unit Trucks	-	0.0	0.6	0.0	-	0.6	-	0.0	0.5	0.0	-	0.5	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	7	0	-	7	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	-	0.0	0.9	0.0	-	0.8	-	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Mcdonalds Access Dr TMC
Site Code:
Start Date: 09/01/2022
Page No: 1

Turning Movement Data

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Mcdonalds Access Dr Northbound						Access Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	1	231	24	0	256	0	7	163	1	2	171	0	9	0	21	0	30	0	2	0	3	0	5	462
7:15 AM	0	0	282	16	0	298	0	9	201	0	0	210	0	6	0	21	2	27	0	1	0	2	0	3	538
7:30 AM	0	2	323	22	0	347	0	16	222	1	0	239	0	9	0	19	0	28	0	3	0	1	0	4	618
7:45 AM	0	1	372	18	0	391	0	13	199	2	0	214	0	7	0	24	0	31	0	0	0	1	1	1	637
Hourly Total	0	4	1208	80	0	1292	0	45	785	4	2	834	0	31	0	85	2	116	0	6	0	7	1	13	2255
8:00 AM	0	2	305	21	0	328	0	15	202	1	1	218	0	8	0	28	0	36	0	3	0	4	0	7	589
8:15 AM	0	1	299	17	0	317	0	16	211	2	0	229	0	16	0	24	0	40	0	1	0	1	0	2	588
8:30 AM	0	2	262	15	0	279	0	17	198	3	0	218	0	6	0	26	0	32	0	0	1	4	0	5	534
8:45 AM	0	0	292	14	2	306	0	16	193	0	0	209	0	9	0	20	0	29	0	4	0	2	0	6	550
Hourly Total	0	5	1158	67	2	1230	0	64	804	6	1	874	0	39	0	98	0	137	0	8	1	11	0	20	2261
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	3	222	11	1	236	0	9	379	1	1	389	0	3	0	10	2	13	0	2	0	4	0	6	644
4:15 PM	0	1	230	0	0	231	0	10	382	2	0	394	0	6	1	12	0	19	0	2	0	0	0	2	646
4:30 PM	0	2	241	8	0	251	0	11	389	1	0	401	0	7	0	8	0	15	0	1	0	1	0	2	669
4:45 PM	0	2	221	8	0	231	0	2	368	2	0	372	0	4	0	6	0	10	0	4	0	3	1	7	620
Hourly Total	0	8	914	27	1	949	0	32	1518	6	1	1556	0	20	1	36	2	57	0	9	0	8	1	17	2579
5:00 PM	0	1	241	5	0	247	1	9	385	4	0	399	0	3	0	11	0	14	0	4	0	1	0	5	665
5:15 PM	0	1	229	6	0	236	0	6	351	4	0	361	0	1	0	13	0	14	0	3	0	2	0	5	616
5:30 PM	0	3	259	8	0	270	0	3	319	3	1	325	0	5	0	7	2	12	0	1	0	3	1	4	611
5:45 PM	0	3	245	7	0	255	1	11	311	4	0	327	0	6	0	10	0	16	0	3	0	2	0	5	603
Hourly Total	0	8	974	26	0	1008	2	29	1366	15	1	1412	0	15	0	41	2	56	0	11	0	8	1	19	2495
Grand Total	0	25	4254	200	3	4479	2	170	4473	31	5	4676	0	105	1	260	6	366	0	34	1	34	3	69	9590
Approach %	0.0	0.6	95.0	4.5	-	-	0.0	3.6	95.7	0.7	-	-	0.0	28.7	0.3	71.0	-	-	0.0	49.3	1.4	49.3	-	-	-
Total %	0.0	0.3	44.4	2.1	-	46.7	0.0	1.8	46.6	0.3	-	48.8	0.0	1.1	0.0	2.7	-	3.8	0.0	0.4	0.0	0.4	-	0.7	-
Lights	0	24	4118	199	-	4341	2	169	4351	31	-	4553	0	104	1	258	-	363	0	34	1	33	-	68	9325
% Lights	-	96.0	96.8	99.5	-	96.9	100.0	99.4	97.3	100.0	-	97.4	-	99.0	100.0	99.2	-	99.2	-	100.0	100.0	97.1	-	98.6	97.2
Buses	0	0	15	0	-	15	0	0	25	0	-	25	0	0	0	0	-	0	0	0	0	0	-	0	40
% Buses	-	0.0	0.4	0.0	-	0.3	0.0	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	85	1	-	86	0	1	65	0	-	66	0	1	0	1	-	2	0	0	0	0	-	0	154
% Single-Unit Trucks	-	0.0	2.0	0.5	-	1.9	0.0	0.6	1.5	0.0	-	1.4	-	1.0	0.0	0.4	-	0.5	-	0.0	0.0	0.0	-	0.0	1.6
Articulated Trucks	0	1	36	0	-	37	0	0	32	0	-	32	0	0	0	1	-	1	0	0	0	1	-	1	71
% Articulated Trucks	-	4.0	0.8	0.0	-	0.8	0.0	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.4	-	0.3	-	0.0	0.0	2.9	-	1.4	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	6	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Mcdonalds Access Dr TMC
Site Code:
Start Date: 09/01/2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Mcdonalds Access Dr Northbound						Access Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	2	323	22	0	347	0	16	222	1	0	239	0	9	0	19	0	28	0	3	0	1	0	4	618
7:45 AM	0	1	372	18	0	391	0	13	199	2	0	214	0	7	0	24	0	31	0	0	0	1	1	1	637
8:00 AM	0	2	305	21	0	328	0	15	202	1	1	218	0	8	0	28	0	36	0	3	0	4	0	7	589
8:15 AM	0	1	299	17	0	317	0	16	211	2	0	229	0	16	0	24	0	40	0	1	0	1	0	2	588
Total	0	6	1299	78	0	1383	0	60	834	6	1	900	0	40	0	95	0	135	0	7	0	7	1	14	2432
Approach %	0.0	0.4	93.9	5.6	-	-	0.0	6.7	92.7	0.7	-	-	0.0	29.6	0.0	70.4	-	-	0.0	50.0	0.0	50.0	-	-	-
Total %	0.0	0.2	53.4	3.2	-	56.9	0.0	2.5	34.3	0.2	-	37.0	0.0	1.6	0.0	3.9	-	5.6	0.0	0.3	0.0	0.3	-	0.6	-
PHF	0.000	0.750	0.873	0.886	-	0.884	0.000	0.938	0.939	0.750	-	0.941	0.000	0.625	0.000	0.848	-	0.844	0.000	0.583	0.000	0.438	-	0.500	0.954
Lights	0	5	1261	77	-	1343	0	59	788	6	-	853	0	39	0	94	-	133	0	7	0	6	-	13	2342
% Lights	-	83.3	97.1	98.7	-	97.1	-	98.3	94.5	100.0	-	94.8	-	97.5	-	98.9	-	98.5	-	100.0	-	85.7	-	92.9	96.3
Buses	0	0	4	0	-	4	0	0	12	0	-	12	0	0	0	0	-	0	0	0	0	0	-	0	16
% Buses	-	0.0	0.3	0.0	-	0.3	-	0.0	1.4	0.0	-	1.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	24	1	-	25	0	1	22	0	-	23	0	1	0	1	-	2	0	0	0	0	-	0	50
% Single-Unit Trucks	-	0.0	1.8	1.3	-	1.8	-	1.7	2.6	0.0	-	2.6	-	2.5	-	1.1	-	1.5	-	0.0	-	0.0	-	0.0	2.1
Articulated Trucks	0	1	10	0	-	11	0	0	12	0	-	12	0	0	0	0	-	0	0	0	0	1	-	1	24
% Articulated Trucks	-	16.7	0.8	0.0	-	0.8	-	0.0	1.4	0.0	-	1.3	-	0.0	-	0.0	-	0.0	-	0.0	-	14.3	-	7.1	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden Ave with Mcdonalds Access Dr TMC
Site Code:
Start Date: 09/01/2022

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Mcdonalds Access Dr Northbound						Access Dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:15 PM	0	1	230	0	0	231	0	10	382	2	0	394	0	6	1	12	0	19	0	2	0	0	0	2	646
4:30 PM	0	2	241	8	0	251	0	11	389	1	0	401	0	7	0	8	0	15	0	1	0	1	0	2	669
4:45 PM	0	2	221	8	0	231	0	2	368	2	0	372	0	4	0	6	0	10	0	4	0	3	1	7	620
5:00 PM	0	1	241	5	0	247	1	9	385	4	0	399	0	3	0	11	0	14	0	4	0	1	0	5	665
Total	0	6	933	21	0	960	1	32	1524	9	0	1566	0	20	1	37	0	58	0	11	0	5	1	16	2600
Approach %	0.0	0.6	97.2	2.2	-	-	0.1	2.0	97.3	0.6	-	-	0.0	34.5	1.7	63.8	-	-	0.0	68.8	0.0	31.3	-	-	-
Total %	0.0	0.2	35.9	0.8	-	36.9	0.0	1.2	58.6	0.3	-	60.2	0.0	0.8	0.0	1.4	-	2.2	0.0	0.4	0.0	0.2	-	0.6	-
PHF	0.000	0.750	0.968	0.656	-	0.956	0.250	0.727	0.979	0.563	-	0.976	0.000	0.714	0.250	0.771	-	0.763	0.000	0.688	0.000	0.417	-	0.571	0.972
Lights	0	6	899	21	-	926	1	32	1502	9	-	1544	0	20	1	37	-	58	0	11	0	5	-	16	2544
% Lights	-	100.0	96.4	100.0	-	96.5	100.0	100.0	98.6	100.0	-	98.6	-	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	97.8
Buses	0	0	3	0	-	3	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	7
% Buses	-	0.0	0.3	0.0	-	0.3	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	21	0	-	21	0	0	13	0	-	13	0	0	0	0	-	0	0	0	0	0	-	0	34
% Single-Unit Trucks	-	0.0	2.3	0.0	-	2.2	0.0	0.0	0.9	0.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.3
Articulated Trucks	0	0	10	0	-	10	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	15
% Articulated Trucks	-	0.0	1.1	0.0	-	1.0	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden+with+Cross TMC
Site Code:
Start Date: 09/01/2022
Page No: 1

Turning Movement Data

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Cross St Northbound						Access Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	260	1	0	261	0	0	183	0	0	183	0	0	0	2	1	2	0	0	0	0	0	0	446
7:15 AM	0	0	316	0	0	316	0	0	208	0	0	208	0	0	0	2	2	2	0	0	0	0	0	0	526
7:30 AM	0	0	353	3	0	356	0	0	247	0	0	247	0	0	0	1	1	1	0	0	0	1	0	1	605
7:45 AM	0	0	395	1	0	396	0	0	221	0	0	221	0	1	0	2	0	3	0	0	0	0	1	0	620
Hourly Total	0	0	1324	5	0	1329	0	0	859	0	0	859	0	1	0	7	4	8	0	0	0	1	1	1	2197
8:00 AM	0	0	336	0	0	336	0	0	219	0	0	219	0	0	0	3	0	3	0	0	0	1	1	1	559
8:15 AM	0	0	309	2	0	311	0	0	206	0	0	206	0	3	0	4	1	7	0	0	0	1	0	1	525
8:30 AM	0	0	292	1	0	293	0	0	220	0	0	220	0	1	0	2	1	3	0	0	0	1	0	1	517
8:45 AM	0	0	296	3	0	299	0	0	211	0	0	211	0	2	0	4	0	6	0	0	0	1	0	1	517
Hourly Total	0	0	1233	6	0	1239	0	0	856	0	0	856	0	6	0	13	2	19	0	0	0	4	1	4	2118
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	260	2	1	262	0	1	391	3	0	395	0	1	0	1	1	2	0	1	0	6	0	7	666
4:15 PM	0	0	218	2	0	220	0	0	390	2	0	392	0	2	0	4	0	6	0	1	0	8	0	9	627
4:30 PM	0	0	266	1	0	267	0	1	389	6	0	396	0	2	0	1	0	3	0	0	0	10	0	10	676
4:45 PM	0	0	224	2	0	226	0	1	412	7	0	420	0	1	0	2	0	3	0	0	0	9	0	9	658
Hourly Total	0	0	968	7	1	975	0	3	1582	18	0	1603	0	6	0	8	1	14	0	2	0	33	0	35	2627
5:00 PM	0	0	259	1	0	260	0	0	372	3	0	375	0	0	0	2	2	2	0	1	0	7	0	8	645
5:15 PM	0	0	264	3	0	267	0	0	364	5	0	369	0	1	0	4	0	5	0	1	0	10	0	11	652
5:30 PM	0	0	243	1	0	244	0	1	319	1	0	321	0	2	0	6	1	8	0	1	0	8	0	9	582
5:45 PM	0	0	262	3	0	265	0	0	303	3	0	306	0	0	0	3	0	3	0	0	0	8	0	8	582
Hourly Total	0	0	1028	8	0	1036	0	1	1358	12	0	1371	0	3	0	15	3	18	0	3	0	33	0	36	2461
Grand Total	0	0	4553	26	1	4579	0	4	4655	30	0	4689	0	16	0	43	10	59	0	5	0	71	2	76	9403
Approach %	0.0	0.0	99.4	0.6	-	-	0.0	0.1	99.3	0.6	-	-	0.0	27.1	0.0	72.9	-	-	0.0	6.6	0.0	93.4	-	-	-
Total %	0.0	0.0	48.4	0.3	-	48.7	0.0	0.0	49.5	0.3	-	49.9	0.0	0.2	0.0	0.5	-	0.6	0.0	0.1	0.0	0.8	-	0.8	-
Lights	0	0	4421	25	-	4446	0	4	4532	30	-	4566	0	16	0	39	-	55	0	5	0	71	-	76	9143
% Lights	-	-	97.1	96.2	-	97.1	-	100.0	97.4	100.0	-	97.4	-	100.0	-	90.7	-	93.2	-	100.0	-	100.0	-	100.0	97.2
Buses	0	0	16	0	-	16	0	0	21	0	-	21	0	0	0	4	-	4	0	0	0	0	-	0	41
% Buses	-	-	0.4	0.0	-	0.3	-	0.0	0.5	0.0	-	0.4	-	0.0	-	9.3	-	6.8	-	0.0	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	83	1	-	84	0	0	75	0	-	75	0	0	0	0	-	0	0	0	0	0	-	0	159
% Single-Unit Trucks	-	-	1.8	3.8	-	1.8	-	0.0	1.6	0.0	-	1.6	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.7
Articulated Trucks	0	0	33	0	-	33	0	0	25	0	-	25	0	0	0	0	-	0	0	0	0	0	-	0	58
% Articulated Trucks	-	-	0.7	0.0	-	0.7	-	0.0	0.5	0.0	-	0.5	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	2

% Bicycles on Road	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden+with+Cross TMC
Site Code:
Start Date: 09/01/2022
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Cross St Northbound						Access Dr Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	0	353	3	0	356	0	0	247	0	0	247	0	0	0	1	1	1	0	0	0	1	0	1	605
7:45 AM	0	0	395	1	0	396	0	0	221	0	0	221	0	1	0	2	0	3	0	0	0	0	1	0	620
8:00 AM	0	0	336	0	0	336	0	0	219	0	0	219	0	0	0	3	0	3	0	0	0	1	1	1	559
8:15 AM	0	0	309	2	0	311	0	0	206	0	0	206	0	3	0	4	1	7	0	0	0	1	0	1	525
Total	0	0	1393	6	0	1399	0	0	893	0	0	893	0	4	0	10	2	14	0	0	0	3	2	3	2309
Approach %	0.0	0.0	99.6	0.4	-	-	0.0	0.0	100.0	0.0	-	-	0.0	28.6	0.0	71.4	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	60.3	0.3	-	60.6	0.0	0.0	38.7	0.0	-	38.7	0.0	0.2	0.0	0.4	-	0.6	0.0	0.0	0.0	0.1	-	0.1	-
PHF	0.000	0.000	0.882	0.500	-	0.883	0.000	0.000	0.904	0.000	-	0.904	0.000	0.333	0.000	0.625	-	0.500	0.000	0.000	0.000	0.750	-	0.750	0.931
Lights	0	0	1360	6	-	1366	0	0	841	0	-	841	0	4	0	6	-	10	0	0	0	3	-	3	2220
% Lights	-	-	97.6	100.0	-	97.6	-	-	94.2	-	-	94.2	-	100.0	-	60.0	-	71.4	-	-	-	100.0	-	100.0	96.1
Buses	0	0	5	0	-	5	0	0	10	0	-	10	0	0	0	4	-	4	0	0	0	0	-	0	19
% Buses	-	-	0.4	0.0	-	0.4	-	-	1.1	-	-	1.1	-	0.0	-	40.0	-	28.6	-	-	-	0.0	-	0.0	0.8
Single-Unit Trucks	0	0	20	0	-	20	0	0	30	0	-	30	0	0	0	0	-	0	0	0	0	0	-	0	50
% Single-Unit Trucks	-	-	1.4	0.0	-	1.4	-	-	3.4	-	-	3.4	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	2.2
Articulated Trucks	0	0	8	0	-	8	0	0	11	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	19
% Articulated Trucks	-	-	0.6	0.0	-	0.6	-	-	1.2	-	-	1.2	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	-	0.0	0.0	-	0.0	-	-	0.1	-	-	0.1	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

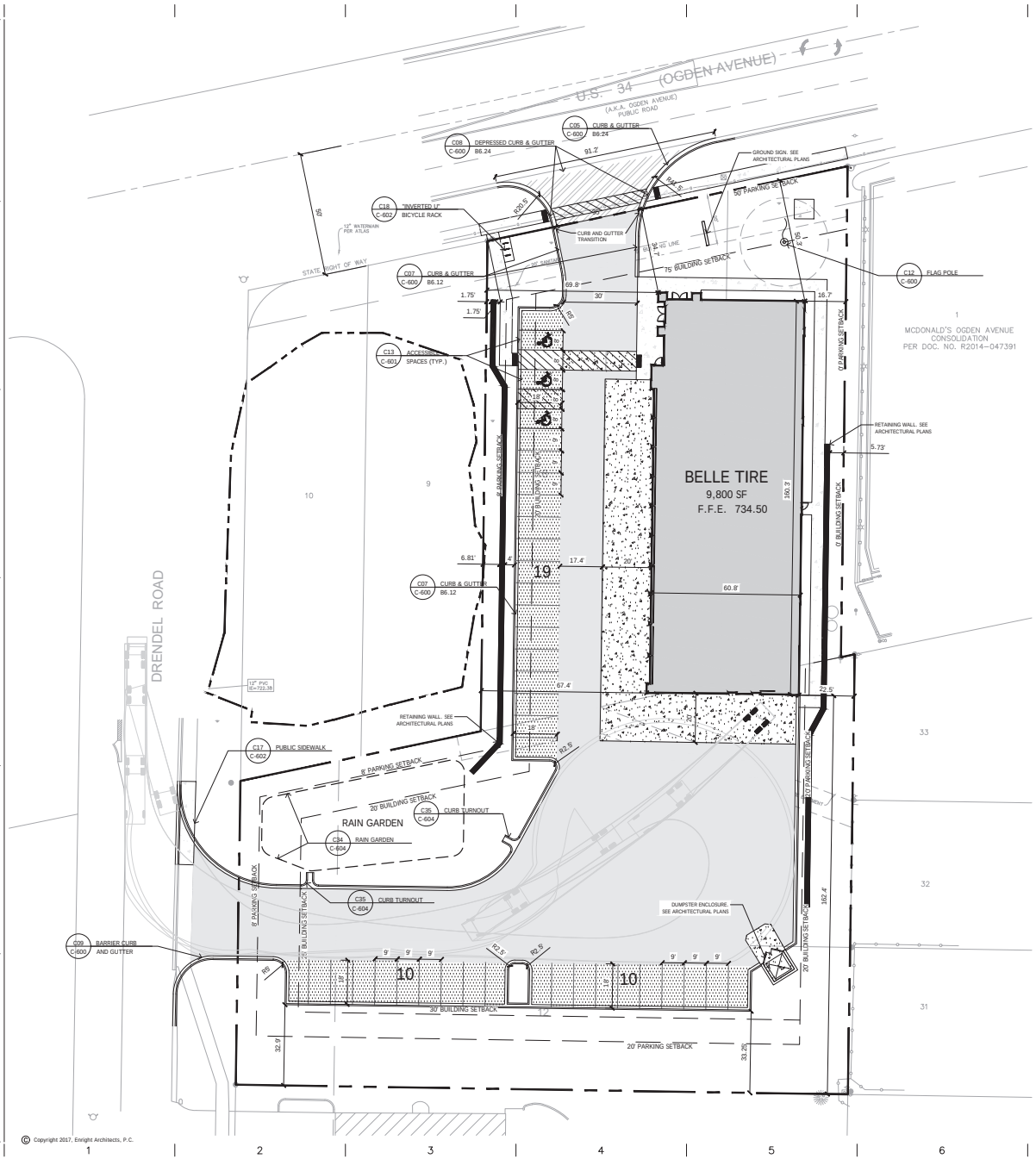
Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Ogden+with+Cross TMC
Site Code:
Start Date: 09/01/2022
Page No: 4

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ogden Ave Eastbound						Ogden Ave Westbound						Cross St Northbound						Access Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:15 PM	0	0	218	2	0	220	0	0	390	2	0	392	0	2	0	4	0	6	0	1	0	8	0	9	627
4:30 PM	0	0	266	1	0	267	0	1	389	6	0	396	0	2	0	1	0	3	0	0	0	10	0	10	676
4:45 PM	0	0	224	2	0	226	0	1	412	7	0	420	0	1	0	2	0	3	0	0	0	9	0	9	658
5:00 PM	0	0	259	1	0	260	0	0	372	3	0	375	0	0	0	2	2	2	0	1	0	7	0	8	645
Total	0	0	967	6	0	973	0	2	1563	18	0	1583	0	5	0	9	2	14	0	2	0	34	0	36	2606
Approach %	0.0	0.0	99.4	0.6	-	-	0.0	0.1	98.7	1.1	-	-	0.0	35.7	0.0	64.3	-	-	0.0	5.6	0.0	94.4	-	-	-
Total %	0.0	0.0	37.1	0.2	-	37.3	0.0	0.1	60.0	0.7	-	60.7	0.0	0.2	0.0	0.3	-	0.5	0.0	0.1	0.0	1.3	-	1.4	-
PHF	0.000	0.000	0.909	0.750	-	0.911	0.000	0.500	0.948	0.643	-	0.942	0.000	0.625	0.000	0.563	-	0.583	0.000	0.500	0.000	0.850	-	0.900	0.964
Lights	0	0	931	6	-	937	0	2	1543	18	-	1563	0	5	0	9	-	14	0	2	0	34	-	36	2550
% Lights	-	-	96.3	100.0	-	96.3	-	100.0	98.7	100.0	-	98.7	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	97.9
Buses	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
% Buses	-	-	0.2	0.0	-	0.2	-	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	24	0	-	24	0	0	14	0	-	14	0	0	0	0	-	0	0	0	0	0	-	0	38
% Single-Unit Trucks	-	-	2.5	0.0	-	2.5	-	0.0	0.9	0.0	-	0.9	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.5
Articulated Trucks	0	0	10	0	-	10	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	13
% Articulated Trucks	-	-	1.0	0.0	-	1.0	-	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Site Plan



Know what's below. Call before you dig.

811 Call Before You Dig. JULIE ILLINOIS ONE-CALL SYSTEM

N

0 20 40
1" = 20'

LEGEND

	C01 C-600	HEAVY DUTY ASPHALT PAVEMENT
	C02 C-600	LIGHT DUTY ASPHALT PAVEMENT
	C03 C-600	HEAVY DUTY CONCRETE PAVEMENT
	C04 C-600	CONCRETE SIDEWALK
	C20 C-601	HEAVY DUTY CONCRETE PAVEMENT AT R/W

BID ALTERNATE #1:
INSTALLATION OF LIGHT AND HEAVY DUTY CONCRETE PAVEMENT (DETAILS ON C600) IN LIEU OF ALL LIGHT AND HEAVY DUTY ASPHALT PAVEMENT.

NOTES

1. REFER TO GENERAL NOTES ON SHEET C-001 FOR ADDITIONAL INFORMATION.
2. THE BASIS FOR THE GEOMETRIC LAYOUT IS A BEST FIT LINE ALONG EAST PROPERTY LINE ADJACENT TO PARKING.
3. DIMENSIONS ARE TO FRONT OF CURB IN ALL PAVED AREAS, BACK OF CURB IN GRASS/LANDSCAPE AREAS AND OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
4. ANY CONTRACTOR DAMAGE TO EXISTING PAVEMENT OR CURBS TO REMAIN SHALL BE REMOVED AND RESTORED TO PROPOSED SPECIFICATIONS.
5. EXISTING CONDITIONS ARE AS SHOWN PER SURVEY BY OTHERS.

SITE SUMMARY

LOT SIZE:	±1.54 AC.
ZONING:	B-3, GEN SERVICES AND HWY BUSINESS
BUILDING SIZE:	9,800 SF.
BUILDING YARD SETBACKS:	
FRONT	75 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	20 FT. (EAST - ZONED R-1)
	20 FT. (WEST)
	25 FT. (WEST - DRENDELL FRONTAGE)
REAR	30 FT.
PARKING SETBACKS:	
FRONT	50 FT. (FROM OGDEN CENTERLINE)
SIDE	0 FT. (EAST - ZONED B-3)
	20 FT. (EAST - ZONED R-1)
	8 FT. (WEST)
	8 FT. (WEST - DRENDELL FRONTAGE)
REAR	20 FT.
SURROUNDING ZONING:	R-1 (EAST/WEST)
	R-4 (SOUTH)
	B-3 (EAST/NORTH)

PARKING SUMMARY

MIN. SIZE:	9 FT. x 18 FT.
MIN. DRIVE WIDTH:	24 FT.
MIN. SPACES REQUIRED:	36 (1/BAY PARKING + 2/BAY STACKING + 3.5 SPACES PER 1000 SQ FT OF RETAIL SPACE)
SPACES PROVIDED:	39
ADA SPACES REQUIRED:	2
ADA SPACES PROVIDED:	3

Project Name:	**Belle Tire - Downers Grove**				
Address:	**2539 Ogden Avenue, Downers Grove, IL 60515**				
PIN(s):	08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012				
Zoning District:	B-3 General Services and Highway Business				
Existing Use:	Lanscaping and Landscaping Materials Business				
Proposed Use:	Auto Service and Repair				
Petition Type:	Commercial Development - Special Use				
Deviations:	Signage/Flagpole				
Requirement	Factor	Required	Proposed	Meets?	Difference
Lot Frontage (ft)	Minimum	100	150	Yes	50
Lot Area (acres)	Minimum	0.24 (10,500 sq ft)	1.54 (67,099 sq ft)	Yes	1.30
Lot Width (ft)	Minimum	100	150	Yes	50
Street Yard (ft)	Minimum	50	85	Yes	35
Rear Yard (ft)	Minimum	20	162	Yes	142
Height (ft)	Maximum	60	28	Yes	-32
Open Space (%)	Minimum	15	37.6 (25,267 sq ft)	Yes	22.6
FAR (%)	Maximum		14.6 (9,800 sq ft)	Yes	
Parking (spaces)*	Minimum	36	39	Yes	3
Donations	NA	NA	NA	NA	NA

Remarks:
* based on unit type/count
1 per bay + 2 per bay stacking + 3.5 per 1,000 SF of Retail Space

CHRISTOPHER ENRIGHT ARCHITECTS
628 E. Parent Avenue
Suite 106
Royal Oak, MI 48067
248.258.6485 (O)
248.330.9395 (C)
cenright@enrightarchitects.com

Belle Tire
Downers Grove, IL

2539 Ogden Avenue
Downers Grove, IL 60515

SITE PLAN

ISSUED
PERMIT SUBMITTAL: 2022.09.30
PERMIT RESUBMITTAL: 2022.11.30

21-350

C 200

ITE Trip Generation Summary Sheets

Land Use: 848
Tire Store

Description

The primary business associated with a tire store is the sale of tires for automotive vehicles. Services offered by these stores usually include tire installation and repair, as well as other automotive maintenance or repair services and customer assistance. These stores generally do not contain large storage or warehouse areas. Automobile parts sales (Land Use 843), tire superstore (Land Use 849), and automobile parts and service center (Land Use 943) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Florida, Minnesota, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, and Wisconsin.

Source Numbers

328, 359, 438, 555, 571, 583, 599, 870, 886, 887, 959, 1049

Tire Store
(848)

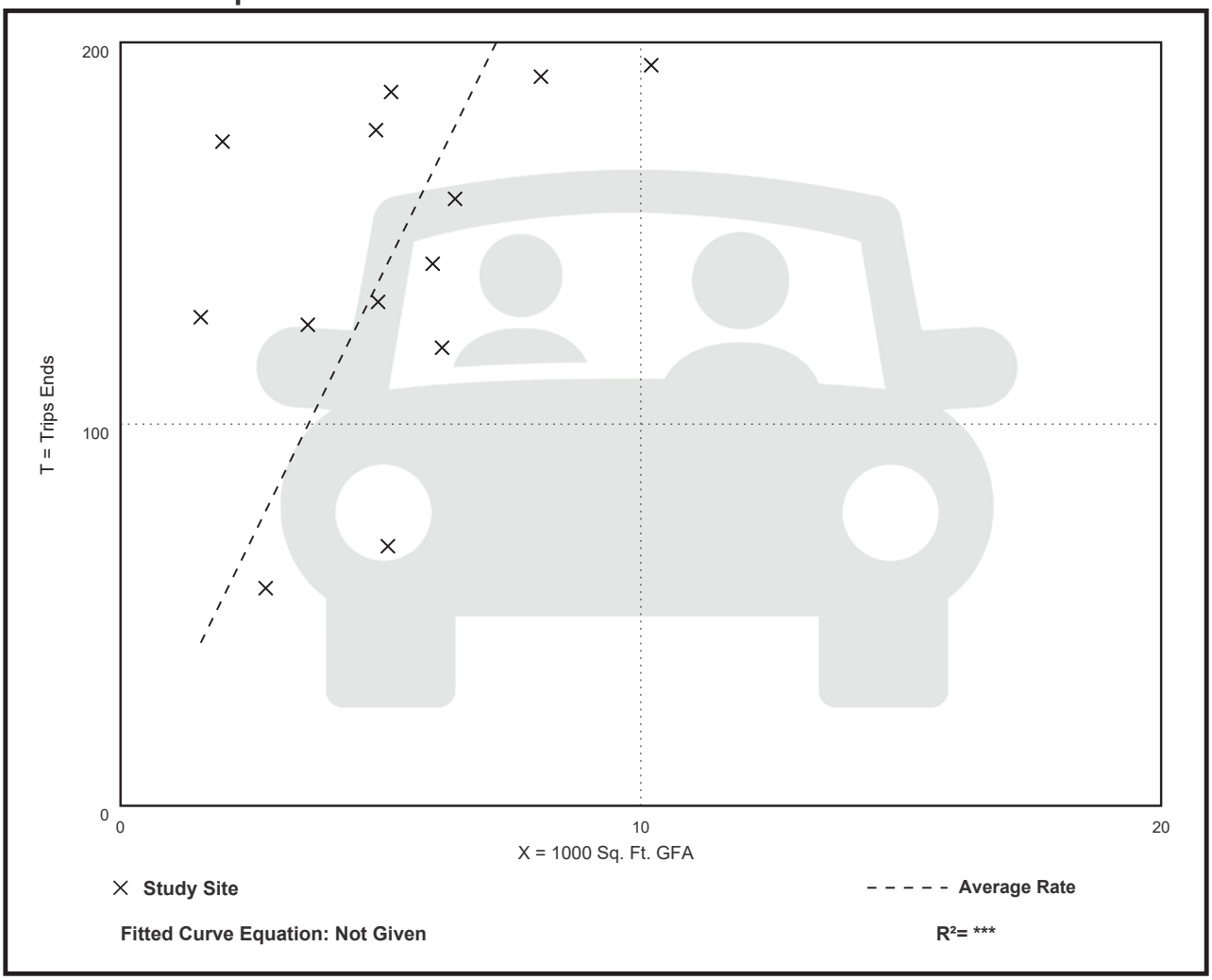
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
27.69	13.23 - 88.78	15.90

Data Plot and Equation



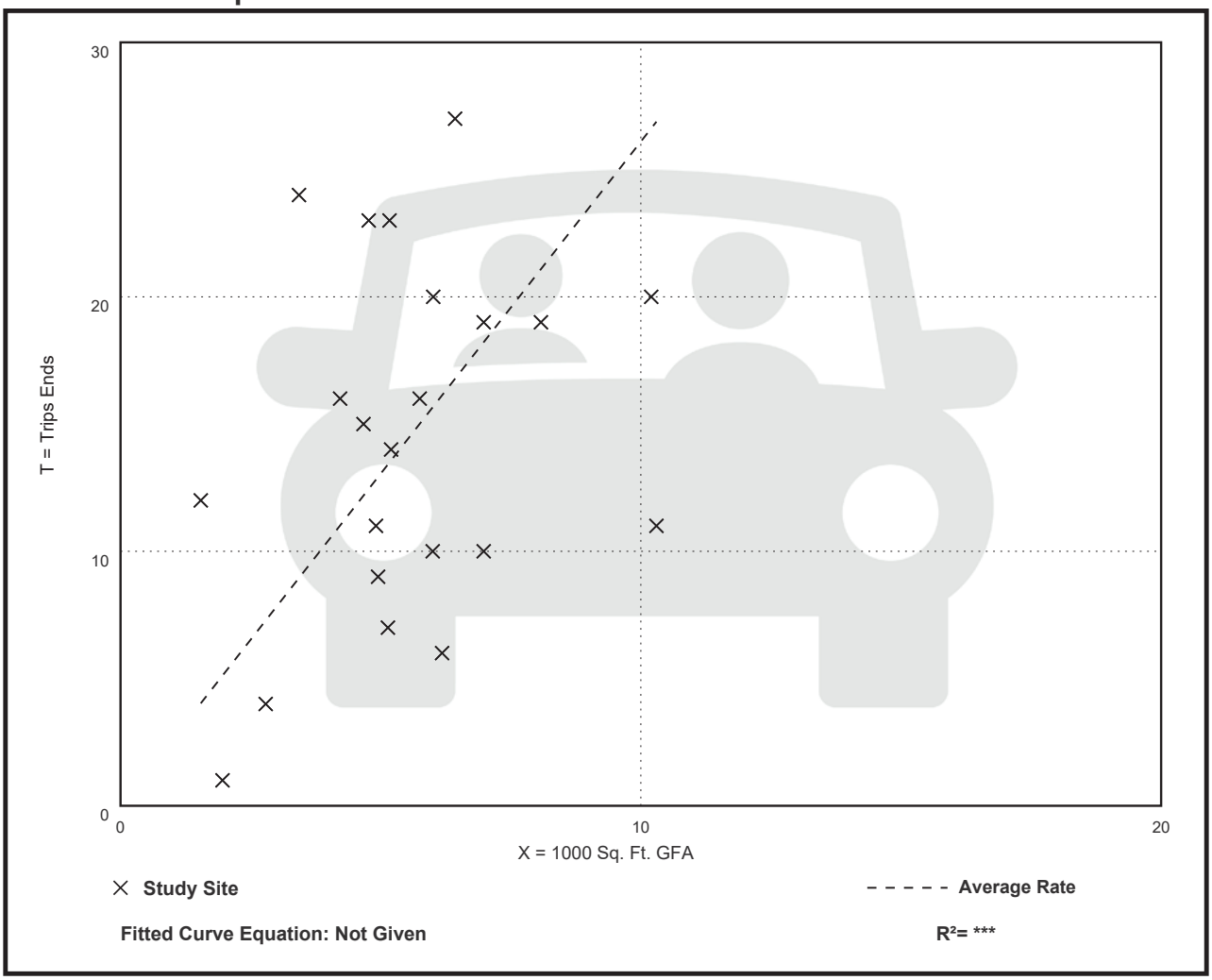
Tire Store
(848)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.61	0.51 - 7.78	1.50

Data Plot and Equation



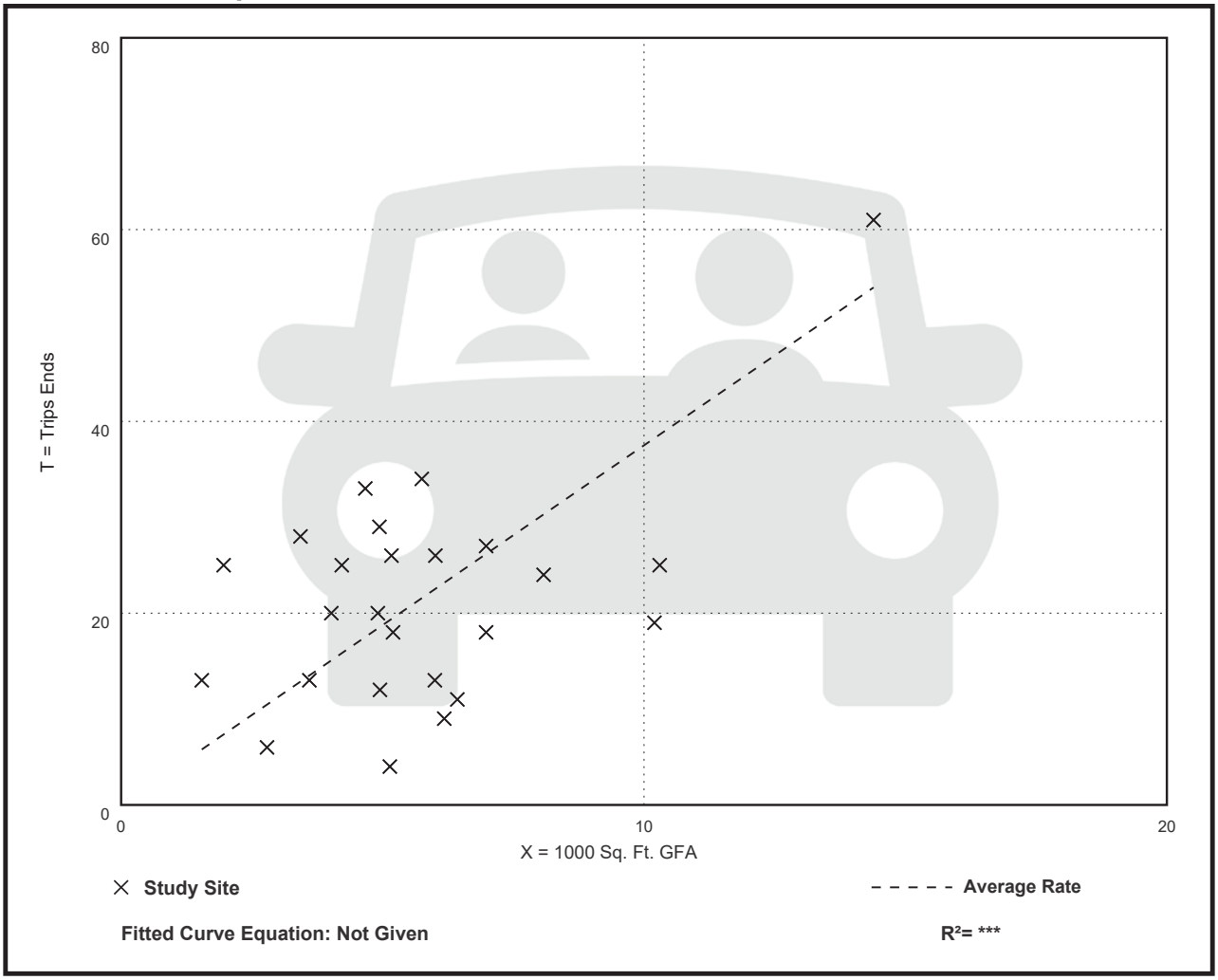
Tire Store
(848)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 43% entering, 57% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.75	0.78 - 12.76	2.09

Data Plot and Equation



Tire Store
(848)

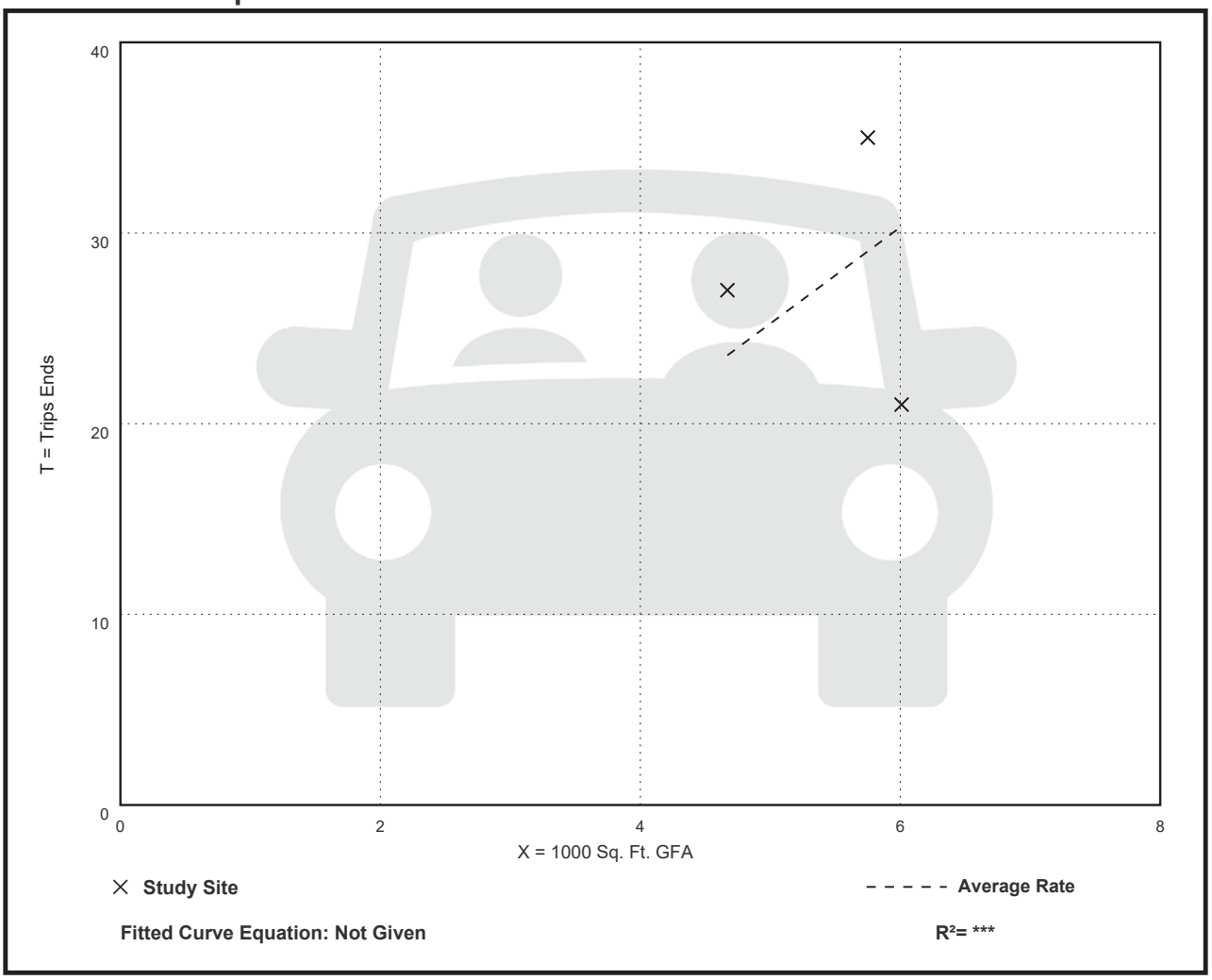
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
5.05	3.49 - 6.09	1.46

Data Plot and Equation



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

September 28, 2022

Shahrzad Ainkeshavarzi
Traffic Engineer
Kenig, Lindgren, O'Hara, Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: ***Ogden Avenue (US34) @ Authority Drive***
IDOT

Dear Ms. Ainkeshavarzi

In response to a request made on your behalf and dated September 28, 2022, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	2019 ADT (DuDOT)	2020 ADT (IDOT)	Year 2050 ADT
Ogden Ave, @ Authority Dr	30,400	27,700	33,700
Authority Dr north of Ogden Ave	3,700	1,000	4,100

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2021 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
2022_ForecastTraffic\DownersGrove\du-46-22\du-46-22.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high, and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1850	8	0	1161	0	5	0	13	0	0	4
Future Vol, veh/h	0	1850	8	0	1161	0	5	0	13	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	6	0	0	0	40	0	0	0
Mvmt Flow	0	1989	9	0	1248	0	5	0	14	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1998	0	0	2618	3242	999	-	-	624
Stage 1	-	-	-	-	-	-	1994	1994	-	-	-	-
Stage 2	-	-	-	-	-	-	624	1248	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	7.7	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.7	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*498	-	-	*12	*10	*296	0	0	*659
Stage 1	0	-	-	-	-	-	*313	*274	-	0	0	-
Stage 2	0	-	-	-	-	-	*621	*492	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*498	-	-	*12	*10	*296	-	-	*659
Mov Cap-2 Maneuver	-	-	-	-	-	-	*194	*165	-	-	-	-
Stage 1	-	-	-	-	-	-	*313	*274	-	-	-	-
Stage 2	-	-	-	-	-	-	*617	*492	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	20.1	10.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	-	-	* 498	-	-	659
HCM Lane V/C Ratio	0.075	-	-	-	-	-	0.007
HCM Control Delay (s)	20.1	-	-	0	-	-	10.5
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1816	13	12	1120	13	8	0	18	0	0	4
Future Vol, veh/h	0	1816	13	12	1120	13	8	0	18	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	20	22	6	0	0	0	0	0	0	0
Mvmt Flow	0	1953	14	13	1204	14	9	0	19	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1967	0	0	2588	3204	984	-	-	609
Stage 1	-	-	-	-	-	-	1960	1960	-	-	-	-
Stage 2	-	-	-	-	-	-	628	1244	-	-	-	-
Critical Hdwy	-	-	-	4.54	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.42	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*453	-	-	*13	*10	*332	0	0	*634
Stage 1	0	-	-	-	-	-	*313	*274	-	0	0	-
Stage 2	0	-	-	-	-	-	*598	*523	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*453	-	-	*13	*10	*332	-	-	*634
Mov Cap-2 Maneuver	-	-	-	-	-	-	*191	*167	-	-	-	-
Stage 1	-	-	-	-	-	-	*313	*274	-	-	-	-
Stage 2	-	-	-	-	-	-	*577	*508	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.8	10.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	-	-	* 453	-	-	634
HCM Lane V/C Ratio	0.103	-	-	0.028	-	-	0.007
HCM Control Delay (s)	19.8	-	-	13.2	-	-	10.7
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1725	101	78	1084	8	52	0	124	9	0	9
Future Vol, veh/h	8	1725	101	78	1084	8	52	0	124	9	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	17	3	1	2	6	0	3	0	1	0	0	14
Mvmt Flow	8	1816	106	82	1141	8	55	0	131	9	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1149	0	0	1922	0	0	2620	-	961	2233	3247	575
Stage 1	-	-	-	-	-	-	1885	-	-	1309	1309	-
Stage 2	-	-	-	-	-	-	735	-	-	924	1938	-
Critical Hdwy	4.44	-	-	4.14	-	-	7.56	-	6.92	7.5	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Follow-up Hdwy	2.37	-	-	2.22	-	-	3.53	-	3.31	3.5	4	3.44
Pot Cap-1 Maneuver	*917	-	-	*562	-	-	*~ 12	0	*376	*24	*9	*631
Stage 1	-	-	-	-	-	-	*353	0	-	*476	*446	-
Stage 2	-	-	-	-	-	-	*615	0	-	*356	*312	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*917	-	-	*562	-	-	*~ 10	-	*376	*14	*8	*631
Mov Cap-2 Maneuver	-	-	-	-	-	-	*194	-	-	*107	*133	-
Stage 1	-	-	-	-	-	-	*350	-	-	*472	*381	-
Stage 2	-	-	-	-	-	-	*517	-	-	*230	*309	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	22.9	26.9
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	194	376	* 917	-	-	* 562	-	-	183
HCM Lane V/C Ratio	0.282	0.347	0.009	-	-	0.146	-	-	0.104
HCM Control Delay (s)	30.7	19.6	9	-	-	12.5	-	-	26.9
HCM Lane LOS	D	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.1	1.5	0	-	-	0.5	-	-	0.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1277	8	3	2032	23	7	0	12	0	0	44
Future Vol, veh/h	0	1277	8	3	2032	23	7	0	12	0	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	2
Mvmt Flow	0	1330	8	3	2117	24	7	0	13	0	0	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1338	0	0	2399	3481	669	-	-	1071
Stage 1	-	-	-	-	-	-	1334	1334	-	-	-	-
Stage 2	-	-	-	-	-	-	1065	2147	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*845	-	-	*73	*0	*563	0	0	*338
Stage 1	0	-	-	-	-	-	*531	*465	-	0	0	-
Stage 2	0	-	-	-	-	-	*320	*216	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*845	-	-	*63	*0	*563	-	-	*338
Mov Cap-2 Maneuver	-	-	-	-	-	-	*192	*135	-	-	-	-
Stage 1	-	-	-	-	-	-	*531	*465	-	-	-	-
Stage 2	-	-	-	-	-	-	*277	*216	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	16.6	17.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	329	-	-	* 845	-	-	338
HCM Lane V/C Ratio	0.06	-	-	0.004	-	-	0.136
HCM Control Delay (s)	16.6	-	-	9.3	0	-	17.3
HCM Lane LOS	C	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1238	13	34	2024	3	18	0	20	0	0	57
Future Vol, veh/h	0	1238	13	34	2024	3	18	0	20	0	0	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	10	0	1	0	7	0	0	0	0	2
Mvmt Flow	0	1276	13	35	2087	3	19	0	21	0	0	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1289	0	0	2397	3443	645	-	-	1045
Stage 1	-	-	-	-	-	-	1283	1283	-	-	-	-
Stage 2	-	-	-	-	-	-	1114	2160	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.64	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.57	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*881	-	-	*32	*1	*587	0	0	*254
Stage 1	0	-	-	-	-	-	*543	*484	-	0	0	-
Stage 2	0	-	-	-	-	-	*236	*211	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*881	-	-	*24	*1	*587	-	-	*254
Mov Cap-2 Maneuver	-	-	-	-	-	-	*128	*130	-	-	-	-
Stage 1	-	-	-	-	-	-	*543	*484	-	-	-	-
Stage 2	-	-	-	-	-	-	*174	*202	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	25.1	23.4
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	218	-	-	* 881	-	-	254
HCM Lane V/C Ratio	0.18	-	-	0.04	-	-	0.231
HCM Control Delay (s)	25.1	-	-	9.3	-	-	23.4
HCM Lane LOS	D	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	-	0.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1223	27	43	2028	12	26	0	48	14	0	7
Future Vol, veh/h	8	1223	27	43	2028	12	26	0	48	14	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	1261	28	44	2091	12	27	0	49	14	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2103	0	0	1289	0	0	2425	-	645	2832	3490	1052
Stage 1	-	-	-	-	-	-	1291	-	-	2185	2185	-
Stage 2	-	-	-	-	-	-	1134	-	-	647	1305	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*384	-	-	*881	-	-	*197	0	*587	*~ 6	*0	*255
Stage 1	-	-	-	-	-	-	*553	0	-	*241	*211	-
Stage 2	-	-	-	-	-	-	*241	0	-	*553	*484	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*384	-	-	*881	-	-	*181	-	*587	*~ 5	*0	*255
Mov Cap-2 Maneuver	-	-	-	-	-	-	*193	-	-	*144	*125	-
Stage 1	-	-	-	-	-	-	*542	-	-	*236	*200	-
Stage 2	-	-	-	-	-	-	*222	-	-	*496	*474	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	16.9	29.6
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	193	587	* 384	-	-	* 881	-	-	168
HCM Lane V/C Ratio	0.139	0.084	0.021	-	-	0.05	-	-	0.129
HCM Control Delay (s)	26.6	11.7	14.6	-	-	9.3	-	-	29.6
HCM Lane LOS	D	B	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.5	0.3	0.1	-	-	0.2	-	-	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1160	13	0	1268	0	17	0	10	0	0	0
Future Vol, veh/h	0	1160	13	0	1268	0	17	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1208	14	0	1321	0	18	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1222	0	0	1876	2536	611	-	-	661
Stage 1	-	-	-	-	-	-	1215	1215	-	-	-	-
Stage 2	-	-	-	-	-	-	661	1321	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*917	-	-	*130	*113	*610	0	0	*616
Stage 1	0	-	-	-	-	-	*576	*504	-	0	0	-
Stage 2	0	-	-	-	-	-	*581	*494	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*917	-	-	*130	*113	*610	-	-	*616
Mov Cap-2 Maneuver	-	-	-	-	-	-	*323	*279	-	-	-	-
Stage 1	-	-	-	-	-	-	*576	*504	-	-	-	-
Stage 2	-	-	-	-	-	-	*581	*494	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14.9	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	391	-	-	* 917	-	-	-
HCM Lane V/C Ratio	0.072	-	-	-	-	-	-
HCM Control Delay (s)	14.9	-	-	0	-	-	0
HCM Lane LOS	B	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1125	9	21	1235	1	10	0	17	0	0	3
Future Vol, veh/h	0	1125	9	21	1235	1	10	0	17	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1172	9	22	1286	1	10	0	18	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1181	0	0	1864	2508	591	-	-	644
Stage 1	-	-	-	-	-	-	1177	1177	-	-	-	-
Stage 2	-	-	-	-	-	-	687	1331	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*952	-	-	*220	*31	*634	0	0	*587
Stage 1	0	-	-	-	-	-	*598	*523	-	0	0	-
Stage 2	0	-	-	-	-	-	*553	*484	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*952	-	-	*215	*31	*634	-	-	*587
Mov Cap-2 Maneuver	-	-	-	-	-	-	*356	*241	-	-	-	-
Stage 1	-	-	-	-	-	-	*598	*523	-	-	-	-
Stage 2	-	-	-	-	-	-	*538	*473	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	12.8	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	492	-	-	* 952	-	-	587
HCM Lane V/C Ratio	0.057	-	-	0.023	-	-	0.005
HCM Control Delay (s)	12.8	-	-	8.9	-	-	11.2
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1087	43	64	1209	12	34	0	77	9	0	14
Future Vol, veh/h	12	1087	43	64	1209	12	34	0	77	9	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	13	1132	45	67	1259	13	35	0	80	9	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1272	0	0	1177	0	0	1945	-	589	1992	2603	636
Stage 1	-	-	-	-	-	-	1181	-	-	1400	1400	-
Stage 2	-	-	-	-	-	-	764	-	-	592	1203	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*881	-	-	*988	-	-	*263	0	*658	*263	34	*587
Stage 1	-	-	-	-	-	-	*620	0	-	*532	470	-
Stage 2	-	-	-	-	-	-	*553	0	-	*620	530	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*881	-	-	*988	-	-	*241	-	*658	*217	31	*587
Mov Cap-2 Maneuver	-	-	-	-	-	-	*356	-	-	*325	218	-
Stage 1	-	-	-	-	-	-	*611	-	-	*524	438	-
Stage 2	-	-	-	-	-	-	*503	-	-	*537	522	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	12.7	13.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	356	658	* 881	-	-	* 988	-	-	446
HCM Lane V/C Ratio	0.099	0.122	0.014	-	-	0.067	-	-	0.054
HCM Control Delay (s)	16.2	11.2	9.1	-	-	8.9	-	-	13.5
HCM Lane LOS	C	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.4	0	-	-	0.2	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2028 No-Build Weekday Morning Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1895	8	0	1190	0	5	0	13	0	0	4
Future Vol, veh/h	0	1895	8	0	1190	0	5	0	13	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	6	0	0	0	40	0	0	0
Mvmt Flow	0	2038	9	0	1280	0	5	0	14	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	2047	0	0	2683	3323	1024	-	-	640
Stage 1	-	-	-	-	-	-	2043	2043	-	-	-	-
Stage 2	-	-	-	-	-	-	640	1280	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	7.7	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.7	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*464	-	-	*11	*8	*276	0	0	*659
Stage 1	0	-	-	-	-	-	*292	*255	-	0	0	-
Stage 2	0	-	-	-	-	-	*621	*467	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*464	-	-	*11	*8	*276	-	-	*659
Mov Cap-2 Maneuver	-	-	-	-	-	-	*185	*154	-	-	-	-
Stage 1	-	-	-	-	-	-	*292	*255	-	-	-	-
Stage 2	-	-	-	-	-	-	*617	*467	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	21.1	10.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	* 464	-	-	659
HCM Lane V/C Ratio	0.08	-	-	-	-	-	0.007
HCM Control Delay (s)	21.1	-	-	0	-	-	10.5
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1860	13	12	1148	13	8	0	18	0	0	4
Future Vol, veh/h	0	1860	13	12	1148	13	8	0	18	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	20	22	6	0	0	0	0	0	0	0
Mvmt Flow	0	2000	14	13	1234	14	9	0	19	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	2014	0	0	2650	3281	1007	-	-	624
Stage 1	-	-	-	-	-	-	2007	2007	-	-	-	-
Stage 2	-	-	-	-	-	-	643	1274	-	-	-	-
Critical Hdwy	-	-	-	4.54	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.42	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*453	-	-	*11	*9	*332	0	0	*610
Stage 1	0	-	-	-	-	-	*313	*274	-	0	0	-
Stage 2	0	-	-	-	-	-	*576	*504	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*453	-	-	*11	*9	*332	-	-	*610
Mov Cap-2 Maneuver	-	-	-	-	-	-	*187	*164	-	-	-	-
Stage 1	-	-	-	-	-	-	*313	*274	-	-	-	-
Stage 2	-	-	-	-	-	-	*555	*489	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	20	10.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	268	-	-	* 453	-	-	610
HCM Lane V/C Ratio	0.104	-	-	0.028	-	-	0.007
HCM Control Delay (s)	20	-	-	13.2	-	-	10.9
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1768	103	80	1112	8	53	0	126	9	0	9
Future Vol, veh/h	8	1768	103	80	1112	8	53	0	126	9	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	17	3	1	2	6	0	3	0	1	0	0	14
Mvmt Flow	8	1861	108	84	1171	8	56	0	133	9	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1179	0	0	1969	0	0	2685	-	985	2290	3328	590
Stage 1	-	-	-	-	-	-	1931	-	-	1343	1343	-
Stage 2	-	-	-	-	-	-	754	-	-	947	1985	-
Critical Hdwy	4.44	-	-	4.14	-	-	7.56	-	6.92	7.5	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Follow-up Hdwy	2.37	-	-	2.22	-	-	3.53	-	3.31	3.5	4	3.44
Pot Cap-1 Maneuver	*884	-	-	*528	-	-	*~ 10	0	*354	*22	*8	*609
Stage 1	-	-	-	-	-	-	*332	0	-	*488	*451	-
Stage 2	-	-	-	-	-	-	*593	0	-	*335	*293	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*884	-	-	*528	-	-	*~ 9	-	*354	*12	*7	*609
Mov Cap-2 Maneuver	-	-	-	-	-	-	*183	-	-	*93	*125	-
Stage 1	-	-	-	-	-	-	*329	-	-	*484	*379	-
Stage 2	-	-	-	-	-	-	*491	-	-	*207	*290	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	24.7	30.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	354	* 884	-	-	* 528	-	-	161
HCM Lane V/C Ratio	0.305	0.375	0.01	-	-	0.159	-	-	0.118
HCM Control Delay (s)	33.1	21.1	9.1	-	-	13.1	-	-	30.3
HCM Lane LOS	D	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.2	1.7	0	-	-	0.6	-	-	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2028 No-Build Weekday Evening Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1314	8	3	2091	23	7	0	12	0	0	45
Future Vol, veh/h	0	1314	8	3	2091	23	7	0	12	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	2
Mvmt Flow	0	1369	8	3	2178	24	7	0	13	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1377	0	0	2468	3581	689	-	-	1101
Stage 1	-	-	-	-	-	-	1373	1373	-	-	-	-
Stage 2	-	-	-	-	-	-	1095	2208	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*845	-	-	*73	*0	*563	0	0	*317
Stage 1	0	-	-	-	-	-	*531	*465	-	0	0	-
Stage 2	0	-	-	-	-	-	*300	*198	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*845	-	-	*62	*0	*563	-	-	*317
Mov Cap-2 Maneuver	-	-	-	-	-	-	*182	*127	-	-	-	-
Stage 1	-	-	-	-	-	-	*531	*465	-	-	-	-
Stage 2	-	-	-	-	-	-	*256	*198	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.1	18.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	318	-	-	* 845	-	-	317
HCM Lane V/C Ratio	0.062	-	-	0.004	-	-	0.148
HCM Control Delay (s)	17.1	-	-	9.3	0	-	18.3
HCM Lane LOS	C	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1274	13	35	2082	3	18	0	20	0	0	58
Future Vol, veh/h	0	1274	13	35	2082	3	18	0	20	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	10	0	1	0	7	0	0	0	0	2
Mvmt Flow	0	1313	13	36	2146	3	19	0	21	0	0	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1326	0	0	2465	3541	663	-	-	1075
Stage 1	-	-	-	-	-	-	1320	1320	-	-	-	-
Stage 2	-	-	-	-	-	-	1145	2221	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.64	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.57	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*845	-	-	*26	*1	*563	0	0	*231
Stage 1	0	-	-	-	-	-	*521	*465	-	0	0	-
Stage 2	0	-	-	-	-	-	*214	*191	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*845	-	-	*19	*1	*563	-	-	*231
Mov Cap-2 Maneuver	-	-	-	-	-	-	*113	*120	-	-	-	-
Stage 1	-	-	-	-	-	-	*521	*465	-	-	-	-
Stage 2	-	-	-	-	-	-	*152	*183	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	28	25.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	-	-	* 845	-	-	231
HCM Lane V/C Ratio	0.201	-	-	0.043	-	-	0.259
HCM Control Delay (s)	28	-	-	9.4	-	-	25.9
HCM Lane LOS	D	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	-	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1258	28	44	2087	12	27	0	49	14	0	7
Future Vol, veh/h	8	1258	28	44	2087	12	27	0	49	14	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	1297	29	45	2152	12	28	0	51	14	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2164	0	0	1326	0	0	2494	-	663	2913	3590	1082
Stage 1	-	-	-	-	-	-	1328	-	-	2248	2248	-
Stage 2	-	-	-	-	-	-	1166	-	-	665	1342	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*348	-	-	*881	-	-	*111	0	*587	*~ 3	*0	*232
Stage 1	-	-	-	-	-	-	*553	0	-	*219	*191	-
Stage 2	-	-	-	-	-	-	*219	0	-	*553	*484	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*348	-	-	*881	-	-	*102	-	*587	*~ 2	*0	*232
Mov Cap-2 Maneuver	-	-	-	-	-	-	*162	-	-	*133	*117	-
Stage 1	-	-	-	-	-	-	*541	-	-	*214	*182	-
Stage 2	-	-	-	-	-	-	*201	-	-	*494	*473	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	18.8	32
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	162	587	* 348	-	-	* 881	-	-	155
HCM Lane V/C Ratio	0.172	0.086	0.024	-	-	0.051	-	-	0.14
HCM Control Delay (s)	31.8	11.7	15.6	-	-	9.3	-	-	32
HCM Lane LOS	D	B	C	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.6	0.3	0.1	-	-	0.2	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2028 No-Build Saturday Midday Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1205	13	0	1323	0	17	0	10	0	0	0
Future Vol, veh/h	0	1205	13	0	1323	0	17	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1255	14	0	1378	0	18	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1269	0	0	1951	2640	635	-	-	689
Stage 1	-	-	-	-	-	-	1262	1262	-	-	-	-
Stage 2	-	-	-	-	-	-	689	1378	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*881	-	-	*95	*84	*587	0	0	*595
Stage 1	0	-	-	-	-	-	*553	*484	-	0	0	-
Stage 2	0	-	-	-	-	-	*561	*477	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*881	-	-	*95	*84	*587	-	-	*595
Mov Cap-2 Maneuver	-	-	-	-	-	-	*298	*258	-	-	-	-
Stage 1	-	-	-	-	-	-	*553	*484	-	-	-	-
Stage 2	-	-	-	-	-	-	*561	*477	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	15.7	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	364	-	-	* 881	-	-	-
HCM Lane V/C Ratio	0.077	-	-	-	-	-	-
HCM Control Delay (s)	15.7	-	-	0	-	-	0
HCM Lane LOS	C	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1170	9	21	1290	1	10	0	17	0	0	3
Future Vol, veh/h	0	1170	9	21	1290	1	10	0	17	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1219	9	22	1344	1	10	0	18	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1228	0	0	1940	2613	614	-	-	673
Stage 1	-	-	-	-	-	-	1224	1224	-	-	-	-
Stage 2	-	-	-	-	-	-	716	1389	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*917	-	-	*194	*23	*610	0	0	*563
Stage 1	0	-	-	-	-	-	*576	*504	-	0	0	-
Stage 2	0	-	-	-	-	-	*531	*465	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*917	-	-	*189	*22	*610	-	-	*563
Mov Cap-2 Maneuver	-	-	-	-	-	-	*334	*228	-	-	-	-
Stage 1	-	-	-	-	-	-	*576	*504	-	-	-	-
Stage 2	-	-	-	-	-	-	*515	*454	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	13.2	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	467	-	-	* 917	-	-	563
HCM Lane V/C Ratio	0.06	-	-	0.024	-	-	0.006
HCM Control Delay (s)	13.2	-	-	9	-	-	11.4
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1131	44	65	1263	12	35	0	79	9	0	14
Future Vol, veh/h	12	1131	44	65	1263	12	35	0	79	9	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	13	1178	46	68	1316	13	36	0	82	9	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1329	0	0	1224	0	0	2021	-	612	2074	2709	665
Stage 1	-	-	-	-	-	-	1227	-	-	1459	1459	-
Stage 2	-	-	-	-	-	-	794	-	-	615	1250	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*845	-	-	*952	-	-	*241	0	*634	*241	*20	*563
Stage 1	-	-	-	-	-	-	*598	0	-	*518	*457	-
Stage 2	-	-	-	-	-	-	*531	0	-	*598	*523	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*845	-	-	*952	-	-	*219	-	*634	*196	*18	*563
Mov Cap-2 Maneuver	-	-	-	-	-	-	*335	-	-	*305	*207	-
Stage 1	-	-	-	-	-	-	*589	-	-	*510	*424	-
Stage 2	-	-	-	-	-	-	*480	-	-	*512	*516	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	13.2	14
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	634	* 845	-	-	* 952	-	-	423
HCM Lane V/C Ratio	0.109	0.13	0.015	-	-	0.071	-	-	0.057
HCM Control Delay (s)	17.1	11.5	9.3	-	-	9.1	-	-	14
HCM Lane LOS	C	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.4	0	-	-	0.2	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Capacity Analysis Summary Sheets

Year 2028 Total Projected Weekday Morning Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1901	8	0	1200	0	5	0	13	0	0	4
Future Vol, veh/h	0	1901	8	0	1200	0	5	0	13	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	6	0	0	0	40	0	0	0
Mvmt Flow	0	2044	9	0	1290	0	5	0	14	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	2053	0	0	2694	3339	1027	-	-	645
Stage 1	-	-	-	-	-	-	2049	2049	-	-	-	-
Stage 2	-	-	-	-	-	-	645	1290	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	7.7	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.7	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*464	-	-	*11	*8	*276	0	0	*659
Stage 1	0	-	-	-	-	-	*292	*255	-	0	0	-
Stage 2	0	-	-	-	-	-	*621	*460	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*464	-	-	*11	*8	*276	-	-	*659
Mov Cap-2 Maneuver	-	-	-	-	-	-	*185	*153	-	-	-	-
Stage 1	-	-	-	-	-	-	*292	*255	-	-	-	-
Stage 2	-	-	-	-	-	-	*617	*460	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	21.1	10.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	* 464	-	-	659
HCM Lane V/C Ratio	0.08	-	-	-	-	-	0.007
HCM Control Delay (s)	21.1	-	-	0	-	-	10.5
HCM Lane LOS	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1866	13	22	1148	13	12	0	18	0	0	4
Future Vol, veh/h	0	1866	13	22	1148	13	12	0	18	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	20	22	6	0	0	0	0	0	0	0
Mvmt Flow	0	2006	14	24	1234	14	13	0	19	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	2020	0	0	2678	3309	1010	-	-	624
Stage 1	-	-	-	-	-	-	2013	2013	-	-	-	-
Stage 2	-	-	-	-	-	-	665	1296	-	-	-	-
Critical Hdwy	-	-	-	4.54	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.42	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*422	-	-	*~ 11	*9	*309	0	0	*610
Stage 1	0	-	-	-	-	-	*292	*255	-	0	0	-
Stage 2	0	-	-	-	-	-	*576	*504	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			1
Mov Cap-1 Maneuver	-	-	-	*422	-	-	*~ 10	*8	*309	-	-	*610
Mov Cap-2 Maneuver	-	-	-	-	-	-	*177	*155	-	-	-	-
Stage 1	-	-	-	-	-	-	*292	*255	-	-	-	-
Stage 2	-	-	-	-	-	-	*539	*475	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	22.5	10.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	238	-	-	* 422	-	-	610
HCM Lane V/C Ratio	0.136	-	-	0.056	-	-	0.007
HCM Control Delay (s)	22.5	-	-	14	-	-	10.9
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1774	103	80	1122	8	53	0	126	9	0	9
Future Vol, veh/h	8	1774	103	80	1122	8	53	0	126	9	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	17	3	1	2	5	0	3	0	1	0	0	14
Mvmt Flow	8	1867	108	84	1181	8	56	0	133	9	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1189	0	0	1975	0	0	2696	-	988	2303	3344	595
Stage 1	-	-	-	-	-	-	1937	-	-	1353	1353	-
Stage 2	-	-	-	-	-	-	759	-	-	950	1991	-
Critical Hdwy	4.44	-	-	4.14	-	-	7.56	-	6.92	7.5	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	-	-	6.5	5.5	-
Follow-up Hdwy	2.37	-	-	2.22	-	-	3.53	-	3.31	3.5	4	3.44
Pot Cap-1 Maneuver	*884	-	-	*528	-	-	*~ 10	0	*354	*21	*8	*609
Stage 1	-	-	-	-	-	-	*332	0	-	*477	*443	-
Stage 2	-	-	-	-	-	-	*593	0	-	*335	*293	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*884	-	-	*528	-	-	*~ 9	-	*354	*11	*7	*609
Mov Cap-2 Maneuver	-	-	-	-	-	-	*183	-	-	*92	*124	-
Stage 1	-	-	-	-	-	-	*329	-	-	*473	*373	-
Stage 2	-	-	-	-	-	-	*491	-	-	*207	*290	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	24.7	30.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	354	* 884	-	-	* 528	-	-	160
HCM Lane V/C Ratio	0.305	0.375	0.01	-	-	0.159	-	-	0.118
HCM Control Delay (s)	33.1	21.1	9.1	-	-	13.1	-	-	30.5
HCM Lane LOS	D	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.2	1.7	0	-	-	0.6	-	-	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
12: Proposed North Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1879	6	0	1184	0	6
Future Vol, veh/h	1879	6	0	1184	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1978	6	0	1246	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1984	0	2604	992
Stage 1	-	-	-	-	1981	-
Stage 2	-	-	-	-	623	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	*432	-	*20	*289
Stage 1	-	-	-	-	*273	-
Stage 2	-	-	-	-	*562	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*432	-	*20	*289
Mov Cap-2 Maneuver	-	-	-	-	*176	-
Stage 1	-	-	-	-	*273	-
Stage 2	-	-	-	-	*562	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	289	-	-	* 432	-
HCM Lane V/C Ratio	0.022	-	-	-	-
HCM Control Delay (s)	17.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
20: Drendel Road & Proposed West Access Drive 01/20/2023

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	26	0	10	25
Future Vol, veh/h	0	4	26	0	10	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	27	0	11	26

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	75	27	0	0	27	0
Stage 1	27	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	928	1048	-	-	1587	-
Stage 1	996	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	922	1048	-	-	1587	-
Mov Cap-2 Maneuver	922	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	967	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1048	1587	-
HCM Lane V/C Ratio	-	-	0.004	0.007	-
HCM Control Delay (s)	-	-	8.4	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2028 Total Projected Weekday Evening Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1327	8	3	2101	23	7	0	12	0	0	45
Future Vol, veh/h	0	1327	8	3	2101	23	7	0	12	0	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	2
Mvmt Flow	0	1382	8	3	2189	24	7	0	13	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1390	0	0	2487	3605	695	-	-	1107
Stage 1	-	-	-	-	-	-	1386	1386	-	-	-	-
Stage 2	-	-	-	-	-	-	1101	2219	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*810	-	-	*51	*0	*539	0	0	*295
Stage 1	0	-	-	-	-	-	*509	*445	-	0	0	-
Stage 2	0	-	-	-	-	-	*280	*215	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*810	-	-	*43	*0	*539	-	-	*295
Mov Cap-2 Maneuver	-	-	-	-	-	-	*164	*132	-	-	-	-
Stage 1	-	-	-	-	-	-	*509	*445	-	-	-	-
Stage 2	-	-	-	-	-	-	*236	*215	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	18.2	19.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	293	-	-	* 810	-	-	295
HCM Lane V/C Ratio	0.068	-	-	0.004	-	-	0.159
HCM Control Delay (s)	18.2	-	-	9.5	0	-	19.5
HCM Lane LOS	C	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1280	13	45	2082	3	26	0	20	0	0	58
Future Vol, veh/h	0	1280	13	45	2082	3	26	0	20	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	10	0	1	0	7	0	0	0	0	2
Mvmt Flow	0	1320	13	46	2146	3	27	0	21	0	0	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1333	0	0	2492	3568	667	-	-	1075
Stage 1	-	-	-	-	-	-	1327	1327	-	-	-	-
Stage 2	-	-	-	-	-	-	1165	2241	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.64	6.5	6.9	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.64	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.57	4	3.3	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	*845	-	-	*~ 23	*0	*563	0	0	*231
Stage 1	0	-	-	-	-	-	*521	*465	-	0	0	-
Stage 2	0	-	-	-	-	-	*214	*191	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*845	-	-	*~ 16	*0	*563	-	-	*231
Mov Cap-2 Maneuver	-	-	-	-	-	-	*111	*119	-	-	-	-
Stage 1	-	-	-	-	-	-	*521	*465	-	-	-	-
Stage 2	-	-	-	-	-	-	*150	*181	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	33.9	25.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	171	-	-	* 845	-	-	231
HCM Lane V/C Ratio	0.277	-	-	0.055	-	-	0.259
HCM Control Delay (s)	33.9	-	-	9.5	-	-	25.9
HCM Lane LOS	D	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.1	-	-	0.2	-	-	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1271	28	44	2097	12	27	0	49	14	0	7
Future Vol, veh/h	8	1271	28	44	2097	12	27	0	49	14	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	4	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	8	1310	29	45	2162	12	28	0	51	14	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2174	0	0	1339	0	0	2512	-	670	2929	3613	1087
Stage 1	-	-	-	-	-	-	1341	-	-	2258	2258	-
Stage 2	-	-	-	-	-	-	1171	-	-	671	1355	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*348	-	-	*845	-	-	*143	0	*563	*~ 2	*0	*232
Stage 1	-	-	-	-	-	-	*531	0	-	*219	*191	-
Stage 2	-	-	-	-	-	-	*219	0	-	*531	*465	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*348	-	-	*845	-	-	*131	-	*563	*~ 2	*0	*232
Mov Cap-2 Maneuver	-	-	-	-	-	-	*168	-	-	*131	*115	-
Stage 1	-	-	-	-	-	-	*519	-	-	*214	*181	-
Stage 2	-	-	-	-	-	-	*201	-	-	*472	*454	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	18.6	32.4
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	168	563	* 348	-	-	* 845	-	-	153
HCM Lane V/C Ratio	0.166	0.09	0.024	-	-	0.054	-	-	0.141
HCM Control Delay (s)	30.6	12	15.6	-	-	9.5	-	-	32.4
HCM Lane LOS	D	B	C	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.6	0.3	0.1	-	-	0.2	-	-	0.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
12: Proposed North Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1294	6	0	2130	0	13
Future Vol, veh/h	1294	6	0	2130	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1362	6	0	2242	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1368	0	2486	684
Stage 1	-	-	-	-	1365	-
Stage 2	-	-	-	-	1121	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	*818	-	*105	*547
Stage 1	-	-	-	-	*516	-
Stage 2	-	-	-	-	*176	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*818	-	*105	*547
Mov Cap-2 Maneuver	-	-	-	-	*151	-
Stage 1	-	-	-	-	*516	-
Stage 2	-	-	-	-	*176	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	547	-	-	* 818	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	11.8	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
20: Drendel Road & Proposed West Access Drive 01/20/2023

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	38	0	10	48
Future Vol, veh/h	0	8	38	0	10	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	40	0	11	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	113	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	884	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	878	1031	-	-	1570	-
Mov Cap-2 Maneuver	878	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	0.008	0.007	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2028 Total Projected Saturday Midday Peak Hour

HCM 6th TWSC
3: Cross Street/Culver`s Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1221	13	0	1337	0	17	0	10	0	0	0
Future Vol, veh/h	0	1221	13	0	1337	0	17	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1272	14	0	1393	0	18	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1286	0	0	1976	2672	643	-	-	697
Stage 1	-	-	-	-	-	-	1279	1279	-	-	-	-
Stage 2	-	-	-	-	-	-	697	1393	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*881	-	-	*95	*84	*587	0	0	*595
Stage 1	0	-	-	-	-	-	*553	*484	-	0	0	-
Stage 2	0	-	-	-	-	-	*561	*465	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*881	-	-	*95	*84	*587	-	-	*595
Mov Cap-2 Maneuver	-	-	-	-	-	-	*298	*255	-	-	-	-
Stage 1	-	-	-	-	-	-	*553	*484	-	-	-	-
Stage 2	-	-	-	-	-	-	*561	*465	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	15.7	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	364	-	-	* 881	-	-	-
HCM Lane V/C Ratio	0.077	-	-	-	-	-	-
HCM Control Delay (s)	15.7	-	-	0	-	-	0
HCM Lane LOS	C	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
6: Drendel Road/Parking Lot Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1179	9	35	1290	1	20	0	17	0	0	3
Future Vol, veh/h	0	1179	9	35	1290	1	20	0	17	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	60	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	1228	9	36	1344	1	21	0	18	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1237	0	0	1977	2650	619	-	-	673
Stage 1	-	-	-	-	-	-	1233	1233	-	-	-	-
Stage 2	-	-	-	-	-	-	744	1417	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	*917	-	-	*168	*20	*610	0	0	*563
Stage 1	0	-	-	-	-	-	*576	*504	-	0	0	-
Stage 2	0	-	-	-	-	-	*531	*465	-	0	0	-
Platoon blocked, %		-	-	1	-	-	1	1	1			1
Mov Cap-1 Maneuver	-	-	-	*917	-	-	*162	*19	*610	-	-	*563
Mov Cap-2 Maneuver	-	-	-	-	-	-	*320	*225	-	-	-	-
Stage 1	-	-	-	-	-	-	*576	*504	-	-	-	-
Stage 2	-	-	-	-	-	-	*507	*447	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	14.7	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	409	-	-	* 917	-	-	563
HCM Lane V/C Ratio	0.094	-	-	0.04	-	-	0.006
HCM Control Delay (s)	14.7	-	-	9.1	-	-	11.4
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
9: McDonald`s Access Drive/In Town Suites Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1147	44	65	1277	12	35	0	79	9	0	14
Future Vol, veh/h	12	1147	44	65	1277	12	35	0	79	9	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	13	1195	46	68	1330	13	36	0	82	9	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1343	0	0	1241	0	0	2045	-	621	2097	2740	672
Stage 1	-	-	-	-	-	-	1244	-	-	1473	1473	-
Stage 2	-	-	-	-	-	-	801	-	-	624	1267	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	*845	-	-	*917	-	-	*219	0	*610	*219	*18	*563
Stage 1	-	-	-	-	-	-	*576	0	-	*500	*445	-
Stage 2	-	-	-	-	-	-	*531	0	-	*576	*504	-
Platoon blocked, %	1	-	-	1	-	-	1		1	1	1	1
Mov Cap-1 Maneuver	*845	-	-	*917	-	-	*199	-	*610	*177	*16	*563
Mov Cap-2 Maneuver	-	-	-	-	-	-	*323	-	-	*288	*199	-
Stage 1	-	-	-	-	-	-	*567	-	-	*493	*412	-
Stage 2	-	-	-	-	-	-	*479	-	-	*490	*496	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	13.6	14.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	323	610	* 845	-	-	* 917	-	-	410
HCM Lane V/C Ratio	0.113	0.135	0.015	-	-	0.074	-	-	0.058
HCM Control Delay (s)	17.6	11.8	9.3	-	-	9.2	-	-	14.3
HCM Lane LOS	C	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.5	0	-	-	0.2	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
12: Proposed North Access Drive & Ogden Avenue 01/20/2023

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1187	9	0	1326	0	16
Future Vol, veh/h	1187	9	0	1326	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1249	9	0	1396	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1258	0	1952	629
Stage 1	-	-	-	-	1254	-
Stage 2	-	-	-	-	698	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	*890	-	*253	*595
Stage 1	-	-	-	-	*562	-
Stage 2	-	-	-	-	*493	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*890	-	*253	*595
Mov Cap-2 Maneuver	-	-	-	-	*354	-
Stage 1	-	-	-	-	*562	-
Stage 2	-	-	-	-	*493	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	595	-	-	* 890	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	11.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
20: Drendel Road & Proposed West Access Drive 01/20/2023

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	27	0	14	30
Future Vol, veh/h	0	10	27	0	14	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	28	0	15	32

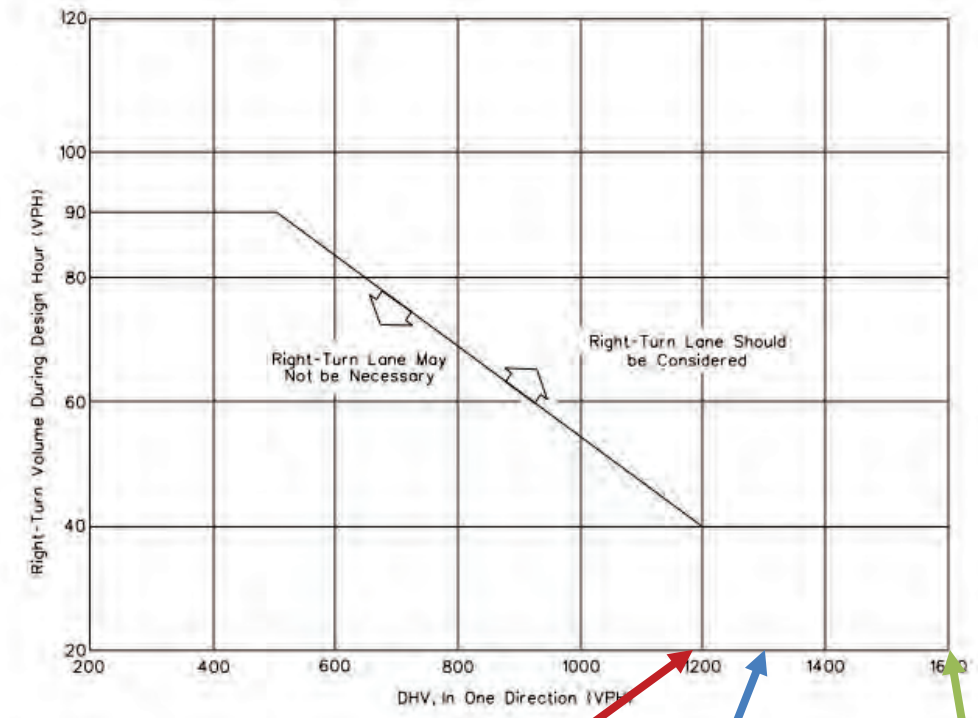
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	90	28	0	0	28	0
Stage 1	28	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	910	1047	-	-	1585	-
Stage 1	995	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	901	1047	-	-	1585	-
Mov Cap-2 Maneuver	901	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	951	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	2.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1047	1585	-
HCM Lane V/C Ratio	-	-	0.01	0.009	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Turn Lane Warrant Diagram

Ogden Avenue with Right-In/Right-Out Access Drive



Note: For speeds less than 50 mph (80 km/hr), see Section 36-3.01(a).

SAT Peak Hour (1196, 9) PM Peak Hour (1300, 6) AM Peak Hour (1885, 6)

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTION ON FOUR-LANE HIGHWAYS (Design Speed of 50 mph (80 km/hr) or Greater)

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

Fwd: Drendel and Ogden Rezoning

Jason Zawila <jzawila@downers.us> Wed, Feb 22, 2023 at 3:07 PM
To: Emily Hepworth <ehepworth@downers.us>

Jason Zawila, AICP | Planning Manager | Community Development Department

(630) 434-5520 | jzawila@downers.us

Downers Grove | 801 Burlington Avenue | Downers Grove, IL 60515 | www.downers.us

---------- Forwarded message ---------
From: **Alexandru Duta** <[redacted]>
Date: Wed, Feb 22, 2023 at 1:11 PM
Subject: Drendel and Ogden Rezoning
To: <planning@downers.us>

Hi There,

I am the homeowner and resident of [redacted]Drendel Rd.

It has come to my attention that there is a petition for rezoning for the lots on the north east corner of Drendel and Ogden for commercial purposes. The rezoning of the strip mall has been an absolute nightmare for us as residents, with commercial parking occurring on Drendel. I simply want to voice my opinion that I am strongly opposed of there being commercial access on our street as well as a large commercial operation on that corner.

How can I voice my opinion/speak to someone regarding this matter?

Best,
Alex
--

Alexandru Duta
Founder & CEO
Albiware Inc.

[redacted]

Mariana Guzman Executive Assistant for Alex Duta
[redacted]

APPROVED

VILLAGE OF DOWNERS GROVE
PLAN COMMISSION MEETING

March 6, 7:00 P.M.

22-PLC-0030: A PETITION SEEKING APPROVAL FOR A SPECIAL USE FOR A PERSONAL VEHICLE REPAIR AND MAINTENANCE FACILITY FOR THE PROPERTY LOCATED AT 2539 OGDEN AVENUE. THE PROPERTY IS CURRENTLY ZONED B-3, GENERAL SERVICES AND HIGHWAY BUSINESS. THE PROPERTY IS LOCATED ON THE SOUTH SIDE OF OGDEN AVENUE, APPROXIMATELY 95 FEET EAST OF DRENDEL ROAD. (08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012) CHRISTOPHER ENRIGHT ARCHITECTS, PETITIONER, WILLARD D. KUBEST TRUST, OWNER.

Appearing on behalf of Christopher Enright Architects, John Nierzwicki, a licensed professional engineer, discussed a personal vehicle repair maintenance use, Belle Tire, for the special use request at 2539 Ogden Avenue. He stated Belle Tire was a 100-year-old, family owned company with 130 locations spanning four states. He explained they only do work related to tires and certain vehicle maintenance repair, with all scrap tires being contained inside the facility to later be hauled to their own recycling facility in Michigan. Mr. Nierzwicki discussed the business hours, employee numbers, and shifts. He stated they were zoned B-3 and would be consolidating five existing lots into one singular lot for the project. He stated they would be providing an 8 foot tall screen fence, comply with landscaping ordinance, and would be handling all stormwater. Mr. Nierzwicki explained there would be access on Drendel road that would only be needed for truck access for deliveries. He said they have agreed to to several conditions, including no test drives in residential neighborhoods, no left turns onto Drendel, and would provide traffic signage as approved by Downers Grove. He said that the proposed development met all engineering, public health, safety, and general welfare standards of the village and would be fully fire suppressed with no special security or safety support needed from the village.

Chairman Rickard asked about the grade elevation change to the properties surrounding the project. Mr. Nierzwicki stated their building was about 4 feet higher than the house directly to the south. He also said there was a 24-inch storm sewer that would drain through their property and to the residence to the south where the easement was maintained. He said they would also be providing perimeter swales to collect stormwater and emergency overflow routing.

Chairman Rickard asked if there would be any fluid barrels or tanks outside and to point out the trash enclosure. Mr. Nierzwicki answered there would be a regular dumpster outside for regular trash collection. He stated all other spent parts would be contained inside until they were picked up to be taken to the recycling facility.

Commissioner Boyle asked for him to explain the operation of the facility and any impacts outside of the facility. Mr. Nierzwicki stated all bays would be facing the west and only Belle Tire staff would bring vehicles in and out of the service space. He stated the only time the bay doors would be left open would be when it's hot outside due to no air conditioning. He mentioned there would be some noise but would not be that noticeable alongside the noise from the nearby highway.

Commissioner Frankovic asked about the stormwater improvements that would be installed, in addition to the EcoCat study that noted bats are located in the study area. She stated she was concerned about the trees on the southern side of the property and would like to find a way to keep them on the property. Mr. Nierzwicki stated they had an environmental site assessment done and none of the trees on the southside were identified as potential bat habitats. Commissioner Frankovic stated that the area already currently flooded some, and asked if installing the rain garden and additional piping help with that. Mr. Nierzwicki stated it would improve what would be on the property, but they would not be able to do anything about any problems off site.

Chairman Rickard asked if a car that was waiting on parts would be stuck outside overnight or until the part came in or if it would be kept indoors. Mr. Nierzwicki answered that it would be their intention to keep every car not finished inside but would be related to supply chain issues and their personal protocols and standard operating procedures.

Commissioner Dmytryszyn asked if there would be any other screening options on the property. Mr. Nierzwicki stated there would be some flexibility in regard to fencing and would be open to discussions on that.

Chairman Rickard stated they received additional letters and a petition opposing the project. He explained the special use discussion and what the purpose of the public comment was for. Chairman confirmed with staff that as a special use it is essence allowed use with conditions because of certain business operations. You cannot necessarily say you don't like a tire shop and vote it down. Mr. Zawila stated that special uses are generally appropriate for the district but may require special regulation because of unique or unusual impacts associated with them.

Chairman Rickard opened the public hearing for public comment.

Karen Samiec stated the two block street was ground for a lot of hazardous waste, constant standing stormwater, and toxic harm to native wildlife and birds. She stated the chemicals coming from the tires with the doors open would be hazardous. She suggested another property on the other side of Ogden that was open and for sale that was not in a residential area. The resident stated that Hertz always parked cars on both side of the Drendel which made it hard for anyone to move down, especially delivery trucks needed to get into their facility, so she suggested a special condition to close that street to prevent traffic from entering and exiting Drendel Road. She also suggested that stormwater be prevented from going into the nature preserve.

Antoinette Weaver, stated she just moved back and also noticed the Hertz cars lined up on the street. She stated she didn't see how a semi could get down that street when it is like that and asked if they had tested that. She also agreed with moving the project to another part of Ogden that was non-residential.

Chairman Rickard commented that they only react to applications submitted and not where a more appropriate place would be for a project. He stated zone B-3 was suited for these types of projects and they were only looking at the special use and how it may impact the surrounding properties.

Dominick Leone, stated he drove a truck for a living, one that was smaller than then delivery trucks Belle Tire would have, and he could not turn on Drendel Road when Hertz had cars parked on the sides of the street. He added that he did not want to sit on his front porch and look at the bays and tires being changed every day.

James Vaselli, an attorney, who stated he was there on behalf of the residents and initially reserves the right to interview anyone offering evidence this evening. He then talked about the staff report and asked if it fit the Commission's comprehensive plan. He stated it needed to be consistent with neighboring commercial businesses. He said even though it was an allowable special use, it was something that could be stopped if factors or conditions were not met. He also mentioned that one condition was that it would increase property values, but the residents did not agree with that and had not seen an appraisal report stating such. James asked if there was an appraisal report, stormwater report, landscaping plan, or a noise study done in regards to the project.

Scott Rogers stated he submitted a letter prior to the meeting and lived directly almost west of the project. He stated his property would lose value due to this project being built and that he would not buy his home if it was there.

Gary Moore stated he agreed with everyone, including that appraisals should be looked at closely.

Mary Rogers said they sent over the petition but did get some additional signatures and provided it to staff for the public record. She talked about the letter on the special use and how it stated the hearing could be continued. She said she did not think it was fair to the residents that if they missed a meeting to vote they would have no say because they all lead busy lives and don't have time to keep up with updates on the website every day. Ms. Rogers stated there was concern about the blue building there that had asbestos and wanted to make sure they were not affected by all the asbestos. She stated that from reading the document it appeared there was only one or two days of traffic study and believed that was not an accurate time. She stated people would not follow the left turn signage. She also said trucks coming down that road four times a week would cause a lot of wear and tear on their road. Ms. Rogers mentioned that she provided the pictures of the flooding and thinks a further study needed to be conducted even after improvements, because there would still be flooding. She stated she did not want to see cars being left outside overnight with no tires in the parking lot and did not want to hear music and machinery going on from Belle Tire.

Chairman Rickard stated if they continued the hearing, it would be date specific and would set the date before the end of the meeting so they would all know.

Aaron Cotes agreed with all the points everyone had made. She talked about safety and the sidewalks that people walked every day. She stated that neighbors liked to socialize, exercise, play outside and that would be dangerous for semis to be backing out of there four times a week. She said she wanted business for their town, but needed to consider not having any access on Drendel Road to dampen noise pollution and to improve the safety and drainage.

Jackie Olkiewicz stated she had small children and that was one of her primary concerns with increased traffic. She said she did not think there was any way a semi could make a left turn off of Ogden onto Drendel. She also it would cause traffic buildup to have a semi try to turn there and would increase traffic in their neighborhood which would cause a safety issue for their children

playing outside. She had a question about this being rezoned in January 2023 and said their community was not made aware of the rezoning.

Geoff Olkiewicz stated he agreed with everyone. He stated Cross Street had traffic before Drendel did and sometimes trucks would knock down poles trying to get down there. He stated there were only three ways to get to Ogden Avenue in that area, which was Walnut, Belmont, and Cross Street. He stated if they don't test cars down Drendel, they would do it on Cross or Belmont which would increase traffic. He said they could not close Drendel off, because of emergency equipment. He suggested another type of business that could be there, like a small office. He stated the extra traffic would hurt their neighborhood or hurt a child.

Ratandeep Gupta stated he just bought his house in May 2022 and the maps showed those lots as residential, not commercial. He said if he knew that would be there, he would not have bought the house. He explained that the Hertz commercial traffic was crazy and showed a picture of all the cars there today. He said the statement that there would be a four foot drop from Belle Tire to his lot was incorrect and would be more like a 7 ½ foot drop. He talked about the special use requirement and to please consider everything, especially being detrimental to health, safety, and property values.

Todd Richardson stated he agreed with all of his neighbors and was amazed at the amount of work and restrictions the company had to place upon itself to be acceptable. He said this piece of land was not suitable for this type of business and reiterated the safety of the children playing outside and walking their pets.

Deanna Anatra talked about children playing outside but there was no streetlight so that concerned her with the extra traffic. She said they all bought into the neighborhood because of the prairie and trees and this would be detrimental to their beautiful neighborhood.

Martha Richardson stated the flooding issue had been going on for a long time. She said an easement was recently placed against the fence area and was still wet. She said she wanted the commissioners to reevaluate the situation. She stated there would be no buffer to keep pollution away from the homes and more studies and investigation should be done.

Shantel Smith stated she agreed with everything that was said and added that they should reconsider access to Drendel Road, reject the plan altogether, and replace with something different.

The meeting was recessed for a break from 9:21 to 9:30PM

Chairman Rickard stated they would now go to the staff report.

Emily Hepworth, Village of Downers Development Planner, stated the five parcels were zone B-3, general services and highway business, and petitioner requested special use with a petition that is proposed to meet all requirements. She stated special uses were to be found in harmony with the area and may require special regulations. She said staff received 12 public comments. She talked about the existing site plan and proposed site plan, pointing out that the building was to the northeast of the site. She said the proposed development included stormwater improvements, a landscaping plan, fencing, and pedestrian connection from Ogden Avenue to the entrance of the building, rain gardens, filtration that would be provided to the site to capture and clean more stormwater. She discussed the

stormwater and how water would naturally flow to the south into a berm that would then be captured and filtered through stormwater pipes into the rain garden on the northwest of the site. Ms. Hepworth discussed circulation and how they would discourage left turns. She stated the traffic concerns on Drendel had been heard by the village. She talked about elevations on the property and said the property was designated commercial and single family residential detached, and the zoning was the regulation tool which dictated how property owners could use the development. She concluded that the proposal was in line with the Comprehensive Plan that would provide a buffer between residential and commercial businesses, and that staff found that all criteria had been met by the petitioner.

Commissioner Dmytryszyn asked if parcels had recently been rezoned. Mr. Zawila answered that all five parcels came in as B-3. He said the southern two properties were recommended to be single family residential, but there are additional recommendations included from the Comprehensive Plan.

Commissioner Dmytryszyn asked what noise considerations they evaluated. Ms. Hepworth stated there are noise regulations provided in the village ordinance. She they require all noise standards are met by the business. Mr. Zawila added that was the same for all properties and was decibel level based.

Commissioner Dmytryszyn asked if there had been any conditions placed on Hertz related to parking cars along the street. Mr. Zawila said he did not believe so. He said the last time there was a code enforcement case where someone called about it was 2021, but was not dismissing that there had been issues out there. He encouraged everyone to call when that happened and they would go out there to investigate. He said that was something they could bring to their traffic team.

Commissioner Frankovic asked for them to clarify the environmental concerns or studies that have been conducted related to the wetland area and had been conducted and if there had been anything negative. Mr. Zawila said they did provide a stormwater report and that it was available on file. He reminded that was something they that will be reviewed during the permitting process.

Commissioner Frankovic asked about the potential asbestos issue. Mr. Zawila stated asbestos was regulated and handled by the EPA.

Commissioner Boyle stated there were a lot of special use permits all up and down Ogden Avenue and asked if it was fair to say most of them abut residential areas. Mr. Zawila stated it was common to say a large portion of businesses were adjacent to residential but it differed as you go throughout the corridor.

Chairman Rickard asked about the traffic study and how frequently it measured or checked for this project. He also asked if they relied on the historical data of the area to check at different dates and times. Ms. Hepworth stated the traffic study looked at area surrounding the site and that the traffic engineer would review the study in detail and provide any recommendations either to adjust things or prevent things. They found that the findings were accurate and were no necessary changes.

Commissioner Boyle stated he could appreciate how the business fit within the lot there, but said once the business was in operation it would be hard to redirect that noise, so he asked what the best response would be if there were noise issues. Mr. Zawila stated that their code enforcement staff responds to

any properties and businesses with regard to sound and if it became an issue, they would have to work with the business to resolve it.

Commissioner Boyle asked if the wetlands had protected species in it. Ms. Hepworth stated the parcel to the direct west of the site was a detention basin and was found to not be a wetland. She said the petitioner was providing a rain garden to help filter and improve water drainage there. Mr. Zawila stated their engineering consultant looked at it and the project would be reviewed as part of the permitting process.

Commissioner Frankovic stated the retention pond/wetland area actually had a sign on it that stated that it is a nature preserve, which caused confusion for the residents. She also asked if there would be any signage for people traveling south on Drendel stating it was not a through street. Mr. Zawila stated at this point it was just the no left turn signs proposed.

Chairman Rickard asked them to clarify about Hertz parking cars along the street and conditions related to parking on that property. Mr. Zawila said he was not aware of any conditions beyond what he has already stated, but was something they could look at.

Chairman Rickard said they did not have any exclusive right to park there, so an option would be maybe to recommend as part of the special use to bring some parking restrictions on Drendel on that north section knowing some of that space would be necessary. Mr. Zawila said they could talk with their traffic team to see if there's anything additional they could do on that road, because it was not necessarily related to the operations of the petitioner.

Commissioner Boyle asked about the response to property values and the impact on a business edging a residential neighborhood and interacting with the new sidewalks installed there. Mr. Zawila said the burden of proof was on the petitioner to come up with findings regarding that.

Chairman Rickard moved back to petitioner to respond to questions and give a closing comment.

Mr. Nierzwicki stated he appreciated everyone sharing their testimony, thoughts, and views. He said he could not speak to a lot of the existing issues with regard to Hertz's utilizing public right of way or existing drainage conditions. He said he had expertise in water resources and was something he looked at extremely closely. He said all they could fix is what was on their property and ensure conveyance of upstream areas and ensure retention pond was still meeting its current requirements as done by the county. He said they were meeting the stormwater ordinance requirements for everything related to their project and provided redundant storm sewer infrastructure. He stated with regard to the environmental discussion, they hired environmental engineers to do environmental site assessments and studies that would clean up barrels of liquids from the landscaping company and asbestos. He stated Belle provided strict adherence to all EPA and OSHA requirements. He also added that all plumbing hydrocarbons, oils, or anything collected would not go into the storm sewer system. He said they plant the rain gardens with native species and trees and could confirm that although there may be some aquatic species within the retention pond, it was man made and not a jurisdictional wetland. He said they would be collecting all the drainage from runoff and would be routing it appropriately.

APPROVED

Mr. Nierzwicki said with regard to Hertz, if Belle needed to get a delivery through Drendel, they would get a delivery through Drendel with either calling the authorities or street department immediately. He reiterated they agreed to pursue signage, restrictions, or whatever needed to be there to maintain that Hertz was going to be keeping their private operations within their private parcel. He said they would operate in accordance will all noise ordinances within city code. He said from a public safety perspective, per the traffic study, Drendel and McDonalds average less than one crash a year, and Cross Street averaged about five crashes per year.

In closing, Mr. Nierzwicki stated that they had worked very diligently creating this plan and tried their hardest to take into account all the adjacent residents and hope they consider their property.

Chairman Rickard stated one of the proposed conditions would be approve permit from IDOT before issuance of a building permit. He said IDOT would review the construction and location of the accesses to just Ogden because that's under their purview. Mr. Zawila stated that was correct.

Chairman Rickard asked if any commissioner had any thoughts or commits to share for discussion. Mr. Zawila reminded the Plan Commission to ask any questions to the petitioner before deliberation and voting on the case.

Commissioner Dmytryszyn stated they need to focus comments on special use. He agreed with the first two standards for the special use and that it is a desirable use for the corridor. He said standard three needed to be discussed in regard to being detrimental to health safety and general welfare or property values. He said he appreciated the discussion on this and preferred to have more knowledge on Hertz and their parking along the street. He also said he agreed that it was harder once a facility was established to adjust the noise decimal level. He added there was area for improvement for signs and restrictions on Drendel and would love to get a better understanding of what those options were.

Commissioner Frankovic stated she thought they could make recommendations for the traffic concerns, maybe some things involving stormwater and to keep trees in place on there. She stated that assurance might help some residents feel better about the project going forward.

Commissioner Patel stated he also struggled with standard three. He said after looking at the conditions for approval, he thought the conditions brought forward offset the concerns. He said by going through the permitting process, there would be a closer look at drainage and believed there had been an exhaustive traffic study. He said they were the experts and they did not have position to comment on things that were already researched and analyzed.

Chairman Rickard said you had to assume when buying property next to a B-3 that anything that's allowed use could go up there. He said he didn't see or hear anything from this proposal that would really diminish the value of the neighborhood. He said after hearing everything, he did not know if there was anything that would cause him to be opposed to the project. He did say sound was a potential concern but thought there were a couple resolutions to mitigate that if that was an issue.

Commissioner Roche stated she was also stuck on criteria three for the general welfare of persons residing in the area. She stated so many concerns were brought forth that were the same, and believed most people were concerned about the safety of their neighborhood which mostly came down to traffic. She said she also did not know if the no left turn sign would keep everyone from turning left,

but also understood that they have to have that open for the business to operate. She stated there was already blockage in the street and would be hard to bring larger trucks into the area with no other option. She said she would feel more comfortable if there were other parameters put into that area.

Chairman Rickard agreed with the thought that he could think of another condition to add in here, it would be that restrictions be considered for parking on that north section of Drendel. He said if they were going to allow trucks to get in and out of that property, they would have to somewhat ensure that could happen and could only do that by restricting parking on both sides of the street.

Mr. Zawila stated they could reach out potentially to their transportation advisory commission and team and could be part of the discussion and that would be an appropriate means for that.

Chairman Rickard stated that would be a good thing to have a discussion with the traffic people to confirm if there needed to be modification there in terms of parking.

Commissioner Boyle stated it was easy to say the items had been met, but it did get gray on standard three. He said he appreciated the applicant coming in and bringing potential resolutions as far as larger trees and fencing. He said he liked the idea if there were architectural or engineering solutions in advance for sound attenuation, but the nature of the business would create noise and part of it was directed towards the neighborhood. He said containing the noise was the heart of it for him.

Commission discussion occurred on developing conditions for the petition. Mr. Zawila said there could be conditions that could be related to the use and could put in an additional condition to review additional landscaping and building modifications to help with sound.

Chairman Rickard stated there was some green space that could be thickened up to help with sound. He said he understood the concern, but felt like they were trying to come up with a solution that to something that was not even a problem yet. If said if there was a sound problem, he feel like additional landscaping could be added later if there were complaints. The Commission further discussed placing conditions related to the parking on Drendel Road, which staff followed up and committed to working with the traffic manager to review this issue, but the Plan Commission can certainly add that as a condition. Commissioner Patel felt that the condition was not necessary and staff would work through reviewing restrictions as part of their general operations.

Chairman Rickard invited the Commission to make a motion.

WITH RESPECT TO FILE 22-PLC-0017 AND BASED ON THE PETITIONER'S SUBMITTAL, THE STAFF REPORT, AND THE TESTIMONY PRESENTED, IT IS FOUNDED THE PETITIONER HAS MET THE STANDARDS OF APPROVAL FOR SPECIAL USE AS REQUIRED BY THE VILLAGE OF DOWNERS GROVE ZONING ORDINANCE AND IS IN THE PUBLIC INTEREST, AND THEREFORE, COMMISSIONER PATEL MADE A MOTION THAT THE PLAN COMMISSION RECOMMEND TO THE VILLAGE COUNCIL APPROVAL OF FILE 22-PLC-0030, SUBJECT TO THE FOLLOWING CONDITIONS:

1. **THE SPECIAL USE SHALL SUBSTANTIALLY CONFORM TO THE STAFF REPORT, THE ARCHITECTURAL AND ENGINEERING DRAWINGS**

PREPARED BY ENRIGHT ARCHITECTS DATED SEPTEMBER 30, 2022, AND REVISED ON JANUARY 27, 2023 EXCEPT AS SUCH PLANS MAY BE MODIFIED TO CONFORM TO VILLAGE CODES, ORDINANCES, AND POLICIES.

2. **AN APPROVED PERMIT FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION MUST BE PROVIDED TO THE VILLAGE BEFORE ISSUANCE OF A BUILDING PERMIT.**
3. **A LOT CONSOLIDATION PLAT MUST BE RECORDED PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS.**
4. **NO VEHICLES MAY BE TEST DRIVEN IN RESIDENTIAL NEIGHBORHOODS. ALL TEST DRIVES ARE LIMITED TO ARTERIAL STREETS AS DEFINED IN THE COMPREHENSIVE PLAN. ARTERIAL STREETS INCLUDE OGDEN AVENUE, BELMONT ROAD, WARREN AVENUE, AND MAIN STREET.**
5. **INOPERABLE VEHICLES ARE NOT PERMITTED TO BE STORED OUTSIDE OVERNIGHT.**
6. **THE PHOTOMETRIC PLAN SHALL CONFORM TO THE VILLAGE ZONING ORDINANCE.**
7. **ALL VEHICLE MAINTENANCE MUST OCCUR IN THE SERVICE BAYS OF THE PROPOSED BUILDING. NO VEHICLE MAINTENANCE MAY OCCUR OUTSIDE OF THE BUILDING.**
8. **SOUTHBOUND (LEFT) TURNS ARE PROHIBITED FROM THE DRENDEL ROAD ACCESS POINT AND MUST INCLUDE TRAFFIC SIGNAGE AS APPROVED BY THE VILLAGE OF DOWNERS GROVE.**
9. **NO BUSINESS ACTIVITIES MAY OCCUR ON DRENDEL ROAD.**
10. **ALL SIGNAGE SHALL CONFORM TO THE ZONING ORDINANCE.**

SECOND BY COMMISSIONER ROCHE ROLL CALL:

AYE: PATEL, CHAIRMAN RICKARD

NAY: DMYTRYSZYN, BOYLE, FRANKOVIC, ROCHE

MOTION FAILED. VOTE: 2-4

Chairman Rickard asked if there were any staff announcements. A question from the public was asked when the date of the Village Council consideration would occur.

Mr. Zawila noted members of the public could follow the Village's website for when Village Council consideration occur for the case, in addition to contacting Village staff for updates. He further noted that that the regularly scheduled meeting for April 3rd may also be held and to please let him know if there are any issues with their availability.

THE MEETING WAS ADJOURNED. UPON MOTION BY COMMISSIONER DMYTRYSZYN, SECOND BY COMMISSIONER ROCHE. A VOICE VOTE FOLLOWED AND THE MOTION PASSED UNANIMOUSLY.

/s/ Celeste K. Weilandt and Village Staff
Recording Secretary

APPROVED

(As transcribed by MP-3 Audio)

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

Rezoning at Ogden/Drendel for Belle Tire

Jackie Olkiewicz [redacted]> Thu, Mar 2, 2023 at 11:48 AM
To: "planning@downers.us" <planning@downers.us>, "ehepworth@downers.us" <ehepworth@downers.us>

To whom it may concern,

My name is Jackie Olkiewicz and I live at [redacted] Drendel Rd with my husband and children (ages 9 and 7). I am deeply concerned about the consideration for Belle Tire facility with address on Ogden, yet entrance and exit access on Drendel Rd a re idential treet

I am told by my neighbor that two notice were ent out neither of which I received concerning the ituation and that the second notice was sent because the first omitted the two plots of land north of 4505 Drendel – which was deeply misleading.

I've reviewed the packet here beginning at page 89 - PC 3.06.23 Agenda.pdf (downers.us)

We already have constant issues with the Hertz rental facility parking cars along both sides of our street... the Village of DG and Downers Grove Police Department have been repeatedly made aware of this issue.

We spent two years working to get sidewalks and drainage for our neighborhood to add safety for the many children and re ident here

The road till continue to flood off the retention ba in each time it rain at the corner of Ogden/Drendel the removal of all the trees (completed) and the future addition of more paving and a larger structure will most certainly lead to increased flooding of this corner.

Additionally, any large delivery vehicles constantly traversing repeated saturated roadways it likely to result is premature damage to the road.

At the stop sign at the Ogden/Drendel intersection cars already back up particularly when a car is trying to turn left (west), car will turn around and proceed outh on Drendel

Thi happen already today with the trip mall We t Drendel on Ogden (and the have a right turn only acce onto Ogden from the parking lot). Signage will not deter this.

The strip mall has an 8ft fence to the south, which with the steep grade does little to minimize the view of the back of that facility. The same will be true for the Belle Tire plan.

With all the construction at the corner of Ogden/Walnut, we have many more commuters making their way down Drendel to avoid the traffic at that site.

And the traffic that passes through the area does so at speeds far higher than 25mph.

I plan to attend the meeting on March 6th to voice my concerns and objections to this plan/project.

Thank you,

Jackie Olkiewicz

Jackie Olkiewicz
Director, Hybrid Infrastructure | CDW
[redacted] | Chicago, IL 60606
Phone: [redacted] | Mobile: [redacted]

Pronoun : She/Her

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

File 22-PLC-0030 2539 Odgen Ave

1 me age

Meredith Rogers [redacted] Thu, Mar 2, 2023 at 3:08 PM
To: "ehepworth@downers.us" <ehepworth@downers.us>

To whom it may concern,

My name is Meredith Rogers and I live at [redacted] Drendel Rd. A mailed notice was received for special consideration for the building of the Belle Tire facility with acce in and out of the Belle Tire on Drendel Rd After review of the letter received, an error was noted on the map of the second page which did not include all 5 parcels. Phone call was made to the Village and requested that a new letter be resent to the residents of Drendel road so there would be no confusion.

A a re idential homeowner, I am e tremely concerned and oppo ed to thi propo ed project The document tate on page 97, that deliveries will take place 2-3 times a week with the delivery vehicles using access from Drendel road. There is already a large amount of traffic that already enters and exits from the strip mall (west of Drendel) from the Hertz car facility continually. With the new construction at the corner of Ogden/Walnut, there is an increase in commuters driving down Drendel to avoid the traffic at that ite

The stop sign at the Ogden/Drendel -a backup of cars exists especially when a car is turning left (west) onto Ogden avenue. This creates a backup of cars on Drendel and cars will turn around and proceed down Drendel road south, therefore increa ing traffic flow on Drendel road Signage tating car e iting Belle Tire may only turn right will not deter cars to turn only right when there is a backup of cars attempting to exit onto Ogden ave.

The residents of Drendel, Cross and Indianapolis spent many hours and personal time to get sidewalks and additional drainage for the neighborhood and to increa e the afety for the many children and re ident

Drendel road continues to flood **(see attached pictures)** the village has been notified of this flooding in the past. With the increased proposed NON-permeable surfaces that the Belle Tire parking lot include in the proposal, concerns of continual flooding of the treet will continue

Lastly,
The letter received also states the following-
"The hearing may be continued from time to time with no further public notice"

This is very concerning that a vote would be held to approve this project and that the residents would miss future meetings regarding the proposed project.

I will be attending the meeting on Monday March 6th.

Thank you for your consideration,
Meredith Roger

3 attachments

Drendel Road Flooded reet 1 jpg
898K

Drendel Road Flooded Street 2.jpg
2379K

Drendel Road Flooded Street 3 jpg
3990K

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

(no subject)

1 me age

Janet Leone [redacted] Fri, Mar 3, 2023 at 9:41 AM
To: ehepworth@downers.us

Rezoning on Ogden/Drendel

Hello. I'm also a resident on Drendel. My name is Janet Leone at [redacted] Drendel. I absolutely agree with my neighbors. I also have a few concerns of my own. The noise that a tire place makes is awful and so loud! A friend of ours owns a mechanic hop and they only have one gun to take off and on tire and you can hear that gun a block & 1/2 away! How many guns and bays are they having "10" ! We are the surrounding houses around this business! Also the smell of the rubber is absolutely disgusting. We all do like to sit in our yards and enjoy the outdoors but not with all the noise and smell. There are a lot more empty lots here in Downers Grove!! Why build something like that right against a residential area! It' ab olutely ab urd Plu not to mention the value of our home coming down becau e who would really want to live behind all the chaos going on on Drendel and Ogden! I love my home and definitely do not want to see a tire place going up! There is enough noise and traffic coming down our street to begin with! Hate to say it but if you all lived here a tire place wouldn't be going up right?

Thank you

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

March 6 Plan Commission Meeting Special use Permit at Ogden/Drendel

1 message

Scott Rogers <[redacted]> Sun, Mar 5, 2023 at 4:42 PM
To: ehepworth@downers.us
Cc: Scott Rogers <[redacted]>

Hi Emily,

My name is Scott Rogers and I live at 4504 Drendel. I plan to attend the meeting on the 6th, but I wanted to provide my comments here just in case.

I am strongly opposed to the consolidation of the lots as a B-3 business zone. I am not opposed to a business utilizing the three parcels on Ogden as that is a commercial corredor. However, the two parcels facing Drendel should be zoned as Residential, consistent with the future plan use map the Village has approved at least as far back as 2017. I am strongly opposed to any development that would allow commercial access to/from Drendel.

The proposed development will have a substantial, detrimental impact on our neighborhood in several ways:

First, the removal of mature, established trees (some of which has already begun) will remove any barrier that remains between our neighborhood and the Ogen corridor. I understand they are proposing a fence to address this issue, but given the slope of the ground in our neighborhood, a fence provides NO barrier (unless they plan to build it 30 feet high). To illustrate, I've included a picture from ground level in my own backyard looking at the stripmall on the southwest corner of Ogden and Drendel. As you could see, there is virtually zero privacy provided by the fencing and buffer in that development.

Second, the vehicle impact will be substantial. Drendel is a narrow residential street which already experiences challenges with traffic backups as acknowledged in the traffic study which scored it a "D" for evening rush hour. At times, excess parking from the Hertz rental car (which also supposedly is not supposed to park on Drendel but does all the time) makes it difficult for cars and school buses to even access our neighborhood. Additional commercial traffic will make it difficult for residents to use our own streets at all.

Third, the environmental impact from additional noise, odor, and lighting will impact the neighborhood substantially, especially those of us to the immediate west of the planned development since all the noise, activity, and lighting will be directed our way.

I'm not opposed to the development of Ogden Ave but I do not want a commercial development in the midst of our quiet residential neighborhood. I'm not sure if anyone from the Plan Board has bothered to walk the neighborhood that would be impacted by this development, but I would encourage them to do so - from the standpoint of a resident.

Thank you for your consideration,
Scott

PXL_20230304_160311439.jpg
2991K

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

Belle Tire on Ogden and Drendel Rd..comment

1 message

Elzbieta Piatek <[redacted]> Sun, Mar 5, 2023 at 8:40 PM
To: "ehepworth@downers.us" <ehepworth@downers.us>

To Whom I am Concern

We do not agree of the idea of building Belle Tire near us. We live on Drendel Rd. We are concern about more traffic and bad smell of the tires. Thinking about the safe and healthy environment especially for our kids.

Sincerely,

Elzbieta Piatek and family

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

Fwd: [downers.us website] Council & Director Request

Jason Zawila <jzawila@downers.us> Mon, Mar 6, 2023 at 10:35 AM
To: Emily Hepworth <ehepworth@downers.us>

Jason Zawila, AICP | Planning Manager | Community Development Department

(630) 434-5520 | jzawila@downers.us

Downers Grove | 801 Burlington Avenue | Downers Grove, IL 60515 | www.downers.us

---------- Forwarded message ---------
From: **David Fieldman** <dfieldman@downers.us>
Date: Mon, Mar 6, 2023 at 10:27 AM
Subject: Fwd: [downers.us website] Council & Director Request
To: Stanley Popovich <spopovich@downers.us>, Jason Zawila <jzawila@downers.us>

---------- Forwarded message ---------
From: <noreply-webserver@downers.us>
Date: Mon, Mar 6, 2023 at 10:22 AM
Subject: [downers.us website] Council & Director Request
To: <noreply-webserver@downers.us>
Cc: [redacted]

First Name : **Susab**

Last Name : **Zid**

Email : [redacted]
Send To : **8800**
Description : **I can not make the meeting tonight about the Bella tires on ogden ave. I live on Indianapolis and cross and 100% oppose them using drendel as an exit and entry. We have too many children and animals in the area. Thank you.**

--
David Fieldman
Village Manager
Village of Downers Grove
801 Burlington Avenue
630-434-5526

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

Proposed to build Belle Tire on Ogden and Drendel Rd

1 message

lukasz machaj [redacted] Sun, Mar 5, 2023 at 9:26 PM
To: "ehepworth@downers.us" <ehepworth@downers.us>

Hello,

I DO NOT agree to the idea of building Belle Tire on Ogden and Drendel Rd. I think it will be too much noise from power tools and air tools especially in the warm season when they will have the garage doors open. Another reason is the traffic, even now it is hard to enter Ogden from Drendel Rd or Cross Rd and it will be MUCH difficult to get into Ogden. Next, the value of nearby homes will go significantly down, but taxes will not go down and no one would like to buy a house. I'm concern about our children's safe life, mine and from the neighborhood.

Thank you,

Lukasz Machaj
[redacted] Drendel Rd.

Petition in Opposition to 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue

Background: Residents in the neighborhood directly adjacent to the property at 2539 Ogden Avenue are opposed to the Special Use permit seeking to consolidate the following parcels and zone as B-3: (08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012)

1. The parcel navigator on downers.us lists following parcel as residential: 08-01-305-012, and the following parcel as "N": 08-01-305-011
2. According to the "future use" zoning map on downers.us, the following parcels are both zoned as residential: 08-01-305-011, 08-01-305-012
3. Drendel Rd is a residential street which does not have the capacity for additional traffic associated with business access to or from a commercial property. The street already experiences access challenges related to traffic and spill-over parking from the Hertz Rental Car business on the SE corner of Ogden Ave and Drendel
4. The Village previously acknowledged that the parcels 08-01-305-011, 08-01-305-012 facing Drendel should be zoned residential by way of the future planning map and these parcels should remain residential to maintain the integrity of the existing neighborhood

We, the undersigned citizens of the Village of Downers Grove, do request that the planning commission of the Village of Downers Grove deny 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue.

Name	Address
Anders + Lauren Singdahlsen	2529 Indianapolis Ave, DG 60515
George & Peggy Fillis	2533 Indianapolis Ave, DG
Sue Zid / Peter Topul	4528 CROSS ST. DG 60515
Jay Bethell Liz Bethell	4513 CROSS ST. DG 60515
Mark & Megan Hanzas	2525 Indianapolis Ave
Aaron + Raegan Cates	2537 Indianapolis Ave.
[illegible]	4605 CROSS D.G 60515
WAYNE G. HOFFORATH	4512 S. CROSS ST DG 60515
John Hoyt	4500 Cross St 60515
CARLY HORAK	4507 DRENDEL RD. DG 60515

Petition in Opposition to 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue

Background: Residents in the neighborhood directly adjacent to the property at 2539 Ogden Avenue are opposed to the Special Use permit seeking to consolidate the following parcels and zone as B-3: (08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012)

1. The parcel navigator on downers.us lists following parcel as residential: 08-01-305-012, and the following parcel as "N": 08-01-305-011
2. According to the "future use" zoning map on downers.us, the following parcels are both zoned as residential: 08-01-305-011, 08-01-305-012
3. Drendel Rd is a residential street which does not have the capacity for additional traffic associated with business access to or from a commercial property. The street already experiences access challenges related to traffic and spill-over parking from the Hertz Rental Car business on the SE corner of Ogden Ave and Drendel
4. The Village previously acknowledged that the parcels 08-01-305-011, 08-01-305-012 facing Drendel should be zoned residential by way of the future planning map and these parcels should remain residential to maintain the integrity of the existing neighborhood

We, the undersigned citizens of the Village of Downers Grove, do request that the planning commission of the Village of Downers Grove deny 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue.

Name	Address
Meredith Rogers	4504 Drendel Road - Meredith Rogers
Janet Leone	4508 Drendel Road - Janet Leone
Robert Baker	3311 pomeroy Road - Robert Baker
CATHY KALEBIC	4524 DRENDEL RD - Cathy Kalebic
Molly Anderson	4514 Drendel Rd - Molly Anderson
Brandon Yauck	4520 Drendel Downers Grove
[illegible]	4608 DRENDEL
ANTOINETTE WEAVER	4614 DRENDEL Rd.
CHRIS DALU	4617 Drendel Rd
Shantel Smith	4611 Drendel Rd
Steve Randa	4521 Drendel Rd
Bernd Meissner	4513 Drendel Rd
Jackie [illegible]	4506 Drendel Rd
Mary Chmiel	4502 Drendel Rd
RAJAN GUPTA	4505 Drendel Rd

Petition in Opposition to 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue

Background: Residents in the neighborhood directly adjacent to the property at 2539 Ogden Avenue are opposed to the Special Use permit seeking to consolidate the following parcels and zone as B-3: (08-01-305-003, 08-01-305-004, 08-01-305-005, 08-01-305-011, 08-01-305-012)

1. The parcel navigator on downers.us lists following parcel as residential: 08-01-305-012, and the following parcel as "N": 08-01-305-011
2. According to the "future use" zoning map on downers.us, the following parcels are both zoned as residential: 08-01-305-011, 08-01-305-012
3. Drendel Rd is a residential street which does not have the capacity for additional traffic associated with business access to or from a commercial property. The street already experiences access challenges related to traffic and spill-over parking from the Hertz Rental Car business on the SE corner of Ogden Ave and Drendel
4. The Village previously acknowledged that the parcels 08-01-305-011, 08-01-305-012 facing Drendel should be zoned residential by way of the future planning map and these parcels should remain residential to maintain the integrity of the existing neighborhood

We, the undersigned citizens of the Village of Downers Grove, do request that the planning commission of the Village of Downers Grove deny 22-PLC-0030: seeking approval for a Special Use for a personal vehicle repair and maintenance facility for the property located at 2539 Ogden Avenue.

Name	Address
Elizabeth Wenc	4424 Cross ST. Downers Grove
Daniel Fife	4516 Cross St. Downers Grove, IL
Mario Quintana	4517 Cross st Downers Grove, IL
Beth Carey	4524 Crossst Dg IL 60515
Jaime Wiedmann	4520 Cross St Downers, IL 60515
Anthony Wiedmann	4520 Cross St Downers Grove, IL 60515

VILLAGE OF DOWNERS GROVE

Emily Hepworth <ehepworth@downers.us>

22 PLC-0030 2539 Ogden Ave

Ratandeep Gupta [redacted] Tue, Mar 14, 2023 at 12:44 PM
To: ehepworth@downers.us

Hi Emily,
Thi i Ratandeep Gupta from [redacted] Drendel Rd I had a quick que tion, if the Belle tire doe get approved by the Village, then can they make changes to their fence? It would be better for

- **noise,**
- **property value,**
- **blocking the mechanic shop view from my property**
- **and the drainage i ue right at the property line (a that i the lowe t grade**)

If they placed the big fence right where their parking lot ends and then have the landscaping in the open, south of the fence, they can have a door somewhere in that fence for them to access this landscaping area to maintain it. if they want they can maybe put a different see through barrier at the property line, as long as the big fence is blocking the view of the parking lot from my lot

Thanks,
Ratandeep Gupta

VILLAGE OF DOWNERS GROVE

Jason Zawila <jzawila@downers.us>

Re: Proposed Belle Tire at Drendel Rd and Ogden Avenue

Jason Zawila <jzawila@downers.us>
Draft

Mon, Apr 3, 2023 at 12:51 PM

From: Scott Rogers <[redacted]
Date: April 1, 2023 at 2:18:51 PM CDT
To: rtbarnett@downers.us, ghose@downers.us, nwalus@downers.us, lsfugitt@downers.us, rkulovany@downers.us, cgilmartin@downers.us, dglover@downers.us
Cc: Scott Rogers <[redacted]
Subject: Proposed Belle Tire at Drendel Rd and Ogden Avenue

Hello, my name is Scott Rogers and I've lived at [redacted] Drendel Road for 10 years. I'm writing to share my concerns with a proposed Belle Tire development at the corner of Ogden Ave and Drendel Road. I understand that this development will be presented to the Downers Grove Village Council soon. While I generally support business growth and development along the commercial corridor in Downers Grove, I am vehemently opposed to this development. I apologize in advance for the length of this message, but I felt it important to present my objections as well as potential solutions/special requirements that could address my concerns. I have broken my concerns with the development into categories below:

Access: I strongly oppose ANY access to a commercial property from Drendel Road. This is a residential community – as anyone who visits our neighborhood would quickly understand. Our experience with the existing commercial property on the SW corner of Ogden and Drendel is illustrative of the challenges that access will present – specifically additional traffic and parking which will impede residents ability to access/exit the neighborhood (the intersection is already rated a "D" for evening commute per the traffic study submitted with the proposal). The proposed access point to Belle Tire is located directly across from a residence (4502), meaning the headlights of vehicles leaving the property will be pointed directly into the residence as vehicles leave the property. Ultimately, Drendel Rd is a neighborhood street and is not designed for commercial traffic.

Visibility and Lighting: There are currently no streetlights within the neighborhood, meaning that any new light source will be magnified. In addition, the current grading of the land means that a typical 8-foot barrier will provide virtually zero coverage via line of sight for residents – particularly those to the south and west. We can see the impact (or lack thereof) of an 8-foot fence by examining the commercial property to the SW of Ogden and Drendel. While standing at ground level, the entire building is visible over the existing fence – and from the first-floor level of my residence at [redacted] I can see the entire parking lot. Thankfully, there is no real commercial activity on the south side of this development so while the site isn't appealing, there is limited light/noise impact. That will not be the case with the proposed Belle Tire. They are proposing building the property with the bays facing West – or directly at residential properties on Drendel. In addition, Belle Tire is planning to eliminate (and in some cases have already eliminated) mature trees which provide a barrier between the neighborhood and the property today.

Noise/Odor: Substantial noise and odor is associated with any commercial property, but will be much higher for the purpose Belle Tire is proposing. Belle Tire does not put air conditioning in the service areas of their properties, meaning that in warm months the bay doors will be kept open, exposing the neighborhood to both noise and odor pollution. I would like to mitigate any impact to the neighborhood as it relates to noise and odor pollution.

With my concerns stated, I understand that the best course of action to minimize the detrimental impacts of this development is to propose solutions. Therefore I have proposed the following special requirements for the council to consider along with the special use permit. I have broken down proposed special requirements by section below:

Access:

- No access at all to/from Drendel Rd. Removing all access to Drendel Road would eliminate all concerns with traffic
- No physical access allowed via parcel 08-01-305-012 (the southernmost parcel). Any access point on Drendel Road to be limited to parcel 08-01-305-011. While not ideal, this will physically move commercial traffic further from the neighborhood
- Access restricted to delivery trucks only (no commercial/customer traffic). Access to Drendel Rd to be controlled by a physical barrier (i.e., gate) which is opened by Belle Tire employees to allow access for delivery vehicles and is to remain closed and secured unless a delivery vehicle is present
- Access to Drendel Road physically barred (not just signage). Vehicles shall be prohibited from turning south onto Drendel Road via a physical barrier. Likewise, entrance to the Belle Tire property shall be prohibited from traffic traveling north on Drendel Road
- Belle Tire to fund the widening/expansion/improvement of Drendel Road to allow room for dedicated right/left turn lanes onto Ogden Ave when approaching from the South to reduce traffic flow challenges

Visibility/Lighting:

- Require service bays to face Ogden Ave (north). This solution will reduce both the visual impact and the noise impact (addressed later) of this development
- Require that the physical building (as measured at the top of all entrances/bays/doors), parking lot, and all access points be obstructed by a permanent barrier as measured at ground level from residential properties in all directions (West, South, and East) of the development. All commercial activity, including any vehicles entering or leaving the property shall be obscured by a physical barrier as viewed from any residence within 250 feet of the property line
- Require all lighting and signage that faces to the South, East, or West to be turned off outside of business hours. During all hours, lighting/signage that is visible to the residential properties directly adjacent to the business in all

directions will be limited as described in municipal code 28.10.030.G (maximum of 0.10 horizontal foot candles)

- No commercial signage allowed on Drendel or visible from any residential property on Drendel Road (example of sign NOT to be allowed below)
  - Example from Naperville location:

- Prohibit the removal of mature evergreen trees (more than 15 ft in height) on the south parcel (08-01-305-012) of the property to preserve the physical and visible boundary between the business and the neighborhood

Noise/Odor/other:

- All bays facing to the West, South, or East (i.e., other than Ogden Avenue) are to remain closed except to allow the entry/exit of vehicles from the service bays. No bay doors shall remain open for a period of more than 5 minutes at any time
- Belle Tire restricted to a maximum noise level during business hours of 65 dB(A) as measured at the property line of any adjacent residential property (municipal code 28.10.040.b.1). Note: because of the nature of the proposed business, it is not appropriate to allow for the exemptions provided under municipal code 28.10.040.b.2 (subsections a, b, and c) since noise emitted by the businesses' equipment is omitted in short, loud bursts
- Belle Tire shall be subject to strict enforcement of municipal code as it relates to odor, substance, and vibration as measured on any residential property adjoining the development. In particular, section 28.10.040, subsections c, d, and f (Smoke and Particulate Matter, Odors, Toxic or Noxious Matter, and Vibration Regulations)

I believe the only way for this development to move forward without a substantial negative impact to our neighborhood is if Belle Tire is willing and able to comply with the special requirements I have outlined. Thank you for taking the time to read my concerns and consider my options to move forward. I am happy to discuss any of these items in person.

Respectfully,

Scott Rogers

[redacted] Drendel Rd