VILLAGE OF DOWNERS GROVE
Report for the Village

3/11/2025

SUBJECT:	SUBMITTED BY:
Meadowbrook Shopping Center - Planned Unit Development Amendments, Planned Unit Development, Special Uses, Plat of Subdivision.	Stan Popovich, AICP Director of Community Development

SYNOPSIS

The petitioner is proposing a redevelopment of the Meadowbrook Shopping Center, commonly known as 2001-2153 63rd Street and 6310-6400 Woodward Avenue. The petitioner is requesting approval of the following items:

- A Planned Unit Development (PUD) Amendment to PUD #1
- A PUD Amendment to PUD #8
- A new PUD for the Meadowbrook Shopping Center;
- A Final Plat of Subdivision
- A Special Use for a personal vehicle repair and maintenance facility for a car wash on Lot 1;
- A Special Use for a drive through restaurant on Lot 2
- A Special Use for a drive through restaurant on Lot 3

STRATEGIC PLAN ALIGNMENT

The goals for the 2023-2025 include *Strong and Diverse Local Economy.*

FISCAL IMPACT

N/A

RECOMMENDATION

Approval on the March 18, 2025 active agenda per the Planning and Zoning Commission's unanimous 9:0 positive recommendation. The Planning and Zoning Commission found that the proposal meets the standards for a PUD amendment and the establishment of a new PUD per Section 28.12.040, the standards of approval for a Special Use for each request per Section 28.12.050, and recommended approval of a Final Plat of Subdivision.

BACKGROUND

Property Information and Zoning Request

The petitioner is proposing to construct three new commercial buildings and simultaneously improve the existing shopping center façade and site. The current shopping center is located within two existing Planned Unit Developments, PUD #1 and PUD #8. It is the petitioner's desire to remove the shopping center from their existing PUD's so that the entire center is located within a new single PUD.

The main in-line shopping center buildings are planned to remain in their same footprint with exterior façade improvements. These improvements include existing brick that will be stained light gray, new beige EIFS, red fabric awnings, faux wood paneling and slats surrounding light gray and corrugated metal roof structures. The petitioner is proposing three new outlots (Lots 1, 2 and 3) and the demolition of an existing structure on Lot 3. Lot 1 will feature a carwash facility with a drive-through, Lot 2 includes a multi-tenant building with a drive-through for the easternmost tenant, and Lot 3 is proposed to be improved with a multi-tenant building that will include a drive-through for the easternmost tenant.

The shopping center is accessed from two full access points on 63rd Street, four access points on Belmont Road and four access points on Woodward Avenue. The two existing 63rd Street access points are in close proximity to each other and will be combined into a single access point. The new single access point will allow east and west bound traffic on 63rd Street to enter into the site while existing traffic will only be permitted a right turn (east bound) onto 63rd Street. The driveways on Woodward Avenue and Belmont Road are proposed to remain the same, with full access into and out of the site. As a part of the proposed development, a new pedestrian connection from the inline buildings to 63rd Street will be added with the new 63rd Street entry area. Pedestrian circulation between all buildings will be added and sidewalks proposed around all new and existing buildings.

Compliance with the Zoning Ordinance

The property is zoned B-2, General Retail Business/Planned Unit Development. The bulk requirements of the proposed development in the B-2 zoning district are summarized in Table 2 of the Planning and Zoning Commission staff report. Table 3 in the report highlights the specific requests for deviations by the petitioner.

Compliance with the Comprehensive Plan

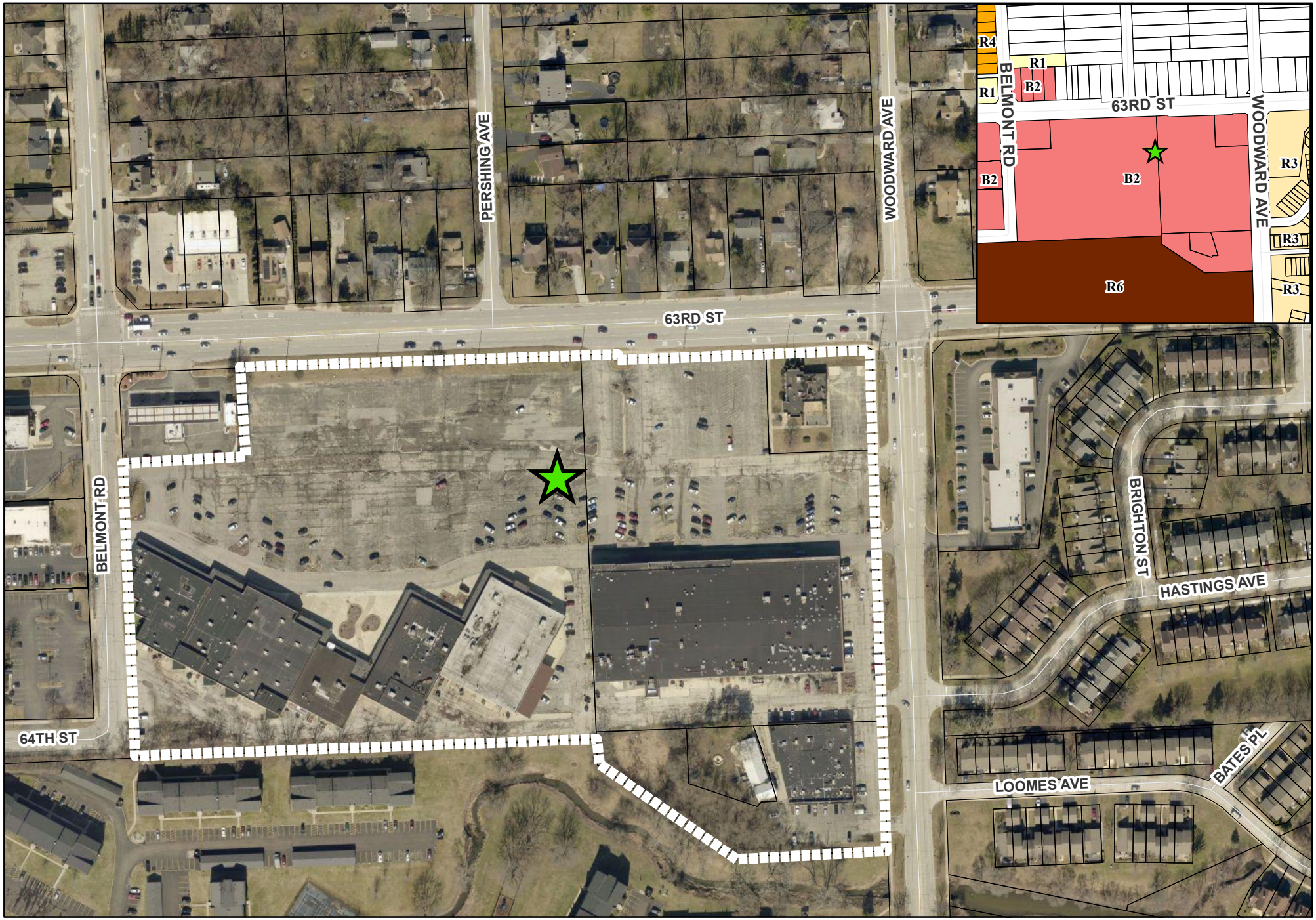
The Comprehensive Plan designates the subject property as part of the 63rd Street Focus Area. The Comprehensive Plan also places the subject property as Catalyst Site #F1 which highlights that this site is the largest redevelopment opportunity along 63rd Street. Key concepts of the area include: (1) beautify and enhance landscaping at major intersections; (2) encourage commercial expansion at key intersections where existing commercial uses exist and where it is necessary to improve their vitality; (3) connect nearby residential areas to shopping and services by providing pedestrian and bicycle access; (4) ensure parkway trees are preserved and enhanced for the entire length of the corridor; (5) reduce the heat island effect by proving shade on-site; and (6) add additional outlots at Meadowbrook to provide more visible and convenient shopping and dining uses.

Public Comment

During the Planning and Zoning Commission meeting, public comments were general in nature and were related to traffic and the proposed uses. Traffic comments were related to current traffic conditions along Woodward Avenue and 63rd Street. The comments about uses were supportive of the redevelopment of the shopping center.

ATTACHMENTS

Aerial Map
Ordinance
Staff Report with attachments dated January 6, 2025
Draft Minutes of the Planning and Zoning Commission dated January 6, 2025



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0 240 480 960 1,440 Feet

2001-2153 63rd and 6310-6400 Woodward Avenue - Location Map

Subject Property

Sign Location

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE VILLAGE OF DOWNERS GROVE, ILLINOIS TO DESIGNATE THE PROPERTY AT 2001-2153 63RD STREET & 6310-6400 WOODWARD AVENUE AS PLANNED UNIT DEVELOPMENT #71 (MEADOWBROOK SHOPPING CENTER PLANNED UNIT DEVELOPMENT)

WHEREAS, the owner(s) of the property located at the southwest corner of 63rd Street and Woodward Avenue commonly known as 2001-2153 63rd Street & 6310-3400 Wooodward Avenue, Downers Grove, Illinois, PINs 08-24-202-005, -008 & -009 and 08-24-203-004 (hereinafter referred to as the "Property" and legally described below) have requested that such real estate be designated as a Planned Unit Development to be known as "Meadowbrook Shopping Center Planned Unit Development #71" pursuant to the provisions of the Zoning Ordinance of the Village of Downers Grove, as set forth in Chapter 28 of the Downers Grove Municipal Code (hereinafter referred to as the "Zoning Ordinance"); and

WHEREAS, on September 16, 1968, the Village Council adopted Ordinance No. 1354, and amendments thereto, designating certain property as a planned development now known as PUD #1; and,

WHEREAS, on April 10, 1972, the Downers Grove Village Council adopted Ordinance No. 1626, and amendments thereto, designating certain property as a planned development now known as PUD #8; and,

WHEREAS, the Property is currently zoned "B-2/PUD #1 and #8, General Retail Business/Planned Unit Development #1 and #8 pursuant to the Downers Grove Zoning Ordinance as established by Ordinance No. 1354 and Ordinance No. 1626; and,

WHEREAS, the owner(s) have also filed a written petition with the Village conforming to the requirements of the Zoning Ordinance and requesting the property be removed from PUD # 1 and PUD #8 and that it be designated as the Meadowbrook Shopping Center Planned Unit Development #71 (PUD #71) as provided under the Zoning Ordinance; and,

WHEREAS, PUD #1 and PUD #8 have been amended to remove the Property from PUD #1 and PUD #8; and,

WHEREAS, the Planning and Zoning Commission of the Village of Downers Grove has given the required public notice and has conducted a public hearing on January 6, 2025, for the designation of the Property as PUD #71 and the construction of three new commercial buildings and improvements to the existing shopping center facade for the Meadowbrook Shopping Center Planned Unit Development #71 on the Property in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove and has reported its findings and recommendations to the Village Council of the Village of Downers Grove pursuant to the provisions of the Zoning Ordinance; and,

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

SECTION 1. That the provisions of the preamble are incorporated into this ordinance.

SECTION 2. The documents collectively referred to as "Meadowbrook Shopping Center Planned Unit Development plans", are incorporated herein by reference as a part of this ordinance.

SECTION 3. That the Village Council hereby finds as follows:

(1) That the Meadowbrook Shopping Center Planned Development #71 meets the requirements of the Zoning Ordinance as follows:

a. the zoning map amendment review and approval criteria of Sec. 28.12.030(i);

b. the proposed PUD plan and map amendment are consistent with the comprehensive plan and any other adopted plans for the subject area;

c. the PUD development plan complies with the PUD overlay district provisions of Sec. 28.4.030;

d. the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations; and

e. the appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.

(2) That the proposed development conforms with the requirements of the Zoning Ordinance.

SECTION 4. The Zoning Ordinance is hereby amended by adding to the Zoning Map the boundaries of the following described real estate and by designating said real estate as a Planned Unit Development under the title and style " Meadowbrook Shopping Center Planned Unit Development #71" to be stated on the face of said map within the boundaries of the real estate hereinafter described, to wit:

THAT PART OF MEADOWBROOK SUBDIVISION (EXCEPT LOT 4), BEING A SUBDIVISION OF PART OF THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R73-5824, LYING EAST OF THE EAST LINE OF BELMONT AVENUE AND MEADOWBROOK ASSESSMENT PLAT, BEING PART OF THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R92-075488, ALL IN DU PAGE COUNTY, ILLINOIS.

Commonly known as: 2001-2153 63rd Street & 6310-6400 Wooodward Avenue, Downers Grove, Illinois, 60516

PINs: 08-24-202-005, -008 & -009; 08-24-203-004

SECTION 5. The Meadowbrook Shopping Center Planned Unit Development #71 is hereby approved to permit a Planned Unit Development authorizing the construction of three new commercial buildings and improvements to the existing shopping center facade, subject to the conditions and restrictions contained therein, and subject to the following:

1. The Planned Unit Development Amendment, Special Uses, and Plat of Subdivision shall substantially conform to the staff report dated January 6, 2025; engineering drawings prepared by RTM Engineering Consultants dated July 1, 2024 and last revised on November 11, 2024, architectural elevations prepared by JTS Architects dated March 25, 2024 and landscape drawings prepared by Sebert Design and Build dated June 16, 2023 and last revised on November 12, 2024, except as such plans may be modified to conform to the Village codes and ordinances.

2. All proposed landscaping to screen the proposed vacuums on Lot 1 must be a minimum of six feet (6') in height at maturity and must be native.

3. Shade trees must be planted along the north property line of Lots 1, 2 & 5 and along the north and east property lines of Lot 3 per DGMC 28.8.20(b)(5), which states that "trees must be provided at a rate of one (1) tree per thirty (30) linear feet." Any ornamental trees proposed in this area must be switched to shade trees.

SECTION 6. That all ordinances or resolutions, or parts thereof, in conflict with the provisions of this ordinance be and are hereby repealed.

SECTION 7. That this ordinance shall be in full force and effect from and after its passage and publication in the manner provided by law.

_____
Mayor

Passed:
Published:
Attest: _____
Village Clerk

1\mw\ord.25\PUD#71-Estab-Meadowbrook-24-PLC-0012

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLANNING AND ZONING COMMISSION
JANUARY 6, 2025 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
24-PCE-0012 Meadowbrook Shopping Center 2001-2153 63rd Street and 6310-6400 Woodward Avenue	Planned Unit Development Amendments, Planned Unit Development, Special Uses, Plat of Subdivision	Emily Hepworth, AICP Planner

REQUEST
The petitioner is requesting approval of the following items to construct three new commercial buildings and simultaneously improve the existing shopping center façade and site for the Meadowbrook Shopping Center. The subject property located at the southwest corner of 63rd Street and Woodward Avenue, commonly known as 2001-2153 63rd Street and 6310-6400 Woodward Avenue:

1. Planned Unit Development Amendments to remove the Meadowbrook Shopping Center from PUD #1 and #8
2. A new Planned Unit Development for the Meadowbrook Shopping Center;
3. Two Special Uses for drive through facilities for separate multitenant buildings;
4. A Special Use for a personal vehicle repair and maintenance facility for a car wash;
5. A Final Plat of Subdivision.

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

GENERAL INFORMATION

OWNER: Stellco 4300 Commerce, LLC
24W500 Maple Avenue, Suite 211
Naperville, Illinois 60540

PETITIONER: Mark W. Daniel
17W733 Butterfield Road
Oakbrook Terrace, IL 60181

PROPERTY INFORMATION

EXISTING ZONING: B-2/P.U.D. #1 and #8, General Retail Business/Planned Unit Development #1 and #8.
EXISTING LAND USE: Multi-tenant commercial buildings
PROPERTY SIZE: 821,541.6 sq. ft. (18.86 acres)
PINS: 08-24-202-004, -005, -008, -009

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	B-2, General Retail Business	Neighborhood Commercial

	Unincorporated DuPage County, R-4 Single Family	Single Family Attached
SOUTH:	R-6, Residential Apartment/Condo 6	Multi-family
EAST:	R-3, Residential Detached House 3	Neighborhood Commercial
	R-3, Residential Detached House 3	Single Family Attached
WEST:	B-2, General Retail Business	Neighborhood Commercial

ANALYSIS

SUBMITTALS

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

1. Statement of Intent
2. Project Narrative
3. Zoning Analysis Table
4. Request for Relief
5. PUD Approval Criteria
6. Special Use Review and Approval Criteria
7. Plat of Survey
8. Legal Descriptions for PUD Amendment and new PUD
9. Final Plat of Subdivision
10. Civil Engineering Drawings
11. Landscape Plans
12. Architectural Elevations
13. Setback Diagram
14. Master Sign Plan
15. Photometric Plan
16. Truck Turning Exhibit
17. Parking Analysis
18. Traffic Impact Study

PROJECT DESCRIPTION

The petitioner is proposing to construct three new commercial buildings and simultaneously improve the existing shopping center façade and site. The 18.86-acre shopping center property, located at the southwest corner of 63rd Street and Woodward Avenue, is zoned B-2/PUD, General Retail Business/Planned Unit Development and encompasses two existing Planned Unit Developments, P.U.D. #1 and P.U.D. #8. The petitioner is requesting approval of the following items:

1. Planned Unit Development Amendments to P.U.D. #1 and P.U.D. #8, to remove the subject properties from P.U.D. #1 and P.U.D. #8.
2. A new Planned Unit Development for the Meadowbrook Shopping Center.
3. A Special Use for personal vehicle repair and maintenance for a car wash facility (Lot 1) in the B-2, General Retail Business district.
4. A Special Use to permit two drive-through multi-tenant buildings (Lot 2 and Lot 3) in the B-2, General Retail Business district.
5. A Final Plat of Subdivision to create three new outlots (Lot 1, Lot 2 and Lot 3)

The current shopping center is located within two existing Planned Unit Developments, P.U.D. #1 and P.U.D. #8. The western half of the shopping center, 2081-2153 63rd Street, is located within P.U.D. #8.

The remaining portions of the shopping center are located in P.U.D. #1. It is the petitioner's desire to remove the shopping center from their existing P.U.D.'s and create a new P.U.D. so that the entire center is located within a single P.U.D.

Proposed Development

The petitioner is proposing three new outlots and the demolition of an existing structure on Lot 3. The table below demonstrates the structures proposed, or existing, on each lot:

Table 1: Development Overview

Lot	Location	Building	Size
1	Northwest Lot	Carwash Facility	4,940 sq. ft. (Proposed)
2	Central Lot	Multi-Tenant Building (Drive-through)	7,500 sq. ft. (Proposed)
3	Northeast Lot	Multi-Tenant Building (Drive-through)	6,447 sq. ft. (Proposed)
4	Southwest Lot	Multi-Tenant Building	99,630 sq. ft. (Existing)
5	Southeast Lot	Multi-Tenant Building	72,819 sq. ft. (Existing)
6	South Lot	Multi-Tenant Building	15,678 sq. ft. (Existing)

Lot 1

The drive-through carwash facility will be located towards the north side of Lot 1 with stacking occurring on the east side of the outlot, funneling cars through the carwash on the north and out traveling south along the west side of Lot 1. South of the proposed building are 24 parking stalls with vacuums. Vehicles will enter Lot 1 on the southeastern side of the outlot and exit on the southwestern side of the outlot into the center parking area.

Lot 2

The proposed multi-tenant building on Lot 2 will have a drive-through for the easternmost tenant. The drive-through is located along the south and eastern sides of the building. Bicycle parking is provided on the northeastern corner of the building. The exterior building material for the proposed building includes modular brick, EIFS and faux wood paneling. Other features include metal awning, corrugated metal and aluminum storefront windows.

Lot 3

The proposed multi-tenant building on Lot 3 will have a drive-through facility for the easternmost tenant. Vehicles will enter the drive-through by the northwest corner of the building travelling south then east around the building, and exiting by the northeastern corner. Bicycle parking is provided on the northeastern side of the building. Similar to the building located on Lot 2, the exterior building material for the proposed building include modular brick, EIFS and faux wood paneling. Other features include metal awning, corrugated metal and aluminum storefront windows.

Lots 4, 5 and 6 Façade Improvements

The main in-line shopping center buildings, addressed from 2003–2153 63rd Street and 6310-6400 Woodward Avenue are planned to remain in their same footprint, with exterior façade improvements. These include existing brick that will be stained light gray and new beige EIFS, red fabric awnings, faux wood paneling and slats surrounding light gray and corrugated metal roof structures as shown in the attached renderings.

Site Improvements and Landscaping

The shopping center is accessed from two full access points on 63rd Street, four access points on Belmont Road and four access points on Woodward Avenue. The two existing 63rd Street access points are in close proximity to each other and will be combined into a single access point. The new single access point will

allow east and west bound traffic on 63rd Street to enter into the site while exiting traffic will only be permitted a right turn (east bound) onto 63rd Street. The driveways on Woodward Avenue and Belmont Road are proposed to remain the same, with full access into and out of the site. Both Woodward Avenue and Belmont Road are signalized at their intersections with 63rd Street.

Sidewalks in the public rights-of-way along Belmont Road, 63rd Street and Woodward Avenue, currently border the shopping center. As a part of the proposed development, a new pedestrian connection from the inline buildings to 63rd Street will be added with the new 63rd Street entry area. Pedestrian circulation between all buildings will be added and sidewalks proposed around all new and existing buildings.

The petitioner is proposing 717 parking spaces, 25 of which will be accessible spaces. The Zoning Ordinance requires four parking spaces per 1,000 square feet for multitenant shopping centers, meaning this proposal would require 828 parking spaces and a deviation to the Village's parking requirements is being requested. For more details on the parking counts by lot, please refer to the Compliance with the Zoning Ordinance section below.

The petitioner is proposing repaving of the parking lot, in addition to the installation of new landscaping on the property to bring the subject property in closer conformance with Village requirements. While the petitioner is seeking certain landscaping requirement relief as noted below, the petitioner is striking a balance to provide parking while expanding some footprints of existing landscape islands in order to green the parking field and meet the open space requirements of the Zoning Ordinance. Across the development, 36 shade trees are proposed, as well as a variety of native bushes, grasses and ornamental trees. Lastly, there are six trash enclosures serving the shopping center on Lot 4, four trash enclosures serving the building on Lot 5, and one trash enclosure proposed at each Lot 1, 2, 3 and 6. All trash enclosures are proposed to be properly screened and are placed in rear yards. Along the south property line, a six-foot privacy fence was installed last year, to screen the shopping center from adjacent residential uses.

Signage
The petitioner is proposing five shopping center monument signs, which will comply with the size regulations of the Zoning Ordinance. Furthermore, the wall signs facing the streets on all six buildings will comply based on the lineal frontage of each tenant space. The petitioner is seeking a deviation for the sign interior side setbacks on Lot 2 as outlined in the Master Sign Plan in the attachments. This request is discussed in further detail below in the Compliance with the Zoning Ordinance section of the report.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The current Comprehensive Plan's Future Land Use Map designates this property as Mixed Use. The Comprehensive Plan designates the subject property as part of the 63rd Street Focus Area. The Comprehensive Plan also places the subject property as Catalyst Site #F1 which highlights that this site is the largest redevelopment opportunity along 63rd Street. Key concepts of the area include:

- Beautify and/or enhance landscaping at major intersections on 63rd Street
- Encourage commercial expansion at key intersections where existing commercial uses exist and where it is necessary to improving their vitality
- Connect nearby residential areas to shopping and services by providing pedestrian and bicycle access
- Ensure parkway trees are preserved and enhanced for the entire length of the corridor
- Reduce the heat island effect by providing shade on-site
- Additional outlots at Meadowbrook could provide more visible and convenient shopping and dining uses

The Village's Comprehensive Plan Area further describes mixed use as containing a mix of land uses that reinforce the unique character of the site. In offering a variety of uses, the design of the site should focus on pedestrian connections around and throughout the site, to accommodate patrons from adjacent properties and those making multiple stops inside the development. Generally, development in a mixed-use district should include buildings that provide excellent access to goods, services and jobs.

Furthermore, the Commercial Areas Plan identifies that aging shopping centers can be modernized through several mechanisms including signage, landscaping, improved access and circulation, modern tenant spaces/layouts, building orientation and visibility, development of outlots, parking lot maintenance and the use of contemporary façades. The proposed development plan utilizes all of the mechanisms.

Lastly, the Comprehensive Plan recommends that the Village should expand and continue to implement commercial design and development to address corridor commercial issues such as appearance, signage clutter, service/parking screening, and access management in a coordinated and comprehensive manner. The Plan states that design of commercial areas should be encouraged to ensure that the structures blend into adjacent residential areas with regard to form, scale, walkability and pedestrian connectivity.

The proposed development is consistent with the Comprehensive Plan.

COMPLIANCE WITH ZONING ORDINANCE

The property is zoned B-2, General Retail Business/Planned Unit Development. The bulk requirements of the proposed development in the B-2 zoning district/Planned Unit Development are summarized in the following table:

Table 2: Zoning Requirements Overview

Lot 1- Car Wash	**Required**	**Proposed**
Building North Setback (Street Yard)	25'	25'
Building South Setback (Rear Yard)	0'	86'
Building West Setback (Side Yard)	0'	64'
Building East Setback (Side Yard)	0'	95'
Open Space	10%	37.86%
Floor Area Ratio	0.75 max	0.11
Building Height	35' max	30'
Parking	3 spaces (4 per 1,000 sf)	28 spaces
Lot 2- Multi-tenant Building (with drive through)	**Required**	**Proposed**
Building North Setback (Street Yard)	25'	61'
Building South Setback (Rear Yard)	0'	27'
Building West Setback (Side Yard)	0'	64'
Building East Setback (Side Yard)	0'	82'
Open Space	10%	18.17%
Floor Area Ratio	0.75 max	0.18
Building Height	35' max	22'
Parking	30 spaces (4 per 1,000 sf)	50 spaces
Lot 3- Multi-tenant Building (With	**Required**	**Proposed**

drive through)		
Building North Setback (Street Yard)	25’	76’
Building South Setback (Rear Yard)	20’	46’
Building West Setback (Side Yard)	0’	33’
Building East Setback (Street Yard)	25’	89’
Open Space	10%	25.42%
Floor Area Ratio	0.75 max	0.14
Building Height	35’ max	23’
Parking	42 spaces (4 per 1,000 sf)	62 spaces
Lot 4- Multi-tenant Building (Existing)	**Required**	**Proposed**
Building North Setback (Street Yard)	25’	361.96’
Building South Setback (Rear Yard)	0’	35’
Building West Setback (Side Yard)	0’	0’
Building East Setback (Side Yard)	0’	44’
Open Space	10%	***5.7%**
Floor Area Ratio	0.75 max	0.27
Building Height	35’ max	35’ max
Parking	399 spaces (4 per 1,000 sf)	***314 spaces**
Lot 5- Multi-tenant Building (Existing)	**Required**	**Proposed**
Building North Setback (Street Yard)	25’	341.75’
Building East Setback (Street Yard)	0’	65.15’
Building South Setback (Rear Yard)	0’	66’
Building West Setback (Side Yard)	0’	0’
Open Space	10%	***7.71%**
Floor Area Ratio	0.75 max	0.29
Building Height	35’ max	35’ max
Parking	291 spaces (4 per 1,000 sf)	***219 spaces**
Lot 6- Multi-tenant Building (Existing)	**Required**	**Proposed**
Building East Setback (Street Yard)	25’	57.5’
Building West Setback (Rear Yard)	0’	182.38’
Building North Setback (Side Yard)	0’	0’
Building South Setback (Side Yard)	0’	85.7’
Open Space	10%	46.76%
Floor Area Ratio	0.75 max	0.22
Building Height	35’ max	35’ max
Parking	63 spaces (4 per 1,000 sf)	***44 spaces**

*The asterisks denotes a deviation from the regulations outlined in the Zoning Ordinance.

The following proposed improvements require relief from the Zoning Ordinance:

Table 3: Summary of Requested Deviations

Improvement	Relief Request	Petitioner's Rationale
Overall PUD		
Open Space in Street Yard	Requirement: 41,144.5 sf *Proposed: 19,246 sf*	Due to the location of the new outlots (Lots 1, 2, and 3) and existing parking along Woodward Avenue and Belmont Road, the petitioner is requesting relief from providing 50% of the required open space in the street yard. Lots 1, 2, and 3 provide the majority of their landscaping in the street yard. The petitioner is compensating by exceeding the 10% open space requirement for the entire site with landscaping heavily concentrated in the rear of Lot 6 area closest to the residential zoning. Additionally, the new development on Lots 1, 2 and 3 will meet the open space regulations, with lots 4 and 5 increasing the amount of open space from the existing condition, but still not meeting the requirement of 10%.
Minimum Parking Ratio	Requirement: 828 spaces *Proposed: 717 (including 24 vacuum)*	In order to accommodate increased open space and to reduce the heat island effect through additional landscape islands and parking lot landscaping areas, the petitioner is requesting relief from the minimum parking ratio.
Parking lot setbacks	Requirement: 25' in the street yard *Proposed: 9.5' - 10.9'*	Lots 4, 5 and 6 as existing do not meet the parking lot setback requirements and the petitioner is not proposing changes to their setbacks as a part of the parking lot redevelopment. Lots 2 and 3 do not meet the street yard setback requirement as proposed. The design reflects the desire to build safe traffic circulation patterns in the new outlots while utilizing existing drive aisles in the shopping center.
Lot 1		
Bicycle Parking	Requirement: 2 spaces *Proposed: 0 spaces*	Due to the nature of the carwash, the petitioner finds that bicycle racks are not necessary at a carwash facility.
Pedestrian Connection	Requirement: Circulation throughout the lot and connection to adjacent pedestrian pathways *Proposed: Sidewalk from parking area to office entrance only*	The petitioner finds that a pedestrian connection to and from the carwash facility is not necessary due to the automobile oriented nature of the use.
Lot 2		
Sign B Interior Setback	Requirement: 25' *Proposed: 11.46'*	The petitioner is requesting a deviation from the interior property line setback for monument sign B on Lot 2. Due to the location of the drive aisle and grading challenges, sign B is unable to meet the required setback.
Sign C Interior Setback	Requirement: 25' *Proposed: 14.4'*	The petitioner is requesting a deviation from the interior property line setback for monument sign C on Lot 2. This sign is the proposed multitenant sign for the entire shopping center and is directly adjacent to the new 63rd Street drive aisle. Due to the location of the entry drive, the Lot 2 drive aisle and grading challenges, sign C is unable to meet the required setback.
Lot 6		

Awning/Canopy Encroachment	Requirement: 22.5' from the property line *Proposed: 3' encroachment over the property line into Lot 5*	The petitioner wants to improve the exterior of the structure with the proposed awning/canopy structures to match the buildings on Lot 4 and Lot 5. The proposed awning/canopy will not extend beyond the sidewalk that runs along the northern building wall. The existing building wall is located on the northern lot line.

As a part of the Planned Unit Development request, the petitioner is submitting a Master Sign Plan to govern the property as improvements are implemented. This allows for deviations related to side interior setbacks for monument signs B and C as noted above, and allows for both signs to be located on Lot 2. The Master Sign Plan also addresses the location of wall signs on all proposed buildings in the development, to clearly govern where wall signs can be placed. The allowable size of all signs remains governed by the Zoning Ordinance. Staff finds the Master Sign Plan meets the intent of the Zoning Ordinance.

COMPLIANCE WITH THE SUBDIVISION ORDINANCE

The subject property is made up of four lots of record. The petitioner is proposing to subdivide these four lots into six lots of record. All new businesses lots must be at least 75' wide by 140' deep for a total area of 10,500 square feet. All new lots will meet the requirements, as shown in the table below:

Table 4: Subdivision Overview

Meadowbrook Redevelopment	Lot Width		Lot Depth		Lot Area	
	Required	Proposed	Required	Proposed	Required	Proposed
Lot 1	75'	289.36'	140'	149'	10,500 sq. ft.	43,113 sq. ft. (0.99 acres)
Lot 2	75'	275.15'	140'	149'	10,500 sq. ft.	41,018 sq. ft. (0.94 acres)
Lot 3	75'	190.21'	140'	167.65'	10,500 sq. ft.	45,146 sq. ft. (1.04 acres)
Lot 4	75'	765.73'	140'	487.92'	10,500 sq. ft.	10,500 sq. ft.
Lot 5	75'	474.37'	140'	613.5'	10,500 sq. ft.	249,730 sq. ft. (5.73 acres)
Lot 6	75'	215'	140'	317.83'	10,500 sq. ft.	69,267 sq. ft. (1.59 acres)

The Final Plat of Subdivision includes an ingress and egress easement over the new 63rd Street access point and connects to an east-west ingress and egress easement that runs from Woodward Avenue to Belmont Road adjacent to the south property lines of the proposed outlots (Lots 1, 2 and 3). This easement is over the main drive aisle in main shopping center, providing cross access through the center and onto 63rd Street, Belmont Road and Woodward Avenue for Lots 1-5. The proposed development, resulting lots and proposed improvements comply with the Subdivision Ordinance.

ENGINEERING/PUBLIC IMPROVEMENTS

Based on the existing and proposed impervious area on the site, new stormwater detention is not required for the proposed development because impervious area is reduced by 27,760 square feet. Post Construction Best Management Practices are not required for this property either due to the reduction in impervious area. The project will meet all provisions of the Stormwater and Floodplain Ordinance.

Additional public improvements include the narrowing of the driveway on 63rd Street to restrict westbound traffic from exiting at the driveway, requiring exiting vehicles to only turn right (eastbound). This routes all proposed left turns to the signalized intersections of 63rd Street and Belmont Road and 63rd Street and

Woodward Avenue. DuPage County Department of Transportation (DuDOT) has jurisdiction over the 63rd Street right of way, and a permit is in review for the proposed access, but DuDOT has provided preliminary approval of the design. Pedestrian circulation routes are provided throughout the development to connect lots 2, 3, 4, 5 and 6 to each other and the existing sidewalks along Belmont Road, Woodward Avenue and 63rd Street. The Sanitary District has provided conceptual approval for the proposed development.

TRAFFIC AND PARKING

A traffic impact study was provided by the petitioner analyzing the proposed development, and found that the traffic generated by the development can be accommodated by the existing area roadway system.

The proposed development depicts the site will maintain the existing four full movement access drives from Woodward Avenue, which are stop sign controlled and the existing three full movement access drives along Belmont Road, which are stop sign controlled. The access driveway onto 63rd Street will be reduced to a three-quarter access drive, located approximately 505 feet west of Woodward Avenue, and provide two inbound lanes and one outbound lane from the site. The outbound left-turn movement will be prohibited at this access drive, and the outbound right turn movement will be under stop sign control. The study shows that the surrounding roadway system exhibits sufficient reserve capacity to accommodate the traffic to be generated by the development, and estimates that trips generated from the site will be reduced due the proposed uses increasing the number of pass-by trips (via drive-through uses).

As described above, the petitioner is requesting a deviation from the minimum parking ratio as required by the Zoning Ordinance. Staff supports this deviation due to the surplus of parking provided by the new outlots, and the design of the entire site, which supports increased pedestrian circulation so patrons can park and visit multiple destinations in one trip. Additionally, this parking deviation allows for additional landscape islands and a reduction of the heat island effect.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division has reviewed the proposed plans and determined that the development provides sufficient access for emergency vehicles. As shown in the truck turning plan, the Village's largest emergency vehicle can maneuver through the site and all outlots and buildings. The buildings will also include a fire alarm system 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 in addition to posting public hearing notice signs and publishing the legal notice in the *The Daily Herald*. Staff received two public inquiries prior to the hearing, requesting details on the proposal.

STANDARDS OF APPROVAL

The petitioner is requesting Planned Unit Development Amendments, a new Planned Unit Development, Special Uses and a Plat of Subdivision. The petitioner has submitted a narrative that attempts to address all the standards of approval. The Planning and Zoning Commission should consider the petitioner's documentation, the staff report and the discussion at the Planning and Zoning Commission meeting in determining whether the standards for approval have been met:

Planned Unit Development
Section 28.12.040.C.5 Review and Approval Criteria

The decision to amend the zoning map to approve a PUD development plan and to establish a PUD overlay district are matters of legislative discretion that are not controlled by any single standard. In making

recommendations and decisions regarding approval of planned unit developments, review and decision-making bodies must consider at least the following factors:

a. The zoning map amendment review and approval criteria of Sec. 28.12.030.I.
b. Whether the proposed PUD development plan and map amendment would be consistent with the comprehensive plan and any other adopted plans for the subject area.
c. Whether PUD development plan complies with the PUD overlay district provisions of Sec. 28.4.030.
d. Whether the proposed development will result in public benefits that are greater than or at least equal to those that would have resulted from development under conventional zoning regulations.
***e.** Whether appropriate terms and conditions have been imposed on the approval to protect the interests of surrounding property owners and residents, existing and future residents of the PUD and the general public.*

Special Use
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 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 January 6, 2025 meeting. Should the Planning and Zoning Commission find that the request meets the standards of approval for a Planned Unit Development and Special Use staff has prepared a draft motion that the Planning and Zoning Commission may make for the recommended approval of 24-PCE-0012:

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 Planned Unit Development Amendment and Special Uses as required by the Village of Downers Grove Zoning Ordinance and is in the public interest and therefore, I move that the Planning and Zoning Commission recommend to the Village Council approval of 24-PCE-0012, subject to the following conditions:

1. The Planned Unit Development Amendment, Special Uses, and Plat of Subdivision shall substantially conform to the staff report; engineering drawings prepared by RTM Engineering Consultants dated July 1, 2024 and last revised on November 11, 2024, architectural elevations prepared by JTS Architects dated March 25, 2024 and landscape drawings prepared by Sebert Design and Build dated June 16, 2023 and last revised on November 12, 2024, except as such plans may be modified to conform to the Village codes and ordinances.
2. All proposed landscaping to screen the proposed vacuums on Lot 1 must be a minimum of 6' in

height at maturity and must be native.

3. Shade trees must be planted along the north and east property lines per DGMC 28.8.20(b)(5), which states that "trees must be provided at a rate of one (1) tree per thirty (30) linear feet." Any ornamental trees proposed in this area must be switched to shade trees.

Staff Report Approved By:

_____

Stanley J. Popovich, AICP
Director of Community Development

SP; eih
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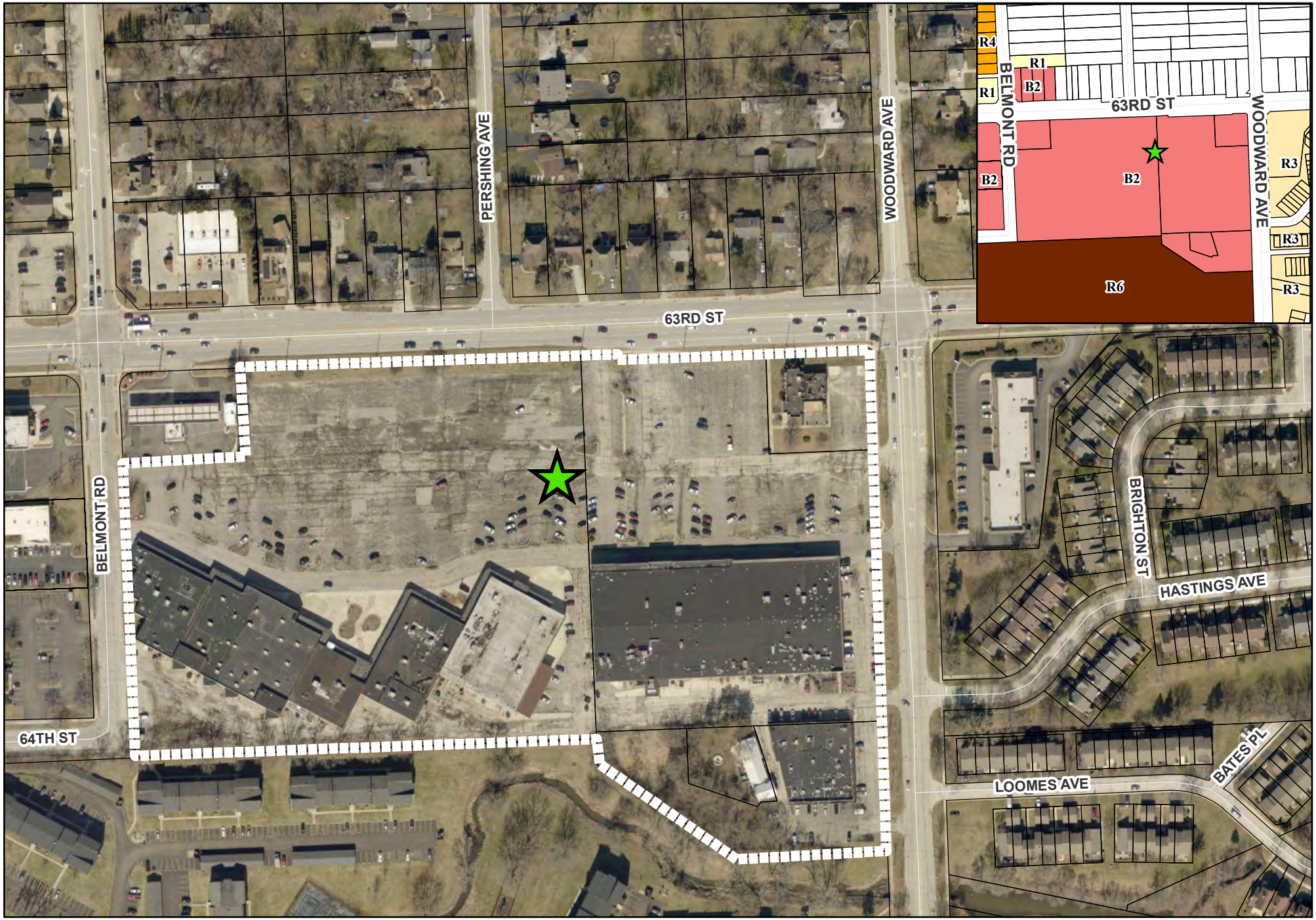

N

0 240 480 960 1,440 Feet

2001-2153 63rd and 6310-6400 Woodward Avenue - Location Map

Subject Property

Sign Location

VILLAGE OF DOWNERS GROVE
SHOPPES OF MEADOWBROOK
(REDEVELOPMENT OF MEADOWBROOK SHOPPING CENTER)

PROJECT NARRATIVE
(REVISED NOVEMBER 2024)

INTRODUCTION

Stellco 4300 Commerce, LLC ("Applicant") seeks recommendation and approval of a new planned unit development and new PUD Site Plan for the redevelopment of a shopping center constructed in the early 1970's on the south side of 63rd Street between Woodward Avenue and Belmont Road. The project involves exterior rehabilitation and the construction of new outlot buildings. Special uses are required for three of the outlot buildings. Two will have drive-through operations with the west outlot (Lot 1) offering a modern tunnel car wash. A new PUD site plan with a revised landscape plan is in order and Applicant also seeks approval of a plat of subdivision.

This project will remove portions of land from PUD #1 (east of the 63rd Street entrance) and PUD #8 (west of the 63rd Street entrance) and combine them into a new PUD. (See attached legal descriptions and exhibit.) The project will continue of all pre-existing, current special uses and current zoning nonconformities as reflected in the PUD plan while improving on them where possible. One such current special use is the animal boarding use at 2151 63rd Street (Ord. No. 5775 (2019-8296)). Nonconformities that will be encompassed in the approved PUD site plan include matters such as building setbacks, parking setbacks, individual lot open space, parking lot islands and row breaks. Applicant proposes redevelopment of the center under the name "Shoppes of Meadowbrook." A redevelopment agreement will not provide zoning relief, but it will contain benchmarks for performance and provide necessary support and controls for revitalizing the existing shopping center.

THE PROJECT

Applicant acquired Meadowbrook Shopping Center in 2022. Applicant proposes two new outlots (Lots 1-2) and a resubdivision to better align lots (including Lot 3, building to be demolished and replaced) for the redevelopment. The two east outlots (Lots 2-3) will host multitenant buildings, including restaurants with drive-through facilities. Adjacent to the gas station at the southeast corner of the intersection of 63rd Street and Belmont Road, Applicant seeks Lot 1 approval for a modern tunnel-format car wash. Applicant will add pedestrian routes within the shopping center and create an attractive north-south driveway feature from 63rd Street in order to reduce the views to pavement even further. Some landscape islands will be added and large portions of the center will be modernized and improved.

Applicant will narrow the driveway at 63rd Street, reduce available turns to a three-quarter access (no exiting left turn), and reconstruct the main entrance drive from 63rd Street to the larger buildings with a stop-controlled interior intersection with crosswalks. The main entrance will feature a substantial landscape improvement and pedestrian routes. It will improve

the Woodward Avenue frontage and use plantings to soften the driveways into the center. Applicant will also re-use and improve existing islands and the north and south ends of parking rows. Where new parking is planned along the front of the mainline components on Lots 4-5, Applicant will add landscaping. Bicycle racks will be added where necessary (with the exception of the car wash) as shown in the PUD site plan. Applicant will convert an existing nonconforming parking area between the mainline buildings on Lots 4-5 to allow through traffic to the rear and provide conforming parking spaces.

Applicant will modernize elevations of the mainline portion of the center (Lots 4-5) and the southern building (Lot 6). This includes the rear of buildings on Lots 4-5 which will be repaired and painted with decorative upper accents to break up monotony for views above the fence line or otherwise from the south. As shown in the elevations, features on side elevations will transition to the front elevations. Applicant is modernizing all wall signs on Lots 4-6 with channel lettering. Wall signs will comply with the sign regulations, with sign area premised on depth of the storefronts from 63rd Street (Lots 4-5) or Woodward Avenue (Lots 5-6). Applicant will work with tenants so their window signs comply with applicable ordinances unless a tenant is able to justify a larger sign under the Village's protocols. Applicant will comply with the regulations governing ratios of sign area to storefronts/signs as depicted in the Wall Sign Exhibit. The Wall Sign Exhibit is indicative only of the applicable ratio for wall signs allowed if there is a storefront/entrance or other basis for a wall sign.

Applicant relies on a unified monument sign plan, with one new shopping center monument sign at the north entrance on 63rd Street and the north-central entrance on Woodward Avenue supported by outlot signs in the same design for Lots 1-3. The main entrance shared monument sign will be fifteen (15) feet tall and the Woodward Avenue shared monument sign will be thirteen (13) feet tall. The monument signs meet the Village's sign height and area requirements, but Applicant proposes modest sign setback relief for the west monument signs on Lots 1-2, where there are grade and view challenges.

Economic goals for the center include adding national and regional tenants to Lots 1-3 and national, regional and local tenants in the remainder of the center. Planning the center as a neighborhood of commercial activity that transitions from large units to smaller units at the north will allow for a proper filtering of use along 63rd Street. Maintaining a visual connection between the north and south portions of the center will allow for more synergy and a better consumer experience.

Work will progress as required in the redevelopment agreement and as generally set forth in the phasing plan—each of which contemplates reasonable flexibility in phasing in work.

ABOUT THE SUBJECT PROPERTY

The Subject Property comprises 18.89 acres (+/-822,896 square feet) assigned the Village of Downers Grove's B-2 zoning classification. As noted above, two planned unit developments support the existing center, with the earliest having its genesis in 1966. Each planned unit development has been amended over time as set forth in the discussion of the PUD standards. The site currently has more than 90% impervious surface, the largest part of which will remain in

the southern portion of the development behind the buildings on Lots 4-5, but Applicant will increase open space to 2.486 acres (13.16% as planned). The bulk of the new open space is along 63rd Street, and additional landscape will improve the appearance of Lots 5-6 from Woodward Avenue.

The site currently features five existing buildings (two west buildings on Lot 4 share a party wall) with a total area of approximately 192,098 square feet, a large portion of which is vacant. The larger buildings have their primary retail frontage oriented to 63rd Street. The eastern building (Lot 5) and southeastern building (Lot 6) have storefronts along Woodward Avenue. The building on Lot 6 also has storefronts on its north and south elevations. Due to the planning in the 1960's and 1970's, Lot 4 has minimal to no setback to parking and buildings and Lot 5 and Lot 6 have minimal setback to parking. The Belmont Road elevation on Lot 4 has some fenced area for the current animal boarding special use and does not feature any storefronts. The rear of the mainline buildings is primarily a loading area from which the center has also managed waste operations, but this area also contains easements for utilities and for access which cannot be altered with any ease. The southeastern portion of the center (Lot 6) surrounds a parcel (PIN 08-24-203-005, zoned B-2/PUD) that contains one of the original homes that predated development of the center, and this area is noted as an exception in several of the plans because the odd-shaped lot and 1-1/2 story home surrounded by Lot 6 is not part of the development.

Among the several tenants are Planet Fitness, Dollar Tree, a restaurant and bar, restaurants, shops, offices, personal service salons, a religious use, recreation use, educational services, pet training and grooming, a laundromat, and a senior center. The shopping center will be capable of re-use for at least one larger retail location or grocery store.

Originating as a B-1/PUD, the site is now designated on the Zoning Map as part of two distinct B-2/PUDs (Ord. No. 1354 (PD#1) and Ord. No. 1626 (PD#8)). The excluded parcel use is under distinct ownership after once being considered as a main office for the shopping center. The home fronts directly onto loading and fire lanes serving the shopping center. The home on the excluded parcel has an access easement over Lot 5 and Lot 6 to Woodward Avenue.

The shopping center's primary visual feature is a large parking field that was common with development in the 1970's. The retail frontage along the large parking lot is more than 300 feet removed from 63rd Street. The parking lot has historically been underutilized for parking or other uses, as reflected in aerial photographs from the County, the Chicago Metropolitan Agency for Planning and Google Earth since 1975. The overparking creates an appearance of obsolescence that impacts the center and this area of the Village. The condition will be eliminated with this PUD which now also adds landscape island improvements and reduces some parking where demanded during prior reviews.

Internal circulation within the large parking field is minimally controlled under today's standards. The parking lot features several rows of angled parking and planting islands of varying sizes at the ends of each. There are no landscape breaks among the parking modules. The entrance drive has limited definition as it runs south to the mainline portion of the center. These landscape breaks are impossible without sacrificing too much parking for customers and

employees. The interior driveway between the buildings leads only to limited-purpose parking and has no connection with the rear of the buildings.

The center has direct pedestrian connections to Woodward Avenue and to Belmont Road. There is no direct pedestrian connection along the main north-south entrance from 63rd Street. The main entrance is offset from the center of the block and the intersections of Woodward Avenue and Belmont Road with 63rd Street are both signalized. With protected pedestrian crossings at these intersections, most pedestrians use the shopping center's connections to Woodward Avenue and Belmont Road.

Drainage and stormwater planning has always called for collection and conveyance to the south into the Prentiss Creek system. Multiple underdrains collect stormwater from north of the center and convey it via a central line between the largest buildings. Storm drainage then circulates through the longstanding facility on Lot 6 to the south before entering the Prentiss Creek system that has been planned since the 1966 with the base PUD #1 planning for the territory extending far south of 63rd Street.

The north main entrance and driveways along Woodward Avenue and Belmont Road have served the center well for fifty years. The continuous route behind the main buildings and extending from Belmont Road to Woodward Avenue allows direct fire and life safety access while another driveway on Belmont Road allows for access for loading purposes. Due to the location and alignment of loading areas, driveways to the rear of the mainline components on Lots 4-5 will remain. Loading and waste operations are generally unscreened other than by the landscaping and fence along the south line of the shopping center. The planning of the multi-family residential use south of the center occurred in conjunction with planning for the center itself, and the current and future separation was intended by PUD #1.

Signage within the shopping center has historically included ground or pylon signs along 63rd Street and Woodward Avenue and wall signs. Wall signs have varying designs, types and sizes. Standard directional and other signs exist within the center. As planned, wall signs on the north elevations of Lots 4-5 are larger than wall signs closer to the streets.

The rear of the mainline buildings has a history of outdoor activity, in some instances, storage. Building elevations are dated and require some maintenance and repair. Offsets in the rear of the west mainline building avoid monotony along the south lot line shared with Prentiss Creek Apartments. Another remnant of planning in the 1970's is the large cement area north of the west mainline building.

SURROUNDING PLANNING AND LAND USE

The northeast corner of the intersection of 63rd Street and Belmont Road and the lots opposite the Subject Property west of Belmont Road are part of the same B-2 zoning district. The B-2 lots west of Belmont are part of PUD #8 according to the Village's zoning map. A large R-5 attached residential housing district extends south from 63rd Street along the Woodward Avenue frontage opposite the Subject Property.

Most of the frontage opposite 63rd Street from the Subject Property and territory extending north (to Howard Avenue) is unincorporated with an assigned DuPage County R-4 Single-Family zoning designation. This large County R-4 district has smaller County B-2 Local Business and R-5 Multiple Family districts near Belmont Road and Maple Avenue which, like the area of the Subject Property, is an area of significant variation in zoning and land use. Where the Village has annexed and entitled territory on the perimeter of the large County R-4 district, the zoning and land use varies from more dense single family and multiple family use to commercial, institutional and industrial land use. Residents in this unincorporated area have encouraged the Village to seek development that offers them places to dine and shop.

An R-6 multiple family district lies south of the Subject Property and along both sides of Prentiss Drive (PUD #1, Ord. No. 1354). This development lies between the center and two other planned unit developments southeast and southwest of the center. The Village's planning for the Prentiss Creek Apartments occurred at the same time the Village planned the east side of Meadowbrook Shopping Center (all as part of PUD #1).

The Village's Future Land Use Map (edited through June 13, 2017) designates the Subject Property for mixed use. Opposite 63rd Street from the Subject Property the frontage is designated for single-family attached use, with single-family detached use to the north. Half of the Woodward Avenue frontage extending south from 63rd Street opposite the Subject Property is designated for neighborhood commercial with the remainder designated for single-family attached use. The frontage along Belmont Road and west of the Subject Property is designated for neighborhood commercial use, with Woodridge planning area to the west (boundary line agreement). The large tract south (rear) of the Subject Property remains designated for multi-family use.

Applicant has retained KLOA and submits KLOA's most recent traffic study with the application. Access to I-355 is just west of the shopping center. 63rd Street is under the jurisdiction of the DuPage County Division of Transportation which has engaged in pre-application and application review of the project. The County, Village and Applicant have been in frequent communication about the access permit. 63rd Street and Woodward Avenue are minor arterials. Belmont Road is a local street south of 63rd Street and a minor arterial north of 63rd Street that, with Finley Road north of Interstate 88, extends from the Subject Property north to Crescent Boulevard in west-central Lombard—serving the Village, Woodridge, Lombard, Glen Ellyn, and unincorporated DuPage County. Woodward Avenue extends north from Internationale Parkway (south of Interstate 55) in south Woodridge, through Woodridge, Darien, Downers Grove and unincorporated DuPage County at Maple Avenue. Pershing Avenue (south terminus opposite the center west of the main entrance) is a local street that extends from 63rd Street north to Howard Avenue and serves only the County R-4 district north of the Subject Property.

Since the 1970's this part of the County and Village developed with commercial and higher density residential and institutional uses—replacing the rural, large tract residential and agricultural land uses that started to fade in the 1950's and 1960's when the area south of 63rd Street was farmland with its tracts often divided by Prentiss Creek and no connection to other uses except through Woodward Avenue and 63rd Street.

VILLAGE OF DOWNERS GROVE PLAN COMMISSION

SHOPPES OF MEADOWBROOK
ZONING ANALYSIS TABLE
(NOVEMBER 2024)
PAGE 1 OF 4

Project Name: SHOPPES OF MEADOWBROOK
Address: SOUTH FRONTAGE 63RD STREET, BETWEEN BELMONT ROAD AND WOODWARD AVENUE (EXCL 2181 63RD), 2001 63RD STREET, 6400 WOODWARD AVENUE (MOST)
Permanent Index Numbers: 08-24-202-005, 08-24-202-008, 08-24-202-009, 08-24-203-004
Current Zoning: B-2/PUD
Existing Use: Shopping Center with One Outlot/Outbuilding
Proposed Use: Rehabilitated Shopping Center with Three Outlots/Outbuildings
Petition Types: Planned Unit Development, Special Uses (4), PUD Site Plan, Subdivision
Deviations: Please see Itemization of Relief
Regulatory Surroundings: R-6 abutting to south

PUD OVERALL

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	4 acres	18.89 +/-822,896 SF	18.89 +/-822,896 SF	PUD Complies
Max. FAR	28.3.030 (3-2)	0.75 +/-617,172 SF	0.23 +/-192,098	0.25 +/-207,067 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	29' 63rd 55' Woodward 0' Belmont	25' 63rd 55' Woodward 0' Belmont	Exception, on Belmont (existing)
Int Side Setback	28.3.030 (3-2) (R6, 10%, 0 B2)	59' Belmont 49' Woodward 0' 63rd	34' Belmont 85' Woodward >95' Belmont	85' W 59' Woodward 64' 63rd	Deviation from 59' to 34' (existing)
Rear Setback	28.3.030 (3-2)	N/A	>100' (16' to exception)	>100' (16' to exception)	Complies
LS Op. Space	28.3.030 (3-2)	10% 82,289 SF	9.8% 80,420 SF	13.17% 108,306	Complies
Building Ht.	28.3.030 (3-2)	35 feet	No Change	+/-22-28'	Complies

LOT ONE—WEST OUTLOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	Not applicable	New Lot	0.99 acres +/-43,113 SF	Not applicable
Max. FAR	28.3.030 (3-2)	0.75 +/- 32,350 SF	New Lot	0.11 4,940 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	New Lot	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	New Lot	25'N	Complies
Int Side Setback	28.3.030 (3-2)	N/A	New Lot	E 95'/W 64'	Complies Complies
Rear Setback	28.3.030 (3-2)	N/A	New Lot	S 86'	Complies
LS Op. Space	28.3.030 (3-2)	10%, 4,313 SF	20.4% 8,806 SF	37.86, 16323 SF	Complies
Building Ht.	28.3.030 (3-2)	35 feet	New Lot	New +/-23'-30'	Complies
CW Stacking	28.7.130(C)(7-5)	2, 2 dry ea. lane	New Lot	15	Complies
CW Ret Kiosk	28.6.010(L)	Covered kiosk	New Lot	Covered	Complies
CW Indoor Op	28.6.100(A)	Service indoors	New Lot	Vacuum outdoor	Complies
CW Screen	28.6.100(C)	6-8' fence	New Lot	Landscaped	Complies

VILLAGE OF DOWNERS GROVE PLAN COMMISSION

SHOPPES OF MEADOWBROOK
ZONING ANALYSIS TABLE
(NOVEMBER 2024)
PAGE 2 OF 4

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Loading Req.	28.7.140(A)	None <20,000	New	0	Complies
Mon. Setback	28.9.050(B)(1)(b)	10’/25’	New	N 10’/W 52’	Complies

LOT TWO—CENTRAL OUTLOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	Not applicable	New Lot	0.94 acres +/- 41,018 SF	Not applicable
Max. FAR	28.3.030 (3-2)	0.75 +/-30,809 SF	New Lot	0.18 +/-7500 SF	Complies
FAR >0.50	(3-2, Note 2)	Not Applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	New Lot	61’ 63rd	Complies
Int Side Setb	28.3.030 (3-2)	Not Applicable	New Lot	E 82’ / W 64’	Complies
Rear Setback	28.3.030 (3-2)	N/A	New Lot	+/-27’	Complies
LS Op. Space	28.3.030 (3-2)	10% 4,108 SF	18.1% 7,447 SF	18.17% 7,537	Complies
Building Ht.	28.3.030 (3-2)	35 feet	New Lot	New +/-22’	Complies
DT stacking	28.7.130(C)(7-5)	8, 3 win-menu	New	9, 4	Complies
DT stck width	28.7.130(D)(1)	10’	New	12’	Complies
Loading Req.	28.7.140(A)	None <20,000	New	0	Complies
No Mon. Signs	28.9.050(B)(2)(a)	1	New	2[1]	Exception
Mon. Setback	28.9.050(B)(1)(b)	10’/25’	New	10’/11’	Exception
Mon. Setback	28.9.050(B)(1)(b)	10’/100’	New	11’/14’	Exception

LOT THREE—CORNER OUTLOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	Not applicable	New Lot	1.04 acres +/-45,146 SF	Not applicable
Max. FAR	28.3.030 (3-2)	0.75 +/-33,859 SF	New Lot	0.14 +/- 6500 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	29’ 63rd 78’ Woodward	76’ 63rd 89’ Woodward	Complies
Int Side Setback	28.3.030 (3-2)	Not Applicable	+/-23’	33’	Complies
Rear Setback	28.3.030 (3-2)	N/A		46’	Complies
LS Op. Space	28.3.030 (3-2)	10% 4,515 SF	26.3% 11860 SF	25.42% 11476 SF	Complies
Building Ht.	28.3.030 (3-2)	35 feet	No Change	New +/-23’	Complies
DT stacking	28.7.130(C)(7-5)	8, 3 win-menu	New	12, 4	Complies
DT stck width	28.7.130(D)(1)	10’	New	12’	Complies
Loading Req.	28.7.140(A)	None <20,000	New	0	Complies
Mon. Setback	28.9.050(B)(1)(b)	10’/10’	New	10’/24’	Complies

[1] NW sign is for Lot 2. NE sign will be for the shared tenant sign for the whole center. Due to the entrance configuration and DuDOT access review, the shared sign is best placed west of the 63rd Street entrance.

VILLAGE OF DOWNERS GROVE PLAN COMMISSION

SHOPPES OF MEADOWBROOK
ZONING ANALYSIS TABLE
(NOVEMBER 2024)
PAGE 3 OF 4

LOT FOUR—CENTRAL WEST LOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	Not applicable	New Lot	8.59 acres +/-374,311 SF	Not applicable
Max. FAR	28.3.030 (3-2)	0.75 +/-280,733 SF	New Lot	0.27 +/-99,630 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	+/-360' 63rd 0' Belmont	0' Belmont	Exception, on Belmont (existing)
Int Side Setback (South)	28.3.030 (3-2)	59' Belmont (R6, 10%, 0 B2)	34' Belmont >95' Belmont	34' Belmont >95' Belmont	Deviation from 59' to 34'
Rear Setback	28.3.030 (3-2)	N/A	+/-45'	+/-45'	Not applicable
LS Op. Space	28.3.030 (3-2)	10% 37,431 SF	3.9% 14,339 SF	5.7% 21,331 SF	Exception (existing)
Building Ht.	28.3.030 (3-2)	35 feet	No Change	+/-28'	Complies
Loading Req.	28.7.140(A)	1 <100,000	No Change	5	Complies
Loading Size	28.7.140(B)(1)	12' x 55' x 14'	12' x 55' x 14'	12' x 55' x' 14'	Complies
Load. Setback	28.7.140(B)(4)	25' to inter/50'	50-100'/34'	50-100'/34'	Fence, complies
Dog Care and Trng.	28.6.120(B)(2)	Various	Existing	Contin. Existing	Spec. Use (existing)
LS Island Size	28.8.030(B)(2)	7'; 150/300 SF	Varied	Maintain	Exception (existing)
LS Div Medians	28.8.030(C)(1)	1:3 modls; 6'	None	Maintain	Exception (existing)
ABG Screening	28.8.040(B)	Screen over 30"	Unscreened	Maintain	Exception (existing)

LOT FIVE—CENTRAL EAST LOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	Not applicable	New Lot	5.73 acres +/-249,740 SF	Not applicable
Max. FAR	28.3.030 (3-2)	0.75 +/-187,305 SF	New Lot	0.29 +/-72,819 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	365' 63rd 74' Woodward	365' 63rd 74' Woodward	Complies
Int Side Setback	28.3.030 (3-2)	Not Applicable	160' N/0' W	187' N/0' W	Not Applicable
Rear Setback	28.3.030 (3-2)	N/A	S 52'	S 52'	Not Applicable
LS Op. Space	28.3.030 (3-2)	10% 25,273 SF	2.4%	7.71% 19,247 SF	Exception (existing)
Building Ht.	28.3.030 (3-2)	35 feet	No Change	28'	Complies
Loading Req.	28.7.140(A)	1 <100,000	2	2	Complies
Loading Size	28.7.140(B)(1)	12' x 55' x 14'	12' x 55' x 14'	12' x 55' x' 14'	Complies
Load. Setback	28.7.140(B)(4)	25' to inter/50'	30-90'/75'	52'	Complies
LS Islands	28.8.030(B)(1)	1:20 sp in row	24	22 in one row	Exception (existing)

VILLAGE OF DOWNERS GROVE PLAN COMMISSION

SHOPPES OF MEADOWBROOK
ZONING ANALYSIS TABLE
(NOVEMBER 2024)
PAGE 4 OF 4

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
LS Island Size	28.8.030(B)(2)	7'; 150/300 SF	Varied	Maintain	Exception (existing)
LS Div Medians	28.8.030(C)(1)	1:3 modls; 6'	None	Maintain	Exception (existing)
ABG Screening	28.8.040(B)	Screen over 30"	Unscreened	Maintain	Exception (existing)

LOT SIX—SOUTHEAST LOT

SUBJECT	SECTION	REQUIRED	EXISTING	PROPOSED	NOTES
Min. District Area	28.3.030 (3-2)	4 acres	1.59 acres +/-62,260 SF	1.59 acres +/-62,260 SF	Complies
Max. FAR	28.3.030 (3-2)	0.75 +/-46,695 SF	0.25 +/-15,678 SF	0.25 +/-15,678 SF	Complies
FAR >0.50	(3-2, Note 2)	Not applicable	Not applicable	Not applicable	Not applicable
Street Setback	28.3.030 (3-2)	25 feet	55' Woodward	55' Woodward	Complies
In Side Setback	28.3.030 (3-2)	N N/A S 10%	85' S -4.72' N	85' S -4.72' N	Complies
Rear Setback	28.3.030 (3-2)	N/A	>100' (16' to exception)	>100' (16' to exception)	Complies
LS Op. Space	28.3.030 (3-2)	10% 6,226 SF	46.3% 32047 SF	46.76% 32,392 SF	Complies
Building Ht.	28.3.030 (3-2)	35 feet	No Change	23'	Complies
Loading Req.	28.7.140(A)	None <20,000	None	None	Complies
ABG Screening	28.8.040(B)	Screen over 30"	Unscreened	Maintain	Exception (existing)

NOTES:

A. No residential rear lot line abuts the Subject Property. South Lot 4 and Lot 6 abut an interior side lot line.
B. Central pedestrian circulation is available along five-foot central walk and along buildings and cross walks. In accord with Sec. 28.7.110, pedestrian routes are available from 63rd Street, Woodward Avenue and Belmont Road.
C. Applicant notes that new parking surfaces are being installed where indicated on Lots 1-3 and central Lots 4-5. These areas will comply with Section 28.8.020 (County R-4 to the north). Applicant will maintain existing landscape design where there is no new parking lot except where landscaping for monument signs is required. One of the many rows of parking spaces exceeds twenty (20) spaces without a landscape island (by 2, situated on the east side of the building on Central East Lot 5 between two driveways). Several exceptions noted in the tables above are primarily designed to continue existing, but improved, conditions. The perimeter and interior parking lot landscaping requirements are not applicable where the exceptions are requested because the areas are existing rows of parking.
D. Applicant proposes maintenance of and, where needed, supplements to the new existing 6' solid fence along the south lines of Lot 4 and Lot 6.
E. Applicant seeks screening exceptions on the existing improved lots, but notes that these are primarily screened from street views with the exception of above ground service facilities that are visible while traversing the drive behind the mainline center extending between Woodward Avenue and Belmont Road.
F. Applicant will screen waste facilities and, where needed, west of the building on Lot 4. Applicant anticipates a screen with a height of 6 feet, but some haulers have recently changed their service receptacles and a slightly taller fence could be required at permitting.

VILLAGE OF DOWNERS GROVE

SHOPPES OF MEADOWBROOK
ITEMIZATION OF RELIEF
(NOVEMBER 2024)

STELLCO 4300 COMMERCE, LLC ("Applicant") respectfully requests that the Plan Commission favorably recommend and the Village Council approve such ordinances and resolutions as necessary to approve a Planned Unit Development and PUD Site Plan under Section 28.4.030 and Section 28.12.040(e) of the Zoning Ordinance, attended by a plat of subdivision and the following:

1. Special Uses under 28.12.050 for:

    a. On Lot 1, under Section 28.5.050(p)(4) for an automated car wash (Personal Vehicle Repair and Maintenance);
    b. On Lot 2, under Section 28.5.010 (Table 5-1), for a Drive-through Facility; and
    c. On Lot 3, under Section 28.5.010 (Table 5-1), for a Drive-through Facility.

2. Deviations, authorizations, modifications, and allowances authorized under Section 28.4.030(d)(e)(f)(g)(h) of the Zoning Ordinance as set forth in Items 3-10;

3. For the whole of the planned unit development:

    a. From Section 28.7.030 which requires 828 parking spaces in order to allow the whole of the development reflected in the PUD Site Plan based on the provision of 717 (24 vacuum) parking spaces across the development substantially as shown in the plans on file which number may be independently adjusted for each lot without affecting the whole and shall satisfy parking for any permitted use in the zoning district and for all authorized uses in the PUD;
    b. From Section 28.7.070(b) which requires off street parking spaces to respect the primary building setbacks in order to waive this requirement, provided that the distance of each lot's off street parking facilities from lot lines shall be as reflected in the planned unit development setback exhibit; and
    c. From Section 28.3.030[10] which requires 50% of the open space in the PUD to be situated in the street yard in order to allow the street yard open space as depicted in the site plan on file;

4. For Lot 1 in addition to the above for the whole of the planned unit development:

    a. From Section 28.7.010(b) and Section 28.7.060(a) which require bicycle parking spaces in order to waive this requirement for a car wash; and
    b. From Section 28.7.100(a) which requires pedestrian connections from the adjacent public right of way to the building entrance(s) in order to waive this requirement for the car wash on Lot 1.

5. For Lot 6 in addition to the above for the whole of the planned unit development:

    a. From Section 28.3.030 and Section 28.6.010(a)(4) to allow the encroachment of canopies or awnings reflected on the north side of the Lot 6 building (which has an existing zero-foot setback) that will extend onto Lot 5.

SHOPPES OF MEADOWBROOK

VILLAGE OF DOWNERS GROVE
PLANNED UNIT DEVELOPMENT
STATEMENT OF INTENT
(NOVEMBER 2024)

In support of the Shoppes of Meadowbrook, Applicant respectfully submits its Project Narrative, Zoning Analysis, Sign Analysis, Monument Sign Plan, Wall Sign Exhibit, Setback Exhibit, Landscape Plan, Building Elevations and renderings, Parking Analysis, Stacking Exhibit, and Phasing Plan as part of this Statement of Intent. It also submits its civil engineering drawings with the series 2.0 sheets comprising the PUD Site Plan. These documents reflect compliance where possible and the Itemization of Relief notes the relatively few areas where Applicant is unable to comply with the Zoning Ordinance on new lots and the collection of special uses and nonconformities that will become part of the PUD site plan. Applicant notes that other Village proceedings concern the progress of development according to certain flexible public and private priorities, and these are depicted in the Phasing Plan to the extent possible. (A redevelopment agreement will address benchmarks and tenancy objectives that cannot be shown in a plan.) In general, Applicant intends that the approval of the new PUD and new PUD Site Plan will allow it to bring at least one new large retail tenant to the mainline center and two or three national and regional tenants to the new buildings along 63rd Street. Applicant intends that the improvements will drive immediate occupancy benefits and that the design afford the community and visitors a better opportunity to shop and dine elsewhere in the center.

By resubdividing, pursuing a new planned unit development and reasonably approaching its requests for relief including special uses (drive through use and the alternative for the car wash or retail on Lot 1), Applicant believes it can revitalize the center while providing neighborhood amenity in the form of additional goods, services, food and beverage amid a well-planned and well-landscaped development. The revitalized center will add pedestrian, landscape and visual amenity and significantly improve views from public streets which are dominated by an excessively large parking lot constructed under different planning prerogatives that are outdated today. The building elevations for new and existing buildings will greatly improve the area. The storefronts on Lots 4-5 will have new signs that will benefit from the sign area regulations that account for distance from 63rd Street while signs closer to the public streets will not need the same sign area. Uniformity in signage will also benefit the center and its surroundings. The landscape plans reflect substantial attention to yard treatments and perimeter plantings. Notably, one of the first tasks undertaken upon ownership involved removal of several dead or dying trees, safety trimming and health pruning of trees that could survive a bit longer, and this effort greatly improved views to the site over the past two years. A new entrance feature will create a greenway extending from 63rd Street south to the large retail buildings on Lots 4-5.

The PUD Plan primarily avoids an ongoing problem with historic commercial sites where businesses are far removed from the public rights of way and the first retail experience appears to be visually inconvenient. The Shoppes of Meadowbrook will be a neighborhood of uses that gain synergy from one another and build upon each other’s success while also retaining connectivity with surrounding areas. The project reduces the massive parking field and appearance of

obsolescence when the center is capable of development for a higher and better use with less parking, and the reduction of the impact of two blocks of parking will add open space and benefit the surrounding properties and uses as well. Existing uses in the largest buildings (Lots 4-6) will continue and the structures on these lots will be updated as shown in the plans. The new users along 63rd Street will bring energy to the center through additional vehicle trips—all of which will need to enter the center's main driveway system (primarily east-west, but also using the north-south route)—and allow a neighborly transition to the unincorporated area to the north. The addition of two outlots (Lots 1-2) and redevelopment of the existing outlot (Lot 3) will contribute with the central greenway feature to add significant open space.

The public benefit arising from a thriving commercial center is often unquestioned, particularly when it relates to a commercial tract that has been underutilized and underperforming for a few decades. The Comprehensive Plan notes the importance of redevelopment of properties like Meadowbrook Shopping Center on nearly every page of its Commercial Areas Plan. Applying the original PUD Site Plan would lead to waste and abandon responsible planning for parking when new businesses and a doubling of existing open space, particularly using areas visible from streets, is possible under the proposed PUD plan.

Applicant's analysis tables reflect that the perimeter of the PUD Site Plan substantially complies with all regulatory aspects under the Zoning Ordinance (few deviations for accessory structures, internal setbacks for signs on Lots 1-2, the location of the main center monument sign (Lot 2)). Portions of the interior and south area of the development will better comply with the Zoning Ordinance. Where there are no changes proposed to remedy issues of non-compliance, the cause lies in the progression of development in the vicinity and historic right of way decisions along Woodward Avenue and Belmont Road. The south lines of the development tract lie near the multi-family residential development along Prentiss Drive as it was planned in the same originating 1966 zoning plat and PUD #1. As intended, Prentiss Creek Apartments (PUD #1) and other residential use categories have operated with the shopping center (PUD #1 and PUD #8) to transition use from 63rd Street moving south. Since the 1970's, 63rd Steet has been a line of demarcation between residential and commercial land use and zoning other than at nodes where local or neighborhood retail sites exist. The clear break between unincorporated single-family development north of the center and multiple family development to the south appears in the 1978 aerial photograph available from DuPage County as well as the 1970, 1975 and 1980 aerials from the Chicago Metropolitan Agency for Planning. This break remains today, and nothing within the plan alters the historical commercial use areas or expands impacts to areas where they have not been considered since 1966.

This historic direct change from the residential use north of 63rd Street has continued unabated since the early 1970's. Buffering and filtering are two common techniques utilized in transitioning from one zoning district to another or from commercial use to residential use. The plans, including the landscape plans, reflect that Applicant is vastly improving the 63rd Street frontage and views from this County highway south to the mainline center. Landscaping along and south of the right of way is substantially improved and should be a welcome replacement to the large, paved parking area that exists today and sometimes serves as a temporary respite for truck drivers.

Applicant worked extensively to increase open space within the shopping center. The Shoppes at Meadowbrook will offer the following open/pervious areas:

LOT	AREA	PERVIOUS	PERCENTAGE
1	43,113 SF (0.99 ac.)	16,323 SF	37.86%
2	41,018 SF (0.94 ac.)	7,537 SF	18.17%
3	45,146 SF (1.04 ac.)	11,476 SF	25.42%
4	374,397 SF (8.59 ac.)	21,331 SF	5.7%
5	249,730 SF (5.73 ac.)	19,247 SF	7.71%
6	69,267 SF (1.59 ac.)	32,392 SF	46.76%
TOT	822,671 SF (18.89 ac.)	108,306 SF	13.17%

Lots 1-3 have most of their landscape area along public streets. Additionally, Applicant's recent revision to the car wash on Lot 1 allows for more plantings and open space in a more visible area. Applicant avoided placement of stacking lanes and pay stations between the building and 63rd Street. The car wash plan also avoids placement of the vacuum stations along 63rd Street.

Applicant respectfully submits that its several plans, elevations, and design and use intentions for the Shoppes of Meadowbrook confirm an appropriate fit within the site, among the nearby neighborhoods, and within the Village.

SHOPPES OF MEADOWBROOK

VILLAGE OF DOWNERS GROVE
PLANNED UNIT DEVELOPMENT
REVIEW AND APPROVAL CRITERIA
(NOVEMBER 2024)

The territory within the proposed PUD has been the subject of originating PUD #1 (and several amendments) since the 1960's and PUD #8 since the 1970's. In 1966, the east portion of Meadowbrook Shopping Center was one of three PUD's within the plan for development of land extending far south of 63rd Street and well west of Woodward Avenue. Meadowbrook Shopping Center was planned in phases with PUD #1 (east portion) and PUD #8 (west portion). Proposed Lots 3 and 5-6 are in PUD #1 and Lots 1-2 and 4 are in PUD #8. The proposed PUD will operate as new PUD #60 instead of an amendment to authorizations within each of the prior PUDs.

The first planned development related to the Subject Property arose in 1965 (Ord. No. 1130, 1626) as a B-1/PUD that included the east portion of the shopping center (proposed Lot 3, 5 and 6, generally) along Woodward Avenue south of 63rd Street. The southern extension is part of Valley Creek Park Estates which was otherwise zoned Village R-6/PUD (Ord. No. 1354). Areas south include Prentiss Creek Apartments (R-6/PUD) and the residential subdivision to the southwest. (R-3/PUD) On December 18, 1972, the Village approved Meadowbrook Subdivision within PUD #1 and PUD #8. Over the years, the development has hosted a variety of uses from assembly to service and retail. Retail use has included grocery stores, general goods stores, hardware stores, liquor stores, and other uses. Service uses have included restaurants, dog care and boarding, fitness centers, offices (including professional offices), salons and barber shops, senior activity operations, and more.

The new PUD Site Plan will operate with a uniform monument sign plan, setback plan, phasing plan and other plans traditionally approved as part of a PUD (landscaping, photometrics, etc.). As noted throughout the application, Applicant will reduce wasted land area that hosts unnecessary parking spaces and leaves an appearance of blight along important roads in the Village and develop two new Lots 1-2 while redeveloping the corner Lot 3. It will rehabilitate and improve tenancies on Lots 4-5 and update Lot 6, which continues to host several local businesses. In the end, the Shoppes of Meadowbrook will have a modern look and much more open space than is currently provided (with much of it appearing along public streets).

<u>The Proposed PUD Plan is Consistent with the Comprehensive Plan and Adopted Plans</u>

Revisions to the planned unit developments occurred in 1973, 1975, 1976, 1977 (west of Belmont Road), 1978 (Golden Bear, façade changes), 1982 (outdoor sales), 1996, 2006, 2009 (animal kennel), and 2019 (animal boarding special use). Applicant acquired the shopping center June 8, 2022 (R2022-059846). Since acquisition, measures have been taken to improve maintenance of the center and the new PUD and related plans have been the subject of extensive discussions with Village staff and other parallel agencies. Applicant notes that the proposed new PUD and plans are fully consistent with the Village's Comprehensive Plan.

Meadowbrook Subdivision (R1973-005824) dedicated Belmont Road and 50 feet of 63rd Street west of Valley Creek Park Estates Unit 1 (R1957-866856) which dedicated parts of 63rd Street and Woodward Avenue. With a depth of 638 feet (generally) from the right of way, it created five lots, four of which lie between Woodward Avenue and Belmont Road. Lots 1-3 are part of the project (Lot 4 is the gas station at the southeast corner of Belmont Road and 63rd Street and Lot 5 is land of equal depth on the west side of Belmont Road). The southeast extension of today's Meadowbrook Shopping Center is part of Valley Creek Park Estates Unit 1 (R1957-866856, specifically Lot 5 and the south 15 feet of Lot 4). This southern portion of the existing Meadowbrook Shopping Center is depicted in Meadowbrook Assessment Plat (R1992-075488) which reflects an exception for land that is not part of the Shoppes of Meadowbrook and is not part of the project. This exception led Applicant to preserve the existing continuous route across the rear of Lots 4-5 in its current design but in an improved conditions (a new fence has been installed and the PUD plan proposes screening of open waste hauling locations as well as repairs and resurfacing).

Nothing in the PUD plan or subdivision departs from the general concept of a large retail area planned since 1966, but the proposed PUD plan improves on use and design. The center is under unified ownership, so the owner controls all access, parking and sign locations. Further, tenants under existing uses and future leases will have all the benefits of access and some will have shared parking. Single ownership allows for full access, but Applicant has reflected an ingress-egress easement that will be replaced with covenants and easements for common amenities prior to conveyance of a lot within the subdivision.

Plans along the perimeter of the center still meet the objectives of the relationship of improvements and land use at the center to surrounding land uses. The proposed amendment does not extend the location of the commercial center or its impacts. Transition from commercial use to residential use improves under the proposed PUD plan with the doubling of open space occurring primarily in areas visible from abutting streets.

The Village of Downers Grove Comprehensive Plan (updated in 2017) supports the redevelopment and rebranding from Meadowbrook Shopping Center to the Shoppes of Meadowbrook. The redevelopment meets all intentions of the Commercial Areas Plan (Ch. 5, at 44) in that it (a) maintains and expands the range of goods and services provided throughout the Village, (b) strengthens the economy by creating more local jobs, (c) stabilizes, diversifies and expands the tax base, (d) enhances the quality and appearance of existing commercial areas and proposed commercial development, and (e) reduces conflicts between commercial areas and surrounding residential neighborhoods. One lot removed from one of three western Village gateways and in a mixed-use area (Plan, at 47), the redevelopment will add significant landscape features, a new entrance supported by a highway improvement that will eliminate exiting left turns onto 63rd Street, modernized elevations, new buildings and new signage, all while reducing the impact of an unutilized and overparked field of parking extending the width of two blocks to a depth of 300 feet. (Plan, at 51) The redevelopment will add to the pedestrian experience, but it is noteworthy that there are only certain elements of the mixed-use discussion that can apply to several mixed uses. (Plan, at 48) The redevelopment meets the objectives relating to streetscape, utility lines, signage, screening, waste enclosures, and elimination of overparked or underutilized properties. (Plan, at 50)

The redevelopment offers a substantial increase in open space/pervious area (an increase of almost one-third). It will rely on existing systems, upgraded where necessary. The development's long tie to Prentiss Creek continues, but none of the redevelopment efforts will increase, alter or redirect flows from current patterns.

Applicant proposes reduction of the massive parking field by developing three outlots—two of which are new. The redeveloped outlots will lead to more efficient use of the center and generate new community amenities that do not exist in the corridor or even across three municipalities in this corridor. The plan is consistent with the Comprehensive Plan and with the objectives of the original planned unit development for the center. Page 53 of the Plan specifically addresses shared parking arrangements (in this case covenants) in settings where hours of peak use vary (such as a fitness facility or a religious assembly when compared to the hours of peak use for retail or restaurants) and when a single vehicle trip leads to multiple stops. The redevelopment provides for better streetscape and new trees and planting areas.

The streets abutting the property are all classified as minor arterial streets, though Belmont Road south of 63rd Street is a local street and 63rd Street is County Highway 38. All streets are clearly commercial in character as they pass the center. The Village has planned for appropriate transitional use further from each street.

Although neighbors previously expressed concern for the loss of a Roundheads, economics over the last decade have led to financial limitations on the ability to construct large standalone restaurants. Today, any effort to construct a standalone restaurant will require higher interest rates, greater construction costs and as much as fifty percent down due to the prevalence of freestanding restaurants in underperforming loan portfolios. Most recently, Lombard experienced the loss of an entitled standalone restaurant with the most significant factors being exactly these issues notwithstanding the owner's other properties available for collateral. The inability to find housing for employees and distance of travel to work also played a role. The project presents the opportunity to add at least two or three restaurants and valuable services for residents and visitors to the Village.

<u>The PUD Plan Complies with the PUD Overlay District Provisions of Section 28.4.030</u>

The PUD accommodates redevelopment of a project that has been an important part of the Village since the 1970's. This area of the Village developed at roughly the same time, all moving slightly ahead of the start of DuPage County's rapid population growth period. Several of the public benefits (a hub of commercial activity, retail goods and services activity, restaurants) will be enhanced. The redevelopment will lead to a more attractive center, more pervious area, modernization of lighting, remodeling and re-use of existing buildings, and a complimentary collection of land uses in an area that has long been designed according to the Village's need to comprehensively plan the area between Woodward Avenue and Belmont Road south of 63rd Street.

The PUD Site Plan modernizes a large commercial site by avoiding overparking, enhancing pedestrian connectivity and placing business establishments along 63rd Street. It eradicates obsolescence and creates a neighborhood environment within the center. It calls for appropriate relationships to public facilities by limiting turn movements onto 63rd Street (converting full access to three-quarter access (no exiting left turn), preserving familiar access locations on Woodward Avenue and Belmont Road, softening driveways, and maintaining setbacks on new parcels with the sole exception being where grade and offsite issues interfere with two monument signs. The PUD Plan relies on collaborative parking rather than gross needs parking in avoiding overdevelopment and underuse for parking. New buildings will be higher quality structures that allow for dine-in and drive-through operations that are reasonably spread across the development and which rely on interior roadways for accepting and disbursing vehicular traffic. Existing buildings will have new primary facades or offer improved rear elevations. The primary entrance features on 63rd Street and Woodward Avenue will be updated, and a central driveway will be landscaped as it leads through a stop-controlled internal intersection to buildings on Lot 4 and Lot 5 that will have new elevations and more uniformity as signs for tenants are installed and updated.

The PUD Plan provides for maintenance and improvement of perimeter yard areas, areas for bicycle parking. Lighting will remain appropriate for the area, and the photometric plan reflects compliance with the Village's standards. The signage and wayfinding, coupled with better defined drives will support a more compact and efficient commercial center while also respecting higher landscaping and screening prerogatives than have existed over the previous fifty years.

Public Benefits are Greater Than (Equal to) Those Under Conventional Zoning Regulations

The Village made determinations of public benefit in its decision to grow and add population to the south, southeast and southwest of the shopping center in the 1960's. The shopping center then provided a material public benefit that was not solely private and, over the decades since then, thousands of households have relied on the development for retail goods and services, food and beverage options, fitness, and worship—not to mention the contributions to governmental and educational programs in the area through taxes and business participation with youth sports and other charities. The focus of the redevelopment is to add public amenity by improving the streetscape, to add locations where residents can gather and eat or shop, and to rehabilitate large tenant spaces for users that can provide valuable shopping options that do not presently exist. Even the car wash offers an answer in an area that is a virtual desert for options to maintain one's vehicles.

The center will have adequate pedestrian access from all abutting streets. The planned improvements will improve north-south pedestrian access and place retail closer to 63rd Street, making it more accessible while placing the larger, remaining Lots 4-5 parking fields in an area behind landscaped streetscape and along the landscaped entry drive. Internal drives will be more defined and controlled. Where there are deviations from ordinance, these deviations result more from the progression of development in relation to right of way improvements than they do to present-day decisions concerning the placement of buildings and parking modules.

The PUD and PUD Site Plan Will Accompany Appropriate Terms and Conditions

The plans provided with the application operate as part of the terms and conditions for development. The plans for Lot 1 (the west lot along 63rd Street) call for a car wash. Since its initial application, Applicant has improved on the car wash plan while working with DuDOT, Village staff and prospective operators.

DuDOT will also impose conditions concerning the 63rd Street highway access and exiting right turn only improvement which will govern vehicular and pedestrian matters. Internally, the Applicant has full ownership and control of the site and, before Applicant sells a lot, a combination of covenants and lease terms will manage maintenance, use of outdoor areas, access, parking, loading, waste operations, signage, and other matters. With the amount of work over the next four years, the approval of the PUD will be followed by near-constant oversight through permitting and other mechanisms within the Village and parallel agencies. Lease maintenance and the ordinary attention Applicant pays to its properties have already exceeded the level of the prior owners' attention over the past 10-15 years of ownership.

Alternative Landscaping Compliance Merits Approval

Staff has interpreted the Zoning Ordinance in a fashion that no screen to the Lot 1 vacuums and pay station is required, but they requested landscaping (now provided) near the Lot 1 vacuum stations. Still, and as a precautionary measure, Applicant notes that the project merits approval of the PUD Site Plan with alternative landscaping and screening compliance as depicted in the architectural site plan and the landscape plans for the PUD. Section 28.8.070 authorizes the Community Development Director to approve landscaping that fits the atypical, site specific challenges at hand in this instance (on parts of Lots 4-6). The proposed new development sites and development areas meet the requirements of the Zoning Ordinance, but some challenges or impracticability still prevent compliance with later-developing expanded rights of way (Woodward Avenue and Belmont Road) being directly adjacent to some parking.

The center has space limitations that arise from its orientation to and depth from 63rd Street and depth from both Woodward Avenue (sidewalks developed after the center) and Belmont Road (a local street that was on the interior of PUD #8 at its outset). As noted above, Applicant plans to comply with landscaping and screening requirements on the perimeter of the planned unit development, except in the areas south of Lots 1-3. Applicant will improve and expand on the existing planting areas along and near Woodward Avenue and Belmont Road.

The angled parking arrangement and existing planting islands in the main parking field make strict compliance with the interior parking lot landscaping requirements impossible (size of islands) and impractical (loss of parking required to comply at a center planned 50 years ago). Applicant will maintain existing trees amid improved landscape beds. Applicant will plant new trees where new trees are required in islands.

Applicant will install a significant entry access drive featuring landscape plantings and new trees as well as a pedestrian route that extends from 63rd Street south to the mainline center. It does not have any present ability to install additional planting and pedestrian breaks between

parking modules. The original development of the center contemplated the expansive parking field extending entirely across the site, and the only means to add landscape breaks among the modules involves the loss of several meaningful parking spaces.

Applicant proposes a practical landscaping solution. The new outbuildings along 63rd Street will exist among attractively landscaped areas. Screens and landscaping between these buildings and the mainline center do not add value and, in fact, serve to reduce value inasmuch as views across all lines of sight in the commercial use area promote business activity within the center. By focusing most energy on the perimeter of the development while adding interior landscape amenity shown in the plans, Applicant meets the intent of the Village's landscaping regulations and submits that its alternative landscape plan creatively adds substantial value while providing an equal or better means of meeting the intent of the landscaping regulations.

Continuation of Existing Special Uses and Improvements

Applicant will continue the existing special use for the animal boarding service on Lot 4. The PUD site plan relies on existing improvements that developed under PUD #1 and PUD #8 and which also arose with the widening and improvement of abutting streets. There are several aspects of the center that do not conform to today's regulations, but these are ongoing and will continue under the PUD site plan approved by the Village. Applicant will continue nonconforming building setbacks on the west side of Lot 4, between Lots 4 and 5, between Lots 5 and 6, and on the north and west central lot lines of Lot 6. It will continue nonconforming parking lot setbacks in places where there is no possibility of providing these setbacks such as along Woodward Avenue and on the interior of the development as well as along a remote portion of Belmont Road in the rear of the Lot 4 building. Although Applicant nearly doubles the open space between the existing mainline buildings and 63rd Street, and the center as a whole provides 12.62% open space, Lots 4-5 will still fall individually short of the required open space. Setbacks surrounding the excluded parcel west of the Lot 6 building are lacking, but this condition, like others, is longstanding and necessary.

The following nonconformities will be reduced: (a) fewer areas around the perimeter of the parking lot will have uncurbed boundaries, but areas along parts of Woodward Avenue and the remote south portion of Belmont Road will still lack curbing; (b) existing above-ground service facilities are unscreened, and will remain so in areas that are primarily behind the front of the buildings but these will be painted or repaired where needed; (c) a very small portion of the loading zones in the rear of buildings on Lots 4 are within 50 feet of a residential district line, but these have always been closer than 50 feet and will be improved with screens around dumpsters; (d) parking islands and planted medians between parking modules will remain noncompliant, though improved, on Lot 4 and Lot 5 since there is no feasible way to insert these without reducing either parking spaces or existing building area; (e) the longstanding nonconforming island and parking design will be improved but continued on Lots 4-5; and (f) one light pole with a shielded fixture will remain at the south curb on Lot 6 reducing the noncompliance of this light (this is the light that illuminates an off-site area north of Prentiss Creek).

Justifications for Deviations and Exceptions

Parking Spaces

Applicant has far too much parking for historic, current and future uses in the shopping center. Due to the main access drive and landscape separations between Lots 1-3 and Lots 4-6 as well as the distance from Lots 1-3 to the buildings on Lots 4-6, parking on Lots 1-3 will comply with the Zoning Ordinance. Parking across Lots 4-6 can benefit uses on each of these lots as well as, to a limited extent, Lot 3.

Collaborative parking applied to the center supports a deviation from the overall parking requirement of 828 spaces (if Lot 1 were not a car wash, at 4:1000) varied down to 717 parking spaces. The parking analysis table provided with the application separates the number of spaces according to lot and ignores that drivers will often make multiple visits to a business in one stop, hours of operation for uses vary, and peak times of operation vary. Additionally, plans include more accessible parking than required in order to allow convenient accessible parking across the long front of the mainline buildings on Lots 4-5 which still provide for roughly 80% of the required parking. Lot 4's assembly use does not commonly demand spaces during any peak hour. Further, the restaurant uses on Lots 4-5 peak during the midday and evening, while the fitness use peaks in the early evening while other uses slow. A grocery use, for example, would usually see a midday peak on weekdays and weekends.

The Village's parking regime contemplates several factors, and it cannot be said that it is purely an analysis of being able to provide all required parking if all uses are operating at their peak hour. Applicant can provide for additional parking in certain areas. Not all of the accessible parking is required under the Illinois Accessibility Code (these spaces were analyzed on a lot-by-lot basis without applying the 2% rule for parking in shopping centers of this size), so additional parking spaces could be available.

Sign Locations

Applicant provides a master monument sign plan that reflects compliance with sign area regulations on all monument signs. However, Applicant has placed its lot lines in locations that serve the best interests of maintenance of important portions of the shopping center. This supports the allowance of the primary shopping center sign (Sign C) on the northeast corner of Lot 2 even though Lot 2 has its monument sign (Sign B) in the northwest corner of Lot 2. Placement at this location makes sense, but Lot 2 should be solely responsible for the retaining wall on Lot 2 and Lot 5 should be solely responsible for the curbing along the 63rd Street entrance drive. Assigning Lot 5 responsibility for the two shopping center signs is good planning.

The recent placement of the car wash building avoids difficulties in placement of the Lot 1 monument sign. Relocated from the northwest corner of Lot 1, the Lot 1 monument sign is no situated just northwest of the car wash exit. All freestanding signs are now at least ten feet from the street lot line. However, Applicant also seeks relief from the regulations pertaining to sign setbacks from interior lot lines (which are either 25 feet (Signs A and B) or 100 feet (Sign C).

The master monument sign plan provides for balancing signs within the center and accounts for their relationship to existing topography and offsite conditions. Approval of the master monument sign plan is consistent with good planning for the balancing of signs along the street frontage.

Applicant complies with all sign regulations of the Village pertaining to height and area. Wall signs are being replaced. Signs on Lots 1-3 should comply with the Zoning Ordinance. Further, signs on Lot 6 should comply. A note concerning signs on Lots 4-5 is necessary inasmuch as tenant frontage allows a greater ratio of sign area per linear foot of tenant frontage for units that are 300 feet or further from 63rd Street. Lot 4 tenants and Lot 5 tenants have tenant frontages to 63rd Street that will rely on the 2.0 square feet per linear foot ratio under Section 28.9.050(A) while several others will rely on the 1.5 square feet per linear foot ratio. The Wall Sign Exhibit, adjusted through the course of review, depicts sign area ratios applicable to wall sign locations that must otherwise be eligible under the sign regulations (i.e., if a storefront exists). Applicant will also bring window signage into compliance with the Zoning Ordinance.

Vehicular Use Relief for Lot 1 as a Car Wash

Applicant notes that pedestrian and bicycle interconnection and bike parking are not advised for the car wash on Lot 1. If the need for bike parking arises on Lot 1, there is plenty of room available to place a bike rack. This is a practical plan, and the relief is justified on the merits of public safety and lack of necessity. If the Village requires a bike rack, one can be installed.

Applicant has relocated the pay station and related sunscreens with the recent relocation of the car wash building and changes in the plan for circulation. The placement of pay stations east of the car wash building avoids use of the area between the building and 63rd Street for accessory structures and stacking.

Open Space Relief

The PUD offers the following open/pervious areas:

LOT	AREA	PERVIOUS	PERCENTAGE
1	43,113 SF (0.99 ac.)	16,323 SF	37.86%
2	41,018 SF (0.94 ac.)	7,537 SF	18.17%
3	45,146 SF (1.04 ac.)	11,476 SF	25.42%
4	374,397 SF (8.59 ac.)	21,331 SF	5.7%
5	249,730 SF (5.73 ac.)	19,247 SF	7.71%
6	69,267 SF (1.59 ac.)	32,392 SF	46.76%
TOT	822,671 SF (18.89 ac.)	108,306 SF	13.17%

The relief related to open space on Lots 4-5 arises from existing conditions and a commonsense approach to lot division (the subdivision of land being a new circumstance). Lot 4 and Lot 5 will gain open space upon approval and compliance with the proposed PUD plan, but it is not possible to increase open space to the 10% required for these two lots unless Applicant

eliminates substantial numbers of parking spaces, fire or loading areas, access areas, or building area. All uses in the area and all drainage patterns have adapted to the shortfall in open space on Lot 4 and Lot 5 over the past 50 years and it would be impractical to provide additional open space. Staff asked Applicant to consider all options for additional open space, but there can be no open space planned in the rear of the buildings on Lot 4 and Lot 5 due to the requirement that the access be maintained across the rear and due to loading and fire planning for the center. (Applicant and staff have discussed the access rights of others over the rear of the buildings on Lots 4-5.) Since the overall development exceeds the required open space, and because it vastly improves open space in areas visible from abutting streets, the lack of open space in the rear should not be a material concern. Applicant notes that staff has explained that this is an existing condition, but Applicant also must note that this is a new subdivision upon which Applicant seeks relief.

SHOPPES OF MEADOWBROOK

DRIVE-THROUGH FACILITIES

VILLAGE OF DOWNERS GROVE
SPECIAL USE
REVIEW AND APPROVAL CRITERIA
(NOVEMBER 2024)

Applicant seeks special uses for two drive-through operations along 63rd Street (Lots 2-3). Each drive-through operation will relate to a retail building and is intended to serve a restaurant use. Due to the similarity of design, Applicant addresses all both drive-through facilities at once.

The Use is an Authorized Special Use

The Drive-through facilities are expressly authorized as a Special Use in the B-2 district (Table 5-1) subject Section 28.7.130. Ordering boards and preview boards are planned for each and the Village manages this at permit. Applicant plans Lot 2 and Lot 3 for endcap restaurant drive-through facilities. Each operation will offer at least four (4) spaces between the window and the ordering area. The east corner outlot (Lot 3) offers six (6) spaces before the ordering area. The central outlot (Lot 2) offers five (5) spaces before the ordering area. All stacking wraps in a standard counterclockwise fashion within the curtilage of the building and without interfering with pedestrian movements. The lanes are twelve (12) feet wide. All lanes are at least fifty (50) feet from the County R-4 district line and largely screened by the related building and landscaping.

No device generating sound (other than vehicles) will be situated in direct line with any residential use. Menu boards and preview boards are depicted south of the buildings in the site plans. These will meet local and industry standards. The audio and visual components of the menu and preview boards are oriented to the south. Trees will line the south side of each drive-through and a combination of plantings and grasses will line the east side of the lanes.

The drive through facilities are depicted in the preliminary engineering plans, landscape plans and stacking exhibit. The landscape plans and preliminary engineering plans depict a car wash on Lot 1. Under its lease obligations, during the 4-5 peak use days in the winter thaw and freeze periods, the operator of the car wash will be required to have an employee responsible for traffic flow into the car wash stacking area in order to avoid any blockage of the east-west drive connecting Belmont Road and Woodward Avenue along the south sides of Lots 1-3. Additional precautions noted by KLOA will also be carried forward in order to avoid backups.

Each drive-through allows for proper on-site maneuvering and circulation within the service lane and at each entrance and exit. Sufficient area remains for vehicles and pedestrian movement to and from the building entrances (public and service). Pedestrian movement through these sites is safe and reasonable, and the current plan follows two layers of staff comment. The

excess stacking avoids vehicles impediments to traffic on abutting driveways. No drive-through relies on direct access from any public street. Impacts on surrounding uses are minimized.

No deviation from the Zoning Ordinance is necessary for the drive-through facilities.

The Proposed Drive-Through Facilities Are Necessary and Desirable

The Shoppes at Meadowbrook abut two minor arterial streets (63rd Street and Woodward Avenue) and lie near a third (Belmont Road) that is a minor arterial street north of 63rd Street. Situated less than one-half mile from the I-355 interchange and near higher density housing and popular destinations for periodic high volumes of traffic (Indian Trail School and Downers Grove South High School), drive-through facilities offer public convenience and a pace of service that allow drivers to make their purchase and depart when traveling to or from home or work or to make a casual stop when passing by for any of several other reasons. Despite the prevalence of drive-through facilities for financial institutions, 63rd Street east of I-355 generally lacks drive-through restaurant options (other than tied to a gasoline service station). I can personally attest that, with the several weeknight and weekend swim meets I worked at Downers Grove South, I would have regularly used restaurant drive throughs if they were available for the decade I helped run swim meets in the area, and I do not feel that I am alone in this regard.

The Facilities Will Not Be Detrimental to Health, Safety or General of Persons or Property

Applicant completely avoids impacts on public streets and it plans for excess stacking to maintain the functionality of drives and drive aisles within the shopping center. Each facility complies with the Zoning Ordinance and operates primarily from the interior of the development with no risk of detrimental impacts to the north, hazards to vehicles or pedestrians on site, or risk for driveway blockages. Unlike many modern sites with drive-throughs, each outlot with a drive-through has two driveway entrances. Each drive-through offers an appropriate turning radius.

The Shoppes of Meadowbrook has not been a walkable place. Some improvement to pedestrian access is reflected in the plans, but the commercial center remains one primarily for those driving vehicles. Drive-through facilities will actually avoid several other vehicle movements (backing, point turns and pulling into parking spaces) by people who would otherwise use the drive through. This funneling of vehicles making a quick stop, in turn, will improve conditions for pedestrians.

The drive-through operations offer benefit and convenience to neighbors, but their location south of the buildings will not have a consequential burden.

SHOPPES OF MEADOWBROOK

CAR WASH (PERSONAL VEHICLE REPAIR AND MAINTENANCE)

VILLAGE OF DOWNERS GROVE
SPECIAL USE REVIEW AND APPROVAL CRITERIA
(NOVEMBER 2024)

On Lot 1 (the west outlot), Applicant proposes a car wash that will offer three payment bays, paced for consolidation of the payment lanes into one lane leading into the tunnel format car wash exiting to the west (adjacent to the gasoline service station). While creating more yard/open space north of the building and adjusting the design in consultation with DuDOT, Applicant proposes ample stacking with 15 spaces across three lanes to the pay station (28-31 spaces were proposed in the north front yard previously). Three or four vehicles can stack between the payment bays and the car wash entrance. There is a bypass lane. The plan contemplates 24 vacuum stalls on the south side of the building. Four (4) standard parking spaces will be available, one of which will be accessible.

The car wash itself would offer (a) vacuuming for customers, (b) basic to prime car wash options with wax, (c) vehicle drying; and (d) vending of accessory items such as air fresheners, clean wipes, etc., and, possibly, beverages and snacks. The interior of the building will include the car wash conveyance, an office, service facilities, interior storage and a mechanical equipment room. Elevations would have a visual connection with elevations for the other outlot buildings and the remainder of the shopping center. Monument signage for the car wash is shown in the master monument sign plan for the shopping center.

<u>The Use is an Authorized Special Use</u>

Applicant seeks a special use for a car wash on the west outlot along 63rd Street (Lot 1). The car wash can operate on Lot 1 without sacrificing redevelopment in the future since Lot 1 could host a 7,500 square foot commercial building with a drive through restaurant—an alternative that is no longer proposed. A condition of the car wash will necessarily be that the tenant proceed to permit according to the submittals with this application or else proceed to another special use hearing before the Village to substitute its operations for those that are outlined in this supplement.

The car wash is expressly authorized as a Special Use in the B-2 district (Table 5-1) subject to a 10,000 square foot gross floor area limit (Table 5-1, note 10) and Section 28.6.100. The gross floor area is approximately 4,940 square feet. There will be no outdoor storage. (Sec. 28.6.100(b))

All vehicle washing and drying will occur in a multi-phase long tunnel system. (Sec. 28.6.100(a)) Two rows of vacuums will be situated on the south side of Lot 1. A sunscreen or canopy would typically rise above the vacuums and each pay station. Applicant proposes landscaping around the car wash site that exceeds plans for landscaping on other sites, but it desires preservation of views to the remainder of the Shoppes of Meadowbrook.

The development plans, including the PUD Site Plan and landscape plans, reflect the plans for landscaping and screening. Section 28.4.030(e-h) allows the Village to deviate from the requirements of Section 28.6.100, but staff has determined that the pay stations and vacuum areas do not involve outdoor servicing or maintenance. Nevertheless, staff preferred a landscape screen along the south line of Lot 1 and this is now provided.

The Car Wash on Lot 1 is Necessary and Desirable as a Beneficial Community Service

The car wash is proposed in an area that has few car washes, and no modern car wash, that meets the needs of area employees and residents. Simply searching "car wash near me" will identify most nearby car washes and it is clear that the car wash will serve the corridor, area neighbors and employees when they would otherwise have to travel two or more miles to a similar use. At a time when the majority of vehicle owners (nearly 60%) rely on modern car washes to maintain their vehicles, the service radius of a car wash at this location includes a great number of local residents and employees who will benefit from having this service nearby.

The Car Wash Will Not Be Detrimental to Health, Safety or General Welfare of Persons/Property

Car washes typically draw their customers from traffic that is already in the area. They tend not to be destination service retailers other than for people who live in the area and would already be using streets abutting the development. The 15 stacking spaces are slightly above industry standard. The 24 vacuum stalls are also industry standard.

Car washes of this type and design will feature two levels of demand that generally break down to weekday service levels and weekend service levels. During the week (Monday to Friday midday), car wash use generally matches the traffic volumes on nearby streets because the car wash offers a convenience to residents and visitors as they pass near the property. On weekends (Friday evening through Sunday afternoon), volume will increase because as many as 15% of the customers will plan to wash their cars and because area businesses and recreation uses increase in intensity.

There are also seasonal fluctuations, with half or more of annual sales accomplished during cold weather months (particularly when there is snow). Several communities prefer not to have direct access from public streets to car washes so that backups in the thoroughfare can be avoided. These backups often occur during that period when snow melts, falls and melts again in the mid-February to early March period. Under the initial plan, any backup would be into an interior drive and, if a driver preferred not to wait, the driver would have had plenty of options to reroute his or her trip on the interior of the center or to pause and shop at the center. Under the new plan, an employee would be responsible for preserving through traffic on the east-west drive along the south line of Lots 1-2, and this employee (with or without another) also has the ability to take any other operational step such as increasing the rate of flow through the tunnel or forcing customers to vacuum (or wash) first or pass through rather than enter the stacking. Under the new plan, Applicant sacrificed the value in visible stacking lanes on the street side of Lot 1 in order to place the building adjacent to a larger street yard in accord with some of DuDOT's preferences.

In several communities, car washes in proximity to large commercial centers which share interior drives and access routes also benefit the other users in the center. This has occurred in areas where car washes locate in or adjacent to shopping centers with a large grocer, a Home Depot or a Menards. The trend is evident from Homer Glen to the south through the Chicago metro area to the far north and northwest suburbs.

The orientation of the car wash is an important concern for stacking discussed above, but it also controls sound which disburses from the tunnel exit. Some car washes use features similar to heavy curtains at the exit, but this is typically not necessary when the exit orientation is in the direction of a change in grade, retaining wall and gasoline service station buildings. The current improvements will mitigate any sound that has not dissipated over distance. Sound travels in a cone along a straight line. The location of the car wash in this instance would not encourage direct or reflective sound into any residential area or across any other property where the sound would be dissimilar from existing uses or where it would exceed time-of-day decibel regulations in the Village's performance standards.

Car washes typically balance staff between the area of the pay stations (to handle any payment or membership processing issues) and the vacuum area (to handle maintenance and traffic on limited occasions). During most hours, on most days of the year, one employee can handle both areas. At least one employee will always be on site. Several car washes will regularly have two employees on site. During peak times, a third employee may be assigned. Employees are typically connected by radio or phone audio. Loudspeakers are not used for communication. Management of automated car washes usually occurs at a distinct office location and the office is not usually intended for full-time occupancy by an employee. Adverse weather and breaks cause the most frequent uses of the office area.

Employees are trained to observe exiting traffic and understand when employee intervention may be necessary to maintain efficient traffic circulation by directing traffic. An employee can deny vacuums before or after the wash or do so entirely. Additionally, an employee is trained to observe flow at the stacking entrance or at the exit in conjunction with mechanical controls that slow or stop vehicles in the wash if there is an obstruction at the exit. Although the drying system often suffices, there is typically a heating pad at the exit of the car wash to prevent icing. A swale and drain will prevent water from north of the building from flowing to the exit drive from the car wash. An employee will observe conditions in cold weather and react appropriately if there is a buildup of water or risk of icing.

This style of car wash serves people who will be in or adjacent to their vehicles. Vending machines can disperse small items for maintenance or products like air fresheners, but the service from these machines will usually be adjacent to the building in an enclosable area on the north side of the drive aisle allowing access to the vacuum area. Car washes occasionally offer a room for dog washing, and the increase in vacuum spaces may allow scheduled dog washing specials. With a pet groomer and boarder as a tenant in the mainline center, this activity likely will not occur at this car wash and no pedestrian walks are planned for access to such a component.

TOPOGRAPHIC SURVEY

OF

PARTS OF LOTS 1, 3 & 2 IN MEADOWBROOK SUBDIVISION BEING A SUBDIVISION OF THE NORTHEAST 1/4 OF SECTION 24 TOWNSHIP 38 NORTH RANGE 10 EAST OF THE THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT R73-5824 IN DUPAGE COUNTY, ILLINOIS.

50' 25' 0 50'

SITE BENCHMARK SE BOLT ON FH ELEV. 741.81

SITE BENCHMARK SE BOLT ON FH ELEV. 744.54

SITE BENCHMARK #2 SE BOLT TAG ON FH ELEV. 739.10

NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 24-38-10

℄ 63RD STREET

INLET RIM 743.14

VALVE VAULT RIM 743.78

INLET RIM 740.67

INLET RIM 734.64

N 87°48'10" E 628.01'

N 87°48'10" E 346.05'

69.85'

71.6'

95.19'

CONTROL VALVE

F.I.P. 3/4"

SIGN

SAN MH RIM 734.70 INV 730.07 TOP WATER

INLET RIM 736.12

SAN MH RIM 733.57 INV 726.73

50' BUILDING LINE

LOT 4

VENT PIPE

MANHOLE RIM 735.36

WALL

SAN MH RIM 732.00 INV 727.17 E 8" PVC BOTTOM 718.59

N 87°48'10" E 200.90'

150.00'

FOUND KAP

FOUND CROSS

LOT 1

DEPRESSED

N 01°48'50" W 165.72'

N 87°48'10" E 175.09'

SAN MH RIM 731.44 INV 723.68

EAST LINE OF THE NORTHEAST 1/4 OF SECTION 24-38-10

BELMONT ROAD

INLET RIM 727.77 INV 724.96 SW/E 10" RCP

INLET RIM 727.67 INV 725.12 W 10" RCP INV 725.08 NE 10" RCP

INLET RIM 726.57 INV 724.46 W 12" RCP INV 724.44 S 12" RCP INV 724.19 E 12" RCP

INLET RIM 726.88 INV 723.83 S 12" RCP INV 723.61 W 12" RCP INV 723.51 E 12" RCP

INLET RIM 726.92 INV 723.97 S 10" RCP INV 723.31 E 12" RCP INV 723.19 W 12" RCP

60' PUBLIC UTILITY EASMENT

LOT 3

LOT 2

APPROX. LOCATION 15' UTILITY EASEMENT

SITE BENCHMARK #1 NW BOLT TAG ON FH ELEV. 728.45

SITE BENCHMARK #3 SW BOLT ON FH ELEV. 731.24

INLET RIM 729.45

MEADOWBROOK AVENUE

INLET RIM-725.20 INV 721.75 SW 12" RCP

INLET RIM 725.89 INV 721.61 SW 12" PVC

INLET RIM 725.97 INV. 721.86 SW 8" CLAY

INLET RIM 725.86 INV 722.29 SW 12" RCP INV 722.21 W 12" RCP

MANHOLE RIM 727.27 INV 723.95 W/E 10" PVC

INLET RIM 725.76 INV 722.28 SW 12" IRON

BUILDING OVERHANG

SITE BENCHMARK SW BOLT TAG ON FH ELEV. 727.20

INLET RIM 725.69 VALVE VAULT RIM 726.54 VALVE VAULT RIM 725.64

SAN MH RIM 726.51 INV 718.21

AT&T CONTROL BOX

INLET RIM 727.84 INV 724.66 W/NE 10" RCP

INLET RIM 726.61 INV 724.47 SW/NE 10" RCP

F/F 728.51 F/F 728.60 F/F 728.54 F/F 728.51 F/F 728.54 F/F 728.52 F/F 728.45 F/F 728.49 F/F 728.60 F/F 728.61 F/F 728.56 F/F 728.61 F/F 728.58 F/F 728.59 F/F 728.54 F/F 728.56 F/F 728.60

INLET RIM 728.06 INV 724.37 SW 10" RCP INV 724.31 NW 12" RCP INV 724.11 E 12" RCP

F/F 728.56 DRAIN RIM 728.54 F/F 728.68

CLEANOUT RIM 728.47

DEPRESSED

SAN MH RIM 728.16 INV 722.71 NE 6" BOTTOM 717.26

SITE BENCHMARK NW BOLT TAG ON FH ELEV. 729.73

OVERHANG (TYPICAL)

33.00'

488.50' N 02°18'50" W

400.6'

400.4'

463.51' S 01°48'50" E

179.9'

20' SANITARY EASEMENT

20' PUBLIC UTILITY EASEMENT

35' PUBLIC UTILITY & DRAINAGE EASEMENT

10' GAS EASEMENT

10' ELECTRIC EASEMENT

764.00' S 87°48'10" W

F.I.P. 1/2"

40.00' N 02°18'50" W

10' COM. ED. & I&T CO EASEMENT

SOUTH LINE OF MEADOWBROOK SUBDIVISION

N 87°48'10" E 426.62'

SOUTH LINE OF LOT 4 IN VALLEY CREEK PARK ESTATES UNIT 1

275.59' N 56°42'27" W

250.00' S 87°48'10" W

F.I.P. 3/4"

50.00'

205.00'

ALL EASEMENTS HEREON DRAWN ARE AS RECORDED ON MEADOWBROOK SUBDIVISION DOC. R73-5824

SOURCE BENCHMARK

DESIGNATION – DOWNERS GROVE SOUTH
PID – MF1251
STATE/COUNTY – IL/DU PAGE
USGS QUAD – WHEATON (2018)

DESCRIPTION: THE STATION IS 145 FT SOUTH OF THE CENTERLINE OF 63RD STREET AND 42 FT WEST OF THE CENTERLINE OF DUNHAM ROAD. THE MONUMENT IS AT STREET GRADE AND IS A STEEL ROD WITH A BERNTSEN LID AND PVC SLEEVE.

NAVD88 ELEVATION: 745.60

SITE BENCHMARK #1

NORTHWEST FLANGE BOLT TAG ON HYDRANT APPROXIMATELY 73 FEET NORTHWEST OF 2075 63RD STREET BUILDING CORNER.

ELEVATION = 728.45

SITE BENCHMARK #2

SOUTHEAST FLANGE BOLT TAG ON HYDRANT ON SOUTHWEST CORNER OF 63RD STREET & WOODWARD AVENUE.

ELEVATION = 739.10

SITE BENCHMARK #3

SOUTHWEST FLANGE BOLT ON HYDRANT APPROXIMATELY 93 FEET NORTHEAST OF 2003 63RD STREET BUILDING CORNER.

ELEVATION = 731.24

STATE OF ILLINOIS
COUNTY OF DUPAGE

I, THE UNDERSIGNED, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT "THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A TOPOGRAPHIC SURVEY," AND THAT THE PLAT HEREON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY.

FIELD WORK WAS COMPLETED ON 2/02/2024

DATED, THIS 9TH DAY OF FEBRUARY, A.D., 2024, AT LISLE, ILLINOIS.

Thomas J. Cesal

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-2205
MY LICENSE EXPIRES NOVEMBER 30, 2024.
ILLINOIS PROFESSIONAL DESIGN FIRM PROFESSIONAL ENGINEERING CORPORATION NO. 184-001245

CLIENT: STELLCO PROPERTIES

THOMAS J. CESAL 2205 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LISLE, ILLINOIS

LOCATION MAP

Know what's below. Call before you dig.

DATE

1 2 3 4 5 6

TOPOGRAPHIC SURVEY
2001-2153 W. 63RD STREET
DOWNERS GROVE, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

MEI INFRASTRUCTURE BETTER ENVIRONMENTS BETTER LIFE!

FIELD CREW: PW
DRAWN BY: CJS
CHECKED BY: TC
APPROVED BY: TC
DATE: 8/21/2023
SCALE: HORIZ 1"=50'
VERT NONE

SHEET 1 OF 1 SHEETS

PROJ # 23-08-2002

ALTA/NSPS LAND TITLE SURVEY

OF

LOT 1 IN MEADOWBROOK SUBDIVISION, BEING A SUBDIVISION OF THAT PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 1, 1973 AS DOCUMENT NUMBER R73-05824 AND CERTIFICATES OF CORRECTION RECORDED AS DOCUMENTS R76-58800 AND R76-58801, IN DUPAGE COUNTY, ILLINOIS, EXCEPTING THAT PART CONVEYED TO THE COUNTY OF DUPAGE BY DOCUMENT R97-135136 DESCRIBED AS BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 1; THENCE EASTERLY A DISTANCE OF 175 FEET TO THE THE NORTHEAST CORNER THEREOF; THENCE SOUTHERLY ON THE EAST LINE OF SAID LOT A DISTANCE OF 10 FEET; THENCE NORTHWESTERLY A DISTANCE OF 11.61 FEET TO A POINT 10 FEET WEST OF THE EAST LINE OF LOT 1 AND 4 FEET SOUTH OF THE NORTH LINE OF LOT 1; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 69.85 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF LOT 1 A DISTANCE OF 4 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 95.11 FEET TO THE WEST LINE THEREOF; THENCE NORTHERLY ON SAID WEST LINE A DISTANCE OF 8 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

LAND AREA = 29,513 SF OR 0.678 ACRES MORE OR LESS

VICINITY MAP

LEGEND

EXISTING BOUNDARY	MANHOLE
EXISTING EASEMENT	EXIST. CATCH BASIN
EXISTING SETBACK	EXIST. CURB INLET
EXISTING CHAIN LINK FENCE	STORM SEWER
EXISTING WOOD FENCE	SANITARY SEWER
EXISTING METAL FENCE	COMBINED SEWER
EXISTING VINYL FENCE	WATER VALVE
EXISTING BUILDING	BUFFALO BOX (B-BOX)
CENTER LINE	WATER VALVE & VAULT
B.L. BUILDING LINE	FIRE HYDRANT
F.I.P. FOUND IRON PIPE	WATER METER
T/F TOP OF FOUNDATION	WELL
G/F GARAGE FLOOR ELEVATION	WATER LINE
(C) CALCULATED	GAS METER
(R/M) RECORD/MEASURED	GAS VALVE
SF SQUARE FEET	GAS LINE
TC TOP OF CURB	ELECTRIC METER
EP EDGE OF PAVEMENT	ELECTRIC PEDESTAL
ASPHALT SURFACE	HANDHOLE
BUILDING/STRUCTURE	OVERHEAD WIRES
CONCRETE SURFACE	UNDERGROUND ELECTRIC
BRICK SURFACE	UTILITY POLE
	PHONE PEDESTAL
	PHONE MANHOLE
	UNDERGROUND TELEPHONE
	CABLE TV PEDESTAL
	CABLE HANDHOLE
	CABLE METER
	UNDERGROUND CABLE
	LIGHT POST
	STREET SIGN
	DOWNSPOUT
	BOLLARD

GENERAL NOTES:

1. COMPARE THIS PLAT, LEGAL DESCRIPTION AND ALL SURVEY POINTS AND MONUMENTS BEFORE ANY CONSTRUCTION, AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE SURVEYOR.
2. DO NOT SCALE DIMENSIONS FROM THIS PLAT.
3. THE LOCATION OF THE PROPERTY LINES SHOWN ON THE FACE OF THIS PLAT ARE BASED UPON THE DESCRIPTION AND INFORMATION FURNISHED BY THE CLIENT, TOGETHER WITH THE TITLE COMMITMENT. THE PARCEL WHICH IS DEFINED MAY NOT REFLECT ACTUAL OWNERSHIP, BUT REFLECTS WHAT WAS SURVEYED.
4. MANHOLES, INLETS AND OTHER UTILITY RIMS OR GRATES SHOWN HEREON ARE FROM FIELD LOCATION OF SUCH AND ONLY REPRESENT SUCH UTILITY IMPROVEMENTS WHICH ARE VISIBLE FROM ABOVE GROUND AT THE TIME OF SURVEY, THROUGH A NORMAL SEARCH AND WALK THROUGH OF THE SITE. THE LABELING OF THESE MANHOLES (SANITARY, STORM, WATER, ETC.) IS BASED SOLELY ON THE "STAMPED" MARKINGS OF THE RIM.
5. UNDERGROUND UTILITIES OR DRAIN TILES ARE NOT SHOWN HEREON, EVEN IF ANY EXIST.
6. THIS SURVEY MAY NOT REFLECT ALL UTILITIES OR IMPROVEMENTS IF SUCH ITEMS ARE HIDDEN BY LANDSCAPING OR ARE COVERED BY SUCH ITEMS AS DUMPSTERS, TRAILERS, CARS, DIRT, PAVING OR SNOW. AT THE TIME OF THIS SURVEY, SNOW DID NOT COVER THE SITE. LAWN SPRINKLER SYSTEMS, IF ANY, ARE NOT SHOWN ON THIS SURVEY.
7. OTHER THAN VISIBLE OBSERVATIONS NOTED HEREON, THIS SURVEY MAKES NO STATEMENT REGARDING THE ACTUAL PRESENCE OR ABSENCE OF ANY SERVICE.
8. CALL J.U.L.I.E. AT 1-800-892-0123 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO DOING ANY CONSTRUCTION WORK. UNDERGROUND UTILITIES AS HEREON DRAWN WERE LOCATED ON 3/28/2024 PER J.U.L.I.E. DIG #A240532097.
9. PUBLIC AND/OR PRIVATE RECORDS HAVE NOT BEEN SEARCHED TO PROVIDE ADDITIONAL INFORMATION. OVERHEAD WIRES AND POLES (IF ANY EXIST) ARE SHOWN HEREON, HOWEVER THEIR FUNCTION AND DIMENSIONS HAVE NOT BEEN SHOWN.
10. RESTRICTIONS THAT MAY BE FOUND IN LOCAL BUILDING AND/OR ZONING CODES HAVE NOT BEEN SHOWN. HEIGHTS AND BUILDING RESTRICTIONS (IF ANY) HAVE NOT BEEN SHOWN, ONLY THOSE SETBACK RESTRICTIONS SHOWN ON THE RECORDED SUBDIVISION OR IN THE TITLE COMMITMENT HAVE BEEN SHOWN, THIS PROPERTY IS SUBJECT TO SETBACKS AS ESTABLISHED BY THE GOVERNING JURISDICTION'S ZONING ORDINANCES AND/OR CODES AS AMENDED.
11. THIS PARCEL IS ZONED B-2 ACCORDING TO THE DOWNERS GROVE ZONING MAP LOCATED AT https://www.downers.us/corecode/uploads/document6/uploaded_pdfs/corecode/zoning%20map_102.pdf ACCESSED 3/26/2024
12. THIS PARCEL HAS BEEN IDENTIFIED AS BEING IN "ZONE X" PER THE FLOOD INSURANCE RATE MAP IN DUPAGE COUNTY, AS SHOWN ON MAP NO. 17043C0168J WITH A REVISED MAP DATE OF 8/01/2019.
13. WE HAVE NO EVIDENCE OF ANY PROPOSED CHANGES TO THE RIGHTS OF WAY OF 63RD STREET OR WOODWARD AVENUE.
12. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT FOR LOT 1.IN MEADOWBROOK SUBDIVISION. IT WAS PREPARED WITH A TITLE POLICY FOR LOTS 1, 2 & 3 IN MEADOWBROOK SUBDIVISION AND LOT 5 AND PART OF LOT 4 IN VALLEY CREEK PARK ESTATES UNIT 1.

THIS SURVEY CONFORMS WITH A TITLE POLICY PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, ORDER NUMBER NCS-1121299-CH12 WITH AN EFFECTIVE DATE OF JUNE 23, 2022.
NOTES CORRESPONDING TO SCHEDULE "B" EXCEPTIONS:

1. ITEMS 1 THROUGH 33, 35, 36, 39, AND 40 THROUGH 61 ARE EITHER NOT SURVEY ITEMS OR CANNOT BE PLOTTED.
2. ITEM 34 DOCUMENT R66-03167 IS A DECLARATI0N OF COVENANTS AND RESTRICTIONS RELATING TO THE USE OF THE LAND FOR THE SHOPPING CENTER PLANNED DEVELOPMENT OF PENLISS CREEK. THE SETBACKS ARE HEREON PLOTTED.
3. ITEM 37 DOCUMENT 83-10506 IS A PERPETUAL GRANT OF EASEMENT RELATING TO PARKING SPACES, MAINTENANCE AND REPAIRS.
4. ITEM 38 DOCUMENT R73-05824 IS A 50 FOOT BUILDING LINE ALONG THE EAST AND NORTH LINES OF LOT 1 AND IS HEREON DRAWN.
5. ITEM 40 DOCUMENT R78-05824 IS A 20 FOOT SANITARY SEWER EASEMENT IN THE SOUTHEAST CORNER OF LOT 1 AND IS HEREON DRAWN.

INDEX OF SHEETS

1. COVER SHEET
2. BOUNDARY SURVEY
3. TOPOGRAPHIC SURVEY

STATE OF ILLINOIS)
COUNTY OF DUPAGE) SS

CERTIFY TO:

GMX REAL ESTATE GROUP, LLC
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), 6(b), 7(a), 8, 9, 11(a) 11(b), 13, 14, AND 17 OF TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED ON 3/28/2024.

DATED, THIS 28TH DAY OF MARCH, A.D., 2024, AT LISLE, ILLINOIS.

Thomas J Cesal

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-2205
MY LICENSE EXPIRES NOVEMBER 30, 2024.
ILLINOIS PROFESSIONAL DESIGN FIRM PROFESSIONAL ENGINEERING CORPORATION NO. 184-001245

CLIENT: STELLCO PROPERTIES

THOMAS J. CESAL 2205 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LISLE, ILLINOIS

DATE	
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ALTA/NSPS LAND TITLE SURVEY
2001 63RD STREET
DOWNERS GROVE, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BETTER INFRASTRUCTURE. BETTER ENVIRONMENTS. BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	CJS
CHECKED BY:	TC
APPROVED BY:	TC
DATE:	3/26/2024
SCALE:	HORIZ 1"=20'
	VERT NONE

SHEET 1 OF 3 SHEETS

PROJ # 24-02-6000

ALTA/NSPS LAND TITLE SURVEY

OF

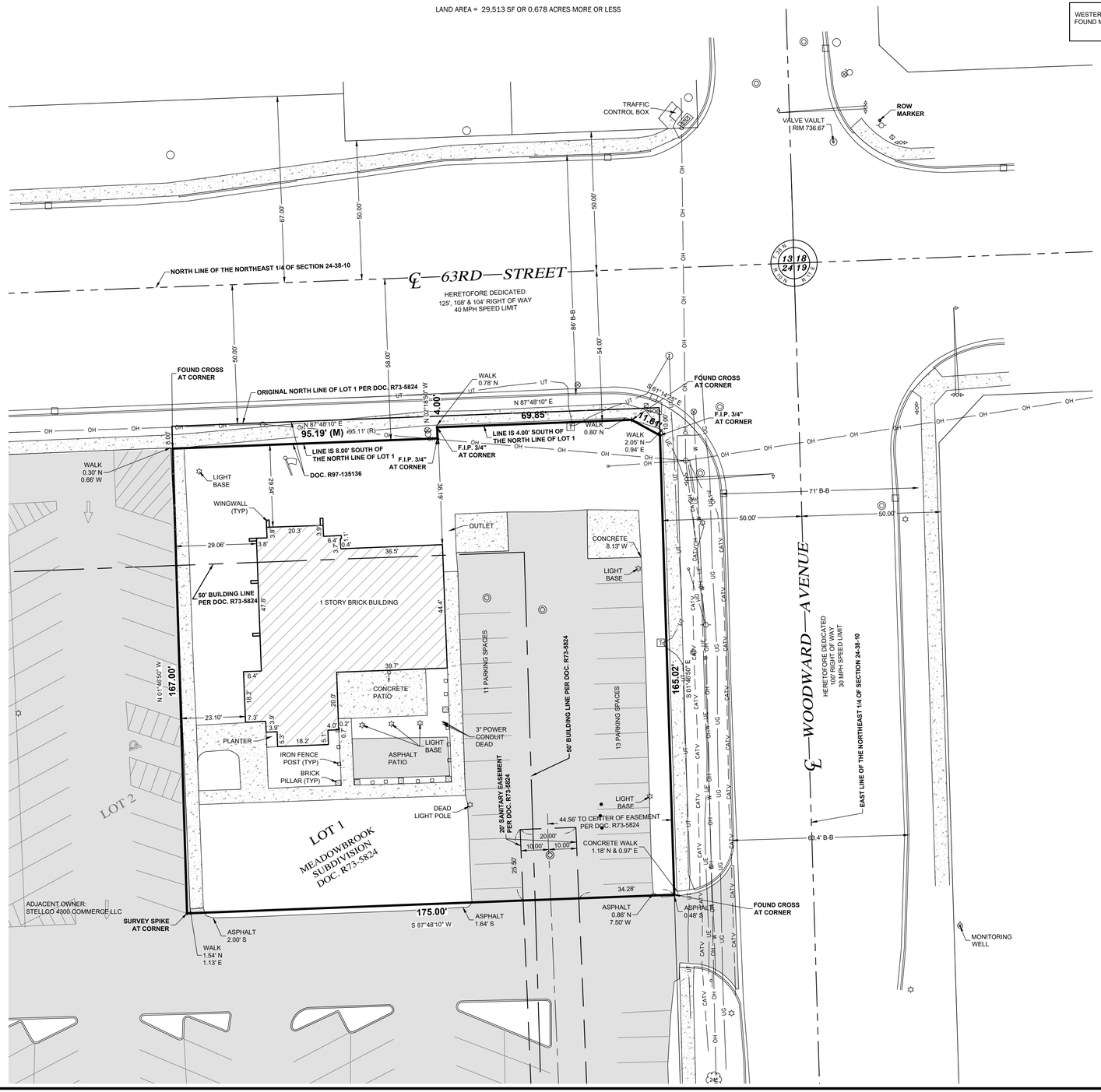
LOT 1 IN MEADOWBROOK SUBDIVISION, BEING A SUBDIVISION OF THAT PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 1, 1973 AS DOCUMENT NUMBER R73-05824 AND CERTIFICATES OF CORRECTION RECORDED AS DOCUMENTS R76-58800 AND R76-58801, IN DUPAGE COUNTY, ILLINOIS, EXCEPTING THAT PART CONVEYED TO THE COUNTY OF DUPAGE BY DOCUMENT R97-135136 DESCRIBED AS BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 1; THENCE EASTERLY A DISTANCE OF 175 FEET TO THE THE NORTHEAST CORNER THEREOF; THENCE SOUTHERLY ON THE EAST LINE OF SAID LOT A DISTANCE OF 10 FEET; THENCE NORTHWESTERLY A DISTANCE OF 11.61 FEET TO A POINT 10 FEET WEST OF THE EAST LINE OF LOT 1 AND 4 FEET SOUTH OF THE NORTH LINE OF LOT 1; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 69.85 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF LOT 1 A DISTANCE OF 4 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 95.11 FEET TO THE WEST LINE THEREOF; THENCE NORTHERLY ON SAID WEST LINE A DISTANCE OF 8 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

LAND AREA = 29,513 SF OR 0.678 ACRES MORE OR LESS

30' 15' 0 30'

BASIS OF BEARING:
WESTERLY LINE OF WOODWARD AVENUE AS FOUND MONUMENTED AND OCCUPIED.

S 01°46'50" E (ASSUMED)



ALL EASEMENTS HEREON DRAWN ARE AS RECORDED ON MEADOWBROOK SUBDIVISION DOC. R73-5824

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ALTA/NSPS LAND TITLE SURVEY
2001 63RD STREET
DOWNERS GROVE, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road • Suite 140 • IL 60532
Phone: (630) 271-0770
FAX: (630) 271-0599
Website: www.ecivil.com

BETTER INFRASTRUCTURE. BETTER ENVIRONMENTS. BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	CJS
CHECKED BY:	TC
APPROVED BY:	TC
DATE:	3/26/2024
SCALE:	HORIZ 1"=20'
	VERT NONE

SHEET **2** OF 3 SHEETS

PROJ # 24-02-6000

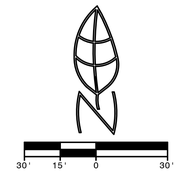
ALTA/NSPS LAND TITLE SURVEY

TOPOGRAPHIC SURVEY

OF

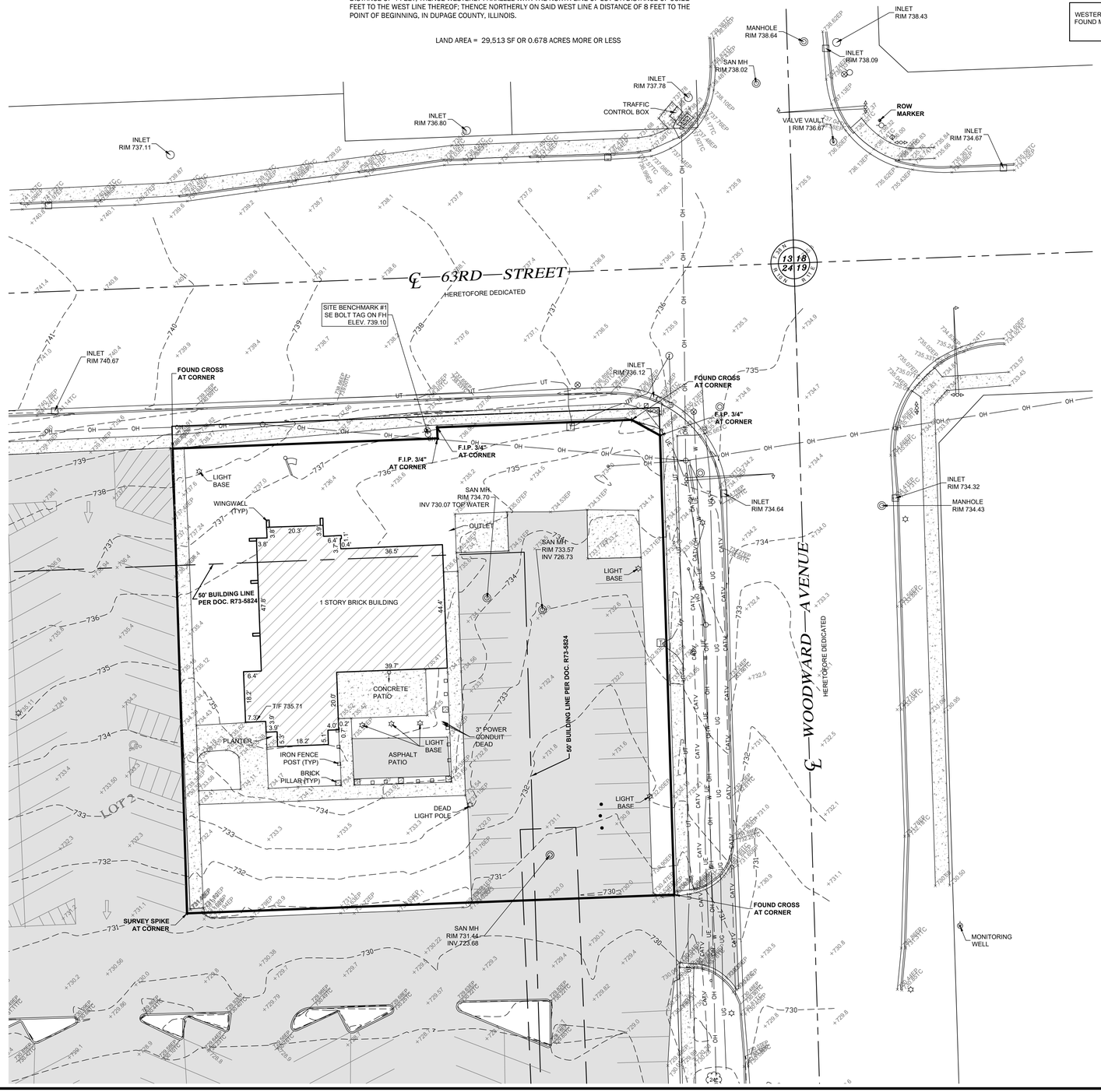
LOT 1 IN MEADOWBROOK SUBDIVISION, BEING A SUBDIVISION OF THAT PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 1, 1973 AS DOCUMENT NUMBER R73-05824 AND CERTIFICATES OF CORRECTION RECORDED AS DOCUMENTS R76-58800 AND R76-58801, IN DUPAGE COUNTY, ILLINOIS, EXCEPTING THAT PART CONVEYED TO THE COUNTY OF DUPAGE BY DOCUMENT R97-135136 DESCRIBED AS BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 1; THENCE EASTERLY A DISTANCE OF 175 FEET TO THE THE NORTHEAST CORNER THEREOF; THENCE SOUTHERLY ON THE EAST LINE OF SAID LOT A DISTANCE OF 10 FEET; THENCE NORTHWESTERLY A DISTANCE OF 11.61 FEET TO A POINT 10 FEET WEST OF THE EAST LINE OF LOT 1 AND 4 FEET SOUTH OF THE NORTH LINE OF LOT 1; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 69.85 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF LOT 1 A DISTANCE OF 4 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 95.11 FEET TO THE WEST LINE THEREOF; THENCE NORTHERLY ON SAID WEST LINE A DISTANCE OF 8 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

LAND AREA = 29,513 SF OR 0.678 ACRES MORE OR LESS



BASIS OF BEARING:
WESTERLY LINE OF WOODWARD AVENUE AS FOUND MONUMENTED AND OCCUPIED.

S 01°46'50" E (ASSUMED)



SOURCE BENCHMARK

DESIGNATION – DOWNERS GROVE SOUTH
PID – MF1251
STATE/COUNTY – IL/DU PAGE
USGS QUAD – WHEATON (2018)

DESCRIPTION: THE STATION IS 145 FT SOUTH OF THE CENTERLINE OF 63RD STREET AND 42 FT WEST OF THE CENTERLINE OF DUNHAM ROAD. THE MONUMENT IS AT STREET GRADE AND IS A STEEL ROD WITH A BERNTSEN LID AND PVC SLEEVE.

NAVD88 ELEVATION: 745.60

SITE BENCHMARK #1

SOUTHEAST FLANGE BOLT TAG ON HYDRANT ON SOUTHWEST CORNER OF 63RD STREET & WOODWARD AVENUE.

ELEVATION = 739.10

DATE	
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ALTA/NSPS LAND TITLE SURVEY
2001 63RD STREET
DOWNERS GROVE, ILLINOIS

Morris Engineering, Inc.
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BETTER INFRASTRUCTURE. BETTER ENVIRONMENT. BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	CJS
CHECKED BY:	TC
APPROVED BY:	TC
DATE:	3/26/2024
SCALE:	HORIZ 1"=20'
	VERT NONE

SHEET
3
OF 3 SHEETS

PROJ # 24-02-6000

MORRIS ENGINEERING, INC.

THE FOLLOWING ARE THE LEGAL DESCRIPTIONS FOR PUD #8, PUD #1 AND PROPOSED PUD #70.

THE DESCRIPTION OF PUD #8 DOES NOT INCLUDE THE SOUTH HALF OF THE RIGHT OF WAY FOR 63RD STREET, AS DESCRIBED IN ORDINANCE 1626, BUT DOES INCLUDE THE EAST HALF OF THE RIGHT OF WAY OF BELMONT AVENUE.

THE DESCRIPTION OF PUD #1 DOES NOT INCLUDE THE RIGHT OF WAY FOR 63RD STREET AND WOODWARD AVENUE AS, DESCRIBED IN ORDINANCE 1354.

THE DESCRIPTION OF THE PROPOSED PUD #70 DOES NOT INCLUDE ANY RIGHT OF WAYS.

PUD #8

THAT PART OF MEADOWBROOK SUBDIVISION (EXCEPT LOT 4) BEING A SUBDIVISION OF PART OF THE NORTHEAST QUARTER (1/4) OF SECTION 24 TOWNSHIP 38 RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R73-5824, LYING EAST OF THE CENTER LINE OF BELMONT AVENUE AND LYING WEST OF THE WEST LINE OF VALLEY CREEK PARK ESTATES UNIT 1 SUBDIVISION BEING A SUBDIVISION IN THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER 866856, ALL IN DUPAGE COUNTY, ILLINOIS.

PUD #70

THAT PART OF MEADOWBROOK SUBDIVISION (EXCEPT LOT 4), BEING A SUBDIVISION OF PART OF THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R73-5824, LYING EAST OF THE EAST LINE OF BELMONT AVENUE AND MEADOWBROOK ASSESSMENT PLAT, BEING PART OF THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER R92-075488, ALL IN DUPAGE COUNTY, ILLINOIS.

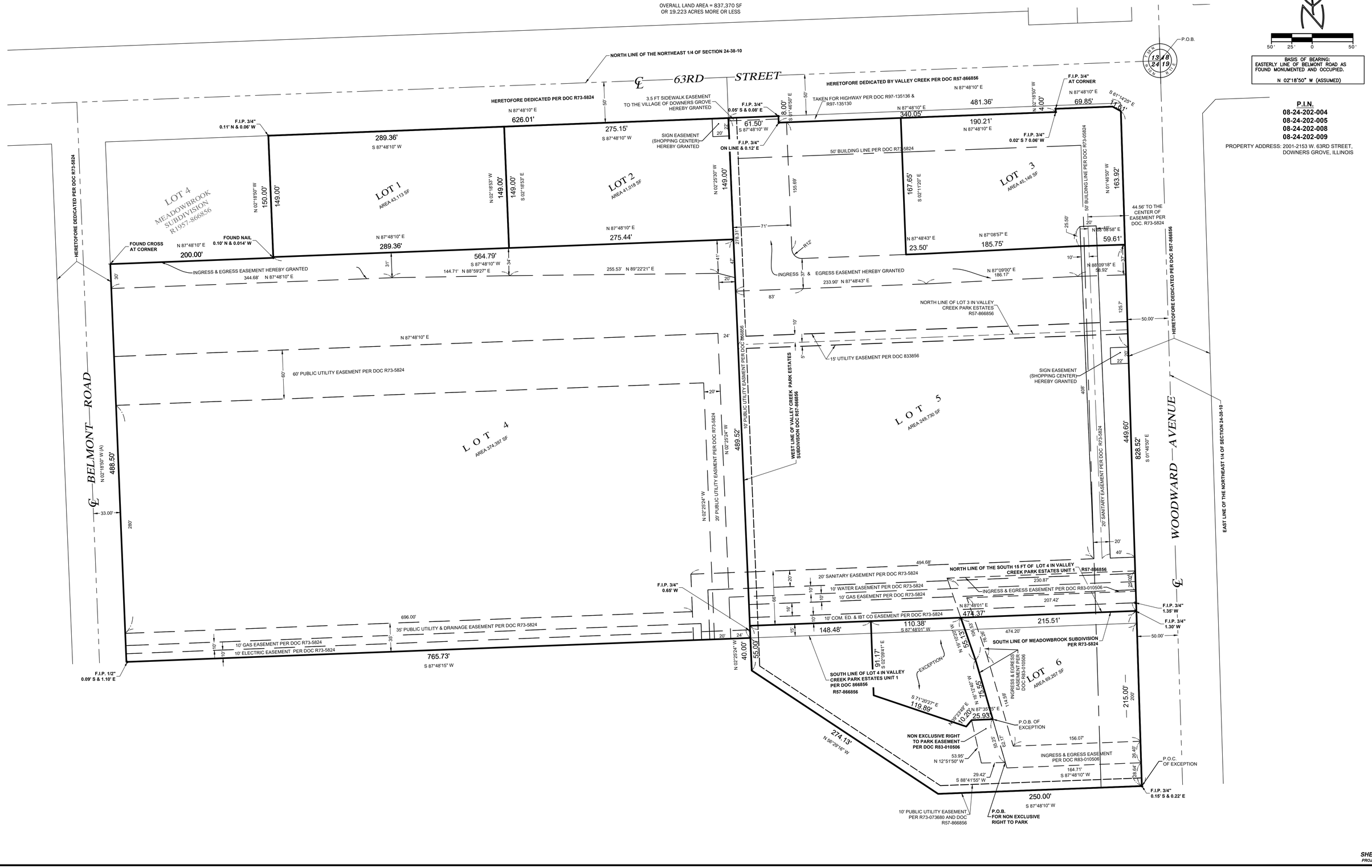
PUD #1

LOTS 1,2,3 AND LOT 4 (EXCEPT THE SOUTH 15.00 FEET), IN VALLEY CREEK PARK ESTATES UNIT 1 SUBDIVISION, BEING A SUBDIVISION IN THE NORTHEAST QUARTER (1/4) OF SECTION 24, TOWNSHIP 38, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED AS DOCUMENT NUMBER 866856, ALL IN DUPAGE COUNTY, ILLINOIS.

SHOPPES OF MEADOWBROOK SUBDIVISION

BEING A SUBDIVISION OF LOT 1, 2 & 3 IN MEADOWBROOK SUBDIVISION DOCUMENT NO. R73-5824 AND LOT 5 AND THE SOUTH 15.00 FEET OF LOT 4 IN VALLEY CREEK PARK ESTATES UNIT 1, DOCUMENT NO. R57-866856 IN THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

OVERALL LAND AREA = 837,370 SF
OR 19.223 ACRES MORE OR LESS



P.I.N.
08-24-202-004
08-24-202-005
08-24-202-008
08-24-202-009

PROPERTY ADDRESS: 2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

SHOPS OF MEADOWBROOK SUBDIVISION

BEING A SUBDIVISION OF

LOT 1, 2 & 3 IN MEADOWBROOK SUBDIVISION DOCUMENT NO. R73-5824 AND LOT 5 AND THE SOUTH 15.00 FEET OF LOT 4 IN VALLEY CREEK PARK ESTATES UNIT 1, DOCUMENT NO. R57-866856 IN THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN DUPAGE COUNTY, ILLINOIS.

OWNER'S CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

STELLCO 4300 COMMERCE LLC, AN ILLINOIS LIMITED LIABILITY COMPANY, HEREBY CERTIFIES THAT IT IS THE OWNER OF THE ABOVE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE AND IT HAS CAUSED THE SAME TO BE SURVEYED AND SUBDIVIDED AS SHOWN ON THE PLAT HEREON DRAWN."

MEMBER MANAGER: _____
ANTHONY J. STELLA

ADDRESS: 2001-2153 W. 63RD STREET, DOWNERS GROVE, IL

DATED THIS _____ DAY OF _____, AD 20_____

NOTARY'S CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY, IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT **ANTHONY J. STELLA**, PERSONALLY KNOWN TO ME TO BE THE SAME PERSON(S) WHOSE NAME(S) ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT AS SUCH OWNER(S), APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED THE PLAT AS THEIR OWN FREE AND VOLUNTARY ACT AND AS THE FREE AND VOLUNTARY ACT OF STELLCO 4300 COMMERCE, LLC FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND NOTARIAL SEAL, THIS _____ DAY OF_____, AD 20____.

_____ _____
NOTARY PUBLIC COMMISSION EXPIRES

OWNER'S MORTGAGEE CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF _____)

THE NORTHERN TRUST CO., AN ILLINOIS BANKING CORPORATION, AS MORTGAGEE FOR THE LAND DESCRIBED IN THIS PLAT HEREBY CONSENTS TO SAID SUBDIVISION AS SHOWN AND DESCRIBED ON THIS PLAT.

DATED THIS _____ DAY OF _____ AD 20___

BY: _____ TITLE: _____

ATTEST:_____ TITLE: _____

_____
ADDRESS

MORTGAGEE'S NOTARY CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF _____)

I, _____, A NOTARY PUBLIC IN AND FOR SAID COUNTY, IN THE STATE AFORESAID, DO HEREBY CERTIFY THAT _____ AND _____, RESPECTIVELY THE _____ AND _____ OF NORTHERN TRUST CO. AND ILLINOIS BANKING CORPORATION, PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGED THAT THEY SIGNED AND DELIVERED THE SAID INSTRUMENT AS THEIR FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES THEREIN SET FORTH.

GIVEN UNDER MY HAND AND SEAL THIS _____ DAY OF _____ AD 20__

BY: _____
NOTARY PUBLIC

_____PLAN COMMISSION OF THE VILLAGE _____CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF DOWNERS GROVE,

THIS _____ DAY OF _____ AD 20_____

BY: _____ _____
CHAIRMAN DATE

VILLAGE COUNCIL CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

APPROVED THIS _____ DAY OF _____ A.D. 20_____ BY THE COUNCIL OF THE VILLAGE OF DOWNERS GROVE.

BY: _____ _____
MAYOR VILLAGE CLERK

_____VILLAGE OF DOWNERS GROVE _____COLLECTOR CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, _____, COLLECTOR FOR THE VILLAGE OF DOWNERS GROVE, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS OR ANY DEFERRED INSTALLMENTS THEREOF THAT HAVE NOT BEEN APPORTIONED AGAINST THE TRACT OF LAND INCLUDED IN THIS PLAT.

THIS _____ DAY OF _____ AD 20_____

BY: _____
COLLECTOR

SANITARY DISTRICT CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, _____, COLLECTOR OF THE DOWNERS GROVE SANITARY DISTRICT, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT OR UNPAID CURRENT OR FORFEITED SPECIAL ASSESSMENTS OR ANY DEFERRED INSTALLMENTS THEREOF THAT HAVE NOT BEEN APPORTIONED AGAINST THE TRACT OF LAND INCLUDED IN THIS PLAT.

DATED THIS _____ DAY OF_____ AD 20__ .

BY: _____
COLLECTOR OF DOWNERS GROVE SANITARY DISTRICT

COUNTY CLERK CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, _____, COUNTY CLERK OF DUPAGE COUNTY, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO DELINQUENT GENERAL TAXES, NO UNPAID FORFEITED TAXES AND NO REDEEMABLE TAX SALES AGAINST ANY OF THE LAND INCLUDED IN THIS PLAT. I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THIS PLAT. GIVEN UNDER MY HAND SEAL OF THE COUNTY CLERK OF DUPAGE COUNTY, ILLINOIS.

THIS _____ DAY OF_____ AD 20____ .

BY: _____
COUNTY CLERK

DUPAGE COUNTY RECORDER'S CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

THIS PLAT_____ WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS, ON THE _____ DAY OF _____, A.D. _____, AT _____ O'CLOCK_____.M.

BY: _____
RECORDER OF DEEDS

DRAINAGE CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

WE, _____, A REGISTERED PROFESSIONAL ENGINEER IN ILLINOIS, AND ANTHONY J. STELLA, MANAGER OF THE OWNER OF THE LAND DEPICTED HEREON DO HEREBY STATE, THAT TO THE BEST OF OUR KNOWLEDGE AND BELIEF, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS AND PUBLIC AREAS, OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKEHOOD OF DAMAGE TO ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION. FURTHER, AS ENGINEER, I HEREBY CERTIFY THAT THE PROPERTY WHICH IS THE SUBJECT OF THIS SUBDIVISION OR ANY PART THEREOF IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA AS IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

THIS _____ DAY OF _____ AD 20_____.

BY: _____ _____
ENGINEER ANTHONY J. STELLA, MANAGER

SCHOOL DISTRICT CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

STELLCO 4300 COMMERCE LLC DOES HEREBY CERTIFY AS OWNER OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE, THAT SUCH PROPERTY, IS LOCATED WITHIN THE BOUNDARIES OF COLLEGE OF DUPAGE (No. 502), HIGH SCHOOL DISTRICT No. 99, AND GRADE SCHOOL DISTRICT No. 68, IN DUPAGE COUNTY, ILLINOIS.

THIS _____ DAY OF _____, AD 20_____

BY: _____
ANTHONY J. STELLA, MANAGER

SIDEWALK EASEMENT PROVISIONS

THE AREA SHOWN HEREON AS SIDEWALK EASEMENT IS HEREBY RESERVED AS AN EASEMENT, NON-EXCLUSIVELY AND PERPETUALLY, BENEFITING THE VILLAGE OF DOWNERS GROVE AND THE COUNTY OF DUPAGE, DIVISION OF TRANSPORTATION, TO ALLOW PUBLIC ACCESS, SPECIFICALLY, FOR PEDESTRIAN INGRESS AND EGRESS ACCORDING TO THE TERMS OF THIS GRANT. NO FENCE, WALL, PLANTING (OTHER THAN GRASS), STRUCTURE OR OTHER OBSTRUCTION MAY BE PLACED OR MAINTAINED IN THE SAID SIDEWALK EASEMENT. THE EASEMENT SHALL BE USED ONLY, TO WIT FOR, WALKING, JOGGING AND HIKING FOR THE GENERAL PUBLIC. NO MOTORIZED VEHICLES SUCH AS CARS, TRUCKS, SNOWMOBILES OR OFF-ROAD VEHICLES SHALL BE OPERATED ON THE EASEMENT; PROVIDED THAT THE GRANTEES OR GRANTOR MAY ENTER WITH LOW-IMPACT MOTORIZED VEHICLES FOR THE PURPOSES OF MAINTENANCE, REPAIR AND SNOW REMOVAL. GRANTOR SHALL CONSTRUCT WITHIN THE PEDESTRIAN INGRESS EGRESS EASEMENT A SIDEWALK IN ACCORDANCE WITH COUNTY OF DUPAGE STANDARDS. GRANTEES SHALL ACCEPT THE CONSTRUCTION UPON COMPLETION AND SHALL, THEREAFTER, THE COUNTY DIVISION OF TRANSPORTATION SHALL MAINTAIN, RECONSTRUCT, REPAIR AND REPLACE THE SAME IN A STATE OF GOOD REPAIR AT ALL TIMES.

_____INGRESS AND EGRESS EASEMENT PROVISIONS

THE AREA SHOWN HEREON AS AN INGRESS & EGRESS EASEMENT IS A NON-EXCLUSIVE EASEMENT FOR LOT 1, LOT 2, LOT 3, LOT 4 AND LOT 5 FOR THE CONCURRENT, NON-EXCLUSIVE VEHICULAR AND NON-VEHICULAR INGRESS AND EGRESS IN THE PORTIONS OF THE DESIGNATED AREA IMPROVED FOR SUCH USES.

_____SIGN EASEMENT PROVISIONS

THE AREA SHOWN HEREON AS A SIGN EASEMENT ON LOT 2 SHALL BE RESERVED FOR A SHOPPING CENTER SIGN FOR THE BENEFIT OF LOT 4 AND LOT 5 WITH ALLOWABLE PANEL AREAS AS DETERMINED BY THE LOT 5 OWNER. THE AREA SHOWN HEREON AS A SIGN EASEMENT ON LOT 5 SHALL BE RESERVED FOR A SHOPPING CENTER SIGN FOR THE BENEFIT OF LOT 4 AND LOT 5 WITH ALLOWABLE PANEL AREAS AS DETERMINED BY THE LOT 5 OWNER.

UPON RECORDING, MAIL TO:

VILLAGE OF DOWNERS GROVE
801 BURLINGTON AVENUE
DOWNERS GROVE, IL 60515

SEND TAX BILL TO:
2001 W. 63RD STREET
DOWNERS GROVE, ILLINOIS

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS)
SS
COUNTY OF DUPAGE)

I, THOMAS J. CESAL, HEREBY CERTIFY THAT I, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT I HAVE SURVEYED AND SUBDIVIDED THE PROPERTY HEREON DESCRIBED IN THE CAPTION TO THE PLAT HEREON DRAWN AND THAT THE SAID PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE SAME. ALL DIMENSIONS ARE IN FEET AND DECIMAL PARTS OF A FOOT.

LOTS 1, 2 & 3 IN MEADOWBROOK SUBDIVISION, BEING A SUBDIVISION OF THAT PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 1, 1973 AS DOCUMENT NUMBER R73-05824 AND CERTIFICATES OF CORRECTION RECORDED AS DOCUMENTS R76-58800 AND R76-58801, IN DUPAGE COUNTY, ILLINOIS, (EXCEPTING FROM LOT 1, AFORESAID, THAT PART CONVEYED TO THE COUNTY OF DUPAGE BY DOCUMENT R97-135136 DESCRIBED AS BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 1; THENCE EASTERLY A DISTANCE OF 175 FEET TO THE NORTHEAST CORNER THEREOF; THENCE SOUTHERLY ON THE EAST LINE OF SAID LOT A DISTANCE OF 10 FEET; THENCE NORTHWESTERLY A DISTANCE OF 11.61 FEET TO A POINT 10 FEET WEST OF THE EAST LINE OF LOT 1 AND 4 FEET SOUTH OF THE NORTH LINE OF LOT 1; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 69.85 FEET; THENCE SOUTHERLY PARALLEL WITH THE WEST LINE OF LOT 1 A DISTANCE OF 4 FEET; THENCE WESTERLY PARALLEL WITH THE NORTH LINE OF LOT 1 A DISTANCE OF 95.11 FEET TO THE WEST LINE THEREOF; THENCE NORTHERLY ON SAID WEST LINE A DISTANCE OF 8 FEET TO THE POINT OF BEGINNING, AND ALSO EXCEPTING FROM LOT 2, AFORESAID THAT PART CONVEYED TO THE COUNTY OF DUPAGE BY DOCUMENT R97-135130, DESCRIBED AS THE NORTH 8 FEET OF THE EAST 244.85 FEET OF THAT PART OF LOT 2 LYING WEST OF THE WEST LINE OF LOT 1).

LOT 5 AND THE SOUTH 15.00 FEET OF LOT 4 IN VALLEY CREEK PARK ESTATES UNIT 1, BEING A SUBDIVISION IN THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED DECEMBER 30, 1957 AS DOCUMENT 866856 AND THE CERTIFICATE OF CORRECTION RECORDED SEPTEMBER 16, 1958 AS DOCUMENT 894780 (EXCEPT THAT PART OF SAID LOT 5 AND THE SOUTH 15.00 FEET OF LOT 4 DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 5; THENCE NORTH ON THE EAST LINE OF SAID LOT 5 HAVING A BEARING OF NORTH 0 DEGREES 00 MINUTES 00 SECONDS EAST A DISTANCE OF 28.64 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 00 SECONDS WEST A DISTANCE OF 164.71 FEET; THENCE NORTH 14 DEGREES 25 MINUTES 50 SECONDS WEST A DISTANCE OF 62.17 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 14 DEGREES 25 MINUTES 50 SECONDS WEST A DISTANCE OF 75.55 FEET; THENCE NORTH 17 DEGREES 23 MINUTES 30 SECONDS WEST A DISTANCE OF 55.13 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 15.00 FEET OF SAID LOT 4; THENCE WEST ON THE NORTH LINE OF THE SOUTH 15.00 FEET OF SAID LOT 4 HAVING A BEARING OF SOUTH 89 DEGREES 35 MINUTES 00 SECONDS WEST A DISTANCE OF 110.38 FEET; THENCE SOUTH 0 DEGREES 25 MINUTES 00 SECONDS EAST, A DISTANCE OF 91.17 FEET; THENCE SOUTH 69 DEGREES 35 MINUTES 46 SECONDS EAST A DISTANCE OF 119.89 FEET; THENCE NORTH 41 DEGREES 08 MINUTES 30 SECONDS EAST A DISTANCE OF 10.20 FEET; THENCE NORTH 89 DEGREES 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 25.93 FEET TO THE POINT OF BEGINNING), IN DUPAGE COUNTY, ILLINOIS.

I, FURTHER CERTIFY THAT BASED ON EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, PANEL NUMBER 17043C0168J, EFFECTIVE DATE OF AUGUST 1ST,2019 THAT THE PARCEL INCLUDED IN THIS RECORD OF DEED IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA.

I, FURTHER CERTIFY THAT IRON RODS WILL BE SET AT THE PROPERTY CORNERS UPON COMPLETION OF MASS GRADING.

FURTHERMORE, I DESIGNATE THE VILLAGE OF DOWNERS GROVE TO ACT AS MY AGENT, FOR THE PURPOSES OF RECORDING THIS DOCUMENT.

DATED THIS 3RD DAY OF OCTOBER, A.D. 2024.

PRELIMINARY

_____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-2205
MY LICENSE EXPIRES NOVEMBER 30, 2024.
ILLINOIS PROFESSIONAL DESIGN FIRM PROFESSIONAL ENGINEERING CORPORATION NO. 184-001245

CLIENT: STELLCO 4360 COMMERCE LLC

THOMAS J. CESAL 2205 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS NAPERVILLE ILLINOIS

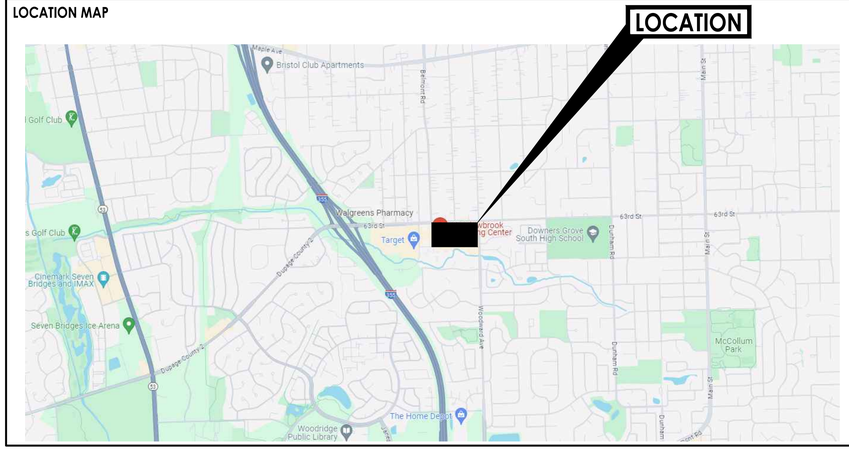
Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BETTER INFRASTRUCTURE BETTER ENVIRONMENTS BETTER LIFE!

SYMBOL AND LINE LEGEND

VALVE VAULT	W	WATERMAIN PIPE
WATER B-BOX		STORM SEWER PIPE
WATER VALVE BOX		STORM UNDERDRAIN
FIRE HYDRANT		SANITARY SEWER PIPE
WELL HEAD	IRR	IRRIGATION SLEEVE/PIPING
FIRE DEPARTMENT CONNECTION	E	ELECTRICAL DUCT BANK
STORM INLET	G	NATURAL GAS LINE
STORM MANHOLE	COM	COMMUNICATIONS LINE
CATCH BASIN	CWS	CHILLED WATER SUPPLY
STORM CLEANOUT	CWR	CHILLED WATER RETURN
DOWNSPOUT	TV	TELEVISION CABLE
FLARED END SECTION	UGW	UNDERGROUND WIRE
SANITARY MANHOLE	T	TELEPHONE CABLE
SANITARY CLEANOUT	FO	FIBER OPTIC CABLE
LIGHT POLE	A	AERIAL WIRES
TELEPHONE MANHOLE		CONSTRUCTION LIMITS
POWER POLE		PROPERTY LINE
GAS VALVE		EASEMENT LINE
GAS METER		VENT LINE
HAND HOLE	HWL	HIGH WATER LINE
MAIL BOX	NWL	NORMAL WATER LINE
ELECTRICAL MANHOLE		CHAIN LINK FENCE
CABLE TV PEDESTAL	X	BARBED-WIRE FENCE
TELEPHONE PEDESTAL		WOODEN FENCE
TRAFFIC OR STREET SIGN		SILT FENCE
SOIL BORING		
21.56 SPOT ELEVATION		DECIDUOUS TREE
SURFACE FLOW		
100-YEAR OVERFLOW		SHRUB OR BUSH
		EVERGREEN TREE

LOCATION MAP



PRELIMINARY ENGINEERING PLANS

SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

OWNER INFORMATION

NAME: Anthony Stella, Stellco Properties
EMAIL: astella@stellcoproperties.com
PHONE: 630-778-9400
ADDRESS: 24W500 Maple Ave, Suite 211
Naperville, IL 60540

NOTES

1. SITE ACCESS CONTROL INCLUDING SAFETY FENCES AND TRAFFIC CONTROL, ALL CONSTRUCTION MEANS AND METHODS, AND SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

2. THE CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. ALL UTILITIES SHOWN IN THE PLANS ARE FROM RECORDS OR FIELD OBSERVABLE IN FORMATION LOCATED BY SURVEYOR. ANY UTILITY LOCATIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.

DUTY TO INDEMNIFY

THE CONTRACTOR SHALL DEFEND, INDEMNIFY, KEEP AND SAVE HARMLESS THE MUNICIPALITY, OWNER, AND ENGINEER, AND THEIR RESPECTIVE BOARD MEMBERS, REPRESENTATIVES, AGENTS AND EMPLOYEES, IN BOTH INDIVIDUAL AND OFFICIAL CAPACITIES, AGAINST ALL SUITS, CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES, CAUSED BY, GROWING OUT OF, OR INCIDENTAL TO, THE PERFORMANCE OF THE WORK UNDER THE CONTRACT BY THE CONTRACTOR OR ITS SUBCONTRACTORS TO THE FULL EXTENT AS ALLOWED BY THE LAWS OF THE STATE OF ILLINOIS AND NOT BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE. THIS OBLIGATION INCLUDES BUT IS NOT LIMITED TO, THE ILLINOIS LAWS REGARDING STRUCTURAL WORK (IL. REV. STAT. CH. 48, PAR.60 AT SEQ.). AND REGARDING THE PROTECTION OF ADJACENT LANDOWNERS (IL. REV. STAT. CH.17 ⅓ PAR.51 ET. SEQ.). IN THE EVENT OF ANY SUCH INJURY (INCLUDING DEATH) OR LOSS OR DAMAGE, OR CLAIMS THEREFORE, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO THE OWNER.

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C0.0	COVER
C1.0	DEMOLITION PLAN - OVERALL
C1.1	DEMOLITION PLAN - 1
C1.2	DEMOLITION PLAN - 2
C1.3	DEMOLITION PLAN - 3
C1.4	DEMOLITION PLAN - 4
C1.5	DEMOLITION PLAN - 5
C1.6	DEMOLITION PLAN - 6
C1.7	DEMOLITION PLAN - 7
C2.0	SITE PLAN - OVERALL
C2.1	SITE PLAN - 1
C2.2	SITE PLAN - 2
C2.3	SITE PLAN - 3
C2.4	SITE PLAN - 4
C2.5	SITE PLAN - 5
C2.6	SITE PLAN - 6
C2.7	SITE PLAN - 7
C2.8	PAVEMENT SECTIONS
C3.0	UTILITY PLAN - OVERALL
C3.1	UTILITY PLAN - 1
C3.2	UTILITY PLAN - 2
C3.3	UTILITY PLAN - 3
C3.4	UTILITY PLAN - 4
C3.5	UTILITY PLAN - 5
C3.6	UTILITY PLAN - 6
C3.7	UTILITY PLAN - 7
C4.0	GRADING PLAN - OVERALL
C4.1	GRADING PLAN - 1
C4.2	GRADING PLAN - 2
C4.3	GRADING PLAN - 3
C4.4	GRADING PLAN - 4
C4.5	GRADING PLAN - 5
C4.6	GRADING PLAN - 6
C4.7	GRADING PLAN - 7

Sheets C0.0 to C4.7 were prepared at or under the direction of:

SCOTT A. DIGILLIO
062-044869
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

ILLINOIS REGISTERED PROFESSIONAL ENGINEER No. 062-044869
SCOTT A. DIGILLIO
LICENSE EXPIRES: 11/30/2025
SIGNED: 11/11/2024

BENCHMARKS

SOURCE BENCHMARK #1:
THE STATION IS 145 FT SOUTH OF THE CENTERLINE OF 63RD STREET AND 42 FT WEST OF THE CENTERLINE OF DUNHAM ROAD. THE MONUMENT IS AT STREET GRADE AND IS A STEEL ROAD WITH A BERNTSEN LID AND PVC SLEEVE.
NAVD88 ELEVATION=745.60

SITE BENCHMARK #1:
NORTHWEST FLANGE BOLT TAG ON HYDRANT APPROXIMATELY 73 FEET NORTHWEST OF 2075 63RD STREET BUILDING CORNER.
ELEVATION=728.45

SITE BENCHMARK #2:
SOUTHEAST FLANGE BOLT TAG ON HYDRANT ON SOUTHWEST CORNER OF 63RD STREET & WOODWARD AVENUE.
ELEVATION=729.10

SITE BENCHMARK #3:
SOUTHWEST FLANGE BOLT ON HYDRANT APPROXIMATELY 93 FEET NORTHEAST OF 2003 63RD STREET BUILDING CORNER.
ELEVATION=731.24

811 Know what's below. Call before you dig.
CALL 48 HOURS BEFORE YOU DIG WITH THE FOLLOWING INFORMATION
COUNTY NAME: DUPAGE
TOWNSHIP, RANGE: 38N, 10E
SECTION NUMBER: 24

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

650 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756 - 4180
www.rtmec.com
IL Design Firm: 184006777-0002
rtm engineering consultants

SHEET NAME: COVER

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET
DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C0.0
OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C0.0_COVER.dwg Time: Nov 11, 2024 - 3:48pm

63RD STREET
BELMONT ROAD
WOODWARD AVENUE
EX. ASPHALT TO BE REMOVED
EX. CONCRETE TO BE REMOVED
EX. LANDSCAPE TO BE REMOVED
SAWCUT (TYP.)
EXISTING 1 STORY BRICK BUILDING
CURB TO REMAIN
EX. CURB TO BE REMOVED
EX. CONC. SIDEWALK TO BE REMOVED
EX. BRICK PAVER TO BE REMOVED
EX. CONCRETE TO BE REMOVED & REPLACED
EX. BOLLARD TO BE REMOVED
EX. SIGN TO BE REMOVED
EX. LIGHT TO BE REMOVED
EX. TREE TO BE REMOVED
EX. GAS, WV, MH, FDC TO BE REMOVED
EX. CATCH BASIN TO BE REMOVED
EX. INLET TO BE REMOVED
EX. MANHOLE TO BE REMOVED
EX. VAULT TO BE REMOVED
EX. BRICK PILLAR TO BE REMOVED
EX. CONCRETE TO BE REMOVED
EX. WOOD POLE TO BE REMOVED
EX. GUY WIRE TO BE REMOVED
EX. ASPHALT TO BE REMOVED & REPLACED
EX. CURB TO BE REMOVED & REPLACED
EX. CONCRETE TO BE REMOVED & REPLACED
EX. CURB TO BE REMOVED & REPLACED
EX. ASPHALT TO BE REMOVED & REPLACED
EX. CONCRETE TO BE REMOVED & REPLACED
EX. CONCRETE TO BE REMOVED & REPLACED
EX. ASPHALT

LEGEND:

- SAWCUT LINE
- LINEAR ITEM REMOVAL
- ITEM REMOVAL
- LINEAR CURB REMOVAL
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY
- CONCRETE PAVEMENT/SIDEWALK REMOVAL
- ASPHALT PAVEMENT REMOVAL
- PLANTER REMOVAL

63RD STREET

BELMONT ROAD

S 87°48'10" W

N 02°18'50" W

N 02°18'53" W

EX. LANDSCAPE TO BE REMOVED

EX. ASPHALT TO BE REMOVED

± 103 LF EX. CURB TO BE REMOVED

N 87°48'10" E

S 87°48'10" W

± 100 LF EX. CURB TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

SEE SHEET C1.2 FOR CONTINUATION

± 32 LF EX. CURB TO BE REMOVED

± 32 LF EX. CURB TO BE REMOVED

± 34 LF EX. CURB TO BE REMOVED

SAWCUT (TYP.)

± 42 LF EX. CURB TO BE REMOVED

± 33 LF EX. CURB TO BE REMOVED

± 52 LF EX. CURB TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. ST. INLET
RIM 727.77
INV. 724.96 SW/SE 10" RCP
TO REMAIN

EX. ST. INLET
RIM 726.57
INV. 724.46 W 12" RCP
INV. 724.44 S 12" RCP
INV. 724.19 E 12" RCP
TO REMAIN

PUBLIC UTILITY EASEMENT PER DOC. NO. R73-05624

EX. ST. INLET
RIM 726.88
INV. 723.83 S 12" RCP
INV. 723.61 W 12" RCP
INV. 723.51 E 12" RCP
TO REMAIN

EX. ST. INLET
RIM 726.92
INV. 723.97 S 10" R
INV. 723.31 E 12" R
INV. 723.19 W 12" R
TO REMAIN

EX. ST. INLET
RIM 727.67

EX. ST. INLET
RIM 727.94

EX. ST. INLET
RIM 726.61
INV. 724.47 W/E 10" RCP
TO REMAIN

SEE SHEET C1.4 FOR CONTINUATION

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

650 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756-1280
www.rtmec.com

IL Design Firm: 184006777-0002

rtm engineering consultants

SHEET NAME: DEMOLITION PLAN - 1

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, WILLOWBROOK, DUPAGE COUNTY, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C1.1

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02 SHEETS\OVERALL SITE\C1.0_DEMOLITION PLAN.dwg Time: Nov 11, 2024 - 3:49pm

LEGEND:

SAWCUT LINE

LINEAR ITEM REMOVAL

ITEM REMOVAL

LINEAR CURB REMOVAL

2" MILL AND OVERLAY

3" MILL AND OVERLAY

CONCRETE PAVEMENT/SIDEWALK REMOVAL

ASPHALT PAVEMENT REMOVAL

PLANTER REMOVAL

63RD STREET

N 87°48'10" E

S 87°48'10" W

N 02°18'53" W

N 02°25'30" W

SEE SHEET C1.1 FOR CONTINUATION

SEE SHEET C1.3 FOR CONTINUATION

SEE SHEET C1.5 FOR CONTINUATION

EX. ASPHALT TO BE REMOVED

EX. CONCRETE TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

± 103 LF EX. CURB TO BE REMOVED

± 99 LF EX. CURB TO BE REMOVED

± 104 LF EX. CURB TO BE REMOVED

± 90 LF EX. CURB TO BE REMOVED

± 135 LF EX. CURB TO BE REMOVED

± 96 LF EX. CURB TO BE REMOVED

± 33 LF EX. CURB TO BE REMOVED

± 64 LF EX. CURB TO BE REMOVED

± 36 LF EX. CURB TO BE REMOVED

± 91 LF EX. CURB TO BE REMOVED

± 95 LF EX. CURB TO BE REMOVED

± 86 LF EX. CURB TO BE REMOVED

± 146 LF EX. CURB TO BE REMOVED

SAWCUT (TYP.)

PUBLIC UTILITY EASEMENT PER DOC. NO. R73-05824

EX. ST. INLET
RIM 726.92
INV 723.97 S 10" RCP
INV 723.31 E 12" RCP
INV 723.19 W 12" RCP

EX. ST. INLET
RIM 725.86
INV 722.29 W 12" RCP
INV 722.21 S 12" RCP
TO REMAIN

EX. ST. INLET
RIM 725.97
INV 721.86 SW 8" CLAY
TO REMAIN

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
2	7/1/24	VILLAGE SUBMITTAL
3	07/16/2024	DUDOT SUBMITTAL
4	08/29/2024	VILLAGE REVS
5	10/04/2024	VILLAGE RESUBMITTAL
	11/11/2024	VILLAGE RESUBMITTAL

rtm engineering consultants

606 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756-4280
www.rtmec.com

IL Design Firm: 184005777-0002

SHEET NAME: DEMOLITION PLAN - 2

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, WILLOWBROOK, ILLINOIS

PROJECT No.: 23.011211.3451

SHEET No.: C1.2

OF 34 SHEETS

User: lucas.keller File: J:\2023\STEL 112113451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C1.0_DEMOLITION PLAN.dwg Time: Nov 11, 2024 - 3:50pm

LEGEND:

- SAWCUT LINE
- LINEAR ITEM REMOVAL
- ITEM REMOVAL
- LINEAR CURB REMOVAL
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY
- CONCRETE PAVEMENT/SIDEWALK REMOVAL
- ASPHALT PAVEMENT REMOVAL
- PLANTER REMOVAL

63RD STREET

WOODWARD AVENUE

N 87°48'10" E

S 01°14'50" E

N 01°18'50" W

N 01°14'50" W

S 01°11'20" E

N 87°48'43" E

N 87°08'57" E

N 88°08'58" E

S 81°14'25" E

± 135 LF EX. CURB TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

± 96 LF EX. CURB TO BE REMOVED

EX. LIGHT TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. CONC SIDEWALK TO BE REMOVED

EX. FLAGPOLE TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

X. CONCRETE TO BE REMOVED

EX. CONCRETE TO BE REMOVED

EX. SAN. MH RIM 734.70 INV. 730.07 TO BE REMOVED

EXISTING BUILDING TO BE REMOVED

EX. SAN. MH RIM 733.57 INV. 724.73 TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. FENCE TO BE REMOVED

EX. LIGHT TO BE REMOVED

(SIZE/TYPE UNKNOWN) TO BE REMOVED

EX. ASPHALT TO BE REMOVED

EX. BRICK PILLAR TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

EX. BOLLARD TO BE REMOVED

EX. CONCRETE TO BE SAWCUT & REMOVED & REPLACED

EX. SAN MH RIM 731.44 INV 723.68 TO REMAIN

(SIZE/TYPE UNKNOWN) TO REMAIN

SAWCUT (TYP.)

± 90 LF EX. CURB TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

± 90 LF EX. CURB TO BE REMOVED

SAWCUT (TYP.)

± 57 LF EX. CURB TO BE REMOVED

EX. ASPHALT TO BE REMOVED

± 53 LF EX. CURB TO BE REMOVED

± 59 LF EX. CURB TO BE REMOVED

± 58 LF EX. CURB TO BE REMOVED

± 70 LF EX. CURB TO BE REMOVED

EX. ASPHALT TO BE REMOVED

UTILITY EASEMENT PER DOC. NO. R73-05824 TO REMAIN

EX. ST. INLET RIM 725.20 INV. 721.75 SW 12" PVC TO REMAIN

EX. ST. INLET RIM 725.69 INV 721.61 SW 12" PVC TO REMAIN

EX. ST. INLET RIM 725.76 INV 722.28 SW 12" IRON TO REMAIN

EX. ASPHALT TO BE REMOVED

± 44 LF EX. CURB TO BE REMOVED

EX. LANDSCAPE TO BE REMOVED

SAWCUT (TYP.)

EX. ASPHALT TO BE REMOVED

EX. ST. INLET RIM 725.97 INV 721.86 SW 8" CLAY TO REMAIN

EX. ST. MH RIM 727.27 INV 723.95 W/E 10" PVC TO REMAIN

SEE SHEET C1.2 FOR CONTINUATION

SEE SHEET C1.6 FOR CONTINUATION

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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www.rtmec.com

IL Design Firm: 184005777-0002

SHEET NAME: DEMOLITION PLAN - 3

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C1.3

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02 SHEETS\OVERALL SITE\C1.0_DEMOLITION PLAN.dwg Time: Nov 11, 2024 - 3:51pm

SEE SHEET C1.1 FOR CONTINUATION

INV 724.96 SW/SE 10" RCP
TO REMAIN

EX. ST. INLET
RIM 727.67
INV 725.12 W 10" RCP
INV 725.08 NE 10" RCP
TO REMAIN

EX. ST. INLET
RIM 727.94
INV 724.86 NW/E 10" RCP
TO REMAIN

EX. ST. INLET
RIM 726.61
INV 724.47 W/E 10" RCP
TO REMAIN

PUBLIC UTILITY EASEMENT PER DOC. NO. R73-05824

EX. ST. INLET
RIM 726.92
INV 723.97 S 10" R
INV 723.31 E 12" R
INV 723.19 W 12" R
TO REMAIN

± 53 LF EX. CU
TO BE REMOV

EX. CONCRETE TO BE REMOVED

± 166 LF EX. CURB TO BE REMOVED

± 161 LF EX. CURB TO BE REMOVED

SAWCUT (TYP.)

EX. LANDSCAPE TO BE REMOVED

± 99 LF EX. CURB TO BE REMOVED

LANDSCAPE TO BE REMOVED

EX. CONCRETE TO BE REMOVED

SAWCUT (TYP.)

EXISTING 1 STORY BRICK BUILDING
55656 SF
TO REMAIN

N 02°18'50" W (A)

BELMONT ROAD

EXISTING 1 STORY BRICK BUILDING
43974 SF
TO REMAIN

S 87°48'15" W

SEE SHEET C1.5 FOR CONTINUATION

LEGEND:

SAWCUT LINE
LINEAR ITEM REMOVAL
ITEM REMOVAL
LINEAR CURB REMOVAL

2" MILL AND OVERLAY
3" MILL AND OVERLAY
CONCRETE PAVEMENT/SIDEWALK REMOVAL
ASPHALT PAVEMENT REMOVAL
PLANTER REMOVAL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

NO.	DATE	DESCRIPTION

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SHEET NAME
DEMOLITION PLAN - 4

PROJECT NAME
SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No.
23.011211.3451

SHEET No.
C1.4
OF 34 SHEETS

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LEGEND:

SAWCUT LINE

LINEAR ITEM REMOVAL

ITEM REMOVAL

LINEAR CURB REMOVAL

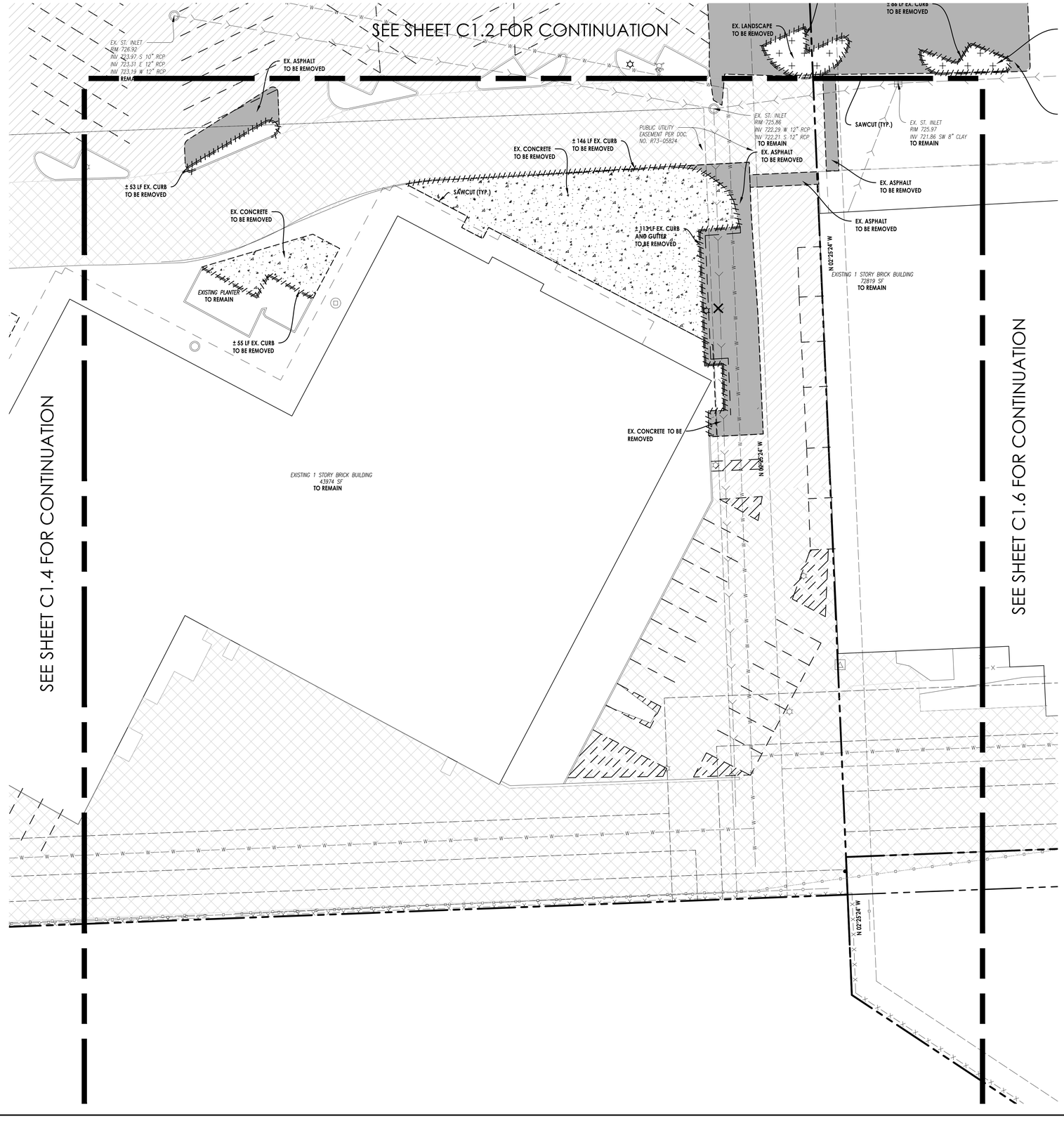
2" MILL AND OVERLAY

3" MILL AND OVERLAY

CONCRETE PAVEMENT/SIDEWALK REMOVAL

ASPHALT PAVEMENT REMOVAL

PLANTER REMOVAL



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184006777-0002

SHEET NAME

DEMOLITION PLAN - 5

PROJECT NAME

SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No.

23.011211.3451

SHEET No.

C1.5

OF 34 SHEETS

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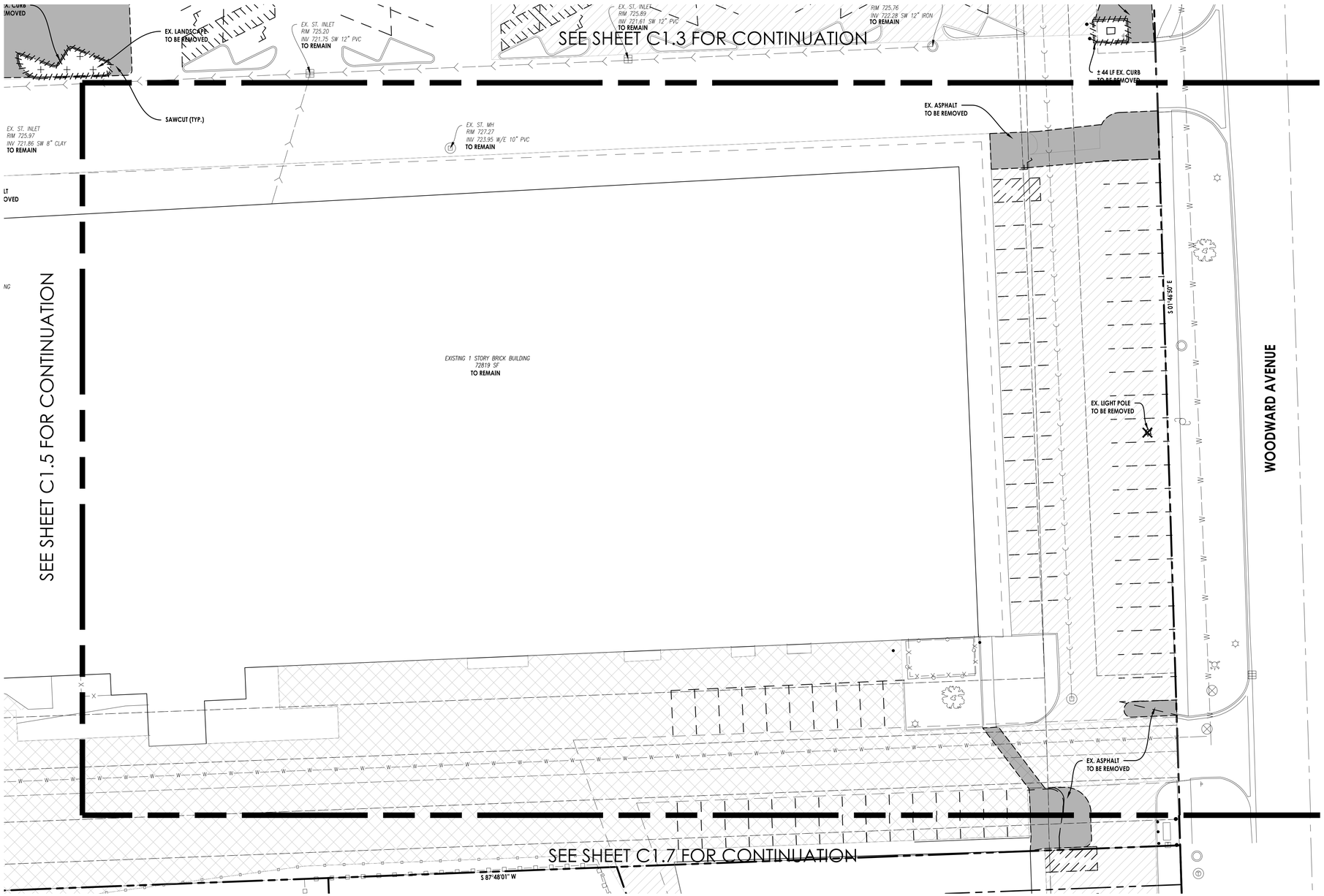

LEGEND:

- SAWCUT LINE
- LINEAR ITEM REMOVAL
- ITEM REMOVAL
- LINEAR CURB REMOVAL
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY
- CONCRETE PAVEMENT/SIDEWALK REMOVAL
- ASPHALT PAVEMENT REMOVAL
- PLANTER REMOVAL

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184006777-0002

SHEET NAME: DEMOLITION PLAN - 6

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, WILLOWBROOK, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C1.6

OF 34 SHEETS

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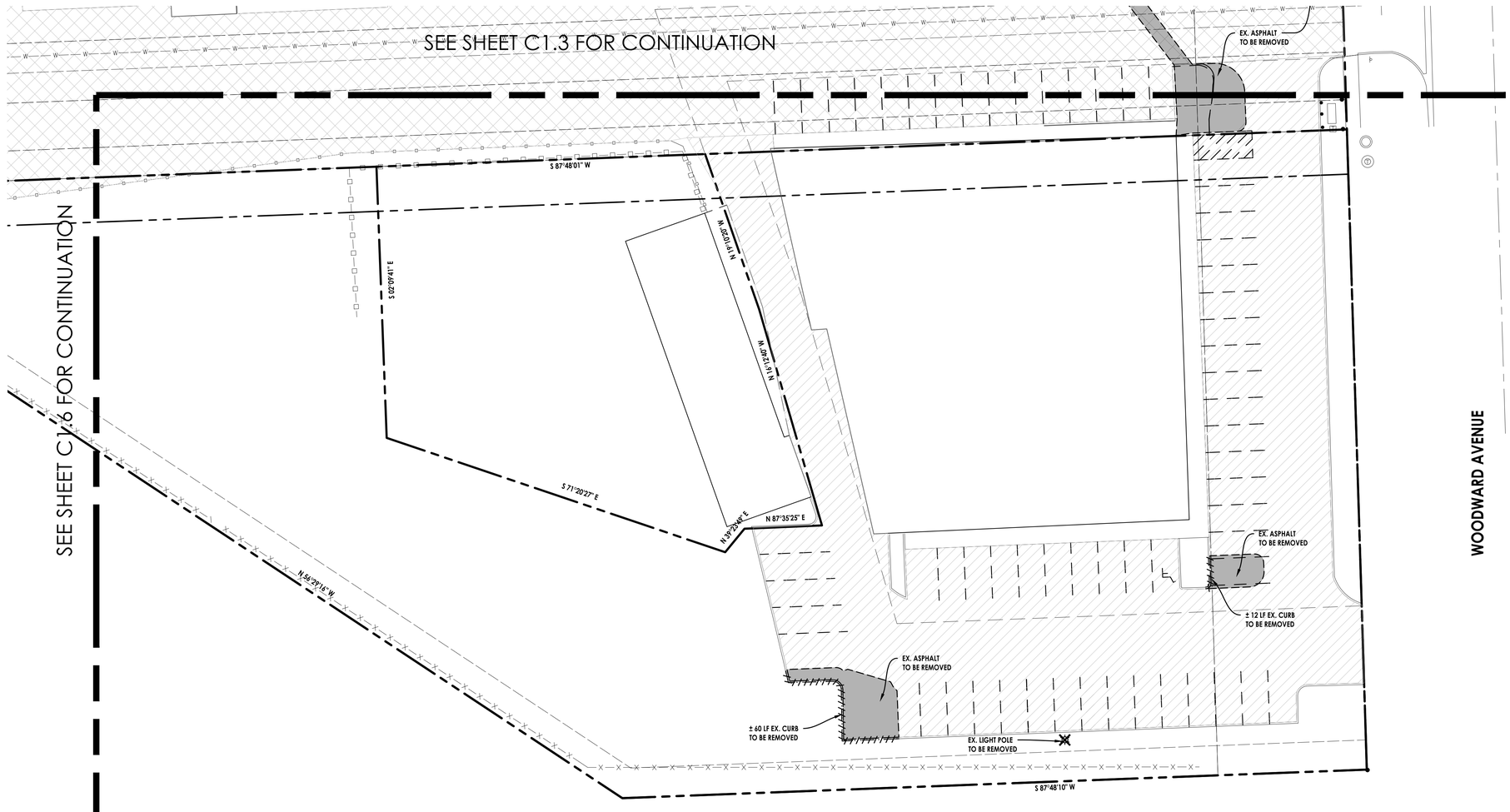
LEGEND:

- SAWCUT LINE
- LINEAR ITEM REMOVAL
- ITEM REMOVAL
- LINEAR CURB REMOVAL
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY
- CONCRETE PAVEMENT/SIDEWALK REMOVAL
- ASPHALT PAVEMENT REMOVAL
- PLANTER REMOVAL



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

NO.	DATE	DESCRIPTION

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SHEET NAME: DEMOLITION PLAN - 7

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C1.7

OF 34 SHEETS

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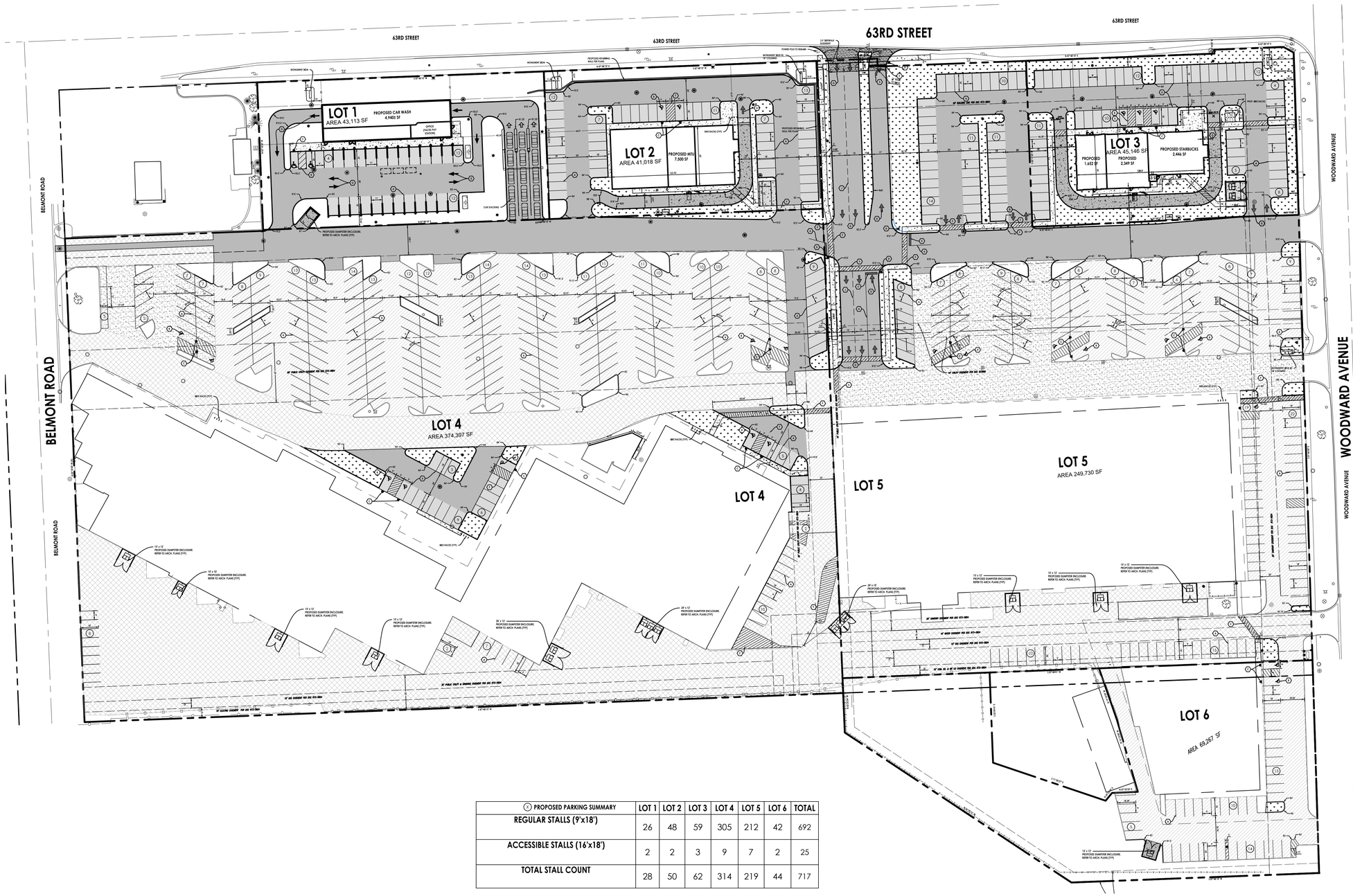

PROPOSED PARKING SUMMARY	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5	LOT 6	TOTAL
REGULAR STALLS (9'x18')	26	48	59	305	212	42	692
ACCESSIBLE STALLS (16'x18')	2	2	3	9	7	2	25
TOTAL STALL COUNT	28	50	62	314	219	44	717

NOTES:

1. ALL DIMENSIONS ALONG CURB LINES ARE TO FACE OF CURB, UNLESS NOTED OTHERWISE.
2. BUILDINGS AND ADJACENT TO BUILDING IMPROVEMENTS SHOWN ON THESE PLANS ARE BASED UPON THE BUILDING PLANS PROVIDED BY OTHERS AT THE DATE OF THESE PLANS BEING PREPARED. BUILDING PLANS NORMALLY CONTINUE TO CHANGE AFTER SITE PLANS HAVE BEEN APPROVED. THEREFORE THE CONTRACTOR SHALL USE THE BUILDING PLANS FOR FINAL BUILDING IMPROVEMENTS, AND VERIFY THAT ALL ADJACENT IMPROVEMENTS ARE CONSISTENT WITH THE DESIGN INTENT AND REQUIREMENTS OF THE SITE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF CLARIFICATION IS NEEDED, OR IF CONFLICTS OR INCONSISTENCIES EXIST.
3. ADA DETECTIBLE WARNING STRIPS SHALL BE CAST IRON TILES, WET SET INTO CONCRETE SURFACE, PER MANUFACTURERS INSTALLATION RECOMMENDATIONS.
4. TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY MORRIS ENGINEERING, INC.

(X) SIGNING AND STRIPING SCHEDULE

A. 4" YELLOW STRIPING
B. YELLOW HANDICAP PARKING STRIPING (SEE DETAIL)
C. "ACCESSIBLE" PARKING STALL SIGN ASSEMBLY (S250 FINE)
D. "STOP" SIGN R1-1 (30"X30")
E. 24" WHITE THERMOPLASTIC STOP BAR
F. 4" PAINTED CROSS STRIPING 4' C-C
G. DIRECTIONAL ARROW
H. RIGHT TURN ONLY R3-5 (24"X30")
I. THERMOPLASTIC RIGHT TURN ONLY STRIPING
J. 4" YELLOW LINES, 5.5" C-C SKIP-DASH AND SOLID
K. 6" SOLID WHITE THERMOPLASTIC.
L. "NO LEFT TURN" SIGN (30"X30")
M. 6" WHITE THERMOPLASTIC 6' SKIP 2' DASH

STRIPING NOTE: ON-SITE PAVEMENT MARKINGS AND GRAPHICS SHALL CONSIST OF TWO (2) COATS OF TRAFFIC-RATED PAINT APPLIED A MINIMUM OF 30 DAYS APART. STRIPING AND GRAPHICS AT ENTRY DRIVES SHALL BE THERMOPLASTIC AS NOTED. MATERIALS SHALL MEET ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS.

(X) EXISTING PARKING SUMMARY

	EXISTING
REGULAR STALLS (9'x18')	862
ACCESSIBLE STALLS (16'x18')	10
TOTAL STALL COUNT	872

TOTAL AREA SUMMARY

PERVIOUS AREA = 2.486 AC (13.2%)
IMPERVIOUS AREA = 16.400 AC
TOTAL AREA = 18.886 AC

LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- 3" MILL AND OVERLAY
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED LANDSCAPE. REFER TO LANDSCAPE PLANS
- 2" MILL AND OVERLAY
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- SEAL COAT

NO.	DATE	DESCRIPTION
1	06/03/24	TURN LANE REVISION
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184006777-0002

SHEET NAME: OVERALL SITE PLAN

PROJECT NAME: MEADOWBROOK SHOPPING CENTER
63RD ST AND WOODWARD AVE DOWNERS GROVE, IL

PROJECT No. 23.STELL

SHEET No. C2.0 OF SHEETS

User: lucas.keller File: J:\2023\STELL 1121\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C2.0_SITE PLAN.dwg Time: Nov 11, 2024 - 3:53pm

63RD STREET

MONUMENT SIGN

MONUMENT SIGN

S 87°48'10" W

LOT 1
AREA 43,113 SF

PROPOSED CAR WASH
4,940± SF

OFFICE
(FACES PAY STATION)

CAR STACKING

N 87°48'10" E

S 87°48'10" W

N 02°18'50" W

N 02°18'53" W

95.34'

64.02'

PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

BELMONT ROAD

SEE SHEET C2.2 FOR CONTINUATION

SEE SHEET C2.4 FOR CONTINUATION

60' PUBLIC UTILITY EASEMENT

BIKE RACKS (TYP)

LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184005777-0002

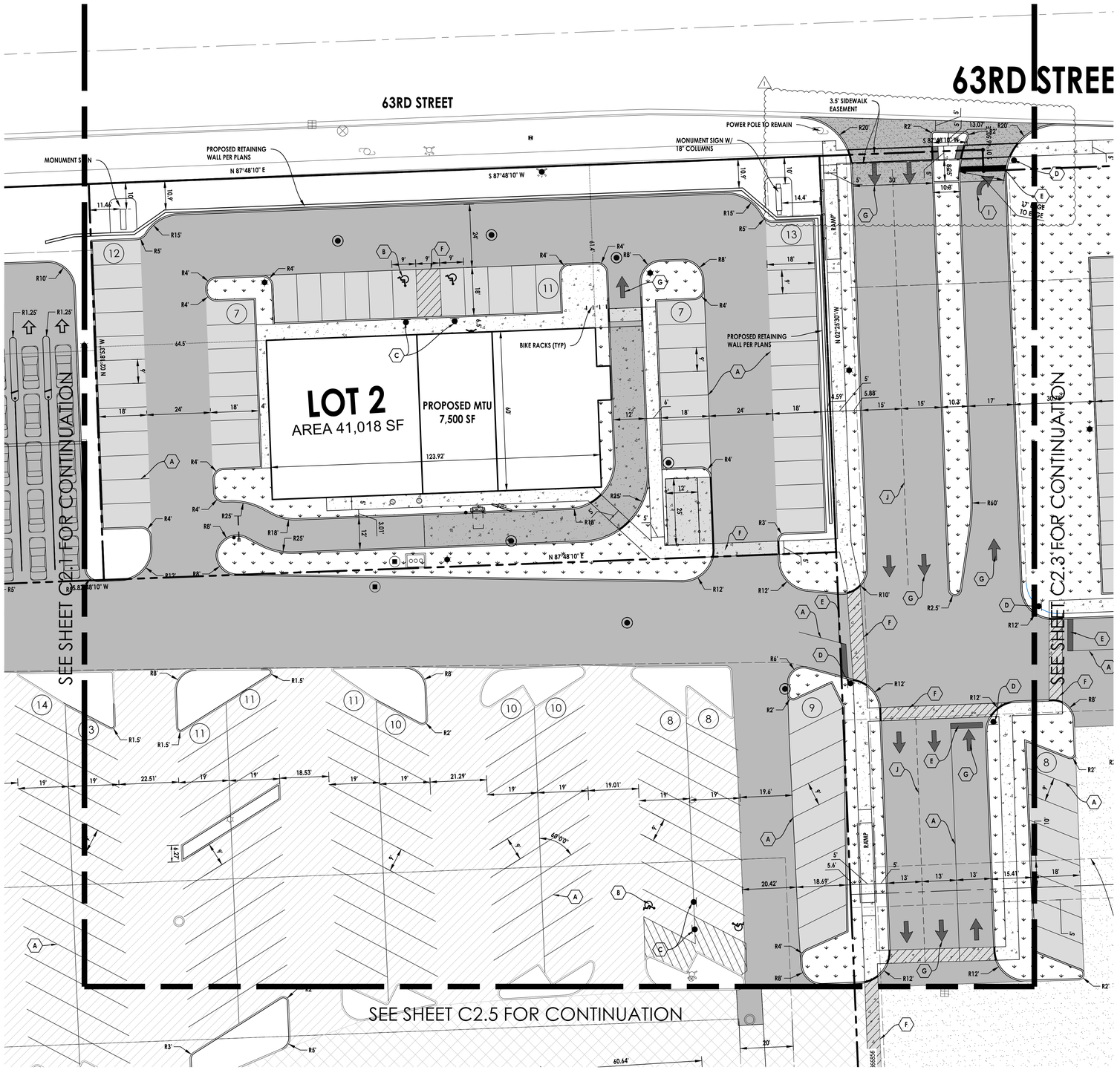
SHEET NAME: SITE PLAN - 1

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C2.1
OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\345\ Meadowbrook Shopping Center\07 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C2.0_SITE PLAN.dwg Time: Nov 11, 2024 - 3:53pm



LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
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- BARRIER CURB AND GUTTER - DEPRESSED
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- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
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SHEET NAME: SITE PLAN - 2

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C2.2
OF 34 SHEETS

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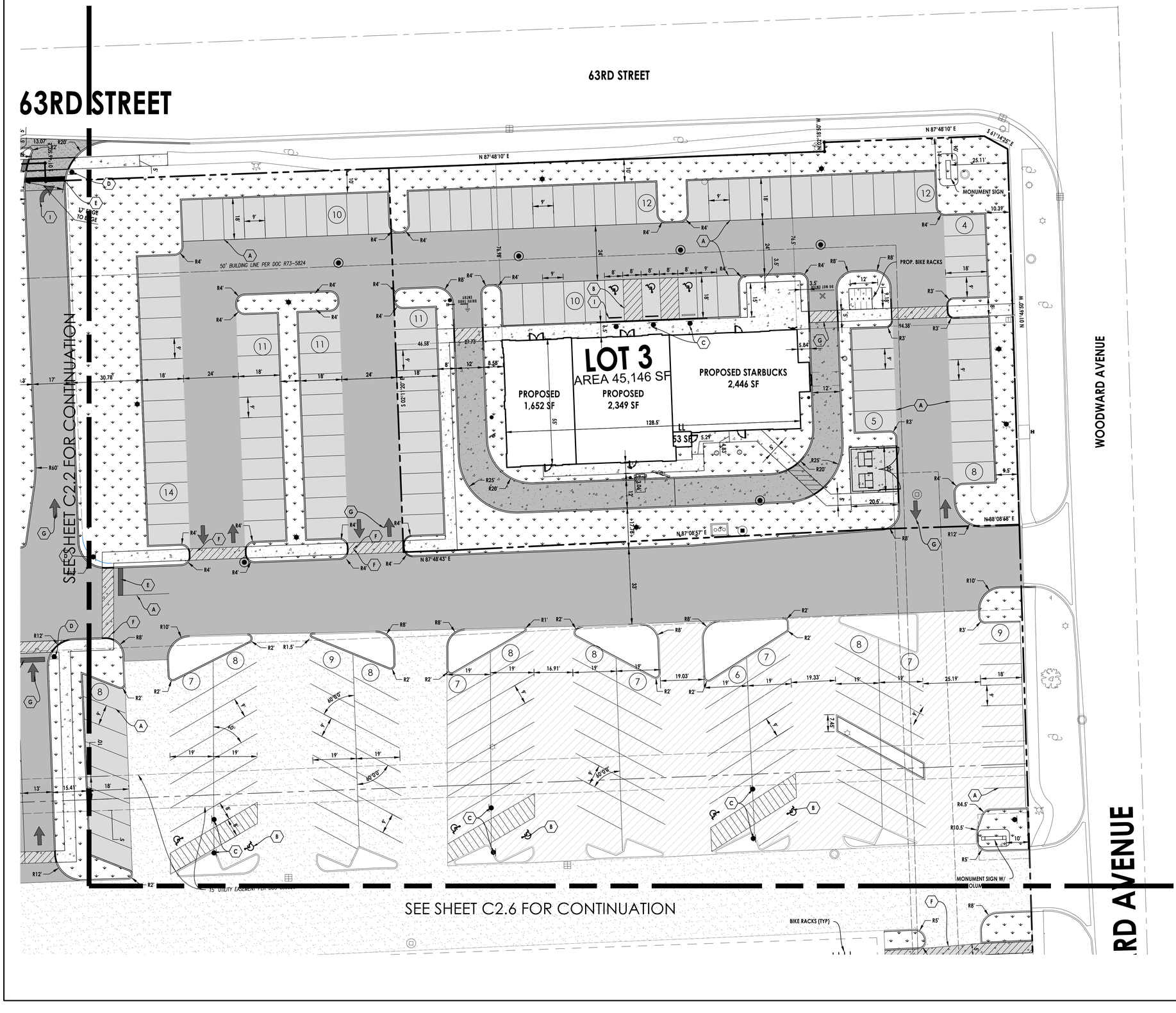
63RD STREET



LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: SITE PLAN - 3

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C2.3

OF 34 SHEETS

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SEE SHEET C2.1 FOR CONTINUATION

BELMONT ROAD

BELMONT ROAD

N 02°18'50" W (A)

BIKE RACKS (TYP)

60' PUBLIC DRIVE - DOC R73-5824

LOT 4

AREA 374,397 SF

R3'

R4'

15' x 12'
PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

10' x 10'
PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

15' x 12'
PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

15' x 12'
PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

20' x 12'
PROPOSED DUMPSTER ENCLOSURE.
REFER TO ARCH. PLANS (TYP)

35' PUBLIC UTILITY & DRAINAGE EASEMENT PER DOC R73-5824

10' GAS EASEMENT PER DOC R73-5824

10' ELECTRIC EASEMENT PER DOC R73-5824

S 87°48'15" W

SEE SHEET C2.5 FOR CONTINUATION

LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

NO.	DATE	DESCRIPTION

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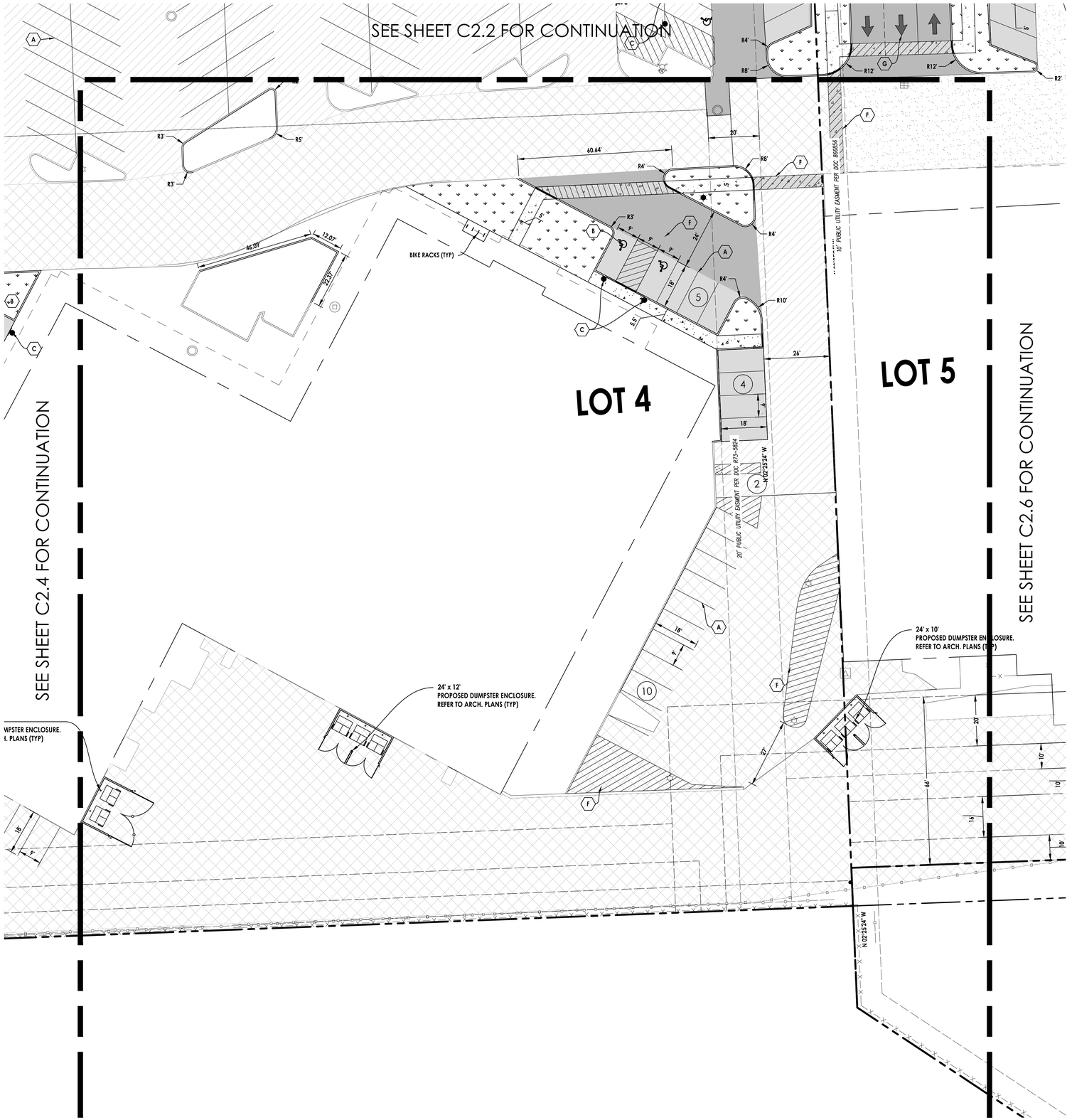
SHEET NAME: SITE PLAN - 4

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No.
23.011211.3451

SHEET No.
C2.4
OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL I 1211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\ C2.0_SITE PLAN.dwg Time: Nov 11, 2024 - 3:53pm



LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: SITE PLAN - 5

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No.
23.011211.3451

SHEET No.
C2.5
OF 34 SHEETS

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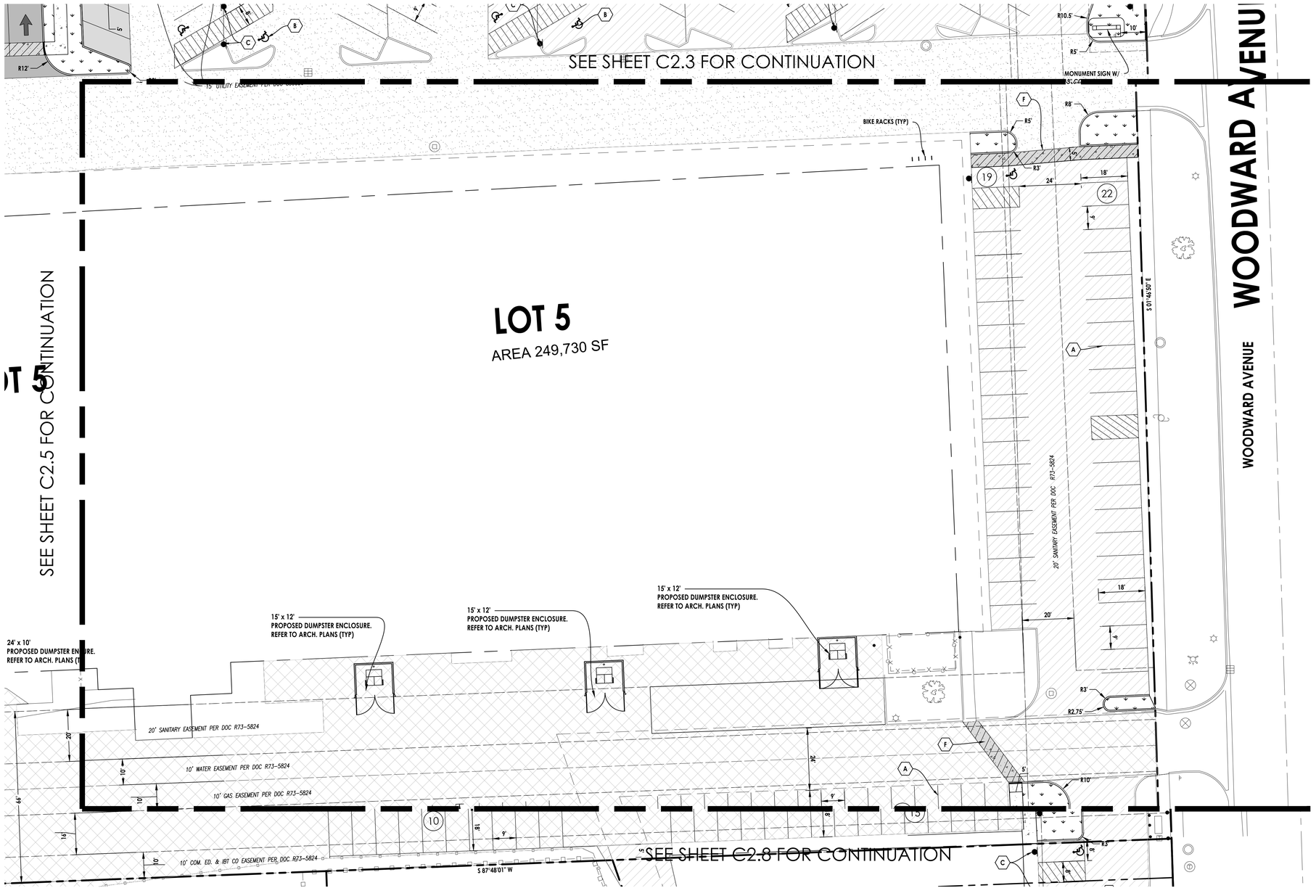

LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
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5	11/11/2024	VILLAGE RESUBMITTAL

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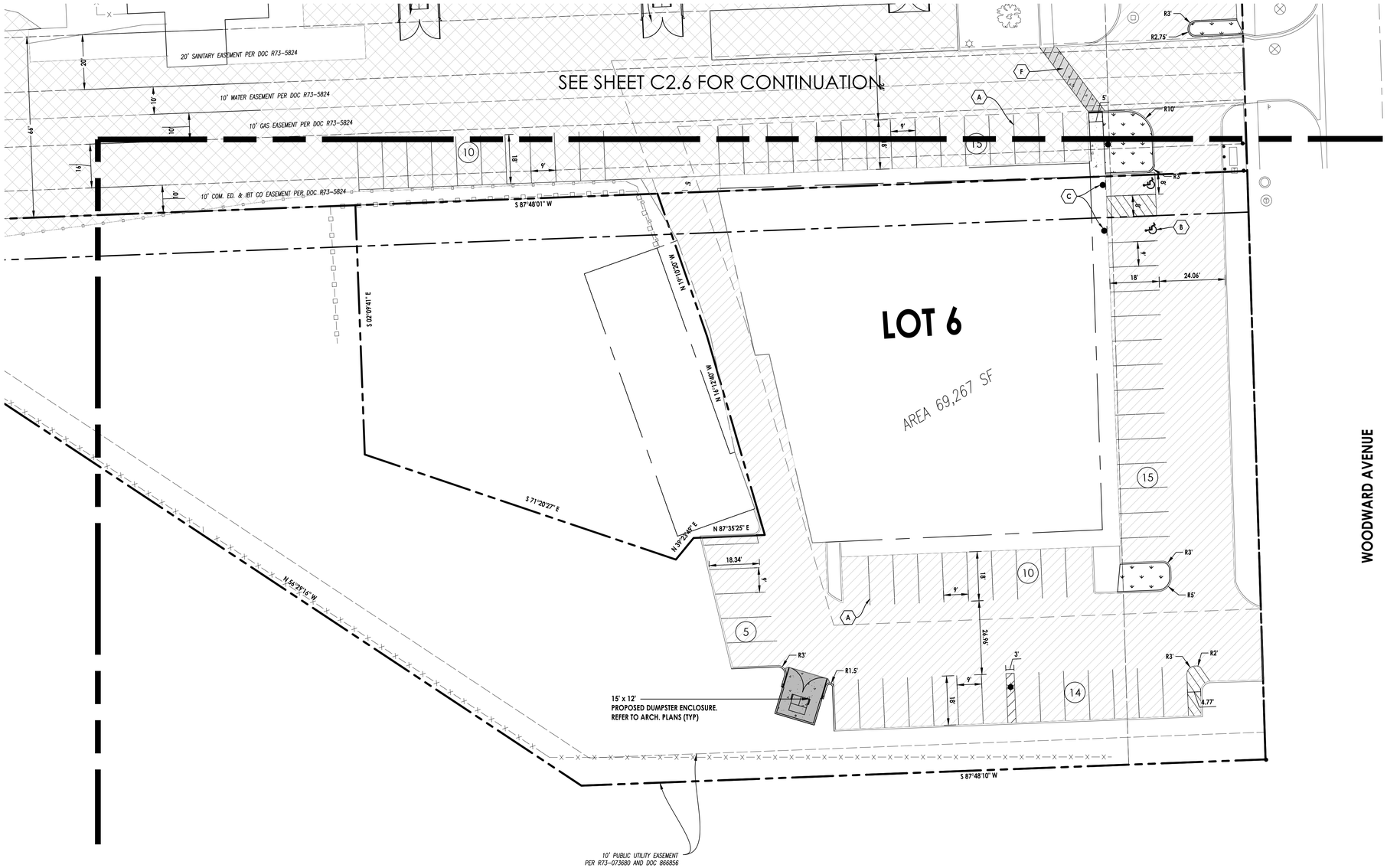
SHEET NAME: SITE PLAN - 6

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C2.6
OF 34 SHEETS

User: lucas.keller File: J:\2023\STEEL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C2.0_SITE PLAN.dwg Time: Nov 11, 2024 - 3:53pm



LEGEND:

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- EXISTING CURB AND GUTTER
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- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8
- 2" MILL AND OVERLAY
- 3" MILL AND OVERLAY

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
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5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: SITE PLAN - 7

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C2.7

OF 34 SHEETS

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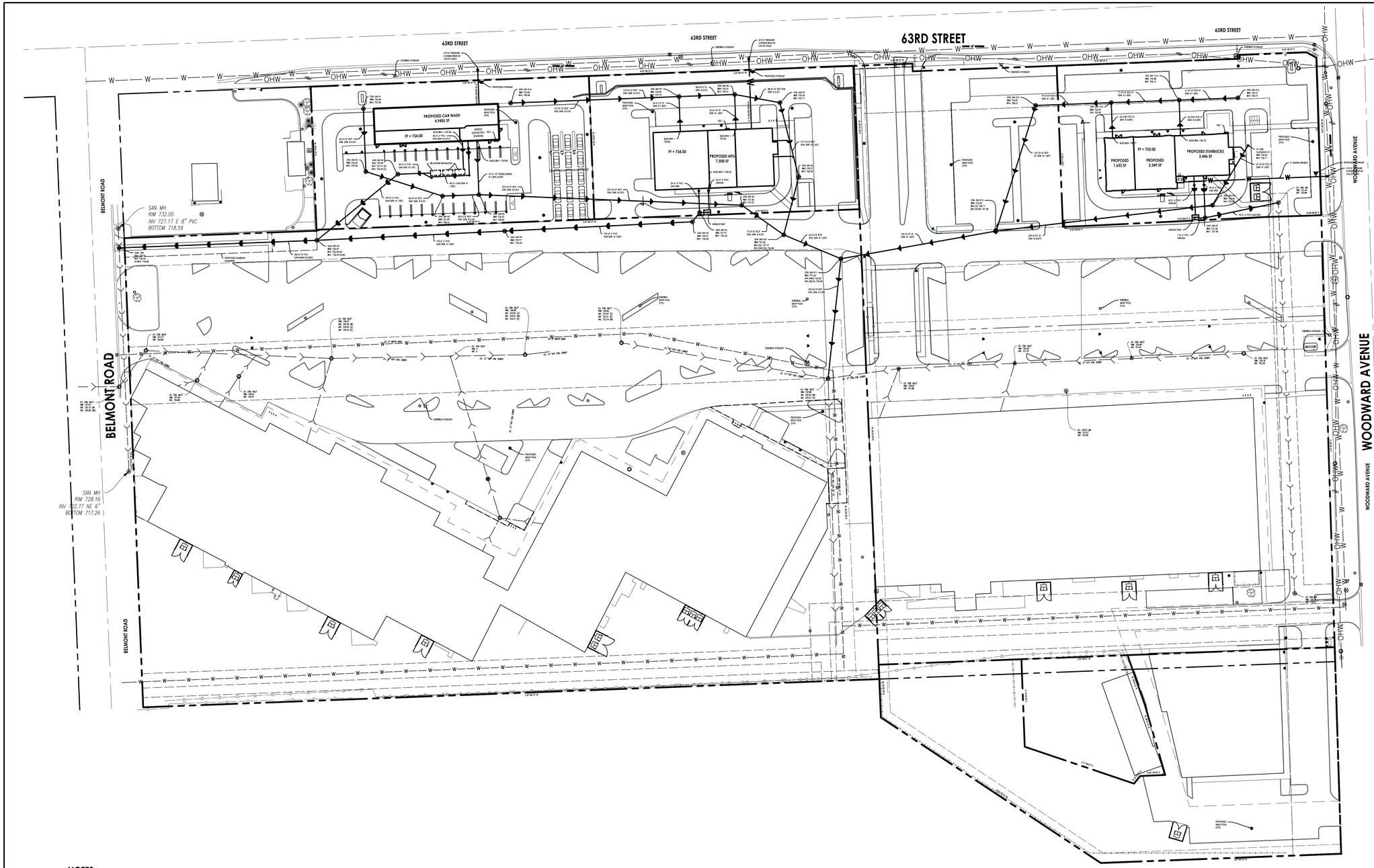

NOTES:

1. EX. ITEMS SHALL BE FIELD VERIFIED. RELOCATION OR ADJUSTMENT MAY BE NEEDED. CONTRACTOR TO VERIFY.
2. CONTRACTOR SHALL VERIFY ALL WORK, INCLUDING BUT LIMITED TO, SIZES, MATERIALS AND LOCATION, WITH UTILITY COMPANIES PRIOR TO INSTALLATION.
3. VERIFY SERVICE LOCATIONS WITH BUILDING PLANS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
4. RIM GRADES ALONG CURBS ARE FLOW LINE ELEVATIONS.
5. SEE SPECIFICATIONS SHEET FOR ALL STORM, SANITARY, AND WATER PIPE AND STRUCTURE SPECIFICATIONS.
6. ALL UTILITY TIE DIMENSIONS ARE FROM CENTER OF UTILITY AND TO BACK OF CURB WHEN TIED TO CURB LINES, UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO INSPECT EXISTING SEWER AT POINT OF CONNECTION. CONTRACTOR TO VERIFY THAT EXISTING PIPE IS IN GOOD WORKING CONDITION. CONTRACTOR TO REPAIR AS REQUIRED.
8. CONTRACTOR TO NOTIFY OWNER/ENGINEER IF CONFLICTS OCCUR.
9. NEW OPENING/CONNECTIONS TO EXISTING COMBINED AND SANITARY MANHOLE/STRUCTURES SHALL BE CORE-DRILLED AND UTILIZE RUBBER BOOTS CONFORMING TO ASTM C-923.

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)

1 inch = 50 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
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5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: UTILITY PLAN - OVERALL

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No.
23.011211.3451

SHEET No.
C3.0
OF 34 SHEETS

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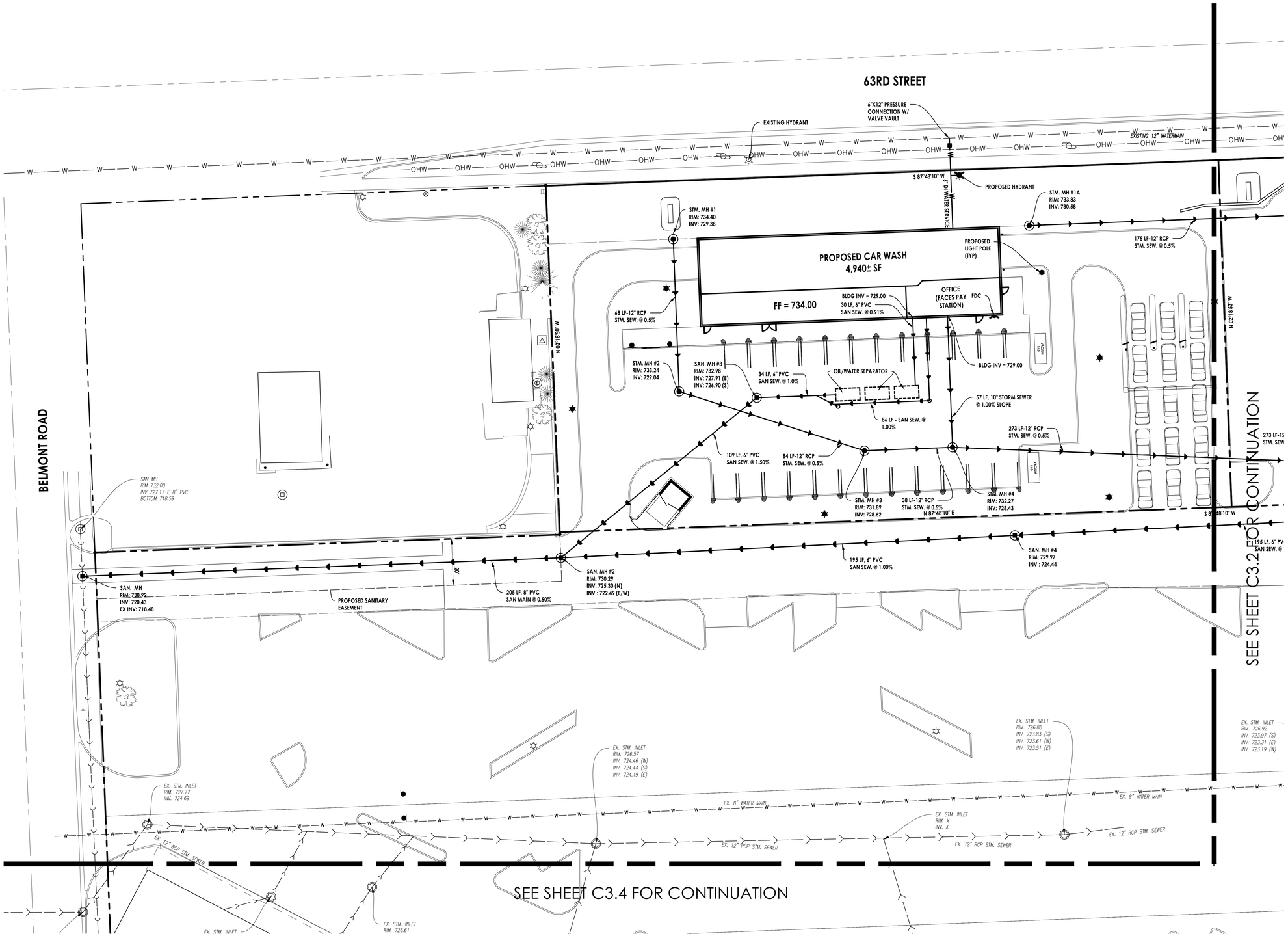

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL

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SHEET NAME: UTILITY PLAN - 1

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.1

OF 34 SHEETS

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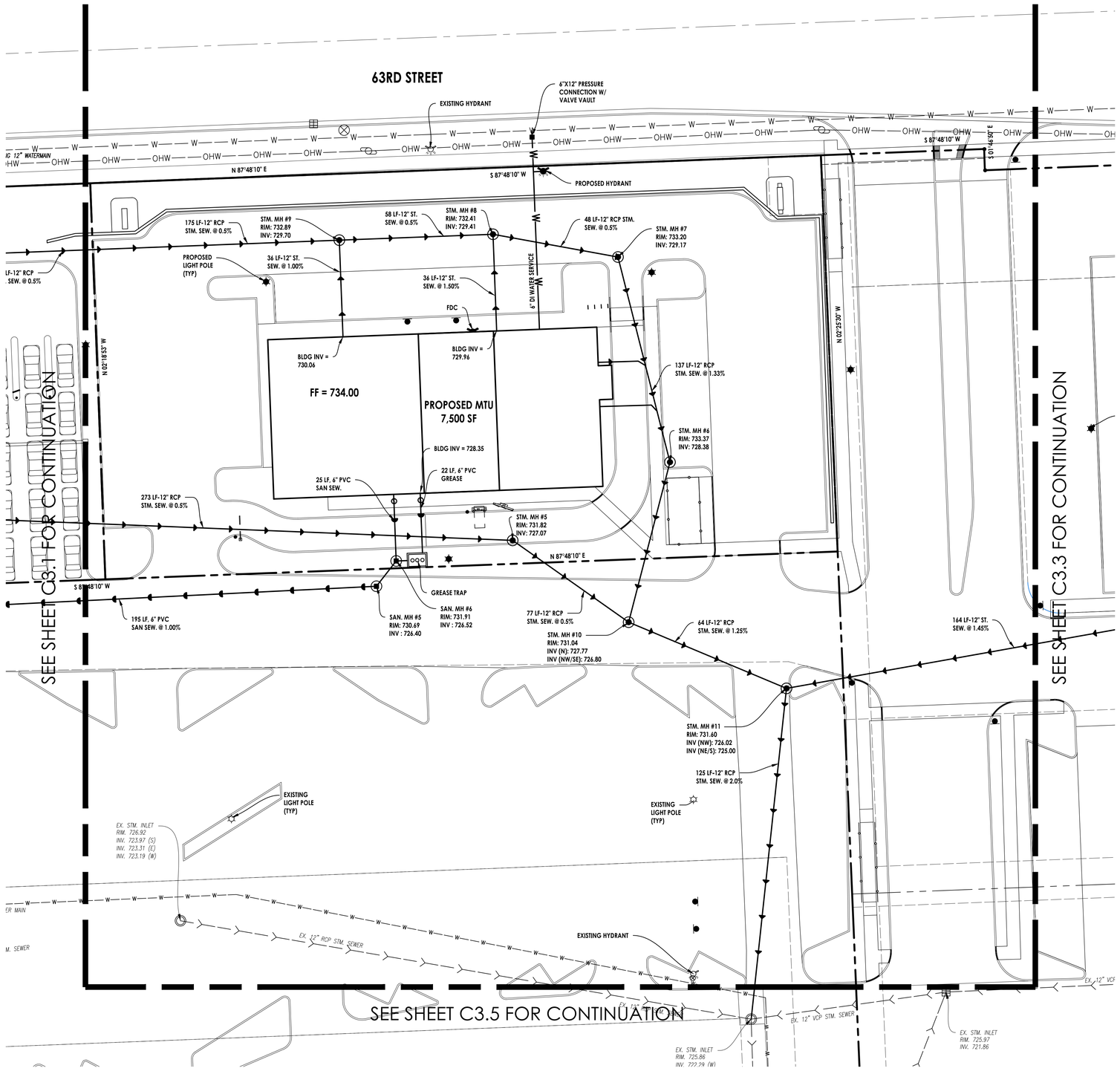

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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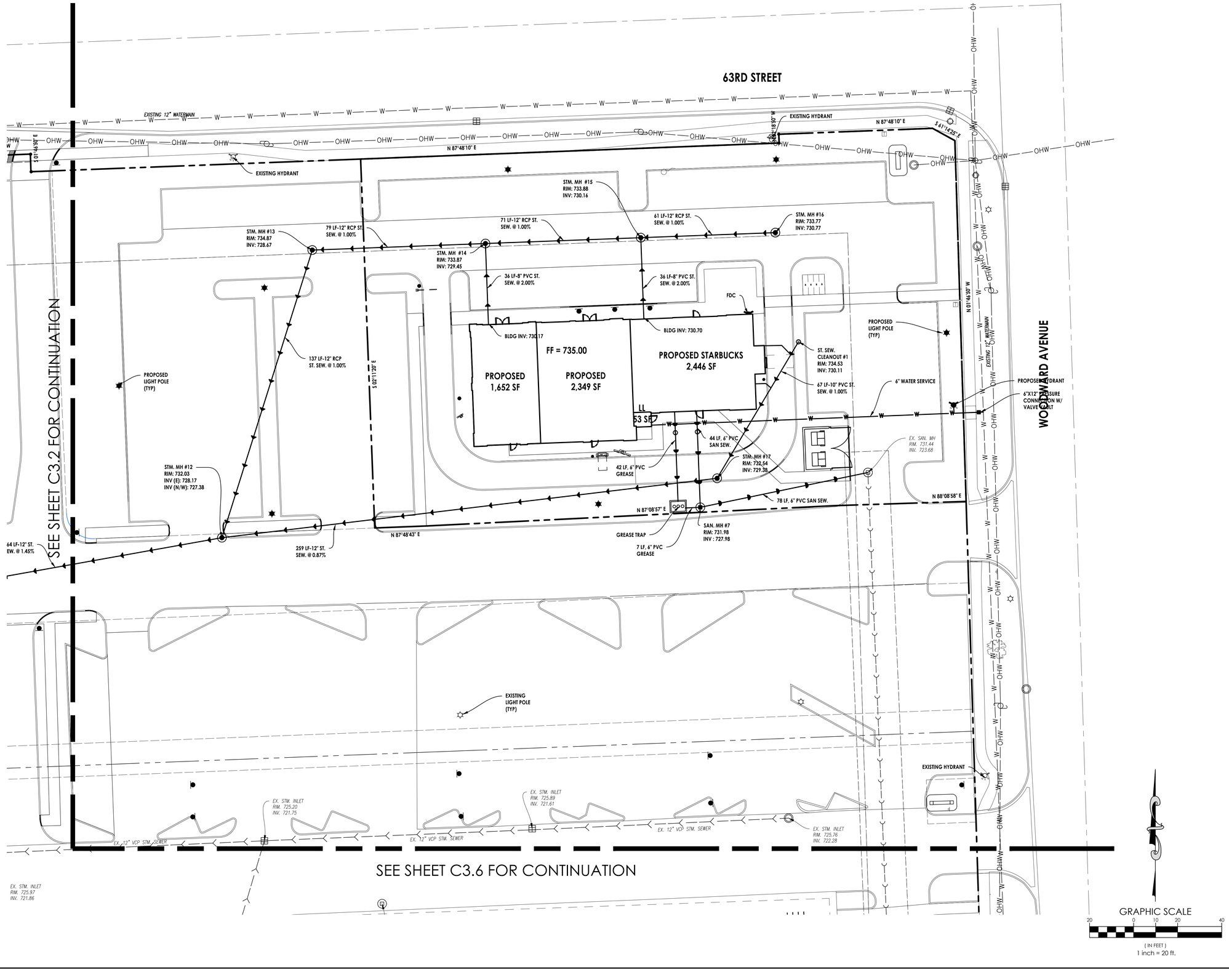
SHEET NAME: UTILITY PLAN - 2

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, WILLOWBROOK, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.2
OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C3.0_UTILITY PLAN.dwg Time: Nov 11, 2024 - 3:54pm



GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: UTILITY PLAN - 3

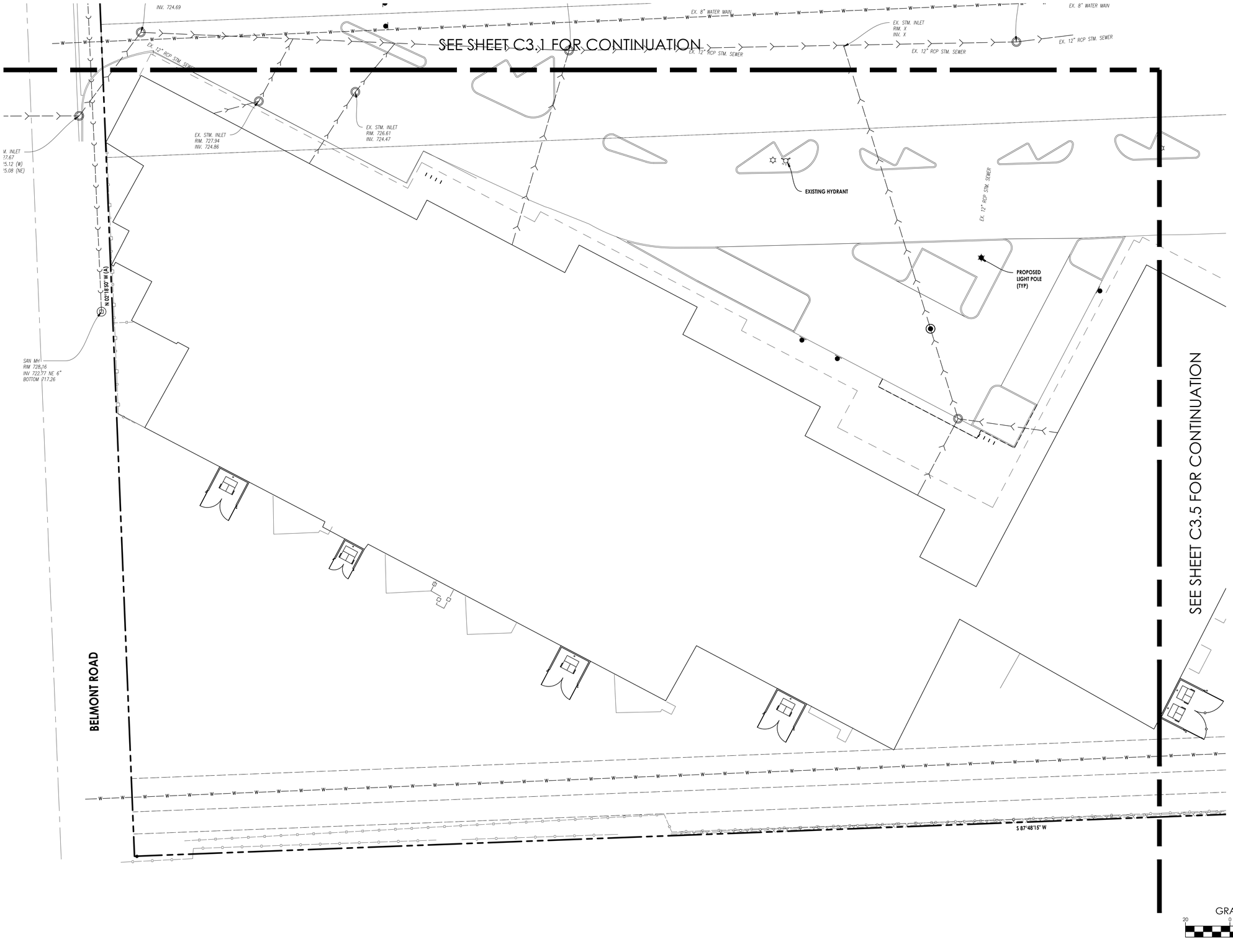
PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.3

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 1121\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02 SHEETS\OVERALL SITE\C3.0_UTILITY PLAN.dwg Time: Nov 11, 2024 - 3:54pm



NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: UTILITY PLAN - 4

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.4

OF 34 SHEETS

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ER MAIN

M. SEWER

SEE SHEET C3.2 FOR CONTINUATION

EX. 12" RCP STM. SEWER

EX. 12" RCP STM. SEWER

EX. 12" VCP STM. SEWER

EX. 12" VCP

EX. STM. INLET
RIM. 725.86
INV. 722.29 (W)
INV. 722.21 (S)

EX. STM. INLET
RIM. 725.97
INV. 721.86

PROPOSED
LIGHT POLE
(TYP)

N 02°25'24" W

EX. 36" RCP STM. SEWER

EX. 8" WATER MAIN

N 02°25'24" W

SEE SHEET C3.4 FOR CONTINUATION

SEE SHEET C3.6 FOR CONTINUATION

N 02°25'24" W

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
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5	11/11/2024	VILLAGE RESUBMITTAL

NO.	DATE	DESCRIPTION

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SHEET NAME

UTILITY PLAN - 5

PROJECT NAME

SHOPPES OF
MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No.
23.011211.3451

SHEET No.
C3.5
OF 34 SHEETS

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SEE SHEET C3.3 FOR CONTINUATION

EX. STM. INLET
RIM. 725.20
INV. 721.75

EX. STM. INLET
RIM. 725.89
INV. 721.61

EX. STM. INLET
RIM. 725.76
INV. 722.28

EX. 12" VCP STM. SEWER

EX. 12" VCP STM. SEWER

EX. 12" VCP STM. SEWER

EX. STM. INLET
RIM. 725.97
INV. 721.86

EX. UTILITY MH
RIM. 727.27
INV. 723.95

SEE SHEET C3.5 FOR CONTINUATION

WOODWARD AVENUE

S 01°14'50" E

EX. SAN. MH
RIM. 726.94
INV. 718.21

SEE SHEET C3.7 FOR CONTINUATION

S 87°48'01" W

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
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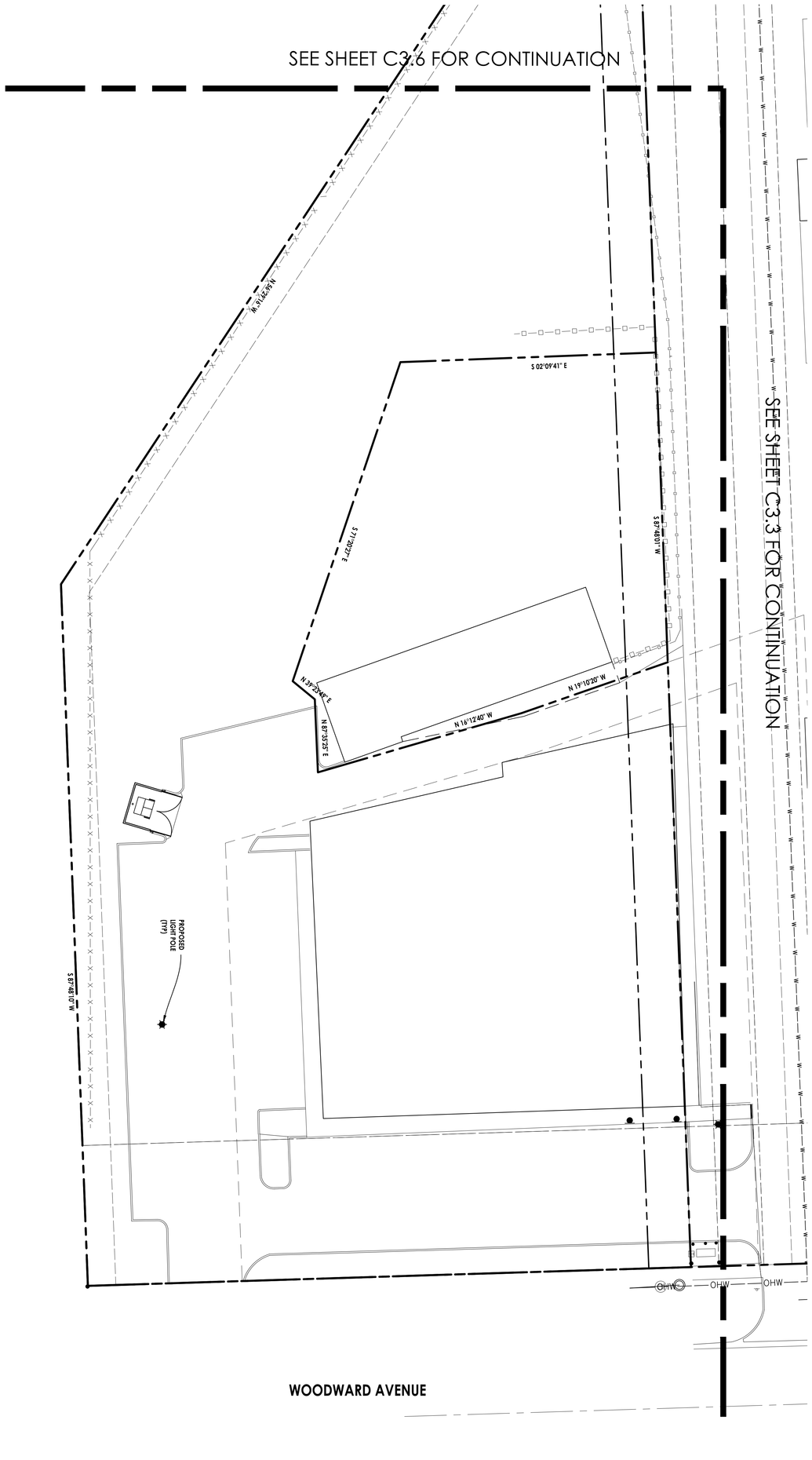
SHEET NAME: UTILITY PLAN - 6

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.6
OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL I1211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C3.0_UTILITY PLAN.dwg Time: Nov 11, 2024 - 3:55pm



GRAPHIC SCALE
(IN FEET)
1 INCH = 20 ft.
20 0 10 20 40

C3.7	PROJECT No. 23011211.3451	PROJECT NAME: SHOPPES OF MEADOWBROOK, 2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS	SHEET NAME: UTILITY PLAN - 7

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No.	DATE	DESCRIPTION	No.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL			
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3	08/29/2024	VILLAGE REVS			
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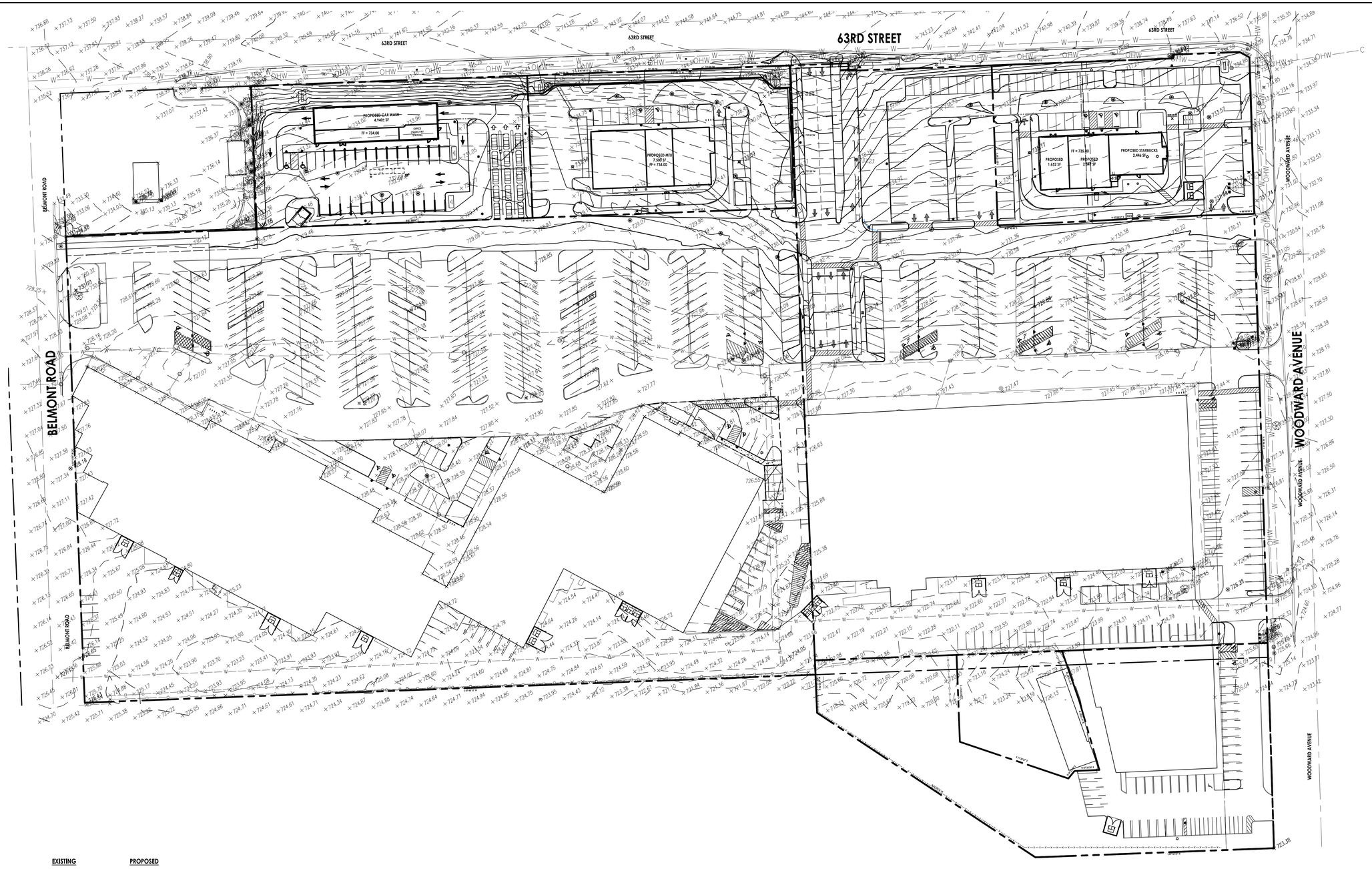
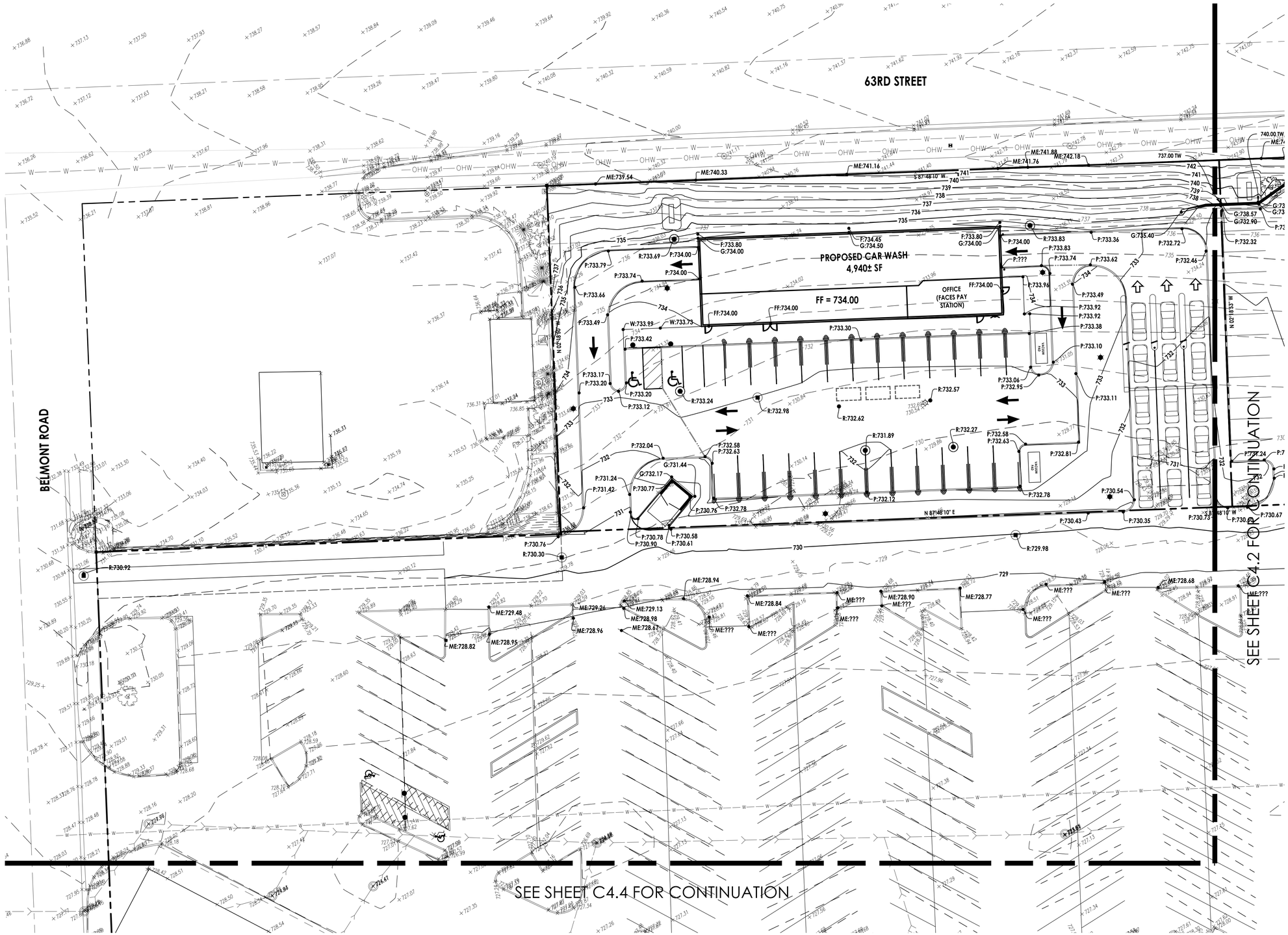

63RD STREET
BELMONT ROAD
WOODWARD AVENUE
PROPOSED CAR WASH
4,940± SF
FF = 734.00
PROPOSED MTU
7,000 SF
FF = 734.00
PROPOSED
1,652 SF
FF = 730.30
PROPOSED
2,591 SF
PROPOSED STARBUCKS
2,446 SF
OPEN
OPEN
OPEN



LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	+ 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

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5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: GRADING PLAN - 1

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.1

OF 34 SHEETS

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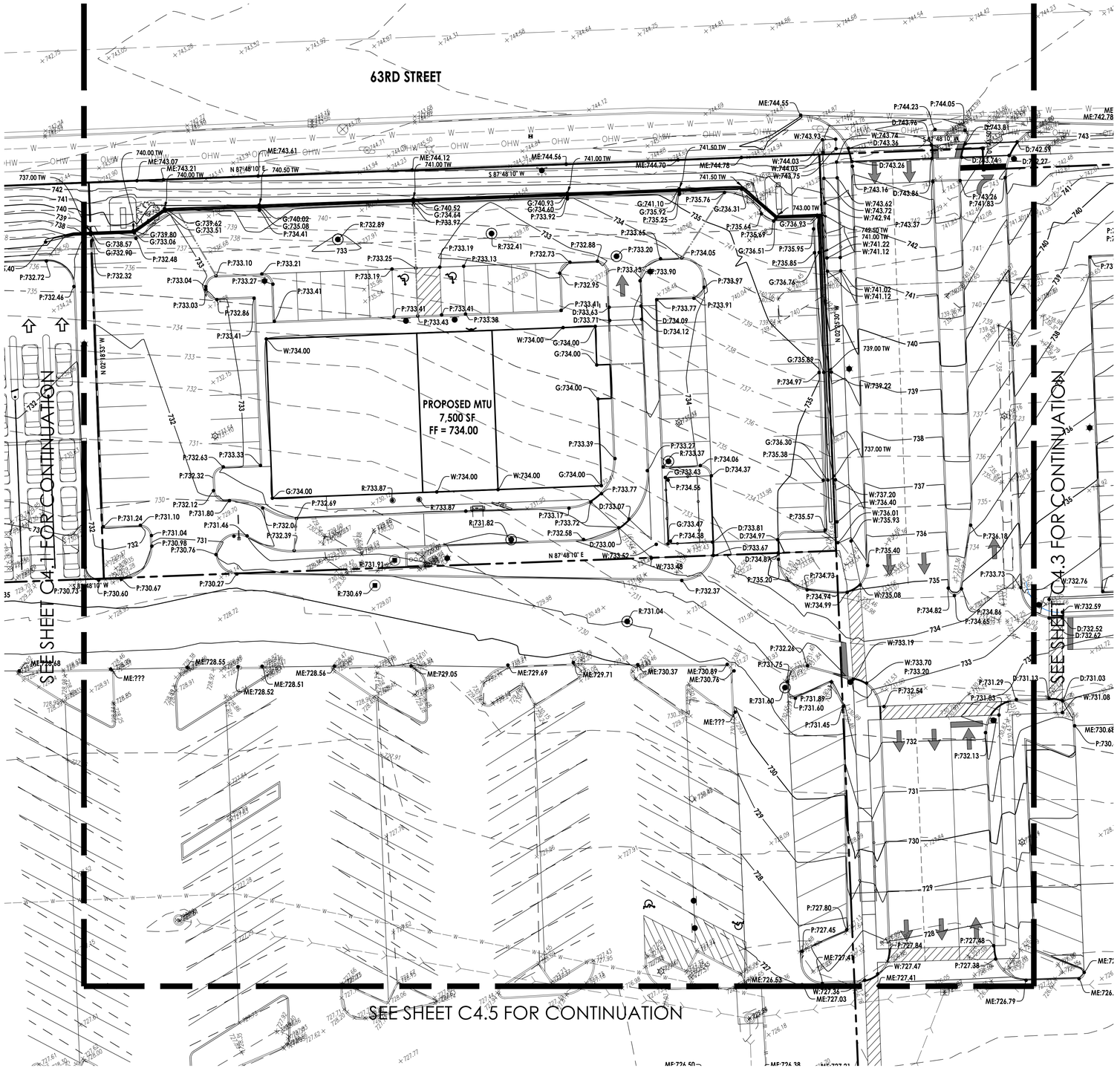

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	+ 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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www.rtmec.com

IL Design Firm: 184006777-0002

SHEET NAME: GRADING PLAN - 2

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.2

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL I1211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C4.0_Grading.dwg Time: Nov 11, 2024 - 3:56pm

63RD STREET

WOODWARD AVENUE

PROPOSED 1,652 SF

FF = 735.00

PROPOSED 2,349 SF

PROPOSED STARBUCKS 2,446 SF

53 SF

SEE SHEET C4.2 FOR CONTINUATION

SEE SHEET C4.6 FOR CONTINUATION

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	+ 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184006777-0002

SHEET NAME: GRADING PLAN - 3

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.3

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C4.0_Grading.dwg Time: Nov 11, 2024 - 3:56pm

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	+ 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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IL Design Firm: 184005777-0002

SHEET NAME: GRADING PLAN - 4

PROJECT NAME: SHOPPES OF MEADOWBROOK
2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.4

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C4.0_Grading.dwg Time: Nov 11, 2024 - 3:56pm

SEE SHEET C4.2 FOR CONTINUATION

SEE SHEET C4.4 FOR CONTINUATION

SEE SHEET C4.6 FOR CONTINUATION

N 02°25'24" W

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	× 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME: GRADING PLAN - 5

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.5

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL I 121\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02\SHEETS\OVERALL SITE\C4.0_Grading.dwg Time: Nov 11, 2024 - 3:57pm

SEE SHEET C4.3 FOR CONTINUATION

SEE SHEET C4.5 FOR CONTINUATION

SEE SHEET ### FOR CONTINUATION

WOODWARD AVENUE

S 01°44'50" E

S 87°48'01" W

P:727.38

P:727.38

ME:726.77

ME:726.66

ME:726.79

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR	x 0.00	0.00
GRADE		
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	7/1/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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www.rtmec.com

IL Design Firm: 184005777-0002

SHEET NAME: GRADING PLAN - 6

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, WILLOWBROOK GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C4.6 OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\C4.0_Grading.dwg Time: Nov 11, 2024 - 3:57pm

LEGEND:

	EXISTING	PROPOSED
1 FOOT CONTOUR		
5 FOOT CONTOUR		
GRADE	+ 0.00	0.00
RIDGE LINE		
TOP OF CURB		C:XX.XX
TOP OF WALK		W:XX.XX
TOP OF PAVEMENT		P:XX.XX
FLOW LINE @ DEPRESSED CURB		D:XX.XX
FLOW LINE		F:XX.XX
EDGE OF PAVEMENT		E:XX.XX
FINISHED GROUND		G:XX.XX
RIM GRADE		R:XX.XX
MATCH EXISTING		ME:XX.XX
FINISHED FLOOR		FF:XX.XX
FLOW ARROW		
OVERFLOW		

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

NO.	DATE	DESCRIPTION
1	07/01/24	VILLAGE SUBMITTAL
2	07/16/2024	DUDOT SUBMITTAL
3	08/29/2024	VILLAGE REVS
4	10/04/2024	VILLAGE RESUBMITTAL
5	11/11/2024	VILLAGE RESUBMITTAL

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SHEET NAME

GRADING PLAN - 7

PROJECT NAME

SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No.

23.011211.3451

SHEET No.

C4.7

OF 34 SHEETS

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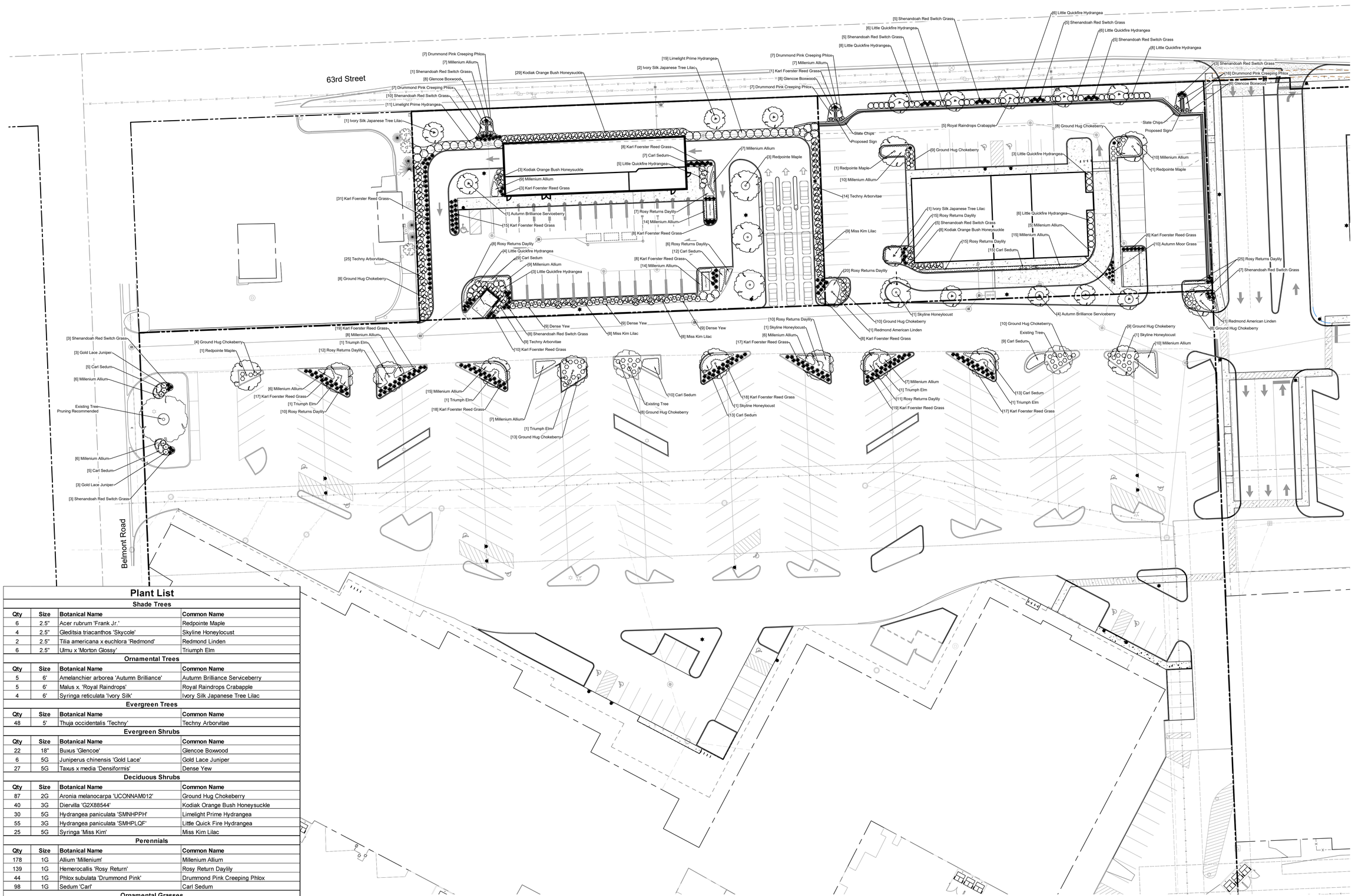

Plant List

Qty	Size	Botanical Name	Common Name
Shade Trees			
6	2.5"	Acer rubrum 'Frank Jr.'	Redpointe Maple
4	2.5"	Gleditsia triacanthos 'Skycole'	Skyline Honeylocust
2	2.5"	Tilia americana x euchlora 'Redmond'	Redmond Linden
6	2.5"	Ulmu x 'Morton Glossy'	Triumph Elm
Ornamental Trees			
5	6'	Amelanchier arborea 'Autumn Brilliance'	Autumn Brilliance Serviceberry
5	6'	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple
4	6'	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac
Evergreen Trees			
48	5'	Thuja occidentalis 'Techny'	Techny Arborvitae
Evergreen Shrubs			
22	18"	Buxus 'Glencoe'	Glencoe Boxwood
6	5G	Juniperus chinensis 'Gold Lace'	Gold Lace Juniper
27	5G	Taxus x media 'Densiformis'	Dense Yew
Deciduous Shrubs			
87	2G	Aronia melanocarpa 'UCONNAM012'	Ground Hug Chokeberry
40	3G	Diervilla 'G2X88544'	Kodiak Orange Bush Honeysuckle
30	5G	Hydrangea paniculata 'SMNHPPH'	Limelight Prime Hydrangea
55	3G	Hydrangea paniculata 'SMHPLQF'	Little Quick Fire Hydrangea
25	5G	Syringa 'Miss Kim'	Miss Kim Lilac
Perennials			
178	1G	Allium 'Millenium'	Millenium Allium
139	1G	Hemerocallis 'Rosy Return'	Rosy Return Daylily
44	1G	Phlox subulata 'Drummond Pink'	Drummond Pink Creeping Phlox
98	1G	Sedum 'Carl'	Carl Sedum
Ornamental Grasses			
223	1G	Calamagrostis acutifola 'Karl Foerster'	Karl Foerster Reed Grass
60	1G	Panicum virgatum 'Shenandoah'	Shenandoah Red Switch Grass
10	1G	Sesleria autumnalis	Autumn Moor Grass

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Shoppes of Meadowbrook

2133 63rd St,
Downers Grove, IL

Belmont Rd Entrance and West Outlots

Revisions
6-16-2023
7-7-2023
11-13-2023
4-1-2024
7-1-2024
10-7-2024
11-12-2024

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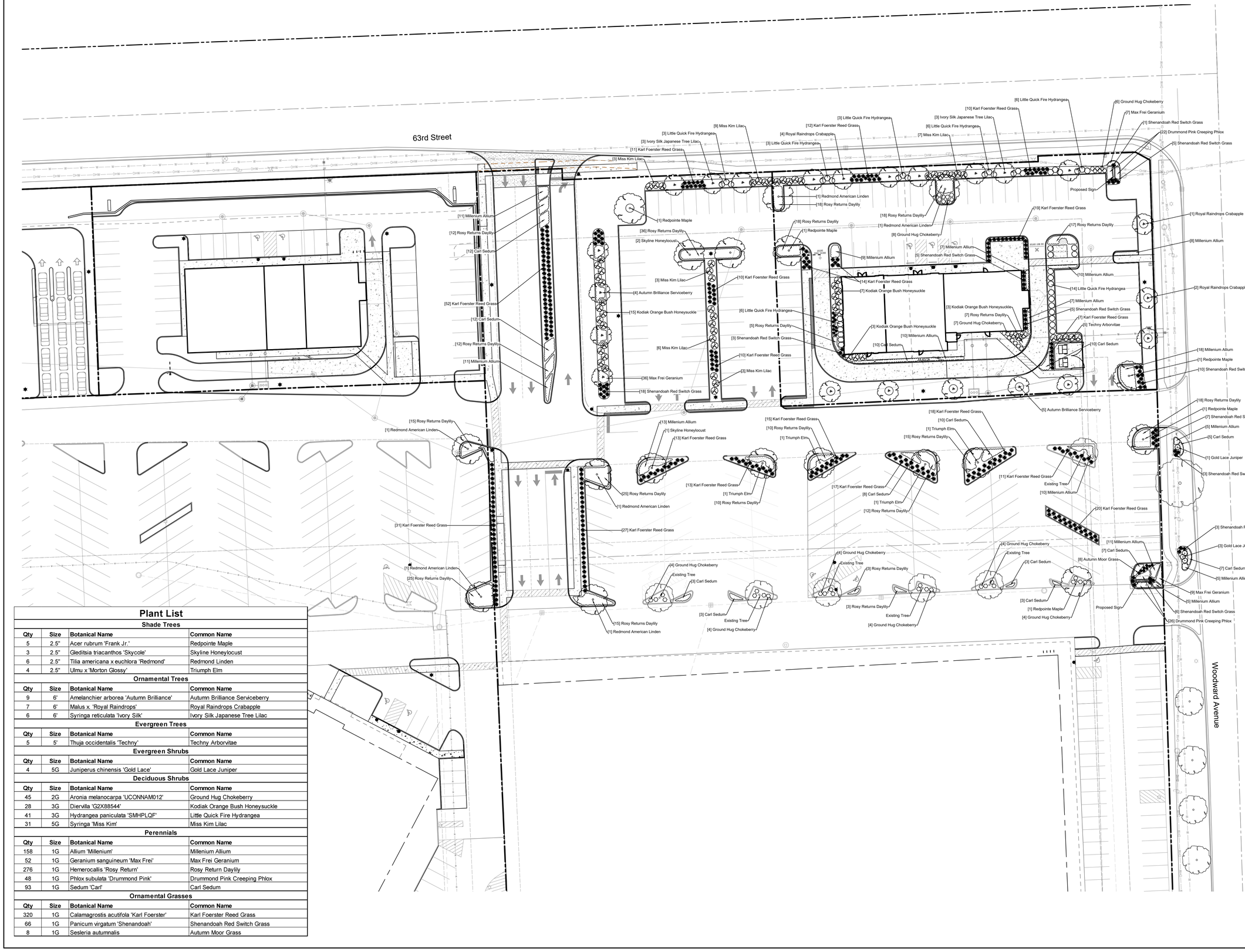
Date:	5-25-2023
Scale:	1" = 30'
Design By:	J. Czaja



Plant List

Shade Trees			
Qty	**Size**	**Botanical Name**	**Common Name**
5	2.5"	Acer rubrum 'Frank Jr.'	Redpointe Maple
3	2.5"	Gleditsia triacanthos 'Skycole'	Skyline Honeylocust
6	2.5"	Tilia americana x euchlora 'Redmond'	Redmond Linden
4	2.5"	Ulmu x 'Morton Glossy'	Triumph Elm
Ornamental Trees			
Qty	**Size**	**Botanical Name**	**Common Name**
9	6'	Amelanchier arborea 'Autumn Brilliance'	Autumn Brilliance Serviceberry
7	6'	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple
6	6'	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac
Evergreen Trees			
Qty	**Size**	**Botanical Name**	**Common Name**
5	5'	Thuja occidentalis 'Techny'	Techny Arborvitae
Evergreen Shrubs			
Qty	**Size**	**Botanical Name**	**Common Name**
4	5G	Juniperus chinensis 'Gold Lace'	Gold Lace Juniper
Deciduous Shrubs			
Qty	**Size**	**Botanical Name**	**Common Name**
45	2G	Aronia melanocarpa 'UCONNAM012'	Ground Hug Chokeberry
28	3G	Diervilla 'G2X88544'	Kodiak Orange Bush Honeysuckle
41	3G	Hydrangea paniculata 'SMHPLQF'	Little Quick Fire Hydrangea
31	5G	Syringa 'Miss Kim'	Miss Kim Lilac
Perennials			
Qty	**Size**	**Botanical Name**	**Common Name**
158	1G	Allium 'Millenium'	Millenium Allium
52	1G	Geranium sanguineum 'Max Frei'	Max Frei Geranium
276	1G	Hemerocallis 'Rosy Return'	Rosy Return Daylily
48	1G	Phlox subulata 'Drummond Pink'	Drummond Pink Creeping Phlox
93	1G	Sedum 'Carl'	Carl Sedum
Ornamental Grasses			
Qty	**Size**	**Botanical Name**	**Common Name**
320	1G	Calamagrostis acutifola 'Karl Foerster'	Karl Foerster Reed Grass
66	1G	Panicum virgatum 'Shenandoah'	Shenandoah Red Switch Grass
8	1G	Sesleria autumnalis	Autumn Moor Grass

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Shoppes of Meadowbrook

2133 63rd St,
Downers Grove, IL

W. 63rd St Entrance and East Parking Lot and East Outlot

Revisions

6-16-2023	11-12-2024
7-7-2023	
11-13-2023	
4-1-2024	
7-1-2024	
8-23-2024	
10-7-2024	

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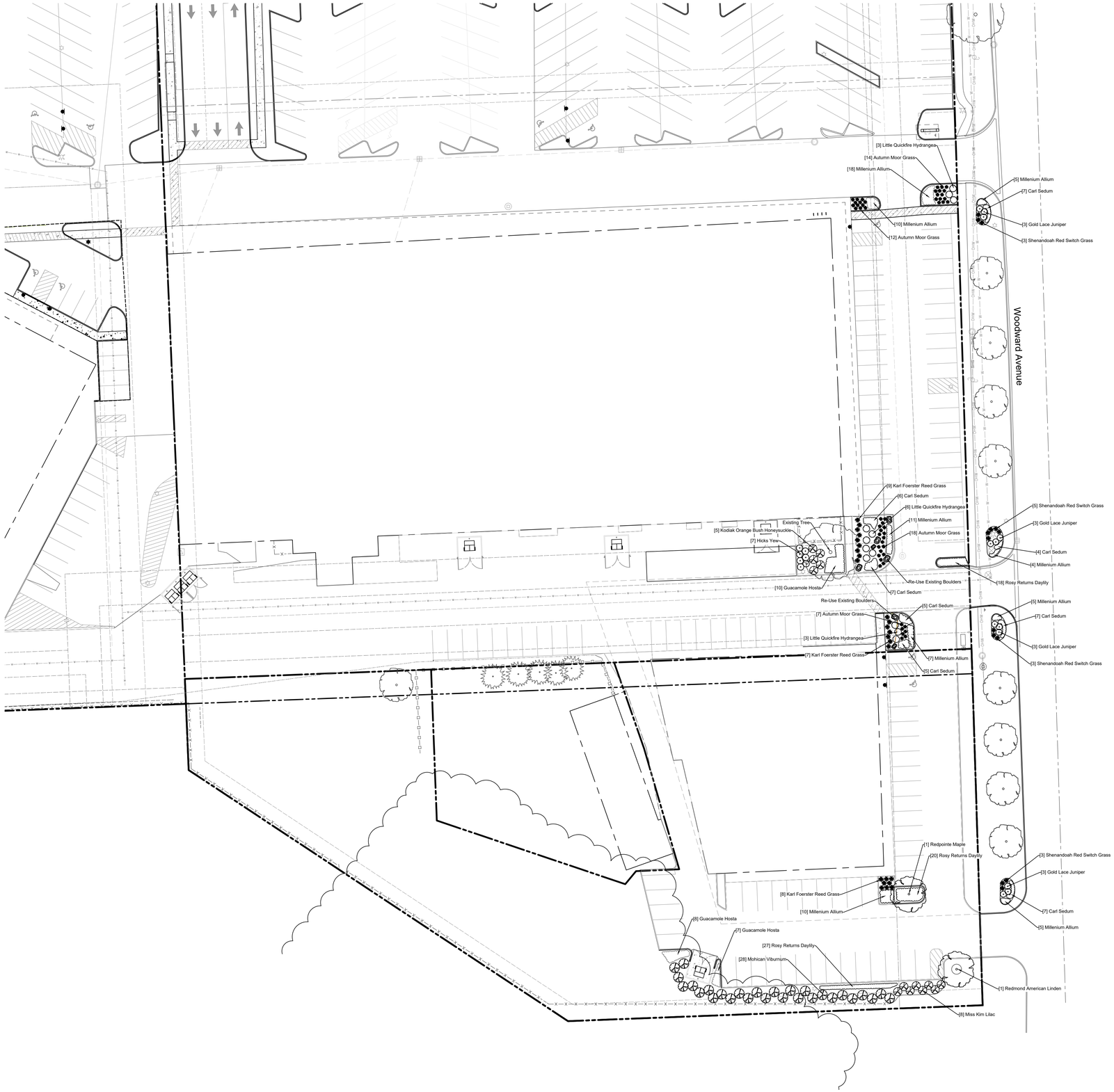
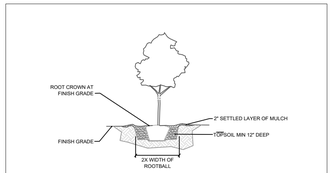
Date:	5-25-2023
Scale:	1" = 30'
Design By:	J. Czaja

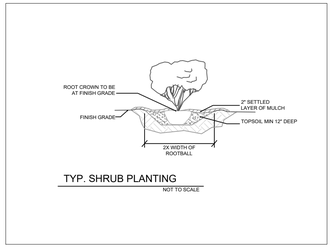


Plant List

Shade Trees			
Qty	**Size**	**Botanical Name**	**Common Name**
1	2.5"	Acer rubrum 'Frank Jr.'	Redpointe Maple
1	2.5"	Tilia americana x euchlora 'Redmond'	Redmond Linden
Evergreen Shrubs			
Qty	**Size**	**Botanical Name**	**Common Name**
12	5G	Juniperus chinensis 'Gold Lace'	Gold Lace Juniper
7	5G	Taxus x media 'Hicksii'	Hicks Yew
Deciduous Shrubs			
Qty	**Size**	**Botanical Name**	**Common Name**
5	3G	Diervilla 'G2X88544'	Kodiak Orange Bush Honeysuckle
12	3G	Hydrangea paniculata 'SMHPLQF'	Little Quick Fire Hydrangea
8	5G	Syringa 'Miss Kim'	Miss Kim Lilac
28	5G	Viburnum lantana 'Mohican'	Mohican Viburnum
Perennials			
Qty	**Size**	**Botanical Name**	**Common Name**
75	1G	Allium 'Millenium'	Millenium Allium
65	1G	Hemerocallis 'Rosy Return'	Rosy Return Daylily
25	1G	Hosta 'Guacamole'	Guacamole Hosta
48	1G	Sedum 'Carl'	Carl Sedum
Ornamental Grasses			
Qty	**Size**	**Botanical Name**	**Common Name**
24	1G	Calamagrostis acutifola 'Karl Foerster'	Karl Foerster Reed Grass
14	1G	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass
51	1G	Sesleria autumnalis	Autumn Moor Grass



TREE PLANTING
NOT TO SCALE



TYP. SHRUB PLANTING
NOT TO SCALE

Note:
All Landscaping material shall be installed in accordance with the planting procedures established by the American Association of Nurseryman.

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Shoppes of Meadowbrook

2133 63rd St,
Downers Grove, IL

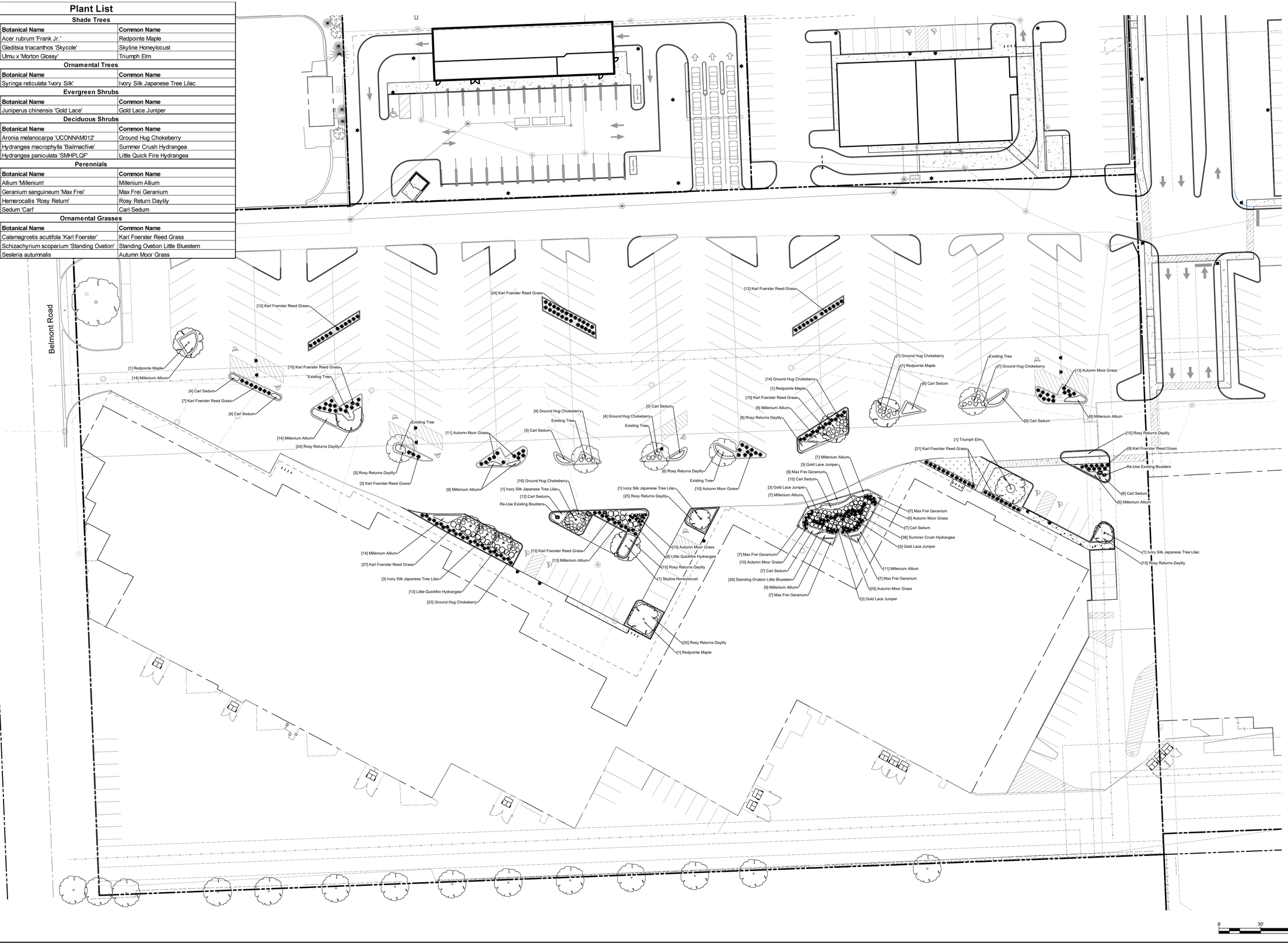
Woodward Ave Entrances and East Buildings

Revisions	
6-16-2023	10-7-2024
7-7-2023	11-12-2024
11-13-2023	
4-1-2024	
7-1-2024	
7-25-2024	
8-23-2024	

Page:	L3
Date:	5-25-2023
Scale:	1" = 30'
Design By:	J. Czaja

Plant List

Qty	Size	Botanical Name	Common Name
Shade Trees			
4	2.5"	Acer rubrum 'Frank Jr.'	Redpointe Maple
1	2.5"	Gleditsia triacanthos 'Skycole'	Skyline Honeylocust
1	2.5"	Ulmu x 'Morton Glossy'	Triumph Elm
Ornamental Trees			
6	6'	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac
Evergreen Shrubs			
12	5G	Juniperus chinensis 'Gold Lace'	Gold Lace Juniper
Deciduous Shrubs			
75	2G	Aronia melanocarpa 'UCONNAM012'	Ground Hug Chokeberry
38	3G	Hydrangea macrophylla 'Bailmacfive'	Summer Crush Hydrangea
21	3G	Hydrangea paniculata 'SMHPLQF'	Little Quick Fire Hydrangea
Perennials			
121	1G	Allium 'Millenium'	Millenium Allium
37	1G	Geranium sanguineum 'Max Frei'	Max Frei Geranium
148	1G	Hemerocallis 'Rosy Return'	Rosy Return Daylily
82	1G	Sedum 'Carl'	Carl Sedum
Ornamental Grasses			
158	1G	Calamagrostis acutifola 'Karl Foerster'	Karl Foerster Reed Grass
26	1G	Schizachyrium scoparium 'Standing Ovation'	Standing Ovation Little Bluestem
88	1G	Sesleria autumnalis	Autumn Moor Grass



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Shoppes of Meadowbrook

2133 63rd St,
Downers Grove, IL

West Building and Parking Lot

Revisions
8-19-2024
8-23-2024
10-7-2024
11-12-2024

Page:	L4
Date:	7-1-2024
Scale:	1" = 30'
Design By:	J. Czaja

Kodiak Orange Honey Suckle

Summer Crush Hydrangea

Piglet Fountain Grass

Shenandoah Switch Red Grass

American Linden

Miss Kim Lilac (Flowers in Spring)

Royal Raindrop Crabapple

Frontier Elm

Hicki Yew

Skyline Honey locust (Yellow in Fall)

Japanese Tree Lilac (Flowers in Spring)

Autumn Brillance Serviceberry (Flowers in Spring)

Autumn Blaze Maple (Red in Fall)

Rosy Return Daylily (Blooms in Summer)

Ground Hog Chokeberry (Spring Flowers)

Quick Fire Hydrangea (Summer bloom)

Karl Foerster Reed Grass

Autumn Joy Sedum (Fall Color)

Allium Millenium (Summer Color)

Autumn Moor grass

Gold Lace Juniper

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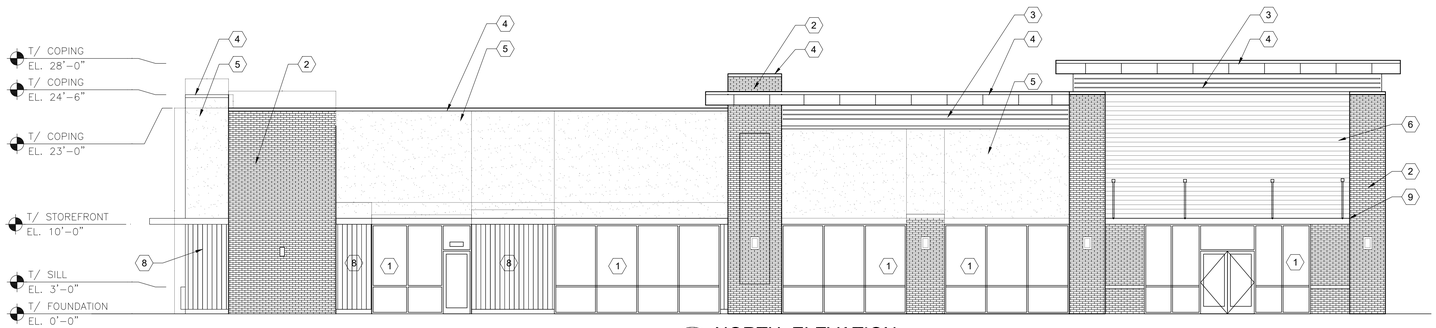
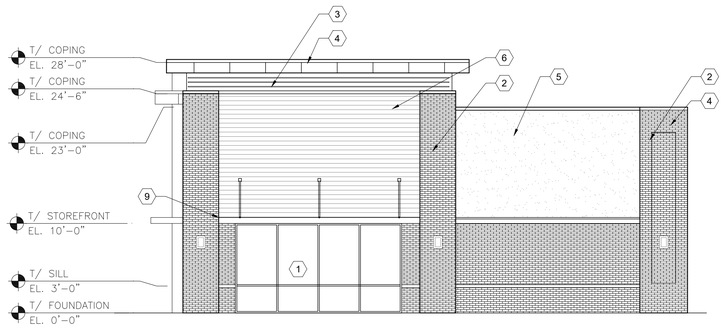
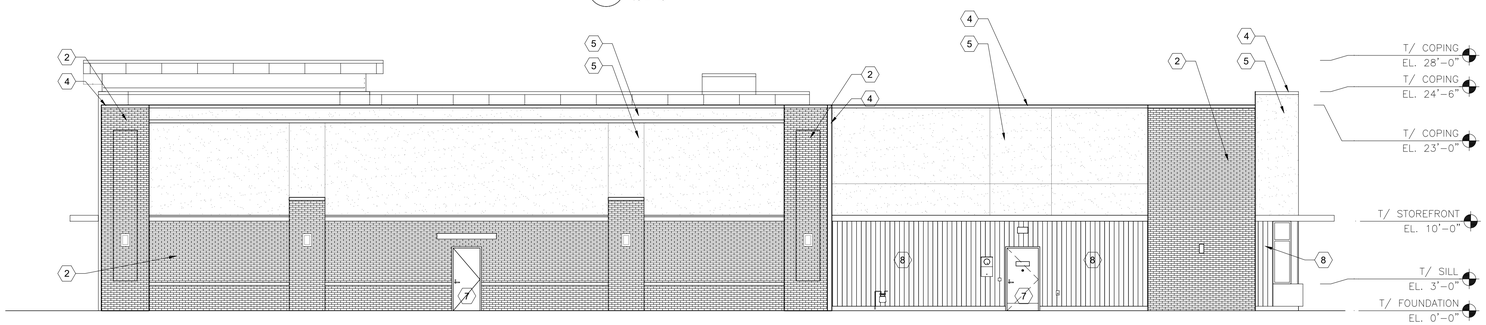


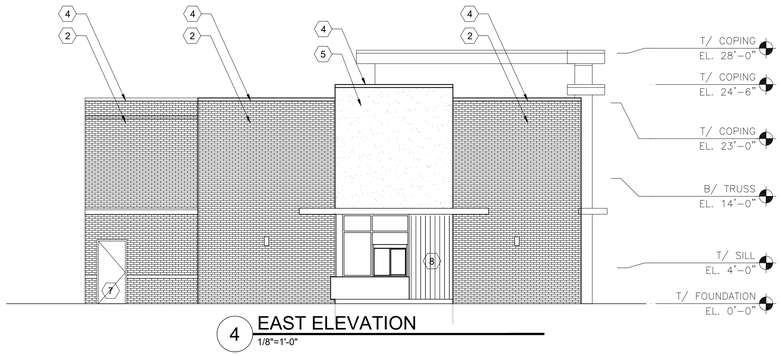
1 NORTH ELEVATION
1/8"=1'-0"



2 WEST ELEVATION
1/8"=1'-0"



3 SOUTH ELEVATION
1/8"=1'-0"



4 EAST ELEVATION
1/8"=1'-0"

EXTERIOR ELEVATION KEYNOTES

1. ALUMINUM STOREFRONT SYSTEM W/ CLEAR 1" INSULATED GLAZING (NON-TINTED, NON-REFLECTIVE) – 4 ½" KAWNEER IS451
2. MODULAR BRICK TBD
3. CORRUGATED METAL TBD
4. DARK BRONZE: AWNING, COPING, STOREFRONT – UNA-CLAD OR EQUAL
5. EIFS
6. NICHIHA FAUX WOOD PANELING
7. HOLLOW METAL DOOR – PAINT TO MATCH STOREFRONT
8. WOOD SIDING – 1001 LIGHT CEDAR 8" W/ 1/16" REVEAL – VERTICALLY STACKED – IDENTITY WOOD PRODUCTS OR SIMILAR
9. METAL AWNING WITH TIE-BACK

450 E. Higgins Road Suite 202
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P 847.952.9970
F 847.574.8075
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STELLCO PROPERTIES

NEW CONSTRUCTION
MEADOWBROOK SHOPPING CENTER OUTLOTS DOWNERS GROVE, IL

DATE	SUBMITTED FOR

SHEET TITLE
6500 SQFT BUILDING

DATE
03/25/2024

JOB NO.
3164

SHEET
A4.0

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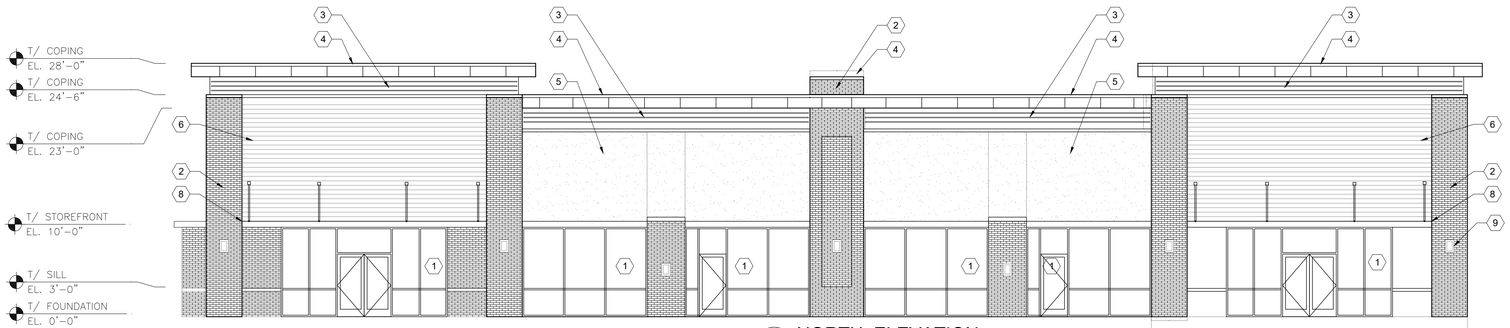
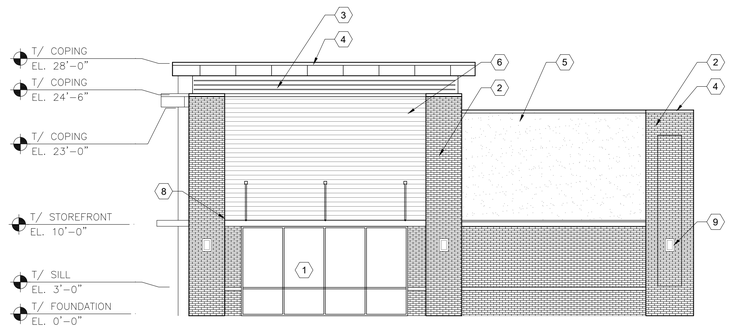
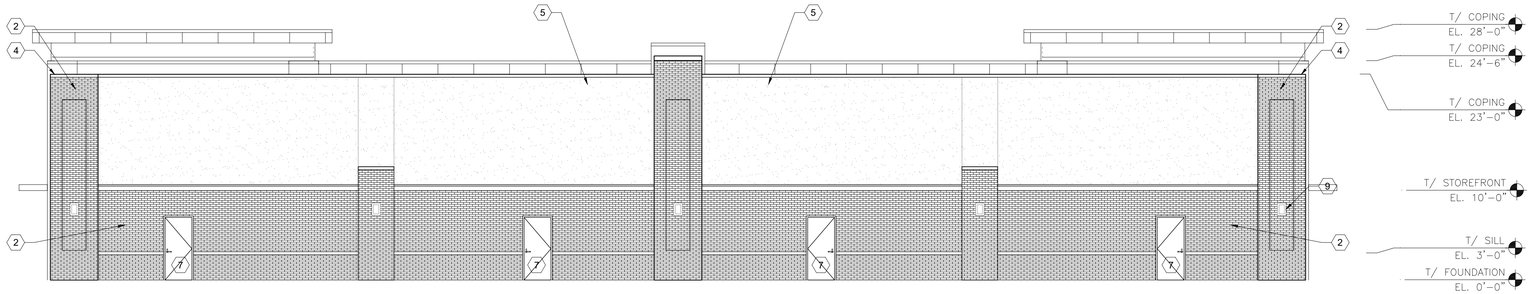


1 NORTH ELEVATION
1/8"=1'-0"



2 WEST ELEVATION
1/8"=1'-0"



3 SOUTH ELEVATION
1/8"=1'-0"

4 EAST ELEVATION
1/8"=1'-0"

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7. HOLLOW METAL DOOR – PAINT TO MATCH STOREFRONT
8. METAL AWNING WITH TIE-BACK
9. SCONCE LIGHTS

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STELLCO PROPERTIES

NEW CONSTRUCTION
MEADOWBROOK SHOPPING CENTER OUTLOTS DOWNERS GROVE, IL

DATE	SUBMITTED FOR

SHEET TITLE
7500 SQFT BUILDING

DATE
03/25/2024

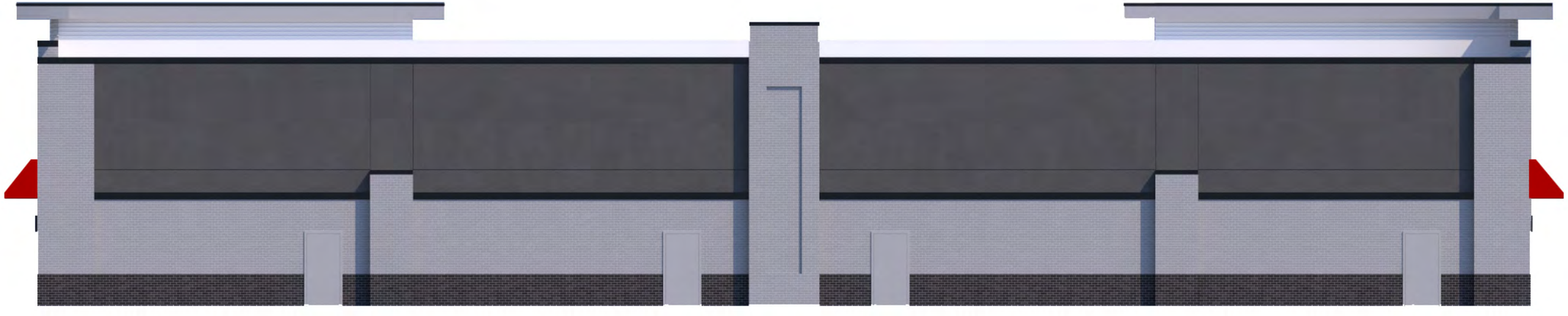
JOB NO.
3164

SHEET
A4.0

NORTH ELEVATION

EAST ELEVATION

WEST ELEVATION



SOUTH ELEVATION

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NORTH ELEVATION

EAST ELEVATION

WEST ELEVATION

SOUTH ELEVATION

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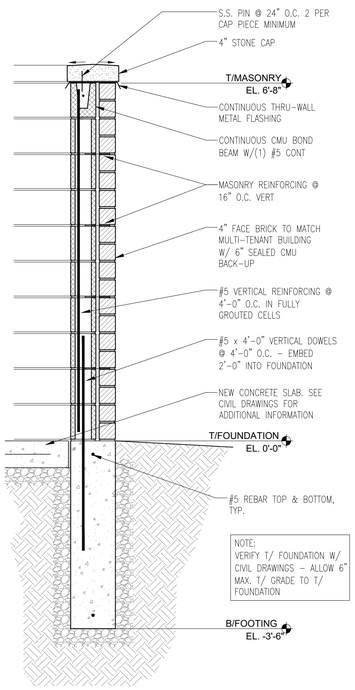
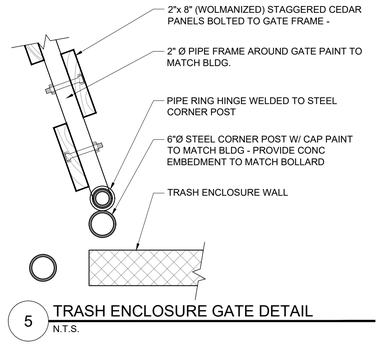
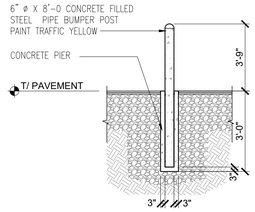


4 TYP. WALL SECTION - TRASH
SCALE 3/4" = 1'-0"



5 TRASH ENCLOSURE GATE DETAIL
N.T.S.



6 BOLLARD DETAIL
SCALE: 1/4" = 1'-0"

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NEW CONSTRUCTION
MEADOWBROOK SHOPPING CENTER OUTLOTS DOWNERS GROVE, IL

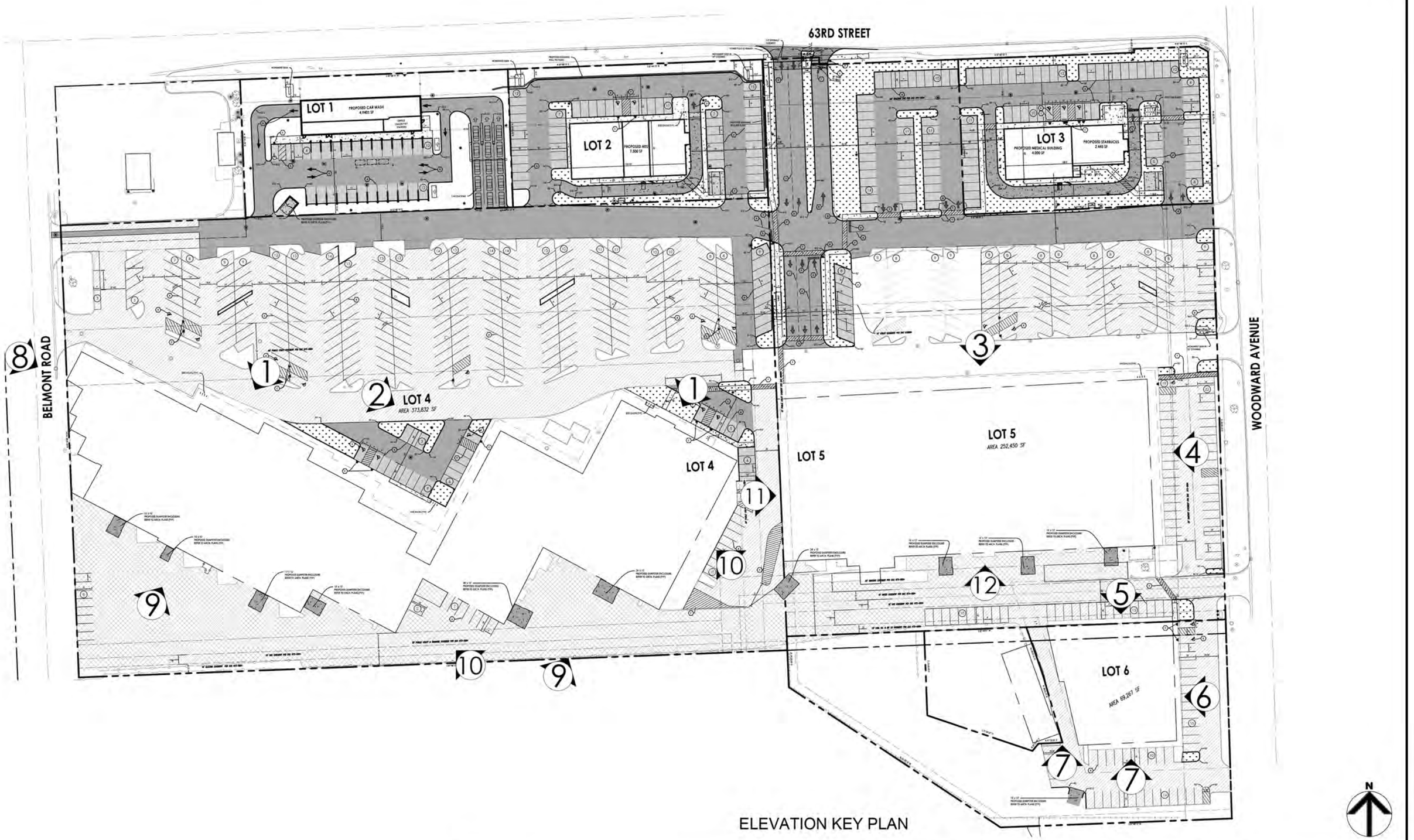
DATE	SUBMITTED FOR

SHEET TITLE
TRASH ENCLOSURE TYP DETAIL

DATE
03/25/2024

JOB NO.
3164

SHEET
A4.0



ELEVATION KEY PLAN

N

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STELLCO PROPERTIES

SITE PLAN

MEADOWBROOK SHOPPING CENTER OUTLOTS DOWNERS GROVE, IL

Date:	06/30/24
Scale:	1" = 100'-0"
Job #	3164

SHEET 20

24'
28'
22'
LOGO
TENANT
TENANT
LOGO
TENANT
TENANT
TENANT
CUT LINE A
NORTH ELEVATION
VIEW 1

CUT LINE A
TENANT
TENANT
22'
TENANT
24'
LOGO
28'
TENANT
CUT LINE B
NORTH ELEVATION
VIEW 1

CUT LINE B
28'
22'
24'
TENANT
TENANT
TENANT
TENANT
TENANT
TENANT
NORTH ELEVATION
VIEW 1
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MATERIALS

- DARK STAINED BRICK
- RED FABRIC AWNING
- FAUX WOOD PANELING
- LIGHT GRAY METAL
- BEIGE EIFS
- CORRUGATED METAL
- FAUX WOOD SLATS
- LIGHT GRAY STAINED BRICK
- DARK BRONZE: AWNINGS, COPING, STOREFRONT

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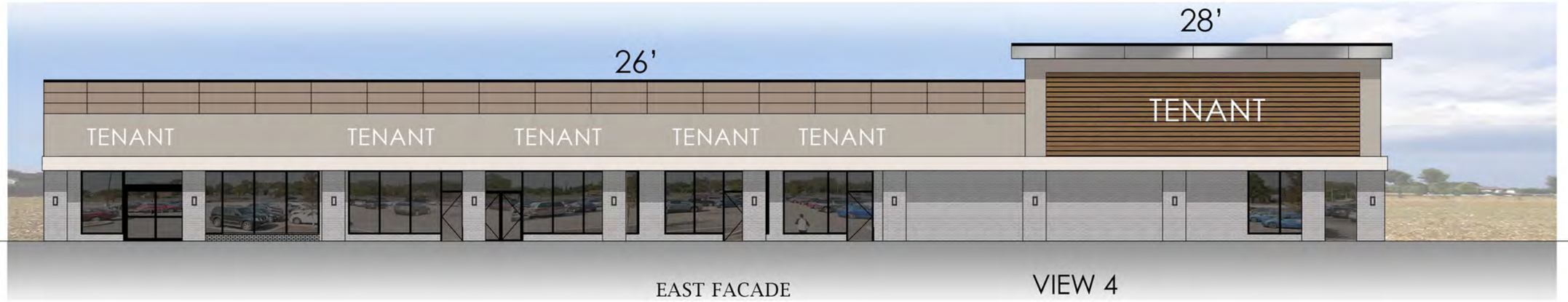
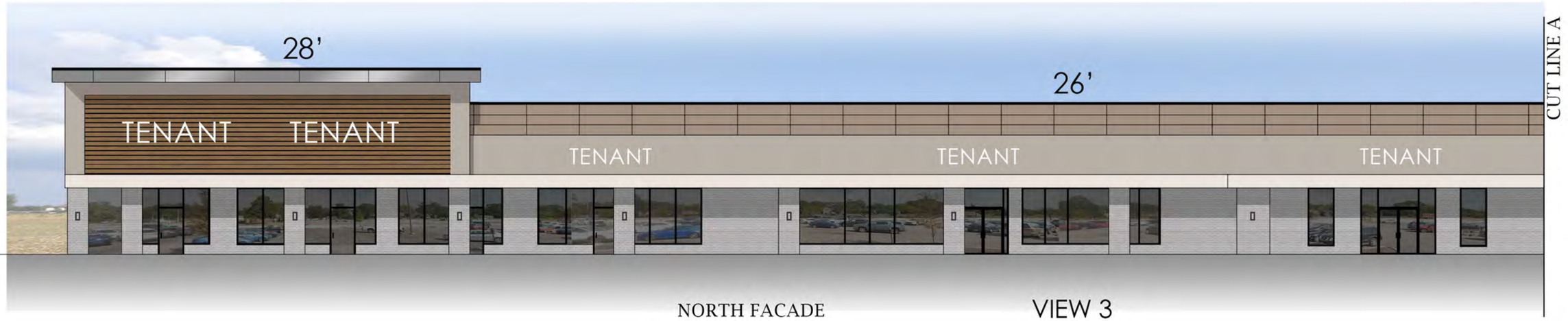
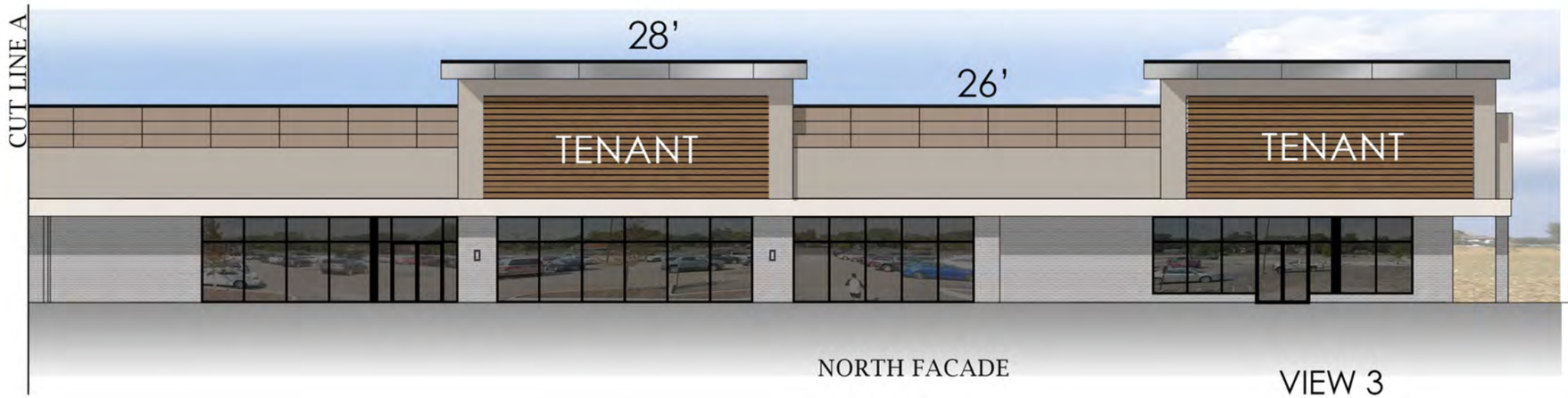


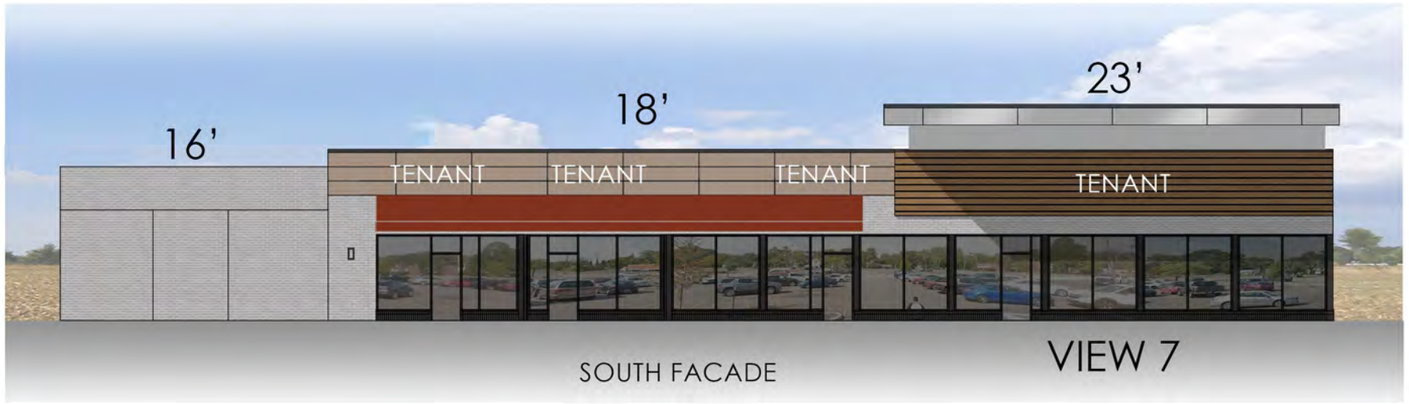
EAST FACADE VIEW 4



NORTH FACADE VIEW 3



NORTH FACADE VIEW 3



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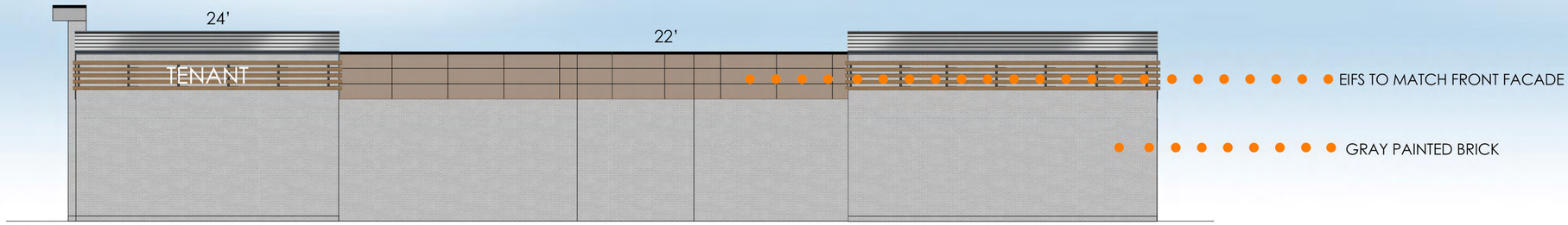
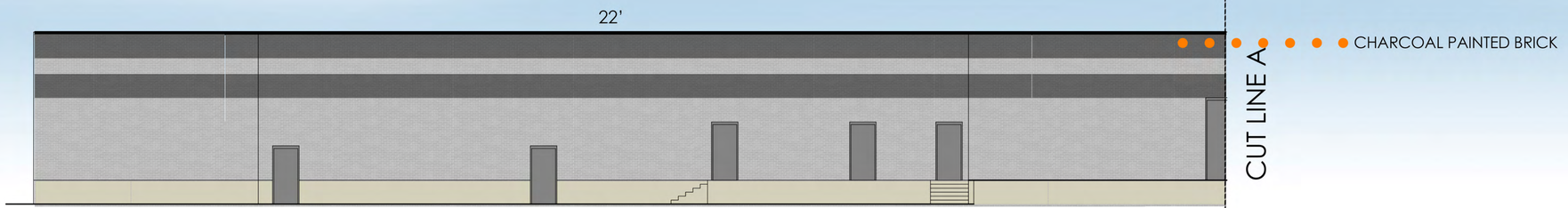


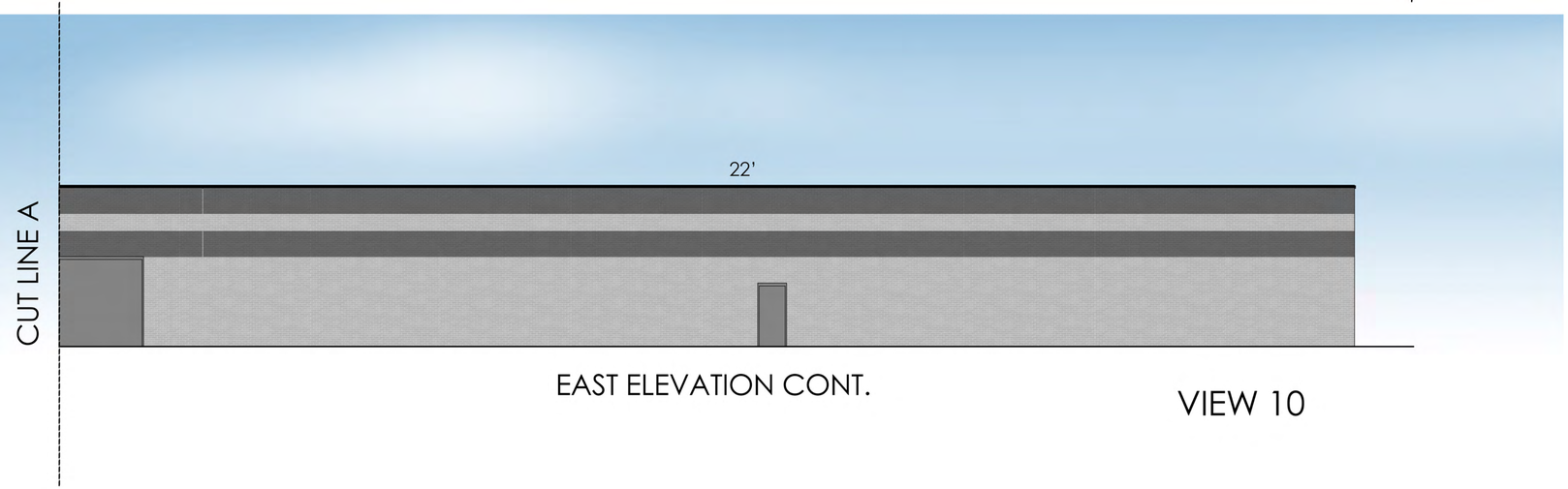
WEST ELEVATION

VIEW 8



EAST ELEVATION

VIEW 10



EAST ELEVATION CONT.

VIEW 10

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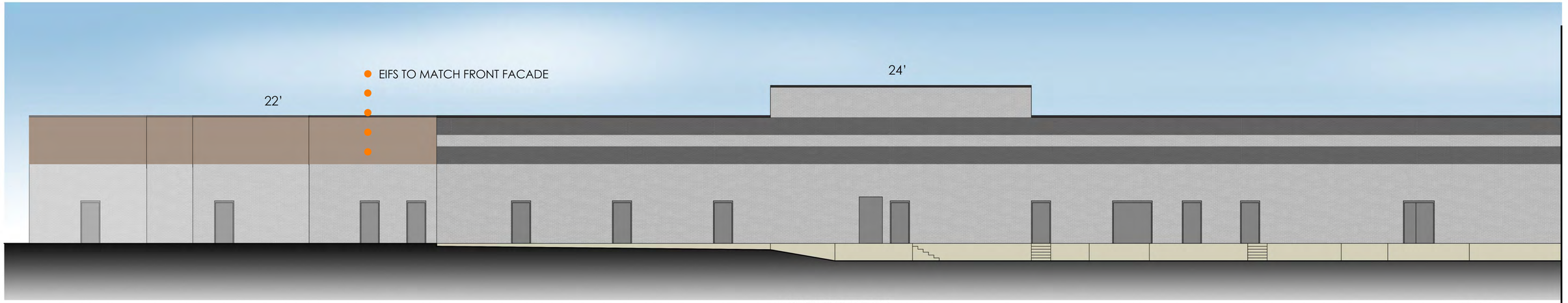
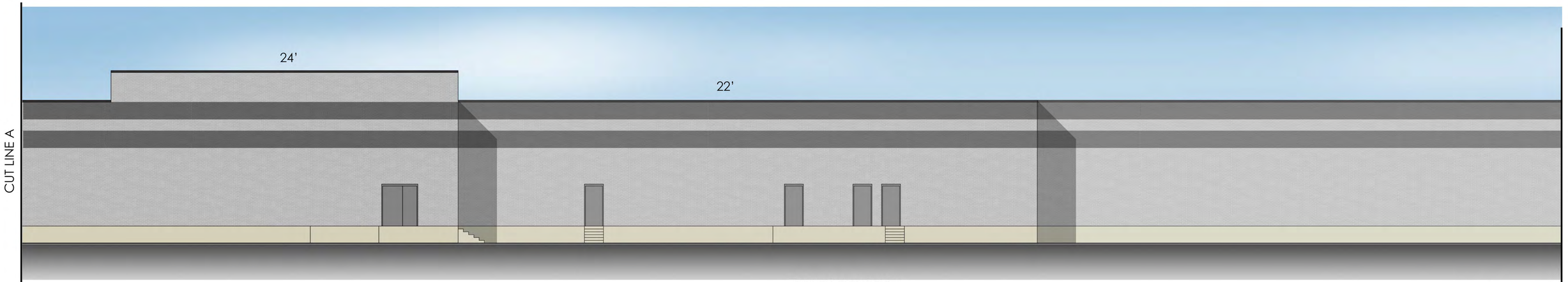


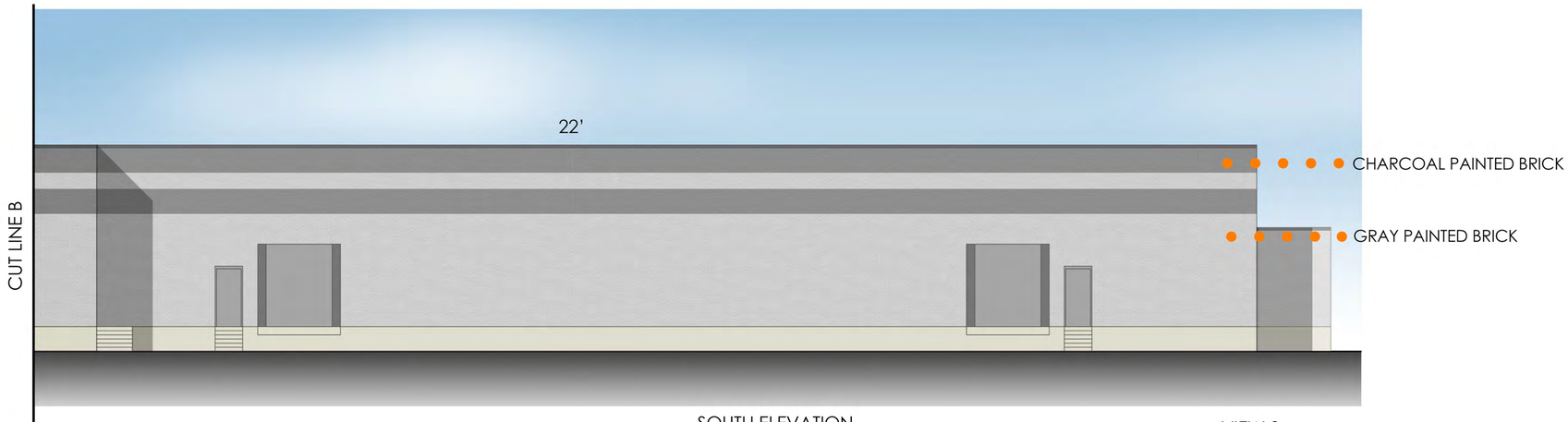
SOUTH ELEVATION

VIEW 9



SOUTH ELEVATION

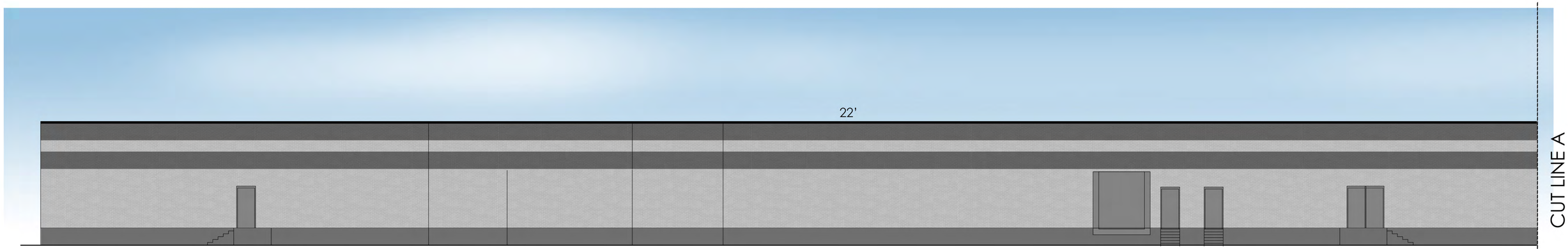
VIEW 9



SOUTH ELEVATION

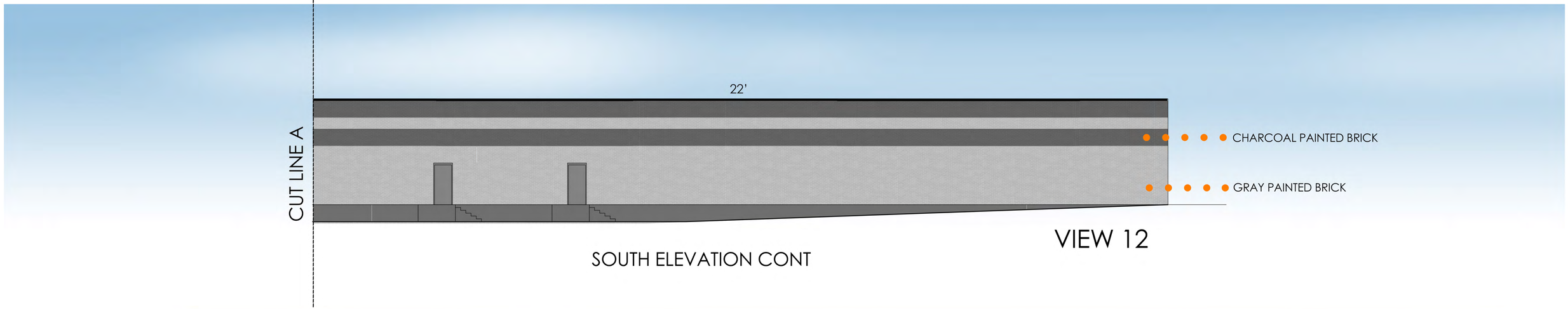
VIEW 9

JTS Architects



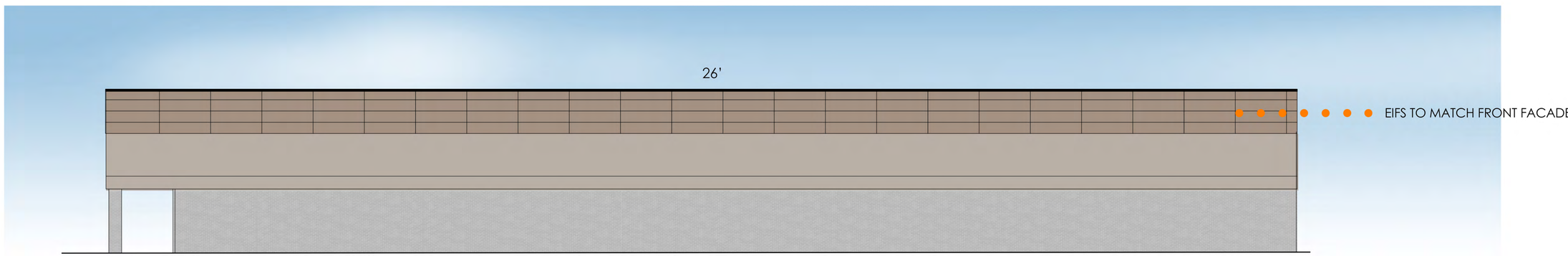
SOUTH ELEVATION

VIEW 12



SOUTH ELEVATION CONT

VIEW 12



WEST ELEVATION

VIEW 11

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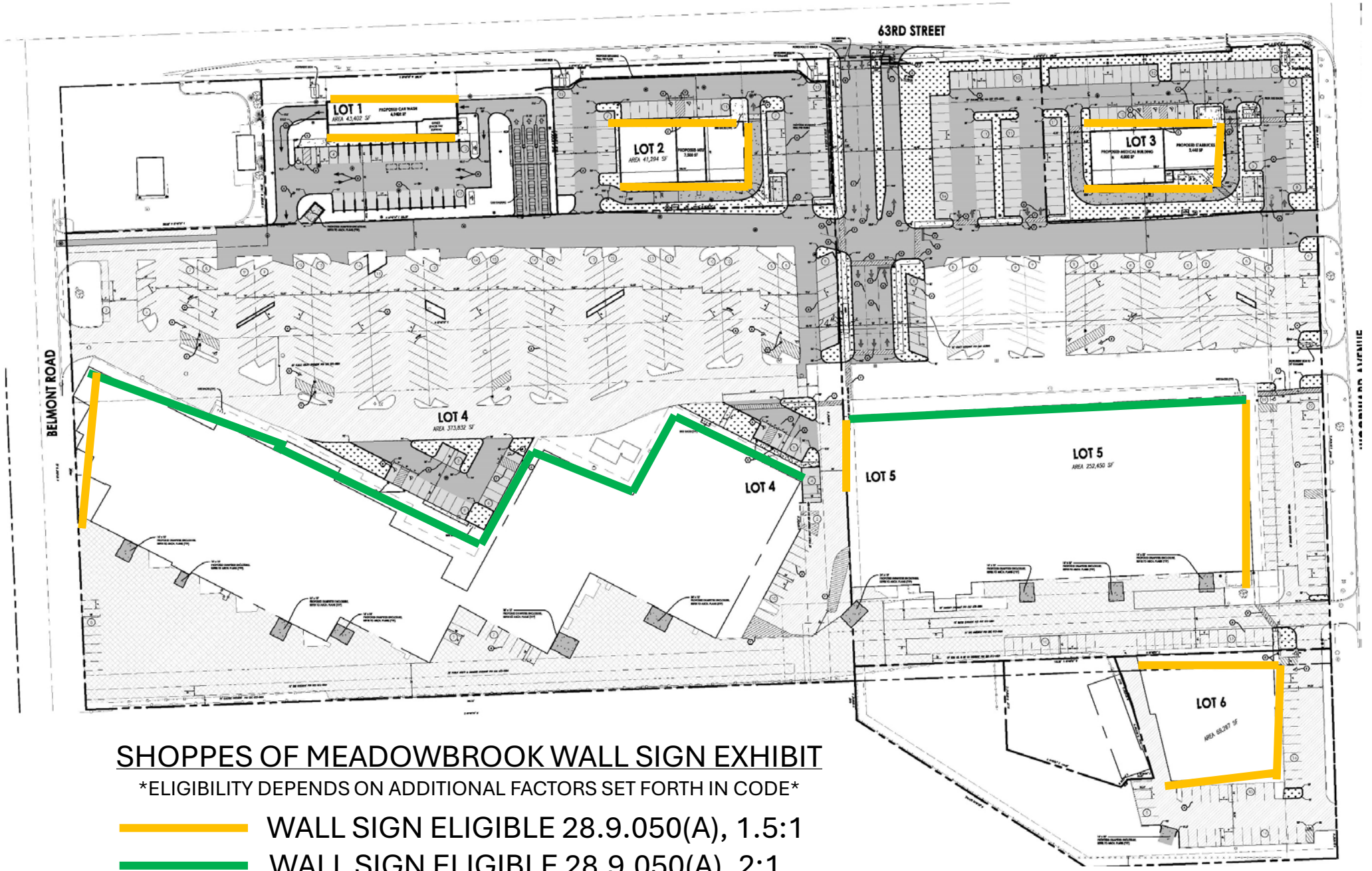
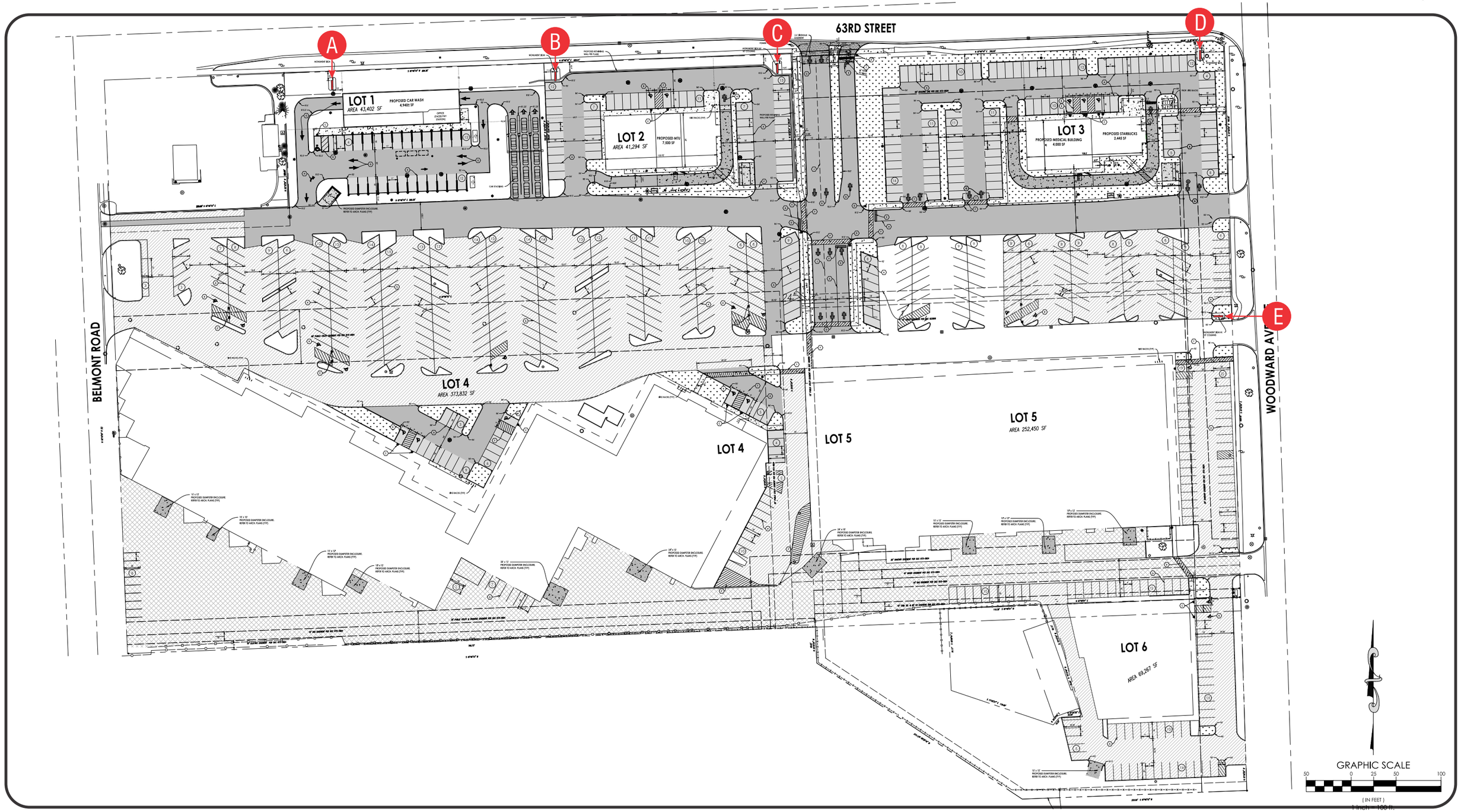


SHOPPES OF MEADOWBROOK WALL SIGN EXHIBIT

ELIGIBILITY DEPENDS ON ADDITIONAL FACTORS SET FORTH IN CODE

WALL SIGN ELIGIBLE 28.9.050(A), 1.5:1

WALL SIGN ELIGIBLE 28.9.050(A), 2:1



DOYLE
GENERAL SIGN CONTRACTORS
232 INTERSTATE RD. P.O. BOX 1068
ADDISON, IL 60101
630-543-9490
FAX 630-543-9493

DATE	REVISION
6.10.24	REVISED PER NOTES -NF
6.11.24	ADJUSTED SF NOTES - KM
6.11.24	ADDED ADDRESS FCO HEIGHT(8") - KM
10.2.24	UPDATED SITE PLAN - KM
10.7.24	COMPLETE RE-DESIGN - KM
10.8.24	REVISED TENANT FACES TO ROUTED ALUM. - KM
10.23.24	REVISED PER COMMENTS/NOTES - KM
11.6.24	REVISED ADDRESS TO 8"
11.11.24	ADDED SIGN A & REVISED D

CUSTOMER APPROVAL DATE

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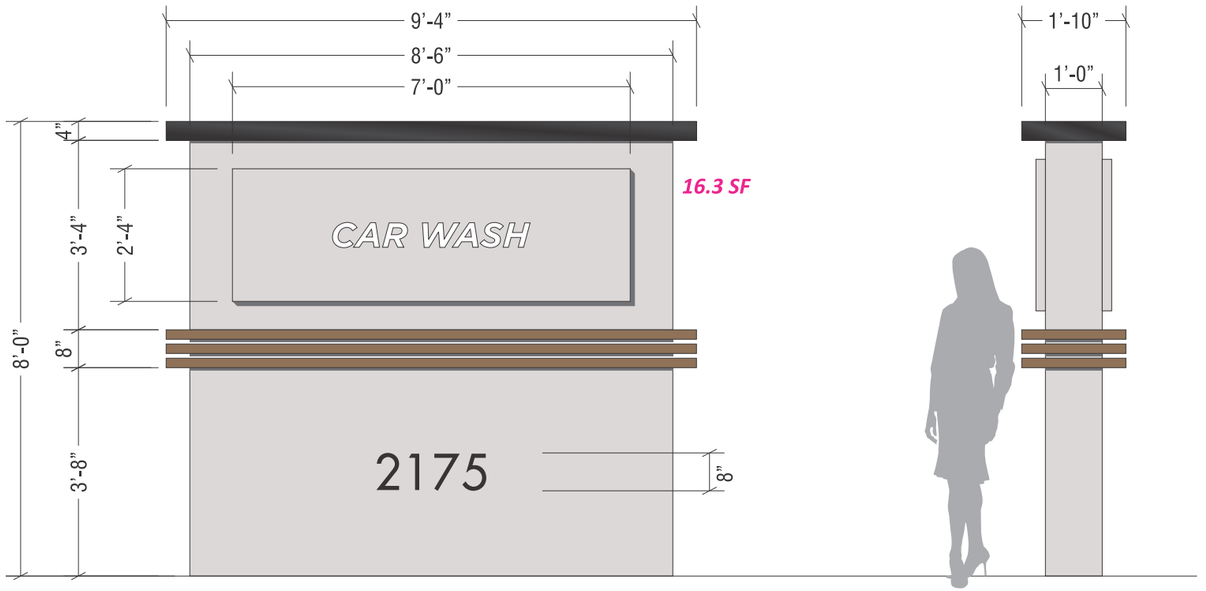
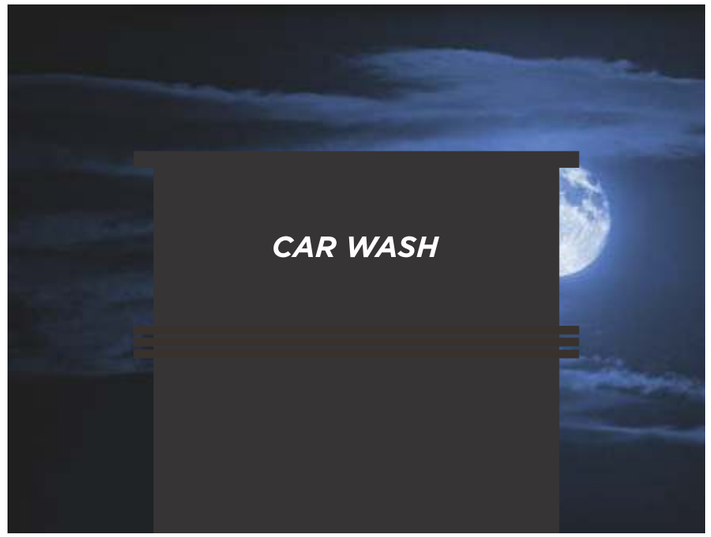
CLIENT	SHOPPES OF MEADOWBROOK						
ADDRESS	2001-2153 63rd ST						
CITY	DOWNERS GROVE	**STATE**	IL	**DESIGNER**	KM	**SALESPERSON**	SH
DRWG. NO.	5223.845	**SCALE:**	NOTED	**DATE:**	05.02.2023	**SHEET NO.**	**6**

O:\Design\S\Shoppes of Meadowbrook\SoM 5289114417_v28.cdr





A DOUBLE SIDED, INTERNALLY ILLUMINATED PYLON DISPLAY

SCALE: 3/8"=1'

- ALUMINUM SIGN CABINETS PAINTED PMS COOL GRAY 1C

- TENANT PANELS TO BE REMOVABLE ALUMINUM PAN FACES. 1/8" ALUMINUM w/ 2" WELDED RETURNS PAINTED PMS COOL GRAY 1C. GRAPHICS TO BE ROUTED OUT & BACKED BY WHITE LEXAN w/ FIRST SURFACE APPLIED TRANSLUCENT VINYL

- FAB'D ALUM. CAP PAINTED SATIN BLACK

- (3) 2" TALL ACCENT BARS PAINTED BROWN TO MATCH BLDG COLORS(TBD). 1" REVEAL BETWEEN.

- ADDRESS NUMERALS TO BE FIRST SURFACE APPLIED 3M 3630-22 BLACK VINYL

- INTERNALLY ILLUMINATED w/ WHITE LED & POWER SUPPLIES

- MOUNTED ON STL. SUPPORT & CONCRETE FOUNDATION

SATIN BLACK | PMS COOL GRAY 1C | TO MATCH BLDG. COLORS | WHITE LEXAN | 3M 3630-22 BLACK

DOYLE
GENERAL SIGN CONTRACTORS
232 INTERSTATE RD. P.O. BOX 1068
ADDISON, IL 60101
630-543-9490
FAX 630-543-9493

DATE	REVISION
6.10.24	REVISED PER NOTES -NF
6.11.24	ADJUSTED SF NOTES - KM
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10.23.24	REVISED PER COMMENTS/NOTES - KM
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11.11.24	ADDED SIGN A & REVISED D

CUSTOMER APPROVAL DATE

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ADDRESS	2001-2153 63rd ST						
CITY	DOWNERS GROVE	**STATE**	IL	**DESIGNER**	KM	**SALESPERSON**	SH
DRWG. NO.	5223.845	**SCALE:**	NOTED	**DATE:**	05.02.2023	**SHEET NO.**	1

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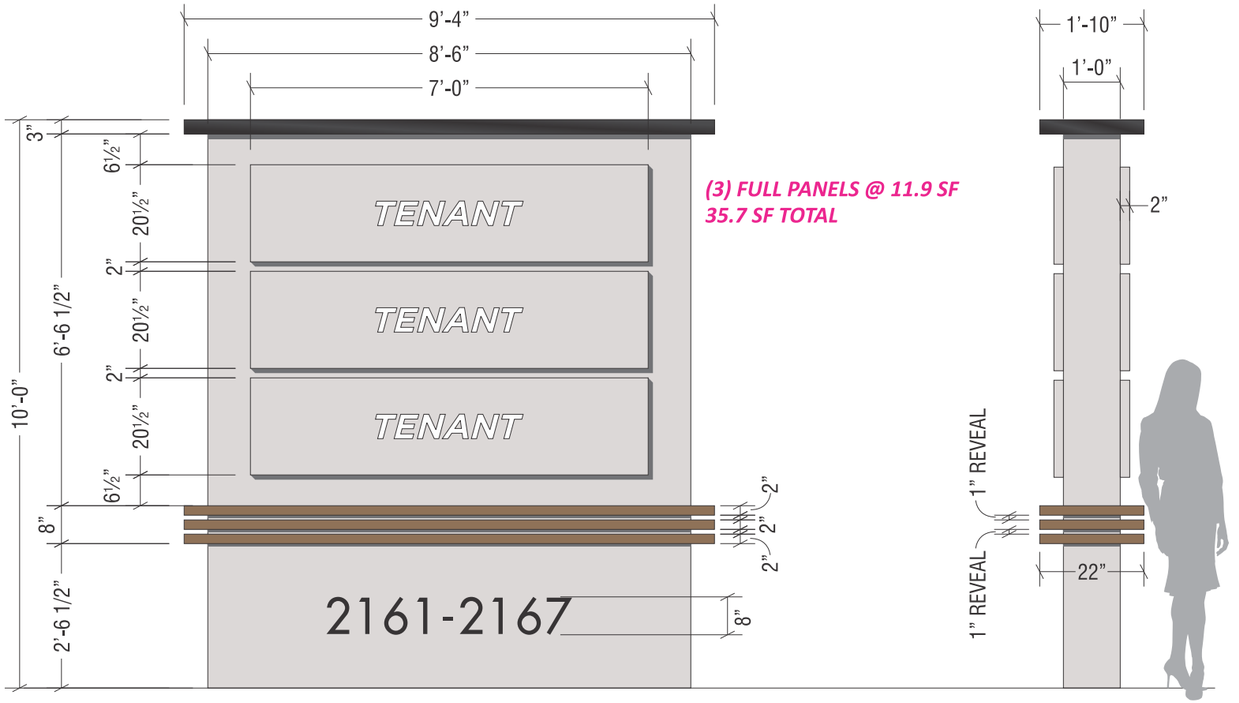

B DOUBLE SIDED, INTERNALLY ILLUMINATED PYLON DISPLAY
SCALE: 3/8"=1'

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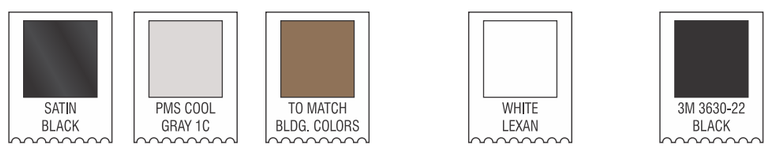
- FAB'D ALUM. CAP PAINTED SATIN BLACK

- (3) 2" TALL ACCENT BARS PAINTED BROWN TO MATCH BLDG COLORS(TBD). 1" REVEAL BETWEEN.

- ADDRESS NUMERALS TO BE FIRST SURFACE APPLIED 3M 3630-22 BLACK VINYL

- INTERNALLY ILLUMINATED w/ WHITE LED & POWER SUPPLIES

- MOUNTED ON STL. SUPPORT & CONCRETE FOUNDATION



DOYLE
GENERAL SIGN CONTRACTORS
232 INTERSTATE RD. P.O. BOX 1068
ADDISON, IL 60101
630-543-9490
FAX 630-543-9493

DATE	REVISION
6.10.24	REVISED PER NOTES -NF
6.11.24	ADJUSTED SF NOTES - KM
6.11.24	ADDED ADDRESS FCO HEIGHT(8") - KM
10.2.24	UPDATED SITE PLAN - KM
10.7.24	COMPLETE RE-DESIGN - KM
10.8.24	REVISED TENANT FACES TO ROUTED ALUM. - KM
10.23.24	REVISED PER COMMENTS/NOTES - KM
11.6.24	REVISED ADDRESS TO 8"
11.11.24	ADDED SIGN A & REVISED D

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CLIENT	SHOPPES OF MEADOWBROOK						
ADDRESS	2001-2153 63rd ST						
CITY	DOWNERS GROVE	**STATE**	IL	**DESIGNER**	KM	**SALESPERSON**	SH
DRWG. NO.	5223.845	**SCALE:**	NOTED	**DATE:**	05.02.2023	**SHEET NO.**	2

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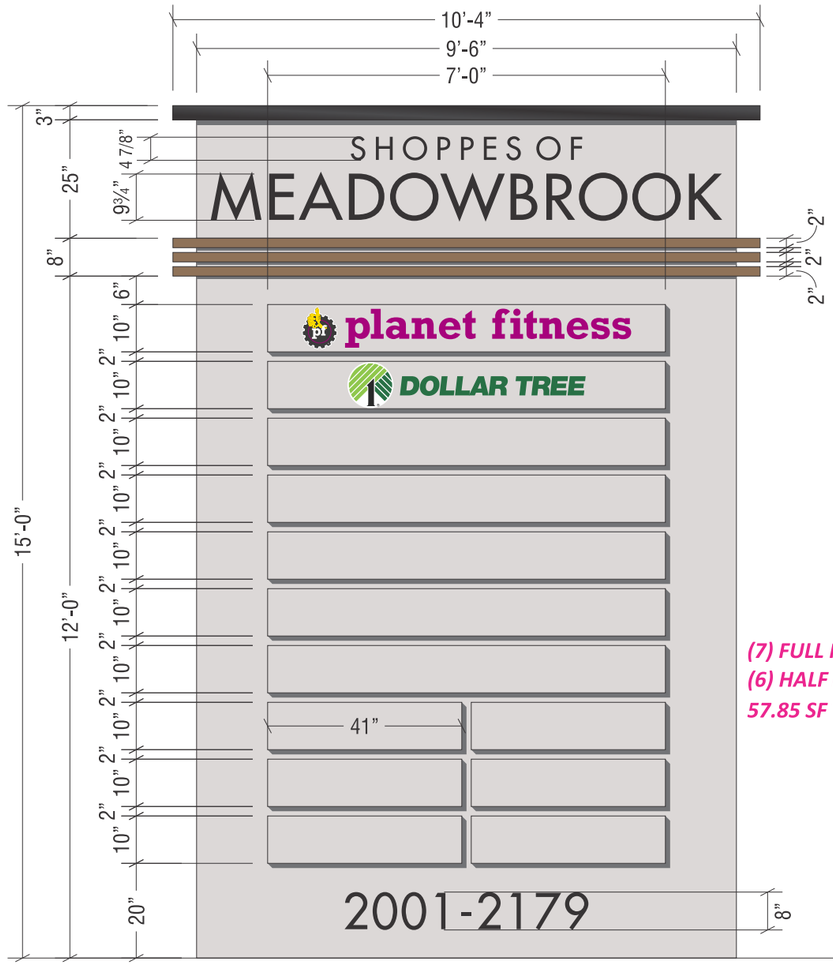

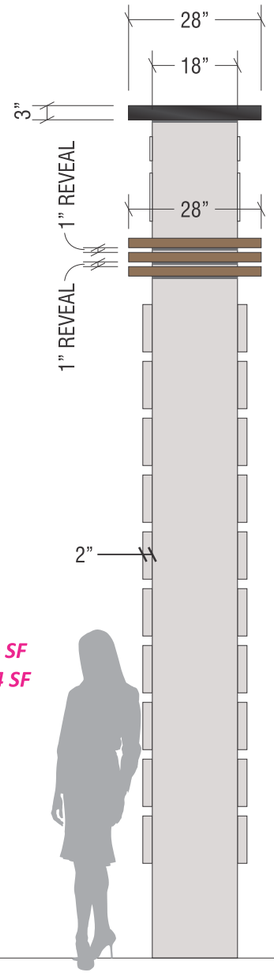

C DOUBLE SIDED, INTERNALLY ILLUMINATED PYLON DISPLAY

SCALE: 3/8"=1'

- ALUMINUM SIGN CABINETS PAINTED PMS COOL GRAY 1C

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- MOUNTED ON STL. SUPPORT & CONCRETE FOUNDATION

SATIN BLACK | PMS COOL GRAY 1C | TO MATCH BLDG. COLORS | WHITE LEXAN | 3M 3630-22 BLACK

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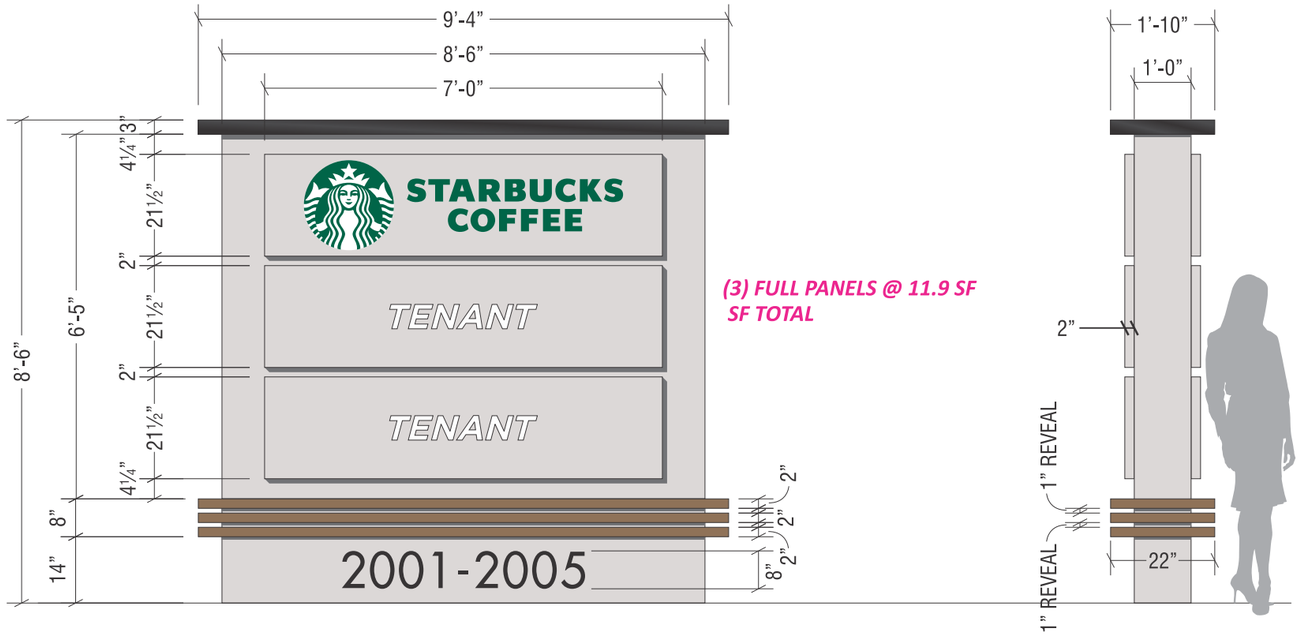

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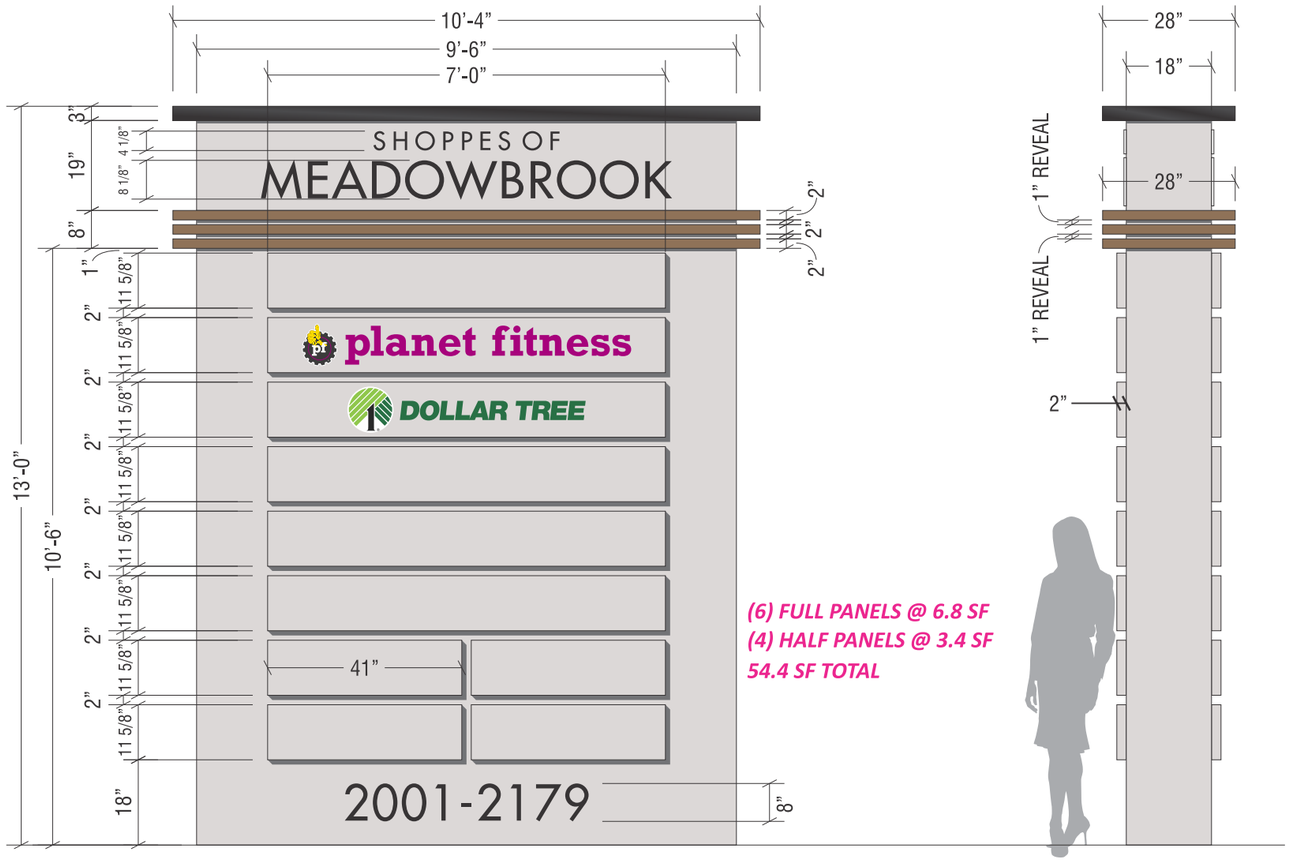

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DRWG. NO.	5223.845	**SCALE:**	NOTED	**DATE:**	05.02.2023	**SHEET NO.**	5

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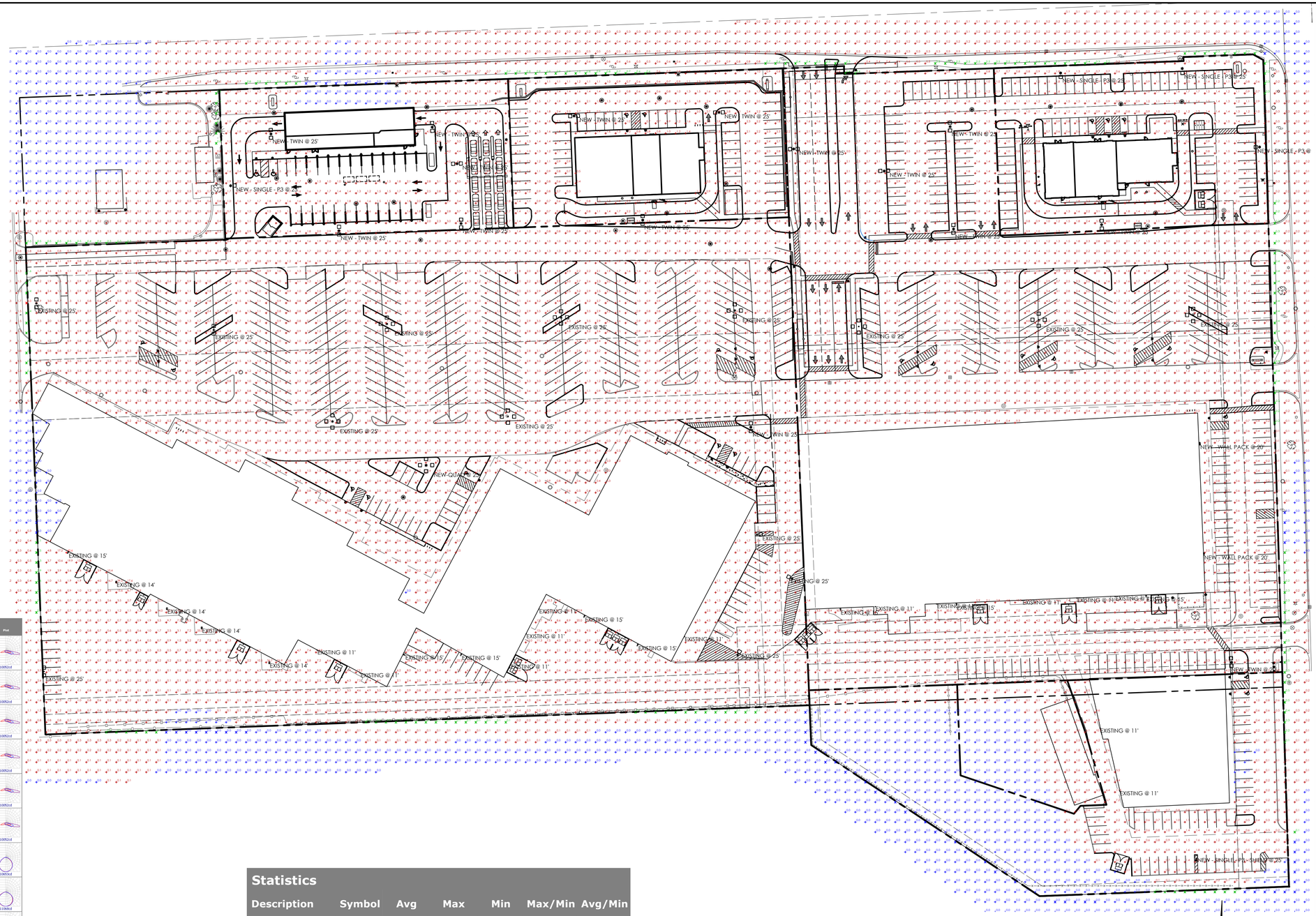

Schedule											
Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
	EXISTING		3	EXISTING	EXISTING	EXISTING	1	12565	0.9	102.17	Max: 10052cd
	EXISTING		3	EXISTING	EXISTING	EXISTING	1	12565	0.9	204.34	Max: 10052cd
	EXISTING		8	EXISTING	EXISTING	EXISTING	1	12565	0.9	408.68	Max: 10052cd
	NEW - TWIN		15	Lithonia Lighting	DSX1 LED P3 35K 80CRI T4M	D-Series Size 1 Area Luminaire P3 Performance Package 3500K CCT 80 CRI Type 4 Medium	1	12565	0.85	204.34	Max: 10052cd
	NEW - QUAD		1	Lithonia Lighting	DSX1 LED P3 35K 80CRI T4M	D-Series Size 1 Area Luminaire P3 Performance Package 3500K CCT 80 CRI Type 4 Medium	1	12565	0.9	408.68	Max: 10052cd
	NEW - SINGLE - P3		4	Lithonia Lighting	DSX1 LED P3 35K 80CRI T4M	D-Series Size 1 Area Luminaire P3 Performance Package 3500K CCT 80 CRI Type 4 Medium	1	12565	0.9	102.17	Max: 10052cd
	EXISTING		4	Lithonia Lighting	IBH 30000LM SDG80 MO OZ10 35K 80CRI	IBH 30,000Lumens Semi-Diffuse Acylic Lens, Medium Distribution,OZ10 Driver, 3500K, 80CRI	1	27496	0.7	280	Max: 10853cd
	EXISTING		8	Lithonia Lighting	ESXF5 ALO SWW2 LVOLT 70 ODB 40K 190W	Architectural Flood and Spot Luminaires	1	30578	0.8	177.07	Max: 11068cd
	EXISTING		13	Lithonia Lighting	DSXW2 LED 20C 1000 40K TAM RWLT	DSXW2 LED WITH 2 LIGHT ENGINES, 20 LED's, 1000mA DRIVER, 4000K LED, TYPE V MEDIUM OPTIC	1	7599	3.5	73	Max: 5323cd
	T-REPLACEMENT		0	Lithonia Lighting	[...]	[...]	1	9086.645	0.9	204.34	
	NEW - SINGLE - P3 - SHIELD		1	Lithonia Lighting	DSX1 LED P3 35K 80CRI T4M HS	D-Series Size 1 Area Luminaire P3 Performance Package 3500K CCT 80 CRI Type 4 Medium Houseside Shield	1	10809	0.9	102.1727	Max: 9172cd
	NEW - WALL PACK		2	Lithonia Lighting	DSXW2 LED 20C 1000 40K TAM RWLT	DSXW2 LED WITH 2 LIGHT ENGINES, 20 LED's, 1000mA DRIVER, 4000K LED, TYPE V MEDIUM OPTIC	1	7599	0.9	73	Max: 5323cd
	NEW - SINGLE - P2		0	Lithonia Lighting	DSX1 LED P2 40K 80CRI T4M	D-Series Size 1 Area Luminaire P2 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	9092	0.85	67.79	Max: 7273cd
	NEW - TWIN - P2		0	Lithonia Lighting	DSX1 LED P2 40K 80CRI T4M	D-Series Size 1 Area Luminaire P2 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	9092	0.85	135.58	Max: 7273cd

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
OVERALL	+	1.3 fc	41.5 fc	0.0 fc	N/A	N/A
PROP LINE + 5'	X	0.4 fc	3.0 fc	0.0 fc	N/A	N/A

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)

1 inch = 50 ft.

NO.	DATE	DESCRIPTION
5	11/11/2024	VILLAGE RESUBMITTAL

rtm engineering consultants

650 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756 - 4180
www.rtmec.com

IL Design Firm: 184006777-0002

SHEET NAME: PHOTOMETRIC PLAN

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. C3.0

OF SHEETS

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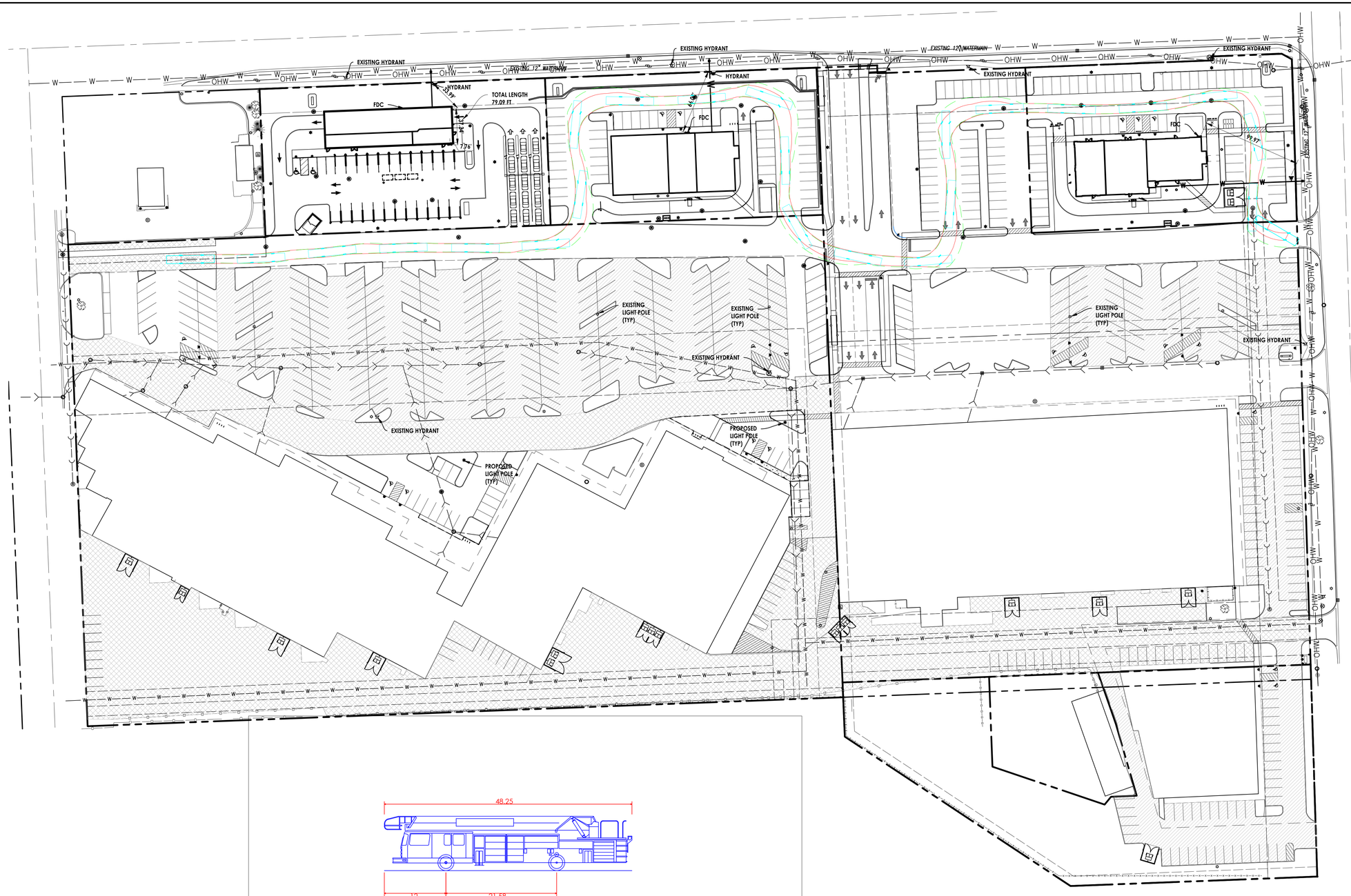
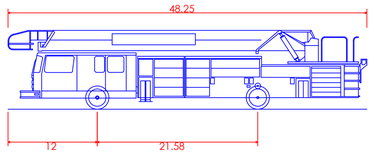




DOWNERS GROVE	
Overall Length	48.250ft
Overall Width	8.000ft
Overall Body Height	10.591ft
Min Body Ground Clearance	1.021ft
Track Width	8.910ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	40.080ft

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)

1 inch = 50 ft.

NO.	DATE	DESCRIPTION
	7/1/24	VILLAGE SUBMITTAL
	11/1/24	VILLAGE RESUBMITTAL

650 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756-4180
www.rtmec.com

IL Design Firm: 184006777-0002

rtm engineering consultants

SHEET NAME: TRUCK TURN

PROJECT NAME: SHOPPES OF MEADOWBROOK

2001-2153 W. 63RD STREET, DOWNERS GROVE, ILLINOIS

PROJECT No. 23.011211.3451

SHEET No. X1.0

OF 34 SHEETS

User: lucas.keller File: J:\2023\STELL 11211\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02-SHEETS\OVERALL SITE\FIRE EXHIBITS.dwg Time: Nov 11, 2024 - 9:35am

EXISTING HYDRANT

HYDRANT

33.99'

TOTAL LENGTH
79.09 FT

FDC

PROPOSED CAR WASH
4,940± SF

OFFICE
(FACILITY AT
STATION)

44.08'

7.76'

EXISTING 12" WATERMAIN

PROPOSED MTU
7,500 SF

PROPOSED
1,652 SF

PROPOSED
2,349 SF

PROPOSED STARBUCKS
2,446 SF

99.97'

EXISTING
LIGHT POLE
(TYP)

EXISTING HYDRANT

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

NO.	DESCRIPTION	DATE

Traffic Study
Shoppes of Meadowbrook
Downers Grove, Illinois

Prepared For:

Stellco Properties

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

October 3, 2024

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 development of the outlot parcels located within Meadowbrook shopping center located in the southwest quadrant of the intersection of 63rd Street with Woodward Avenue in Downers Grove, Illinois. As proposed the outlot parcels will be developed to contain the following:

- A tunnel car wash fronting 63rd Street. (Lot 1). However, it should be noted that this lot was previously contemplated to contain approximately 5,000 square feet of retail space and an approximately 2,500 square-foot quick-service restaurant (QSR) with a drive-through. As discussed later, the multi-tenant commercial building was projected to generate more traffic than the proposed car wash and therefore, has been assumed for Lot 1 for the purposes of this evaluation.

- An approximately 7,500 square-foot multi-tenant building which will contain a QSR and retail area. (Lot 2)

- An approximately 4,000 square-foot medical building connected with an approximately 2,450 square-foot Starbucks coffee shop with a drive-through lane. (Lot 3)

Additionally, it is proposed that the existing buildings located on the south side of the site will be upgraded and the parking lot will be restriped to provide one-way drive aisles with angled parking. Access to the development will continue to be provided off 63rd Street (modified to a three-quarter movement access drive), Woodward Avenue, and Belmont 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 the 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:

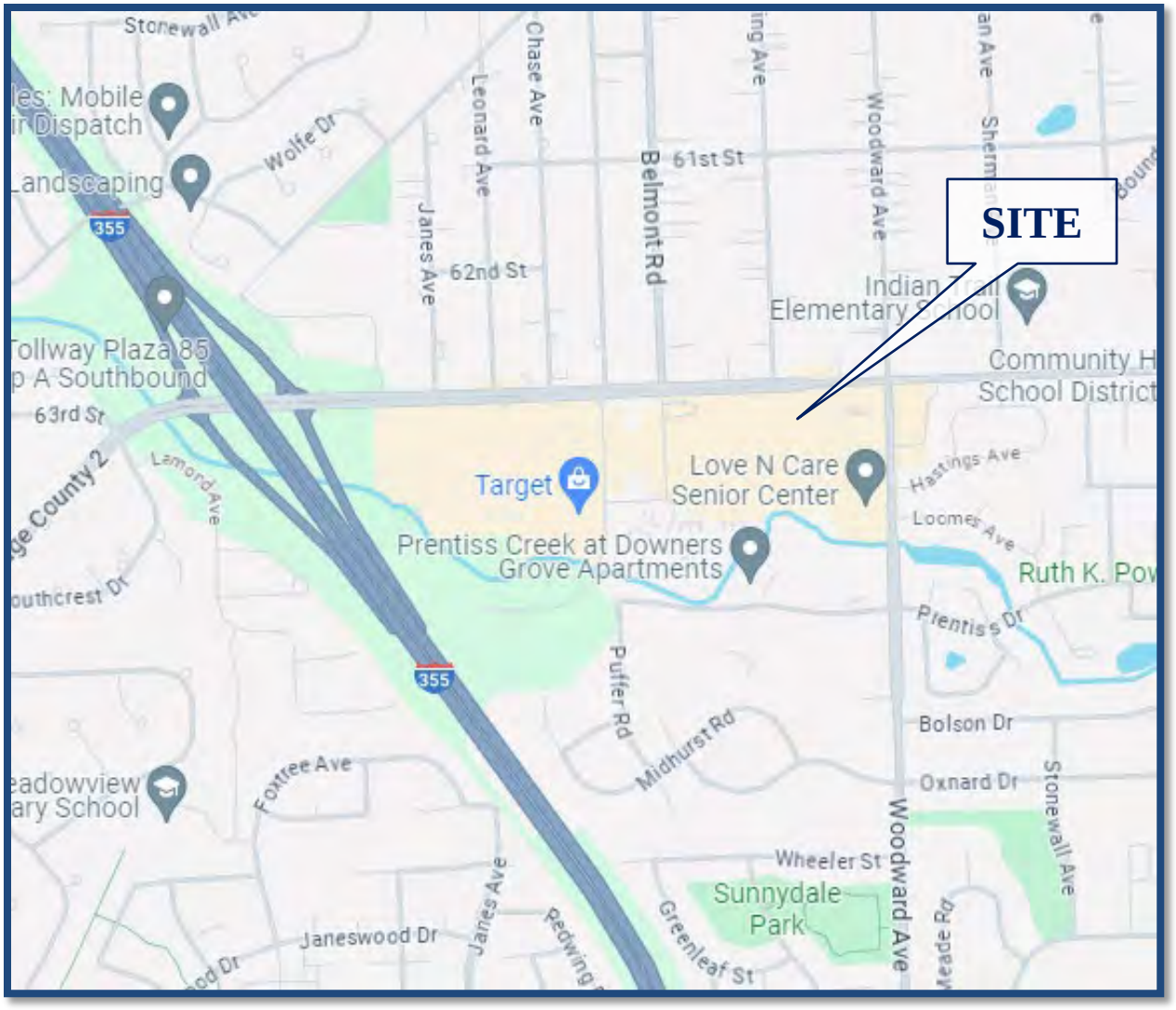
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening, and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

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

1. Existing 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 existing roadway system using existing peak hour traffic volumes including ambient traffic growth.

3. Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the full buildout of the proposed development.



Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

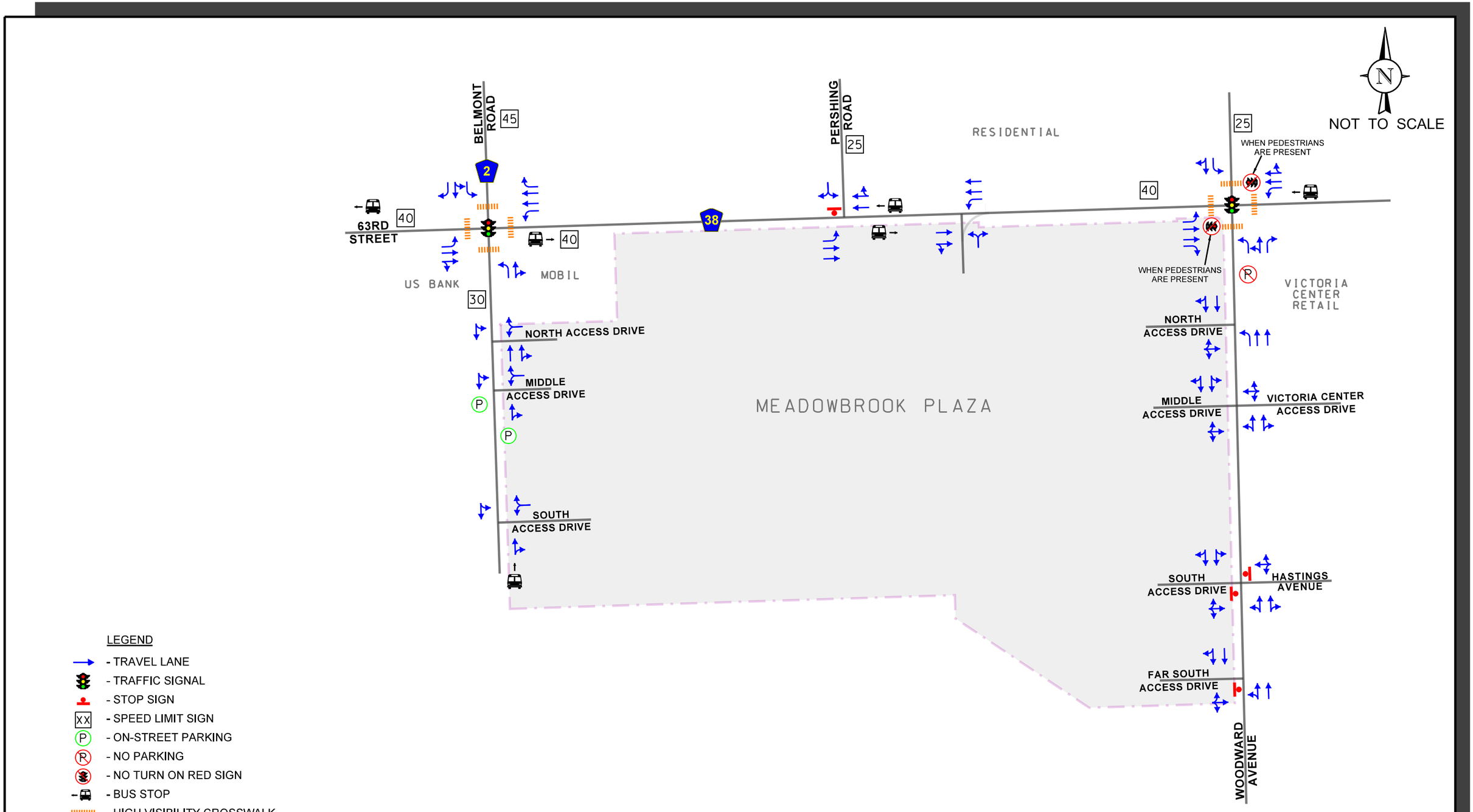
Site Location

The outlot parcels, which currently serve as parking lots, are located within the Meadowbrook shopping center fronting 63rd Street between Belmont Road and Woodward Avenue. Land uses in the vicinity of the site are primarily residential to the north, south, and east of the site with some commercial land uses to the west including U.S. Bank, Elite Sports Complex, Subway, Target Department store, Fifth Third bank, Amita Health Medical. In addition, a Mobile gas station is located in the northwest corner of the site.

Existing Roadway System Characteristics

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

63rd Street (DuPage County Route 38) is an east-west minor arterial roadway with a five-lane cross section that in the vicinity of the site provides two lanes in each direction divided by a striped median. At its signalized intersection with Woodward Avenue, 63rd Street provides an exclusive left-turn lane, two through lanes, and an exclusive 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. High visibility crosswalks and pedestrian signals are provided on all four legs of this intersection. At its signalized intersection with Belmont Road, 63rd Street provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the westbound approach. High visibility crosswalks and pedestrian signals are provided on all four legs of this intersection. At its unsignalized intersection with Pershing Road, 63rd Street provides an exclusive left-turn lane and two through lanes on the eastbound approach and a through lane and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with the Meadowbrook shopping center access drive, 63rd Street provides a through lane and a shared through/right-turn lane on the eastbound approach and an exclusive left-turn lane and two through lanes on the westbound approach. 63rd Street is under the jurisdiction of the DuPage County Division of Transportation (DuDOT) and has a posted speed limit of 40 miles per hour. 63rd Street carries an Annual Average Daily Traffic (AADT) volume of 19,100 (Illinois Department of Transportation [IDOT] 2020) vehicles west of Woodward Avenue and 18,900 vehicles (IDOT 2020) east of Woodward Avenue.



SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

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

Job No: 23-204 Figure: 3

Woodward Avenue is a north-south roadway that provides one lane in each direction and is classified as a local roadway north of 63rd Street and provides two lanes in each direction and is classified as a minor arterial roadway south of 63rd Street. At its signalized intersection with 63rd Street, Woodward Avenue provides an exclusive left-turn lane and a shared through/right-turn lane on the southbound approach and an exclusive left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane on the northbound approach. At its unsignalized intersections with the Meadowbrook shopping center north access drive, Woodward Avenue provides an exclusive left-turn lane and two through lanes on the northbound approach and a through lane and a shared through/right-turn lane on the southbound approach. At its unsignalized intersections with Vicotria Center access drive/Meadowbrook shopping center middle access drive and Meadowbrook shopping center south access drive/Hastings Avenue, and the shopping center far south access drive Woodward Avenue does not provide any exclusive turn lanes. Woodward Avenue is under the jurisdiction of the Village of Downers Grove and has a posted speed limit of 30 mph south of 63rd Street and 25 miles per hour north of 63rd Street. Woodward Avenue carries an AADT volume of 12,300 vehicles (IDOT 2020) south of 63rd Street.

Belmont Road is a north-south roadway that provides two lanes in each direction and is classified as a minor arterial roadway north of 63rd Street and provides one lane in each direction and is classified as a local roadway south of 63rd Street. At its signalized intersection with 63rd Street, Belmont Road provides an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach and an exclusive left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane on the southbound approach. At its unsignalized intersections with Meadowbrook access drives, Belmont Road provides a shared through/right-turn lane on the northbound approach and a shared left-turn/through lane on the southbound approach. All the access drives provide a shared left-turn/right-turn lane on the westbound approach. Belmont Road is under the jurisdiction of DuDOT and has a posted speed limit of 40 miles per hour north of 63rd Street and it is under the jurisdiction of the Village of Downers Grove and has a posted speed limit of 30 miles per hour south of 63rd Street. Belmont Road carries an AADT volume of 12,400 vehicles (IDOT 2020).

Pershing Road is a north-south local roadway that provides one travel lane in each direction. At its unsignalized "T" intersection with 63rd Street, Pershing Road provides a shared left-turn/right-turn lane on the southbound approach. Pershing Road in under the jurisdiction of Downers Grove Township and has a posted speed limit of 25 miles per hour.

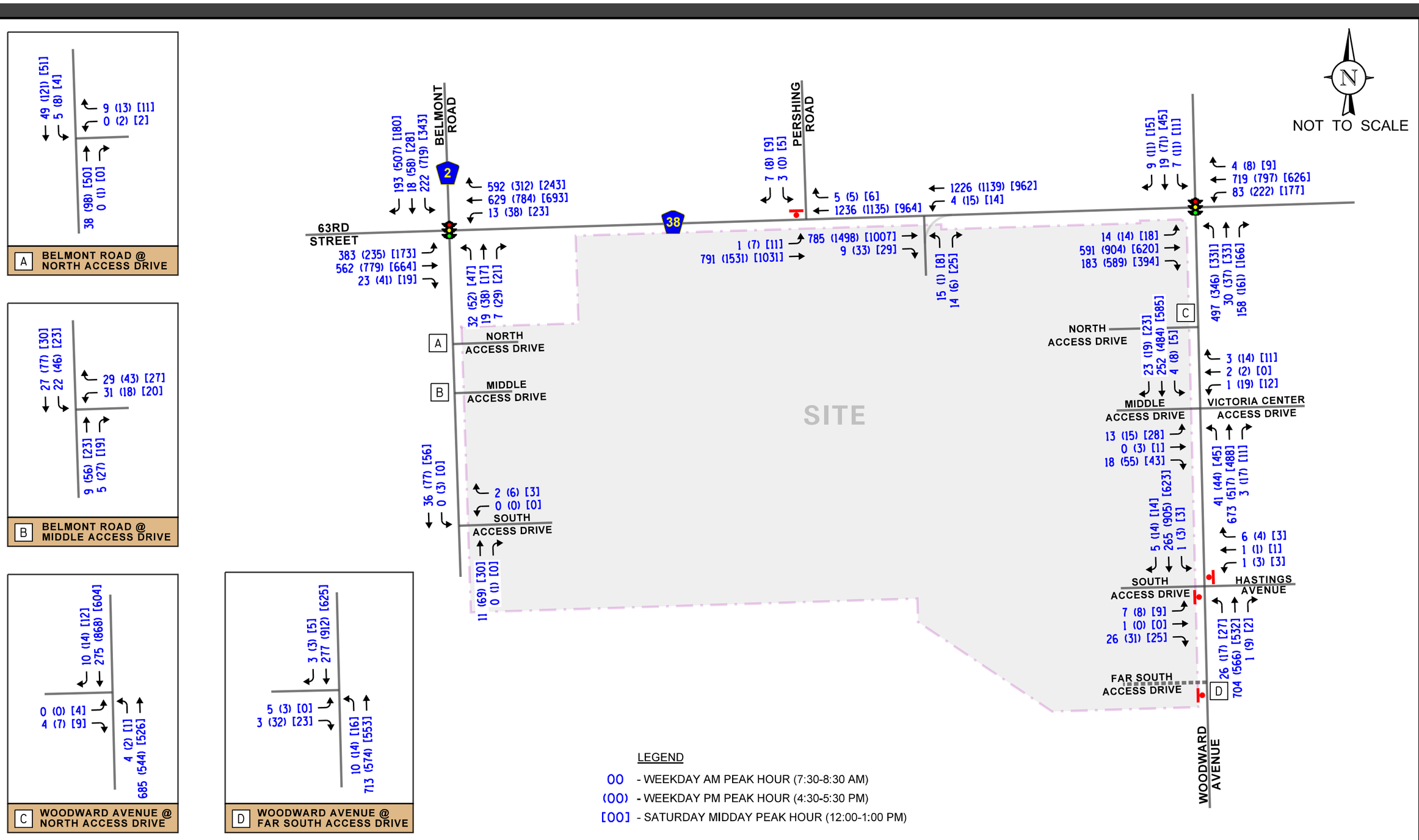
Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle, pedestrian, and bicycle movement traffic counts on Thursday, August 10, 2023, during the weekday morning (7:00 A.M. to 9:00 A.M.), evening (4:00 P.M. to 6:00 P.M.), and Saturday midday (12:00 P.M. to 2:00 P.M.) peak periods at the following intersections:

- 63rd Street with Belmont Road
- 63rd Street with Woodward Avenue
- 63rd Street with Meadowbrook Shopping Center Access Drives
- 63rd Street with Pershing Road
- Woodward Avenue with Meadowbrook Shopping Center North Access Drive
- Woodward Avenue with Meadowbrook Shopping Center Middle Access Drive/Victoria Center Access Drive
- Woodward Avenue with Meadowbrook Shopping Center South Access Drive/Hastings Avenue
- Woodward Avenue with Meadowbrook Shopping Center Far South Access Drive
- Belmont Road with Meadowbrook Shopping Center North Access Drive
- Belmont Road with Meadowbrook Shopping Center Middle Access Drive
- Belmont Road with Meadowbrook Shopping Center South 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 4:30 P.M. to 5:30 P.M. and the Saturday midday peak hour of traffic occurs from 12:00 P.M. to 1:00 P.M. **Figure 4** illustrates the existing traffic volumes.

Copies of the traffic count summary sheets are included in the Appendix.



SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

EXISTING TRAFFIC VOLUMES

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

Job No: 23-204 Figure: 4

Crash Data Analysis

KLOA, Inc. obtained crash data[1] for the past five years (2018 to 2022) for the intersections of 63rd Street with Belmont Road, Pershing Road, and Woodward Avenue and the intersection of Woodward Avenue with Hastings Avenue/Meadowbrook shopping center south access drive, which are summarized in **Tables 1** through **4**. It should be noted that a fatal crash was reported at the intersection of 63rd Street with Belmont Road during 2022 as a result of an accident between a passenger vehicle with a pedestrian in darkness.

Table 1
63RD STREET WITH BELMONT ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	1	0	5	0	6
2019	0	0	0	1	0	4	0	5
2020	2	0	0	3	0	3	0	8
2021	2	0	0	1	0	8	0	11
2022	1	0	0	3	0	9	0	13
Total	**5**	**0**	**0**	**9**	**0**	**29**	**0**	**43**
Average	**1.0**	**--**	**--**	**1.8**	**--**	**5.8**	**--**	**8.6**

Table 2
63RD STREET WITH PERSHING ROAD – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	0	0	1	0	1
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
2022	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
Average	**--**	**--**	**--**	**--**	**--**	**<1.0**	**--**	**<1.0**

[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).

Table 3
63RD STREET WITH WOODWARD AVENUE – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	1	0	0	2	0	9	1	13
2019	0	0	0	2	0	6	0	8
2020	0	0	0	1	0	4	0	5
2021	0	0	1	0	0	4	0	5
2022	2	0	0	0	2	6	2	12
Total	**3**	**0**	**1**	**5**	**2**	**29**	**3**	**43**
Average	**<1.0**	**--**	**<1.0**	**1.0**	**<1.0**	**5.8**	**<1.0**	**8.6**

Table 4
WOODWARD AVENUE WITH HASTINGS AVENUE/MEADOWBROOK SHOPPING CENTER SOUTH ACCESS DRIVE– CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2018	0	0	0	0	0	0	0	0
2019	0	0	0	1	0	0	0	1
2020	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	1	0	1
2022	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**
Average	**--**	**--**	**--**	**<1.0**	**--**	**<1.0**	**--**	**<1.0**

3. Traffic Characteristics of the Proposed Development

To evaluate the impact of the subject development on the area roadway system, it was necessary to quantify the number of vehicle trips the site will generate during the peak hours and then determine the directions from which the proposed traffic will approach and depart the site.

Proposed Site and Site Plan

As proposed, the outlot parcels within the Meadowbrook shopping center in the southwest quadrant of the intersection of 63rd Street with Woodward Avenue will be developed to contain the following:

- A tunnel car wash fronting 63rd Street. (Lot 1). As previously indicated, this lot was previously contemplated to contain approximately 5,000 square feet of retail space and an approximately 2,500 square-foot QSR with a drive-through which is projected to generate more traffic than the proposed car wash (as discussed in the following section) and as such, was assumed for the purposes of this evaluation.

- An approximately 7,500 square-foot multi-tenant building which will contain a QSR with drive-through. (Lot 2)

- An approximately 4,000 square-foot medical building connected with an approximately 2,450 square-foot Starbucks coffee shop with a drive-through lane. (Lot 3)

Additionally, it is proposed that the existing buildings located on the south side of the site will be upgraded and the parking lot will be restriped to provide one-way drive aisles with angled parking. Access to the development will continue to be provided off 63rd Street (modified to a three-quarter movement access drive), Woodward Avenue, and Belmont Road as follows:

- A three-quarter access drive off 63rd Street located approximately 505 feet west of Woodward Avenue will be modified to provide two inbound lanes and one outbound lane. The outbound left-turn movement will be prohibited at this access drive. The outbound right-turn movement will be under stop sign control.

- Four existing full movement access drives off Woodward Avenue that each provides one inbound lane and one outbound lane with the outbound movements under stop sign control.

- Three existing full movement access drives off Belmont Road that each provides one inbound lane and one outbound lane with the outbound movements under stop sign control.

A copy of the proposed site plan is included in the Appendix.

Directional Distribution of Site Traffic

The directions that traffic will approach and depart the site was estimated based on the existing travel patterns as derived from the peak hour traffic volumes, the operation of the roadway system, and the configuration of the access drives. **Figure 5** shows the estimated directional distribution for the proposed development.

Development Traffic Generation

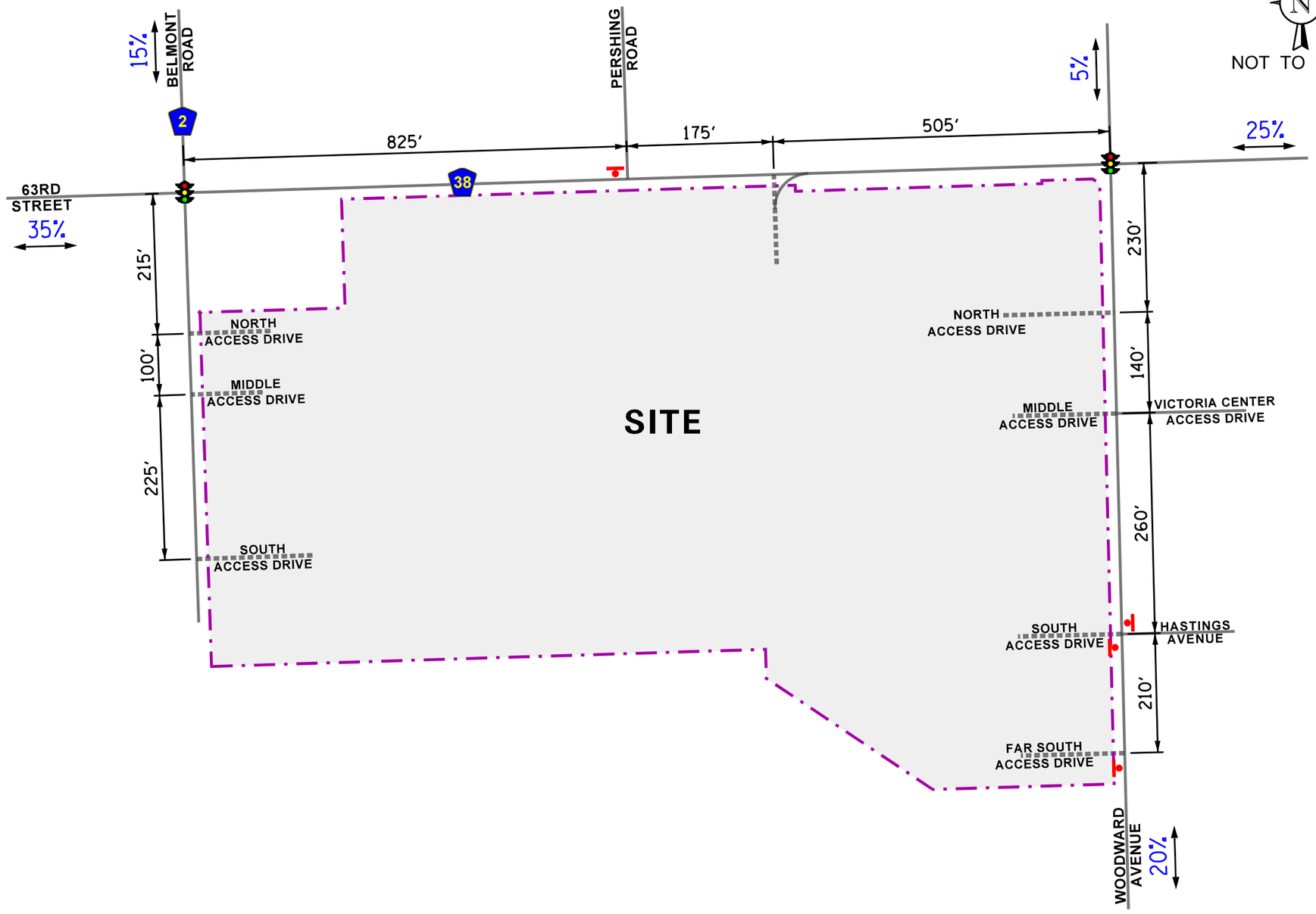
The number of peak hour trips estimated to be generated by the proposed retail development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). It should be noted that the Meadowbrook shopping center currently has approximately 43,653 square feet of vacant retail space. The following Land Use Code (LUC) rates were used to estimate the trips to be generated by the proposed development:

- "Automated Car wash" (LUC 948) rates were used for the proposed car wash.
- "Strip Retail Plaza" (LUC 822) rates were used for the proposed retail spaces.
- "Fast-Food Restaurant with Drive Through" (LUC 934) rates were used for the QSR.
- "Coffee/Donut Shop with Drive-Through Window" (LUC 937) rates were used for the coffee shop.
- "Medical-Dental Office Building" (LUC 720) rates were used for the medical building.
- "Strip Retail Plaza" (LUC 821) rates were used for the existing vacant retail area within the shopping center.

Surveys conducted by ITE have shown that a significant number of trips made to coffee shops, restaurants, and retail stores are diverted from the existing traffic on the area streets. This is particularly true during the weekday morning peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. For coffee Shops, the surveys indicate that, on average, 89 percent of the peak hour trips generated by a coffee shop are diverted from existing traffic on the adjacent streets. However, in order to provide a conservative (worst-case) analysis, a pass-by reduction of only 70 percent was applied to the site-generated traffic volumes. For fast-food restaurants with drive-throughs, 50 percent are pass-by trips and for retail stores approximately 20 percent are pass-by trips. Furthermore, a 10 percent interaction reduction was applied to the total trips projected to be generated by the proposed development to account for interaction within the Meadowbrook shopping center. It should be noted that the number of internal trips were calculated using the OTISS module in the itetripgen.org website.

While the current plan for Lot 1 is to provide a tunnel car wash, this lot was previously contemplated to contain approximately 5,000 square feet of retail space and an approximately 2,500 square-foot QSR with a drive-through. **Table 5** compares the estimated traffic volumes generated by the two options. As can be seen from Table 5, the multi-tenant building is expected to generate more traffic than the car wash. As such, for the purposes of this evaluation, the multi-tenant building trip generation was utilized to provide a conservative (worst case) analysis.

Table 6 summarizes the trips projected to be generated by the proposed development during the peak hours. Copies of the ITE trip generation sheets are included in the Appendix.



LEGEND

00% - PERCENT DISTRIBUTION

00' - DISTANCE IN FEET

SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

DIRECTIONAL DISTRIBUTION

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

Job No: 23-204 Figure: 5

Table 5
ESTIMATED PEAK HOUR VEHICLE TRIP COMPARISON FOR LOT 1

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Option 1										
948	Car Wash (1 Tunnel)	13	13	26	39	39	78	19	22	41
Option 2										
822	Retail (5,000 s.f.)	7	5	12	16	17	33	17	16	33
934	QSR with Drive-Through (2,500 s.f.)	57	55	112	43	40	83	70	68	138
Total Trips for Option 2		64	60	124	59	57	116	87	84	171

Table 6
ESTIMATED PEAK HOUR VEHICLE TRIP GENERATION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Lot 1													
822	Retail (5,000 s.f.)	7	5	12	16	17	33	17	16	33	136	136	272
934	QSR with Drive-Through (2,500 s.f.)	57	55	112	43	40	83	70	68	138	585	585	1,170
Lot 2													
822	Retail (5,000 s.f.)	7	5	12	16	17	33	17	16	33	136	136	272
934	QSR with Drive-Through (2,500 s.f.)	57	55	112	43	40	83	70	68	138	585	585	1,170
Lot 3													
937	Coffee Shop with Drive-Through (2,450 s.f.)	107	103	210	48	48	96	108	107	215	654	654	1,308
565	Medical Center (4,000 s.f.)	11	2	13	4	9	13	7	5	12	72	72	144
821	Vacant Retail (43,653 s.f.)	47	29	76	111	116	227	141	131	272	1,474	1,474	2,948
	Total Trips	**293**	**254**	**547**	**281**	**287**	**568**	**430**	**411**	**841**	**1.471**	**1,471**	**2,948**
	Internal Interaction Reduction[1]	*-17*	*-15*	*-32*	*-20*	*-20*	*-40*	*-29*	*-27*	*-56*	*-240*	*-240*	*-480*
	Pass-By Reduction[2]	*-4*	*-4*	*-8*	*-15*	*-15*	*-30*	*-17*	*-17*	*-34*	*-175*	*-175*	*-350*
	Pass-By Reduction [3]	*-44*	*-44*	*-88*	*-32*	*-32*	*-64*	*-55*	*-55*	*-110*	*-468*	*-468*	*-936*
	Pass-By Reduction [4]	*-62*	*-62*	*-124*	*-29*	*-29*	*-58*	*-65*	*-65*	*-130*	*-393*	*-393*	*-786*
	Total New Trips	**166**	**129**	**295**	**185**	**191**	**376**	**264**	**247**	**511**	**2,366**	**2,366**	**4,732**

1- 10% internal calculation was applied to the medical office building, coffee shop trips, and multi-tenant buildings.
2- 20% pass-by rate was applied to the retail trips.
3- 50% pass-by rate was applied to the QSR trips
4- 70% pass-by rate was applied to the coffee shop trips.

4. Projected Traffic Conditions

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

Development Traffic Assignment

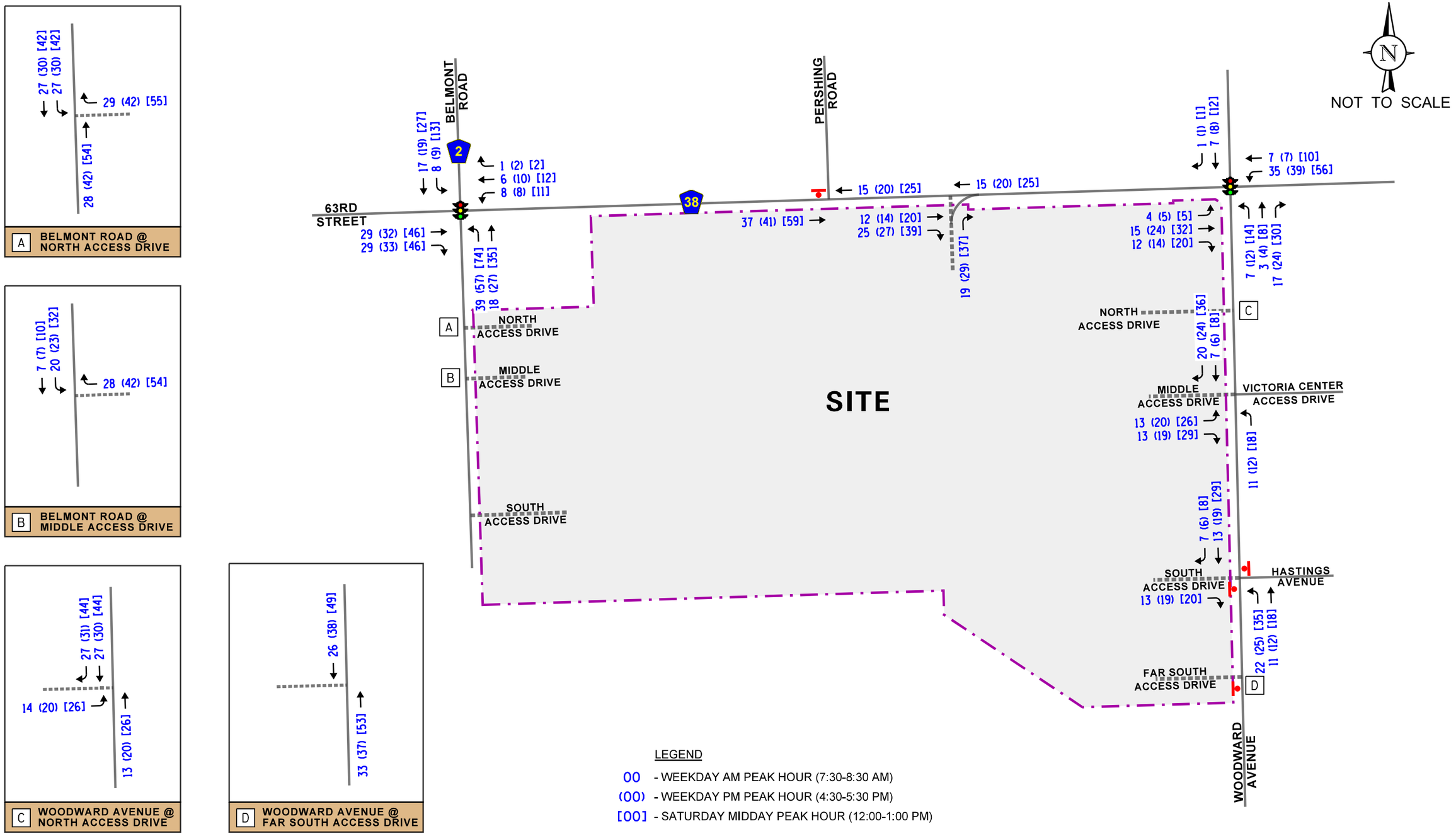
The estimated weekday morning, weekday evening, and Saturday midday peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figures 6** and **7** illustrate the traffic assignments for the new site-generated trips and the pass-by trips, respectively.

Background (No-Build) Traffic Conditions

The existing 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 particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate for six years (one-year buildout plus five years) totaling five percent to represent Year 2030 no-build conditions. **Figure 8** shows the Year 2030 no-build traffic conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

Year 2030 Total Projected Traffic Conditions

The development-generated traffic (Figures 6 and 7) was added to the no-build traffic volumes (Figure 8) to determine the Year 2030 total projected traffic volumes, which are illustrated in **Figure 9.**

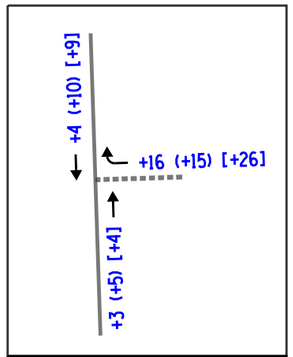


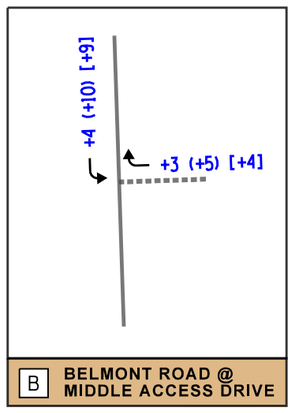
SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

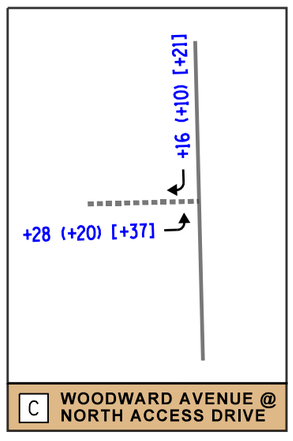
SITE-GENERATED TRAFFIC VOLUMES - NEW TRIPS

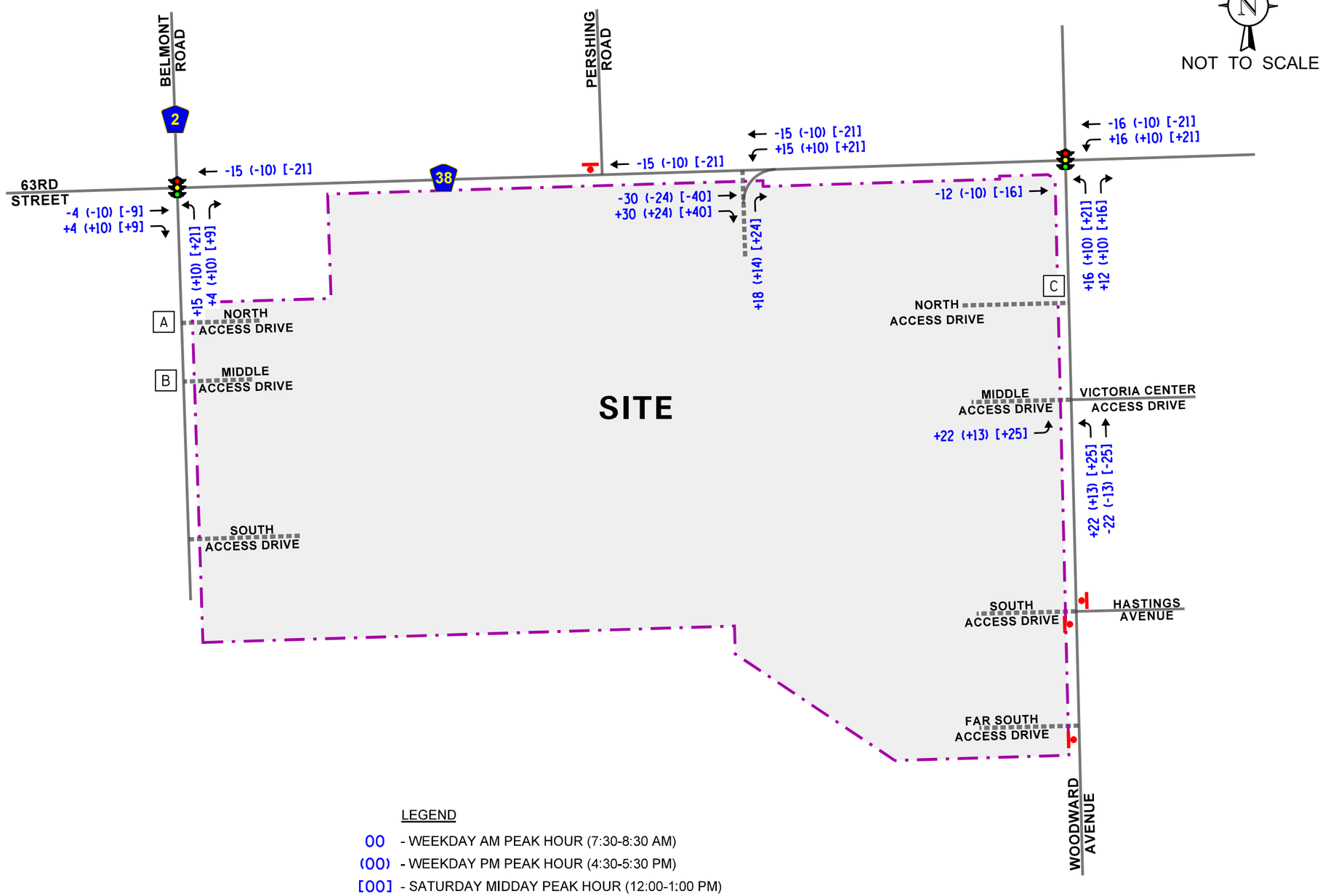
KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 23-204 Figure: 6









LEGEND

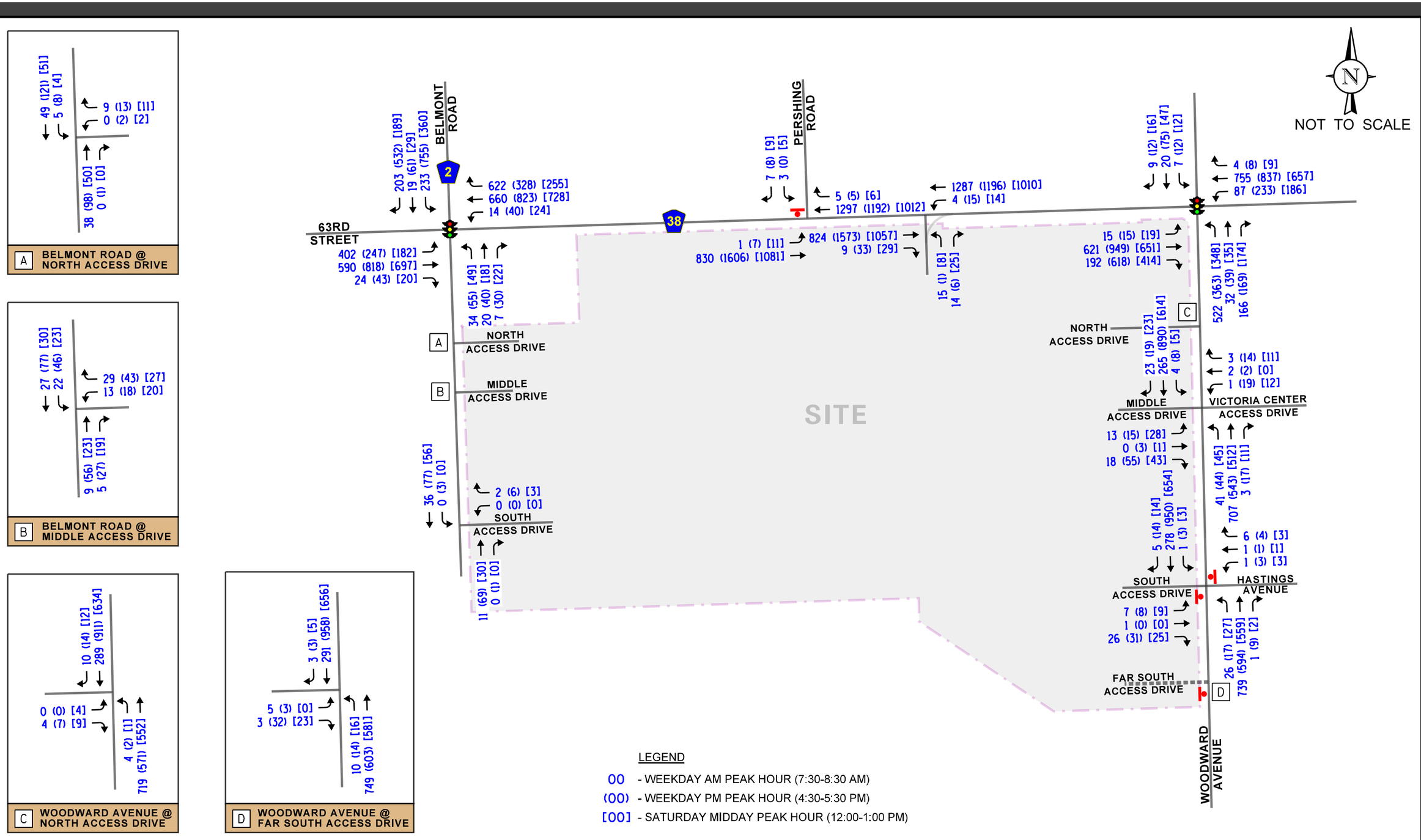
00 - WEEKDAY AM PEAK HOUR (7:30-8:30 AM)
(00) - WEEKDAY PM PEAK HOUR (4:30-5:30 PM)
[00] - SATURDAY MIDDAY PEAK HOUR (12:00-1:00 PM)

SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

PASS-BY TRAFFIC VOLUMES

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

Job No: 23-204 Figure: 7

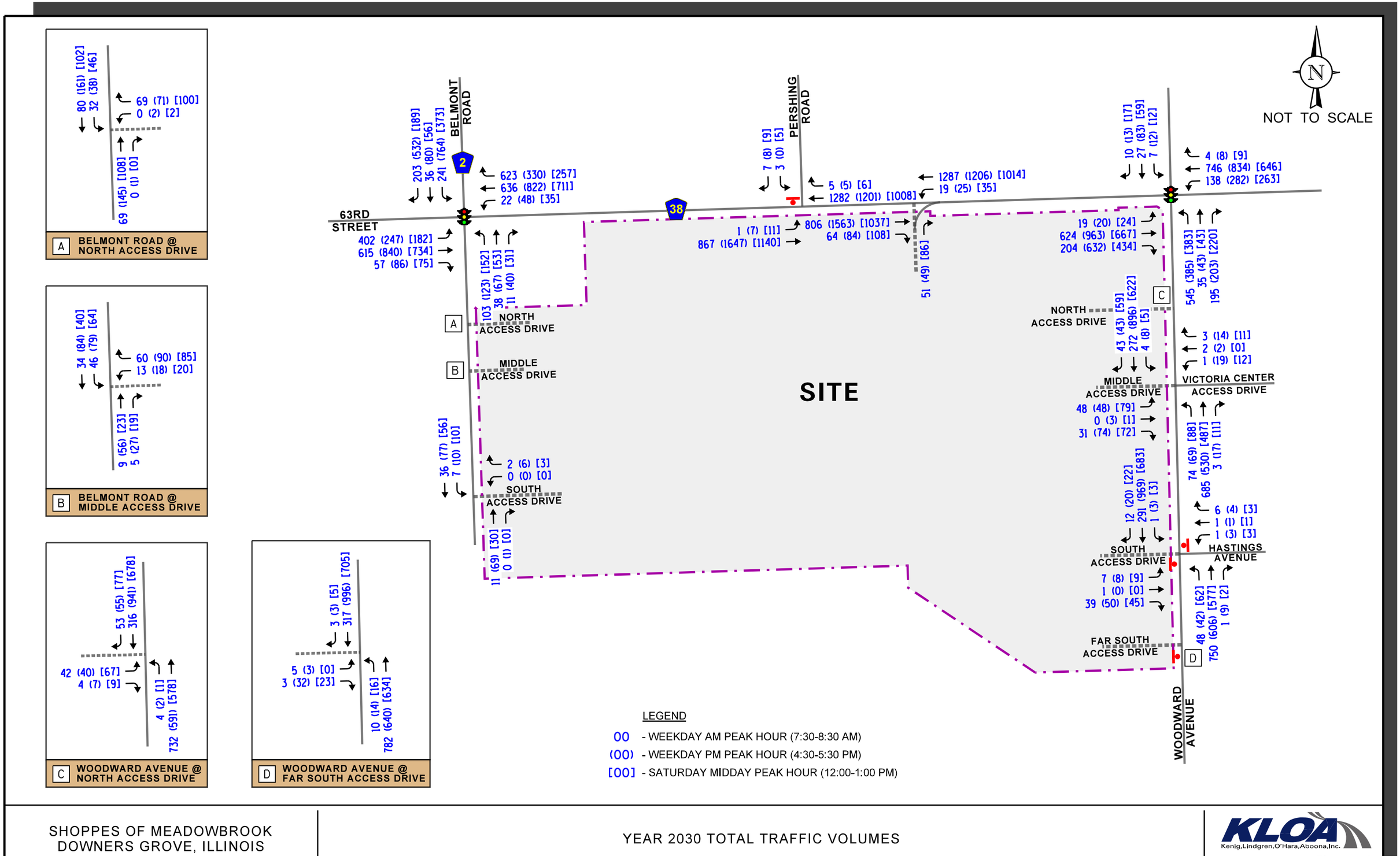


SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

YEAR 2030 NO-BUILD TRAFFIC VOLUMES

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

Job No: 23-204 Figure: 8



SHOPPES OF MEADOWBROOK
DOWNERS GROVE, ILLINOIS

YEAR 2030 TOTAL TRAFFIC VOLUMES

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

Job No: 23-204 Figure: 9

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 road 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 existing, Year 2030 no-build, and Year 2030 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 analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of services.

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 existing, no-build, and total projected conditions are presented in **Tables 7** through **11.** A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix

Table 7
CAPACITY ANALYSIS RESULTS – 63RD STREET WITH WOODWARD AVENUE – SIGNALIZED

	Peak Hour	Eastbound			Westbound		Northbound			Southbound	Overall
		L	T	R	L	T/R	L	T/L	R	L/T/R	
Existing Conditions	Weekday Morning	A 9.3	B 17.2	A 2.2	B 12.5	B 17.5	E 62.8	E 62.3	A 3.8	D – 47.4	C 25.7
		B – 13.5			B – 16.9		D – 49.0				
	Weekday Evening	A 9.4	C 21.7	A 7.1	B 15.4	B 15.7	E 67.1	E 67.1	A 3.6	E – 56.4	C 22.5
		B – 15.9			B – 15.6		D – 48.3				
	Saturday Midday	A 6.7	B 15.8	A 4.3	B 12.9	B 15.8	D 52.7	D 52.2	A 3.3	D – 40.9	B 19.0
		B – 11.2			B – 15.2		D – 37.1				
No-Build Conditions	Weekday Morning	B 10.4	C 20.6	A 2.8	B 14.2	B 19.9	E 60.8	E 60.3	A 3.6	D – 47.8	C 27.0
		B – 16.3			B – 19.3		D – 47.4				
	Weekday Evening	B 10.3	C 22.6	A 7.3	B 17.6	B 16.4	E 67.3	E 66.9	A 3.3	E – 56.9	C 23.2
		B – 16.5			B – 16.6		D – 48.2				
	Saturday Midday	A 6.8	B 16.4	A 4.2	B 13.7	B 16.4	D 52.9	D 52.4	A 3.2	D – 40.7	B 19.4
		B – 11.6			B – 15.8		D – 37.2				
Projected Conditions	Weekday Morning	A 9.8	B 19.2	A 3.3	B 15.9	C 21.9	E 60.5	E 60.4	A 3.1	D – 49.9	C 27.1
		B – 15.2			C – 21.0		D – 46.0				
	Weekday Evening	B 12.7	C 27.4	A 8.3	C 25.2	B 18.0	E 68.5	E 69.0	A 2.9	E – 57.6	C 26.0
		B – 19.7			B – 19.8		D – 47.6				
	Saturday Midday	A 7.7	B 18.7	A 4.4	B 17.2	B 18.5	D 53.0	D 53.2	A 2.7	D – 41.9	C 20.9
		B – 13.0			B – 18.1		D – 36.0				

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 8
CAPACITY ANALYSIS RESULTS – 63RD STREET WITH BELMONT ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound			Northbound		Southbound			Overall
		L	T/R	L	T	R	L	T/R	L	T/L	R	
Existing Conditions	Weekday Morning	B 15.9	B 11.9	A 9.7	C 21.3	A 8.1	E 63.4	D 48.9	E 65.0	E 64.3	A 6.6	B 19.1
		B – 13.5		B – 14.8			E – 56.8		D – 38.7			
	Weekday Evening	C 32.4	C 29.3	B 17.6	C 31.8	A 1.4	E 65.8	D 49.1	E 60.6	E 60.2	C 22.9	C 34.2
		C – 30.0		C – 22.9			E – 56.4		D – 45.6			
	Saturday Midday	B 13.3	B 17.2	B 10.6	B 19.5	A 2.8	D 53.5	C 30.4	E 55.1	D 54.8	A 4.5	C 21.8
		B – 16.4		B – 15.0			D – 43.1		D – 38.4			
No-Build Conditions	Weekday Morning	B 17.8	B 12.0	B 11.3	C 23.2	A 9.5	E 63.8	D 49.7	E 67.6	E 66.7	A 8.7	C 20.6
		B – 14.3		B – 16.5			E – 57.5		D – 41.1			
	Weekday Evening	D 43.3	C 32.0	B 18.1	D 35.7	A 1.7	E 66.1	D 49.9	E 61.8	E 61.7	C 24.1	D 36.9
		C – 34.5		C – 25.7			E – 57.0		D – 46.9			
	Saturday Midday	B 14.4	B 17.9	B 10.8	B 19.4	A 2.6	D 53.7	C 30.2	E 55.1	D 54.9	A 4.9	C 22.0
		B – 17.2		B – 15.0			D – 43.1		D – 38.6			
Projected Conditions	Weekday Morning	C 23.4	B 16.7	B 12.5	C 29.1	B 11.9	E 70.3	D 49.2	E 68.4	E 67.8	B 17.1	C 26.4
		B – 19.2		C – 20.4			E – 63.5		D – 46.6			
	Weekday Evening	D 51.9	D 35.0	B 18.9	D 36.5	A 1.5	E 77.7	E 57.4	E 70.9	E 70.6	C 33.2	D 42.6
		D – 38.6		C – 26.1			E – 68.2		E – 56.2			
	Saturday Midday	B 19.2	C 23.3	B 12.5	C 23.2	A 1.7	E 65.1	D 38.1	E 56.3	E 56.4	B 14.3	C 28.0
		C – 22.5		B – 17.3			D – 55.6		D – 43.5			

Letter denotes Level of Service L – Left Turn R – Right Turn
Delay is measured in seconds. T – Through

Table 9
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTIONS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
63rd Street with Access Drive[1]						
• Northbound Approach	B	12.0	B	13.6	B	11.6
• Westbound Left Turn	A	8.2	B	10.2	A	8.5
63rd Street with Pershing Road[1]						
• Southbound Approach	B	12.7	B	10.8	B	12.3
• Eastbound Left Turn	A	9.1	A	8.8	A	8.5
Woodward Avenue with North Access Drive[1]						
• Eastbound Approach	A	8.7	B	10.1	B	10.1
• Northbound Left Turn	A	7.5	A	8.3	A	7.8
Woodward Avenue with Middle Access Drive/Victoria Center Access Drive[2]						
• Eastbound Approach	B	11.6	B	13.5	B	12.4
• Westbound Approach	C	16.0	B	14.0	B	12.4
• Northbound Left Turn	A	7.6	A	8.4	A	7.9
• Southbound Left Turn	A	9.2	A	8.6	A	8.4
Woodward Avenue with South Access Drive/Hastings Avenue[2]						
• Eastbound Approach	B	10.5	B	11.8	B	10.9
• Westbound Approach	B	13.0	B	13.1	B	13.0
• Northbound Left Turn	A	7.5	A	8.4	A	7.9
• Southbound Left Turn	A	9.2	A	8.7	A	8.5
Woodward Avenue with Far South Access Drive[1]						
• Eastbound Approach	B	11.3	B	10.9	A	9.3
• Northbound Left Turn	A	7.5	A	8.4	A	7.9
Belmont Road with North Access Drive[1]						
• Westbound Approach	A	8.5	A	9.0	A	8.8
• Southbound Left Turn	A	7.3	A	7.6	A	7.3
Belmont Road with Middle Access Drive[1]						
• Westbound Approach	A	8.7	A	9.5	A	9.0
• Southbound Left Turn	A	7.3	A	7.5	A	7.3
Belmont Road with South Access Drive[1]						
• Westbound Approach	A	8.4	A	8.6	A	8.8
• Southbound Left Turn	A	0.1	A	7.3	A	0.1

LOS = Level of Service
Delay is measured in seconds.
1 – One way stop control
2 – Two-way stop control

Table 10
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTIONS – YEAR 2030 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
63rd Street with Access Drive[1]						
• Northbound Approach	B	12.4	B	14.2	B	11.9
• Westbound Left Turn	A	8.2	B	10.5	A	8.7
63rd Street with Pershing Road[1]						
• Southbound Approach	B	13.4	B	11.1	B	13.3
• Eastbound Left Turn	A	9.3	A	9.1	A	8.6
Woodward Avenue with North Access Drive[1]						
• Eastbound Approach	A	8.7	B	10.1	B	10.2
• Northbound Left Turn	A	7.5	A	8.3	A	7.9
Woodward Avenue with Middle Access Drive/Victoria Center Access Drive[2]						
• Eastbound Approach	B	11.9	B	14.0	B	12.9
• Westbound Approach	C	16.8	B	14.3	B	12.9
• Northbound Left Turn	A	7.6	A	8.5	A	8.0
• Southbound Left Turn	A	9.3	A	8.7	A	8.5
Woodward Avenue with South Access Drive/Hastings Avenue[2]						
• Eastbound Approach	B	10.7	B	12.1	B	11.0
• Westbound Approach	B	13.5	B	13.5	B	13.0
• Northbound Left Turn	A	7.5	A	8.5	A	8.0
• Southbound Left Turn	A	9.3	A	8.8	A	8.6
Woodward Avenue with Far South Access Drive[1]						
• Eastbound Approach	B	11.6	B	11.2	A	9.5
• Northbound Left Turn	A	7.5	A	8.5	A	8.0
Belmont Road with North Access Drive[1]						
• Westbound Approach	A	8.5	A	9.0	A	8.8
• Southbound Left Turn	A	7.3	A	7.6	A	7.3
Belmont Road with Middle Access Drive[1]						
• Westbound Approach	A	8.7	A	9.5	A	9.0
• Southbound Left Turn	A	7.3	A	7.5	A	7.3
Belmont Road with South Access Drive[1]						
• Westbound Approach	A	8.4	A	8.6	A	8.8
• Southbound Left Turn	A	0.1	A	7.3	A	0.1

LOS = Level of Service
Delay is measured in seconds.
1 – One way stop control
2 – Two-way stop control

Table 11
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTIONS – YEAR 2030 TOTAL PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
63rd Street with Modified Access Drive[1]						
• Northbound Approach	B	10.0	B	14.2	B	11.3
• Westbound Left Turn	A	8.6	B	10.6	A	8.9
63rd Street with Pershing Road[1]						
• Southbound Approach	B	13.5	B	11.0	B	13.7
• Eastbound Left Turn	A	9.3	A	9.0	A	8.6
Woodward Avenue with North Access Drive[1]						
• Eastbound Approach	B	13.5	C	15.2	B	14.2
• Northbound Left Turn	A	7.6	A	8.5	A	8.0
Woodward Avenue with Middle Access Drive/Victoria Center Access Drive[2]						
• Eastbound Approach	C	16.5	C	20.5	C	20.6
• Westbound Approach	C	18.3	C	15.7	B	14.3
• Northbound Left Turn	A	7.8	A	8.6	A	8.3
• Southbound Left Turn	A	9.2	A	8.6	A	8.4
Woodward Avenue with South Access Drive/Hastings Avenue[2]						
• Eastbound Approach	B	10.6	B	12.5	B	11.2
• Westbound Approach	B	14.2	C	15.3	C	15.0
• Northbound Left Turn	A	7.6	A	8.6	A	8.1
• Southbound Left Turn	A	9.4	A	8.8	A	8.7
Woodward Avenue with Far South Access Drive[1]						
• Eastbound Approach	B	11.7	B	11.4	A	9.7
• Northbound Left Turn	A	7.5	A	8.6	A	8.1
Belmont Road with North Access Drive[1]						
• Westbound Approach	A	9.0	A	9.6	A	9.5
• Southbound Left Turn	A	7.4	A	7.8	A	7.5
Belmont Road with Middle Access Drive[1]						
• Westbound Approach	A	8.8	A	9.7	A	9.2
• Southbound Left Turn	A	7.3	A	7.6	A	7.4
Belmont Road with South Access Drive[1]						
• Westbound Approach	A	8.4	A	8.6	A	8.8
• Southbound Left Turn	A	0.1	A	7.4	A	7.3

LOS = Level of Service
Delay is measured in seconds.
1 – One way stop control
2 – Two-way stop control

Discussion and Recommendations

The following is an evaluation of the analyzed intersections based on the projected traffic volumes and the capacity analyses performed.

63rd Street with Woodward Avenue

The results of the capacity analysis indicate that currently this intersection operates at an overall Level of Service (LOS) of C during the weekday morning and weekday evening peak hours and LOS B during the Saturday midday peak hour. The eastbound and westbound approaches currently operate at LOS B during all three peak hour and the northbound and southbound approaches currently operate at LOS D during the peak hours except for the southbound approach that operates at LOS E during the Saturday midday peak hour.

Under Year 2030 no-build conditions the intersection is projected to continue operating at the same existing levels of service during the peak hours with increases in delay of less than two seconds. All the approaches are projected to continue operating at the same existing levels of service during all three peak hours with increases in delay of less than three seconds.

Under Year 2030 total projected conditions the intersection is projected to operate at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours with increases in delay of less than three seconds over no-build conditions. The eastbound and westbound approaches are projected to operate at LOS C or better during all three peak hours and the northbound and southbound approaches are projected to continue operating at the same existing levels of service. It should be noted that the maximum 95th percentile queue for the northbound through movement is projected to be approximately 340 feet during the weekday morning peak hour and will extend back to the access drives to the Meadowbrook shopping center. However, a review of the traffic simulation indicated that the majority of the traffic would clear the intersection within one cycle of the traffic signal cycle. In addition, the maximum 95th percentile for the eastbound right-turn movement is projected to be approximately 240 feet during the weekday evening peak hour and will not extend back to the location of the proposed access drive. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvement or traffic control adjustments will be required.

63rd Street with Belmont Road

The results of the capacity analysis indicate that this intersection currently operates at LOS B during the weekday morning peak hour and LOS C during the weekday evening and Saturday midday peak hours. The eastbound and westbound approaches currently operate at LOS C or better during all three peak hours and the northbound and southbound approaches currently operate at LOS E or D during the peak hours.

Under Year 2030 no-build and total projected conditions, the intersection is projected to operate at LOS C during the weekday morning and Saturday midday peak hour and LOS D during the weekday evening peak hour with increases in delay of less than nine seconds over existing conditions.

The eastbound and westbound approaches are projected to operate at LOS C or better during the peak hours except for the eastbound approach that is projected to operate at LOS D during the weekday evening peak hour. The northbound and southbound approach are projected to continue operating at LOS D or E during all three peak hours. The maximum 95th percentile queue for the northbound left-turn movement is projected to be approximately 220 feet during the Saturday midday peak hour which will extend back to the north access drive, however, a review of the simulation indicated that the traffic would clear the intersection within one cycle of the traffic signal. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

63rd Street with Meadowbrook Shopping Center Access Drive

The results of the capacity analysis indicate that the northbound approach currently operates at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours while the westbound left-turn movement operates at LOS B or better during all three peak hours.

Under Year 2030 no-build conditions, the northbound approach is projected to operate at LOS B during all three peak hours with increases in delay of less than one second. The westbound left-turn movement is projected to continue operating at the same existing levels of service during all three peak hours with increases in delay of less than two seconds.

Under Year 2030 total projected conditions, this access drive will be modified to provide two inbound lanes and one outbound lane. The northbound left-turn movement to 63rd Street will be prohibited at this intersection. Removing the east access drive and prohibition of the outbound left-turn movement will reduce the conflict points along 63rd Street and ensure greater safety.

The results of the capacity analysis indicate that the northbound approach operates at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours while the westbound left-turn movement operates at LOS B or better during all three peak hours. The 95th percentile queue for the westbound left-turn movement is projected to be one to two vehicles during all three peak hours which can be accommodated via the existing left-turn lane on 63rd Street.

As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and will ensure efficient and flexible access is provided.

Woodward Avenue with Pershing Road

The results of the capacity analysis indicate that the southbound approach operates at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours. The eastbound left-turn movement operates at LOS A during all three peak hours.

Under Year 2030 no-build and total projected conditions, the southbound approach and the eastbound left-turn movement are projected to continue operating at the same existing levels of service during all three peak hours with increases in delay of less than two seconds. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Woodward Avenue with North Access Drive

The results of the capacity analysis indicate that the eastbound approach currently operates at LOS A during the weekday morning peak hour and LOS B during the weekday evening and Saturday midday peak hours. The northbound left-turn movement operates at LOS A during all three peak hours.

Under Year 2030 no-build conditions, the eastbound approach and the northbound left-turn movement are projected to continue operating at the same existing levels of service during the peak hours with increases in delay of less than one second.

Under Year 2030 total projected conditions, the eastbound approach is projected to operate at LOS B during the weekday morning and Saturday midday peak hours and LOS C during the weekday evening peak hour with increases in delay of less than two seconds. The northbound left-turn movement is projected to continue operating at LOS A during all three peak hours. The 95th percentile queue for the northbound left-turn movement is projected to be one to two vehicles during all three peak hours which can be accommodated within the extension of the left-turn lane at the intersection of Woodward Avenue with 63rd Street. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Woodward Avenue with Middle Access Drive/Victoria Center Access Drive

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

Under Year 2030 no-build conditions, the approaches and their critical movements are projected to continue operating at the same existing levels of service during all three peak hours with increases in delay of less than one second.

Under Year 2030 total projected conditions, the eastbound and westbound approaches are projected to operate at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours except for the westbound approach that is projected to operate at LOS B during the Saturday midday peak hour while the northbound and southbound left-turn movement are projected to continue operating at LOS A during all three peak hours. The 95th percentile queue for the northbound and southbound left-turn movements are projected to be one to two vehicles during all three peak hours which will not interrupt the traffic flow on Woodward Avenue.

As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Woodward Avenue with South Access Drive/Hastings Avenue

The results of the capacity analysis indicate that the eastbound and westbound approach currently operate at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours while the northbound and southbound left-turn movements are projected to operate at LOS A during all three peak hours.

Under Year 2030 no-build conditions, the eastbound and westbound approaches along with the northbound and southbound left-turn movements are projected to continue operating at the same existing levels of service during all three peak hours with increases in delay of less than one second.

Under Year 2030 total projected conditions, the eastbound and westbound approaches are projected to operate at LOS C or better during the peak hours with increases in delay of approximately two seconds or less over no-build conditions. The northbound and southbound left-turn movements are projected to continue operating at LOS A during all three peak hours. The 95th percentile queue for the northbound and southbound left-turn movements are projected to be one to two vehicles during all three peak hours and will not interrupt the traffic flow along Woodward Avenue. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Woodward Avenue with Far South Access Drive

The results of the capacity analysis indicate that the eastbound approach currently operates at LOS B during the weekday morning and weekday evening peak hours and LOS A during the Saturday midday peak hour. The northbound left-turn movement operates at LOS A during all three peak hours.

Under Year 2030 no-build and total projected conditions, the eastbound approach and the northbound left-turn movement are projected to continue operating at the same existing levels of service with increases in delay of less than one second. As such, this intersection has adequate reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

Belmont Avenue with North/Middle/South Access Drives

The results of the capacity analysis indicate that the westbound approaches at these intersections, currently operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours while the southbound left-turn movements operate at LOS A during all three peak hours.

Under Year 2030 no-build and total projected conditions, the westbound approaches and the northbound left-turn movements are projected to continue operating at LOS A during all three peak hours with increases in delay of less than one second. As such, these intersections have adequate reserved capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control adjustments will be required.

On-Site Circulation and Drive-Through Stacking

Access to the site will be provided via a three-quarter movement access drive off 63rd Street, three full movement access drives off Belmont Road (with a fourth curb cut that exists for an access easement), and four full movement access drives off Woodward Avenue. Internally, access to the proposed buildings will be provided via two two-way drive aisles that will extend in an east-west direction from Woodward Avenue to Belmont Avenue. It should be noted that the proposed access drive on 63rd Street will provide two inbound lanes. It is recommended that the inbound movements be under free flow conditions at the first internal intersection and the eastbound, westbound, and northbound approaches under stop sign control.

The drive-through facility for the proposed coffee shop (Lot 3) will extend along the west, south, and east sides of the building. As proposed, vehicles will enter the drive-through lane at the northwest corner of the site and exit at the northeast corner of the building. A review of the site plan indicated that approximately 14 vehicles will be able to be accommodated within the drive-through lane without blocking the internal circulation. The stacking of 14 vehicles exceeds the stacking requirement in the Village of Downers Grove municipal code. Additionally, the proposed location of the ordering board is six vehicles from the pick-up window that meets the municipal code of three vehicles.

The drive-through facility for the QSR (Lot 2) calls for stacking for ten vehicles, which meets the Village of Downers Grove requirements. The vehicles will exit the drive-through from the west and travel along the south and east sides of the building.

Car Wash Stacking, Wayfinding, and Traffic Control Signage

According to the car wash site plan (Lot 1), there will be stacking for a total of approximately 27 vehicles to queue in the three approach lanes to the three pay stations without blocking the internal circulation. In addition, there will be stacking for approximately six vehicles between the pay stations and the entrance to the tunnel and approximately five cars within the building. As such, the plan provides stacking for a total of approximately 38 vehicles.

The following wayfinding and traffic control signage is recommended:

- Wayfinding signage should be posted to guide vehicles to the entrance lanes of the car wash tunnel.
- A “Do Not Enter” sign should be posted at the exit lane from the car wash tunnel to deter traffic from entering the car wash tunnel from the one-way exit direction.

Vacuum Stations

The 24 vacuum stations will be located on the south side of the site. A two-way drive aisle will be provided through the vacuum stations. The vacuum stations will be primarily accessed following a vehicle getting a car wash. Vehicles exiting the vacuum stations will proceed west to exit the facility at the west access drive.

Peak Day Operations

Typical of any car wash, its peak operations (design day) normally occur after a weather event such as a snowfall or a rain event. Based on historical data from other car washes, this typically occurs 12 to 15 times per year. When this peak demand occurs, the following operational procedures should be implemented:

- Increase the service rate of the tunnel to the maximum it can process.
- Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.
- Should the internal vehicular queues extend outside of Lot 1 onto the shopping center drive-aisles, staff should ensure that these queues do not prohibit access to the Lot 2 multi-tenant retail building.

6. Conclusion

Based on existing conditions and the traffic capacity analyses, the findings and recommendations of this study are outlined below:

- The estimated site-generated trips will be reduced due to the pass-by trips and the internal interaction between different land-uses.
- The results of the capacity analysis indicate that the roadway system generally has sufficient reserve capacity to accommodate the traffic to be generated by the development.
- The access system serving the development will ensure an adequate and flexible access system is provided to accommodate the traffic that will be generated by the proposed development.
- A review of the site plans shows that the proposed design of the development will ensure efficient internal circulation and access between different buildings.

Appendix

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

Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
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Rosemont, Illinois, United States 60018
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Count Name: 63rd Street and Woodward Avenue TMC
Site Code:
Start Date: 08/10/2023
Page No: 1

Turning Movement Data

Start Time	63rd Street Eastbound						63rd Street Westbound						Woodward Avenue Northbound						Woodward Avenue 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	96	21	0	117	0	14	139	1	0	154	0	83	4	25	0	112	0	1	6	2	0	9	392
7:15 AM	0	0	144	32	0	176	0	12	138	2	0	152	0	116	7	29	0	152	0	1	3	1	0	5	485
7:30 AM	0	3	164	44	2	211	0	14	207	1	0	222	0	130	7	41	0	178	0	1	3	4	0	8	619
7:45 AM	0	6	166	48	0	220	0	25	157	2	0	184	0	135	7	49	0	191	0	3	5	0	0	8	603
Hourly Total	0	9	570	145	2	724	0	65	641	6	0	712	0	464	25	144	0	633	0	6	17	7	0	30	2099
8:00 AM	0	4	135	43	0	182	0	18	195	0	0	213	0	127	7	37	0	171	0	0	4	1	0	5	571
8:15 AM	0	1	126	48	0	175	0	26	160	1	0	187	0	105	9	31	0	145	0	3	7	4	0	14	521
8:30 AM	0	6	151	54	0	211	0	18	165	2	0	185	0	103	9	37	0	149	0	0	7	1	0	8	553
8:45 AM	0	3	138	50	0	191	0	29	154	0	0	183	0	107	5	29	1	141	0	0	7	4	0	11	526
Hourly Total	0	14	550	195	0	759	0	91	674	3	0	768	0	442	30	134	1	606	0	3	25	10	0	38	2171
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	188	112	0	304	0	57	190	3	0	250	0	84	19	45	1	148	0	3	10	4	0	17	719
4:15 PM	0	1	208	151	0	360	0	46	231	2	0	279	0	66	12	33	0	111	0	4	19	7	0	30	780
4:30 PM	0	3	233	138	0	374	0	56	197	3	0	256	0	89	11	35	0	135	0	4	15	1	0	20	785
4:45 PM	0	5	231	127	0	363	0	45	205	1	0	251	0	93	12	43	0	148	0	2	16	3	0	21	783
Hourly Total	0	13	860	528	0	1401	0	204	823	9	0	1036	0	332	54	156	1	542	0	13	60	15	0	88	3067
5:00 PM	0	2	208	155	0	365	0	62	191	2	0	255	0	86	7	43	1	136	0	1	27	4	0	32	788
5:15 PM	0	4	232	169	0	405	0	59	204	2	0	265	0	78	7	40	0	125	0	4	13	3	0	20	815
5:30 PM	0	3	218	166	0	387	0	58	178	2	0	238	0	80	9	52	1	141	0	0	20	4	0	24	790
5:45 PM	0	4	180	139	0	323	0	57	176	1	0	234	0	73	9	56	4	138	0	3	29	0	0	32	727
Hourly Total	0	13	838	629	0	1480	0	236	749	7	0	992	0	317	32	191	6	540	0	8	89	11	0	108	3120
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	5	160	114	0	279	0	52	187	1	0	240	0	77	9	37	1	123	0	3	6	5	0	14	656
12:15 PM	0	4	157	95	1	256	0	43	150	3	0	196	0	74	8	47	3	129	0	2	10	0	1	12	593
12:30 PM	0	6	143	92	0	241	0	36	141	2	0	179	0	97	7	37	1	141	0	4	13	2	0	19	580
12:45 PM	0	3	160	93	1	256	0	46	130	3	0	179	0	83	9	40	0	132	0	2	16	8	0	26	593
Hourly Total	0	18	620	394	2	1032	0	177	608	9	0	794	0	331	33	161	5	525	0	11	45	15	1	71	2422
1:00 PM	0	3	157	89	0	249	0	47	155	2	0	204	0	87	10	31	0	128	0	2	6	6	0	14	595
1:15 PM	0	5	145	94	0	244	0	37	150	3	0	190	0	67	8	47	0	122	0	1	13	3	0	17	573
1:30 PM	0	4	149	90	0	243	0	27	161	2	0	190	0	88	11	42	0	141	0	1	6	2	0	9	583
1:45 PM	0	1	126	76	0	203	0	40	159	2	0	201	0	97	13	61	0	171	0	6	11	3	0	20	595
Hourly Total	0	13	577	349	0	939	0	151	625	9	0	785	0	339	42	181	0	562	0	10	36	14	0	60	2346
Grand Total	0	80	4015	2240	4	6335	0	924	4120	43	0	5087	0	2225	216	967	13	3408	0	51	272	72	1	395	15225
Approach %	0.0	1.3	63.4	35.4	-	-	0.0	18.2	81.0	0.8	-	-	0.0	65.3	6.3	28.4	-	-	0.0	12.9	68.9	18.2	-	-	-
Total %	0.0	0.5	26.4	14.7	-	41.6	0.0	6.1	27.1	0.3	-	33.4	0.0	14.6	1.4	6.4	-	22.4	0.0	0.3	1.8	0.5	-	2.6	-

Lights	0	80	3925	2219	-	6224	0	909	4042	43	-	4994	0	2212	214	956	-	3382	0	51	268	71	-	390	14990
% Lights	-	100.0	97.8	99.1	-	98.2	-	98.4	98.1	100.0	-	98.2	-	99.4	99.1	98.9	-	99.2	-	100.0	98.5	98.6	-	98.7	98.5
Buses	0	0	12	2	-	14	0	0	8	0	-	8	0	1	0	2	-	3	0	0	2	0	-	2	27
% Buses	-	0.0	0.3	0.1	-	0.2	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.2	-	0.1	-	0.0	0.7	0.0	-	0.5	0.2
Single-Unit Trucks	0	0	53	12	-	65	0	15	57	0	-	72	0	9	1	5	-	15	0	0	2	1	-	3	155
% Single-Unit Trucks	-	0.0	1.3	0.5	-	1.0	-	1.6	1.4	0.0	-	1.4	-	0.4	0.5	0.5	-	0.4	-	0.0	0.7	1.4	-	0.8	1.0
Articulated Trucks	0	0	23	6	-	29	0	0	13	0	-	13	0	3	0	3	-	6	0	0	0	0	-	0	48
% Articulated Trucks	-	0.0	0.6	0.3	-	0.5	-	0.0	0.3	0.0	-	0.3	-	0.1	0.0	0.3	-	0.2	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	2	1	-	3	0	0	0	0	-	0	0	0	1	1	-	2	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	0.5	0.1	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	13	-	-	-	-	-	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: 63rd Street and Woodward Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Woodward Avenue Northbound						Woodward Avenue 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	3	164	44	2	211	0	14	207	1	0	222	0	130	7	41	0	178	0	1	3	4	0	8	619
7:45 AM	0	6	166	48	0	220	0	25	157	2	0	184	0	135	7	49	0	191	0	3	5	0	0	8	603
8:00 AM	0	4	135	43	0	182	0	18	195	0	0	213	0	127	7	37	0	171	0	0	4	1	0	5	571
8:15 AM	0	1	126	48	0	175	0	26	160	1	0	187	0	105	9	31	0	145	0	3	7	4	0	14	521
Total	0	14	591	183	2	788	0	83	719	4	0	806	0	497	30	158	0	685	0	7	19	9	0	35	2314
Approach %	0.0	1.8	75.0	23.2	-	-	0.0	10.3	89.2	0.5	-	-	0.0	72.6	4.4	23.1	-	-	0.0	20.0	54.3	25.7	-	-	-
Total %	0.0	0.6	25.5	7.9	-	34.1	0.0	3.6	31.1	0.2	-	34.8	0.0	21.5	1.3	6.8	-	29.6	0.0	0.3	0.8	0.4	-	1.5	-
PHF	0.000	0.583	0.890	0.953	-	0.895	0.000	0.798	0.868	0.500	-	0.908	0.000	0.920	0.833	0.806	-	0.897	0.000	0.583	0.679	0.563	-	0.625	0.935
Lights	0	14	563	176	-	753	0	77	686	4	-	767	0	493	30	155	-	678	0	7	19	9	-	35	2233
% Lights	-	100.0	95.3	96.2	-	95.6	-	92.8	95.4	100.0	-	95.2	-	99.2	100.0	98.1	-	99.0	-	100.0	100.0	100.0	-	100.0	96.5
Buses	0	0	4	1	-	5	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	7
% Buses	-	0.0	0.7	0.5	-	0.6	-	0.0	0.1	0.0	-	0.1	-	0.2	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	15	4	-	19	0	6	25	0	-	31	0	3	0	2	-	5	0	0	0	0	-	0	55
% Single-Unit Trucks	-	0.0	2.5	2.2	-	2.4	-	7.2	3.5	0.0	-	3.8	-	0.6	0.0	1.3	-	0.7	-	0.0	0.0	0.0	-	0.0	2.4
Articulated Trucks	0	0	8	2	-	10	0	0	7	0	-	7	0	0	0	1	-	1	0	0	0	0	-	0	18
% Articulated Trucks	-	0.0	1.4	1.1	-	1.3	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	0.6	-	0.1	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.2	0.0	-	0.1	-	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	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: 63rd Street and Woodward Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Woodward Avenue Northbound						Woodward Avenue 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
4:30 PM	0	3	233	138	0	374	0	56	197	3	0	256	0	89	11	35	0	135	0	4	15	1	0	20	785
4:45 PM	0	5	231	127	0	363	0	45	205	1	0	251	0	93	12	43	0	148	0	2	16	3	0	21	783
5:00 PM	0	2	208	155	0	365	0	62	191	2	0	255	0	86	7	43	1	136	0	1	27	4	0	32	788
5:15 PM	0	4	232	169	0	405	0	59	204	2	0	265	0	78	7	40	0	125	0	4	13	3	0	20	815
Total	0	14	904	589	0	1507	0	222	797	8	0	1027	0	346	37	161	1	544	0	11	71	11	0	93	3171
Approach %	0.0	0.9	60.0	39.1	-	-	0.0	21.6	77.6	0.8	-	-	0.0	63.6	6.8	29.6	-	-	0.0	11.8	76.3	11.8	-	-	-
Total %	0.0	0.4	28.5	18.6	-	47.5	0.0	7.0	25.1	0.3	-	32.4	0.0	10.9	1.2	5.1	-	17.2	0.0	0.3	2.2	0.3	-	2.9	-
PHF	0.000	0.700	0.970	0.871	-	0.930	0.000	0.895	0.972	0.667	-	0.969	0.000	0.930	0.771	0.936	-	0.919	0.000	0.688	0.657	0.688	-	0.727	0.973
Lights	0	14	893	587	-	1494	0	217	793	8	-	1018	0	342	37	158	-	537	0	11	71	11	-	93	3142
% Lights	-	100.0	98.8	99.7	-	99.1	-	97.7	99.5	100.0	-	99.1	-	98.8	100.0	98.1	-	98.7	-	100.0	100.0	100.0	-	100.0	99.1
Buses	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	3
% Buses	-	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.6	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	5	1	-	6	0	5	4	0	-	9	0	3	0	1	-	4	0	0	0	0	-	0	19
% Single-Unit Trucks	-	0.0	0.6	0.2	-	0.4	-	2.3	0.5	0.0	-	0.9	-	0.9	0.0	0.6	-	0.7	-	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	3	0	-	3	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.3	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	1	-	2	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	3
% Bicycles on Road	-	0.0	0.1	0.2	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.6	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: 63rd Street and Woodward Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Woodward Avenue Northbound						Woodward Avenue 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	5	160	114	0	279	0	52	187	1	0	240	0	77	9	37	1	123	0	3	6	5	0	14	656
12:15 PM	0	4	157	95	1	256	0	43	150	3	0	196	0	74	8	47	3	129	0	2	10	0	1	12	593
12:30 PM	0	6	143	92	0	241	0	36	141	2	0	179	0	97	7	37	1	141	0	4	13	2	0	19	580
12:45 PM	0	3	160	93	1	256	0	46	130	3	0	179	0	83	9	40	0	132	0	2	16	8	0	26	593
Total	0	18	620	394	2	1032	0	177	608	9	0	794	0	331	33	161	5	525	0	11	45	15	1	71	2422
Approach %	0.0	1.7	60.1	38.2	-	-	0.0	22.3	76.6	1.1	-	-	0.0	63.0	6.3	30.7	-	-	0.0	15.5	63.4	21.1	-	-	-
Total %	0.0	0.7	25.6	16.3	-	42.6	0.0	7.3	25.1	0.4	-	32.8	0.0	13.7	1.4	6.6	-	21.7	0.0	0.5	1.9	0.6	-	2.9	-
PHF	0.000	0.750	0.969	0.864	-	0.925	0.000	0.851	0.813	0.750	-	0.827	0.000	0.853	0.917	0.856	-	0.931	0.000	0.688	0.703	0.469	-	0.683	0.923
Lights	0	18	613	394	-	1025	0	177	601	9	-	787	0	330	33	160	-	523	0	11	45	15	-	71	2406
% Lights	-	100.0	98.9	100.0	-	99.3	-	100.0	98.8	100.0	-	99.1	-	99.7	100.0	99.4	-	99.6	-	100.0	100.0	100.0	-	100.0	99.3
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	7	0	-	7	0	0	5	0	-	5	0	1	0	1	-	2	0	0	0	0	-	0	14
% Single-Unit Trucks	-	0.0	1.1	0.0	-	0.7	-	0.0	0.8	0.0	-	0.6	-	0.3	0.0	0.6	-	0.4	-	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	-	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
% 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	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: 63rd Street with Belmont Road
TMC
Site Code:
Start Date: 08/10/2023
Page No: 1

Turning Movement Data

Start Time	63rd Street Eastbound						63rd Street Westbound						Belmont Road Northbound						Belmont Road 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	93	93	8	0	194	0	0	140	96	0	236	0	3	4	2	0	9	0	22	3	23	0	48	487
7:15 AM	0	108	146	8	0	262	0	2	144	118	0	264	0	7	2	2	0	11	0	46	3	29	0	78	615
7:30 AM	0	100	168	7	1	275	0	1	183	168	0	352	0	10	7	1	0	18	0	48	1	34	0	83	728
7:45 AM	0	100	134	5	0	239	0	2	146	156	0	304	0	11	7	1	0	19	0	61	3	53	0	117	679
Hourly Total	0	401	541	28	1	970	0	5	613	538	0	1156	0	31	20	6	0	57	0	177	10	139	0	326	2509
8:00 AM	0	89	137	4	0	230	0	6	152	141	0	299	0	1	3	1	0	5	0	50	8	49	0	107	641
8:15 AM	0	94	123	7	0	224	0	4	148	127	0	279	0	10	2	4	0	16	0	63	6	57	0	126	645
8:30 AM	0	89	143	9	0	241	0	5	146	116	0	267	0	10	9	4	0	23	0	65	5	32	0	102	633
8:45 AM	0	69	137	7	1	213	0	7	149	119	0	275	0	6	3	1	0	10	0	54	6	42	0	102	600
Hourly Total	0	341	540	27	1	908	0	22	595	503	0	1120	0	27	17	10	0	54	0	232	25	180	0	437	2519
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	64	185	9	1	258	0	6	206	70	0	282	0	15	5	8	2	28	0	120	9	92	0	221	789
4:15 PM	0	56	209	10	0	275	0	8	205	82	1	295	1	9	6	8	0	24	0	167	8	102	0	277	871
4:30 PM	0	58	185	8	1	251	0	11	192	79	0	282	0	16	7	11	2	34	0	179	18	127	0	324	891
4:45 PM	0	73	192	15	1	280	0	15	178	87	0	280	0	12	10	11	2	33	0	170	13	131	0	314	907
Hourly Total	0	251	771	42	3	1064	0	40	781	318	1	1139	1	52	28	38	6	119	0	636	48	452	0	1136	3458
5:00 PM	0	50	181	7	1	238	0	8	186	68	0	262	0	15	15	7	1	37	0	169	11	117	0	297	834
5:15 PM	0	54	221	11	3	286	0	4	198	78	0	280	0	9	6	0	2	15	0	201	16	132	0	349	930
5:30 PM	0	68	205	9	1	282	0	7	173	65	0	245	0	12	8	2	0	22	0	166	7	116	0	289	838
5:45 PM	0	63	163	11	1	237	0	7	165	73	0	245	0	15	8	4	0	27	0	146	10	114	0	270	779
Hourly Total	0	235	770	38	6	1043	0	26	722	284	0	1032	0	51	37	13	3	101	0	682	44	479	0	1205	3381
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	51	167	1	0	219	0	7	174	56	0	237	0	12	5	4	0	21	0	90	4	47	0	141	618
12:15 PM	0	39	162	8	0	209	0	6	135	65	0	206	0	16	1	5	1	22	0	95	8	51	0	154	591
12:30 PM	0	39	171	5	0	215	0	4	160	60	0	224	0	11	7	7	0	25	0	77	8	43	0	128	592
12:45 PM	0	44	154	5	0	203	0	6	159	62	0	227	0	8	4	5	0	17	0	81	8	39	0	128	575
Hourly Total	0	173	654	19	0	846	0	23	628	243	0	894	0	47	17	21	1	85	0	343	28	180	0	551	2376
1:00 PM	0	52	152	5	0	209	1	1	143	57	0	202	0	10	6	3	0	19	0	84	9	43	0	136	566
1:15 PM	0	42	167	2	0	211	0	6	163	42	0	211	0	16	8	3	0	27	0	81	7	58	0	146	595
1:30 PM	0	40	156	7	0	203	0	5	163	63	0	231	0	10	7	1	1	18	0	74	5	44	0	123	575
1:45 PM	0	44	147	3	0	194	1	6	168	60	0	235	0	10	5	2	1	17	0	76	5	46	0	127	573
Hourly Total	0	178	622	17	0	817	2	18	637	222	0	879	0	46	26	9	2	81	0	315	26	191	0	532	2309
Grand Total	0	1579	3898	171	11	5648	2	134	3976	2108	1	6220	1	254	145	97	12	497	0	2385	181	1621	0	4187	16552
Approach %	0.0	28.0	69.0	3.0	-	-	0.0	2.2	63.9	33.9	-	-	0.2	51.1	29.2	19.5	-	-	0.0	57.0	4.3	38.7	-	-	-
Total %	0.0	9.5	23.6	1.0	-	34.1	0.0	0.8	24.0	12.7	-	37.6	0.0	1.5	0.9	0.6	-	3.0	0.0	14.4	1.1	9.8	-	25.3	-

Lights	0	1558	3808	165	-	5531	2	132	3898	2092	-	6124	1	250	142	95	-	488	0	2361	175	1580	-	4116	16259
% Lights	-	98.7	97.7	96.5	-	97.9	100.0	98.5	98.0	99.2	-	98.5	100.0	98.4	97.9	97.9	-	98.2	-	99.0	96.7	97.5	-	98.3	98.2
Buses	0	0	13	0	-	13	0	0	8	0	-	8	0	0	0	0	-	0	0	1	0	2	-	3	24
% Buses	-	0.0	0.3	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.1	-	0.1	0.1
Single-Unit Trucks	0	10	55	2	-	67	0	2	49	13	-	64	0	1	2	1	-	4	0	15	4	13	-	32	167
% Single-Unit Trucks	-	0.6	1.4	1.2	-	1.2	0.0	1.5	1.2	0.6	-	1.0	0.0	0.4	1.4	1.0	-	0.8	-	0.6	2.2	0.8	-	0.8	1.0
Articulated Trucks	0	11	19	3	-	33	0	0	21	3	-	24	0	2	0	1	-	3	0	8	1	26	-	35	95
% Articulated Trucks	-	0.7	0.5	1.8	-	0.6	0.0	0.0	0.5	0.1	-	0.4	0.0	0.8	0.0	1.0	-	0.6	-	0.3	0.6	1.6	-	0.8	0.6
Bicycles on Road	0	0	3	1	-	4	0	0	0	0	-	0	0	1	1	0	-	2	0	0	1	0	-	1	7
% Bicycles on Road	-	0.0	0.1	0.6	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.4	0.7	0.0	-	0.4	-	0.0	0.6	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	11	-	-	-	-	-	1	-	-	-	-	-	12	-	-	-	-	-	0	-	-
% 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: 63rd Street with Belmont Road
TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Belmont Road Northbound						Belmont Road 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	100	168	7	1	275	0	1	183	168	0	352	0	10	7	1	0	18	0	48	1	34	0	83	728
7:45 AM	0	100	134	5	0	239	0	2	146	156	0	304	0	11	7	1	0	19	0	61	3	53	0	117	679
8:00 AM	0	89	137	4	0	230	0	6	152	141	0	299	0	1	3	1	0	5	0	50	8	49	0	107	641
8:15 AM	0	94	123	7	0	224	0	4	148	127	0	279	0	10	2	4	0	16	0	63	6	57	0	126	645
Total	0	383	562	23	1	968	0	13	629	592	0	1234	0	32	19	7	0	58	0	222	18	193	0	433	2693
Approach %	0.0	39.6	58.1	2.4	-	-	0.0	1.1	51.0	48.0	-	-	0.0	55.2	32.8	12.1	-	-	0.0	51.3	4.2	44.6	-	-	-
Total %	0.0	14.2	20.9	0.9	-	35.9	0.0	0.5	23.4	22.0	-	45.8	0.0	1.2	0.7	0.3	-	2.2	0.0	8.2	0.7	7.2	-	16.1	-
PHF	0.000	0.958	0.836	0.821	-	0.880	0.000	0.542	0.859	0.881	-	0.876	0.000	0.727	0.679	0.438	-	0.763	0.000	0.881	0.563	0.846	-	0.859	0.925
Lights	0	376	532	21	-	929	0	13	600	586	-	1199	0	32	19	6	-	57	0	216	18	174	-	408	2593
% Lights	-	98.2	94.7	91.3	-	96.0	-	100.0	95.4	99.0	-	97.2	-	100.0	100.0	85.7	-	98.3	-	97.3	100.0	90.2	-	94.2	96.3
Buses	0	0	6	0	-	6	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	-	0.0	1.1	0.0	-	0.6	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	3	16	0	-	19	0	0	22	5	-	27	0	0	0	1	-	1	0	6	0	5	-	11	58
% Single-Unit Trucks	-	0.8	2.8	0.0	-	2.0	-	0.0	3.5	0.8	-	2.2	-	0.0	0.0	14.3	-	1.7	-	2.7	0.0	2.6	-	2.5	2.2
Articulated Trucks	0	4	7	2	-	13	0	0	5	1	-	6	0	0	0	0	-	0	0	0	0	14	-	14	33
% Articulated Trucks	-	1.0	1.2	8.7	-	1.3	-	0.0	0.8	0.2	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	7.3	-	3.2	1.2
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.2	0.0	-	0.1	-	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	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: 63rd Street with Belmont Road
TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Belmont Road Northbound						Belmont Road 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
4:30 PM	0	58	185	8	1	251	0	11	192	79	0	282	0	16	7	11	2	34	0	179	18	127	0	324	891
4:45 PM	0	73	192	15	1	280	0	15	178	87	0	280	0	12	10	11	2	33	0	170	13	131	0	314	907
5:00 PM	0	50	181	7	1	238	0	8	186	68	0	262	0	15	15	7	1	37	0	169	11	117	0	297	834
5:15 PM	0	54	221	11	3	286	0	4	198	78	0	280	0	9	6	0	2	15	0	201	16	132	0	349	930
Total	0	235	779	41	6	1055	0	38	754	312	0	1104	0	52	38	29	7	119	0	719	58	507	0	1284	3562
Approach %	0.0	22.3	73.8	3.9	-	-	0.0	3.4	68.3	28.3	-	-	0.0	43.7	31.9	24.4	-	-	0.0	56.0	4.5	39.5	-	-	-
Total %	0.0	6.6	21.9	1.2	-	29.6	0.0	1.1	21.2	8.8	-	31.0	0.0	1.5	1.1	0.8	-	3.3	0.0	20.2	1.6	14.2	-	36.0	-
PHF	0.000	0.805	0.881	0.683	-	0.922	0.000	0.633	0.952	0.897	-	0.979	0.000	0.813	0.633	0.659	-	0.804	0.000	0.894	0.806	0.960	-	0.920	0.958
Lights	0	228	768	39	-	1035	0	38	750	309	-	1097	0	50	37	29	-	116	0	718	56	502	-	1276	3524
% Lights	-	97.0	98.6	95.1	-	98.1	-	100.0	99.5	99.0	-	99.4	-	96.2	97.4	100.0	-	97.5	-	99.9	96.6	99.0	-	99.4	98.9
Buses	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	3
% Buses	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.2	-	0.1	0.1
Single-Unit Trucks	0	4	6	1	-	11	0	0	0	2	-	2	0	0	1	0	-	1	0	1	0	1	-	2	16
% Single-Unit Trucks	-	1.7	0.8	2.4	-	1.0	-	0.0	0.0	0.6	-	0.2	-	0.0	2.6	0.0	-	0.8	-	0.1	0.0	0.2	-	0.2	0.4
Articulated Trucks	0	3	1	1	-	5	0	0	4	1	-	5	0	1	0	0	-	1	0	0	1	3	-	4	15
% Articulated Trucks	-	1.3	0.1	2.4	-	0.5	-	0.0	0.5	0.3	-	0.5	-	1.9	0.0	0.0	-	0.8	-	0.0	1.7	0.6	-	0.3	0.4
Bicycles on Road	0	0	2	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	4
% Bicycles on Road	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	1.9	0.0	0.0	-	0.8	-	0.0	1.7	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: 63rd Street with Belmont Road
TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	63rd Street Eastbound						63rd Street Westbound						Belmont Road Northbound						Belmont Road 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	51	167	1	0	219	0	7	174	56	0	237	0	12	5	4	0	21	0	90	4	47	0	141	618
12:15 PM	0	39	162	8	0	209	0	6	135	65	0	206	0	16	1	5	1	22	0	95	8	51	0	154	591
12:30 PM	0	39	171	5	0	215	0	4	160	60	0	224	0	11	7	7	0	25	0	77	8	43	0	128	592
12:45 PM	0	44	154	5	0	203	0	6	159	62	0	227	0	8	4	5	0	17	0	81	8	39	0	128	575
Total	0	173	654	19	0	846	0	23	628	243	0	894	0	47	17	21	1	85	0	343	28	180	0	551	2376
Approach %	0.0	20.4	77.3	2.2	-	-	0.0	2.6	70.2	27.2	-	-	0.0	55.3	20.0	24.7	-	-	0.0	62.3	5.1	32.7	-	-	-
Total %	0.0	7.3	27.5	0.8	-	35.6	0.0	1.0	26.4	10.2	-	37.6	0.0	2.0	0.7	0.9	-	3.6	0.0	14.4	1.2	7.6	-	23.2	-
PHF	0.000	0.848	0.956	0.594	-	0.966	0.000	0.821	0.902	0.935	-	0.943	0.000	0.734	0.607	0.750	-	0.850	0.000	0.903	0.875	0.882	-	0.894	0.961
Lights	0	173	649	19	-	841	0	23	622	242	-	887	0	47	16	21	-	84	0	343	27	176	-	546	2358
% Lights	-	100.0	99.2	100.0	-	99.4	-	100.0	99.0	99.6	-	99.2	-	100.0	94.1	100.0	-	98.8	-	100.0	96.4	97.8	-	99.1	99.2
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	2
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.6	-	0.2	0.1
Single-Unit Trucks	0	0	5	0	-	5	0	0	4	1	-	5	0	0	0	0	-	0	0	0	1	3	-	4	14
% Single-Unit Trucks	-	0.0	0.8	0.0	-	0.6	-	0.0	0.6	0.4	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	3.6	1.7	-	0.7	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.1	-	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	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	5.9	0.0	-	1.2	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Study Name 63rd Street with Meadowbrook Access Drives TMC
Start Date Thursday, August 10, 2023 7:00 AM
End Date Saturday, August 12, 2023 2:00 PM
Site Code

Report Summary

		Eastbound						Westbound						Northwestbound						Northeastbound							Crosswalk	
Time Period	Class.	U	T	BR	HR	I	O	U	HL	BL	T	I	O	U	L	BL	HR	I	O	U	HL	BR	R	I	O	Total		destria	Total
Peak 1	Lights	1	736	3	5	745	1214	0	1	3	1207	1211	739	0	0	5	3	8	4	0	1	0	0	1	8	1965	EB	1	1
Specified Period	%	100%	95%	100%	83%	95%	97%	0%	100%	100%	97%	97%	95%	0%	0%	100%	100%	100%	100%	0%	100%	0%	0%	100%	89%	96%		100%	
7:30 AM - 8:30 AM	Buses	0	5	0	0	5	2	0	0	0	2	2	5	0	0	0	0	0	0	0	0	0	0	0	0	7	WB	0	0
One Hour Peak	%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
7:30 AM - 8:30 AM	ıgle-Unit Truc	0	20	0	1	21	32	0	0	0	32	32	20	0	0	0	0	0	0	0	0	0	0	0	1	53	NWB	0	0
	%	0%	3%	0%	17%	3%	3%	0%	0%	0%	3%	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	3%		0%	
	ticulated Truc	0	9	0	0	9	5	0	0	0	5	5	9	0	0	0	0	0	0	0	0	0	0	0	0	14	NEB	0	0
	%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%		0%	
	icycles on Roa	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		**1**	**1**
	%	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%			
	Total	**1**	**771**	**3**	**6**	**781**	**1253**	**0**	**1**	**3**	**1246**	**1250**	**774**	**0**	**0**	**5**	**3**	**8**	**4**	**0**	**1**	**0**	**0**	**1**	**9**	**2040**			
	PHF	0.25	0.92	0.75	0.75	0.92	0.88	0	0.25	0.38	0.88	0.88	0.92	0	0	0.62	0.75	0.67	0.5	0	0.25	0	0	0.25	0.75	0.89			
	Approach %					38%	61%					61%	38%					0%	0%					0%	0%				
Peak 2	Lights	0	1474	1	32	1507	1128	1	2	13	1126	1142	1495	0	0	2	11	13	3	0	0	9	0	9	45	2671	EB	0	0
Specified Period	%	0%	99%	100%	100%	99%	99%	100%	100%	100%	99%	99%	99%	0%	0%	100%	100%	100%	100%	0%	0%	100%	0%	100%	100%	99%		0%	
4:30 PM - 5:30 PM	Buses	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	WB	0	0
One Hour Peak	%	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%	
4:30 PM - 5:30 PM	ıgle-Unit Truc	0	7	0	0	7	5	0	0	0	5	5	7	0	0	0	0	0	0	0	0	0	0	0	0	12	NWB	6	6
	%	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%		100%	
	ticulated Truc	0	1	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	NEB	1	1
	%	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%		100%	
	icycles on Roa	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		**7**	**7**
	%	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%			
	Total	**0**	**1486**	**1**	**32**	**1519**	**1134**	**1**	**2**	**13**	**1132**	**1148**	**1507**	**0**	**0**	**2**	**11**	**13**	**3**	**0**	**0**	**9**	**0**	**9**	**45**	**2689**			
	PHF	0	0.9	0.25	0.73	0.91	0.98	0.25	0.5	0.65	0.98	0.97	0.9	0	0	0.25	0.55	0.65	0.38	0	0	0.75	0	0.75	0.7	0.93			
	Approach %					56%	42%					43%	56%					0%	0%					0%	2%				

Study Name	63rd Street with Meadowbrook Access Drives TMC
Start Date	Thursday, August 10, 2023 7:00 AM
End Date	Saturday, August 12, 2023 2:00 PM
Site Code	

Report Summary

		Eastbound						Westbound						Northwestbound						Northeastbound							Crosswalk	
Time Period	**Class.**	**U**	**T**	**BR**	**HR**	**I**	**O**	**U**	**HL**	**BL**	**T**	**I**	**O**	**U**	**L**	**BL**	**HR**	**I**	**O**	**U**	**HL**	**BR**	**R**	**I**	**O**	**Total**		**destria**	**Total**
Peak 1	Lights	0	988	2	27	1017	963	0	1	12	955	968	1013	0	0	4	12	16	3	0	4	13	0	17	39	2018	EB	0	0
Specified Period	%	0%	99%	100%	100%	99%	99%	0%	50%	100%	99%	99%	99%	0%	0%	100%	86%	89%	75%	0%	100%	100%	0%	100%	100%	99%		0%	
12:00 PM - 1:00 PM	Buses	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	WB	1	1
One Hour Peak	%	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%		100%	
12:00 PM - 1:00 PM	ıgle-Unit Truc	0	6	0	0	6	5	0	1	0	5	6	7	0	0	0	1	1	1	0	0	0	0	0	0	13	NWB	4	4
	%	0%	1%	0%	0%	1%	1%	0%	50%	0%	1%	1%	1%	0%	0%	0%	7%	6%	25%	0%	0%	0%	0%	0%	0%	1%		100%	
	ticulated Truc	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	NEB	6	6
	%	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%		100%	
	icycles on Roa	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	1		**11**	**11**
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%	6%	0%	0%	0%	0%	0%	0%	0%	0%			
	Total	**0**	**994**	**2**	**27**	**1023**	**970**	**0**	**2**	**12**	**962**	**976**	**1021**	**0**	**0**	**4**	**14**	**18**	**4**	**0**	**4**	**13**	**0**	**17**	**39**	**2034**			
	PHF	0	0.97	0.5	0.68	0.97	0.93	0	0.5	0.75	0.93	0.93	0.97	0	0	0.33	0.58	0.64	0.5	0	0.5	0.65	0	0.71	0.75	0.95			
	Approach %					50%	48%					48%	50%					1%	0%					1%	2%				

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Count Name: Belmont Road with Meadowbrook Shopping Middle Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Meadowbrook Shopping Middle Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	3	6	1	9	0	0	0	0	0	0	5	5	0	10	19
7:15 AM	0	1	6	0	7	0	1	1	0	2	0	6	4	0	10	19
7:30 AM	0	4	11	0	15	0	1	0	0	1	0	7	6	0	13	29
7:45 AM	0	4	8	1	12	0	2	1	0	3	0	3	2	0	5	20
Hourly Total	0	12	31	2	43	0	4	2	0	6	0	21	17	0	38	87
8:00 AM	0	4	5	0	9	0	0	3	0	3	0	6	11	0	17	29
8:15 AM	0	1	5	0	6	0	6	1	0	7	0	6	7	0	13	26
8:30 AM	1	4	12	1	17	0	7	2	0	9	0	8	15	0	23	49
8:45 AM	0	2	5	1	7	0	3	3	0	6	0	8	7	0	15	28
Hourly Total	1	11	27	2	39	0	16	9	0	25	0	28	40	0	68	132
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	9	1	13	0	14	5	0	19	0	7	15	0	22	54
4:15 PM	0	10	6	2	16	0	11	4	0	15	0	6	14	0	20	51
4:30 PM	0	4	12	5	16	0	12	6	0	18	0	15	17	0	32	66
4:45 PM	0	6	8	0	14	0	9	9	0	18	0	11	21	0	32	64
Hourly Total	0	24	35	8	59	0	46	24	0	70	0	39	67	0	106	235
5:00 PM	0	6	16	1	22	0	12	9	0	21	0	13	14	0	27	70
5:15 PM	0	2	7	3	9	0	2	3	0	5	0	7	16	0	23	37
5:30 PM	0	5	12	0	17	0	7	5	0	12	0	3	15	0	18	47
5:45 PM	0	10	4	3	14	0	4	8	0	12	0	9	16	0	25	51
Hourly Total	0	23	39	7	62	0	25	25	0	50	0	32	61	0	93	205
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	7	6	1	13	0	4	4	0	8	0	4	8	0	12	33
12:15 PM	0	4	9	2	13	0	6	4	0	10	0	7	8	0	15	38
12:30 PM	0	6	8	0	14	0	7	3	1	10	0	7	8	0	15	39
12:45 PM	0	3	4	0	7	0	6	8	2	14	0	5	6	0	11	32
Hourly Total	0	20	27	3	47	0	23	19	3	42	0	23	30	0	53	142
1:00 PM	0	3	15	0	18	0	2	4	0	6	0	7	10	0	17	41
1:15 PM	0	5	14	1	19	0	5	4	0	9	0	9	6	0	15	43
1:30 PM	0	6	7	0	13	0	2	5	0	7	0	4	7	0	11	31
1:45 PM	0	9	12	0	21	0	0	2	0	2	1	7	5	0	13	36
Hourly Total	0	23	48	1	71	0	9	15	0	24	1	27	28	0	56	151
Grand Total	1	113	207	23	321	0	123	94	3	217	1	170	243	0	414	952
Approach %	0.3	35.2	64.5	-	-	0.0	56.7	43.3	-	-	0.2	41.1	58.7	-	-	-
Total %	0.1	11.9	21.7	-	33.7	0.0	12.9	9.9	-	22.8	0.1	17.9	25.5	-	43.5	-
Lights	1	108	206	-	315	0	120	92	-	212	1	167	236	-	404	931

% Lights	100.0	95.6	99.5	-	98.1	-	97.6	97.9	-	97.7	100.0	98.2	97.1	-	97.6	97.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	-	1	0	1	0	-	1	0	2	3	-	5	7
% Single-Unit Trucks	0.0	0.0	0.5	-	0.3	-	0.8	0.0	-	0.5	0.0	1.2	1.2	-	1.2	0.7
Articulated Trucks	0	0	0	-	0	0	0	2	-	2	0	0	3	-	3	5
% Articulated Trucks	0.0	0.0	0.0	-	0.0	-	0.0	2.1	-	0.9	0.0	0.0	1.2	-	0.7	0.5
Bicycles on Road	0	5	0	-	5	0	2	0	-	2	0	1	1	-	2	9
% Bicycles on Road	0.0	4.4	0.0	-	1.6	-	1.6	0.0	-	0.9	0.0	0.6	0.4	-	0.5	0.9
Pedestrians	-	-	-	23	-	-	-	-	3	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: Belmont Road with Meadowbrook Shopping Middle Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meadowbrook Shopping Middle Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	4	11	0	15	0	1	0	0	1	0	7	6	0	13	29
7:45 AM	0	4	8	1	12	0	2	1	0	3	0	3	2	0	5	20
8:00 AM	0	4	5	0	9	0	0	3	0	3	0	6	11	0	17	29
8:15 AM	0	1	5	0	6	0	6	1	0	7	0	6	7	0	13	26
Total	0	13	29	1	42	0	9	5	0	14	0	22	26	0	48	104
Approach %	0.0	31.0	69.0	-	-	0.0	64.3	35.7	-	-	0.0	45.8	54.2	-	-	-
Total %	0.0	12.5	27.9	-	40.4	0.0	8.7	4.8	-	13.5	0.0	21.2	25.0	-	46.2	-
PHF	0.000	0.813	0.659	-	0.700	0.000	0.375	0.417	-	0.500	0.000	0.786	0.591	-	0.706	0.897
Lights	0	12	29	-	41	0	9	5	-	14	0	22	25	-	47	102
% Lights	-	92.3	100.0	-	97.6	-	100.0	100.0	-	100.0	-	100.0	96.2	-	97.9	98.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	3.8	-	2.1	1.0
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	7.7	0.0	-	2.4	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	1.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Belmont Road with Meadowbrook Shopping Middle Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meadowbrook Shopping Middle Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	4	12	5	16	0	12	6	0	18	0	15	17	0	32	66
4:45 PM	0	6	8	0	14	0	9	9	0	18	0	11	21	0	32	64
5:00 PM	0	6	16	1	22	0	12	9	0	21	0	13	14	0	27	70
5:15 PM	0	2	7	3	9	0	2	3	0	5	0	7	16	0	23	37
Total	0	18	43	9	61	0	35	27	0	62	0	46	68	0	114	237
Approach %	0.0	29.5	70.5	-	-	0.0	56.5	43.5	-	-	0.0	40.4	59.6	-	-	-
Total %	0.0	7.6	18.1	-	25.7	0.0	14.8	11.4	-	26.2	0.0	19.4	28.7	-	48.1	-
PHF	0.000	0.750	0.672	-	0.693	0.000	0.729	0.750	-	0.738	0.000	0.767	0.810	-	0.891	0.846
Lights	0	16	42	-	58	0	34	27	-	61	0	45	66	-	111	230
% Lights	-	88.9	97.7	-	95.1	-	97.1	100.0	-	98.4	-	97.8	97.1	-	97.4	97.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	-	1	0	0	0	-	0	0	1	0	-	1	2
% Single-Unit Trucks	-	0.0	2.3	-	1.6	-	0.0	0.0	-	0.0	-	2.2	0.0	-	0.9	0.8
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	1.5	-	0.9	0.4
Bicycles on Road	0	2	0	-	2	0	1	0	-	1	0	0	1	-	1	4
% Bicycles on Road	-	11.1	0.0	-	3.3	-	2.9	0.0	-	1.6	-	0.0	1.5	-	0.9	1.7
Pedestrians	-	-	-	9	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

ORD 2025-10662

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Belmont Road with Meadowbrook Shopping Middle Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Meadowbrook Shopping Middle Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	7	6	1	13	0	4	4	0	8	0	4	8	0	12	33
12:15 PM	0	4	9	2	13	0	6	4	0	10	0	7	8	0	15	38
12:30 PM	0	6	8	0	14	0	7	3	1	10	0	7	8	0	15	39
12:45 PM	0	3	4	0	7	0	6	8	2	14	0	5	6	0	11	32
Total	0	20	27	3	47	0	23	19	3	42	0	23	30	0	53	142
Approach %	0.0	42.6	57.4	-	-	0.0	54.8	45.2	-	-	0.0	43.4	56.6	-	-	-
Total %	0.0	14.1	19.0	-	33.1	0.0	16.2	13.4	-	29.6	0.0	16.2	21.1	-	37.3	-
PHF	0.000	0.714	0.750	-	0.839	0.000	0.821	0.594	-	0.750	0.000	0.821	0.938	-	0.883	0.910
Lights	0	20	27	-	47	0	22	17	-	39	0	22	29	-	51	137
% Lights	-	100.0	100.0	-	100.0	-	95.7	89.5	-	92.9	-	95.7	96.7	-	96.2	96.5
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	2	-	2	0	0	1	-	1	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	10.5	-	4.8	-	0.0	3.3	-	1.9	2.1
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	1	0	-	1	2
% Bicycles on Road	-	0.0	0.0	-	0.0	-	4.3	0.0	-	2.4	-	4.3	0.0	-	1.9	1.4
Pedestrians	-	-	-	3	-	-	-	-	3	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

ORD 2025-10662

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

Count Name: Belmont Road with Meadowbrook Shopping North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Meadowbrook Shopping North Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	0	1	1	1	0	6	0	0	6	0	0	8	0	8	15
7:15 AM	0	0	5	0	5	0	7	0	0	7	0	0	11	0	11	23
7:30 AM	0	0	3	0	3	0	12	0	0	12	1	0	13	0	14	29
7:45 AM	0	0	2	0	2	0	9	0	0	9	0	2	5	0	7	18
Hourly Total	0	0	11	1	11	0	34	0	0	34	1	2	37	0	40	85
8:00 AM	0	0	0	0	0	0	3	0	0	3	0	2	16	0	18	21
8:15 AM	0	0	4	0	4	0	12	0	0	12	0	0	15	0	15	31
8:30 AM	0	1	2	0	3	0	18	1	0	19	0	3	21	0	24	46
8:45 AM	0	0	3	0	3	0	9	0	1	9	1	0	15	0	16	28
Hourly Total	0	1	9	0	10	0	42	1	1	43	1	5	67	0	73	126
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	5	0	5	0	23	0	0	23	0	2	20	0	22	50
4:15 PM	0	0	2	1	2	0	17	0	0	17	0	0	21	0	21	40
4:30 PM	0	2	6	2	8	0	22	1	0	23	1	1	29	0	31	62
4:45 PM	0	0	4	0	4	0	18	0	0	18	0	2	32	0	34	56
Hourly Total	0	2	17	3	19	0	80	1	0	81	1	5	102	0	108	208
5:00 PM	0	0	3	1	3	0	29	0	0	29	0	2	27	0	29	61
5:15 PM	0	0	0	3	0	0	9	0	0	9	0	2	23	0	25	34
5:30 PM	0	0	3	1	3	0	18	0	0	18	0	5	18	2	23	44
5:45 PM	0	1	8	1	9	0	9	0	0	9	0	1	22	1	23	41
Hourly Total	0	1	14	6	15	0	65	0	0	65	0	10	90	3	100	180
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	4	1	4	0	10	0	0	10	0	0	12	0	12	26
12:15 PM	0	0	2	2	2	0	15	0	0	15	0	2	15	2	17	34
12:30 PM	0	1	4	0	5	0	15	0	0	15	0	0	14	1	14	34
12:45 PM	0	1	1	0	2	0	10	0	0	10	0	2	10	0	12	24
Hourly Total	0	2	11	3	13	0	50	0	0	50	0	4	51	3	55	118
1:00 PM	0	1	4	0	5	0	15	0	0	15	0	1	14	0	15	35
1:15 PM	0	0	2	1	2	0	20	0	0	20	0	3	13	0	16	38
1:30 PM	0	0	2	0	2	0	9	1	0	10	0	1	10	0	11	23
1:45 PM	0	0	5	0	5	0	13	0	0	13	0	0	13	0	13	31
Hourly Total	0	1	13	1	14	0	57	1	0	58	0	5	50	0	55	127
Grand Total	0	7	75	14	82	0	328	3	1	331	3	31	397	6	431	844
Approach %	0.0	8.5	91.5	-	-	0.0	99.1	0.9	-	-	0.7	7.2	92.1	-	-	-
Total %	0.0	0.8	8.9	-	9.7	0.0	38.9	0.4	-	39.2	0.4	3.7	47.0	-	51.1	-
Lights	0	6	74	-	80	0	325	2	-	327	2	29	388	-	419	826

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% Lights	-	85.7	98.7	-	97.6	-	99.1	66.7	-	98.8	66.7	93.5	97.7	-	97.2	97.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	2	0	-	2	1	1	5	-	7	9
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.6	0.0	-	0.6	33.3	3.2	1.3	-	1.6	1.1
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	1	2	-	3	4
% Articulated Trucks	-	14.3	0.0	-	1.2	-	0.0	0.0	-	0.0	0.0	3.2	0.5	-	0.7	0.5
Bicycles on Road	0	0	1	-	1	0	1	1	-	2	0	0	2	-	2	5
% Bicycles on Road	-	0.0	1.3	-	1.2	-	0.3	33.3	-	0.6	0.0	0.0	0.5	-	0.5	0.6
Pedestrians	-	-	-	14	-	-	-	-	1	-	-	-	-	6	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Belmont Road with Meadowbrook Shopping North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meadowbrook Shopping North Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	0	3	0	3	0	12	0	0	12	1	0	13	0	14	29
7:45 AM	0	0	2	0	2	0	9	0	0	9	0	2	5	0	7	18
8:00 AM	0	0	0	0	0	0	3	0	0	3	0	2	16	0	18	21
8:15 AM	0	0	4	0	4	0	12	0	0	12	0	0	15	0	15	31
Total	0	0	9	0	9	0	36	0	0	36	1	4	49	0	54	99
Approach %	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	1.9	7.4	90.7	-	-	-
Total %	0.0	0.0	9.1	-	9.1	0.0	36.4	0.0	-	36.4	1.0	4.0	49.5	-	54.5	-
PHF	0.000	0.000	0.563	-	0.563	0.000	0.750	0.000	-	0.750	0.250	0.500	0.766	-	0.750	0.798
Lights	0	0	9	-	9	0	36	0	-	36	1	4	48	-	53	98
% Lights	-	-	100.0	-	100.0	-	100.0	-	-	100.0	100.0	100.0	98.0	-	98.1	99.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	0.0	2.0	-	1.9	1.0
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	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Belmont Road with Meadowbrook Shopping North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meadowbrook Shopping North Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	2	6	2	8	0	22	1	0	23	1	1	29	0	31	62
4:45 PM	0	0	4	0	4	0	18	0	0	18	0	2	32	0	34	56
5:00 PM	0	0	3	1	3	0	29	0	0	29	0	2	27	0	29	61
5:15 PM	0	0	0	3	0	0	9	0	0	9	0	2	23	0	25	34
Total	0	2	13	6	15	0	78	1	0	79	1	7	111	0	119	213
Approach %	0.0	13.3	86.7	-	-	0.0	98.7	1.3	-	-	0.8	5.9	93.3	-	-	-
Total %	0.0	0.9	6.1	-	7.0	0.0	36.6	0.5	-	37.1	0.5	3.3	52.1	-	55.9	-
PHF	0.000	0.250	0.542	-	0.469	0.000	0.672	0.250	-	0.681	0.250	0.875	0.867	-	0.875	0.859
Lights	0	2	12	-	14	0	77	0	-	77	1	6	108	-	115	206
% Lights	-	100.0	92.3	-	93.3	-	98.7	0.0	-	97.5	100.0	85.7	97.3	-	96.6	96.7
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	1.3	0.0	-	1.3	0.0	0.0	0.9	-	0.8	0.9
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	1	1	-	2	2
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	14.3	0.9	-	1.7	0.9
Bicycles on Road	0	0	1	-	1	0	0	1	-	1	0	0	1	-	1	3
% Bicycles on Road	-	0.0	7.7	-	6.7	-	0.0	100.0	-	1.3	0.0	0.0	0.9	-	0.8	1.4
Pedestrians	-	-	-	6	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Belmont Road with Meadowbrook Shopping North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Meadowbrook Shopping North Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	0	4	1	4	0	10	0	0	10	0	0	12	0	12	26
12:15 PM	0	0	2	2	2	0	15	0	0	15	0	2	15	2	17	34
12:30 PM	0	1	4	0	5	0	15	0	0	15	0	0	14	1	14	34
12:45 PM	0	1	1	0	2	0	10	0	0	10	0	2	10	0	12	24
Total	0	2	11	3	13	0	50	0	0	50	0	4	51	3	55	118
Approach %	0.0	15.4	84.6	-	-	0.0	100.0	0.0	-	-	0.0	7.3	92.7	-	-	-
Total %	0.0	1.7	9.3	-	11.0	0.0	42.4	0.0	-	42.4	0.0	3.4	43.2	-	46.6	-
PHF	0.000	0.500	0.688	-	0.650	0.000	0.833	0.000	-	0.833	0.000	0.500	0.850	-	0.809	0.868
Lights	0	1	11	-	12	0	49	0	-	49	0	4	50	-	54	115
% Lights	-	50.0	100.0	-	92.3	-	98.0	-	-	98.0	-	100.0	98.0	-	98.2	97.5
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	-	50.0	0.0	-	7.7	-	0.0	-	-	0.0	-	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Bicycles on Road	-	0.0	0.0	-	0.0	-	2.0	-	-	2.0	-	0.0	2.0	-	1.8	1.7
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Belmont Road with Meadowbrook Shopping South Access Drive TMC
Site Code:
Start Date: 08/26/2023

Turning Movement Data

Start Time	Meadowbrook Shopping South Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	0	1	0	1	0	10	0	0	10	0	0	11	0	11	22
12:15 PM	0	0	0	1	0	0	8	0	0	8	0	0	13	1	13	21
12:30 PM	0	0	1	2	1	0	3	0	0	3	0	0	18	1	18	22
12:45 PM	0	0	1	1	1	0	9	0	0	9	0	0	14	0	14	24
Hourly Total	0	0	3	4	3	0	30	0	0	30	0	0	56	2	56	89
1:00 PM	0	0	1	3	1	0	10	0	0	10	0	0	17	1	17	28
1:15 PM	0	0	2	4	2	0	7	1	2	8	0	0	10	0	10	20
1:30 PM	0	0	2	0	2	0	3	0	0	3	0	3	8	0	11	16
1:45 PM	0	1	1	2	2	0	7	0	0	7	0	0	9	0	9	18
Hourly Total	0	1	6	9	7	0	27	1	2	28	0	3	44	1	47	82
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
7:30 AM	0	0	0	2	0	0	1	0	0	1	0	0	9	2	9	10
7:45 AM	0	0	1	1	1	0	2	0	0	2	0	0	9	0	9	12
Hourly Total	0	0	1	4	1	0	4	0	0	4	0	0	22	2	22	27
8:00 AM	0	0	1	0	1	0	5	0	0	5	0	0	8	0	8	14
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	10	0	10	13
8:30 AM	0	0	1	0	1	0	6	0	0	6	0	1	10	0	11	18
8:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	6	0	6	10
Hourly Total	0	0	2	0	2	0	18	0	0	18	0	1	34	0	35	55
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	1	0	0	9	0	0	9	0	0	12	1	12	21
4:15 PM	0	0	1	2	1	0	11	0	0	11	0	0	15	0	15	27
4:30 PM	0	0	1	1	1	0	8	0	0	8	0	0	15	0	15	24
4:45 PM	0	0	0	0	0	0	12	1	0	13	0	1	11	0	12	25
Hourly Total	0	0	2	4	2	0	40	1	0	41	0	1	53	1	54	97
5:00 PM	0	0	4	2	4	0	8	0	0	8	1	0	12	0	13	25
5:15 PM	0	0	1	1	1	0	11	0	0	11	1	0	9	0	10	22
5:30 PM	0	0	1	1	1	0	13	0	0	13	0	0	9	1	9	23
5:45 PM	0	0	1	0	1	0	8	0	0	8	0	0	5	0	5	14
Hourly Total	0	0	7	4	7	0	40	0	0	40	2	0	35	1	37	84
Grand Total	0	1	21	25	22	0	159	2	2	161	2	5	244	7	251	434
Approach %	0.0	4.5	95.5	-	-	0.0	98.8	1.2	-	-	0.8	2.0	97.2	-	-	-
Total %	0.0	0.2	4.8	-	5.1	0.0	36.6	0.5	-	37.1	0.5	1.2	56.2	-	57.8	-
Lights	0	1	19	-	20	0	154	1	-	155	2	5	242	-	249	424

% Lights	-	100.0	90.5	-	90.9	-	96.9	50.0	-	96.3	100.0	100.0	99.2	-	99.2	97.7
Buses	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Buses	-	0.0	0.0	-	0.0	-	0.6	0.0	-	0.6	0.0	0.0	0.4	-	0.4	0.5
Single-Unit Trucks	0	0	1	-	1	0	3	0	-	3	0	0	1	-	1	5
% Single-Unit Trucks	-	0.0	4.8	-	4.5	-	1.9	0.0	-	1.9	0.0	0.0	0.4	-	0.4	1.2
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	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	1	-	1	0	1	1	-	2	0	0	0	-	0	3
% Bicycles on Road	-	0.0	4.8	-	4.5	-	0.6	50.0	-	1.2	0.0	0.0	0.0	-	0.0	0.7
Pedestrians	-	-	-	25	-	-	-	-	2	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Belmont Road with Meadowbrook Shopping South Access Drive TMC
Site Code:
Start Date: 08/26/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Meadowbrook Shopping South Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
12:00 PM	0	0	1	0	1	0	10	0	0	10	0	0	11	0	11	22
12:15 PM	0	0	0	1	0	0	8	0	0	8	0	0	13	1	13	21
12:30 PM	0	0	1	2	1	0	3	0	0	3	0	0	18	1	18	22
12:45 PM	0	0	1	1	1	0	9	0	0	9	0	0	14	0	14	24
Total	0	0	3	4	3	0	30	0	0	30	0	0	56	2	56	89
Approach %	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	3.4	-	3.4	0.0	33.7	0.0	-	33.7	0.0	0.0	62.9	-	62.9	-
PHF	0.000	0.000	0.750	-	0.750	0.000	0.750	0.000	-	0.750	0.000	0.000	0.778	-	0.778	0.927
Lights	0	0	2	-	2	0	30	0	-	30	0	0	55	-	55	87
% Lights	-	-	66.7	-	66.7	-	100.0	-	-	100.0	-	-	98.2	-	98.2	97.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	-	1	0	0	0	-	0	0	0	1	-	1	2
% Single-Unit Trucks	-	-	33.3	-	33.3	-	0.0	-	-	0.0	-	-	1.8	-	1.8	2.2
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	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
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Belmont Road with Meadowbrook Shopping South Access Drive TMC
Site Code:
Start Date: 08/26/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meadowbrook Shopping South Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	0	0	2	0	0	1	0	0	1	0	0	9	2	9	10
7:45 AM	0	0	1	1	1	0	2	0	0	2	0	0	9	0	9	12
8:00 AM	0	0	1	0	1	0	5	0	0	5	0	0	8	0	8	14
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	10	0	10	13
Total	0	0	2	3	2	0	11	0	0	11	0	0	36	2	36	49
Approach %	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	0.0	4.1	-	4.1	0.0	22.4	0.0	-	22.4	0.0	0.0	73.5	-	73.5	-
PHF	0.000	0.000	0.500	-	0.500	0.000	0.550	0.000	-	0.550	0.000	0.000	0.900	-	0.900	0.875
Lights	0	0	2	-	2	0	9	0	-	9	0	0	36	-	36	47
% Lights	-	-	100.0	-	100.0	-	81.8	-	-	81.8	-	-	100.0	-	100.0	95.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Single-Unit Trucks	-	-	0.0	-	0.0	-	18.2	-	-	18.2	-	-	0.0	-	0.0	4.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	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
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	-	-	0.0	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

ORD 2025-10662

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

Rosemont, Illinois, United States 60018
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Count Name: Belmont Road with Meadowbrook Shopping South Access Drive TMC
Site Code:
Start Date: 08/26/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meadowbrook Shopping South Access Drive Westbound					Belmont Road Northbound					Belmont Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	0	1	1	1	0	8	0	0	8	0	0	15	0	15	24
4:45 PM	0	0	0	0	0	0	12	1	0	13	0	1	11	0	12	25
5:00 PM	0	0	4	2	4	0	8	0	0	8	1	0	12	0	13	25
5:15 PM	0	0	1	1	1	0	11	0	0	11	1	0	9	0	10	22
Total	0	0	6	4	6	0	39	1	0	40	2	1	47	0	50	96
Approach %	0.0	0.0	100.0	-	-	0.0	97.5	2.5	-	-	4.0	2.0	94.0	-	-	-
Total %	0.0	0.0	6.3	-	6.3	0.0	40.6	1.0	-	41.7	2.1	1.0	49.0	-	52.1	-
PHF	0.000	0.000	0.375	-	0.375	0.000	0.813	0.250	-	0.769	0.500	0.250	0.783	-	0.833	0.960
Lights	0	0	6	-	6	0	39	1	-	40	2	1	47	-	50	96
% Lights	-	-	100.0	-	100.0	-	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	-	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
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Woodward Avenue with Dunkin Donuts Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Dunkin Donuts Access Drive Eastbound						Access Drive Westbound						Woodward Avenue Northbound						Woodward Avenue 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	3	0	4	0	7	0	1	0	0	1	1	0	10	107	1	0	118	0	0	37	4	0	41	167
7:15 AM	0	4	0	1	0	5	0	0	0	0	0	0	0	8	149	1	0	158	0	0	42	3	0	45	208
7:30 AM	0	4	0	4	0	8	0	1	0	0	1	1	0	16	175	0	0	191	0	0	54	5	0	59	259
7:45 AM	0	2	0	5	0	7	0	0	0	2	0	2	0	11	187	2	0	200	0	1	72	6	0	79	288
Hourly Total	0	13	0	14	0	27	0	2	0	2	2	4	0	45	618	4	0	667	0	1	205	18	0	224	922
8:00 AM	0	4	0	7	0	11	0	0	0	1	0	1	0	7	168	0	0	175	0	3	56	4	0	63	250
8:15 AM	0	3	0	2	0	5	0	0	2	0	0	2	0	7	143	1	0	151	0	0	70	8	0	78	236
8:30 AM	0	10	0	6	0	16	0	2	0	1	0	3	0	11	138	4	0	153	0	0	66	9	0	75	247
8:45 AM	0	6	0	6	0	12	0	0	0	2	1	2	0	11	128	1	1	140	0	1	76	8	0	85	239
Hourly Total	0	23	0	21	0	44	0	2	2	4	1	8	0	36	577	6	1	619	0	4	268	29	0	301	972
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	5	2	15	0	22	0	3	0	2	1	5	0	12	136	4	0	152	0	2	165	5	0	172	351
4:15 PM	0	6	0	10	0	16	0	3	0	2	0	5	0	14	110	1	0	125	0	1	209	3	0	213	359
4:30 PM	0	1	1	11	0	13	0	3	0	7	0	10	0	10	131	4	0	145	0	1	198	4	0	203	371
4:45 PM	0	4	1	15	0	20	0	3	1	0	1	4	0	9	132	4	0	145	0	1	179	6	1	186	355
Hourly Total	0	16	4	51	0	71	0	12	1	11	2	24	0	45	509	13	0	567	0	5	751	18	1	774	1436
5:00 PM	0	4	0	19	1	23	0	9	0	5	1	14	0	12	121	4	0	137	0	6	224	8	0	238	412
5:15 PM	1	5	1	10	0	17	0	4	1	2	1	7	0	13	125	5	1	143	0	0	238	1	0	239	406
5:30 PM	0	11	0	8	0	19	0	5	0	1	0	6	0	6	128	3	0	137	0	0	235	4	0	239	401
5:45 PM	0	3	1	20	0	24	0	2	0	0	0	2	0	11	135	2	4	148	0	2	217	5	0	224	398
Hourly Total	1	23	2	57	1	83	0	20	1	8	2	29	0	42	509	14	5	565	0	8	914	18	0	940	1617
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	9	1	11	0	21	0	3	0	0	0	3	0	18	117	3	0	138	0	0	159	9	0	168	330
12:15 PM	0	8	0	10	0	18	0	3	0	3	0	6	0	12	120	2	1	134	0	2	137	5	0	144	302
12:30 PM	0	4	0	11	0	15	0	1	0	3	0	4	0	6	126	3	0	135	0	2	139	3	0	144	298
12:45 PM	0	7	0	11	0	18	0	5	0	5	0	10	0	9	123	3	3	135	0	1	148	6	1	155	318
Hourly Total	0	28	1	43	0	72	0	12	0	11	0	23	0	45	486	11	4	542	0	5	583	23	1	611	1248
1:00 PM	0	7	0	11	0	18	0	3	0	3	0	6	0	10	124	2	0	136	0	2	133	5	0	140	300
1:15 PM	0	5	0	14	0	19	0	0	2	3	0	5	0	12	110	2	0	124	0	4	137	5	0	146	294
1:30 PM	0	4	0	10	0	14	0	1	1	2	1	4	0	11	133	3	1	147	0	1	112	10	0	123	288
1:45 PM	0	6	0	6	0	12	0	3	2	1	0	6	0	13	159	1	0	173	0	2	122	4	0	128	319
Hourly Total	0	22	0	41	0	63	0	7	5	9	1	21	0	46	526	8	1	580	0	9	504	24	0	537	1201
Grand Total	1	125	7	227	1	360	0	55	9	45	8	109	0	259	3225	56	11	3540	0	32	3225	130	2	3387	7396
Approach %	0.3	34.7	1.9	63.1	-	-	0.0	50.5	8.3	41.3	-	-	0.0	7.3	91.1	1.6	-	-	0.0	0.9	95.2	3.8	-	-	-
Total %	0.0	1.7	0.1	3.1	-	4.9	0.0	0.7	0.1	0.6	-	1.5	0.0	3.5	43.6	0.8	-	47.9	0.0	0.4	43.6	1.8	-	45.8	-

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Lights	1	124	6	225	-	356	0	54	7	43	-	104	0	257	3202	56	-	3515	0	32	3190	129	-	3351	7326
% Lights	100.0	99.2	85.7	99.1	-	98.9	-	98.2	77.8	95.6	-	95.4	-	99.2	99.3	100.0	-	99.3	-	100.0	98.9	99.2	-	98.9	99.1
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	6	0	-	6	0	0	4	0	-	4	11
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	2.2	-	0.9	-	0.0	0.2	0.0	-	0.2	-	0.0	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	1	0	2	-	3	0	0	0	1	-	1	0	2	13	0	-	15	0	0	27	1	-	28	47
% Single-Unit Trucks	0.0	0.8	0.0	0.9	-	0.8	-	0.0	0.0	2.2	-	0.9	-	0.8	0.4	0.0	-	0.4	-	0.0	0.8	0.8	-	0.8	0.6
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	3	0	-	3	0	0	4	0	-	4	8
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	-	1.8	0.0	0.0	-	0.9	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.0	14.3	0.0	-	0.3	-	0.0	22.2	0.0	-	1.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	8	-	-	-	-	-	11	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Woodward Avenue with Dunkin Donuts Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Dunkin Donuts Access Drive Eastbound						Access Drive Westbound						Woodward Avenue Northbound						Woodward Avenue 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	4	0	4	0	8	0	1	0	0	1	1	0	16	175	0	0	191	0	0	54	5	0	59	259
7:45 AM	0	2	0	5	0	7	0	0	0	2	0	2	0	11	187	2	0	200	0	1	72	6	0	79	288
8:00 AM	0	4	0	7	0	11	0	0	0	1	0	1	0	7	168	0	0	175	0	3	56	4	0	63	250
8:15 AM	0	3	0	2	0	5	0	0	2	0	0	2	0	7	143	1	0	151	0	0	70	8	0	78	236
Total	0	13	0	18	0	31	0	1	2	3	1	6	0	41	673	3	0	717	0	4	252	23	0	279	1033
Approach %	0.0	41.9	0.0	58.1	-	-	0.0	16.7	33.3	50.0	-	-	0.0	5.7	93.9	0.4	-	-	0.0	1.4	90.3	8.2	-	-	-
Total %	0.0	1.3	0.0	1.7	-	3.0	0.0	0.1	0.2	0.3	-	0.6	0.0	4.0	65.2	0.3	-	69.4	0.0	0.4	24.4	2.2	-	27.0	-
PHF	0.000	0.813	0.000	0.643	-	0.705	0.000	0.250	0.250	0.375	-	0.750	0.000	0.641	0.900	0.375	-	0.896	0.000	0.333	0.875	0.719	-	0.883	0.897
Lights	0	13	0	17	-	30	0	1	0	3	-	4	0	40	666	3	-	709	0	4	240	23	-	267	1010
% Lights	-	100.0	-	94.4	-	96.8	-	100.0	0.0	100.0	-	66.7	-	97.6	99.0	100.0	-	98.9	-	100.0	95.2	100.0	-	95.7	97.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.4	0.0	-	0.4	0.2
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	1	6	0	-	7	0	0	10	0	-	10	18
% Single-Unit Trucks	-	0.0	-	5.6	-	3.2	-	0.0	0.0	0.0	-	0.0	-	2.4	0.9	0.0	-	1.0	-	0.0	4.0	0.0	-	3.6	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	0.1
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	100.0	0.0	-	33.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ORD 2025-10662

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Count Name: Woodward Avenue with Dunkin Donuts Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Dunkin Donuts Access Drive Eastbound						Access Drive Westbound						Woodward Avenue Northbound						Woodward Avenue 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
4:30 PM	0	1	1	11	0	13	0	3	0	7	0	10	0	10	131	4	0	145	0	1	198	4	0	203	371
4:45 PM	0	4	1	15	0	20	0	3	1	0	1	4	0	9	132	4	0	145	0	1	179	6	1	186	355
5:00 PM	0	4	0	19	1	23	0	9	0	5	1	14	0	12	121	4	0	137	0	6	224	8	0	238	412
5:15 PM	1	5	1	10	0	17	0	4	1	2	1	7	0	13	125	5	1	143	0	0	238	1	0	239	406
Total	1	14	3	55	1	73	0	19	2	14	3	35	0	44	509	17	1	570	0	8	839	19	1	866	1544
Approach %	1.4	19.2	4.1	75.3	-	-	0.0	54.3	5.7	40.0	-	-	0.0	7.7	89.3	3.0	-	-	0.0	0.9	96.9	2.2	-	-	-
Total %	0.1	0.9	0.2	3.6	-	4.7	0.0	1.2	0.1	0.9	-	2.3	0.0	2.8	33.0	1.1	-	36.9	0.0	0.5	54.3	1.2	-	56.1	-
PHF	0.250	0.700	0.750	0.724	-	0.793	0.000	0.528	0.500	0.500	-	0.625	0.000	0.846	0.964	0.850	-	0.983	0.000	0.333	0.881	0.594	-	0.906	0.937
Lights	1	14	2	55	-	72	0	18	2	14	-	34	0	43	503	17	-	563	0	8	833	19	-	860	1529
% Lights	100.0	100.0	66.7	100.0	-	98.6	-	94.7	100.0	100.0	-	97.1	-	97.7	98.8	100.0	-	98.8	-	100.0	99.3	100.0	-	99.3	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	4	0	-	5	0	0	6	0	-	6	11
% Single-Unit Trucks	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	2.3	0.8	0.0	-	0.9	-	0.0	0.7	0.0	-	0.7	0.7
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	2
% Articulated Trucks	0.0	0.0	0.0	0.0	-	0.0	-	5.3	0.0	0.0	-	2.9	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	33.3	0.0	-	1.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% 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: Woodward Avenue with Dunkin Donuts Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Dunkin Donuts Access Drive Eastbound						Access Drive Westbound						Woodward Avenue Northbound						Woodward Avenue 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	9	1	11	0	21	0	3	0	0	0	3	0	18	117	3	0	138	0	0	159	9	0	168	330
12:15 PM	0	8	0	10	0	18	0	3	0	3	0	6	0	12	120	2	1	134	0	2	137	5	0	144	302
12:30 PM	0	4	0	11	0	15	0	1	0	3	0	4	0	6	126	3	0	135	0	2	139	3	0	144	298
12:45 PM	0	7	0	11	0	18	0	5	0	5	0	10	0	9	123	3	3	135	0	1	148	6	1	155	318
Total	0	28	1	43	0	72	0	12	0	11	0	23	0	45	486	11	4	542	0	5	583	23	1	611	1248
Approach %	0.0	38.9	1.4	59.7	-	-	0.0	52.2	0.0	47.8	-	-	0.0	8.3	89.7	2.0	-	-	0.0	0.8	95.4	3.8	-	-	-
Total %	0.0	2.2	0.1	3.4	-	5.8	0.0	1.0	0.0	0.9	-	1.8	0.0	3.6	38.9	0.9	-	43.4	0.0	0.4	46.7	1.8	-	49.0	-
PHF	0.000	0.778	0.250	0.977	-	0.857	0.000	0.600	0.000	0.550	-	0.575	0.000	0.625	0.964	0.917	-	0.982	0.000	0.625	0.917	0.639	-	0.909	0.945
Lights	0	28	1	43	-	72	0	12	0	10	-	22	0	45	482	11	-	538	0	5	583	23	-	611	1243
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	-	90.9	-	95.7	-	100.0	99.2	100.0	-	99.3	-	100.0	100.0	100.0	-	100.0	99.6
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	0	3	0	-	3	0	0	0	0	-	0	4
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	-	9.1	-	4.3	-	0.0	0.6	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	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
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	-	-	-	-	-	4	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Woodward Avenue with Hastings Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Access Drive Eastbound						Hastings Avenue Westbound						Woodward Avenue Northbound						Woodward Avenue 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	0	0	0	0	0	1	0	0	1	1	0	4	118	0	0	122	0	0	39	1	0	40	163
7:15 AM	0	1	1	5	0	7	0	2	0	3	1	5	0	9	166	0	0	175	0	0	46	0	0	46	233
7:30 AM	0	2	0	5	0	7	0	0	0	0	1	0	0	7	200	0	0	207	0	1	55	1	0	57	271
7:45 AM	0	1	0	5	0	6	0	1	0	1	0	2	0	4	187	0	0	191	0	0	79	1	0	80	279
Hourly Total	0	4	1	15	0	20	0	4	0	4	3	8	0	24	671	0	0	695	0	1	219	3	0	223	946
8:00 AM	0	2	0	6	0	8	0	0	0	1	1	1	0	8	174	0	0	182	0	0	59	2	0	61	252
8:15 AM	0	2	1	10	0	13	0	0	1	4	0	5	0	7	140	1	0	148	0	0	70	1	0	71	237
8:30 AM	0	1	0	5	0	6	0	1	0	1	0	2	0	8	156	0	0	164	0	1	71	3	0	75	247
8:45 AM	0	2	0	7	0	9	0	2	0	0	0	2	0	6	137	2	0	145	0	0	81	2	1	83	239
Hourly Total	0	7	1	28	0	36	0	3	1	6	1	10	0	29	607	3	0	639	0	1	281	8	1	290	975
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	0	5	0	7	0	2	5	2	1	9	0	5	150	2	1	157	0	1	184	1	0	186	359
4:15 PM	0	0	0	8	0	8	0	0	0	2	0	2	0	6	132	0	0	138	0	0	216	5	0	221	369
4:30 PM	0	2	0	7	0	9	0	0	0	0	0	0	0	3	142	0	0	145	0	1	203	3	0	207	361
4:45 PM	0	1	0	8	0	9	0	1	0	2	2	3	0	4	144	4	1	152	0	0	199	2	1	201	365
Hourly Total	0	5	0	28	0	33	0	3	5	6	3	14	0	18	568	6	2	592	0	2	802	11	1	815	1454
5:00 PM	0	4	0	10	0	14	0	2	1	1	0	4	0	4	138	0	0	142	0	2	240	7	0	249	409
5:15 PM	0	1	0	6	0	7	0	0	0	1	0	1	0	6	136	5	1	147	0	0	253	2	0	255	410
5:30 PM	0	2	0	6	0	8	0	2	0	2	1	4	0	9	134	1	0	144	0	1	247	2	0	250	406
5:45 PM	0	1	0	7	0	8	0	0	0	1	1	1	0	5	146	0	0	151	0	0	239	1	0	240	400
Hourly Total	0	8	0	29	0	37	0	4	1	5	2	10	0	24	554	6	1	584	0	3	979	12	0	994	1625
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	4	0	10	0	14	0	1	0	2	0	3	0	5	134	0	2	139	0	1	154	6	0	161	317
12:15 PM	0	1	0	7	0	8	0	1	0	0	0	1	0	7	127	0	0	134	0	0	150	0	0	150	293
12:30 PM	0	4	0	5	0	9	0	0	1	0	0	1	0	10	132	1	0	143	0	1	153	5	0	159	312
12:45 PM	0	0	0	3	0	3	0	1	0	1	1	2	0	5	134	1	0	140	0	1	152	3	1	156	301
Hourly Total	0	9	0	25	0	34	0	3	1	3	1	7	0	27	527	2	2	556	0	3	609	14	1	626	1223
1:00 PM	0	2	1	9	0	12	0	0	0	1	0	1	0	8	143	0	0	151	0	1	144	4	2	149	313
1:15 PM	0	2	0	5	0	7	0	0	0	2	0	2	0	4	117	0	0	121	0	1	148	2	0	151	281
1:30 PM	0	2	0	7	0	9	0	3	1	2	0	6	0	9	137	0	0	146	0	0	121	2	0	123	284
1:45 PM	0	3	0	1	0	4	0	1	0	2	0	3	0	7	164	1	0	172	0	1	129	3	0	133	312
Hourly Total	0	9	1	22	0	32	0	4	1	7	0	12	0	28	561	1	0	590	0	3	542	11	2	556	1190
Grand Total	0	42	3	147	0	192	0	21	9	31	10	61	0	150	3488	18	5	3656	0	13	3432	59	5	3504	7413
Approach %	0.0	21.9	1.6	76.6	-	-	0.0	34.4	14.8	50.8	-	-	0.0	4.1	95.4	0.5	-	-	0.0	0.4	97.9	1.7	-	-	-
Total %	0.0	0.6	0.0	2.0	-	2.6	0.0	0.3	0.1	0.4	-	0.8	0.0	2.0	47.1	0.2	-	49.3	0.0	0.2	46.3	0.8	-	47.3	-

Lights	0	41	2	142	-	185	0	21	3	30	-	54	0	148	3466	17	-	3631	0	13	3396	57	-	3466	7336
% Lights	-	97.6	66.7	96.6	-	96.4	-	100.0	33.3	96.8	-	88.5	-	98.7	99.4	94.4	-	99.3	-	100.0	99.0	96.6	-	98.9	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	4	0	-	4	7
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	1	0	3	-	4	0	0	0	0	-	0	0	0	13	0	-	13	0	0	29	1	-	30	47
% Single-Unit Trucks	-	2.4	0.0	2.0	-	2.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.4	-	0.0	0.8	1.7	-	0.9	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	0	3	1	-	4	9
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	1.7	-	0.1	0.1
Bicycles on Road	0	0	1	2	-	3	0	0	6	1	-	7	0	2	1	1	-	4	0	0	0	0	-	0	14
% Bicycles on Road	-	0.0	33.3	1.4	-	1.6	-	0.0	66.7	3.2	-	11.5	-	1.3	0.0	5.6	-	0.1	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	5	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Woodward Avenue with Hastings Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Access Drive Eastbound						Hastings Avenue Westbound						Woodward Avenue Northbound						Woodward Avenue 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	2	0	5	0	7	0	0	0	0	1	0	0	7	200	0	0	207	0	1	55	1	0	57	271
7:45 AM	0	1	0	5	0	6	0	1	0	1	0	2	0	4	187	0	0	191	0	0	79	1	0	80	279
8:00 AM	0	2	0	6	0	8	0	0	0	1	1	1	0	8	174	0	0	182	0	0	59	2	0	61	252
8:15 AM	0	2	1	10	0	13	0	0	1	4	0	5	0	7	140	1	0	148	0	0	70	1	0	71	237
Total	0	7	1	26	0	34	0	1	1	6	2	8	0	26	701	1	0	728	0	1	263	5	0	269	1039
Approach %	0.0	20.6	2.9	76.5	-	-	0.0	12.5	12.5	75.0	-	-	0.0	3.6	96.3	0.1	-	-	0.0	0.4	97.8	1.9	-	-	-
Total %	0.0	0.7	0.1	2.5	-	3.3	0.0	0.1	0.1	0.6	-	0.8	0.0	2.5	67.5	0.1	-	70.1	0.0	0.1	25.3	0.5	-	25.9	-
PHF	0.000	0.875	0.250	0.650	-	0.654	0.000	0.250	0.250	0.375	-	0.400	0.000	0.813	0.876	0.250	-	0.879	0.000	0.250	0.832	0.625	-	0.841	0.931
Lights	0	6	0	25	-	31	0	1	1	6	-	8	0	26	695	1	-	722	0	1	248	4	-	253	1014
% Lights	-	85.7	0.0	96.2	-	91.2	-	100.0	100.0	100.0	-	100.0	-	100.0	99.1	100.0	-	99.2	-	100.0	94.3	80.0	-	94.1	97.6
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.4	0.0	-	0.4	0.2
Single-Unit Trucks	0	1	0	1	-	2	0	0	0	0	-	0	0	0	4	0	-	4	0	0	13	1	-	14	20
% Single-Unit Trucks	-	14.3	0.0	3.8	-	5.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	4.9	20.0	-	5.2	1.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.4	0.0	-	0.4	0.2
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	100.0	0.0	-	2.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Woodward Avenue with Hastings Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Access Drive Eastbound						Hastings Avenue Westbound						Woodward Avenue Northbound						Woodward Avenue 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
4:30 PM	0	2	0	7	0	9	0	0	0	0	0	0	0	3	142	0	0	145	0	1	203	3	0	207	361
4:45 PM	0	1	0	8	0	9	0	1	0	2	2	3	0	4	144	4	1	152	0	0	199	2	1	201	365
5:00 PM	0	4	0	10	0	14	0	2	1	1	0	4	0	4	138	0	0	142	0	2	240	7	0	249	409
5:15 PM	0	1	0	6	0	7	0	0	0	1	0	1	0	6	136	5	1	147	0	0	253	2	0	255	410
Total	0	8	0	31	0	39	0	3	1	4	2	8	0	17	560	9	2	586	0	3	895	14	1	912	1545
Approach %	0.0	20.5	0.0	79.5	-	-	0.0	37.5	12.5	50.0	-	-	0.0	2.9	95.6	1.5	-	-	0.0	0.3	98.1	1.5	-	-	-
Total %	0.0	0.5	0.0	2.0	-	2.5	0.0	0.2	0.1	0.3	-	0.5	0.0	1.1	36.2	0.6	-	37.9	0.0	0.2	57.9	0.9	-	59.0	-
PHF	0.000	0.500	0.000	0.775	-	0.696	0.000	0.375	0.250	0.500	-	0.500	0.000	0.708	0.972	0.450	-	0.964	0.000	0.375	0.884	0.500	-	0.894	0.942
Lights	0	8	0	30	-	38	0	3	0	4	-	7	0	17	554	8	-	579	0	3	890	14	-	907	1531
% Lights	-	100.0	-	96.8	-	97.4	-	100.0	0.0	100.0	-	87.5	-	100.0	98.9	88.9	-	98.8	-	100.0	99.4	100.0	-	99.5	99.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	4	0	-	4	0	0	4	0	-	4	9
% Single-Unit Trucks	-	0.0	-	3.2	-	2.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.7	0.0	-	0.7	-	0.0	0.4	0.0	-	0.4	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	100.0	0.0	-	12.5	-	0.0	0.0	11.1	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Woodward Avenue with Hastings Avenue TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Access Drive Eastbound						Hastings Avenue Westbound						Woodward Avenue Northbound						Woodward Avenue 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	0	10	0	14	0	1	0	2	0	3	0	5	134	0	2	139	0	1	154	6	0	161	317
12:15 PM	0	1	0	7	0	8	0	1	0	0	0	1	0	7	127	0	0	134	0	0	150	0	0	150	293
12:30 PM	0	4	0	5	0	9	0	0	1	0	0	1	0	10	132	1	0	143	0	1	153	5	0	159	312
12:45 PM	0	0	0	3	0	3	0	1	0	1	1	2	0	5	134	1	0	140	0	1	152	3	1	156	301
Total	0	9	0	25	0	34	0	3	1	3	1	7	0	27	527	2	2	556	0	3	609	14	1	626	1223
Approach %	0.0	26.5	0.0	73.5	-	-	0.0	42.9	14.3	42.9	-	-	0.0	4.9	94.8	0.4	-	-	0.0	0.5	97.3	2.2	-	-	-
Total %	0.0	0.7	0.0	2.0	-	2.8	0.0	0.2	0.1	0.2	-	0.6	0.0	2.2	43.1	0.2	-	45.5	0.0	0.2	49.8	1.1	-	51.2	-
PHF	0.000	0.563	0.000	0.625	-	0.607	0.000	0.750	0.250	0.375	-	0.583	0.000	0.675	0.983	0.500	-	0.972	0.000	0.750	0.989	0.583	-	0.972	0.965
Lights	0	9	0	24	-	33	0	3	1	3	-	7	0	26	525	2	-	553	0	3	609	14	-	626	1219
% Lights	-	100.0	-	96.0	-	97.1	-	100.0	100.0	100.0	-	100.0	-	96.3	99.6	100.0	-	99.5	-	100.0	100.0	100.0	-	100.0	99.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	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
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	1	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	-	4.0	-	2.9	-	0.0	0.0	0.0	-	0.0	-	3.7	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Woodward Avenue with Meadowbrook North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Meadowbrook Access Drive - north Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
7:00 AM	0	0	1	0	1	0	1	107	0	108	0	40	1	0	41	150
7:15 AM	0	0	0	0	0	0	2	163	0	165	0	48	1	0	49	214
7:30 AM	0	0	0	0	0	0	1	184	0	185	0	55	2	0	57	242
7:45 AM	0	0	4	0	4	0	0	177	0	177	0	79	1	0	80	261
Hourly Total	0	0	5	0	5	0	4	631	0	635	0	222	5	0	227	867
8:00 AM	0	0	0	0	0	0	1	177	0	178	0	54	2	0	56	234
8:15 AM	0	0	0	0	0	0	2	137	0	139	0	73	5	0	78	217
8:30 AM	0	0	0	0	0	0	2	153	0	155	0	66	3	0	69	224
8:45 AM	0	1	0	0	1	0	1	133	0	134	0	82	1	0	83	218
Hourly Total	0	1	0	0	1	0	6	600	0	606	0	275	11	0	286	893
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	1	0	1	0	1	146	0	147	0	174	3	0	177	325
4:15 PM	0	0	2	0	2	0	0	124	0	124	0	210	3	0	213	339
4:30 PM	0	0	0	0	0	0	1	136	0	137	0	199	3	0	202	339
4:45 PM	0	0	2	0	2	0	0	141	0	141	0	190	4	0	194	337
Hourly Total	0	0	5	0	5	0	2	547	0	549	0	773	13	0	786	1340
5:00 PM	0	0	2	0	2	0	1	132	0	133	0	227	5	0	232	367
5:15 PM	0	0	3	0	3	0	0	129	0	129	0	237	2	0	239	371
5:30 PM	0	0	2	0	2	0	0	142	0	142	0	239	5	0	244	388
5:45 PM	0	0	4	0	4	0	0	136	0	136	0	220	4	0	224	364
Hourly Total	0	0	11	0	11	0	1	539	0	540	0	923	16	0	939	1490
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	3	3	0	6	0	0	130	0	130	0	154	3	0	157	293
12:15 PM	0	0	1	0	1	0	0	124	0	124	0	144	5	0	149	274
12:30 PM	0	1	1	0	2	0	1	136	0	137	0	153	2	0	155	294
12:45 PM	0	0	4	0	4	0	0	136	0	136	0	144	2	0	146	286
Hourly Total	0	4	9	0	13	0	1	526	0	527	0	595	12	0	607	1147
1:00 PM	0	0	4	0	4	0	1	138	0	139	0	133	6	0	139	282
1:15 PM	0	0	1	0	1	0	0	120	0	120	0	145	0	0	145	266
1:30 PM	0	2	2	0	4	0	1	126	0	127	0	121	1	0	122	253
1:45 PM	0	1	1	0	2	0	0	164	0	164	0	126	2	0	128	294
Hourly Total	0	3	8	0	11	0	2	548	0	550	0	525	9	0	534	1095
Grand Total	0	8	38	0	46	0	16	3391	0	3407	0	3313	66	0	3379	6832
Approach %	0.0	17.4	82.6	-	-	0.0	0.5	99.5	-	-	0.0	98.0	2.0	-	-	-
Total %	0.0	0.1	0.6	-	0.7	0.0	0.2	49.6	-	49.9	0.0	48.5	1.0	-	49.5	-
Lights	0	8	36	-	44	0	16	3371	-	3387	0	3287	64	-	3351	6782

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% Lights	-	100.0	94.7	-	95.7	-	100.0	99.4	-	99.4	-	99.2	97.0	-	99.2	99.3
Buses	0	0	0	-	0	0	0	3	-	3	0	1	0	-	1	4
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	11	-	11	0	24	2	-	26	37
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.3	-	0.3	-	0.7	3.0	-	0.8	0.5
Articulated Trucks	0	0	0	-	0	0	0	5	-	5	0	1	0	-	1	6
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	2	-	2	0	0	1	-	1	0	0	0	-	0	3
% Bicycles on Road	-	0.0	5.3	-	4.3	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Woodward Avenue with Meadowbrook North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meadowbrook Access Drive - north Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	0	0	0	0	0	1	184	0	185	0	55	2	0	57	242
7:45 AM	0	0	4	0	4	0	0	177	0	177	0	79	1	0	80	261
8:00 AM	0	0	0	0	0	0	1	177	0	178	0	54	2	0	56	234
8:15 AM	0	0	0	0	0	0	2	137	0	139	0	73	5	0	78	217
Total	0	0	4	0	4	0	4	675	0	679	0	261	10	0	271	954
Approach %	0.0	0.0	100.0	-	-	0.0	0.6	99.4	-	-	0.0	96.3	3.7	-	-	-
Total %	0.0	0.0	0.4	-	0.4	0.0	0.4	70.8	-	71.2	0.0	27.4	1.0	-	28.4	-
PHF	0.000	0.000	0.250	-	0.250	0.000	0.500	0.917	-	0.918	0.000	0.826	0.500	-	0.847	0.914
Lights	0	0	4	-	4	0	4	669	-	673	0	251	10	-	261	938
% Lights	-	-	100.0	-	100.0	-	100.0	99.1	-	99.1	-	96.2	100.0	-	96.3	98.3
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	-	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	4	-	4	0	9	0	-	9	13
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	0.6	-	0.6	-	3.4	0.0	-	3.3	1.4
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	1	0	-	1	2
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	0.1	-	0.1	-	0.4	0.0	-	0.4	0.2
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	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Woodward Avenue with Meadowbrook North Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Meadowbrook Access Drive - north Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	0	0	0	0	1	136	0	137	0	199	3	0	202	339
4:45 PM	0	0	2	0	2	0	0	141	0	141	0	190	4	0	194	337
5:00 PM	0	0	2	0	2	0	1	132	0	133	0	227	5	0	232	367
5:15 PM	0	0	3	0	3	0	0	129	0	129	0	237	2	0	239	371
Total	0	0	7	0	7	0	2	538	0	540	0	853	14	0	867	1414
Approach %	0.0	0.0	100.0	-	-	0.0	0.4	99.6	-	-	0.0	98.4	1.6	-	-	-
Total %	0.0	0.0	0.5	-	0.5	0.0	0.1	38.0	-	38.2	0.0	60.3	1.0	-	61.3	-
PHF	0.000	0.000	0.583	-	0.583	0.000	0.500	0.954	-	0.957	0.000	0.900	0.700	-	0.907	0.953
Lights	0	0	5	-	5	0	2	533	-	535	0	847	14	-	861	1401
% Lights	-	-	71.4	-	71.4	-	100.0	99.1	-	99.1	-	99.3	100.0	-	99.3	99.1
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	-	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	0	3	-	3	0	6	0	-	6	9
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	0.6	-	0.6	-	0.7	0.0	-	0.7	0.6
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	2	-	2	0	0	0	-	0	0	0	0	-	0	2
% Bicycles on Road	-	-	28.6	-	28.6	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ORD 2025-10662

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Count Name: Woodward Avenue with Meadowbrook North Access Drive TMC
Site Code:
Start Date: 08/10/2023
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Meadowbrook Access Drive - north Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	3	3	0	6	0	0	130	0	130	0	154	3	0	157	293
12:15 PM	0	0	1	0	1	0	0	124	0	124	0	144	5	0	149	274
12:30 PM	0	1	1	0	2	0	1	136	0	137	0	153	2	0	155	294
12:45 PM	0	0	4	0	4	0	0	136	0	136	0	144	2	0	146	286
Total	0	4	9	0	13	0	1	526	0	527	0	595	12	0	607	1147
Approach %	0.0	30.8	69.2	-	-	0.0	0.2	99.8	-	-	0.0	98.0	2.0	-	-	-
Total %	0.0	0.3	0.8	-	1.1	0.0	0.1	45.9	-	45.9	0.0	51.9	1.0	-	52.9	-
PHF	0.000	0.333	0.563	-	0.542	0.000	0.250	0.967	-	0.962	0.000	0.966	0.600	-	0.967	0.975
Lights	0	4	9	-	13	0	1	524	-	525	0	595	12	-	607	1145
% Lights	-	100.0	100.0	-	100.0	-	100.0	99.6	-	99.6	-	100.0	100.0	-	100.0	99.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
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	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Woodward Avenue with Meadowbrook South Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Data

Start Time	Access Drive Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	0	2	115	0	117	0	39	0	0	39	156
7:15 AM	0	0	0	0	0	0	0	171	0	171	0	55	2	0	57	228
7:30 AM	0	1	0	0	1	0	4	206	0	210	0	56	0	0	56	267
7:45 AM	0	0	2	0	2	0	3	187	0	190	1	84	0	0	85	277
Hourly Total	0	1	2	0	3	0	9	679	0	688	1	234	2	0	237	928
8:00 AM	0	3	1	0	4	0	3	178	0	181	0	62	0	0	62	247
8:15 AM	0	1	0	0	1	0	0	142	0	142	0	75	3	0	78	221
8:30 AM	0	2	0	0	2	0	2	166	0	168	0	76	0	0	76	246
8:45 AM	0	0	1	0	1	0	1	137	0	138	0	92	0	0	92	231
Hourly Total	0	6	2	0	8	0	6	623	0	629	0	305	3	0	308	945
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	8	0	8	0	0	149	0	149	0	187	0	1	187	344
4:15 PM	0	2	6	0	8	0	5	130	0	135	0	223	0	0	223	366
4:30 PM	0	1	8	0	9	0	3	150	0	153	0	206	0	0	206	368
4:45 PM	0	0	4	0	4	0	5	145	0	150	0	205	0	0	205	359
Hourly Total	0	3	26	0	29	0	13	574	0	587	0	821	0	1	821	1437
5:00 PM	0	0	12	0	12	0	4	138	0	142	0	246	3	0	249	403
5:15 PM	0	2	8	0	10	0	2	141	0	143	0	255	0	0	255	408
5:30 PM	0	0	4	0	4	0	0	143	0	143	0	249	1	0	250	397
5:45 PM	0	0	6	0	6	0	3	150	0	153	0	243	2	1	245	404
Hourly Total	0	2	30	0	32	0	9	572	0	581	0	993	6	1	999	1612
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	9	0	9	0	4	136	0	140	0	161	1	0	162	311
12:15 PM	0	0	2	0	2	0	5	133	0	138	0	157	0	0	157	297
12:30 PM	0	0	6	0	6	0	3	145	0	148	0	157	2	0	159	313
12:45 PM	0	0	6	0	6	0	4	139	0	143	0	150	2	0	152	301
Hourly Total	0	0	23	0	23	0	16	553	0	569	0	625	5	0	630	1222
1:00 PM	0	1	2	0	3	0	5	149	1	154	0	151	0	0	151	308
1:15 PM	0	1	6	0	7	0	5	121	0	126	0	158	0	0	158	291
1:30 PM	0	1	5	0	6	0	4	150	0	154	0	132	1	0	133	293
1:45 PM	0	2	7	0	9	0	2	168	0	170	0	126	0	0	126	305
Hourly Total	0	5	20	0	25	0	16	588	1	604	0	567	1	0	568	1197
Grand Total	0	17	103	0	120	0	69	3589	1	3658	1	3545	17	2	3563	7341
Approach %	0.0	14.2	85.8	-	-	0.0	1.9	98.1	-	-	0.0	99.5	0.5	-	-	-
Total %	0.0	0.2	1.4	-	1.6	0.0	0.9	48.9	-	49.8	0.0	48.3	0.2	-	48.5	-
Lights	0	16	103	-	119	0	68	3566	-	3634	1	3506	17	-	3524	7277

% Lights	-	94.1	100.0	-	99.2	-	98.6	99.4	-	99.3	100.0	98.9	100.0	-	98.9	99.1
Buses	0	0	0	-	0	0	0	3	-	3	0	4	0	-	4	7
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	1	0	-	1	0	0	14	-	14	0	28	0	-	28	43
% Single-Unit Trucks	-	5.9	0.0	-	0.8	-	0.0	0.4	-	0.4	0.0	0.8	0.0	-	0.8	0.6
Articulated Trucks	0	0	0	-	0	0	0	5	-	5	0	7	0	-	7	12
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	-	0	0	1	1	-	2	0	0	0	-	0	2
% Bicycles on Road	-	0.0	0.0	-	0.0	-	1.4	0.0	-	0.1	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	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: Woodward Avenue with Meadowbrook South Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Access Drive Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	1	0	0	1	0	4	206	0	210	0	56	0	0	56	267
7:45 AM	0	0	2	0	2	0	3	187	0	190	1	84	0	0	85	277
8:00 AM	0	3	1	0	4	0	3	178	0	181	0	62	0	0	62	247
8:15 AM	0	1	0	0	1	0	0	142	0	142	0	75	3	0	78	221
Total	0	5	3	0	8	0	10	713	0	723	1	277	3	0	281	1012
Approach %	0.0	62.5	37.5	-	-	0.0	1.4	98.6	-	-	0.4	98.6	1.1	-	-	-
Total %	0.0	0.5	0.3	-	0.8	0.0	1.0	70.5	-	71.4	0.1	27.4	0.3	-	27.8	-
PHF	0.000	0.417	0.375	-	0.500	0.000	0.625	0.865	-	0.861	0.250	0.824	0.250	-	0.826	0.913
Lights	0	5	3	-	8	0	10	706	-	716	1	264	3	-	268	992
% Lights	-	100.0	100.0	-	100.0	-	100.0	99.0	-	99.0	100.0	95.3	100.0	-	95.4	98.0
Buses	0	0	0	-	0	0	0	1	-	1	0	1	0	-	1	2
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0	0.4	0.0	-	0.4	0.2
Single-Unit Trucks	0	0	0	-	0	0	0	5	-	5	0	10	0	-	10	15
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	0.0	0.7	-	0.7	0.0	3.6	0.0	-	3.6	1.5
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	2	0	-	2	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.1	-	0.1	0.0	0.7	0.0	-	0.7	0.3
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	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Woodward Avenue with Meadowbrook South Access Drive TMC
Site Code:
Start Date: 08/10/2023
Page No: 4

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Access Drive Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	1	8	0	9	0	3	150	0	153	0	206	0	0	206	368
4:45 PM	0	0	4	0	4	0	5	145	0	150	0	205	0	0	205	359
5:00 PM	0	0	12	0	12	0	4	138	0	142	0	246	3	0	249	403
5:15 PM	0	2	8	0	10	0	2	141	0	143	0	255	0	0	255	408
Total	0	3	32	0	35	0	14	574	0	588	0	912	3	0	915	1538
Approach %	0.0	8.6	91.4	-	-	0.0	2.4	97.6	-	-	0.0	99.7	0.3	-	-	-
Total %	0.0	0.2	2.1	-	2.3	0.0	0.9	37.3	-	38.2	0.0	59.3	0.2	-	59.5	-
PHF	0.000	0.375	0.667	-	0.729	0.000	0.700	0.957	-	0.961	0.000	0.894	0.250	-	0.897	0.942
Lights	0	2	32	-	34	0	13	568	-	581	0	903	3	-	906	1521
% Lights	-	66.7	100.0	-	97.1	-	92.9	99.0	-	98.8	-	99.0	100.0	-	99.0	98.9
Buses	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	1	0	-	1	0	0	4	-	4	0	7	0	-	7	12
% Single-Unit Trucks	-	33.3	0.0	-	2.9	-	0.0	0.7	-	0.7	-	0.8	0.0	-	0.8	0.8
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	2	0	-	2	3
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	7.1	0.0	-	0.2	-	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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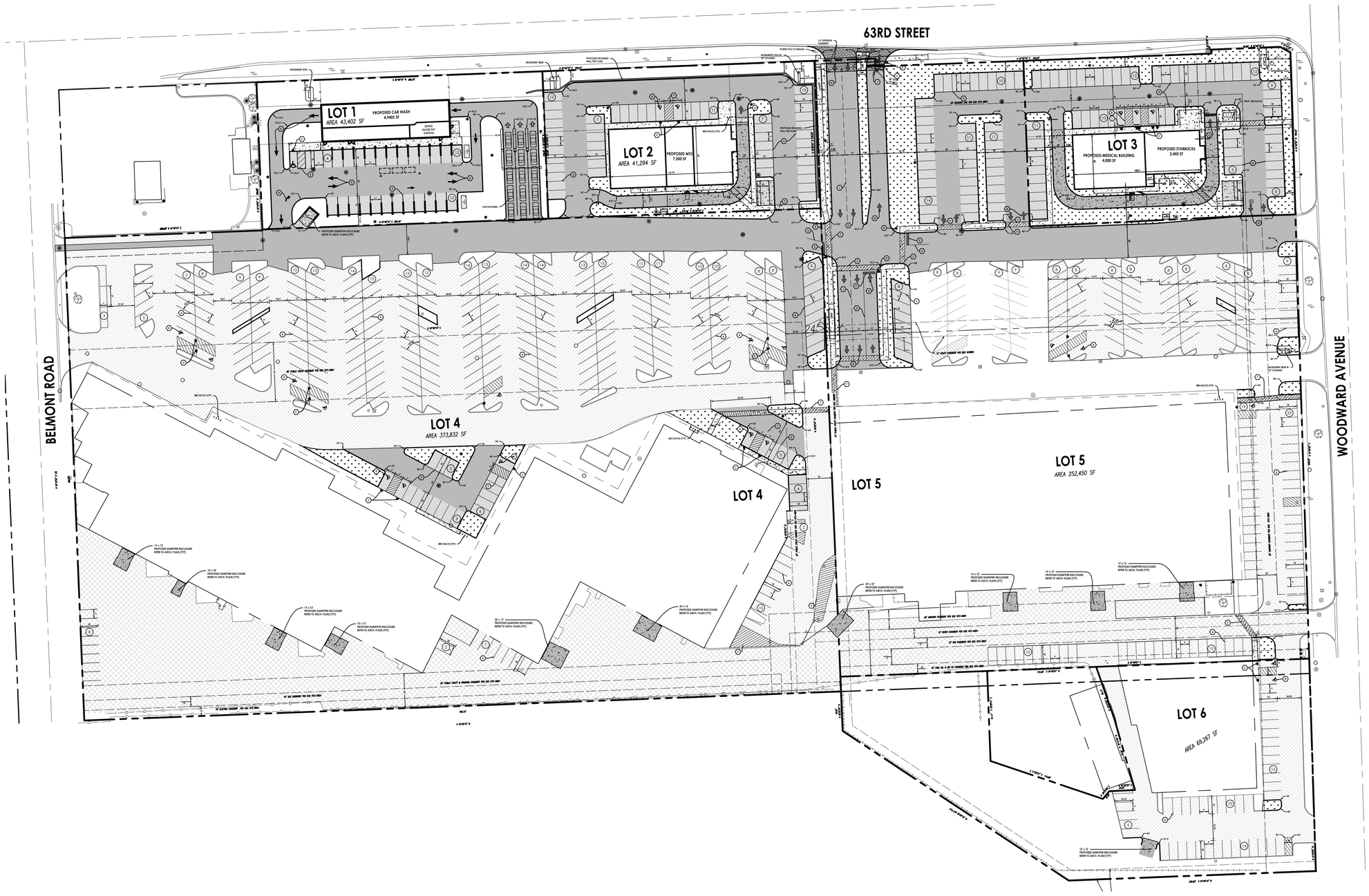
Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

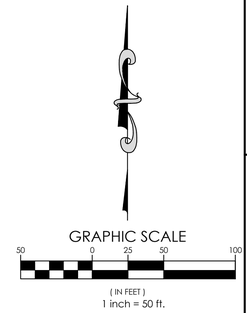
Count Name: Woodward Avenue with Meadowbrook South Access Drive TMC
Site Code:
Start Date: 08/10/2023

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Access Drive Eastbound					Woodward Avenue Northbound					Woodward Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	0	9	0	9	0	4	136	0	140	0	161	1	0	162	311
12:15 PM	0	0	2	0	2	0	5	133	0	138	0	157	0	0	157	297
12:30 PM	0	0	6	0	6	0	3	145	0	148	0	157	2	0	159	313
12:45 PM	0	0	6	0	6	0	4	139	0	143	0	150	2	0	152	301
Total	0	0	23	0	23	0	16	553	0	569	0	625	5	0	630	1222
Approach %	0.0	0.0	100.0	-	-	0.0	2.8	97.2	-	-	0.0	99.2	0.8	-	-	-
Total %	0.0	0.0	1.9	-	1.9	0.0	1.3	45.3	-	46.6	0.0	51.1	0.4	-	51.6	-
PHF	0.000	0.000	0.639	-	0.639	0.000	0.800	0.953	-	0.961	0.000	0.970	0.625	-	0.972	0.976
Lights	0	0	23	-	23	0	16	551	-	567	0	625	5	-	630	1220
% Lights	-	-	100.0	-	100.0	-	100.0	99.6	-	99.6	-	100.0	100.0	-	100.0	99.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Single-Unit Trucks	-	-	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
Articulated Trucks	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Articulated Trucks	-	-	0.0	-	0.0	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.1
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	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan





NOTES:

1. ALL DIMENSIONS ALONG CURB LINES ARE TO FACE OF CURB, UNLESS NOTED OTHERWISE.
2. BUILDINGS AND ADJACENT TO BUILDING IMPROVEMENTS SHOWN ON THESE PLANS ARE BASED UPON THE BUILDING PLANS PROVIDED BY OTHERS AT THE DATE OF THESE PLANS BEING PREPARED. BUILDING PLANS NORMALLY CONTINUE TO CHANGE AFTER SITE PLANS HAVE BEEN APPROVED. THEREFORE THE CONTRACTOR SHALL USE THE BUILDING PLANS FOR FINAL BUILDING IMPROVEMENTS, AND VERIFY THAT ALL ADJACENT IMPROVEMENTS ARE CONSISTENT WITH THE DESIGN INTENT AND REQUIREMENTS OF THE SITE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF CLARIFICATION IS NEEDED, OR IF CONFLICTS OR INCONSISTENCIES EXIST.
3. ADA DETECTIBLE WARNING STRIPS SHALL BE CAST IRON TILES, WET SET INTO CONCRETE SURFACE, PER MANUFACTURERS INSTALLATION RECOMMENDATIONS.
4. TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY MORRIS ENGINEERING, INC.

(X) SIGNING AND STRIPING SCHEDULE

- A. 4" YELLOW STRIPING
- B. YELLOW HANDICAP PARKING STRIPING (SEE DETAIL)
- C. "ACCESSIBLE" PARKING STALL SIGN ASSEMBLY (S250 FINE)
- D. "STOP" SIGN R1-1 (30"X30")
- E. 24" WHITE THERMOPLASTIC STOP BAR
- F. 4" PAINTED CROSS STRIPING 4' C-C
- G. DIRECTIONAL ARROW
- H. RIGHT TURN ONLY R3-5 (24"X30")
- I. THERMOPLASTIC RIGHT TURN ONLY STRIPING
- J. 4" YELLOW LINES, 5.5" C-C SKIP-DASH AND SOLID
- K. 6" SOLID WHITE THERMOPLASTIC.
- L. "NO LEFT TURN" SIGN (30"X30")
- M. 6" WHITE THERMOPLASTIC 6' SKIP 2' DASH

STRIPING NOTE: ON-SITE PAVEMENT MARKINGS AND GRAPHICS SHALL CONSIST OF TWO (2) COATS OF TRAFFIC-RATED PAINT APPLIED A MINIMUM OF 30 DAYS APART. STRIPING AND GRAPHICS AT ENTRY DRIVES SHALL BE THERMOPLASTIC AS NOTED. MATERIALS SHALL MEET ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS.

(X) PARKING SUMMARY

	EXISTING	PROPOSED
REGULAR STALLS (9'x18')	862	699
ACCESSIBLE STALLS (16'x18')	10	24
TOTAL STALL COUNT	872	723

TOTAL AREA SUMMARY

PERVIOUS AREA = 2.384 AC (12.6%)
IMPERVIOUS AREA = 16.501 AC
TOTAL AREA = 18.89 AC

LEGEND:

- ADA TRUNCATED DOMES
- EXISTING CURB AND GUTTER
- EXISTING CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER UNLESS NOTED OTHERWISE
- B6.12 CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- BARRIER CURB AND GUTTER UNLESS NOTED OTHERWISE
- BARRIER CURB AND GUTTER - DEPRESSED
- B6.12 CURB AND GUTTER - TRANSITION (ZERO TO FULL HEIGHT)
- SAWCUT LINE
- 3" MILL AND OVERLAY
- PROPOSED FULL-DEPTH REGULAR ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED FULL-DEPTH HEAVY-DUTY ASPHALT PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE PAVEMENT. SEE DETAIL ON SHEET C2.8
- PROPOSED CONCRETE SIDEWALK. SEE DETAIL ON SHEET C2.8
- PROPOSED LANDSCAPE. REFER TO LANDSCAPE PLANS
- 2" MILL AND OVERLAY
- PROPOSED CONCRETE PAVEMENT - DuDOT. SEE DETAIL ON SHEET C2.8

NO.	DATE	DESCRIPTION
1	06/03/24	TURN LANE REVISION
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---	---	---

rtm engineering consultants
650 E. Algonquin Road
Suite 150
Schaumburg, IL 60173
Telephone: (847) 756-4180
www.rtmec.com
IL Design Firm: 184006777-0002

SHEET NAME: OVERALL SITE PLAN

PROJECT NAME: MEADOWBROOK SHOPPING CENTER
63RD ST AND WOODWARD AVE
DOWNERS GROVE, IL

PROJECT No. 23.STELL

SHEET No. C2.0
OF SHEETS

User: lucas.keller File: J:\2023\STELL 1121\3451 Meadowbrook Shopping Center\09 DESIGN DRAWINGS\02 SHEETS\OVERALL SITE\C2.0_SITE PLAN.dwg Time: Oct 01, 2024 - 10:57am

PERSHING AVE SEPARATION

rtm engineering consultants

650 E. Algonquin Road
Suite 250
Schaumburg, IL 60173
Telephone: (847) 756 - 4180
www.rtmec.com

IL Design Firm: 184006777-0002

0 50 100

1 inch = 50 ft.

10/03/24

ITE Trip Generation Summary Sheets

Medical-Dental Office Building - Stand-Alone (720)

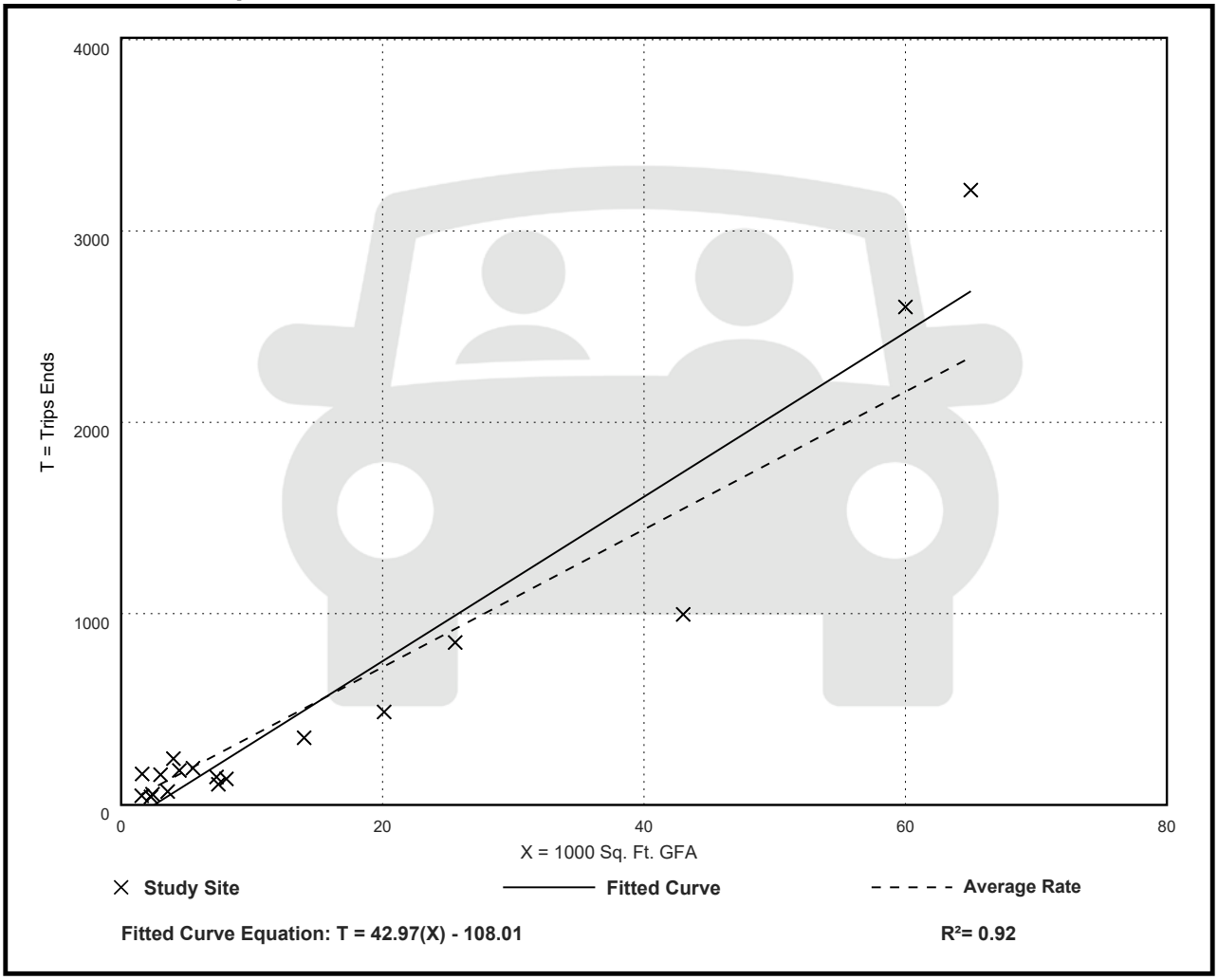
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 18
Avg. 1000 Sq. Ft. GFA: 15
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
36.00	14.52 - 100.75	13.38

Data Plot and Equation



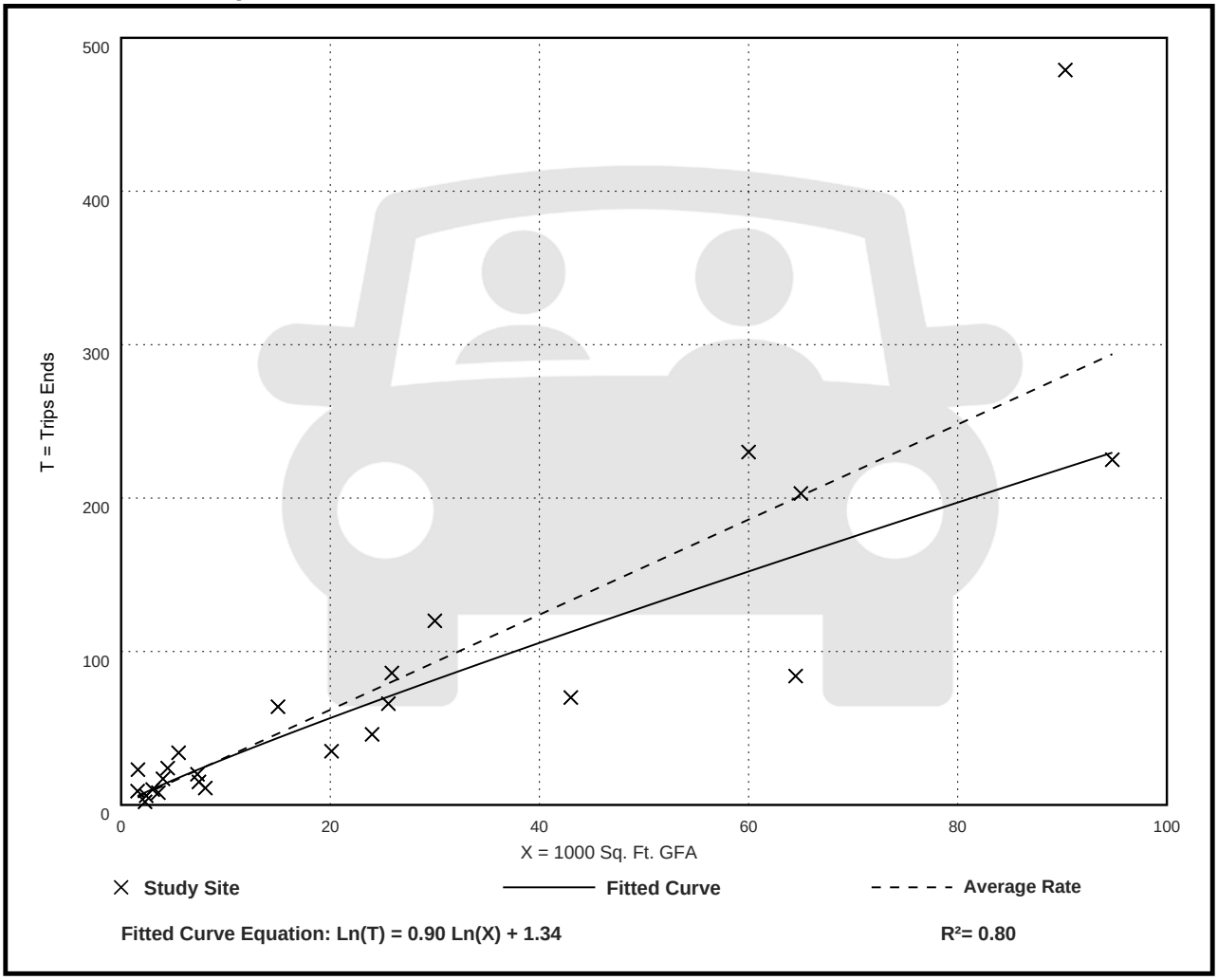
Medical-Dental Office Building - Stand-Alone (720)

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: 24
Avg. 1000 Sq. Ft. GFA: 25
Directional Distribution: 79% entering, 21% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.10	0.87 - 14.30	1.49

Data Plot and Equation



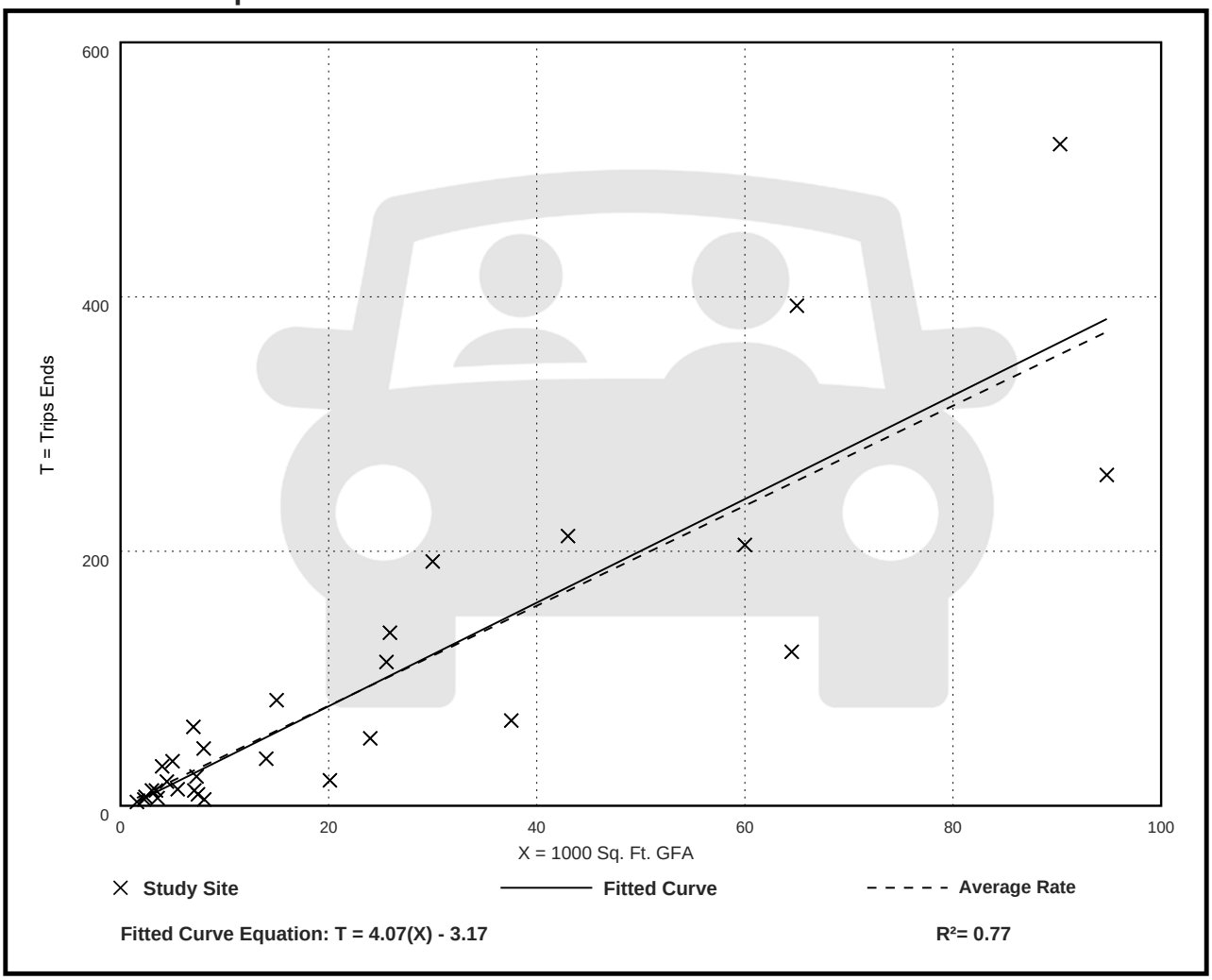
Medical-Dental Office Building - Stand-Alone (720)

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: 30
Avg. 1000 Sq. Ft. GFA: 23
Directional Distribution: 30% entering, 70% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.93	0.62 - 8.86	1.86

Data Plot and Equation



Fitted Curve Equation: T = 4.07(X) - 3.17

R^2= 0.77

Medical-Dental Office Building - Stand-Alone (720)

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

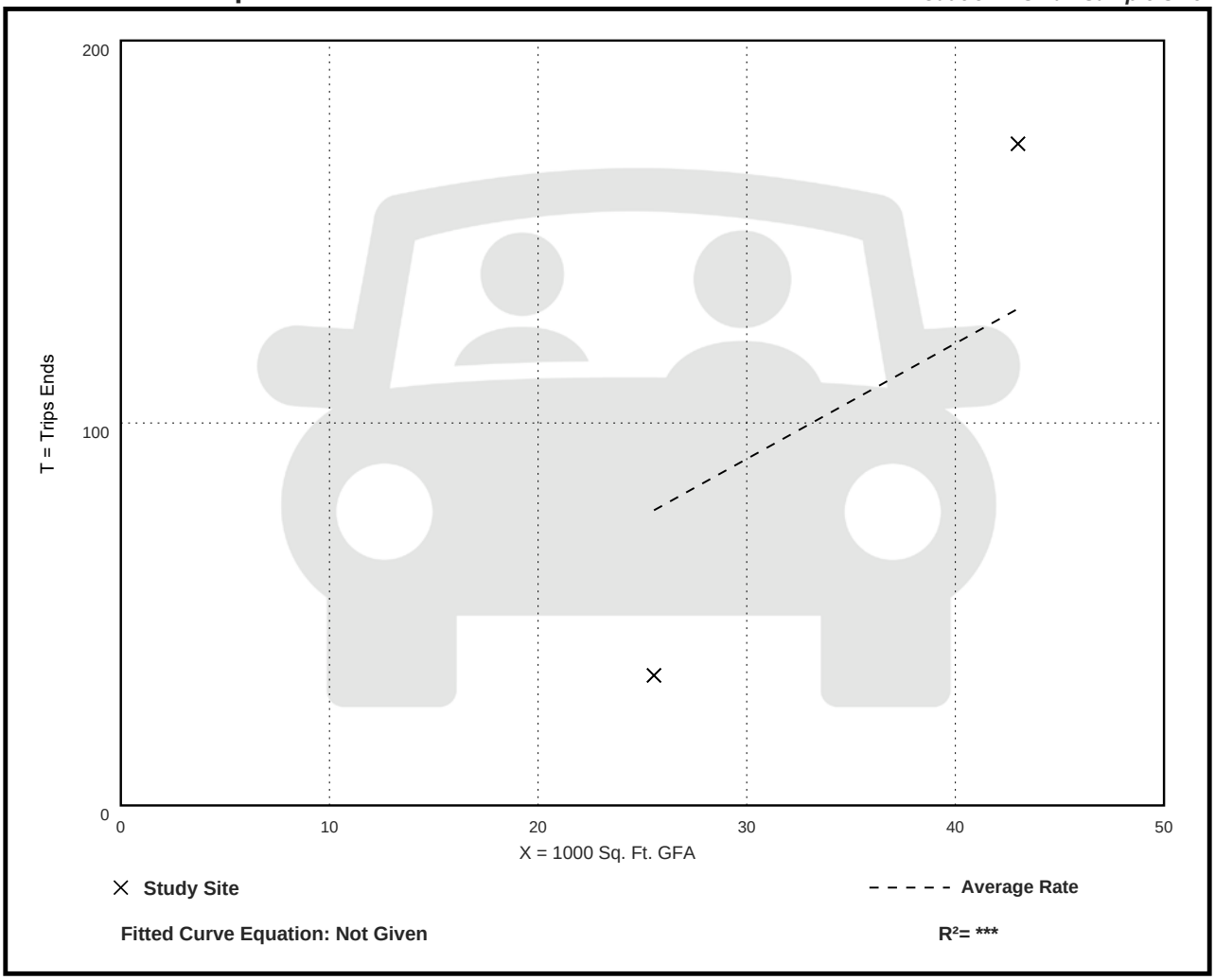
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 34
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.02	1.33 - 4.02	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Day Care Center
(565)

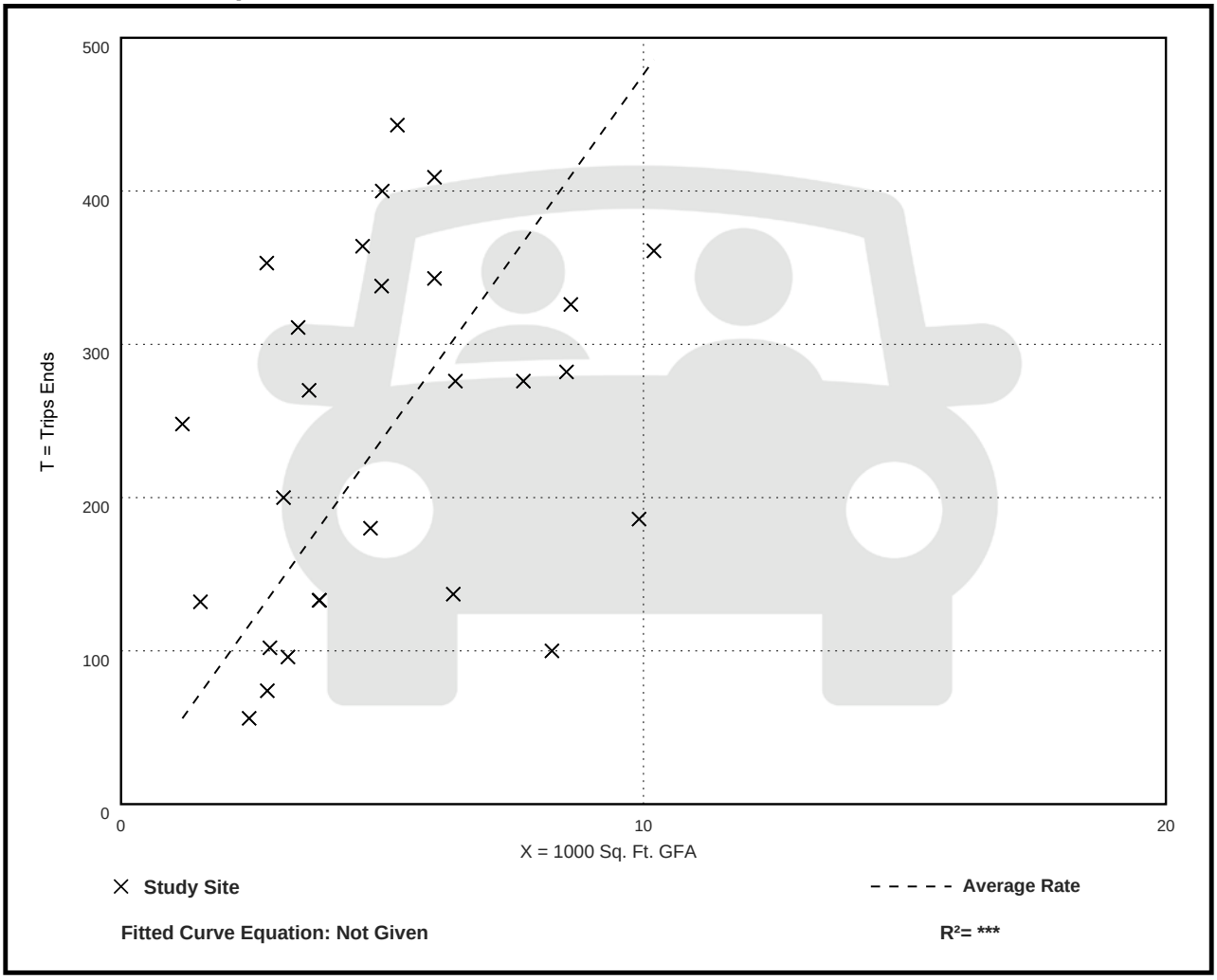
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 27
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
47.62	12.12 - 211.06	29.78

Data Plot and Equation



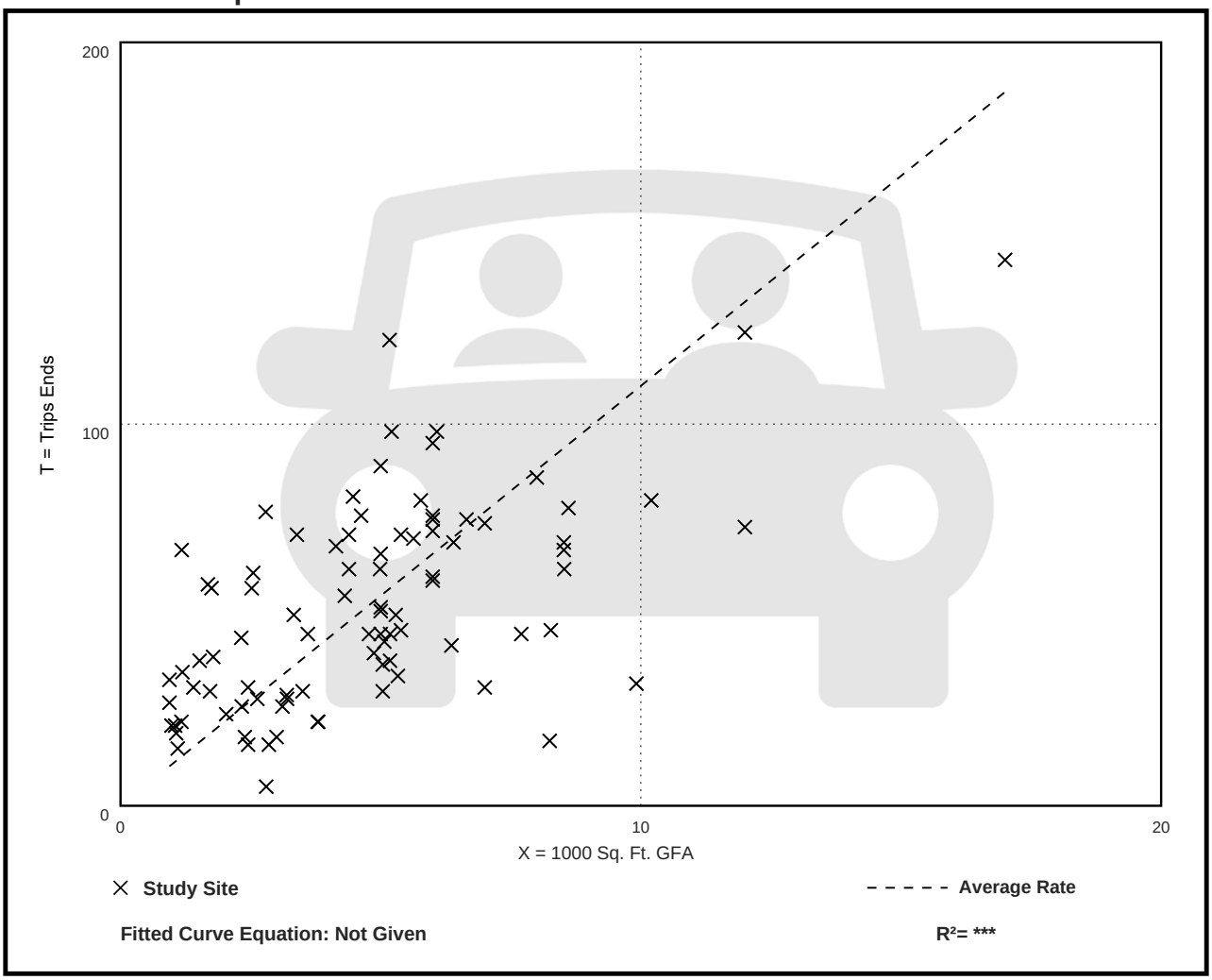
Day Care Center
(565)

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: 89
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.00	1.79 - 57.02	6.08

Data Plot and Equation



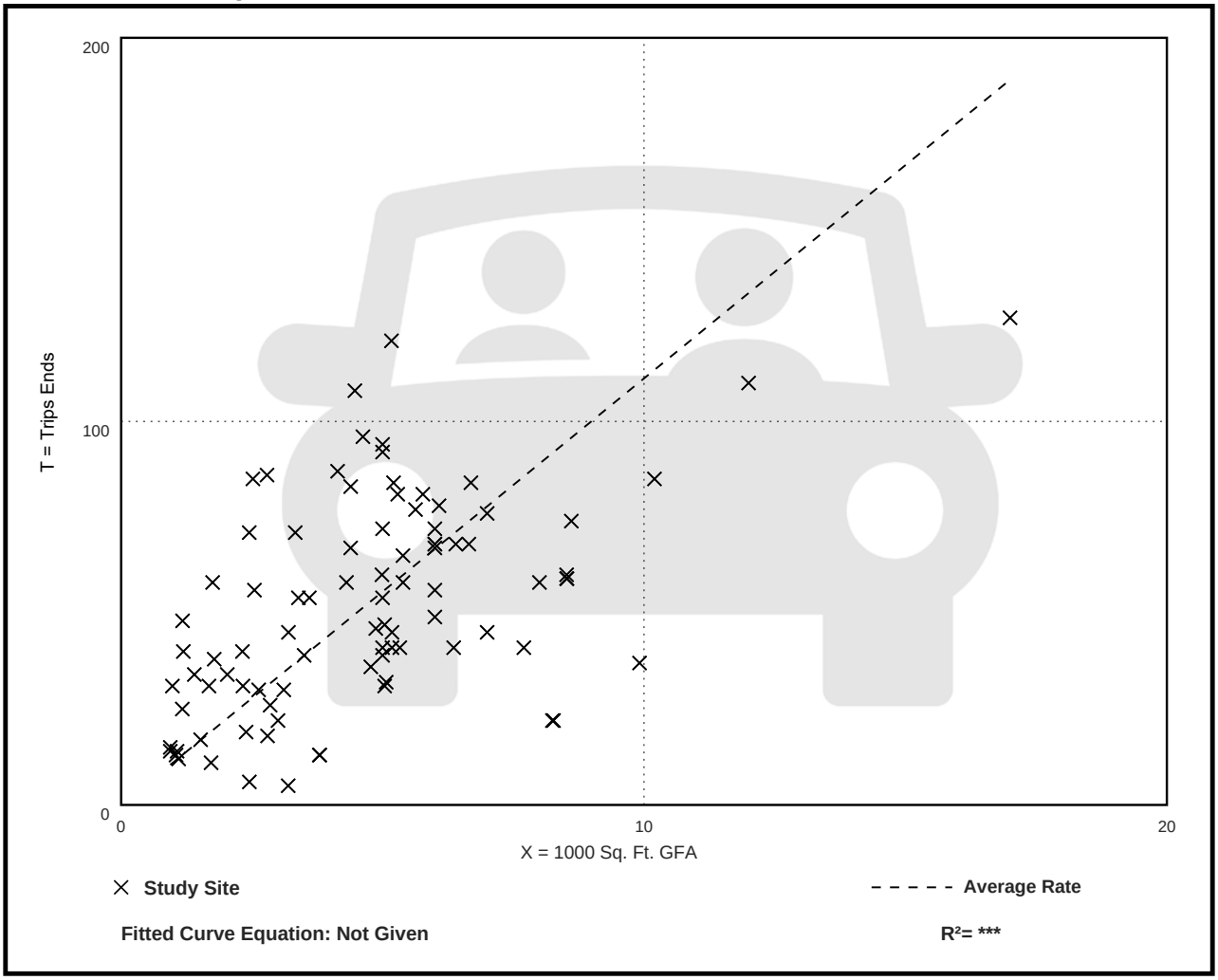
Day Care Center
(565)

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: 90
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
11.12	1.56 - 40.85	6.28

Data Plot and Equation



Day Care Center
(565)

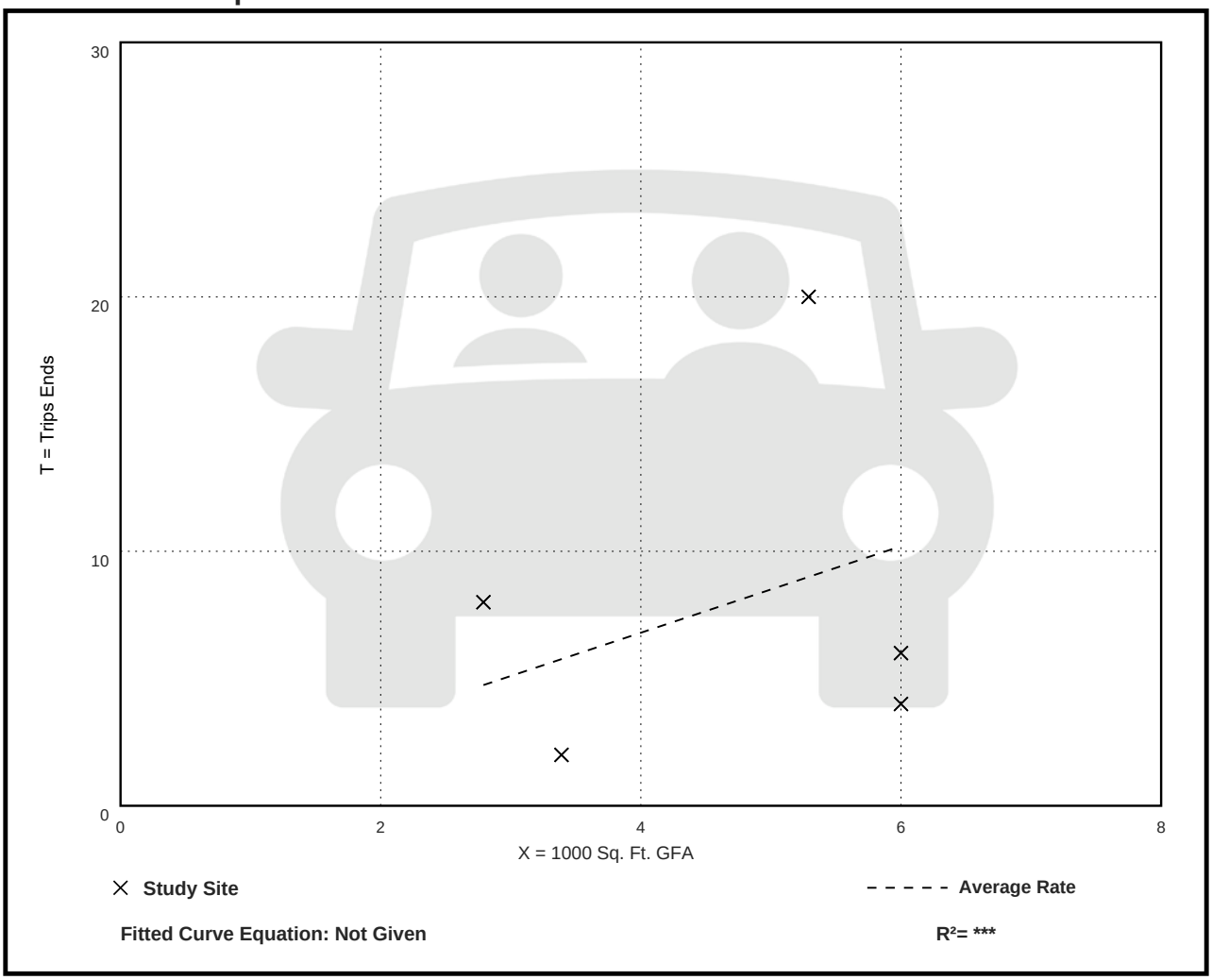
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.70	0.59 - 3.78	1.46

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

Shopping Plaza (40-150k) - Supermarket - No (821)

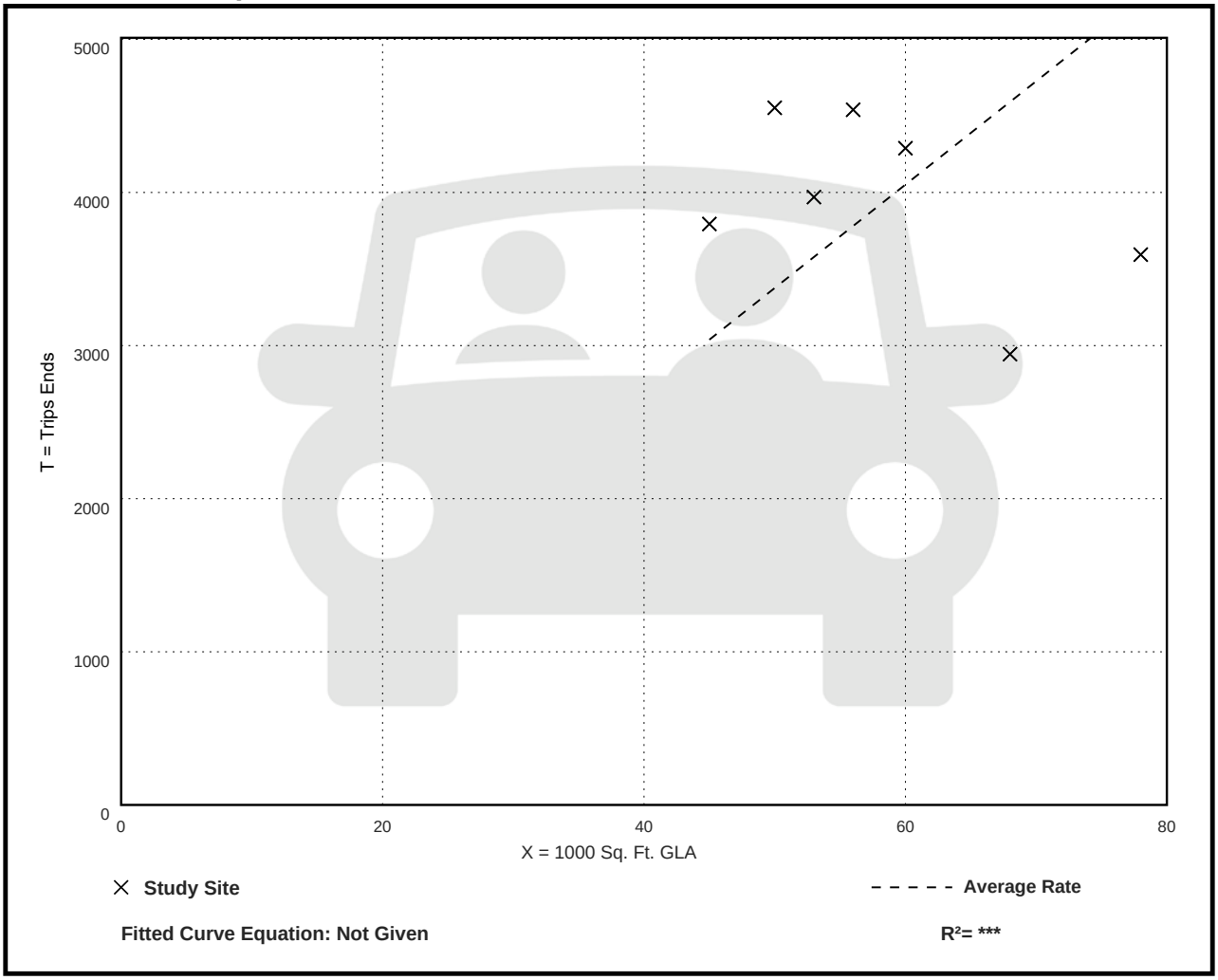
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. 1000 Sq. Ft. GLA: 59
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
67.52	43.29 - 91.06	19.25

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

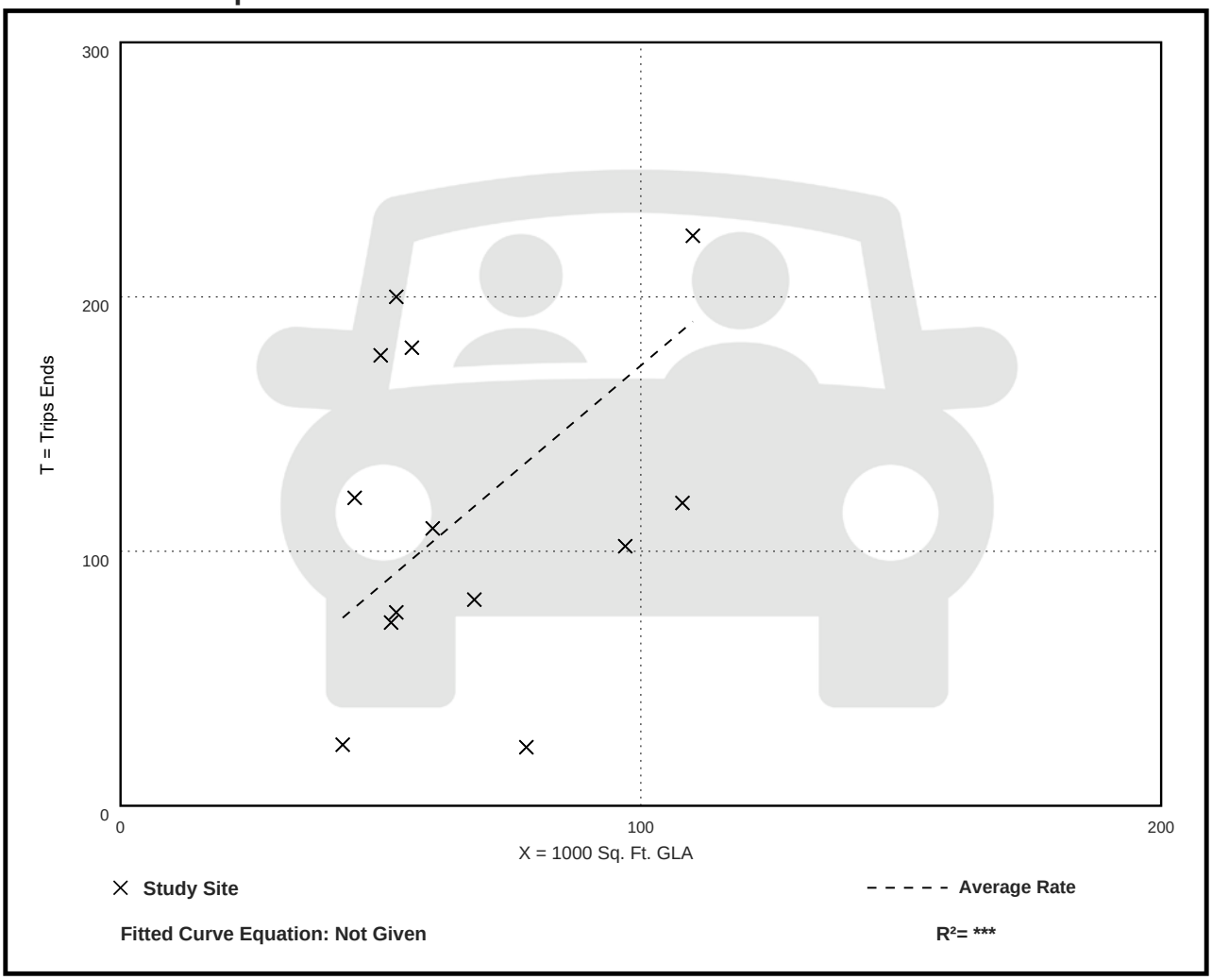
Shopping Plaza (40-150k) - Supermarket - No (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
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: 13
Avg. 1000 Sq. Ft. GLA: 67
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
1.73	0.29 - 3.77	1.06

Data Plot and Equation



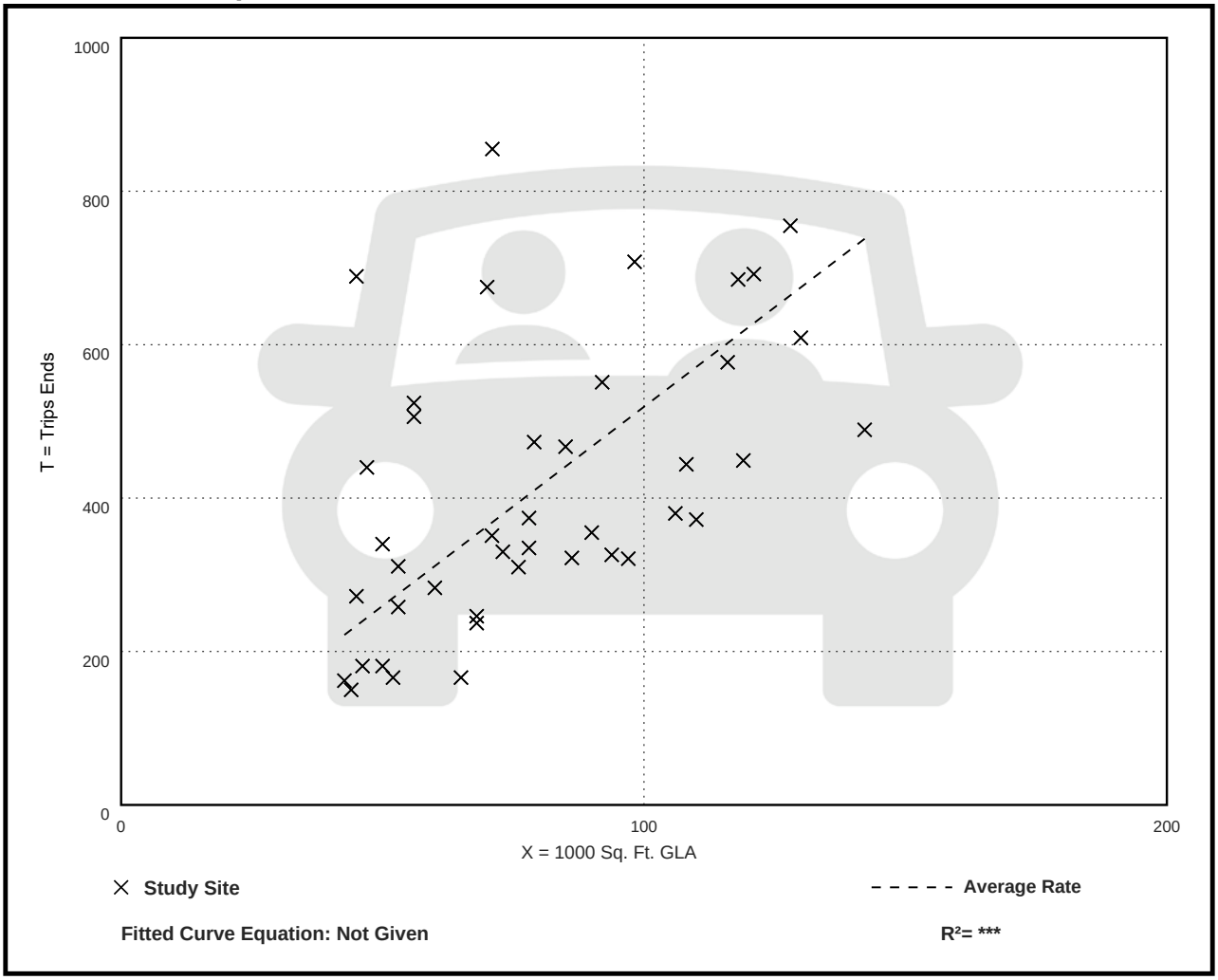
Shopping Plaza (40-150k) - Supermarket - No (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
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: 42
Avg. 1000 Sq. Ft. GLA: 79
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
5.19	2.55 - 15.31	2.28

Data Plot and Equation



Shopping Plaza (40-150k) - Supermarket - No (821)

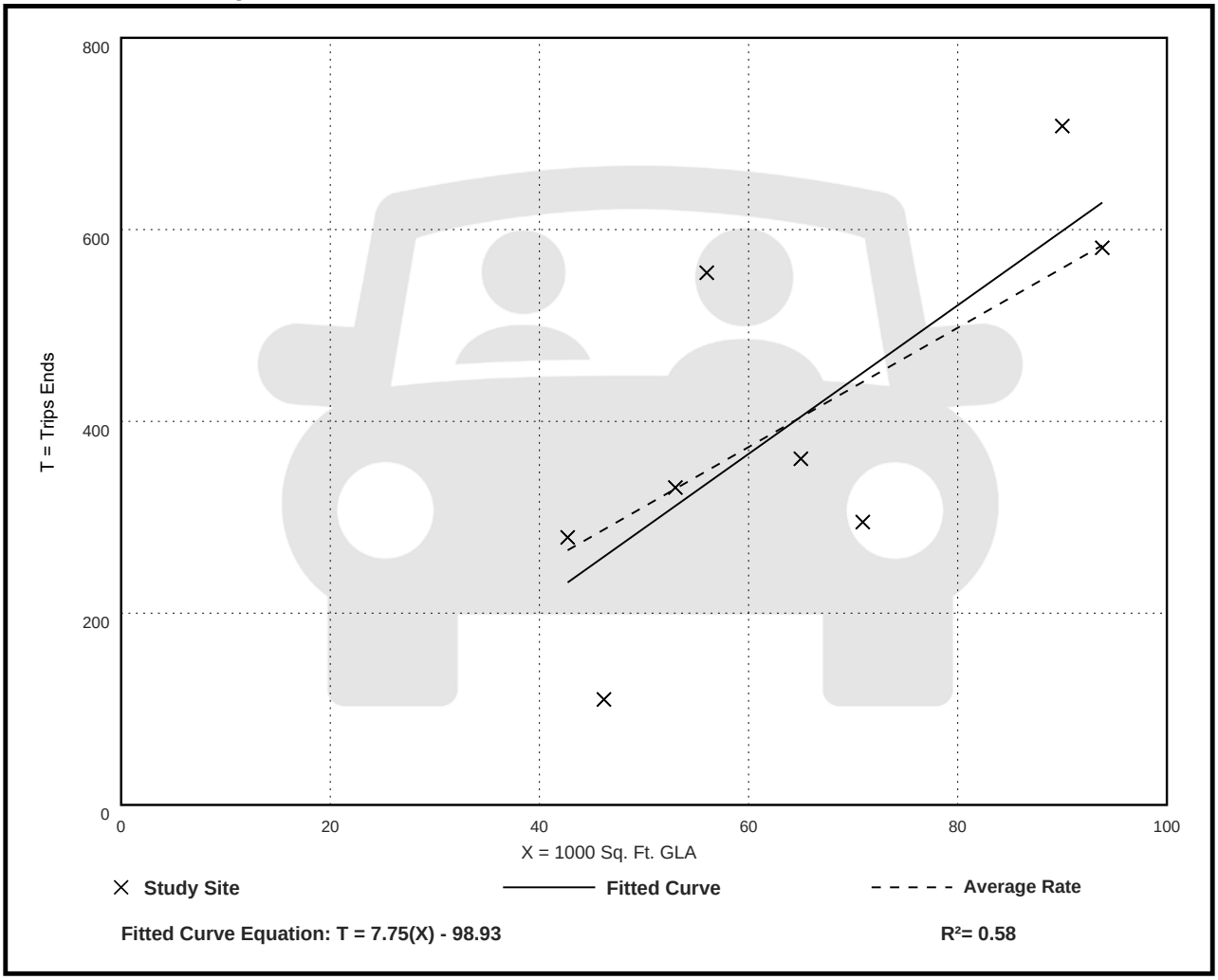
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 1000 Sq. Ft. GLA: 65
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.22	2.38 - 9.91	2.11

Data Plot and Equation



Fitted Curve Equation: T = 7.75(X) - 98.93

R^2= 0.58

Strip Retail Plaza (<40k)
(822)

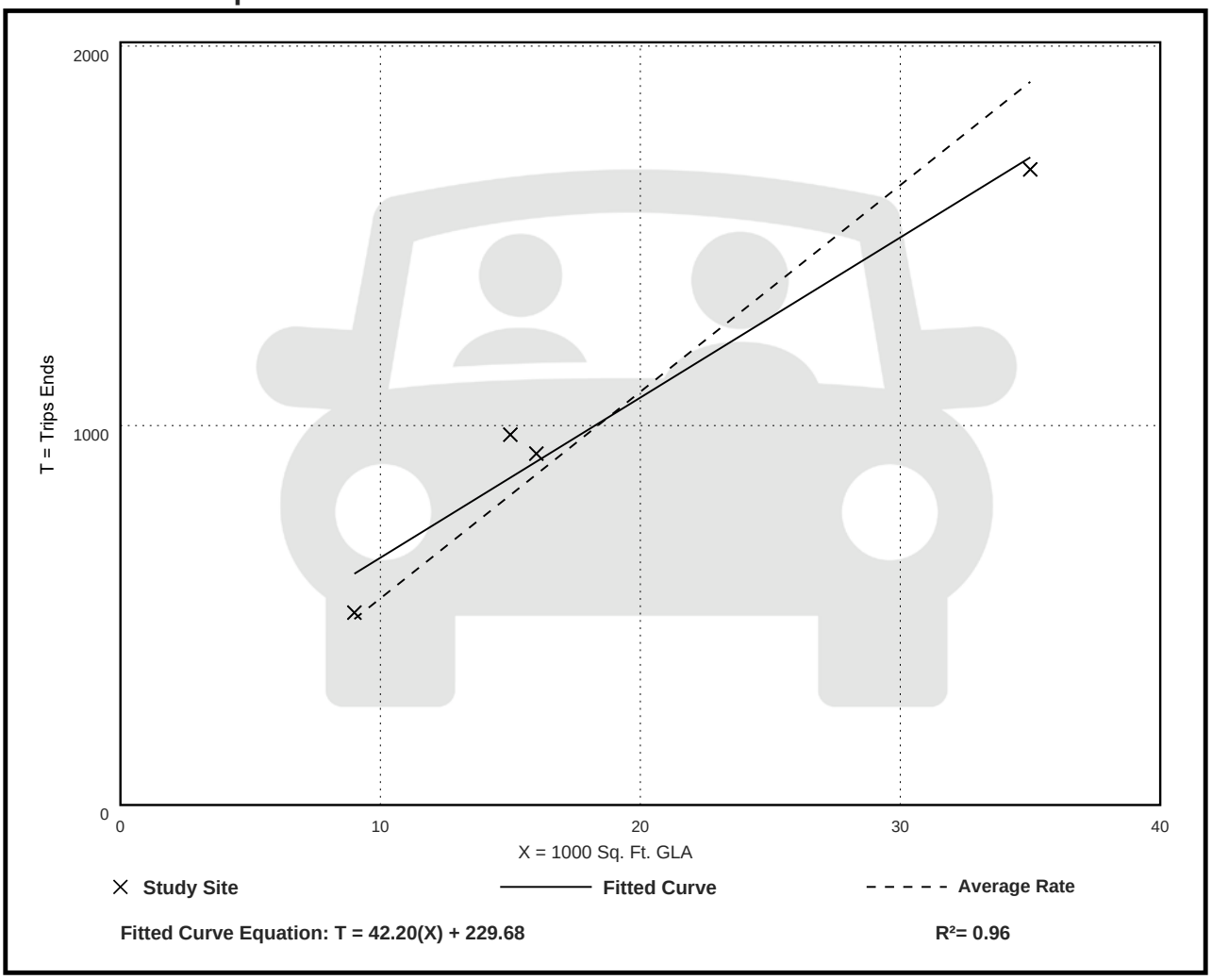
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation



Fitted Curve Equation: T = 42.20(X) + 229.68

R^2= 0.96

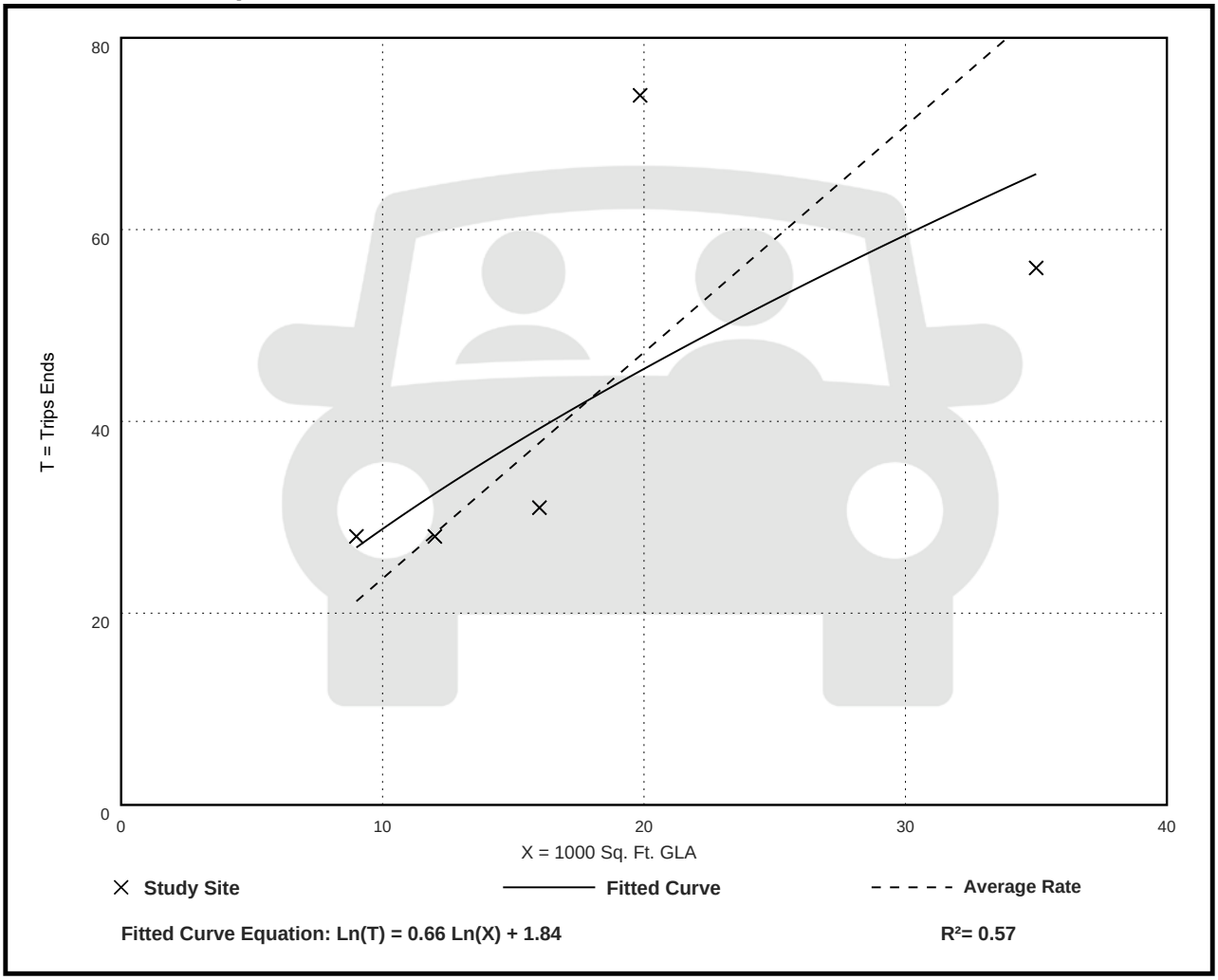
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
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: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.66 Ln(X) + 1.84

R^2= 0.57

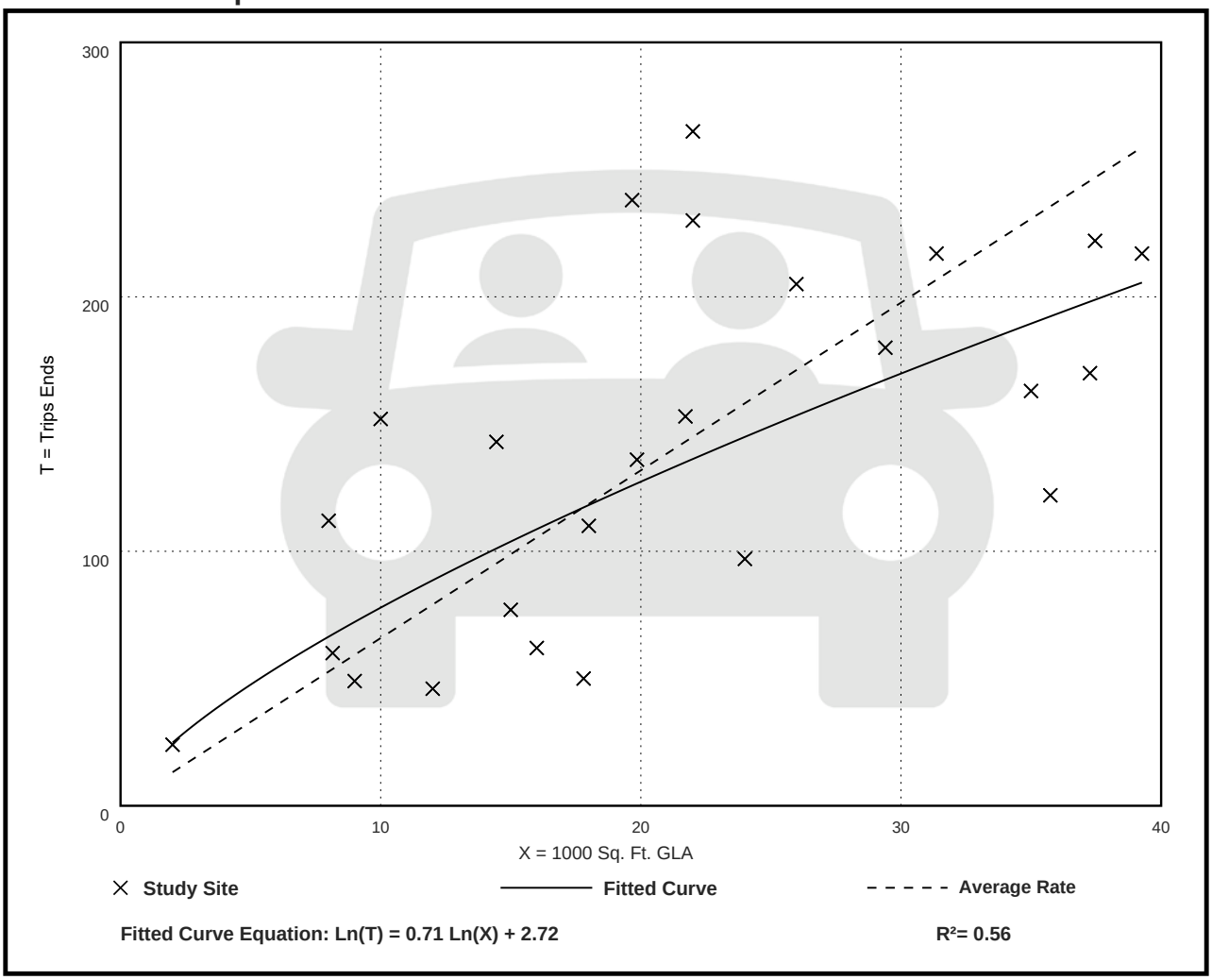
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
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. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) + 2.72

R^2= 0.56

Strip Retail Plaza (<40k)
(822)

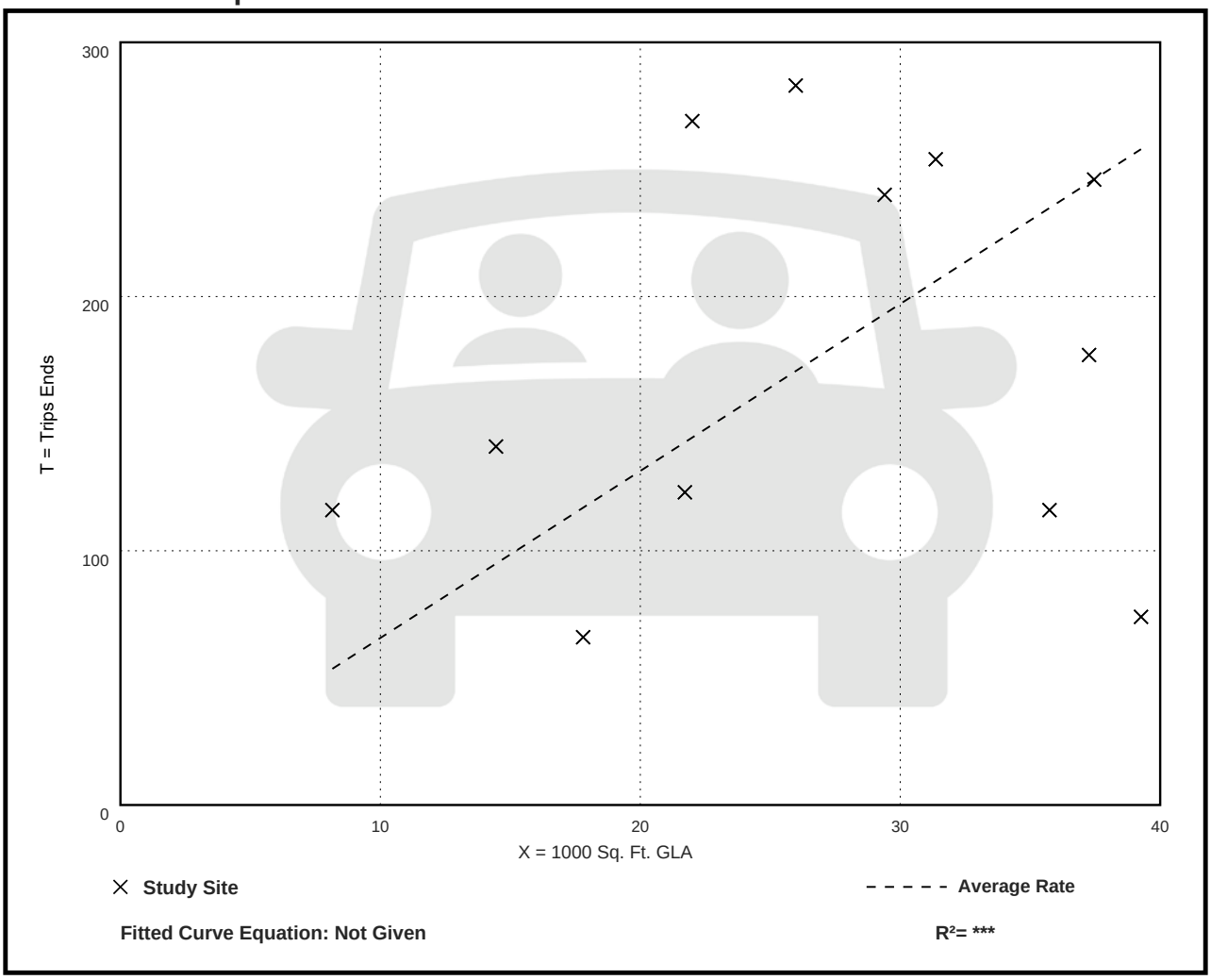
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GLA: 27
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.57	1.88 - 14.23	3.45

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

Fast-Food Restaurant with Drive-Through Window (934)

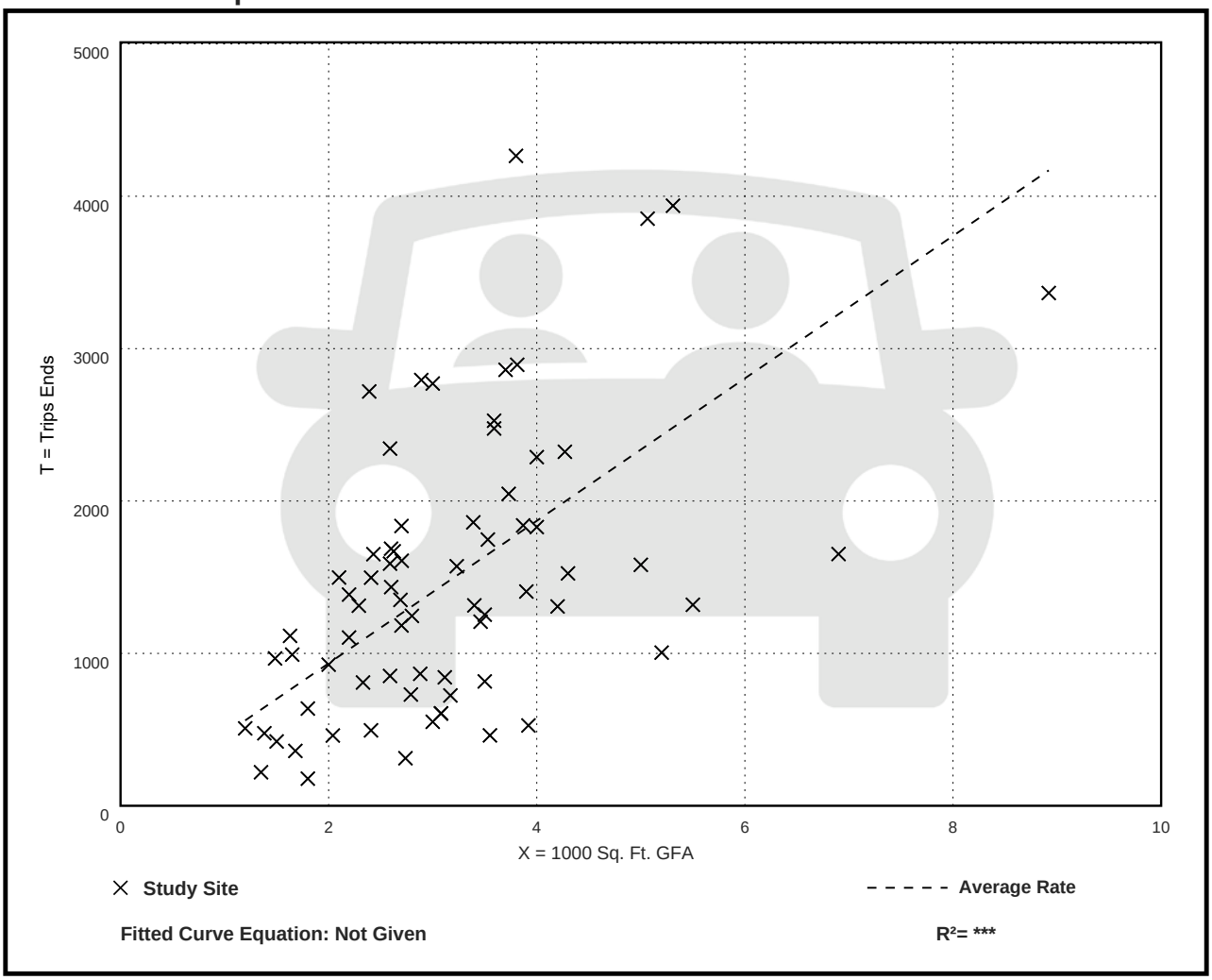
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 71
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
467.48	98.89 - 1137.66	238.62

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

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: 96
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

Data Plot and Equation

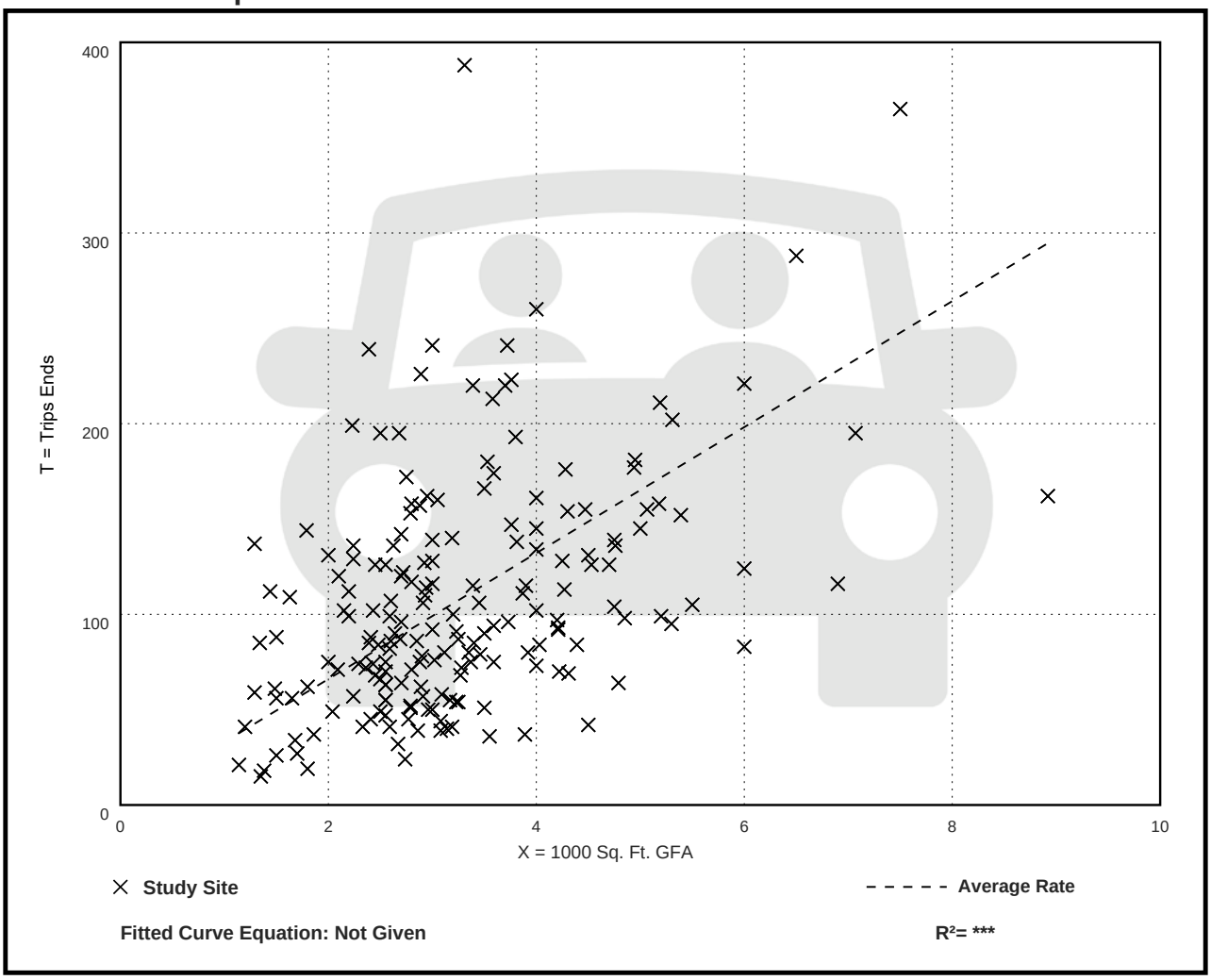
Fast-Food Restaurant with Drive-Through Window (934)

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: 190
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

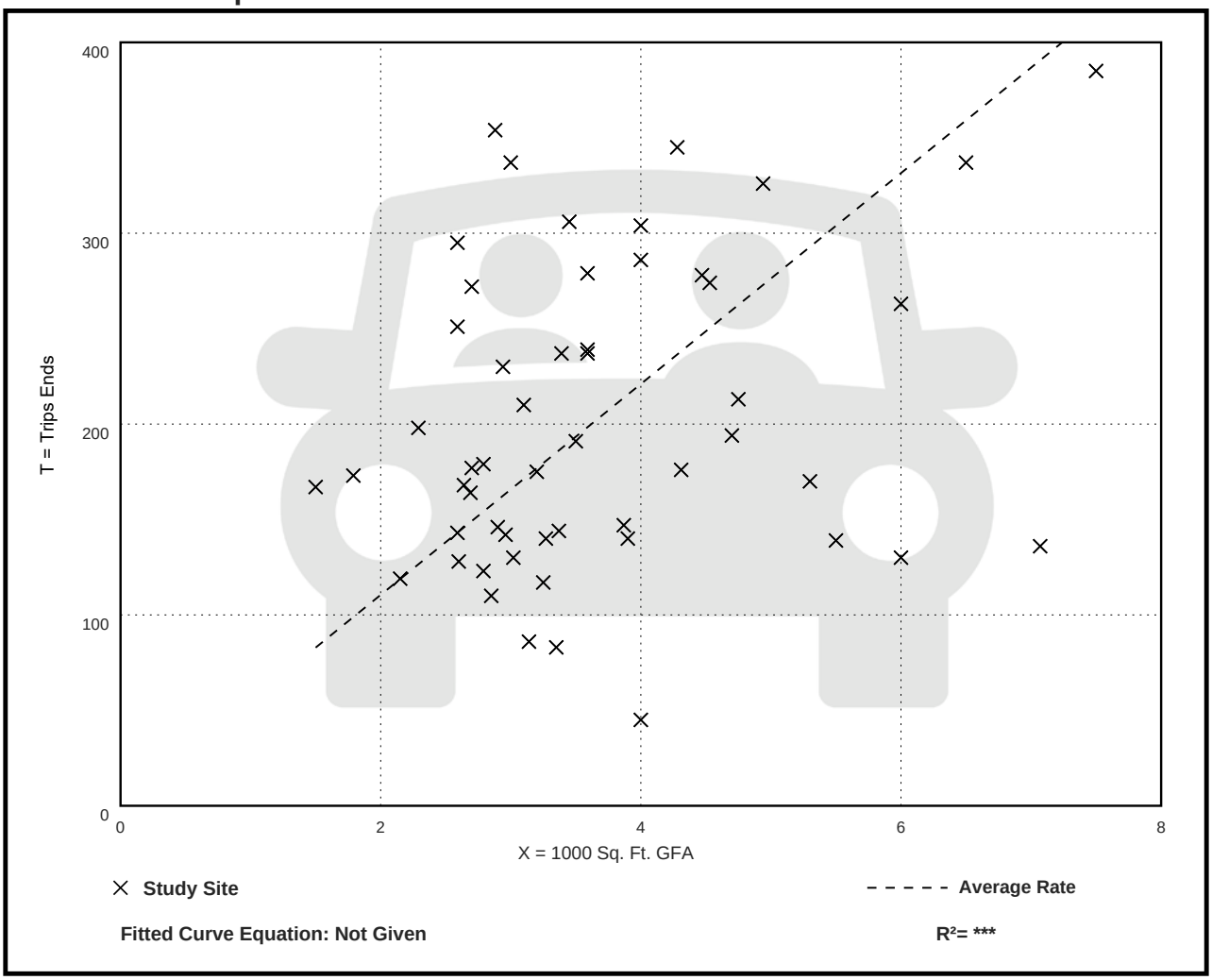
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 53
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
55.25	11.25 - 122.92	24.62

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

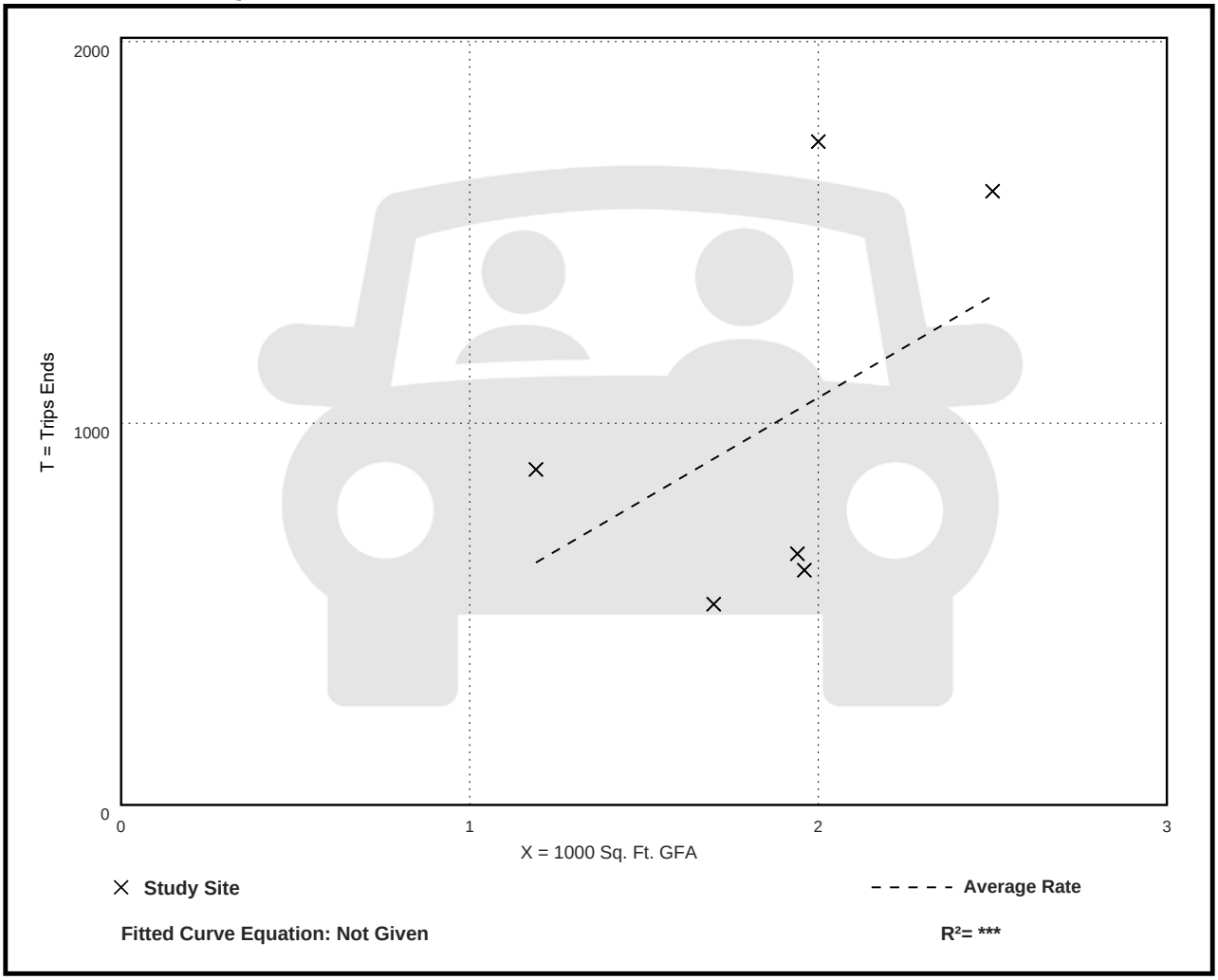
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
533.57	309.41 - 869.00	243.65

Data Plot and Equation



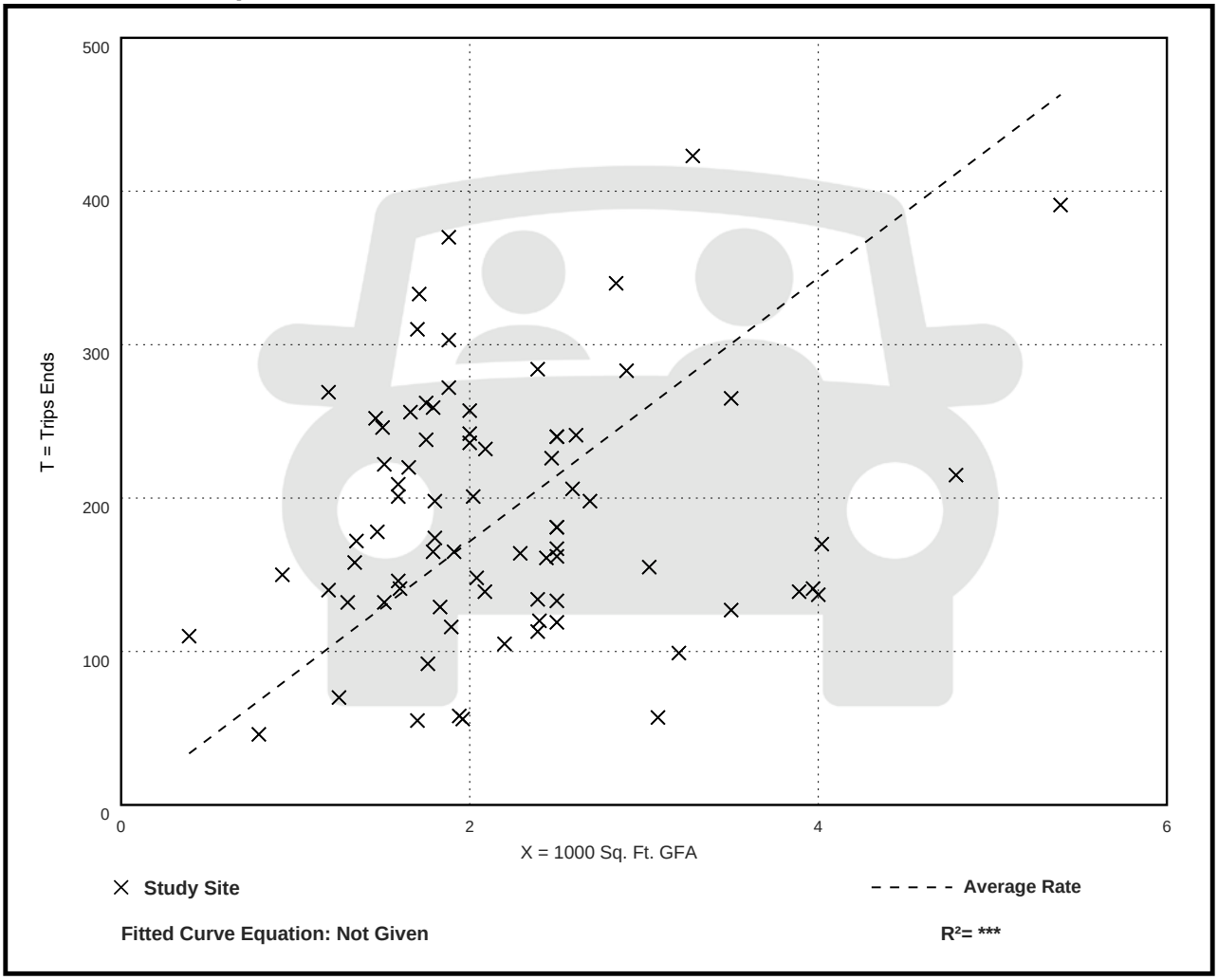
Coffee/Donut Shop with Drive-Through Window (937)

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: 78
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
85.88	18.51 - 282.05	44.92

Data Plot and Equation



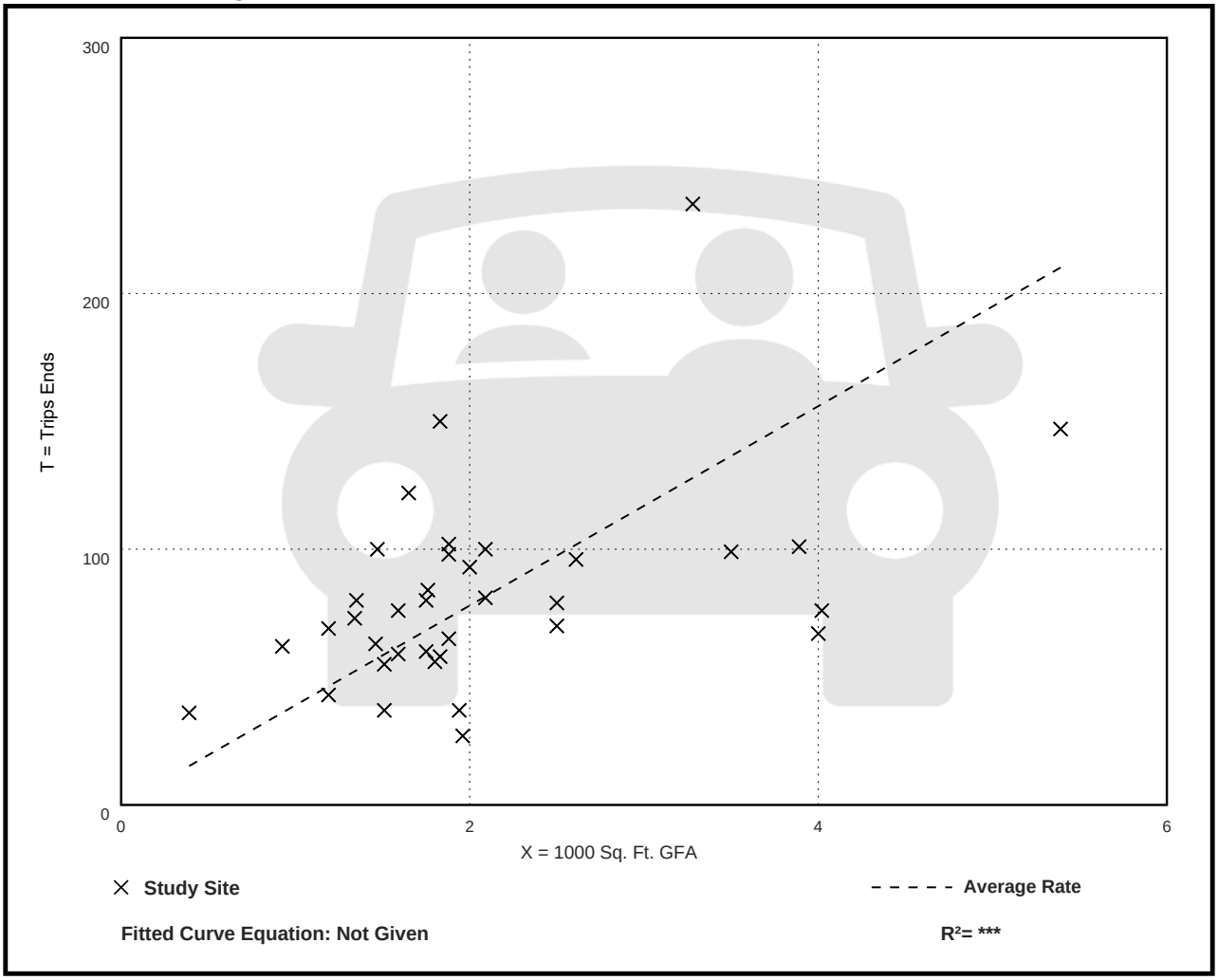
Coffee/Donut Shop with Drive-Through Window (937)

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: 36
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
38.99	13.78 - 92.31	17.79

Data Plot and Equation



Coffee/Donut Shop with Drive-Through Window (937)

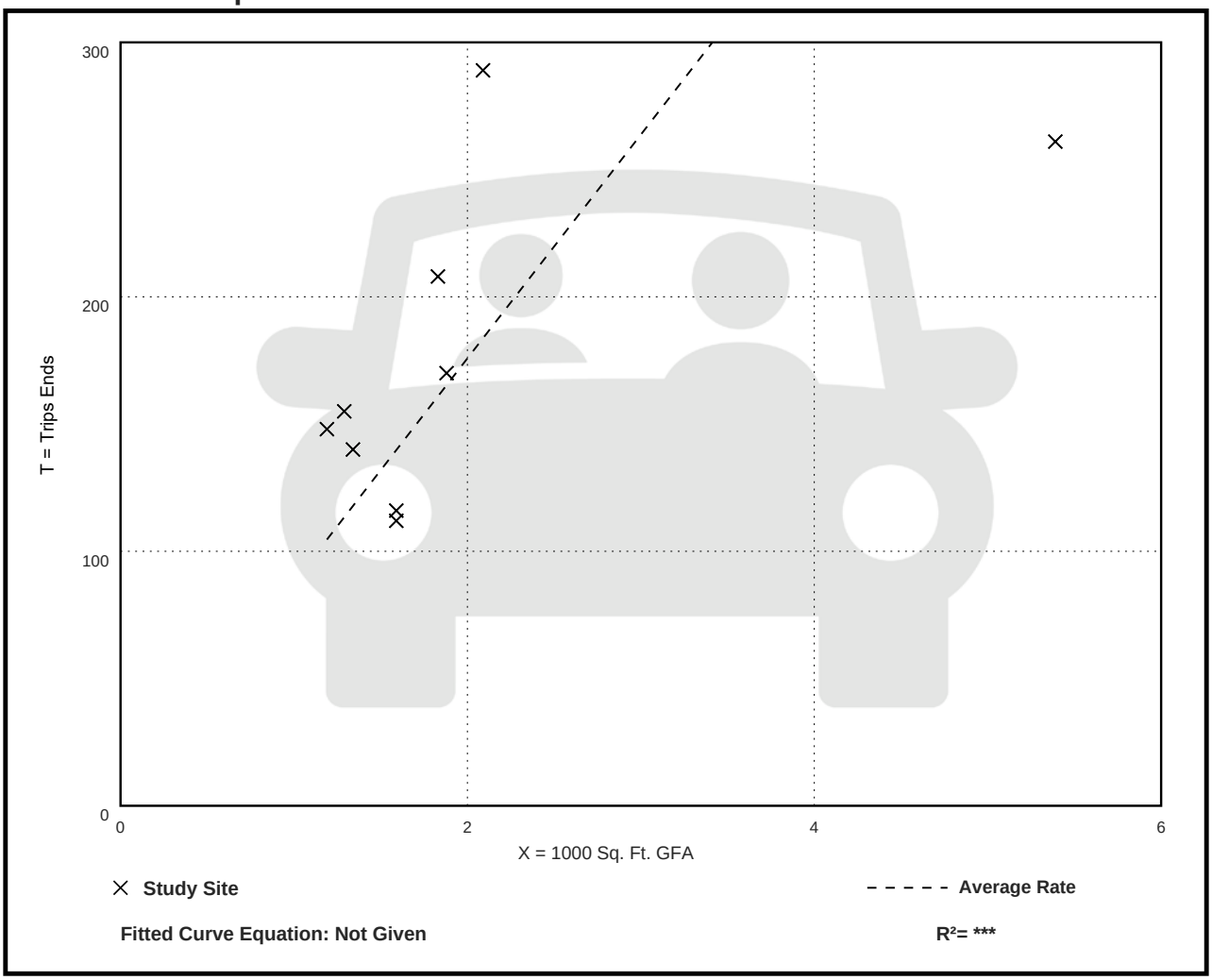
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 9
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
87.91	48.42 - 138.28	34.34

Data Plot and Equation



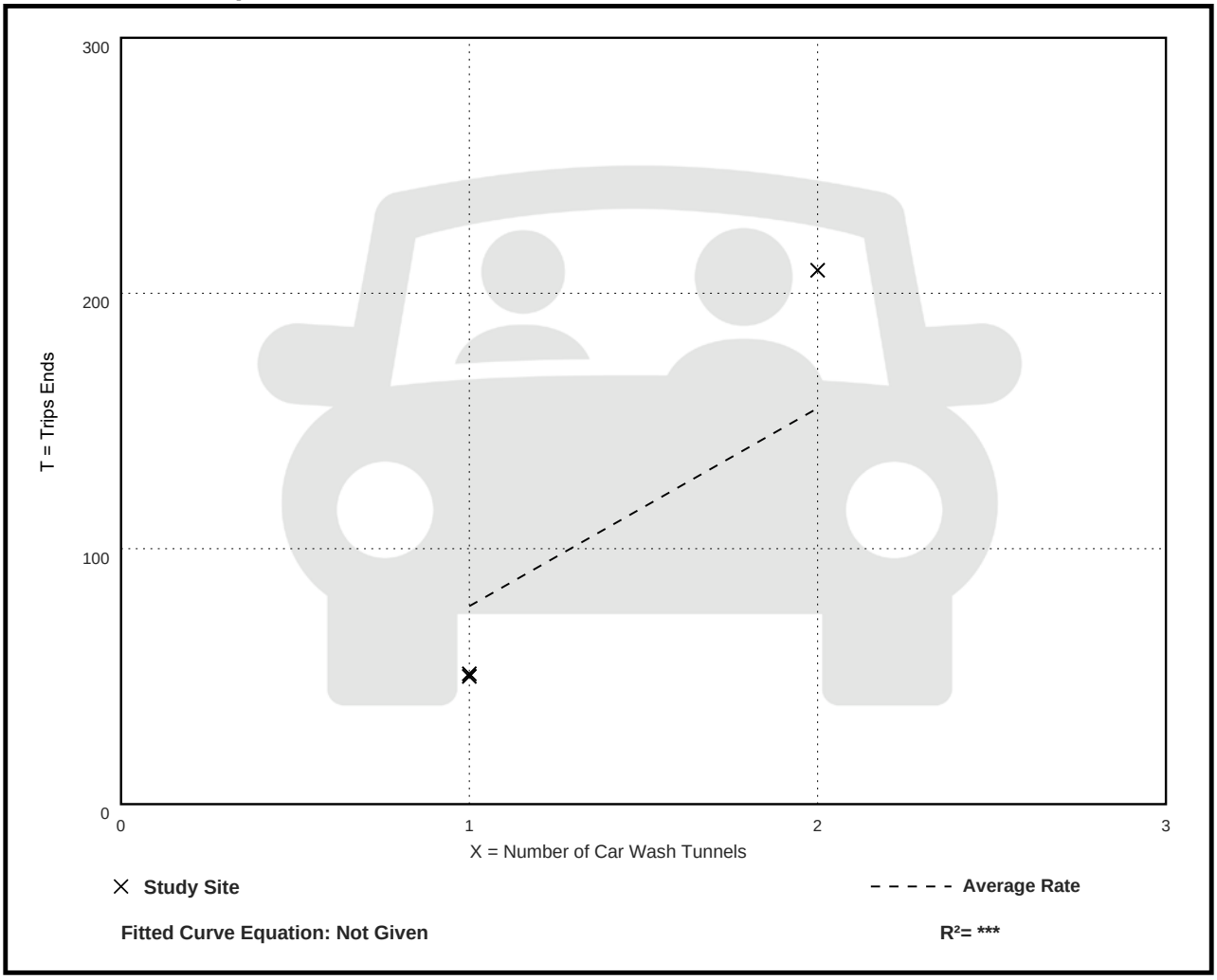
Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
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: 3
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

Data Plot and Equation



Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Saturday, Peak Hour of Generator

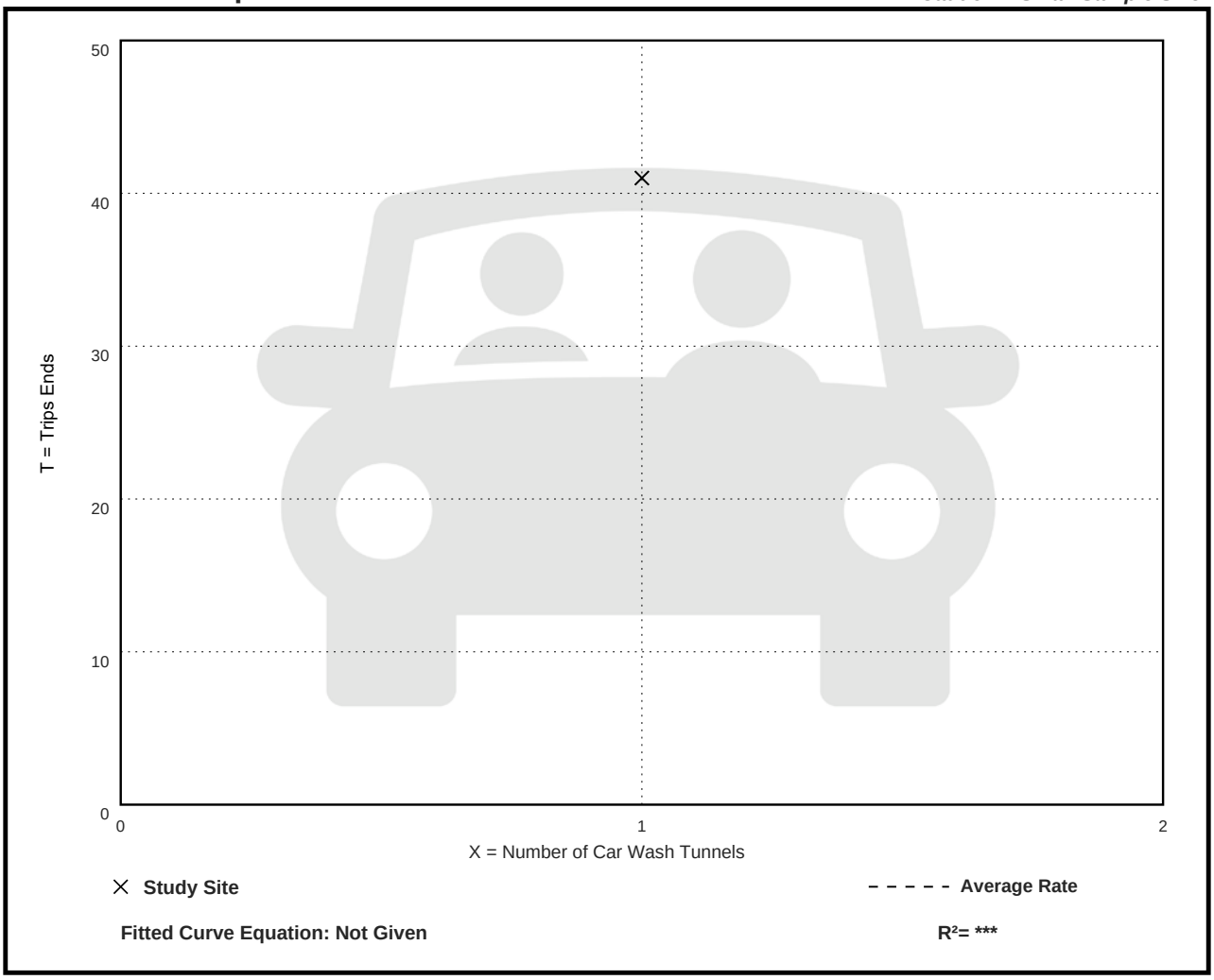
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
41.00	41.00 - 41.00	***

Data Plot and Equation

Caution – Small Sample Size



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607
cmap.illinois.gov | 312-454-0400

July 31, 2023

Ryan May
Project Coordinator
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: 63rd St @ Woodward Ave
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated July 27, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	2020 ADT	2015 ADT	Year 2050 ADT
63rd St, at Belmont Rd	19,100	27,000	30,200
Belmont Road, at 63rd St	12,400	*16,600*	19,400
63rd St east of Woodward Ave	18,900	26,700	29,900
Woodward Ave south of 63rd St	12,300	16,500	19,300
Prentiss Dr east of Woodward Ave	825	*825*	980

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2022 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 or email me at jrodriguez@cmap.illinois.gov

Sincerely,

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

cc: Rios (IDOT)
2023_TrafficForecasts\DownersGrove\du-32-23\du-32-23.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

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*, 6th Edition.

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	591	183	83	719	4	497	30	158	7	19	9
Future Volume (vph)	14	591	183	83	719	4	497	30	158	7	19	9
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.959	
Flt Protected	0.950			0.950			0.950	0.958			0.991	
Satd. Flow (prot)	1805	3619	1553	1687	3436	0	1698	1714	1583	0	3431	0
Flt Permitted	0.335			0.343			0.950	0.958			0.991	
Satd. Flow (perm)	636	3619	1553	609	3436	0	1698	1714	1583	0	3431	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195						168		10	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	4%	7%	5%	0%	1%	0%	2%	0%	0%	0%
Shared Lane Traffic (%)							47%					
Lane Group Flow (vph)	15	629	195	88	769	0	280	281	168	0	37	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	52.0	48.0	16.0	55.0		48.0	48.0	16.0	14.0	14.0	
Total Split (%)	10.0%	40.0%	36.9%	12.3%	42.3%		36.9%	36.9%	12.3%	10.8%	10.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	77.7	69.7	103.2	83.9	77.8		27.5	27.5	39.5		8.0	
Actuated g/C Ratio	0.60	0.54	0.79	0.65	0.60		0.21	0.21	0.30		0.06	
v/c Ratio	0.03	0.32	0.15	0.19	0.37		0.78	0.78	0.28		0.17	
Control Delay	9.3	17.2	2.2	12.5	17.5		62.8	62.3	3.8		47.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.3	17.2	2.2	12.5	17.5		62.8	62.3	3.8		47.4	
LOS	A	B	A	B	B		E	E	A		D	
Approach Delay		13.5			16.9			49.0			47.4	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	5	207	33	30	173		235	236	0		11	
Queue Length 95th (ft)	m13	287	2	64	305		314	313	34		30	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	475	1940	1404	493	2057		548	553	637		220	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.03	0.32	0.14	0.18	0.37		0.51	0.51	0.26		0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 75 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	562	23	13	629	592	32	19	7	222	18	193
Future Volume (vph)	383	562	23	13	629	592	32	19	7	222	18	193
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.957				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1770	3412	0	1805	3619	1599	1805	1748	0	1665	1688	1468
Flt Permitted	0.314			0.413			0.950			0.950	0.959	
Satd. Flow (perm)	585	3412	0	785	3619	1599	1805	1748	0	1665	1688	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				401		8				179
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	9%	0%	5%	1%	0%	0%	14%	3%	0%	10%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	412	629	0	14	676	637	34	28	0	129	129	208
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	37.0	75.0		13.0	51.0	26.0	16.0	16.0		26.0	26.0	37.0
Total Split (%)	28.5%	57.7%		10.0%	39.2%	20.0%	12.3%	12.3%		20.0%	20.0%	28.5%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	91.5	85.4		73.8	65.9	83.7	8.7	8.7		16.5	16.5	42.2
Actuated g/C Ratio	0.70	0.66		0.57	0.51	0.64	0.07	0.07		0.13	0.13	0.32
v/c Ratio	0.70	0.28		0.03	0.37	0.54	0.28	0.23		0.61	0.60	0.35
Control Delay	15.9	11.9		9.7	21.3	8.1	63.4	48.9		65.0	64.3	6.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	15.9	11.9		9.7	21.3	8.1	63.4	48.9		65.0	64.3	6.6
LOS	B	B		A	C	A	E	D		E	E	A
Approach Delay		13.5			14.8			56.8			38.7	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)	127	101		2	178	171	28	16		110	110	17
Queue Length 95th (ft)	232	202		m9	244	150	62	48		170	170	56

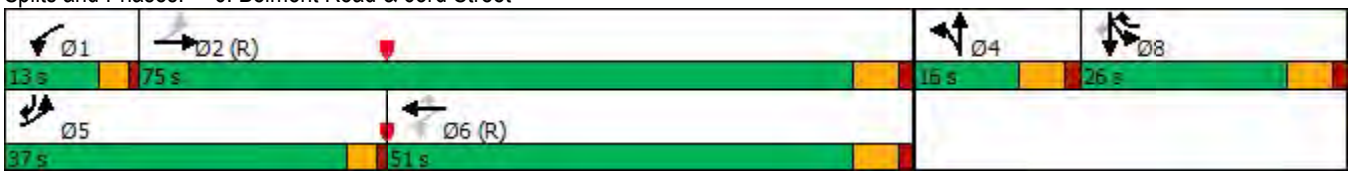
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	713	2253		535	1860	1210	140	143		265	269	730
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.58	0.28		0.03	0.36	0.53	0.24	0.20		0.49	0.48	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 64 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 19.1		Intersection LOS: B	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	4	685	275	10
Future Vol, veh/h	0	4	4	685	275	10
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	4	0
Mvmt Flow	0	4	4	753	302	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	693	157	313	0	-	0
Stage 1	308	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	491	*985	1444	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	490	*985	1444	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1444	-	985	-	-
HCM Lane V/C Ratio	0.003	-	0.004	-	-
HCM Control Delay (s)	7.5	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

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	13	0	18	1	2	3	41	673	3	4	252	23
Future Vol, veh/h	13	0	18	1	2	3	41	673	3	4	252	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	6	0	0	0	2	1	0	0	4	0
Mvmt Flow	14	0	20	1	2	3	46	748	3	4	280	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	768	1144	153	990	1156	376	306	0	0	751	0	0
Stage 1	301	301	-	842	842	-	-	-	-	-	-	-
Stage 2	467	843	-	148	314	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	7.02	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.36	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	393	238	*968	*262	233	627	1439	-	-	868	-	-
Stage 1	910	801	-	*329	383	-	-	-	-	-	-	-
Stage 2	551	382	-	*929	790	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	370	223	*968	*245	219	627	1439	-	-	868	-	-
Mov Cap-2 Maneuver	370	223	-	*245	219	-	-	-	-	-	-	-
Stage 1	860	796	-	*311	362	-	-	-	-	-	-	-
Stage 2	515	361	-	*905	785	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	16	0.6	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1439	-	-	577	333	868	-	-
HCM Lane V/C Ratio	0.032	-	-	0.06	0.02	0.005	-	-
HCM Control Delay (s)	7.6	0.2	-	11.6	16	9.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

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	7	1	26	1	1	6	26	704	1	1	265	5
Future Vol, veh/h	7	1	26	1	1	6	26	704	1	1	265	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	14	0	4	0	0	0	0	1	0	0	6	20
Mvmt Flow	8	1	28	1	1	6	28	757	1	1	285	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	725	1104	145	959	1106	379	290	0	0	758	0	0
Stage 1	290	290	-	814	814	-	-	-	-	-	-	-
Stage 2	435	814	-	145	292	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.98	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.34	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	396	252	*974	*278	252	625	1475	-	-	862	-	-
Stage 1	889	811	-	*342	394	-	-	-	-	-	-	-
Stage 2	539	394	-	*929	809	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	381	244	*974	*262	243	625	1475	-	-	862	-	-
Mov Cap-2 Maneuver	381	244	-	*262	243	-	-	-	-	-	-	-
Stage 1	860	810	-	*331	381	-	-	-	-	-	-	-
Stage 2	514	381	-	*900	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	13	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1475	-	-	692	456	862	-	-
HCM Lane V/C Ratio	0.019	-	-	0.053	0.019	0.001	-	-
HCM Control Delay (s)	7.5	0.1	-	10.5	13	9.2	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	3	10	713	277	3
Future Vol, veh/h	5	3	10	713	277	3
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	5	0
Mvmt Flow	5	3	11	784	304	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	720	154	307	0	-	0
Stage 1	306	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	470	*985	1452	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	464	*985	1452	-	-	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	641	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1452	-	579	-	-
HCM Lane V/C Ratio	0.008	-	0.015	-	-
HCM Control Delay (s)	7.5	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	785	9	4	1226	15	14
Future Vol, veh/h	785	9	4	1226	15	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	17	0	3	0	0
Mvmt Flow	882	10	4	1378	17	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	892	0	1584	446
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	697	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1126	-	*330	*776
Stage 1	-	-	-	-	*705	-
Stage 2	-	-	-	-	*553	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	1126	-	*329	*776
Mov Cap-2 Maneuver	-	-	-	-	*428	-
Stage 1	-	-	-	-	*705	-
Stage 2	-	-	-	-	*551	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	1126	-
HCM Lane V/C Ratio	0.06	-	-	0.004	-
HCM Control Delay (s)	12	-	-	8.2	-
HCM Lane LOS	B	-	-	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
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	791	1236	5	3	7
Future Vol, veh/h	1	791	1236	5	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	860	1343	5	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1348	0	-	0	1778	674
Stage 1	-	-	-	-	1346	-
Stage 2	-	-	-	-	432	-
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	*873	-	-	-	*335	*584
Stage 1	-	-	-	-	*551	-
Stage 2	-	-	-	-	*728	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*873	-	-	-	*335	*584
Mov Cap-2 Maneuver	-	-	-	-	*335	-
Stage 1	-	-	-	-	*550	-
Stage 2	-	-	-	-	*728	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 873	-	-	-	478
HCM Lane V/C Ratio	0.001	-	-	-	0.023
HCM Control Delay (s)	9.1	-	-	-	12.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	38	0	5	49
Future Vol, veh/h	0	9	38	0	5	49
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	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	0	11	48	0	6	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	121	48	0	0	48	0
Stage 1	48	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	900	1027	-	-	1572	-
Stage 1	980	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	897	1027	-	-	1572	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	965	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1572	-
HCM Lane V/C Ratio	-	-	0.011	0.004	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	29	9	5	22	27
Future Vol, veh/h	13	29	9	5	22	27
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	14	32	10	6	24	30

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	91	13	0	0	16	0
Stage 1	13	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	919	1073	-	-	1615	-
Stage 1	1015	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	905	1073	-	-	1615	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1015	1615	-
HCM Lane V/C Ratio	-	-	0.046	0.015	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	11	0	0	36
Future Vol, veh/h	0	2	11	0	0	36
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	18	0	0	0
Mvmt Flow	0	2	13	0	0	41

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	54	13	0	0	13	0
Stage 1	13	-	-	-	-	-
Stage 2	41	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	965	1073	-	-	1619	-
Stage 1	1015	-	-	-	-	-
Stage 2	990	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	965	1073	-	-	1619	-
Mov Cap-2 Maneuver	965	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	990	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	1619	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	-	-	8.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	904	589	222	797	8	346	37	161	11	71	11
Future Volume (vph)	14	904	589	222	797	8	346	37	161	11	71	11
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.983	
Flt Protected	0.950			0.950			0.950	0.961			0.994	
Satd. Flow (prot)	1805	3762	1615	1770	3571	0	1698	1721	1599	0	3527	0
Flt Permitted	0.339			0.197			0.950	0.961			0.994	
Satd. Flow (perm)	644	3762	1615	367	3571	0	1698	1721	1599	0	3527	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			418		1				166		9	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	0%	2%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	14	932	607	229	830	0	196	199	166	0	95	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	48.0	31.0	30.0	65.0		31.0	31.0	30.0	21.0	21.0	
Total Split (%)	10.0%	36.9%	23.8%	23.1%	50.0%		23.8%	23.8%	23.1%	16.2%	16.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	69.7	61.8	88.5	84.3	78.2		20.7	20.7	39.2		9.0	
Actuated g/C Ratio	0.54	0.48	0.68	0.65	0.60		0.16	0.16	0.30		0.07	
v/c Ratio	0.04	0.52	0.49	0.55	0.39		0.73	0.73	0.28		0.38	
Control Delay	9.4	21.7	7.1	15.4	15.7		67.1	67.1	3.6		56.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.4	21.7	7.1	15.4	15.7		67.1	67.1	3.6		56.4	
LOS	A	C	A	B	B		E	E	A		E	
Approach Delay		15.9			15.6			48.3			56.4	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	2	256	173	74	167		165	167	0		37	
Queue Length 95th (ft)	m4	357	225	127	284		247	251	33		65	

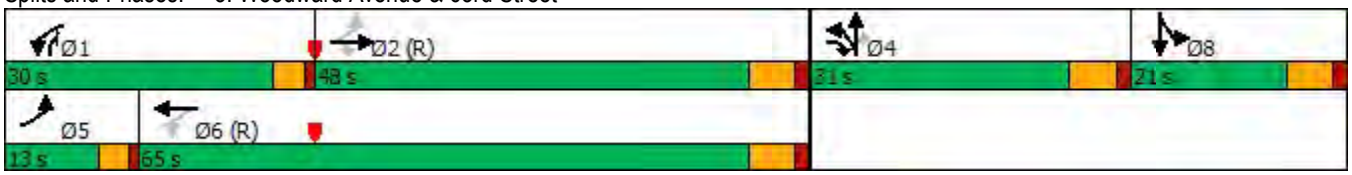
Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	441	1789	1272	518	2147		326	330	702		414	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.03	0.52	0.48	0.44	0.39		0.60	0.60	0.24		0.23	

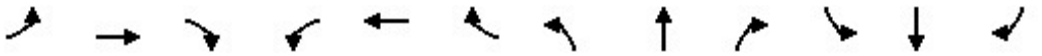
Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 68.8%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street



Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	235	779	41	38	784	312	52	38	29	719	58	507
Future Volume (vph)	235	779	41	38	784	312	52	38	29	719	58	507
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.992				0.850		0.936				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1752	3539	0	1805	3762	1599	1770	1748	0	1715	1726	1599
Flt Permitted	0.197			0.262			0.950			0.950	0.959	
Satd. Flow (perm)	363	3539	0	498	3762	1599	1770	1748	0	1715	1726	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				325		23				184
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	245	854	0	40	817	325	54	70	0	404	405	528
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	16.0	55.0		13.0	52.0	41.0	21.0	21.0		41.0	41.0	16.0
Total Split (%)	12.3%	42.3%		10.0%	40.0%	31.5%	16.2%	16.2%		31.5%	31.5%	12.3%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	70.6	59.6		60.2	51.2	88.7	9.8	9.8		36.3	36.3	55.8
Actuated g/C Ratio	0.54	0.46		0.46	0.39	0.68	0.08	0.08		0.28	0.28	0.43
v/c Ratio	0.72	0.53		0.13	0.55	0.27	0.41	0.46		0.85	0.84	0.67
Control Delay	32.4	29.3		17.6	31.8	1.4	65.8	49.1		60.6	60.2	22.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	32.4	29.3		17.6	31.8	1.4	65.8	49.1		60.6	60.2	22.9
LOS	C	C		B	C	A	E	D		E	E	C
Approach Delay		30.0			22.9			56.4			45.6	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	114	288		15	339	59	44	38		330	330	206
Queue Length 95th (ft)	#202	376		m29	372	0	87	86		#508	#507	369

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	344	1637		328	1527	1207	204	222		496	499	794
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.71	0.52		0.12	0.54	0.27	0.26	0.32		0.81	0.81	0.66

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 34.2		Intersection LOS: C	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street

HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	2	544	868	14
Future Vol, veh/h	0	7	2	544	868	14
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	7	2	573	914	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1213	465	929	0	-	0
Stage 1	922	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*448	*719	*1080	-	-	-
Stage 1	*678	-	-	-	-	-
Stage 2	*739	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*447	*719	*1080	-	-	-
Mov Cap-2 Maneuver	*447	-	-	-	-	-
Stage 1	*677	-	-	-	-	-
Stage 2	*739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1080	-	719	-	-
HCM Lane V/C Ratio	0.002	-	0.01	-	-
HCM Control Delay (s)	8.3	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	3	55	19	2	14	44	517	17	8	848	19
Future Vol, veh/h	15	3	55	19	2	14	44	517	17	8	848	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	5	0	0	2	1	0	0	1	0
Mvmt Flow	16	3	59	20	2	15	47	550	18	9	902	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1300	1592	461	1124	1593	284	922	0	0	568	0	0
Stage 1	930	930	-	653	653	-	-	-	-	-	-	-
Stage 2	370	662	-	471	940	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.6	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.55	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	*308	*182	*743	*459	*182	719	*1106	-	-	1014	-	-
Stage 1	*701	*614	-	*415	*467	-	-	-	-	-	-	-
Stage 2	*628	*462	-	*692	*614	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*281	*168	*743	*392	*167	719	*1106	-	-	1014	-	-
Mov Cap-2 Maneuver	*281	*168	-	*392	*167	-	-	-	-	-	-	-
Stage 1	*658	*603	-	*389	*438	-	-	-	-	-	-	-
Stage 2	*574	*433	-	*622	*603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	14	0.8	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1106	-	-	503	438	1014	-	-
HCM Lane V/C Ratio	0.042	-	-	0.154	0.085	0.008	-	-
HCM Control Delay (s)	8.4	0.2	-	13.5	14	8.6	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	31	3	1	4	17	566	9	3	905	14
Future Vol, veh/h	8	0	31	3	1	4	17	566	9	3	905	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	3	0	0	0	0	1	0	0	1	0
Mvmt Flow	9	0	33	3	1	4	18	602	10	3	963	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1315	1625	489	1131	1627	306	978	0	0	612	0	0
Stage 1	977	977	-	643	643	-	-	-	-	-	-	-
Stage 2	338	648	-	488	984	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.96	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.33	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*329	*181	*713	*517	*180	696	*1080	-	-	977	-	-
Stage 1	*678	*594	-	*433	*472	-	-	-	-	-	-	-
Stage 2	*656	*469	-	*678	*594	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*317	*175	*713	*481	*174	696	*1080	-	-	977	-	-
Mov Cap-2 Maneuver	*317	*175	-	*481	*174	-	-	-	-	-	-	-
Stage 1	*661	*590	-	*422	*460	-	-	-	-	-	-	-
Stage 2	*634	*457	-	*642	*590	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	13.1	0.3	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1080	-	-	568	451	977	-	-
HCM Lane V/C Ratio	0.017	-	-	0.073	0.019	0.003	-	-
HCM Control Delay (s)	8.4	0.1	-	11.8	13.1	8.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	32	14	574	912	3
Future Vol, veh/h	3	32	14	574	912	3
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	94	94	94	94	94	94
Heavy Vehicles, %	33	0	0	1	1	0
Mvmt Flow	3	34	15	611	970	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1308	487	973	0	-	0
Stage 1	972	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Critical Hdwy	7.46	6.9	4.1	-	-	-
Critical Hdwy Stg 1	6.46	-	-	-	-	-
Critical Hdwy Stg 2	6.46	-	-	-	-	-
Follow-up Hdwy	3.83	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*313	*719	*1080	-	-	-
Stage 1	*620	-	-	-	-	-
Stage 2	*612	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*307	*719	*1080	-	-	-
Mov Cap-2 Maneuver	*307	-	-	-	-	-
Stage 1	*607	-	-	-	-	-
Stage 2	*612	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1080	-	645	-	-
HCM Lane V/C Ratio	0.014	-	0.058	-	-
HCM Control Delay (s)	8.4	0.1	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1498	33	15	1139	1	6
Future Vol, veh/h	1498	33	15	1139	1	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	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1611	35	16	1225	1	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1646	0	2274	823
Stage 1	-	-	-	-	1629	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*703	-	*96	*468
Stage 1	-	-	-	-	*442	-
Stage 2	-	-	-	-	*598	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*703	-	*94	*468
Mov Cap-2 Maneuver	-	-	-	-	*272	-
Stage 1	-	-	-	-	*442	-
Stage 2	-	-	-	-	*584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	424	-	-	* 703	-
HCM Lane V/C Ratio	0.018	-	-	0.023	-
HCM Control Delay (s)	13.6	-	-	10.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

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

HCM 6th TWSC
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1531	1135	5	0	8
Future Vol, veh/h	7	1531	1135	5	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1664	1234	5	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1239	0	-	0	2085	620
Stage 1	-	-	-	-	1237	-
Stage 2	-	-	-	-	848	-
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	*943	-	-	-	*76	*631
Stage 1	-	-	-	-	*595	-
Stage 2	-	-	-	-	*440	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*943	-	-	-	*76	*631
Mov Cap-2 Maneuver	-	-	-	-	*76	-
Stage 1	-	-	-	-	*590	-
Stage 2	-	-	-	-	*440	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 943	-	-	-	631
HCM Lane V/C Ratio	0.008	-	-	-	0.014
HCM Control Delay (s)	8.8	-	-	-	10.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	13	98	1	8	121
Future Vol, veh/h	2	13	98	1	8	121
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	1	0	13	2
Mvmt Flow	2	15	114	1	9	141

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	274	115	0	0	115	0
Stage 1	115	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.23	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.317	-
Pot Cap-1 Maneuver	757	943	-	-	1408	-
Stage 1	915	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	752	943	-	-	1408	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1408	-
HCM Lane V/C Ratio	-	-	0.019	0.007	-
HCM Control Delay (s)	-	-	9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	43	56	27	46	77
Future Vol, veh/h	18	43	56	27	46	77
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	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	2	1
Mvmt Flow	21	51	66	32	54	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	281	82	0	0	98	0
Stage 1	82	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	738	978	-	-	1495	-
Stage 1	946	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	709	978	-	-	1495	-
Mov Cap-2 Maneuver	709	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	880	1495	-
HCM Lane V/C Ratio	-	-	0.082	0.036	-
HCM Control Delay (s)	-	-	9.5	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	6	69	1	3	77
Future Vol, veh/h	0	6	69	1	3	77
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	6	72	1	3	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	73	0	0	73	0
Stage 1	73	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	872	995	-	-	1540	-
Stage 1	955	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	871	995	-	-	1540	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	995	1540	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	620	394	177	626	9	331	33	166	11	45	15
Future Volume (vph)	18	620	394	177	626	9	331	33	166	11	45	15
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.998				0.850		0.969	
Flt Protected	0.950			0.950			0.950	0.961			0.992	
Satd. Flow (prot)	1805	3762	1615	1805	3568	0	1715	1735	1599	0	3470	0
Flt Permitted	0.389			0.307			0.950	0.961			0.992	
Satd. Flow (perm)	739	3762	1615	583	3568	0	1715	1735	1599	0	3470	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			428		1				180		16	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	20	674	428	192	690	0	198	198	180	0	77	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	39.0	33.0	19.0	45.0		33.0	33.0	19.0	19.0	19.0	
Total Split (%)	11.8%	35.5%	30.0%	17.3%	40.9%		30.0%	30.0%	17.3%	17.3%	17.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	60.6	52.6	77.7	69.4	63.2		19.1	19.1	32.7		8.3	
Actuated g/C Ratio	0.55	0.48	0.71	0.63	0.57		0.17	0.17	0.30		0.08	
v/c Ratio	0.04	0.37	0.34	0.39	0.34		0.67	0.66	0.30		0.28	
Control Delay	6.7	15.8	4.3	12.9	15.8		52.7	52.2	3.3		40.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.7	15.8	4.3	12.9	15.8		52.7	52.2	3.3		40.9	
LOS	A	B	A	B	B		D	D	A		D	
Approach Delay		11.2			15.2			37.1			40.9	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	4	117	57	55	121		140	138	0		21	
Queue Length 95th (ft)	m12	155	75	110	237		203	203	28		45	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

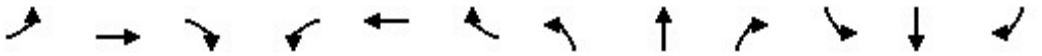
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	514	1798	1351	535	2049		420	425	657		424	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.04	0.37	0.32	0.36	0.34		0.47	0.47	0.27		0.18	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 69 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	664	19	23	693	243	47	17	21	343	28	180
Future Volume (vph)	173	664	19	23	693	243	47	17	21	343	28	180
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.996				0.850		0.917				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1752	3556	0	1805	3762	1599	1770	1719	0	1715	1726	1599
Flt Permitted	0.287			0.371			0.950			0.950	0.959	
Satd. Flow (perm)	529	3556	0	705	3762	1599	1770	1719	0	1715	1726	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				253		22				188
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	180	712	0	24	722	253	49	40	0	193	193	188
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	13.0	48.0		13.0	48.0	31.0	18.0	18.0		31.0	31.0	13.0
Total Split (%)	11.8%	43.6%		11.8%	43.6%	28.2%	16.4%	16.4%		28.2%	28.2%	11.8%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	69.6	61.2		61.6	53.4	72.7	9.1	9.1		18.1	18.1	34.3
Actuated g/C Ratio	0.63	0.56		0.56	0.49	0.66	0.08	0.08		0.16	0.16	0.31
v/c Ratio	0.40	0.36		0.05	0.40	0.22	0.34	0.25		0.69	0.68	0.30
Control Delay	13.3	17.2		10.6	19.5	2.8	53.5	30.4		55.1	54.8	4.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	13.3	17.2		10.6	19.5	2.8	53.5	30.4		55.1	54.8	4.5
LOS	B	B		B	B	A	D	C		E	D	A
Approach Delay		16.4			15.0			43.1			38.4	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	50	155		4	157	28	33	12		136	136	0
Queue Length 95th (ft)	107	252		m23	235	8	71	46		202	202	43

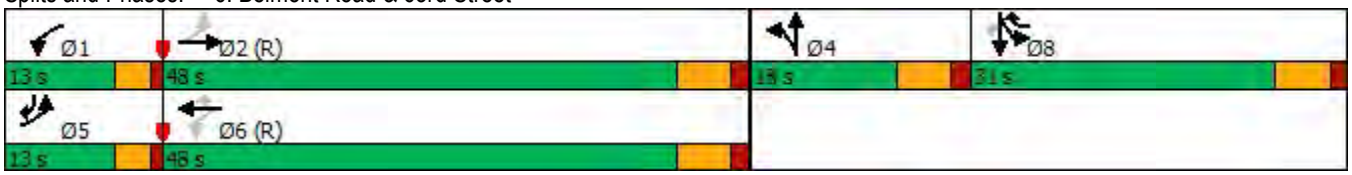
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	454	1980		502	1855	1227	193	207		391	394	634
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.40	0.36		0.05	0.39	0.21	0.25	0.19		0.49	0.49	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 56 (51%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	9	1	526	604	12
Future Vol, veh/h	4	9	1	526	604	12
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	9	1	537	616	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	893	314	628	0	-	0
Stage 1	622	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*521	*852	*1279	-	-	-
Stage 1	*804	-	-	-	-	-
Stage 2	*756	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*521	*852	*1279	-	-	-
Mov Cap-2 Maneuver	*521	-	-	-	-	-
Stage 1	*803	-	-	-	-	-
Stage 2	*756	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1279	-	713	-	-
HCM Lane V/C Ratio	0.001	-	0.019	-	-
HCM Control Delay (s)	7.8	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	43	12	0	11	45	488	11	5	585	23
Future Vol, veh/h	28	1	43	12	0	11	45	488	11	5	585	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	9	0	0	0	0	0	0
Mvmt Flow	29	1	45	13	0	12	47	514	12	5	616	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	989	1258	320	933	1264	263	640	0	0	526	0	0
Stage 1	638	638	-	614	614	-	-	-	-	-	-	-
Stage 2	351	620	-	319	650	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*402	*260	*852	*451	*257	715	*1279	-	-	1051	-	-
Stage 1	*804	*703	-	*451	*486	-	-	-	-	-	-	-
Stage 2	*644	*483	-	*804	*703	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*378	*244	*852	*407	*242	715	*1279	-	-	1051	-	-
Mov Cap-2 Maneuver	*378	*244	-	*407	*242	-	-	-	-	-	-	-
Stage 1	*762	*699	-	*428	*461	-	-	-	-	-	-	-
Stage 2	*601	*458	-	*754	*699	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	12.4	0.8	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1279	-	-	560	513	1051	-	-
HCM Lane V/C Ratio	0.037	-	-	0.135	0.047	0.005	-	-
HCM Control Delay (s)	7.9	0.2	-	12.4	12.4	8.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	25	3	1	3	27	532	2	3	623	14
Future Vol, veh/h	9	0	25	3	1	3	27	532	2	3	623	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	0	26	3	1	3	28	548	2	3	642	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	986	1261	328	932	1267	275	656	0	0	550	0	0
Stage 1	655	655	-	605	605	-	-	-	-	-	-	-
Stage 2	331	606	-	327	662	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	405	258	*852	*453	256	729	1275	-	-	1030	-	-
Stage 1	801	702	-	*456	491	-	-	-	-	-	-	-
Stage 2	662	490	-	*804	696	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	390	249	*852	*427	246	729	1275	-	-	1030	-	-
Mov Cap-2 Maneuver	390	249	-	*427	246	-	-	-	-	-	-	-
Stage 1	776	698	-	*441	475	-	-	-	-	-	-	-
Stage 2	637	474	-	*775	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	13	0.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1275	-	-	649	460	1030	-	-
HCM Lane V/C Ratio	0.022	-	-	0.054	0.016	0.003	-	-
HCM Control Delay (s)	7.9	0.1	-	10.9	13	8.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	16	553	625	5
Future Vol, veh/h	0	23	16	553	625	5
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	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	23	16	564	638	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	955	322	643	0	-	0
Stage 1	641	-	-	-	-	-
Stage 2	314	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*466	*852	*1279	-	-	-
Stage 1	*804	-	-	-	-	-
Stage 2	*720	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*457	*852	*1279	-	-	-
Mov Cap-2 Maneuver	*457	-	-	-	-	-
Stage 1	*789	-	-	-	-	-
Stage 2	*720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1279	-	852	-	-
HCM Lane V/C Ratio	0.013	-	0.028	-	-
HCM Control Delay (s)	7.9	0.1	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1007	29	14	962	8	25
Future Vol, veh/h	1007	29	14	962	8	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1060	31	15	1013	8	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1091	0	1613	546
Stage 1	-	-	-	-	1076	-
Stage 2	-	-	-	-	537	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*1038	-	*218	*691
Stage 1	-	-	-	-	*652	-
Stage 2	-	-	-	-	*652	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*1038	-	*215	*691
Mov Cap-2 Maneuver	-	-	-	-	*394	-
Stage 1	-	-	-	-	*652	-
Stage 2	-	-	-	-	*643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	584	-	-	* 1038	-
HCM Lane V/C Ratio	0.059	-	-	0.014	-
HCM Control Delay (s)	11.6	-	-	8.5	-
HCM Lane LOS	B	-	-	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
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1031	964	6	5	9
Future Vol, veh/h	11	1031	964	6	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1121	1048	7	5	10

Major/Minor	Major1			Major2		
Conflicting Flow All	1055	0	-	0	1637	528
Stage 1	-	-	-	-	1052	-
Stage 2	-	-	-	-	585	-
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	*1028	-	-	-	*354	*687
Stage 1	-	-	-	-	*649	-
Stage 2	-	-	-	-	*622	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*1028	-	-	-	*350	*687
Mov Cap-2 Maneuver	-	-	-	-	*350	-
Stage 1	-	-	-	-	*641	-
Stage 2	-	-	-	-	*622	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 1028	-	-	-	511
HCM Lane V/C Ratio	0.012	-	-	-	0.03
HCM Control Delay (s)	8.5	-	-	-	12.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	11	50	0	4	51
Future Vol, veh/h	2	11	50	0	4	51
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	87	87	87	87	87	87
Heavy Vehicles, %	50	0	0	0	0	0
Mvmt Flow	2	13	57	0	5	59

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	126	57	0	0	57	0
Stage 1	57	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.9	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	791	1015	-	-	1560	-
Stage 1	856	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	789	1015	-	-	1560	-
Mov Cap-2 Maneuver	789	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	860	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	972	1560	-
HCM Lane V/C Ratio	-	-	0.015	0.003	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	27	23	19	23	30
Future Vol, veh/h	20	27	23	19	23	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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	11	0	3
Mvmt Flow	22	30	25	21	25	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	119	36	0	0	46	0
Stage 1	36	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	887	1042	-	-	1575	-
Stage 1	992	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	873	1042	-	-	1575	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1575	-
HCM Lane V/C Ratio	-	-	0.054	0.016	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	30	0	0	56
Future Vol, veh/h	0	3	30	0	0	56
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	93	93	93	93	93	93
Heavy Vehicles, %	0	33	0	0	0	2
Mvmt Flow	0	3	32	0	0	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	92	32	0	0	32	0
Stage 1	32	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.53	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	-	-	2.2	-
Pot Cap-1 Maneuver	940	960	-	-	1593	-
Stage 1	996	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	940	960	-	-	1593	-
Mov Cap-2 Maneuver	940	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	960	1593	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	-	-	8.8	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Year 2030 No-Build Weekday Morning Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	621	192	87	755	4	522	32	166	7	20	9
Future Volume (vph)	15	621	192	87	755	4	522	32	166	7	20	9
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.961	
Flt Protected	0.950			0.950			0.950	0.958			0.991	
Satd. Flow (prot)	1805	3619	1553	1687	3435	0	1698	1714	1583	0	3438	0
Flt Permitted	0.311			0.319			0.950	0.958			0.991	
Satd. Flow (perm)	591	3619	1553	566	3435	0	1698	1714	1583	0	3438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204						177		10	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	4%	7%	5%	0%	1%	0%	2%	0%	0%	0%
Shared Lane Traffic (%)							47%					
Lane Group Flow (vph)	16	661	204	93	807	0	294	295	177	0	38	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	52.0	48.0	16.0	55.0		48.0	48.0	16.0	14.0	14.0	
Total Split (%)	10.0%	40.0%	36.9%	12.3%	42.3%		36.9%	36.9%	12.3%	10.8%	10.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	73.1	65.0	100.1	79.6	73.5		29.1	29.1	40.6		8.0	
Actuated g/C Ratio	0.56	0.50	0.77	0.61	0.57		0.22	0.22	0.31		0.06	
v/c Ratio	0.04	0.37	0.16	0.22	0.42		0.78	0.77	0.29		0.17	
Control Delay	10.4	20.6	2.8	14.2	19.9		60.8	60.3	3.6		47.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	10.4	20.6	2.8	14.2	19.9		60.8	60.3	3.6		47.8	
LOS	B	C	A	B	B		E	E	A		D	
Approach Delay		16.3			19.3			47.4			47.8	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	5	222	35	32	188		247	248	0		12	
Queue Length 95th (ft)	m13	310	26	69	333		324	325	34		31	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

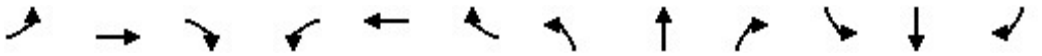
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	429	1809	1362	450	1941		548	553	651		220	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.04	0.37	0.15	0.21	0.42		0.54	0.53	0.27		0.17	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 75 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 27.0		Intersection LOS: C	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	402	590	24	14	660	622	34	20	7	233	19	203
Future Volume (vph)	402	590	24	14	660	622	34	20	7	233	19	203
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.960				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1770	3412	0	1805	3619	1599	1805	1758	0	1665	1688	1468
Flt Permitted	0.294			0.401			0.950			0.950	0.959	
Satd. Flow (perm)	548	3412	0	762	3619	1599	1805	1758	0	1665	1688	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				375		8				165
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	9%	0%	5%	1%	0%	0%	14%	3%	0%	10%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	432	660	0	15	710	669	37	30	0	136	135	218
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	37.0	75.0		13.0	51.0	26.0	16.0	16.0		26.0	26.0	37.0
Total Split (%)	28.5%	57.7%		10.0%	39.2%	20.0%	12.3%	12.3%		20.0%	20.0%	28.5%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	91.5	85.4		72.4	64.5	82.1	8.9	8.9		16.4	16.4	43.4
Actuated g/C Ratio	0.70	0.66		0.56	0.50	0.63	0.07	0.07		0.13	0.13	0.33
v/c Ratio	0.74	0.29		0.03	0.40	0.58	0.30	0.24		0.65	0.63	0.36
Control Delay	17.8	12.0		11.3	23.2	9.5	63.8	49.7		67.6	66.7	8.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	17.8	12.0		11.3	23.2	9.5	63.8	49.7		67.6	66.7	8.7
LOS	B	B		B	C	A	E	D		E	E	A
Approach Delay		14.3			16.5			57.5			41.1	
Approach LOS		B			B			E			D	
Queue Length 50th (ft)	139	109		2	188	184	30	18		115	114	31
Queue Length 95th (ft)	235	205		m10	280	192	67	50		184	182	74

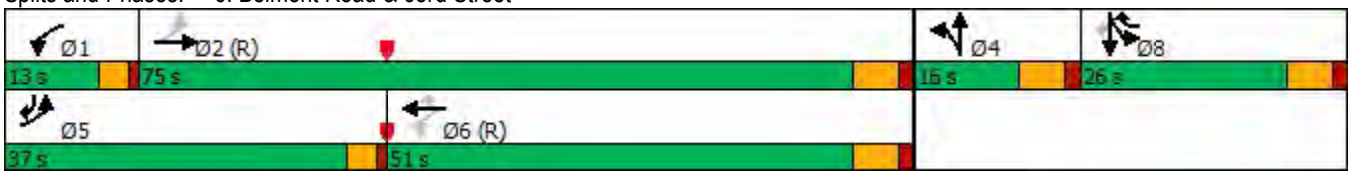
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	695	2242		514	1806	1184	141	144		259	262	720
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.62	0.29		0.03	0.39	0.57	0.26	0.21		0.53	0.52	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 64 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 20.6		Intersection LOS: C	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	4	719	289	10
Future Vol, veh/h	0	4	4	719	289	10
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	4	0
Mvmt Flow	0	4	4	790	318	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	727	165	329	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	465	*985	1422	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	464	*985	1422	-	-	-
Mov Cap-2 Maneuver	464	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1422	-	985	-	-
HCM Lane V/C Ratio	0.003	-	0.004	-	-
HCM Control Delay (s)	7.5	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

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	13	0	18	1	2	3	41	707	3	4	265	23
Future Vol, veh/h	13	0	18	1	2	3	41	707	3	4	265	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	6	0	0	0	2	1	0	0	4	0
Mvmt Flow	14	0	20	1	2	3	46	786	3	4	294	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	801	1196	160	1035	1208	395	320	0	0	789	0	0
Stage 1	315	315	-	880	880	-	-	-	-	-	-	-
Stage 2	486	881	-	155	328	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	7.02	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.36	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	370	220	*968	*242	216	610	1421	-	-	840	-	-
Stage 1	891	789	-	*312	368	-	-	-	-	-	-	-
Stage 2	537	367	-	*929	778	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	347	206	*968	*225	202	610	1421	-	-	840	-	-
Mov Cap-2 Maneuver	347	206	-	*225	202	-	-	-	-	-	-	-
Stage 1	840	784	-	*294	347	-	-	-	-	-	-	-
Stage 2	500	346	-	*905	773	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	16.8	0.6	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1421	-	-	553	311	840	-	-
HCM Lane V/C Ratio	0.032	-	-	0.062	0.021	0.005	-	-
HCM Control Delay (s)	7.6	0.2	-	11.9	16.8	9.3	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

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	7	1	26	1	1	6	26	739	1	1	278	5
Future Vol, veh/h	7	1	26	1	1	6	26	739	1	1	278	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	14	0	4	0	0	0	0	1	0	0	6	20
Mvmt Flow	8	1	28	1	1	6	28	795	1	1	299	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	758	1156	152	1004	1158	398	304	0	0	796	0	0
Stage 1	304	304	-	852	852	-	-	-	-	-	-	-
Stage 2	454	852	-	152	306	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.98	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.34	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	373	233	*974	*255	233	607	1456	-	-	835	-	-
Stage 1	870	798	-	*325	379	-	-	-	-	-	-	-
Stage 2	524	379	-	*929	797	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	357	225	*974	*240	224	607	1456	-	-	835	-	-
Mov Cap-2 Maneuver	357	225	-	*240	224	-	-	-	-	-	-	-
Stage 1	841	797	-	*314	366	-	-	-	-	-	-	-
Stage 2	499	366	-	*900	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	13.5	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1456	-	-	670	432	835	-	-
HCM Lane V/C Ratio	0.019	-	-	0.055	0.02	0.001	-	-
HCM Control Delay (s)	7.5	0.1	-	10.7	13.5	9.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	3	10	749	291	3
Future Vol, veh/h	5	3	10	749	291	3
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	5	0
Mvmt Flow	5	3	11	823	320	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	756	162	323	0	-	0
Stage 1	322	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	444	*985	1430	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	438	*985	1430	-	-	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1430	-	553	-	-
HCM Lane V/C Ratio	0.008	-	0.016	-	-
HCM Control Delay (s)	7.5	0.1	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	824	9	4	1287	15	14
Future Vol, veh/h	824	9	4	1287	15	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	17	0	3	0	0
Mvmt Flow	926	10	4	1446	17	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	936	0	1662	468
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	731	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1119	-	*299	*752
Stage 1	-	-	-	-	*706	-
Stage 2	-	-	-	-	*531	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	1119	-	*297	*752
Mov Cap-2 Maneuver	-	-	-	-	*406	-
Stage 1	-	-	-	-	*706	-
Stage 2	-	-	-	-	*529	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	522	-	-	1119	-
HCM Lane V/C Ratio	0.062	-	-	0.004	-
HCM Control Delay (s)	12.4	-	-	8.2	-
HCM Lane LOS	B	-	-	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
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	830	1297	5	3	7
Future Vol, veh/h	1	830	1297	5	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	902	1410	5	3	8

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	1415	0	-	0	1866	708			
Stage 1	-	-	-	-	1413	-			
Stage 2	-	-	-	-	453	-			
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	*838	-	-	-	*290	*560			
Stage 1	-	-	-	-	*528	-			
Stage 2	-	-	-	-	*706	-			
Platoon blocked, %	1	-	-	-	1	1			
Mov Cap-1 Maneuver	*838	-	-	-	*290	*560			
Mov Cap-2 Maneuver	-	-	-	-	*290	-			
Stage 1	-	-	-	-	*528	-			
Stage 2	-	-	-	-	*706	-			

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 838	-	-	-	438
HCM Lane V/C Ratio	0.001	-	-	-	0.025
HCM Control Delay (s)	9.3	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	38	0	5	49
Future Vol, veh/h	0	9	38	0	5	49
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	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	0	11	48	0	6	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	121	48	0	0	48	0
Stage 1	48	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	900	1027	-	-	1572	-
Stage 1	980	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	897	1027	-	-	1572	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	965	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1572	-
HCM Lane V/C Ratio	-	-	0.011	0.004	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	29	9	5	22	27
Future Vol, veh/h	13	29	9	5	22	27
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	14	32	10	6	24	30

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	91	13	0	0	16	0
Stage 1	13	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	919	1073	-	-	1615	-
Stage 1	1015	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	905	1073	-	-	1615	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1015	1615	-
HCM Lane V/C Ratio	-	-	0.046	0.015	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	11	0	0	36
Future Vol, veh/h	0	2	11	0	0	36
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	18	0	0	0
Mvmt Flow	0	2	13	0	0	41

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	54	13	0	0	13	0
Stage 1	13	-	-	-	-	-
Stage 2	41	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	965	1073	-	-	1619	-
Stage 1	1015	-	-	-	-	-
Stage 2	990	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	965	1073	-	-	1619	-
Mov Cap-2 Maneuver	965	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	990	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	1619	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	-	-	8.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Year 2030 No-Build Weekday Evening Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	949	618	233	837	8	363	39	169	12	75	12
Future Volume (vph)	15	949	618	233	837	8	363	39	169	12	75	12
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.982	
Flt Protected	0.950			0.950			0.950	0.961			0.994	
Satd. Flow (prot)	1805	3762	1615	1770	3571	0	1698	1721	1599	0	3524	0
Flt Permitted	0.326			0.172			0.950	0.961			0.994	
Satd. Flow (perm)	619	3762	1615	320	3571	0	1698	1721	1599	0	3524	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			389		1				174		9	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	0%	2%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	15	978	637	240	871	0	206	208	174	0	101	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	48.0	31.0	30.0	65.0		31.0	31.0	30.0	21.0	21.0	
Total Split (%)	10.0%	36.9%	23.8%	23.1%	50.0%		23.8%	23.8%	23.1%	16.2%	16.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	67.5	59.5	86.9	83.4	77.3		21.4	21.4	41.3		9.2	
Actuated g/C Ratio	0.52	0.46	0.67	0.64	0.59		0.16	0.16	0.32		0.07	
v/c Ratio	0.04	0.57	0.53	0.59	0.41		0.74	0.73	0.28		0.39	
Control Delay	10.3	22.6	7.3	17.6	16.4		67.3	66.9	3.3		56.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	10.3	22.6	7.3	17.6	16.4		67.3	66.9	3.3		56.9	
LOS	B	C	A	B	B		E	E	A		E	
Approach Delay		16.5			16.6			48.2			56.9	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	2	269	186	80	183		173	174	0		40	
Queue Length 95th (ft)	m5	382	m238	141	304		260	263	32		68	

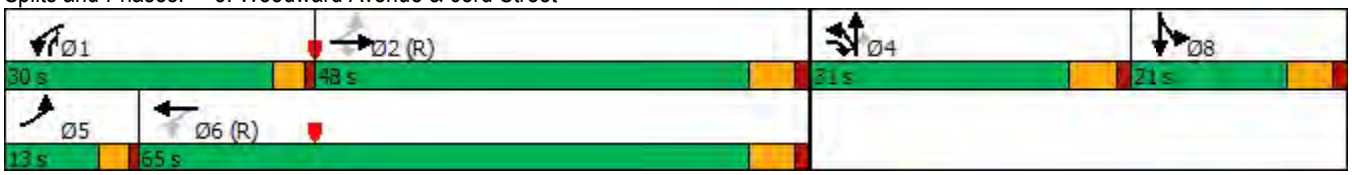
Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	417	1722	1242	495	2122		326	330	715		414	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.04	0.57	0.51	0.48	0.41		0.63	0.63	0.24		0.24	

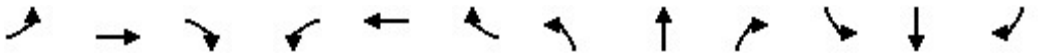
Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 23.2		Intersection LOS: C	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street



Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	818	43	40	823	328	55	40	30	755	61	532
Future Volume (vph)	247	818	43	40	823	328	55	40	30	755	61	532
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.992				0.850		0.936				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1752	3539	0	1805	3762	1599	1770	1748	0	1715	1726	1599
Flt Permitted	0.157			0.235			0.950			0.950	0.959	
Satd. Flow (perm)	290	3539	0	446	3762	1599	1770	1748	0	1715	1726	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				342		23				174
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	257	897	0	42	857	342	57	73	0	424	426	554
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	16.0	55.0		13.0	52.0	41.0	21.0	21.0		41.0	41.0	16.0
Total Split (%)	12.3%	42.3%		10.0%	40.0%	31.5%	16.2%	16.2%		31.5%	31.5%	12.3%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	66.5	55.5		55.0	45.9	83.2	10.0	10.0		37.3	37.3	58.1
Actuated g/C Ratio	0.51	0.43		0.42	0.35	0.64	0.08	0.08		0.29	0.29	0.45
v/c Ratio	0.82	0.59		0.16	0.64	0.30	0.42	0.47		0.86	0.86	0.68
Control Delay	43.3	32.0		18.1	35.7	1.7	66.1	49.9		61.8	61.7	24.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	43.3	32.0		18.1	35.7	1.7	66.1	49.9		61.8	61.7	24.1
LOS	D	C		B	D	A	E	D		E	E	C
Approach Delay		34.5			25.7			57.0			46.9	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	128	322		16	363	65	47	41		340	342	230
Queue Length 95th (ft)	#281	400		m29	370	0	90	90		#553	#556	415

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	314	1516		289	1383	1155	204	222		503	506	810
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.82	0.59		0.15	0.62	0.30	0.28	0.33		0.84	0.84	0.68

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 36.9		Intersection LOS: D	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street

HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	2	571	911	14
Future Vol, veh/h	0	7	2	571	911	14
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	7	2	601	959	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1272	487	974	0	-	0
Stage 1	967	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*394	*719	*1080	-	-	-
Stage 1	*678	-	-	-	-	-
Stage 2	*727	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*394	*719	*1080	-	-	-
Mov Cap-2 Maneuver	*394	-	-	-	-	-
Stage 1	*677	-	-	-	-	-
Stage 2	*727	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1080	-	719	-	-
HCM Lane V/C Ratio	0.002	-	0.01	-	-
HCM Control Delay (s)	8.3	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	3	55	19	2	14	44	543	17	8	890	19
Future Vol, veh/h	15	3	55	19	2	14	44	543	17	8	890	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	5	0	0	2	1	0	0	1	0
Mvmt Flow	16	3	59	20	2	15	47	578	18	9	947	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1359	1665	484	1174	1666	298	967	0	0	596	0	0
Stage 1	975	975	-	681	681	-	-	-	-	-	-	-
Stage 2	384	690	-	493	985	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.6	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.55	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	*295	*166	*719	*456	*166	704	*1070	-	-	990	-	-
Stage 1	*678	*594	-	*400	*453	-	-	-	-	-	-	-
Stage 2	*616	*449	-	*669	*594	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*267	*152	*719	*386	*152	704	*1070	-	-	990	-	-
Mov Cap-2 Maneuver	*267	*152	-	*386	*152	-	-	-	-	-	-	-
Stage 1	*634	*582	-	*374	*423	-	-	-	-	-	-	-
Stage 2	*560	*419	-	*599	*582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	14.3	0.8	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1070	-	-	479	425	990	-	-
HCM Lane V/C Ratio	0.044	-	-	0.162	0.088	0.009	-	-
HCM Control Delay (s)	8.5	0.2	-	14	14.3	8.7	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	31	3	1	4	17	594	9	3	950	14
Future Vol, veh/h	8	0	31	3	1	4	17	594	9	3	950	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	3	0	0	0	0	1	0	0	1	0
Mvmt Flow	9	0	33	3	1	4	18	632	10	3	1011	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1378	1703	513	1185	1705	321	1026	0	0	642	0	0
Stage 1	1025	1025	-	673	673	-	-	-	-	-	-	-
Stage 2	353	678	-	512	1032	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.96	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.33	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*313	*163	*689	*511	*163	681	*1044	-	-	952	-	-
Stage 1	*656	*574	-	*416	*457	-	-	-	-	-	-	-
Stage 2	*642	*455	-	*656	*574	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*301	*158	*689	*474	*157	681	*1044	-	-	952	-	-
Mov Cap-2 Maneuver	*301	*158	-	*474	*157	-	-	-	-	-	-	-
Stage 1	*638	*570	-	*405	*445	-	-	-	-	-	-	-
Stage 2	*619	*443	-	*620	*570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	13.5	0.3	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1044	-	-	545	431	952	-	-
HCM Lane V/C Ratio	0.017	-	-	0.076	0.02	0.003	-	-
HCM Control Delay (s)	8.5	0.1	-	12.1	13.5	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	32	14	603	958	3
Future Vol, veh/h	3	32	14	603	958	3
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	94	94	94	94	94	94
Heavy Vehicles, %	33	0	0	1	1	0
Mvmt Flow	3	34	15	641	1019	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1372	511	1022	0	-	0
Stage 1	1021	-	-	-	-	-
Stage 2	351	-	-	-	-	-
Critical Hdwy	7.46	6.9	4.1	-	-	-
Critical Hdwy Stg 1	6.46	-	-	-	-	-
Critical Hdwy Stg 2	6.46	-	-	-	-	-
Follow-up Hdwy	3.83	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*297	*695	*1044	-	-	-
Stage 1	*599	-	-	-	-	-
Stage 2	*600	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*291	*695	*1044	-	-	-
Mov Cap-2 Maneuver	*291	-	-	-	-	-
Stage 1	*586	-	-	-	-	-
Stage 2	*600	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1044	-	621	-	-
HCM Lane V/C Ratio	0.014	-	0.06	-	-
HCM Control Delay (s)	8.5	0.1	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1573	33	15	1196	1	6
Future Vol, veh/h	1573	33	15	1196	1	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	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1691	35	16	1286	1	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1726	0	2384	863
Stage 1	-	-	-	-	1709	-
Stage 2	-	-	-	-	675	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*668	-	*68	*445
Stage 1	-	-	-	-	*419	-
Stage 2	-	-	-	-	*576	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*668	-	*66	*445
Mov Cap-2 Maneuver	-	-	-	-	*248	-
Stage 1	-	-	-	-	*419	-
Stage 2	-	-	-	-	*562	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	400	-	-	* 668	-
HCM Lane V/C Ratio	0.019	-	-	0.024	-
HCM Control Delay (s)	14.2	-	-	10.5	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

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

HCM 6th TWSC
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1606	1192	5	0	8
Future Vol, veh/h	7	1606	1192	5	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1746	1296	5	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1301	0	-	0	2188	651
Stage 1	-	-	-	-	1299	-
Stage 2	-	-	-	-	889	-
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	-	-	-	*71	*595
Stage 1	-	-	-	-	*562	-
Stage 2	-	-	-	-	*395	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*890	-	-	-	*71	*595
Mov Cap-2 Maneuver	-	-	-	-	*71	-
Stage 1	-	-	-	-	*557	-
Stage 2	-	-	-	-	*395	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 890	-	-	-	595
HCM Lane V/C Ratio	0.009	-	-	-	0.015
HCM Control Delay (s)	9.1	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	13	98	1	8	121
Future Vol, veh/h	2	13	98	1	8	121
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	1	0	13	2
Mvmt Flow	2	15	114	1	9	141

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	274	115	0	0	115	0
Stage 1	115	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.23	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.317	-
Pot Cap-1 Maneuver	757	943	-	-	1408	-
Stage 1	915	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	752	943	-	-	1408	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1408	-
HCM Lane V/C Ratio	-	-	0.019	0.007	-
HCM Control Delay (s)	-	-	9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	43	56	27	46	77
Future Vol, veh/h	18	43	56	27	46	77
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	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	2	1
Mvmt Flow	21	51	66	32	54	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	281	82	0	0	98	0
Stage 1	82	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	738	978	-	-	1495	-
Stage 1	946	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	709	978	-	-	1495	-
Mov Cap-2 Maneuver	709	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	880	1495	-
HCM Lane V/C Ratio	-	-	0.082	0.036	-
HCM Control Delay (s)	-	-	9.5	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	6	69	1	3	77
Future Vol, veh/h	0	6	69	1	3	77
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	6	72	1	3	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	73	0	0	73	0
Stage 1	73	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	872	995	-	-	1540	-
Stage 1	955	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	871	995	-	-	1540	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	995	1540	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Year 2030 No-Build Saturday Midday Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	651	414	186	657	9	348	35	174	12	47	16
Future Volume (vph)	19	651	414	186	657	9	348	35	174	12	47	16
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		185	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.998				0.850		0.969	
Flt Protected	0.950			0.950			0.950	0.961			0.992	
Satd. Flow (prot)	1805	3762	1615	1805	3568	0	1715	1735	1599	0	3470	0
Flt Permitted	0.376			0.287			0.950	0.961			0.992	
Satd. Flow (perm)	714	3762	1615	545	3568	0	1715	1735	1599	0	3470	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			450		1				189		17	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			318			241			474	
Travel Time (s)		8.2			5.4			5.5			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	21	708	450	202	724	0	208	208	189	0	81	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	39.0	33.0	19.0	45.0		33.0	33.0	19.0	19.0	19.0	
Total Split (%)	11.8%	35.5%	30.0%	17.3%	40.9%		30.0%	30.0%	17.3%	17.3%	17.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	59.7	51.6	77.2	68.8	62.5		19.6	19.6	33.7		8.4	
Actuated g/C Ratio	0.54	0.47	0.70	0.63	0.57		0.18	0.18	0.31		0.08	
v/c Ratio	0.05	0.40	0.36	0.43	0.36		0.68	0.67	0.30		0.29	
Control Delay	6.8	16.4	4.2	13.7	16.4		52.9	52.4	3.2		40.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	6.8	16.4	4.2	13.7	16.4		52.9	52.4	3.2		40.7	
LOS	A	B	A	B	B		D	D	A		D	
Approach Delay		11.6			15.8			37.2			40.7	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	5	123	60	59	131		146	146	0		23	
Queue Length 95th (ft)	m11	167	76	117	254		213	212	28		47	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

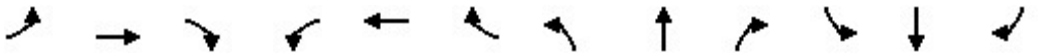
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			238			161			394	
Turn Bay Length (ft)	125		350	345			305		185			
Base Capacity (vph)	495	1763	1345	515	2028		420	425	671		425	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.04	0.40	0.33	0.39	0.36		0.50	0.49	0.28		0.19	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 69 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 58.0%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	697	20	24	728	255	49	18	22	360	29	189
Future Volume (vph)	182	697	20	24	728	255	49	18	22	360	29	189
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.996				0.850		0.918				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.959	
Satd. Flow (prot)	1752	3556	0	1805	3762	1599	1770	1721	0	1715	1726	1599
Flt Permitted	0.269			0.349			0.950			0.950	0.959	
Satd. Flow (perm)	496	3556	0	663	3762	1599	1770	1721	0	1715	1726	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				266		23				193
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		346			654			245			483	
Travel Time (s)		5.9			11.1			5.6			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										46%		
Lane Group Flow (vph)	190	747	0	25	758	266	51	42	0	202	203	197
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	13.0	48.0		13.0	48.0	31.0	18.0	18.0		31.0	31.0	13.0
Total Split (%)	11.8%	43.6%		11.8%	43.6%	28.2%	16.4%	16.4%		28.2%	28.2%	11.8%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	68.8	60.6		61.3	53.1	72.9	9.2	9.2		18.6	18.6	34.5
Actuated g/C Ratio	0.63	0.55		0.56	0.48	0.66	0.08	0.08		0.17	0.17	0.31
v/c Ratio	0.45	0.38		0.06	0.42	0.23	0.35	0.25		0.70	0.70	0.31
Control Delay	14.4	17.9		10.8	19.4	2.6	53.7	30.2		55.1	54.9	4.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	17.9		10.8	19.4	2.6	53.7	30.2		55.1	54.9	4.9
LOS	B	B		B	B	A	D	C		E	D	A
Approach Delay		17.2			15.0			43.1			38.6	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	54	167		4	166	29	35	13		143	144	2
Queue Length 95th (ft)	114	270		m24	237	8	72	47		208	209	47

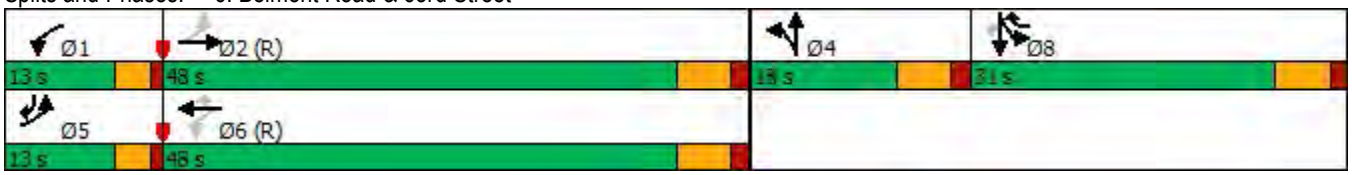
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		266			574			165			403	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	428	1960		479	1830	1229	193	208		392	395	640
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.44	0.38		0.05	0.41	0.22	0.26	0.20		0.52	0.51	0.31

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 56 (51%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 59.9%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	9	1	552	634	12
Future Vol, veh/h	4	9	1	552	634	12
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	9	1	563	647	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	937	330	659	0	-	0
Stage 1	653	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*529	*824	*1236	-	-	-
Stage 1	*777	-	-	-	-	-
Stage 2	*745	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*529	*824	*1236	-	-	-
Mov Cap-2 Maneuver	*529	-	-	-	-	-
Stage 1	*776	-	-	-	-	-
Stage 2	*745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1236	-	703	-	-
HCM Lane V/C Ratio	0.001	-	0.019	-	-
HCM Control Delay (s)	7.9	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	1	43	12	0	11	45	512	11	5	614	23
Future Vol, veh/h	28	1	43	12	0	11	45	512	11	5	614	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	9	0	0	0	0	0	0
Mvmt Flow	29	1	45	13	0	12	47	539	12	5	646	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1032	1313	335	973	1319	276	670	0	0	551	0	0
Stage 1	668	668	-	639	639	-	-	-	-	-	-	-
Stage 2	364	645	-	334	680	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	368	236	*852	*415	234	701	1257	-	-	1029	-	-
Stage 1	784	691	-	*436	474	-	-	-	-	-	-	-
Stage 2	633	471	-	*804	681	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	345	222	*852	*374	219	701	1257	-	-	1029	-	-
Mov Cap-2 Maneuver	345	222	-	*374	219	-	-	-	-	-	-	-
Stage 1	742	685	-	*412	448	-	-	-	-	-	-	-
Stage 2	589	446	-	*754	675	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	12.9	0.8	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1257	-	-	529	481	1029	-	-
HCM Lane V/C Ratio	0.038	-	-	0.143	0.05	0.005	-	-
HCM Control Delay (s)	8	0.2	-	12.9	12.9	8.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.2	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	25	3	1	3	27	559	2	3	654	14
Future Vol, veh/h	9	0	25	3	1	3	27	559	2	3	654	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	0	26	3	1	3	28	576	2	3	674	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1032	1321	344	976	1327	289	688	0	0	578	0	0
Stage 1	687	687	-	633	633	-	-	-	-	-	-	-
Stage 2	345	634	-	343	694	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*410	*249	*824	*462	*247	714	*1236	-	-	1006	-	-
Stage 1	*777	*680	-	*439	*476	-	-	-	-	-	-	-
Stage 2	*649	*476	-	*777	*680	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*395	*239	*824	*435	*237	714	*1236	-	-	1006	-	-
Mov Cap-2 Maneuver	*395	*239	-	*435	*237	-	-	-	-	-	-	-
Stage 1	*751	*676	-	*425	*460	-	-	-	-	-	-	-
Stage 2	*623	*460	-	*749	*676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	13	0.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1236	-	-	640	457	1006	-	-
HCM Lane V/C Ratio	0.023	-	-	0.055	0.016	0.003	-	-
HCM Control Delay (s)	8	0.1	-	11	13	8.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	16	581	656	5
Future Vol, veh/h	0	23	16	581	656	5
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	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	23	16	593	669	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1001	337	674	0	-	0
Stage 1	672	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*470	*824	*1236	-	-	-
Stage 1	*777	-	-	-	-	-
Stage 2	*707	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*461	*824	*1236	-	-	-
Mov Cap-2 Maneuver	*461	-	-	-	-	-
Stage 1	*762	-	-	-	-	-
Stage 2	*707	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1236	-	824	-	-
HCM Lane V/C Ratio	0.013	-	0.028	-	-
HCM Control Delay (s)	8	0.1	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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

HCM 6th TWSC
19: Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1057	29	14	1010	8	25
Future Vol, veh/h	1057	29	14	1010	8	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1113	31	15	1063	8	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1144	0	1691	572
Stage 1	-	-	-	-	1129	-
Stage 2	-	-	-	-	562	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*996	-	*181	*663
Stage 1	-	-	-	-	*626	-
Stage 2	-	-	-	-	*652	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	*996	-	*178	*663
Mov Cap-2 Maneuver	-	-	-	-	*371	-
Stage 1	-	-	-	-	*626	-
Stage 2	-	-	-	-	*642	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	557	-	-	* 996	-
HCM Lane V/C Ratio	0.062	-	-	0.015	-
HCM Control Delay (s)	11.9	-	-	8.7	-
HCM Lane LOS	B	-	-	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
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1081	1012	6	5	9
Future Vol, veh/h	11	1081	1012	6	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1175	1100	7	5	10

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	1107	0	-	0	1716	554			
Stage 1	-	-	-	-	1104	-			
Stage 2	-	-	-	-	612	-			
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	1014	-	-	-	*282	*687			
Stage 1	-	-	-	-	*640	-			
Stage 2	-	-	-	-	*622	-			
Platoon blocked, %	1	-	-	-	1	1			
Mov Cap-1 Maneuver	1014	-	-	-	*278	*687			
Mov Cap-2 Maneuver	-	-	-	-	*278	-			
Stage 1	-	-	-	-	*632	-			
Stage 2	-	-	-	-	*622	-			

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1014	-	-	-	450
HCM Lane V/C Ratio	0.012	-	-	-	0.034
HCM Control Delay (s)	8.6	-	-	-	13.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	11	50	0	4	51
Future Vol, veh/h	2	11	50	0	4	51
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	87	87	87	87	87	87
Heavy Vehicles, %	50	0	0	0	0	0
Mvmt Flow	2	13	57	0	5	59

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	126	57	0	0	57	0
Stage 1	57	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.9	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	791	1015	-	-	1560	-
Stage 1	856	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	789	1015	-	-	1560	-
Mov Cap-2 Maneuver	789	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	860	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	972	1560	-
HCM Lane V/C Ratio	-	-	0.015	0.003	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	27	23	19	23	30
Future Vol, veh/h	20	27	23	19	23	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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	11	0	3
Mvmt Flow	22	30	25	21	25	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	119	36	0	0	46	0
Stage 1	36	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	887	1042	-	-	1575	-
Stage 1	992	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	873	1042	-	-	1575	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1575	-
HCM Lane V/C Ratio	-	-	0.054	0.016	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	30	0	0	56
Future Vol, veh/h	0	3	30	0	0	56
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	93	93	93	93	93	93
Heavy Vehicles, %	0	33	0	0	0	2
Mvmt Flow	0	3	32	0	0	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	92	32	0	0	32	0
Stage 1	32	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.53	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	-	-	2.2	-
Pot Cap-1 Maneuver	940	960	-	-	1593	-
Stage 1	996	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	940	960	-	-	1593	-
Mov Cap-2 Maneuver	940	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	960	1593	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	-	-	8.8	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	624	204	138	746	4	545	35	195	7	27	10
Future Volume (vph)	19	624	204	138	746	4	545	35	195	7	27	10
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		0	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.965	
Flt Protected	0.950			0.950			0.950	0.958			0.993	
Satd. Flow (prot)	1805	3619	1553	1687	3435	0	1698	1714	1583	0	3459	0
Flt Permitted	0.314			0.309			0.950	0.958			0.993	
Satd. Flow (perm)	597	3619	1553	549	3435	0	1698	1714	1583	0	3459	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			217						207		11	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			933			241			882	
Travel Time (s)		8.2			15.9			5.5			24.1	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	4%	7%	5%	0%	1%	0%	2%	0%	0%	0%
Shared Lane Traffic (%)							47%					
Lane Group Flow (vph)	20	664	217	147	798	0	307	310	207	0	47	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	52.0	48.0	16.0	55.0		48.0	48.0	16.0	14.0	14.0	
Total Split (%)	10.0%	40.0%	36.9%	12.3%	42.3%		36.9%	36.9%	12.3%	10.8%	10.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	70.1	61.9	97.9	78.7	70.3		30.0	30.0	43.6		8.1	
Actuated g/C Ratio	0.54	0.48	0.75	0.61	0.54		0.23	0.23	0.34		0.06	
v/c Ratio	0.05	0.39	0.18	0.35	0.43		0.78	0.78	0.31		0.21	
Control Delay	9.8	19.2	3.3	15.9	21.9		60.5	60.4	3.1		49.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.8	19.2	3.3	15.9	21.9		60.5	60.4	3.1		49.0	
LOS	A	B	A	B	C		E	E	A		D	
Approach Delay		15.2			21.0			46.0			49.0	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	6	122	19	54	227		257	261	0		15	
Queue Length 95th (ft)	m15	322	51	106	338		335	337	33		36	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

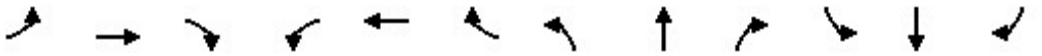
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			853			161			802	
Turn Bay Length (ft)	125		350	345			305					
Base Capacity (vph)	418	1731	1335	443	1857		548	553	689		226	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.05	0.38	0.16	0.33	0.43		0.56	0.56	0.30		0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 75 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 27.1		Intersection LOS: C	
Intersection Capacity Utilization 60.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	402	615	57	22	636	623	103	38	11	241	36	203
Future Volume (vph)	402	615	57	22	636	623	103	38	11	241	36	203
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.987				0.850		0.966				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.964	
Satd. Flow (prot)	1770	3383	0	1805	3619	1599	1805	1779	0	1665	1702	1468
Flt Permitted	0.281			0.377			0.950			0.950	0.964	
Satd. Flow (perm)	523	3383	0	716	3619	1599	1805	1779	0	1665	1702	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				317		9				94
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		971			655			245			838	
Travel Time (s)		16.6			11.2			5.6			14.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	9%	0%	5%	1%	0%	0%	14%	3%	0%	10%
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	432	722	0	24	684	670	111	53	0	148	150	218
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	37.0	75.0		13.0	51.0	26.0	16.0	16.0		26.0	26.0	37.0
Total Split (%)	28.5%	57.7%		10.0%	39.2%	20.0%	12.3%	12.3%		20.0%	20.0%	28.5%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	83.7	75.3		63.3	55.1	72.3	13.1	13.1		17.2	17.2	45.8
Actuated g/C Ratio	0.64	0.58		0.49	0.42	0.56	0.10	0.10		0.13	0.13	0.35
v/c Ratio	0.78	0.37		0.06	0.45	0.65	0.61	0.28		0.67	0.67	0.38
Control Delay	23.4	16.7		12.5	29.1	11.9	70.3	49.2		68.4	67.8	17.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	23.4	16.7		12.5	29.1	11.9	70.3	49.2		68.4	67.8	17.1
LOS	C	B		B	C	B	E	D		E	E	B
Approach Delay		19.2			20.4			63.5			46.6	
Approach LOS		B			C			E			D	
Queue Length 50th (ft)	170	181		6	185	138	90	34		125	126	75
Queue Length 95th (ft)	256	235		m17	295	197	155	77		201	202	119

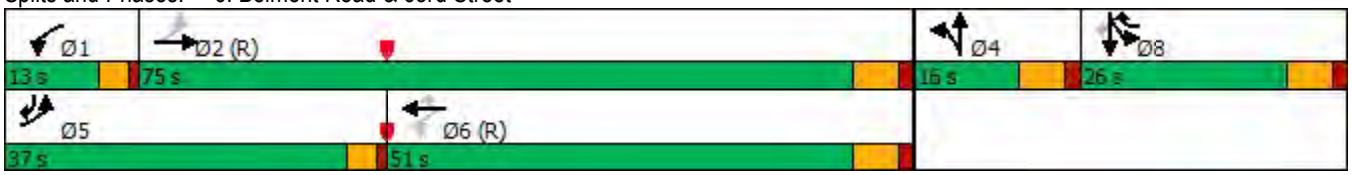
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		891			575			165			758	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	653	2001		439	1575	1061	183	189		261	266	687
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.66	0.36		0.05	0.43	0.63	0.61	0.28		0.57	0.56	0.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 64 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	4	4	732	316	53
Future Vol, veh/h	42	4	4	732	316	53
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	4	0
Mvmt Flow	46	4	4	804	347	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	786	203	405	0	-	0
Stage 1	376	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	451	*961	1374	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	450	*961	1374	-	-	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	644	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1374	-	472	-	-
HCM Lane V/C Ratio	0.003	-	0.107	-	-
HCM Control Delay (s)	7.6	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

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	48	0	31	1	2	3	74	685	3	4	272	43
Future Vol, veh/h	48	0	31	1	2	3	74	685	3	4	272	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	6	0	0	0	2	1	0	0	4	0
Mvmt Flow	53	0	34	1	2	3	82	761	3	4	302	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	880	1262	175	1086	1285	382	350	0	0	764	0	0
Stage 1	334	334	-	927	927	-	-	-	-	-	-	-
Stage 2	546	928	-	159	358	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	7.02	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.36	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	320	199	*968	*220	193	622	1382	-	-	858	-	-
Stage 1	867	773	-	*293	350	-	-	-	-	-	-	-
Stage 2	495	349	-	*929	753	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	289	178	*968	*194	172	622	1382	-	-	858	-	-
Mov Cap-2 Maneuver	289	178	-	*194	172	-	-	-	-	-	-	-
Stage 1	777	768	-	*263	314	-	-	-	-	-	-	-
Stage 2	439	313	-	*891	748	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	18.3	0.8	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	399	278	858	-	-
HCM Lane V/C Ratio	0.059	-	-	0.22	0.024	0.005	-	-
HCM Control Delay (s)	7.8	-	-	16.5	18.3	9.2	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.1	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

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	7	1	39	1	1	6	48	750	1	1	291	12
Future Vol, veh/h	7	1	39	1	1	6	48	750	1	1	291	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	14	0	4	0	0	0	0	1	0	0	6	20
Mvmt Flow	8	1	42	1	1	6	52	806	1	1	313	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	830	1233	163	1070	1239	404	326	0	0	807	0	0
Stage 1	322	322	-	911	911	-	-	-	-	-	-	-
Stage 2	508	911	-	159	328	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.98	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.34	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	326	208	*974	*226	206	602	1427	-	-	827	-	-
Stage 1	847	783	-	*299	356	-	-	-	-	-	-	-
Stage 2	486	356	-	*929	778	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	305	194	*974	*204	192	602	1427	-	-	827	-	-
Mov Cap-2 Maneuver	305	194	-	*204	192	-	-	-	-	-	-	-
Stage 1	791	782	-	*279	333	-	-	-	-	-	-	-
Stage 2	448	333	-	*887	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	14.2	0.6	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1427	-	-	690	398	827	-	-
HCM Lane V/C Ratio	0.036	-	-	0.073	0.022	0.001	-	-
HCM Control Delay (s)	7.6	0.2	-	10.6	14.2	9.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	3	10	782	317	3
Future Vol, veh/h	5	3	10	782	317	3
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	5	0
Mvmt Flow	5	3	11	859	348	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	802	176	351	0	-	0
Stage 1	350	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*440	*961	*1443	-	-	-
Stage 1	*906	-	-	-	-	-
Stage 2	*614	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*433	*961	*1443	-	-	-
Mov Cap-2 Maneuver	*433	-	-	-	-	-
Stage 1	*893	-	-	-	-	-
Stage 2	*614	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1443	-	545	-	-
HCM Lane V/C Ratio	0.008	-	0.016	-	-
HCM Control Delay (s)	7.5	0.1	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

HCM 6th TWSC
19: Proposed Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	806	64	19	1287	0	51
Future Vol, veh/h	806	64	19	1287	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	17	0	3	0	0
Mvmt Flow	906	72	21	1446	0	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	978	0	-	489
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	1018	-	0	*776
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1018	-	-	*776
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	776	-	-	1018	-
HCM Lane V/C Ratio	0.074	-	-	0.021	-
HCM Control Delay (s)	10	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Notes

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

HCM 6th TWSC
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	867	1282	5	3	7
Future Vol, veh/h	1	867	1282	5	3	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	942	1393	5	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1398	0	-	0	1869	699
Stage 1	-	-	-	-	1396	-
Stage 2	-	-	-	-	473	-
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	*838	-	-	-	*286	*560
Stage 1	-	-	-	-	*528	-
Stage 2	-	-	-	-	*684	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*838	-	-	-	*286	*560
Mov Cap-2 Maneuver	-	-	-	-	*286	-
Stage 1	-	-	-	-	*528	-
Stage 2	-	-	-	-	*684	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 838	-	-	-	435
HCM Lane V/C Ratio	0.001	-	-	-	0.025
HCM Control Delay (s)	9.3	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	69	0	32	80
Future Vol, veh/h	0	69	69	0	32	80
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	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	0	86	86	0	40	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	266	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	180	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	753	978	-	-	1523	-
Stage 1	942	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	732	978	-	-	1523	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	978	1523	-
HCM Lane V/C Ratio	-	-	0.088	0.026	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	60	9	5	46	34
Future Vol, veh/h	13	60	9	5	46	34
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	14	67	10	6	51	38

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	13	0	0	16	0
Stage 1	13	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	848	1073	-	-	1615	-
Stage 1	1015	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	820	1073	-	-	1615	-
Mov Cap-2 Maneuver	820	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	866	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1017	1615	-
HCM Lane V/C Ratio	-	-	0.08	0.032	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	11	0	7	36
Future Vol, veh/h	0	2	11	0	7	36
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	18	0	0	0
Mvmt Flow	0	2	13	0	8	41

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	70	13	0	0	13	0
Stage 1	13	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	945	1073	-	-	1619	-
Stage 1	1015	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	940	1073	-	-	1619	-
Mov Cap-2 Maneuver	940	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	1619	-
HCM Lane V/C Ratio	-	-	0.002	0.005	-
HCM Control Delay (s)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets
Year 2030 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	963	632	282	834	8	385	43	203	12	83	13
Future Volume (vph)	20	963	632	282	834	8	385	43	203	12	83	13
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		0	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.999				0.850		0.982	
Flt Protected	0.950			0.950			0.950	0.961			0.995	
Satd. Flow (prot)	1805	3762	1615	1770	3571	0	1698	1721	1599	0	3527	0
Flt Permitted	0.327			0.149			0.950	0.961			0.995	
Satd. Flow (perm)	621	3762	1615	278	3571	0	1698	1721	1599	0	3527	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			317		1				209		9	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			933			241			882	
Travel Time (s)		8.2			15.9			5.5			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	0%	2%	1%	0%	1%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	21	993	652	291	868	0	218	223	209	0	111	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	48.0	31.0	30.0	65.0		31.0	31.0	30.0	21.0	21.0	
Total Split (%)	10.0%	36.9%	23.8%	23.1%	50.0%		23.8%	23.8%	23.1%	16.2%	16.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	63.3	55.2	83.1	82.6	74.3		22.0	22.0	45.4		9.4	
Actuated g/C Ratio	0.49	0.42	0.64	0.64	0.57		0.17	0.17	0.35		0.07	
v/c Ratio	0.06	0.62	0.57	0.69	0.43		0.76	0.77	0.30		0.42	
Control Delay	12.7	27.4	8.3	25.2	18.0		68.5	69.0	2.9		57.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	12.7	27.4	8.3	25.2	18.0		68.5	69.0	2.9		57.6	
LOS	B	C	A	C	B		E	E	A		E	
Approach Delay		19.7			19.8			47.6			57.6	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	3	310	212	110	229		183	188	0		44	
Queue Length 95th (ft)	m7	m430	m239	215	307		275	281	31		74	

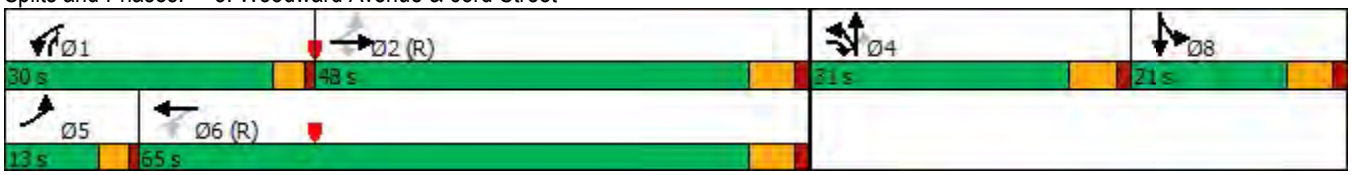
Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			853			161			802	
Turn Bay Length (ft)	125		350	345			305					
Base Capacity (vph)	398	1596	1177	482	2042		326	330	750		414	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.05	0.62	0.55	0.60	0.43		0.67	0.68	0.28		0.27	

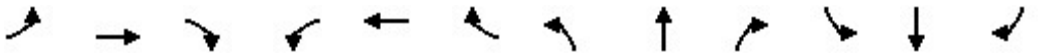
Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 26.0		Intersection LOS: C	
Intersection Capacity Utilization 74.8%		ICU Level of Service D	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street



Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	840	86	48	822	330	123	67	40	764	80	532
Future Volume (vph)	247	840	86	48	822	330	123	67	40	764	80	532
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.986				0.850		0.944				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.961	
Satd. Flow (prot)	1752	3511	0	1805	3762	1599	1770	1761	0	1715	1728	1599
Flt Permitted	0.151			0.185			0.950			0.950	0.961	
Satd. Flow (perm)	279	3511	0	352	3762	1599	1770	1761	0	1715	1728	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				344		19				95
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		971			655			245			838	
Travel Time (s)		16.6			11.2			5.6			14.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										45%		
Lane Group Flow (vph)	257	965	0	50	856	344	128	112	0	438	441	554
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	16.0	55.0		13.0	52.0	41.0	21.0	21.0		41.0	41.0	16.0
Total Split (%)	12.3%	42.3%		10.0%	40.0%	31.5%	16.2%	16.2%		31.5%	31.5%	12.3%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	64.3	53.1		54.1	44.8	81.0	13.2	13.2		36.2	36.2	56.0
Actuated g/C Ratio	0.49	0.41		0.42	0.34	0.62	0.10	0.10		0.28	0.28	0.43
v/c Ratio	0.87	0.67		0.22	0.66	0.31	0.71	0.57		0.92	0.92	0.75
Control Delay	51.9	35.0		18.9	36.5	1.5	77.7	57.4		70.9	70.6	33.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	51.9	35.0		18.9	36.5	1.5	77.7	57.4		70.9	70.6	33.2
LOS	D	D		B	D	A	E	E		E	E	C
Approach Delay		38.6			26.1			68.2			56.2	
Approach LOS		D			C			E			E	
Queue Length 50th (ft)	131	366		19	355	0	105	75		369	371	325
Queue Length 95th (ft)	#289	441		m34	371	0	173	139		#601	#605	498

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		891			575			165			758	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	294	1446		251	1360	1128	204	220		482	486	743
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.87	0.67		0.20	0.63	0.30	0.63	0.51		0.91	0.91	0.75

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 42.6		Intersection LOS: D	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street

HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	7	2	591	941	55
Future Vol, veh/h	40	7	2	591	941	55
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	42	7	2	622	991	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1335	525	1049	0	-	0
Stage 1	1020	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*377	*695	*1044	-	-	-
Stage 1	*656	-	-	-	-	-
Stage 2	*719	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*376	*695	*1044	-	-	-
Mov Cap-2 Maneuver	*376	-	-	-	-	-
Stage 1	*654	-	-	-	-	-
Stage 2	*719	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1044	-	404	-	-
HCM Lane V/C Ratio	0.002	-	0.122	-	-
HCM Control Delay (s)	8.5	-	15.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	3	74	19	2	14	69	530	17	8	896	43
Future Vol, veh/h	48	3	74	19	2	14	69	530	17	8	896	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	5	0	0	2	1	0	0	1	0
Mvmt Flow	51	3	79	20	2	15	73	564	18	9	953	46

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1423	1722	500	1215	1736	291	999	0	0	582	0	0
Stage 1	994	994	-	719	719	-	-	-	-	-	-	-
Stage 2	429	728	-	496	1017	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.6	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.55	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	*252	*148	*719	*412	*144	712	*1070	-	-	1002	-	-
Stage 1	*678	*594	-	*379	*436	-	-	-	-	-	-	-
Stage 2	*580	*432	-	*669	*594	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*221	*130	*719	*327	*127	712	*1070	-	-	1002	-	-
Mov Cap-2 Maneuver	*221	*130	-	*327	*127	-	-	-	-	-	-	-
Stage 1	*610	*582	-	*341	*392	-	-	-	-	-	-	-
Stage 2	*508	*388	-	*581	*582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.5	15.7	1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1070	-	-	364	374	1002	-	-
HCM Lane V/C Ratio	0.069	-	-	0.365	0.1	0.008	-	-
HCM Control Delay (s)	8.6	-	-	20.5	15.7	8.6	0.1	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.6	0.3	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

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	0	50	3	1	4	42	606	9	3	969	20
Future Vol, veh/h	8	0	50	3	1	4	42	606	9	3	969	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	3	0	0	0	0	1	0	0	1	0
Mvmt Flow	9	0	53	3	1	4	45	645	10	3	1031	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1461	1793	526	1262	1798	328	1052	0	0	655	0	0
Stage 1	1048	1048	-	740	740	-	-	-	-	-	-	-
Stage 2	413	745	-	522	1058	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.96	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.33	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*253	*135	*689	*421	*133	674	*1044	-	-	942	-	-
Stage 1	*656	*574	-	*379	*426	-	-	-	-	-	-	-
Stage 2	*592	*424	-	*656	*574	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*235	*125	*689	*366	*123	674	*1044	-	-	942	-	-
Mov Cap-2 Maneuver	*235	*125	-	*366	*123	-	-	-	-	-	-	-
Stage 1	*611	*569	-	*353	*397	-	-	-	-	-	-	-
Stage 2	*547	*395	-	*600	*569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	15.3	0.8	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1044	-	-	544	359	942	-	-
HCM Lane V/C Ratio	0.043	-	-	0.113	0.024	0.003	-	-
HCM Control Delay (s)	8.6	0.3	-	12.5	15.3	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	32	14	640	996	3
Future Vol, veh/h	3	32	14	640	996	3
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	94	94	94	94	94	94
Heavy Vehicles, %	33	0	0	1	1	0
Mvmt Flow	3	34	15	681	1060	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1433	532	1063	0	-	0
Stage 1	1062	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	7.46	6.9	4.1	-	-	-
Critical Hdwy Stg 1	6.46	-	-	-	-	-
Critical Hdwy Stg 2	6.46	-	-	-	-	-
Follow-up Hdwy	3.83	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*284	*671	*1007	-	-	-
Stage 1	*579	-	-	-	-	-
Stage 2	*585	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*277	*671	*1007	-	-	-
Mov Cap-2 Maneuver	*277	-	-	-	-	-
Stage 1	*565	-	-	-	-	-
Stage 2	*585	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1007	-	598	-	-
HCM Lane V/C Ratio	0.015	-	0.062	-	-
HCM Control Delay (s)	8.6	0.1	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

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

HCM 6th TWSC
19: Proposed Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1563	84	25	1206	0	49
Future Vol, veh/h	1563	84	25	1206	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1681	90	27	1297	0	53

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1771	0	-	886
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	*668	-	0	*445
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*668	-	-	*445
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	445	-	-	* 668	-
HCM Lane V/C Ratio	0.118	-	-	0.04	-
HCM Control Delay (s)	14.2	-	-	10.6	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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

HCM 6th TWSC
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1647	1201	5	0	8
Future Vol, veh/h	7	1647	1201	5	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1790	1305	5	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1310	0	-	0	2219	655
Stage 1	-	-	-	-	1308	-
Stage 2	-	-	-	-	911	-
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	*908	-	-	-	*55	*607
Stage 1	-	-	-	-	*573	-
Stage 2	-	-	-	-	*395	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*908	-	-	-	*55	*607
Mov Cap-2 Maneuver	-	-	-	-	*55	-
Stage 1	-	-	-	-	*568	-
Stage 2	-	-	-	-	*395	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 908	-	-	-	607
HCM Lane V/C Ratio	0.008	-	-	-	0.014
HCM Control Delay (s)	9	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	70	145	1	38	161
Future Vol, veh/h	2	70	145	1	38	161
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	86	86	86	86	86	86
Heavy Vehicles, %	0	0	1	0	13	2
Mvmt Flow	2	81	169	1	44	187

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	445	170	0	0	170	0
Stage 1	170	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.23	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.317	-
Pot Cap-1 Maneuver	610	879	-	-	1343	-
Stage 1	865	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	587	879	-	-	1343	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	780	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	867	1343	-
HCM Lane V/C Ratio	-	-	0.097	0.033	-
HCM Control Delay (s)	-	-	9.6	7.8	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	90	56	27	79	84
Future Vol, veh/h	18	90	56	27	79	84
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	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	2	1
Mvmt Flow	21	106	66	32	93	99

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	367	82	0	0	98	0
Stage 1	82	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	655	978	-	-	1495	-
Stage 1	946	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	612	978	-	-	1495	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1495	-
HCM Lane V/C Ratio	-	-	0.143	0.062	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	6	69	1	10	77
Future Vol, veh/h	0	6	69	1	10	77
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	6	72	1	10	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	173	73	0	0	73	0
Stage 1	73	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	855	995	-	-	1540	-
Stage 1	955	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	849	995	-	-	1540	-
Mov Cap-2 Maneuver	849	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	995	1540	-
HCM Lane V/C Ratio	-	-	0.006	0.007	-
HCM Control Delay (s)	-	-	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Capacity Analysis Summary Sheets

Year 2030 Total Projected Saturday Midday Peak Hour

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	667	434	263	646	9	383	43	220	12	59	17
Future Volume (vph)	24	667	434	263	646	9	383	43	220	12	59	17
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		350	345		0	305		0	105		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	155			160			90			130		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.998				0.850		0.972	
Flt Protected	0.950			0.950			0.950	0.962			0.993	
Satd. Flow (prot)	1805	3762	1615	1805	3568	0	1715	1736	1599	0	3484	0
Flt Permitted	0.381			0.255			0.950	0.962			0.993	
Satd. Flow (perm)	724	3762	1615	484	3568	0	1715	1736	1599	0	3484	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			394		1				239		18	
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		483			933			241			882	
Travel Time (s)		8.2			15.9			5.5			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	26	725	472	286	712	0	229	234	239	0	95	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		custom	NA	pm+ov	custom	NA	
Protected Phases	5	2	4	1	6		4	4	1	8	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	5	2	4	1	6		4	4	1	8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0	3.0	8.0	8.0	
Minimum Split (s)	8.5	21.0	14.0	8.0	21.0		14.0	14.0	8.0	14.0	14.0	
Total Split (s)	13.0	39.0	33.0	19.0	45.0		33.0	33.0	19.0	19.0	19.0	
Total Split (%)	11.8%	35.5%	30.0%	17.3%	40.9%		30.0%	30.0%	17.3%	17.3%	17.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5		4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5		1.5	1.5	1.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		6.0	6.0	4.0		6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Min	None	None	C-Min		None	None	None	None	None	
Act Effct Green (s)	53.9	45.7	72.5	67.4	59.0		20.9	20.9	39.4		8.5	
Actuated g/C Ratio	0.49	0.42	0.66	0.61	0.54		0.19	0.19	0.36		0.08	
v/c Ratio	0.06	0.46	0.39	0.59	0.37		0.70	0.71	0.33		0.33	
Control Delay	7.7	18.7	4.4	17.2	18.5		53.0	53.2	2.7		41.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	7.7	18.7	4.4	17.2	18.5		53.0	53.2	2.7		41.9	
LOS	A	B	A	B	B		D	D	A		D	
Approach Delay		13.0			18.1			36.0			41.9	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	3	141	63	94	167		158	163	0		27	
Queue Length 95th (ft)	m12	198	85	168	252		233	237	29		53	

Lanes, Volumes, Timings
3: Woodward Avenue & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		403			853			161			802	
Turn Bay Length (ft)	125		350	345			305					
Base Capacity (vph)	461	1561	1267	494	1912		420	426	735		427	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.06	0.46	0.37	0.58	0.37		0.55	0.55	0.33		0.22	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 69 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 3: Woodward Avenue & 63rd Street

Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	734	75	35	711	257	152	53	31	373	56	189
Future Volume (vph)	182	734	75	35	711	257	152	53	31	373	56	189
Ideal Flow (vphpl)	1900	1900	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	440		0	165		250	0		0	295		240
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	150			135			25			150		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.986				0.850		0.945				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.964	
Satd. Flow (prot)	1752	3511	0	1805	3762	1599	1770	1762	0	1715	1731	1599
Flt Permitted	0.250			0.276			0.950			0.950	0.964	
Satd. Flow (perm)	461	3511	0	524	3762	1599	1770	1762	0	1715	1731	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				268		21				100
Link Speed (mph)		40			40			30			40	
Link Distance (ft)		971			655			245			838	
Travel Time (s)		16.6			11.2			5.6			14.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	1%	5%	0%	1%	1%	2%	3%	0%	0%	2%	1%
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	190	843	0	36	741	268	158	87	0	222	225	197
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	custom	NA		custom	NA	pm+ov
Protected Phases	5	2		1	6	8	4	4		8	8	5
Permitted Phases	2			6		6	4	4		8		8
Detector Phase	5	2		1	6	8	4	4		8	8	5
Switch Phase												
Minimum Initial (s)	2.5	15.0		2.5	15.0	8.0	8.0	8.0		8.0	8.0	2.5
Minimum Split (s)	7.0	21.0		7.0	21.0	14.0	14.0	14.0		14.0	14.0	7.0
Total Split (s)	13.0	48.0		13.0	48.0	31.0	18.0	18.0		31.0	31.0	13.0
Total Split (%)	11.8%	43.6%		11.8%	43.6%	28.2%	16.4%	16.4%		28.2%	28.2%	11.8%
Yellow Time (s)	3.0	4.5		3.0	4.5	4.5	4.5	4.5		4.5	4.5	3.0
All-Red Time (s)	1.0	1.5		1.0	1.5	1.5	1.5	1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0		6.0	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Min		None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	60.1	52.0		53.5	44.9	64.5	13.7	13.7		19.5	19.5	35.4
Actuated g/C Ratio	0.55	0.47		0.49	0.41	0.59	0.12	0.12		0.18	0.18	0.32
v/c Ratio	0.52	0.51		0.11	0.48	0.26	0.72	0.37		0.73	0.73	0.34
Control Delay	19.2	23.3		12.5	23.2	1.7	65.1	38.1		56.3	56.4	14.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	19.2	23.3		12.5	23.2	1.7	65.1	38.1		56.3	56.4	14.3
LOS	B	C		B	C	A	E	D		E	E	B
Approach Delay		22.5			17.3			55.6			43.5	
Approach LOS		C			B			E			D	
Queue Length 50th (ft)	69	235		13	164	0	106	42		155	157	47
Queue Length 95th (ft)	113	308		m29	225	0	#223	95		232	234	102

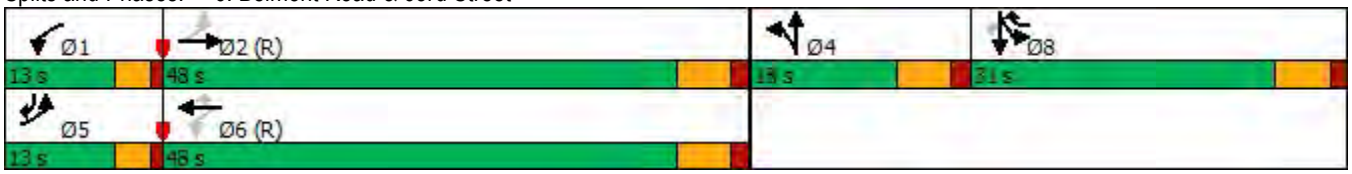
Lanes, Volumes, Timings
6: Belmont Road & 63rd Street

05/20/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		891			575			165			758	
Turn Bay Length (ft)	440			165		250				295		240
Base Capacity (vph)	370	1666		371	1577	1113	225	242		389	393	585
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.51	0.51		0.10	0.47	0.24	0.70	0.36		0.57	0.57	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 56 (51%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 28.0		Intersection LOS: C	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 6: Belmont Road & 63rd Street



HCM 6th TWSC
9: Woodward Avenue & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	67	9	1	578	678	77
Future Vol, veh/h	67	9	1	578	678	77
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	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	9	1	590	692	79

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1029	386	771	0	-	0
Stage 1	732	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	445	*824	1184	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	444	*824	1184	-	-	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1184	-	470	-	-
HCM Lane V/C Ratio	0.001	-	0.165	-	-
HCM Control Delay (s)	8	-	14.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

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

HCM 6th TWSC
11: Woodward Avenue & Middle Access Drive/Victoria Center Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	1	72	12	0	11	88	487	11	5	622	59
Future Vol, veh/h	79	1	72	12	0	11	88	487	11	5	622	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	9	0	0	0	0	0	0
Mvmt Flow	83	1	76	13	0	12	93	513	12	5	655	62

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1139	1407	359	1043	1432	263	717	0	0	525	0	0
Stage 1	696	696	-	705	705	-	-	-	-	-	-	-
Stage 2	443	711	-	338	727	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.08	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.39	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	293	201	*852	*359	192	715	1196	-	-	1052	-	-
Stage 1	748	667	-	*398	442	-	-	-	-	-	-	-
Stage 2	569	439	-	*804	642	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	263	178	*852	*297	170	715	1196	-	-	1052	-	-
Mov Cap-2 Maneuver	263	178	-	*297	170	-	-	-	-	-	-	-
Stage 1	666	662	-	*354	393	-	-	-	-	-	-	-
Stage 2	498	391	-	*725	637	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.6	14.3	1.2	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1196	-	-	389	412	1052	-	-
HCM Lane V/C Ratio	0.077	-	-	0.411	0.059	0.005	-	-
HCM Control Delay (s)	8.3	-	-	20.6	14.3	8.4	0	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	2	0.2	0	-	-

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

HCM 6th TWSC
14: Woodward Avenue & South Access Drive/Hastings Avenue 05/20/2024

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	9	0	45	3	1	3	62	577	2	3	683	22
Future Vol, veh/h	9	0	45	3	1	3	62	577	2	3	683	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	0	46	3	1	3	64	595	2	3	704	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1148	1447	364	1082	1457	299	727	0	0	597	0	0
Stage 1	722	722	-	724	724	-	-	-	-	-	-	-
Stage 2	426	725	-	358	733	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*319	*199	*824	*368	196	703	*1236	-	-	989	-	-
Stage 1	*777	*680	-	*388	433	-	-	-	-	-	-	-
Stage 2	*582	*433	-	*777	679	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*296	*183	*824	*325	180	703	*1236	-	-	989	-	-
Mov Cap-2 Maneuver	*296	*183	-	*325	180	-	-	-	-	-	-	-
Stage 1	*717	*676	-	*358	400	-	-	-	-	-	-	-
Stage 2	*533	*400	-	*729	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	15	1.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1236	-	-	635	367	989	-	-
HCM Lane V/C Ratio	0.052	-	-	0.088	0.02	0.003	-	-
HCM Control Delay (s)	8.1	0.3	-	11.2	15	8.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.1	0	-	-

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

HCM 6th TWSC
17: Woodward Avenue & Far South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	16	634	705	5
Future Vol, veh/h	0	23	16	634	705	5
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	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	23	16	647	719	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1078	362	724	0	-	0
Stage 1	722	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*446	*795	*1194	-	-	-
Stage 1	*750	-	-	-	-	-
Stage 2	*686	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*437	*795	*1194	-	-	-
Mov Cap-2 Maneuver	*437	-	-	-	-	-
Stage 1	*734	-	-	-	-	-
Stage 2	*686	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1194	-	795	-	-
HCM Lane V/C Ratio	0.014	-	0.03	-	-
HCM Control Delay (s)	8.1	0.1	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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

HCM 6th TWSC
19: Proposed Access Drive & 63rd Street 05/20/2024

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1037	108	35	1014	0	86
Future Vol, veh/h	1037	108	35	1014	0	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	1092	114	37	1067	0	91

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1206	0	-	603
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	952	-	0	*663
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	952	-	-	*663
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	663	-	-	952	-
HCM Lane V/C Ratio	0.137	-	-	0.039	-
HCM Control Delay (s)	11.3	-	-	8.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

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

HCM 6th TWSC
21: 63rd Street & Pershing Road 05/20/2024

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1140	1008	6	5	9
Future Vol, veh/h	11	1140	1008	6	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	85	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1239	1096	7	5	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1103	0	-	0	1744	552
Stage 1	-	-	-	-	1100	-
Stage 2	-	-	-	-	644	-
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	1019	-	-	-	*259	*687
Stage 1	-	-	-	-	*644	-
Stage 2	-	-	-	-	*596	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	1019	-	-	-	*256	*687
Mov Cap-2 Maneuver	-	-	-	-	*256	-
Stage 1	-	-	-	-	*637	-
Stage 2	-	-	-	-	*596	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1019	-	-	-	429
HCM Lane V/C Ratio	0.012	-	-	-	0.035
HCM Control Delay (s)	8.6	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

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

HCM 6th TWSC
23: Belmont Road & North Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	100	108	0	46	102
Future Vol, veh/h	2	100	108	0	46	102
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	87	87	87	87	87	87
Heavy Vehicles, %	50	0	0	0	0	0
Mvmt Flow	2	115	124	0	53	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	347	124	0	0	124	0
Stage 1	124	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.9	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	587	932	-	-	1475	-
Stage 1	796	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	565	932	-	-	1475	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	705	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	920	1475	-
HCM Lane V/C Ratio	-	-	0.127	0.036	-
HCM Control Delay (s)	-	-	9.5	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

HCM 6th TWSC
25: Belmont Road & Middle Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	85	23	19	64	40
Future Vol, veh/h	20	85	23	19	64	40
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	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	11	0	3
Mvmt Flow	22	93	25	21	70	44

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	220	36	0	0	46	0
Stage 1	36	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	777	1042	-	-	1575	-
Stage 1	992	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	741	1042	-	-	1575	-
Mov Cap-2 Maneuver	741	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	967	1575	-
HCM Lane V/C Ratio	-	-	0.119	0.045	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

HCM 6th TWSC
27: Belmont Road & South Access Drive 05/20/2024

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	30	0	10	56
Future Vol, veh/h	0	3	30	0	10	56
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	93	93	93	93	93	93
Heavy Vehicles, %	0	33	0	0	0	2
Mvmt Flow	0	3	32	0	11	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	114	32	0	0	32	0
Stage 1	32	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.4	6.53	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	-	-	2.2	-
Pot Cap-1 Maneuver	913	960	-	-	1593	-
Stage 1	996	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	907	960	-	-	1593	-
Mov Cap-2 Maneuver	907	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	955	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	960	1593	-
HCM Lane V/C Ratio	-	-	0.003	0.007	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

VILLAGE OF DOWNERS GROVE
PLAN COMMISSION MEETING

January 6, 2025, 7:00 P.M.

FILE 23-PCE-0012: A PETITION PLAT OF SUBDIVISION, PLANNED UNIT DEVELOPMENT AMENDMENTS, A NEW PLANNED UNIT DEVELOPMENT AND SPECIAL USES. THE PROPERTY IS CURRENTLY ZONED B-2/P.U.D. #1 AND B-2/P.U.D. #8, GENERAL RETAIL BUSINESS/PLANNED UNIT DEVELOPMENT #1 AND #8. THE PROPERTY IS LOCATED ON THE SOUTHWEST CORNER OF WOODWARD AVENUE AND 63RD STREET. (PIN: 08-24-202-005, 08-24-202-008, 08-24-202-009, 08-24-203-004). MARK DANIEL, PETITIONER, STELLCO 4300 COMMERCE LLC, OWNER

Anthony Stella, President of Stellco Properties, stated he purchased Meadowbrook Shopping Center in 2022, and felt confident they could make it a beautiful shopping center for the community.

Mark Daniel, attorney, expressed that Mr. Stella put together a terrific opportunity for the Village to redevelop the shopping center from what used to be Meadowbrook Plaza to the Shops of Meadowbrook, which is approximately 210,000 square feet of commercial space. He said they spoke to many residents in the surrounding areas and a lot of them are excited about the project. He explained that the proposal would remove portions of the property from PUD #1 and #8, establish a new Planned Unit Development for the Meadowbrook Shopping Center, and create three new outlots for a car wash facility, and two drive-through multi-tenant buildings. The project will also consist of landscaping improvements, driveway improvements, restrictions on an exit onto 63rd Street, façade improvements, and parking. Mr. Daniel assured this plan meets the recommendations of the Village's comprehensive plan and will be pedestrian friendly. He voiced that this project met the commercial areas plan and that they are asking for deviations. He discussed signage, open space relief, and entrances. He noted the automated carwash will have 24 spaces for vacuums and 3 or 4 handicapped spots and would be oriented so that traffic exits west. He also discussed landscaping, waste enclosures, metal canopies, elevations, lighting, and setbacks. He noted one of the purposes of the Comprehensive Plan was to eliminate the appearance of obsolescence through big parking fields and avoid sites to be unnecessarily overparked, and this proposal would help do that.

Chairman Rickard asked for any questions for the petitioner.

Commissioner Boyle asked if the development of outlots and beautification on the property all happen together or at different times. Mr. Daniel stated the corner lot would be the first to go up for the project and they have already engaged some of the work that is covered by the application, such as some of the landscape replacements, addition of trees, paving of the parking lot, and some improved signage. He voiced that the site work required working south from 63rd Street as they work on Lot 1 would progress at that time as well, and once the building elevation has started, they can do any other aspect of the project.

Chairman Rickard asked for public input.

Wilma Wollard, thanked them for taking another look at the Meadowbrook Shopping Center because it needs it, but she was concerned about a few things, including traffic flow outside of the

shopping center. She explained the difficulties she already has now by having to turn right on 63rd. She was also concerned about putting in drive-throughs and having high traffic at certain times a day, and she asked if they looked at the traffic pattern there. Ms. Woolard added she was also concerned about how sustainable or environmentally friendly the carwash would be.

Charles Huettner, expressed he wanted to hear what businesses will be replaced or added to the development.

Jean Banton, voiced she was also extremely concerned about traffic flow. She noted there is already a carwash next door at the gas station and a Dunkin' Donuts, which Starbucks could potentially put out of business since they sell a lot of the same things. She stated they also could not afford to lose any parking at the strip where Dunkin' Donuts is located. She agreed that with regard to traffic right now, sometimes it is hard to get anywhere from her residence during certain times of the day.

Chairman Rickard asked for the staff report.

Emily Hepworth, Development Planner, explained the petition is for Planned Unit Development Amendments, the establishment of a new Planned Unit Development, and three special uses at 2001 to 2153 63rd Street and 6310 to 6400 Woodward Ave in the Meadowbrook Shopping Center. She noted that the property is located on the southwestern corner of the intersection of 63rd St and Woodward Ave in the B2 zoning district. She stated that mailing notices were provided to all property owners within 250 feet, a legal notice provided in the Daily Harold, five public hearing signs were posted, and they received three public inquiries. She discussed PUD 1 and PUD 8, stating the requested amendment is to remove those portions and create a new PUD to encompass the entire shopping center. She covered the proposed outlots, with the first lot containing the new carwash, stacking, 24 parking stalls with vacuums, and trash enclosure. The second outlot will contain a three-unit multitenant building, two-way drive aisle, drive-through, bicycle parking, and trash enclosure. She then covered Lot 3, which includes a multi-tenant building, two-way drive aisle, drive-through, bicycle parking, and trash enclosure. She expressed there are no proposed changes to the buildings on Lot 4, but only exterior façade improvements. She also discussed Lot 5, and 6 with façade improvements. Ms. Hepworth covered overall site improvements, including landscaping, pedestrian circulation paths, and connecting sidewalks. They are requesting relief from open space in the street yard along Woodward Ave and Belmont Rd, minimum parking ratio for Lots 4 and 5, parking lot setbacks for Lots 4, 5, 6, bicycle parking and pedestrian connection for Lot 1, two sign setbacks on Lot 2, and an awning encroachment from Lot 6 onto Lot 5. She covered the proposed signage and the commercial areas plan. Staff found the proposed development was consistent with the Comprehensive Plan and reiterated the entitlement request and PUD criteria. Staff found the PUD criteria, Special Use Criteria, and Standards of Approval have been met.

Commissioner Lincoln inquired if there were any plans to address a left turn access from Woodward Ave into the shopping center from the south. Ms. Hepworth stated she was not aware of that at this time.

Commissioner Boyle asked if staff reviewed the building materials. Ms. Hepworth responded there are no design guidelines for this area but they did review the building materials and worked with the petitioner.

Commissioner Eberhardt asked for a reminder of the duration of a Planned Unit Development and how long they have to make this happen. Mr. Zawila expressed it does not have an expiration, but special uses do have an expiration unless it is part of a PUD.

Commissioner Eberhardt inquired if there was a requirement for electric vehicle charging in redevelopments. Mr. Zawila responded not for this type of development.

Commissioner Rutledge asked if there was bicycle parking only in Lots 2 and 3. Ms. Hepworth answered that there is also bicycle parking proposed on Lots 4 and 5.

Commissioner Frankovic encouraged the shade and replacement trees to be added to the property. Ms. Hepworth responded that is included as a condition of approval.

Commissioner Lincoln agreed with the native trees. He asked if staff had any data on parking utilization at this lot over the last few years. Ms. Hepworth deferred to the petitioner.

Commissioner Toth noted the petitioner did a good job of specifying which plantings would go where, but he wanted to make sure the drive-throughs would be properly screened so headlights did not shine into oncoming traffic.

Commissioner Eberhardt asked if they looked at any sight sections of the road, the elevation of the retail outlots, or did a sight line study. Ms. Hepworth responded that there has not been a sight line study, but she deferred to the petitioner to what the elevation would look like and where the headlights would hit.

Chairman Rickard asked for the petitioner to come back and address any issues or comments.

Luke Keller, RTM Engineering, discussed that the left lot has 7 feet of drop, the retaining wall on Lot 2 is 6 foot in height and should block headlights, and Lot 3 is about a 4 foot difference and should provide some screening.

Mr. Daniel discussed the traffic concerns. He stated there are two driveways on Belmont and two on Woodward. He expressed that a left turn into the center from northbound Woodward was considered, but they did not want an immediate left turn for the corner lot, because it is too close to the intersection and they have no driveway on Lot 1. He noted that when drivers leave the site, most people would take the most protected and easiest route. He also added that the main concerns with the Walgreens was cut-through traffic and residents had a concern with cut-through traffic.

Mr. Keller explained there were a total of four access drives on Woodward and for those traveling northbound, the highest volume of traffic during peak hours is the northbound onto 63rd. He said that making a left out of the shopping center onto Woodward is to turn right onto 63rd directly from the site, and when turning left onto 63rd, they can use the Belmont access points to use the signal on 63rd. He added that part of the cut-through was also related to Hastings.

Mr. Daniel stated there was a grocery store there previously and they are hoping to see that again, and there have been efforts to pursue that. He voiced they will have a Starbucks, Tropical Smoothie Café, and they have had interests from a specialty office type tenant, activity tenants, etc. He said there are many instances where Starbucks and Dunkin' are in the vicinity of each other and both

thrive. He clarified that the parking spaces that will be removed will be near the driveways. He expressed that they have spent a lot of time on this project, which will be a four-phase process and they intend to have everything done within four years. He spoke about the ratings of the intersections, parking, and fumes from the carwash, adding that if fumes become a problem, there are operational standards that must be met.

Chairman Rickard noted that they received one email on this petition that expressed support for the project.

Chairman Rickard asked for discussion from the commissioners.

Commissioner Boyle was excited to see this revitalization project here and stated it was a good opportunity to bring life towards the street. He understood the concerns with traffic, but believed KLOA looked at the routes in and out of there. He supported the PUD, special use, and the project overall.

Commissioner Eberhardt stated that for years the parking lot mostly looked the same and anything would be better than what is there now, but she was impressed with the amount of work that had gone into this redevelopment proposal, the traffic studies and impacts, and extra landscaping. She did hope for an irrigation and water plan. She was in full support.

Commissioner Rutledge expressed that this shopping center is on her daily route and it does not draw her right now, so she was very excited about this project, the revitalization process, the thoughtful and intentional way they put the proposal together, the new outlots, landscaping, and everything they are doing to breathe life into this shopping center. She said this would be a value to the Village and surrounding residents. She was in support of the PUD amendment and special uses.

Commissioner Frankovic voiced she was also in support of the PUD and special uses, and the amount of planning that went into this was spectacular and she was looking forward to seeing it.

Commissioner V. Patel commented that he lives in the area as well and it has been an eyesore and an area they talked about extensively in regard to the Comprehensive Plan. He added that whatever comes into this seems like a great opportunity being right off of the highway. He was in support.

Commissioner Lincoln shared he was excited to see something happening in this spot and the only concern he had was the traffic on Woodward, as he was not entirely convinced it won't make traffic worse. He noted that was not something that would cause him to vote no, but something they need to take into account. He added that he was surprised there was not something considered for mixed housing plus retail for this and also wished he knew a little bit more about parking.

Commissioner K. Patel voiced he was also in support of this project and believed the standards had been met for the PUD amendment and special use and found it in public interest.

Chairman Rickard agreed with his fellow commissioners and noted the stacking seemed to be accounted for and there is a big enough buffer between drive thrus and any residential areas. He believed standards had been met for the PUD.

Commissioner Toth agreed with everyone else and added there were major benefits in regard to compliance with the Comprehensive Plan. He felt the requirements were met for a PUD amendment and supported it.

Chairman Rickard asked if anyone wanted to make a motion.

WITH RESPECT TO FILE 24-PCE-0012 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 A PLANNED UNIT DEVELOPMENT AMENDMENT AND SPECIAL USE AS REQUIRED BY THE VILLAGE OF DOWNERS GROVE ZONING ORDINANCE AND IS IN THE PUBLIC INTEREST, AND THEREFORE, COMMISSIONER LINCOLN MADE A MOTION THAT THE PLANNING AND ZONING COMMISSION RECOMMEND TO THE VILLAGE COUNCIL APPROVAL OF FILE 24-PCE-0012, SUBJECT TO THE CONDITIONS OUTLINED IN THE STAFF REPORT.

SECOND BY COMMISSIONER EBERHARDT

ROLL CALL:

AYE: LINCOLN, EBERHARDT, BOYLE, FRANKOVIC, K. PATEL, V. PATEL, TOTH, RUTLEDGE, CHAIRMAN RICKARD

NAY: NONE

MOTION APPROVED. VOTE: 9-0

/s/ Celeste K. Weilandt
Recording Secretary

(As transcribed by Ditto Transcripts)