VILLAGE OF DOWNERS GROVE Report for the Village Council Meeting 8/9/2016

SUBJECT:	SUBMITTED BY:
Rezoning, Planned Unit Development and Special Use for a Packey	Stan Popovich, AICP
Webb automobile dealership at 1815 Ogden Avenue	Director of Community Development

SYNOPSIS

The petitioner is requesting the following approvals:

- 1) A Planned Unit Development to accommodate a development that would be difficult to carry out under strict B-3, General Services and Highway Zoning district standards;
- 2) A Rezoning from B-3, General Services and Highway Business to B-3/PUD; and
- 3) A Special Use to allow an automobile dealership in the B-3/PUD zoning district.

STRATEGIC PLAN ALIGNMENT

The goals for 2015-2017 include Strong and Diverse Local Economy.

FISCAL IMPACT

N/A

UPDATE & RECOMMENDATION

This item was discussed at the August 2, 2016 Village Council meeting. At the meeting, the Council requested staff to provide an explanation of stormwater flow. A presentation with that explanation is attached.

Staff recommends approval on the August 9, 2016 Active Agenda.

BACKGROUND

Property Information & Zoning Request

The subject property is on the south side of Ogden Avenue at the intersection of Lacey Road and Ogden Avenue. The 9.75 acre site is zoned B-3, General Services and Highway Business and has sat vacant for decades. The site was formerly used as an automobile salvage yard. The site contains some environmental contamination which will require remediation in compliance with Illinois Environmental Protection Agency (IEPA) regulations.

Development Plan

The applicant is proposing to construct a 53,759 square foot automobile dealership building that will house a showroom, offices, service area, detail area, a car wash bay and other ancillary spaces. The petitioner is also requesting approval of a stand-alone car wash building to be constructed in the future. The petitioner is

proposing an 815 vehicle parking lot surrounding the building which will be able to accommodate customer, employee, service and sale vehicles. The proposal includes two curb cuts onto Ogden Avenue. A right-in/right-out on the west side of the property and a full access point that is in-line with the Lacey Road intersection. The petitioner is also providing an internal connection to the adjacent automobile dealership to the east.

Compliance with the Comprehensive Plan

The subject property is identified in the Comprehensive Plan as part of Catalyst Site #27 and is prime for a redevelopment to advance the vision of the Village. The proposed development advances several of the goals and objectives found in the Comprehensive Plan including:

- Improves a vacant commercial site
- Provides cross-access to the adjacent development to the east
- Creates an attractive landscape along Ogden Avenue
- Provides service and retail opportunities to nearby neighborhoods and the surrounding region

Compliance with the Zoning Ordinance

The petitioner is requesting a planned unit development to seek relief from required landscaping and to request 417 square feet of signage where 300 square feet is allowed. The landscape relief is along the rear property line where a swale is located for stormwater purposes. Landscaping in and along the swale would decrease the amount of water the swale could convey. Additionally, trees cannot be installed within parking islands as required where these islands are located above underground stormwater vaults.

The petitioner is requesting the additional sign allowance based on the design of the sweeping arch building. The arch separates the main façade into two planes with 'Ford' wall signs on both planes. The petitioner is not installing any monument signs because the arch acts as their monument sign.

The proposed development meets all other zoning ordinance bulk requirements. The Zoning Ordinance notes that certain types of developments, including developments that are consistent with the Comprehensive Plan are appropriate for planned unit developments. The proposed development is appropriate for a PUD.

Engineering\Public Improvements

The petitioner is required to provide on-site stormwater detention, compensatory storage for the two existing LPDAs that are on site, provide best management practices for the proposed dealership and mitigate the impacts to the linear wetland. The petitioner is providing one naturalized at-grade storage basin and one below grade basin for the compensatory storage basin requirements. A separate underground basin will provide the required on-site detention. All stormwater facilities will release their stored water to the north via the existing stormwater system along Lacey Road. The flow of water will be limited by an outlet control structure that will restrict the amount of water that is released and the water will be treated by a mechanical water quality unit. The petitioner will mitigate the impacts to the wetland off-site, as the wetland soil is required to be mitigated by the IEPA.

Other improvements include a looped water main, new sanitary sewer service, a sanitary sewer easement along the east and south property lines, a cross-access connection to the Star Motor automobile dealership to the east and a sidewalk along Ogden Avenue.

Public Comment

During the Plan Commission meeting, the public expressed the following concerns. The petitioner and staff addressed the concerns in their presentation at the Plan Commission meeting. The concerns and responses are presented below:

Concern	Response		
Use of TIF funds	The Plan Commission did not discuss this item as this		
	is not under their purview		
Parking lot lighting	• LED lights are proposed which can be directed downward		
	• Light levels will be reduced to security level upon closing which is currently 9:00pm		
	• Light shields will be used to cut down on glare		
Environmental contamination	• The petitioner will follow an approved IEPA plan to mitigate the contaminated soil		
Traffic Signal	• No traffic signal is proposed at this time		
Noise	• The future car wash is 130' feet from the nearest property line		
	• Paging will be primarily via cellphone but occasionally outdoor speakers will be required		
Use of permeable pavers instead of asphalt	• Based on the proposed environmental remediation to encapsulate some of the contaminated soil on site, permeable pavers cannot be used		
	• Three stormwater basins are proposed to accommodate stormwater. The design meets the Village's Stormwater and Floodplain Ordinance requirements.		

ATTACHMENTS

Ordinance Aerial Map Staff Report with attachments dated July 11, 2016 Draft Minutes of the Plan Commission Hearing dated July 11, 2016 Stormwater Flow presentation

VILLAGE OF DOWNERS GROVE

COUNCIL ACTION SUMMARY

INITIATED: <u>Petitioner</u> (Name)	DATE: <u>August 9, 2016</u>
(B	oard or Department)
NATURE OF ACTION:	STEPS NEEDED TO IMPLEMENT ACTION:
X Ordinance	Motion to Adopt "AN ORDINANCE REZONING
Resolution	OGDEN AVENUE", as presented.
Motion	ar

SUMMARY OF ITEM:

Other

Adoption of the attached ordinance shall rezone 1815 Ogden Avenue from B-3 General Services and Highway Business to B-3/PUD, General Services and Highway Business/Planned Unit Development.

RECORD OF ACTION TAKEN:

1\wp\cas_16\1815-Ogden-Rezone-16-PLC-0009

Packey Webb Rezoning 16-PLC-0009

ORDINANCE NO.

AN ORDINANCE REZONING CERTAIN PROPERTY LOCATED AT 1815 OGDEN AVENUE

WHEREAS, the real estate located at 1815 Ogden Avenue, on the south side of Ogden Avenue at the intersection of Lacey Road and Ogden Avenue, hereinafter described has been classified as "B-3, General Services and Highway Business" under the Zoning Ordinance of the Village of Downers Grove; and

WHEREAS, the owner or owners of said real estate have requested that such property be rezoned as hereinafter provided; and

WHEREAS, such petition was referred to the Plan Commission of the Village of Downers Grove, and said Plan Commission has given the required public notice, has conducted a public hearing respecting said petition on July 11, 2016 and has made its findings and recommendations all in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove; and

WHEREAS, making due allowance for existing conditions, the conservation of property values, the development of the property in conformance to the official Comprehensive Plan of the Village of Downers Grove, and the current uses of the property affected, the Council has determined that the proposed rezoning is for the public good.

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

<u>SECTION 1</u>. The Zoning Map of the Village, pursuant to Section 28.12.030 of the Downers Grove Municipal Code, is hereby further amended by rezoning to "B-3/PUD, General Services and Highway Business/Planned Unit Development" the zoning classification of the following described real estate, to wit:

□ ALL LOT 4 AND LOT 5 (EXCEPT THE WESTERLY 165 FEET OF THE NORTH 264 FEET THEREOF) IN BRANIGAR BROS' OGDEN AVENUE FARMS, BEING A SUBDIVISION IN THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 38 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED FEBRUARY 15, 1921 AS DOCUMENT 146501, IN DUPAGE COUNTY, ILLINOIS.

Commonly known as 1815 Ogden Avenue, Downers Grove, IL 60515 PINs 09-06-304-013; -014

<u>SECTION 2</u>. The official zoning map shall be amended to reflect the change in zoning classification effected by Section 1 of this ordinance, subject to the following conditions:

- 1. Any changes to the conditions represented by the Petitioner as the basis for this petition, whether those changes occur prior to or after Village approval, shall be promptly reported to the Village. The Village reserves the right to re-open its review process upon receipt of such information; and
- 2. It is the Petitioner's obligation to maintain compliance with all applicable Federal, State, County and Village laws, ordinances, regulations, and policies.

SECTION 3. That the rezoning meets the requirements of the Zoning Ordinance as follows:

- **1.** The existing use and zoning of nearby property;
- 2. The extent to which the particular zoning restrictions affect property values;
- The extent to which any diminution in property value is offset by an increase in 3. the public health, safety and welfare;
- 4. The suitability of the subject property for the zoned purposes;
- 5. The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity;
- The value to the community of the proposed use; and 6.
- **7.** The comprehensive plan.

SECTION 4. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION 5. This ordinance shall be in full force and effect from and after its passage and publication in pamphlet form as provided by law.

Mayor

Passed: Published: Attest: Village Clerk

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VILLAGE OF DOWNERS GROVE REPORT FOR THE PLAN COMMISSION MARCH 7, 2016 AGENDA

SUBJECT:	Түре:	SUBMITTED BY:
16-PLC-0009 1815 Ogden Avenue	Planned Unit Development, Rezoning and Special Use	Stan Popovich, AICP Director of Community Development

REQUEST

The petitioner is requesting approval for a Planned Unit Development, a Rezoning from B-3, General Services and Highway Business to B-3/PUD, General Services and Highway Business/Planned Unit Development and a Special Use to construct an automobile dealership at 1815 Ogden Avenue.

NOTICE

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

GENERAL INFORMATION

OWNER:	Aldi, Inc. 1200 N. Kirk Road Batavia, IL 60510
APPLICANT:	Brad Webb Packey Webb Ford 2150 Ogden Avenue Downers Grove, IL 60515

PROPERTY INFORMATION

EXISTING ZONING:	B-3, General Services and Highway Business
EXISTING LAND USE:	Vacant Land
PROPERTY SIZE:	424,710 sq ft (9.75 acres)
PINS:	09-06-304-013 and -014

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	B-3, General Services and Highway Business	Corridor Commercial
SOUTH:	R-1, Residential Detached House 1	Single Family Residential
	R-3, Residential Detached House 3	
EAST:	B-3, General Services and Highway Business	Corridor Commercial
WEST:	B-3, General Services and Highway Business	Corridor Commercial
	R-2, Residential Detached House 2	Single Family Residential

ANALYSIS

SUBMITTALS

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

- 1. Project Narrative
- 2. Plat of Survey
- 3. Architectural Plans
- 4. Engineering Plans
- 5. Landscape Plan
- 6. Traffic Impact Study
- 7. Plat of Consolidation

PROJECT DESCRIPTION

The applicant is proposing to construct a 53,759 square foot automobile dealership at 1815 Ogden Avenue. The 9.75 acre property, located on the south side of Ogden Avenue at the intersection of Lacey Road and Ogden Avenue, is zoned B-3, General Services Highway Business. An automobile dealership is an allowable Special Use in the B-3 zoning district. The petitioner is requesting a Planned Unit Development and the accompanying rezoning to address the unique components of the project.

The currently vacant site was formerly used as an automobile salvage yard and there is some environmental contamination on the site. The petitioner is working with the Illinois Environmental Protection Agency (IEPA) and will be required to perform remediation to remove the contaminated soils.

The petitioner is proposing to improve the property with a two-story dealership building centered on the site. The dealership will house a showroom, offices, service area, detail area, a car wash bay and ancillary uses including waiting areas, parts storage and break rooms. The petitioner is also requesting approval of a future stand-alone car wash building that is not part of the initial construction phase. The primary building façade will be clad with a metal panel system and metal ribbed panel siding. The side and rear facades are insulated concrete panels and metal ribbed panel siding. Immediately south of the building are two covered storage areas and a trash enclosure.

The petitioner is improving the site with two access points onto Ogden Avenue. The eastern access will be in-line with Lacey Road to the north and have full access to Ogden Avenue. The western access point will be right-in/right-out only. IDOT has reviewed the proposed curb cut locations and has approved the proposed layout and locations. The petitioner is also providing an internal driveway connection to the Star Motors dealership immediately to the east of the subject site.

The petitioner is proposing an 815 vehicle parking lot that surrounds the building. The parking lot is designed to accommodate customer parking, service parking, employee parking, new vehicle inventory and used vehicle inventory. The layout of the Ogden Avenue curb cuts and parking lot allows for all vehicle deliveries to take place on site and also allows for fire department access around the entire building.

The petitioner is proposing landscaping around the majority of the site, in conformance with the Village requirements. Landscaping is provided along the north property line adjacent to Ogden Avenue. The west property line includes planted materials and a six-foot fence. Landscaping along the south and east property line is impacted by stormwater regulations. The western 330 feet of the south property line contains only a fence due to the location of a drainage swale which is required to convey water from the west and off-site to a stormwater basin in the southeast corner of the site. The addition of landscaping in the swale would impact the amount of water that can be conveyed. Landscaping along the north 330 feet of the east property

line is provided adjacent to the parking areas. The southeast corner of the property contains native wetland plantings for the stormwater basin but does not contain landscape screening or fencing. The landscaping and fencing in this area could negatively impact how the stormwater facilities function.

The parking lot will have the required landscape islands, except in locations where underground stormwater facilities are placed which preclude the installation of trees. Parking lot and site lighting is provided around the proposed development. A photometric plan has been submitted and identifies that the proposed lighting complies with site lighting regulations.

A pedestrian connection between the building and Ogden Avenue is provided as required. The connection will tie into the new Ogden Avenue sidewalk that the petitioner is constructing.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Comprehensive Plan identifies the subject site as Catalyst Site #27 in the under the *Ogden Avenue West End - Key Focus Area*. Catalyst sites are specifically identified in the Comprehensive Plan as prime properties for redevelopment that will further the vision created in the Comprehensive Plan. The Comprehensive Plan notes this large catalyst site could accommodate a single-tenant user who would benefit from the site's access to I-355 and size. The Plan also notes the site is well-suited to accommodate an automobile dealership.

The key concepts in this focus area are to encourage commercial expansion, buffer nearby residential areas, provide pedestrian access, increase parking lot screening, use shared access agreements, and beautify Ogden Avenue. The proposed development meets each of these key concepts. Specifically, the development improves a vacant commercial property and creates an attractive landscape along Ogden Avenue while also screening adjacent residentially zoned properties. The development provides cross-access between this development and the recently approved Star Motors redevelopment.

The Comprehensive Plan's Future Land Use Map designates this property as Corridor Commercial. Corridor Commercial uses are defined as automobile related uses that provide services and retail opportunities to the nearby neighborhoods and the surrounding region. The Comprehensive Plan specifically mentions that the Ogden Avenue corridor continue to contain a range of these type of uses. This site is currently empty and the petitioner is proposing to improve the site with an automobile dealership. The conversion from an empty site to an active commercial site that provides services to both local and regional residents meets the goals of the Comprehensive Plan.

The proposed development is consistent with the Comprehensive Plan.

COMPLIANCE WITH ZONING ORDINANCE

The property is zoned B-3, General Services and Highway Business. The bulk requirements of the proposed development in the B-3 zoning district are summarized in the following table:

	Zoning Requirements	
1815 Ogden Avenue	Required	Proposed
Building North Setback (Street	75 ft from Ogden	107.1 ft to tower element
Yard)	Avenue centerline	
	50 ft from Ogden	60 ft
Parking North Setback	Avenue centerline	
East Setback (Side Yard)	0 ft	261.6 ft

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South Setback (Rear Yard)	28 ft	107.5 ft
West Setback (Side Yard)	0 ft	259.4 ft
Floor Area Ratio	0.75 max	0.107
	60 ft max	
Building Height		27.7 ft
Open Space (10% / 5%)	42,392 sq ft /	94,066 sq ft /
	20,696 sq ft	25,350 sq ft
Parking & Stacking Spaces	129	829
		(815 spaces & 14
		stacking at service
		entrance)
Off-Street Loading Zoning	1 space	1 space
Car Wash Stacking (future	2 spaces in /	2 spaces in /
improvement)	2 spaces out	2 spaces out

The proposed development meets the provisions of a Planned Unit Development as it is a development that is consistent with the Comprehensive Plan and will help in advancing the goals and policies of the Comprehensive Plan. The development will also provide a high quality architecture, landscaping and site improvements that are compatible with the surrounding commercial area. Additionally, this development will redevelop a vacant commercial property that has been vacant for many decades.

As part of the Planned Unit Development, the petitioner is requesting additional sign area for the development. The petitioner is permitted up to 300 square feet of total signage. The petitioner is requesting a total sign package of 417 square feet. As part of the approval process, the petitioner is not proposing any monument signs but is requesting seven wall signs along the north facades. The design of the building, with a sweeping arch running north from the building separates the north façade into two planes. The end of the arch will have a 'Ford' ellipse sign on either side of the arch, acting in the manner of a monument sign. Additionally, each front facade will have a 'Packey Webb' sign along with a 'Ford' ellipse sign. The primary customer entrance feature on the northwest façade will also have a 'Ford' ellipse sign above the entry doors.

The petitioner is also seeking relief from portions of the landscape section of the Zoning Ordinance. These requests are due primarily to stormwater requirements. Installation of trees within landscape islands can not be completed in locations where underground detention is provided. Additionally, screening along the south property line in some cases consists of just a fence. This is due to the required swale along the south property line that is providing an overland flow route for the water that generally flows from west to east along the site's south property line. Additionally, there is a natural low area in the southeast corner that is going to be utilized for compensatory storage and planted with a wetland mixture. This low area extends onto adjacent properties to the east and south and a fence would inhibit how this area functions.

The applicant's proposal with the requested relief is consistent with the Village's Zoning Ordinance.

ENGINEERING/PUBLIC IMPROVEMENTS

The petitioner's proposal complies with the Village's Stormwater and Floodplain Ordinance. The petitioner is required to provide on-site stormwater detention, compensatory storage for the two existing LPDAs that are located on site, mitigate the impacts to the linear wetland and provide best management practices for the proposed development. To meet the required detention and compensatory storage requirements, the petitioner is providing one at-grade storage basin and two underground storage vaults. The naturalized at-grade basin is in the southeast corner of the property and is designed as a compensatory storage basin for

the existing southeastern LPDA that is being impacted. The new basin will accommodate the water flow that currently flows through the site from the west and drains into the existing LPDA at this location. This basin will capture off-site flow from the south and west as well. If this basin reaches its capacity, the excess water will overland flow along the east property line towards the north and exit the site via the existing stormwater system along Lacey Road. The naturalized plantings provide the required water quality best management practices.

The two underground basins within the east side parking lot work together to capture the stormwater runoff from the parking lot and building. These basins are designed to provide the compensatory storage for the northeast LPDA and to provide on-site detention. The water in the basins will release their stored water to the north via the existing stormwater system along Lacey Road. The flow of water will be limited by an outlet control structure that will restrict the amount of water that is released, which will be no more than is currently released. The released water will be treated by a mechanical water quality unit.

Based on the required environmental mitigation of the site, the wetland will be impacted. The petitioner will mitigate the impacts to the wetland off-site.

The petitioner is providing a looped water main around the building and will install three fire hydrants around the building. A new sanitary sewer service will also be provided. Per the Sanitary District, an easement will be provided along the east and south property lines for potential Sanitary District improvements in the future.

As required by the Village, the petitioner is providing a cross-access connection to the Star Motors automobile dealership to the east. The petitioner is also providing a sidewalk along Ogden Avenue which will connect to the planned Star Motors sidewalk and will extend west to Stonewall Avenue.

TRAFFIC

A traffic impact study for the proposed development was completed by the petitioner. The study examined the existing Ogden Avenue traffic conditions and the future conditions based on the proposed development. The focus of the study was on the traffic warrants for the installation of a traffic light at the intersection of Ogden Avenue and Lacey Road. Under the current development proposal, a traffic light is not proposed at this location.

The study found that the proposed dealership will have roughly 1,000 daily trips to and from the site, some of which will be from existing traffic traveling on Ogden Avenue. This will minimally impact the use of Ogden Avenue, as the average daily traffic count is roughly 36,000 vehicles. The development will not impact Ogden Avenue traffic that is passing by the site. Customers exiting the development site at the easternmost curb cut may experience delays at this intersection while customers using the westernmost right-in/right-out curb cut will experience minimal delays.

IDOT has reviewed the traffic study and concurred with the results and will permit the two curb cuts as designed. IDOT also concurs with the on-site connection between this proposed dealership and the dealership to the east.

PUBLIC SAFETY REQUIREMENTS

The Fire Prevention Division has reviewed the proposed development and determined that sufficient access to and around the site is provided for emergency vehicles. The site layout permits Fire Department apparatus the opportunity to enter and exit the site from both Ogden Avenue curb cuts. The loop around the building provides good access around the building and property as needed.

The building will be required to include a fire alarm and sprinkler system that meet the Village's code requirements. A sprinkler room is provided at the northeast corner of the building adjacent to where the fire department connection is located on the exterior. Three fire hydrants are provided around the building, including one within 100 feet of the fire department connection.

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 *Downers Grove Suburban Life*. There have been no public comments received by Staff.

As required by the Zoning Ordinance, the petitioner held a neighborhood meeting on March 9, 2016. The public asked questions about stormwater management, site lighting, sanitary sewer service extensions, landscaping and site contamination. The applicant responded to each of these topics during the meeting and has provided a summary of the meeting that is attached. It should be noted that the plan presented at the March 9 neighborhood meeting identified a larger building which has subsequently been revised to the current proposal.

FINDINGS OF FACT

The petitioner is requesting a Planned Unit Development, Rezoning and a Special Use to construct an automobile dealership at 1815 Ogden Avenue. Staff finds that the proposal meets the standards for granting a Planned Unit Development, Rezoning and a Special Use as outlined below:

Section 28.12.040.C.6 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. 12.030.I.* See the analysis of rezoning review and approval criteria below. This standard has been met.
- 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.

The proposed project is consistent with the Comprehensive Plan. The Plan identifies this area as Catalyst Site #27. This property is large enough to accommodate a single user and is well-suited to accommodate an automobile dealership. The proposed development is consistent with the policy recommendation that corridor commercial areas continue to function in a dual role of providing daily needs to local residents as well as providing commercial goods and services to the larger region. This site has been vacant for many decades and the redevelopment of this site will enhance the Ogden Avenue corridor and the Village as a whole. This standard has been met.

c. Whether PUD development plan complies with the PUD overlay district provisions of Sec. 4.030. The proposed project meets several of the PUD overlay district provisions and objectives as found in Section 4.030 of the Zoning Ordinance. The PUD is consistent with and helps advance the goals of the Comprehensive Plan by developing a catalyst site in a manner identified by the plan. Additionally, the development meets other objectives of the Corridor Commercial Designation. The development also meets the PUD overlay district provisions by providing a high quality building that is compatible with other developments along Ogden Avenue while providing attractive, high-quality landscaping including the use of native wetland plantings. This standard has been met.

- 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. The proposed development will result in a redevelopment of a long term vacant commercial site along Ogden Avenue. The Comprehensive Plan identified this site as Catalyst Site #27 and noted that it is prime for redevelopment. The proposed development meets many objectives of the Comprehensive Plan and furthers the vision of the Village to improve Ogden Avenue. The building is of high architectural quality and will enhance the aesthetics of Ogden Avenue. The public benefits include the environmental clean-up of the site, the installation of a sidewalk to Stonewall Avenue and a cross-connection to the Star Motors dealership to the east. This standard has been met.
- 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.

There are several conditions noted below that will protect the interests of the surrounding neighborhood and the general public. The conditions below are being requested to ensure that the proposed development satisfies all applicable codes and requirements, including compliance with the Village's stormwater ordinance. The project will advance many goals and objective laid out in the Comprehensive Plan and the conditions listed below will ensure that these goals and objectives are met. This standard has been met.

Section 12.030.I. Zoning Map Amendment Review and Approval Criteria

The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision-making bodies must consider at least the following factors:

1. The existing use and zoning of nearby property.

The property is vacant with no use at this time. The properties to the north, east and west along Ogden Avenue are zoned B-3, General Services and Highway Business. The adjacent commercial uses include an automobile dealership, an auto-oriented business, a commercial retailer and an animal shelter. To the west and south, the zoning is residential with single family homes located on the majority of the lots. The proposed rezoning to B-3/PUD is appropriate for this site. This standard has been met.

2. The extent to which the particular zoning restrictions affect property values.

The PUD overlay and the proposed project will protect the character and integrity of adjacent properties by requiring subsequent approvals for major changes, which will assist in maintaining property values. Also, the subject property is currently vacant and provides no benefits to the neighboring property values. The proposed project will improve the property with a modern, high quality building which, in turn, should raise property values. This project will include PUD overlay restrictions which will not negatively affect property values but should protect property values. This standard has been met.

3. The extent to which any diminution in property value is offset by an increase in the public health, safety and welfare.

The proposed rezoning will not impact property values or the public health, safety and welfare of the community or neighborhood. The property is currently vacant land and is not providing any benefit to the neighboring property values or the public health, safety and welfare. The proposed development has the potential to increase property values while at the same time increasing the welfare of the community. This standard has been met.

4. The suitability of the subject property for the zoned purposes.

As noted in the Comprehensive Plan, this large catalyst site can accommodate a single-tenant user who would benefit from the site's access to I-355 and the size of the property. The plan notes this site is well-suited to accommodate an automobile dealership, such as the one being proposed. The subject property is suited for this type of development with a Planned Unit Development zoning classification. This standard has been met.

5. The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity.

The property has been vacant for decades. The rezoning of the property for the PUD overlay will enhance the subject site, provide numerous benefits to the public and allow for zoning flexibility to be offered in order for several property enhancements to take place. This standard has been met.

6. The value to the community of the proposed use.

The redevelopment of this specific property has been established as a community goal in the Comprehensive Plan. Specifically this site is identified as Catalyst Site #27 which identifies this property as one of the prime development opportunities along Ogden Avenue. The rezoning to B-3/PUD will allow the applicant to create a development that will advance several other goals and objectives identified in the Comprehensive Plan. This standard has been met.

7. The comprehensive plan.

The proposed PUD overlay and the proposed project are consistent with the Comprehensive Plan. The proposal will develop Catalyst Site #27 as desired in the Comprehensive Plan. This standard has been met.

Section 28.12.050.H Approval Criteria

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

- 1. That the proposed use is expressly authorized as a Special Use in the district in which it is to be located; The property is located in the B-3, General Service and Highway Business zoning district. Under Section 5.010 of the Zoning Ordinance, an automobile dealership is listed as an allowable Special Use in the B-3 zoning district. This standard has been met.
- 2. That the proposed use at the proposed location is necessary or desirable to provide a service or a facility that is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.

The proposed automobile dealership is a desirable service to the community and will contribute to the general welfare of the Village. The proposed development will develop a site that has sat vacant for decades. The development will cater to both local and regional customers as desired in the Comprehensive Plan and will meet many goals and objectives outlined in the Comprehensive Plan. This standard has been met.

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

The proposed automobile dealership will not be detrimental to the health, safety or general welfare of

persons residing in or working in the vicinity and will not be injurious to property values or improvements in the vicinity. The proposed development will provide the necessary stormwater management facilities to accommodate stormwater and will provide the requisite landscape screening from adjacent neighbors. The development will improve a long standing vacant parcel with a development that is consistent with the goals and objectives of the Comprehensive Plan. This standard is met.

RECOMMENDATIONS

The proposed Planned Unit Development, Rezoning and Special Use for an automobile dealership at 1815 Ogden Avenue is consistent with the Comprehensive Plan, the Zoning Ordinance and surrounding zoning and land use classifications. Based on the findings listed above, staff recommends the Plan Commission recommend the Village Council **approve** the requested Planned Unit Development, Rezoning and Special Use as requested in case 16-PLC-0009 subject to the following conditions:

- 1. The Planned Unit Development, Rezoning and Special Use shall substantially conform to the staff report; architectural and photometric drawings prepared by CVG Architects dated January 29, 2016 and last revised on June 28, 2016 and engineering and landscape drawings prepared by R.A. Smith National dated June 10, 2016, except as such plans may be modified to conform to the Village codes and ordinances.
- 2. The building shall be equipped with an automatic suppression system and an automatic and manual fire alarm system.
- 3. No additional wall or monument signs shall be permitted for this site that would result in an increase in overall sign area.
- 4. The applicant shall administratively consolidate the two lots into one lot of record prior to issuing a building permit.
- 5. The applicant shall provide a cross-access easement from the easternmost Ogden Avenue curb cut to the cross-access drive for the property to the east on the administrative lot consolidation.

Staff Report Approved By:

Aulie

Stanley J. Popovich, AICP Director of Community Development

-att





January 29, 2016 Revised June 10, 2016

Village of Downers Grove 801 Burlington Avenue Downers Grove, IL 60515

Re: Packey Webb Ford Dealership – 1815 Ogden Ave.

Attn: Department of Community Development

On behalf of our client, Packey Webb Ford, Brad Webb, enclosed please find the following documents in response to the Village staff concept meeting held December 8, 2015 for the above referenced project.

- 1. Petition for Plan Commission (previously submitted)
- 2. Proof of Ownership (previously submitted)
- 3. Application Fee (previously submitted)
- 4. Plat of Survey dated January 21, 2016 (previously submitted)
- 5. Project Summary
- 6. List and mailing labels for property owners with 250' of project property (previously submitted)
- 7. Preliminary and Final Plat of Re-subdivision with Declaration of Easements
- 8. Plan Sets
 - a. Architectural Site Plan dated June 10, 2016
 - b. Site Engineering and Landscape Plans dated June 10, 2016
 - c. Floor Plans dated June 10, 2016
 - d. Building Elevations dated June 10, 2016
 - e. Building Sections dated June 10, 2016
 - f. Sign Elevations dated June 10, 2016
- 9. Color Renderings dated June 10, 2016
- 10. Declaration of Easements (see Final Plat of Re-subdivision)
- 11. Traffic Study (previously submitted)
- 12. Downers Grove Sanitary District preliminary review Dated February 23, 2016
- 13. EcoCAT Proof of Submittal (previously submitted)
- 14. Kane-DuPage Land Use Opinion (previously submitted)

Project Narrative

The current property is located on 2 parcels covering approximately 9.79 acres that is currently unoccupied and without any structures. Current zoning classification of this property is B-3 General Services and Highway District.

The Proposed project is a new 53,759 sqft Ford Dealership with sales, service, and car wash facilities. Hours of operation are as follows; Service M-F 6:00 a.m. to 7:00 p.m. Saturday 7:30 a.m. to 4:00 p.m. Sales M-Sat. 9:00 a.m. to 9:00 p.m. Our client is requesting a change in the zoning classification to a PUD overlay district with special use approval for the new Ford Dealership sales, service and maintenance facility. As part of the PUD we are requesting approval for a 417 sqft sign package. Landscaping is comprised of almost 22% of the site with 62% along Ogden Ave. A public sidewalk will be installed connecting adjacent lots to our East and West. Access to our site is being proposed by providing a right-in/right-out driveway and a full access intersection at Lacy Rd. Having both access points allows maneuvering for semi / car carrier, refuse vehicles and emergency apparatus to safely travel throughout the site.

Traffic Signal

On January 29, 2016 a preliminary Site plan and Traffic impact study was submitted to IDOT's Bureau of Traffic for preliminary approval to construct a traffic signal at Lacey and Ogden Ave. We received preliminary approval with comments via a review memo on April 19. Packey Webb Ford will continue to work with IDOT and the Village of Downers Grove toward final approval of the traffic signal with the intent to construct in the future. The location of the traffic signal has been shown on the Architectural site plan. An Intersection Design Study (IDS) is being conducted and planned for jurisdictional review end of June.

Vehicle Service

The proposed dealership will offer two types of service utilizing thirty (30) small truck and car service bays and two (2) oversized vehicle service bays. Access to service will occur on the North side of the building through 2 overhead service doors. Car stacking is provided on the exterior and interior comprised of 3 and 4 cars each lane respectively. Four (4) service stalls and three (3) detail stations, accessible by employees only, are accessed through an overhead door on the dealerships west side. This also serves as the exit for the drive-thru, employee operated, carwash. Oversized vehicles will be serviced through individual overhead doors located on the south side of the building. Oversize Vehicles are serviced by appointment only. Therefore stacking in front of doors should not be required

Car Wash (proposed and future)

The proposed car wash is an interior drive-thru unit operated by employees only. A future carwash is planned as a separate building located near the southwest corner of the dealership. This will be a full service car wash intended for customer and dealer use only. 13 parking spaces will be removed to accommodate four (4) cars stacked at the entrance and adequate exiting. A destination sign will be proposed at the car wash entrance for easy navigation by customers. Size of the carwash will be approximately 2,500 sqft and has been accounted for in the developments storm-water analysis. Upon completion of the future stand-alone carwash, the interior carwash will be converted to a third oversized vehicle service bay.

Building Signage:

Maximum signage allowed is 300 sqft. We are seeking approval to install 417 sqft of signage. The unique design of the building with the drive-under canopy introduces a unique challenge for signage. The drive-under canopy commonly called the "Ford Brand wall", as designed, is a 2-sided wall separating direct views from East and West-bound traffic. Views to both sides of the sign wall are not possible by passer-by traffic. Therefore, signage on each side of the sign wall is required to balance the building. Further, Ford Brand standards allows dealerships for name recognition and Ford "Ovals" above the support legs of the brand wall. Examples of these signs can be viewed on Packey Webb Fords existing facility at 2150 Ogden Ave.

Most signs along Ogden Avenue are situated at or near the minimum setback. These signs become cluttered and over-bearing for motorists. The closest sign we propose is 75'-7 ¹/₂" from Ogden ROW with the farthest sign located 220'-7 1/2"

The building elevations attached show the signage proportionally sized and spaced along the dealerships façade. A quick calculation reveals 5% of the front building façade is dedicated to signage.

Special Use:

Section 12.050 H. Special Uses Approval Criteria. (Village Municipal Code)

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 consistent with and in substantial compliance with all village council policies and plans and that the applicant has presented evidence to support each of the following conclusions:

1 That the proposed use is expressly authorized as a special use in the district in which it is to be located;

Response: The current zoning of the property is B-3 General Services and Highway District. Vehicle sales and service facilities are considered special use per table 5.1 allowed uses

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;

Response: Our project is located in the West end of the Ogden corridor character area as defined in the 2011 comprehensive plan which states this area to be "firmly established as an auto-oriented corridor in terms of its traffic volume, design, development pattern, scale and land use. It further states this area should "continue to leverage its strategic location and should be reserved for uses that require and benefit from customers and employees from beyond Downers Grove." This development will also clean-up the soil contamination from previous developments. Further, this site has (2) localized poor drainage areas (LPDA's). Our development will include storm water management facilities that will result in the reduction of flood heights and flood durations in this depressed area.

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.

Response: The use being requested is specifically allowed in the underlying B-3 district. We have gone to great lengths to begin clean-up of existing environmental concerns and remedy pre-existing storm water drainage issues. Landscaping, site lighting and general design approaches have been conducted with the general welfare of the adjacent property owners in mind

Planned Unit Developments:

Section 12.040 C. 6. PUD Review and Approval Criteria (Village Municipal Code)

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. 12.030l; **Response**: See below
- 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;
 Response: This project is located in the West End of the Ogden corridor character area as defined in the 2011 comprehensive plan. The design and use is consistent with the context of the comprehensive plan. See response to Special Use Approval criteria item 2) for more information.
- whether PUD development plan complies with the PUD overlay district provisions of Sec. 4.030;
 Response The proposed dealership complies with the objective as noted in Section 4.030.A.2. Listed below are the objectives pertaining to this project
 - a. Implementation of and consistency with the comprehensive plan and other relevant plans and policies;

Response: The proposed dealership is consistent with the comprehensive plan as stated previously

 Flexibility and creativity in responding to changing social, economic and market conditions allowing greater public benefits than could be achieved using conventional zoning and development regulations;

Response: The proposed dealership will clean-up a site deemed unusable since the early 1980's. Numerous developments in the late 1990's and 2000's have tried to create a project on the site. The PUD process has allowed the building to be designed in a manner that will enhance Ogden Avenue and its surrounding neighborhood by eliminating site contamination and reducing drainage issues.

- *c.* Efficient and economical provision of public facilities and services;
 Response: We are working with Downers Grove Engineering, Sanitary district and Fire prevention district to design the most efficient way to provide public facilities and Service.
- d. High-quality buildings and improvements that are compatible with surrounding areas, as determined by their arrangement, massing, form, character and landscaping;

Response: The proposed dealership is made of high quality materials including metal paneling, concrete wall systems and high performance curtain wall glazing systems. It is compatible with surrounding dealerships along Ogden in and around Downers Grove.

- e. The protection and enhancement of open space amenities and natural resource features; Response: Minimal requirements for landscape area is 10% of the site. Our development has more than doubled this by landscaping 22% of the Site. Although Mitigation of the Wetlands is occurring, we are buffering the wetlands to the Southeast of our development and treating the storm water before entering the adjacent waterways. All of which has not occurred in the history of this site.
- f. The incorporation of sustainable development features including green infrastructure practices in landscapes and parking area, to maximize the aesthetic and water quality benefits of best practices in storm water management;

Response: The project follows the DuPage County Water Quality Best Management Practices technical guidance for non-residential properties greater than 1 acre. In accordance with this standard a minimum importance average of 2.5 will be provided using the following systems:

- Vegetated swale along the South Property line
- Manufactured Storm septor mdl STC-1200 located at the outfall of the detention system. A complete specification can be reviewed in Final engineering submittal.
- g. Attractive, high-quality landscaping, lighting, architecture and signage, including the use of native landscaping that reflects the unique character of the village and the surrounding area

Response: Additional landscaping has been added at the property line abutting residential. Native trees, shrubs and grasses have been planned in areas throughout the development to enhance the dealership and surrounding areas. Lighting and signage has been designed to respect adjacent property owners yet provide owner security and display for the Dealership.

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; and

Response: We believe the current development proposal exceeds the requirements of conventional regulations. The additional requests being made are in proportion to the size of the building being constructed and the intensity of existing site conditions.

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.

Response: This project is not a part of a larger PUD.

Rezoning Standards:

Sec. 12.030. I Zoning Map Amendments (Rezoning's)

The decision to amend the zoning map is a matter of legislative discretion that is not controlled by any single standard. In making recommendations and decisions about zoning map amendments, review and decision-making bodies must consider at least the following factors:

- 1 The existing use and zoning of nearby property;
 - **Response:** The surrounding zoning districts area as follows:
 - B-3 General Services and Highway District. Northeast and Northwest
 - R-1 Residential Detached House 1. East and Southeast corner
 - R-3 Residential Detached House 3 Southwest corner
 - R-2 Residential Detached House 2 East
- 2 The extent to which the particular zoning restrictions affect property values; Response: The zoning restrictions limit the effectiveness of signage on the property thereby negatively effecting the value of the property for commercial development.

- 3 The extent to which any diminution in property value is offset by an increase in the public health, safety and welfare **Response:** By remediating site contamination and installing infrastructure including the
- Stormwater detention system, this development will greatly increase the property value. *The suitability of the subject property for the zoned purposes;* **Response:** This property will maintain a majority of the underlying B-3 district with slight
- modifications for the PUD overlay. The property is well suited for this zoning change *The length of time that the subject property has been vacant as zoned, considering the context of land development in the vicinity;* **Response:** This property was an auto salvage yard from 1932 to 1982 and contained very little to no infrastructure. It contained a single family home with accessory buildings. The property has been vacant since 1982. The context of the surrounding land development is comprised of commercial with a majority being automotive sales and repair.
- 6 The value to the community of the proposed use; and **Response:** The state of the existing property is unused. The retail and property tax dollars this development will produce will be a great value to the community
- 7 The comprehensive plan.

Response: This type of develop fits the context of the comprehensive plan.

On behalf of Packey Webb Ford we hope this satisfies all of your concerns. Please do not hesitate to contact us with further questions regarding our submittal

Packey Webb Ford C/O Charles Vincent George Architects

Jeffrey B. Lietz VP Commercial Architecture

Cc Brad Webb – Packey Webb Ford John Webb – Packey Webb Ford Greg Webb – Packey Webb Ford Patricia Gregory - Pachter, Gregory & Raffaldini, P.C.



March 09, 2016

Village of Downers Grove 801 Burlington Avenue Downers Grove, IL 60515

Re: Packey Webb Ford Dealership – 1815 Ogden Ave. Neighborhood meeting summary

Attn: Department of Community Development

On March 9, 2016, the following plans were presented at an open neighborhood meeting held at the Downers Grove Recreation center located at 4500 Belmont.

- 1. Ariel view of current property
- 2. Proposed landscape Plan
- 3. 3 dimensional design renderings of Packey Webb Ford dealership and site amenities

The following is a summary of questions, comments and concerns raised by the attendees

- 1. How will the development affect the existing Stormwater / flooding issues? Meetings have been held with the Village of Downers Grove Engineering department to fully understand and account for the current waterways, localized poor drainage areas (LPDA's) and Wetland. Additional Stormwater detention systems and a drainage swale along the south property line have been provided for in the proposed development plan resulting in a controlled outlet of storm waters thereby reducing flood heights and durations in the depressed areas.
- 2. It was our understanding that a sanitary sewer would be extended to the south for future connection to properties along the dealerships South property line. There has been no mention of extending sanitary to the South. Further a preliminary review has been received from the Downers Grove Sanitary district on February 23, 2016 and is available for reference.
- 3. Why isn't the proposed traffic signal located at Lee in lieu of Lacy?

Traffic studies were prepared and submitted to IDOT for review. Traffic patterns indicated, with the addition of the senior living facility being constructed on Lacy, that potential traffic situations better warrant a signal at Lacey in lieu of Lee. Please note that on April 19, 2016 the Bureau of Traffic (BOT) offered review comments and stated they will approve a traffic signal at the proposed location pursuant to a full design / engineering review. Further planning and discussions with IDOT and the Village of Downers Grove will need to be held.

4. How will the dealership light the parking lot? Is there a way to reduce lighting or better control at night?

Parking lots for dealerships are a means to display cars available for purchase. Downers Grove ordinances for commercial properties allow minimal light to trespass onto adjacent residential properties. Packey Webb Ford understands the concerns of their neighbors and will limit the lighting along the property lines and provide controls for off-hours light to be lessened in an effort to only provide security.

5. Is there any way to save some of the trees along the South property line?

Packey Webb Ford understands the concerns regarding tree preservation and the need for landscaping. Unfortunately, with the need to maintain Stormwater flows along the South property, a new drainage swale will need to be constructed which affects the ability to save existing trees. Further, Packey Webb Ford is providing landscaped islands, tree lines and natural wetland seeding as a betterment to existing conditions.

6. Can you talk to us more about how you're dealing with contamination?

Multiple investigations have been performed on this site since the late 1990's. Current testing has been conducted following strict adherence to IEPA guidelines. At the time of this letter, the IEPA is conducting a review of our findings. Once a review has been received, the Packey Webb Ford design team will prepare a remediation action plan to safely secure the contaminated soils as per IEPA approval. In summary to our IEPA submittal, the investigations determined that the subject site does not contain any hazardous wastes. No groundwater contamination was detected above regulatory limits. No Volatile Organic Compounds were detected in the groundwater, soils and soil gas vapors at the site above Regulatory limits. The soil contamination identified at the site above regulatory limits are several PNA compounds, and the metals antimony, barium, chromium, lead, mercury and selenium. A majority of the soil contamination resides in the top 1-2 feet of soil/fill ground surfaces. Reports generated by ongoing investigations can be acquired for review at the Village of Downers Grove.

Further, the drums on the north side of the site contain soil cuttings generated by the drilling and installation of the 5 groundwater monitoring wells. The drums and their soil contents will be Properly managed and disposed during the future site remediation work.

Packey Webb Ford C/O Charles Vincent George Architects

Jeffrey B. Lietz VP Commercial Architecture

Cc Brad Webb – Packey Webb Ford John Webb – Packey Webb Ford Greg Webb – Packey Webb Ford Patricia Gregory - Pachter, Gregory & Raffaldini, P.C. Thomas Mangan – Geo-Think, LLC Robert Ponto – R.A. Smith National, Inc Scott Leadbetter – International Contractors, Inc.





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KEY PLAN

Packey Webb Ford 1815 Ogden Avenue | Downers Grove, Illinois June 10, 2016 | project 2015-082











RENDERING 'E'







THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

R.A.SMITH NATIONAL ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL PROJECT MANAGER: DAVID CLEARY, P.E.

DESIGNED BY: KLL

CHECKED BY: RTP

SHEET NUMBER





R.A.SMITH NATIONAL ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OF ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL

CHECKED BY: RTP

SHEET NUMBER







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DATE: PROJECT # 01/29/2016 2015-082

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EXPIRES 11/30/2016 IL ARCHITECTURAL DESIGN FIRM NO: 184-000544

charles vincent george ARCHITECTS

1245 E. Diehl Rd. Suite 101

P 630.357.2023 F 630.357.2662

Naperville, Illinois 60563

cvgarchitects.com

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DATE:

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Ø1/29/2016 PLAN COMMISSION SUBMITTA

Ø3/Ø1/2016 PLAN COMMISSION REVIEW

FORD

PACKEY WEBB

1815 OGDEN AVENUE DOWNERS GROVE, ILLINOIS 60515

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	QTY 7	COMMON NAME Brandywine Red Maple		BOTANICAL NAME Acer rubrum 'Brandywine'		SIZE 2 1/2" CA	L B&B	REMARKS Full, matching heads
	3	Sienna Glen Maple		Acer x freemanii 'Sienna'		2 1/2" C#	L B&B	Full, matching heads
	6	Princeton Sentry Ginkgo		Ginkgo biloba 'Princeton Sentry'		2 1/2" C#	L B&B	Full, matching heads
	9	Skyline Honey Locust	Gleditsia triacanthos 'Skyline'			2 1/2" CA	L B&B	Full, matching heads
	QTY 5	COMMON NAME Norway Spruce		BOTANICAL NAME Picea abies		<u>SIZE</u> 6' HT	ROOT B&B	REMARKS Semi-sheared, fully branched to ground
	7	Black Hills Spruce		Picea glauca 'Densata'		6' HT	B&B	Semi-sheared, fully branched to ground
	6	Pyramidal Arborvitae		Thuja occidentalis 'Fastigiata'		5° HT	B&B	Semi-sheared, fully branched to ground
2	QTY 1	COMMON NAME Bloodgood Japanese Maple		BOTANICAL NAME Acer palmatum "Bloodgood"		SIZE 7' HT	ROOT B&B	REMARKS Clump, min, 3 stems
	13	'Winter King' Hawthorn		Crataegus viridis 'Winter King'		1 1/2" CA	L B&B	Full, matching heads
	6	Adirondack Crab Apple		Malus x 'Adirondack'		1 1/2" CA	L B&B	Full, matching heads
2	<u>QTY</u> 30	COMMON NAME Brilliant Red Chokeberry		BOTANICAL NAME Aronia arbutifolia 'Brilliantissimai		SIZE 24" HT	ROOT CONT.	REMARKS
	5	Gray Dogwood		Cornus racemosa		3' HT	CONT.	
	194	Cool Splash False Honeysuckle		Diervilla sessilifolia 'Cool Splash		18" HT	CONT.	
	7	Compact Burning Bush		Euonymus alatus 'Compactus'		3' HT	CONT.	
	157	Gro-Low Fragrant Sumac		Rhus aromatica 'Gro-Low'		18" HT	CONT.	
	8	Carefree Sunshine Shrub Rose		Rosa shrub 'Carefree Sunshine'		15" HT	CONT.	
	61	Double Red Knock Out Shrub R	058	Rosa shrub 'Double Red Knock	Out'	15" HT	CONT.	
	22	Amber Flower Carpet Rose		Rosa x 'Flower Carpet Amber'		15" HT	CONT.	
	86	Anthony Waterer Spiraea		Spiraea x bumakla "Anthony Wa	terer'	18" HT	CONT.	
	32	Goldhame Spirea		Spiraea x burnaida Goldhame		10 HI	CONT.	
	29	Arrangeod Viburnum		Viburnum dentatum	50	3° HT	B&R	
	3	Blue Muffin Arrowwood		Vibumum dentatum 'Blue Muffin		3' HT	BAB	
	6	Judd Viburnum		Vibumum x juddii		4° HT	B&B	
<u>s</u>	<u>QTY</u> 9	COMMON NAME Green Mountain Boxwood		BOTANICAL NAME Buxus x 'Green Mountain'		SIZE 24" HT	ROOT B&B	REMARKS
	4	Bird's Nest Spruce		Picea abies 'Nidiformis'		24" SPD	B8B	
	5	Dense Yew		Taxus x media 'Densiformis'		18"SPD	CONT.	
	7	Hicks Yew		Taxus x media 'Hicksii'		36" SPD	B&B	
<u>SES</u>	<u>QTY</u> 141	COMMON NAME Karl Foerster Feather Reed Gra-	55	<u>BOTANICAL NAME</u> Calamagrostis x acutiflora 'Karl I	Foerster'	SIZE 1 GAL.	ROOT POT	REMARKS 30" Spacing
	88	Overdam Feather Reed Grass		Calamagrostis x acutifiora 'Over	dam'	1 GAL.	POT	24" Spacing
	4	Morning Light Silver Grass		Miscanthus sinensis 'Morning Lip	ghť	1 GAL	POT	36" Spacing
	121	Carousel Little Bluestern		Schizachyrium scoparium 'Carol	useľ	1 GAL.	POT	18" Spacing
	253	Tara Prairie Dropseed		Sporobolus heterolepis 'Tara'		1 GAL.	POT	15" Spacing
	<u>QTY</u> 15	COMMON NAME Zagreb Coreopsis		BOTANICAL NAME Coreopsis vertici ata "Zagreb"		SIZE 4 1/2*	ROOT POT	REMARKS 15" Spacing
	188	Pardon Me Dayilly		Hemerocallis x 'Pardon Me'		4 1/2"	POT	18" Spacing
	129	Stella de Oro Daylity		Hernerocallis x 'Stella de Oro'		4 1/2*	POT	18" Spacing
	38	Kit Kat Catmint		Nepeta x faassenii 'Kit Kat'		4 1/2"	POT	18" Spacing
	139	Walkers Low Catmint		Nepeta x faassenii 'Walkers Low	(4 1/2*	POT	24" Spacing
DU	LE -	ALTERNATE						
QTY	(00	MON NAME	BO	ANICAL NAME	SIZE	ROOT	REMARKS	_
14 QTY		ble Red Knock Out Shrub Rose	Ros BOT	a shrub 'Double Red Knock Out' 'ANICAL NAME	15" HT SIZE	CONT. ROOT	REMARKS	
13	Stel	la de Oro Daylity	Hen	erocallis x "Stella de Oro"	4 1/2"	POT	18" Spacing	
12	Wa	kers Low Catmint	Nep	eta x faassenii 'Walkers Low'	4 1/2*	POT	24" Spacing	
12	Gold	fstrum Black-eyed Susan	Rud	beckia fulgida "Goldsturm"	4 1/2*	POT	18" Spacing	
<u>M</u> 3'	ISSISS DEPT	IPPI RIVER STONE H						
D 3'-	ECOM DEPT	POSED GRANITE H						
LCL	JLAT	<u>10NS</u>	lr V R	terior Yard /est Parking Lot Pe equired: 50% lands	rimet	er: 57 (285 L	70 LF .F)	
lan	dsca	725 LF pe (543 LF)	Р	iovided: 92% lands	cape	(522 L	г)	

723 LF	West Parking Lot Perime Required: 50% landscape Provided: 92% landscape	ter: 570 LF ≥ (285 LF) ≥ (522 LF)	
pe (543 LF) pe (452 LF) e: 5	South Parking Lot Perim Required: 50% landscape Provided: 34% landscape 45% 327 LF of	eter: 725 LF 2 (363 LF) 2 (244 LF) 6' HT. fence	
	East Parking Lot Perimet Required: 50% landscape Provided: 34% landscape	er: 597 LF e (299 LF) e (201 LF)	
POSED LAND.	SCAPE AREA	94,578 SF	
POSED LAND.	SCAPE RATIO	22.31%	
LANDSCAPE	AREA ALONG OGDEN	15,926 SF	
	THE LOCATIONS OF EXIST SHOWN ON THIS PLAN AN BE OTHER UNDERGROUND	NG UTILITY INSTALLAT RE APPROXIMATE. THE UTILITY INSTALLATION	IONS RE M IS

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THOS FLAN ARE APPROXIMATE: THERE MAY BE OTHER UNDERCOUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. R.A.SMITH NATIONAL ASSUMES NO RESPONSIBILITY FOR DAMAGES, LUBLITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL





DATE DESCRIPTION							
D A Smith National	M.A. JIIIIII I Jaulullal	Beyond Surveying	and Engineering	16745 W. Bluemound Road, Brookfield, WI 53005-5938	zoz-ro I-1000 Fax zoz-ro I-39400, www.rasminimatonau.com Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA		
PACKEY WEBB FORD VILLAGE OF DOWNERS GROVE, ILLINOIS LANDSCAPE PLAN							
PRELIMINARY NOT FOR CONSTRUCTION © COPYRIGHT 2016 R.A. Smith National, Inc. DATE: 06-10-16							
N.A. Smith National, Inc. DATE: 06-10-16 SCALE: 1"=30' JOB NO. 3150545 PROJECT MANAGER: DAVID CLEARY, P.E. DESIGNED BY: CNS CHECKED BY: CNS							

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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts@4' above grade	Illuminance	Fc	9.98	77.7	0.0	N.A.	N.A.
PROPERTY LINE	Illuminance	Fc	1.21	4.4	0.0	N.A.	N.A.
TYPICAL FRONT ROW	Illuminance	Fc	46.90	77.7	21.7	2.16	3.58
TYPICAL INTERIOR ROW EAST	Illuminance	Fc	11.92	51.9	1.2	9.93	43.25
TYPICAL INTERIOR ROW NORTH	Illuminance	Fc	15.05	41.8	4.9	3.07	8.53
TYPICAL INTERIOR ROW WEST	Illuminance	Fc	11.34	49.0	4.6	2.47	10.65

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Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes In electrical voltage, tolerance In lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.

Editinate Ochedule									
Symbol	Qty	Label	Mounting Ht	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
	13	A	25	SINGLE	XLCL-FTA-LED-HO-CW-HSS-SINGLE-25' MH	1.000	N.A.	55388	532.5
	14	A1	25	SINGLE	XLCL-FT-LED-HO-CW-SINGLE-25' MH	1.000	N.A.	57320	544.8
	5	В	25	SINGLE	XLCL-3-LED-HO-CW-SINGLE-25' MH	1.000	N.A.	53365	544.8
	2	B1	25	SINGLE	XLCM-3-LED-HO-CW-SINGLE-25' MH	1.000	N.A.	27493	270.1
	27	С	25	D180°	XLCM-5-LED-HO-CW-D180-25' MH	1.000	N.A.	62284	552.8
	11	D	25	SINGLE	XLCL-5-LED-HO-CW-SINGLE-25' MH	1.000	N.A.	59153	546.8
=	8	F	18	SINGLE	SAFL-400-40D-LED-5K-18' MH	1.000	N.A.	44926	445.8
=	14	F1	Ground	SINGLE	XFLM-MF-LED-49-HO-CW-UE-GROUND MOUNTED	1.000	N.A.	6570	64
H	11	W	15	SINGLE	XLCS-FT-LED-HO-CW-WALL MOUNT-15' MH	1.000	N.A.	15535	138.6
	2	W1	28	SINGLE	XLCS-FT-LED-HO-CW-WALL MOUNT-28' MH	1.000	N.A.	15535	138.6
					*	•			

Page 41 of 143

Charles vincent george ARCHITECTS 1245 E. Diehl Rd. Suite 101 Naperville, Illinois 60563 P 630.357.2023 F 630.357.2662 cvgarchitects.com							
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	A NEW AUTOMOBILE DEALERSHIP FOR:	PACKEY WEBB FORD	1815 OGDEN AVENUE DOWNERS GROVE, ILLINOIS 60515				
TITLE:	нотог	METR	IC PLAN				
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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 Packey Webb Ford auto dealership to be located on the south side of Ogden Avenue at Lacey Road in Downers Grove, Illinois. The plans call for developing the site, which is currently vacant, with an approximately 64,500 square-foot building to include a parts and service department, showroom, and sales offices. The auto dealership will provide a total of 773 parking spaces, of which 29 parking spaces will be for guests and the remaining 744 parking spaces will be used for employee parking and vehicle inventory. Access to the development is proposed to be provided via a full movement access drive aligned opposite Lacey Road and via a right-in/right-out access drive located 375 feet west of Lacey Road. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed development would have on traffic conditions in the area, determine if a traffic signal is warranted at the intersection of Ogden Avenue with Lacey Road/the proposed access drive and determine if any roadway and/or traffic control are necessary in order to accommodate Year 2022 projected traffic conditions.

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 and evening and Saturday midday peak hours
- Recommendations with respect to adequacy of the site access system and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and evening peak hours for the following conditions.

- 1. Existing Condition Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
- 2. No-Build Condition The background traffic volumes include the existing traffic volumes increased to include ambient area growth not attributable to any particular development
- 3. Future Condition The future projected traffic volumes include the existing traffic volumes, ambient area growth not attributable to any particular development and the traffic estimated to be generated by the proposed subject development.





Site Location

Figure 1





Aerial View of Site Area

Figure 2



Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. 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.

Existing Roadway System Characteristics

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

Ogden Avenue (US Route 34) is an east-west arterial roadway that in the vicinity of the site provides two through lanes in each direction separated by a two-way left-turn lane. At its unsignalized intersection with Lacey Road, Ogden Avenue provides an exclusive left-turn lane and two through lanes on the eastbound approach and an exclusive through lane and a shared through/right-turn lane on the westbound approach. At its unsignalized intersection with Lee Avenue, Ogden Avenue provides an exclusive left-turn lane, an exclusive through lane and a shared through/right-turn lane on both approaches. Ogden Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an average daily traffic (ADT) volume of 36,000 vehicles (IDOT AADT 2013) and has a posted speed limit of 35 miles per hour.

It should be noted that the closest signalized intersections to the intersection of Ogden Avenue with Lacey Road are located one half-mile to the west at the intersection of Ogden Avenue with Finley Road/Belmont Road and approximately seven-tenths of a mile to the east at the intersection of Ogden Avenue with Saratoga Avenue. The signalized intersection of Ogden Avenue with Finley Road/Belmont Road is part of an interconnect traffic signal system that extends from Finley Road/Belmont Road to approximately one mile west to the I-355 eastbound/westbound ramps. The signalized intersection of Ogden Avenue with Saratoga Avenue is part of an interconnect traffic signal system that extends from Saratoga Avenue to approximately five miles east to Salt Creek Lane/Oak Street. Furthermore, on Ogden Avenue in the vicinity of the site, there are approximately eight full access driveways on the north side of the roadway serving several free-standing commercial businesses and there are three full access driveways on the south side of the roadway that serve Star Motor Sales.

Lacey Road is a north-south local roadway that extends from Ogden Avenue approximately onequarter of a mile north to Virginia Street and provides one through lane in each direction. At its unsignalized intersection with Ogden Avenue, Lacey Road provides a shared left/right-turn lane. Lacey Road is under the jurisdiction of the Village of Downers Grove, and has a posted speed limit of 25 miles per hour.





Lee Avenue is a north-south roadway that extends from approximately 250 feet north of Virginia Street south to Warren Avenue and provides one through lane in each direction. At its unsignalized intersection with Ogden Avenue, Lee Avenue provides a shared left/through/right-turn lane that is under stops sign control and a standard style crosswalk on both approaches. North of Ogden Avenue, Lee Avenue is a local roadway and south of Ogden Avenue, Lee Avenue is a collector roadway. Lee Avenue is under the jurisdiction of the Village of Downers Grove, carries an ADT volume of 750 vehicles (IDOT AADT 2012) south of Ogden Avenue and has a posted speed limit of 25 miles per hour.

Existing Traffic Volumes

Manual turning movement vehicle traffic counts were conducted on Saturday, January 16, 2016 during the midday (12:00 to 2:00 P.M.) peak period and on Tuesday, January 19, 2016 during the weekday morning (7:00 to 9:00 A.M.) and the weekday evening (4:00 to 6:00 P.M.) peak periods at the intersections of Ogden Avenue with Lacey Road and Ogden Avenue with Lee Avenue. The results of the manual turning movement counts indicated that the weekday morning peak hour generally occurs between 7:15 and 8:15 A.M., the weekday evening peak hour occurs between 4:45 and 5:45 P.M., and the Saturday midday peak hour occurs between 12:00 and 1:00 P.M. These three respective peak hours will be used for the traffic capacity analyses which are presented later in this report. Pedestrian and bicycle activity was observed and was found to be very low at these intersections.

The existing peak hour traffic volumes for the weekday morning, weekday evening, and Saturday midday peak hours are shown in **Figure 4**.

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 weekday morning, weekday evening, and Saturday midday peak hours and then determine the directions from which this traffic will approach and depart the site.

Proposed Site and Development Plan

As previously indicated, the plans call for an auto dealership with an approximate 64,500 squarefoot building to include a parts and service department, showroom, and sales offices.

The proposed development will be served by a full movement access driveway aligned opposite Lacey Road creating a fourth leg to the intersection. The resulting four-way intersection is proposed to be signalized. This access drive will provide one inbound lane and one outbound lane. Additional access will be provided via a right-in/right-out access drive to be located approximately 375 feet west of Lacey Road. This access will provide one inbound lane and one outbound lane with outbound movement under stop-sign control. At this access drive, right-turns will be restricted via pavement markings to allow for trucks to perform right-turns into the site.





The development will provide a total of 773 parking spaces, of which 29 parking spaces will be for guests, and the remaining 744 parking spaces will be used for employee parking and vehicle inventory.

A site plan illustrating the proposed development plan and site access is included in the Appendix.

Directional Distribution of Development-Generated Traffic

The directional distribution of development-generated traffic is based on the characteristics and operations of the surrounding roadway system and existing traffic patterns. **Figure 5** shows the estimated directional distribution for the three weekday peak hours. Figure 5 also shows the distance, in feet, between the existing intersections and the proposed access driveways.

Estimated Development Traffic Generation

The estimates of traffic to be generated by the development are based upon the proposed land use type and size. The volume of traffic generated for the auto dealership was estimated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition. The ITE rates and equations used are included in the Appendix.

Table 3A tabulates the vehicle trips anticipated for this development for the weekday morning, weekday evening, and Saturday midday peak hours. **Table 3B** tabulates the weekday and Saturday daily (two-way vehicle trips).

EDTIMITIED I		•						
ITE Land-Use		Weekda Peak	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour		Saturday Midday Peak Hour	
Code	Type/Size	In	Out	In	Out	In	Out	
841	Auto Dealership 64,500 s.f.	93	31	59	88	129	130	

Table 3A ESTIMATED TRIP GENERATION

Table 3B

ESTIMATED DI	EVELOPMENT-	GENERATED DA	ILY TRAFFIC VOLUN	AES

ITE Land- Use		Wee Da	kday iily	Satu Da	rday ily
Code	Type/Size	In	Out	In	Out
841	Auto Dealership 64,500 s.f.	1042	1042	959	959





Development-Generated Traffic Volumes

The development-generated traffic volumes (refer to Table 2) were assigned to the area roadways based on the directional distribution analysis (Figure 5) and the proposed access driveway and are shown in **Figure 6**.

Background Traffic Volumes

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 ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated February 19, 2016, an increase of approximately one percent per year for six years (buildout year plus five years) was applied to project Year 2022 conditions. It should be noted that the background growth was only applied to the through movements along Ogden Avenue since the study also includes the traffic that is projected to be generated by the previously approved Sheltered Care Facility. The facility will be located on the west side of Lacey Road approximately 750 feet north Ogden Avenue. The volumes of traffic projected to be generated by the Sheltered Care Facility were taken from the Traffic Impact Study prepared by Sam Schwartz Engineering dated July 3, 2013 and were assigned to the study area intersections. Year 2022 no-build traffic volumes are illustrated in **Figure 7**. A copy of the CMAP 2040 projections letter is included in the Appendix.

Total Projected Traffic Conditions

The total projected traffic volumes include the peak hour traffic volumes generated by the proposed development (refer to Figure 6) and the Year 2022 base traffic volumes plus the traffic projected to be generated by the Sheltered Care Facility (Figure 7). The total projected traffic volumes for Year 2022 conditions are shown in **Figure 8**.









Traffic Signal Warrants

The installation of a traffic signal requires the satisfaction of one or more of the nine warrants from the Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009. A review of the site's physical characteristics and traffic conditions is also necessary to determine whether a traffic control signal installation is justified at a particular location. The following is a list of the warrants conducted in the study and a description of each.

- Warrant 3: Peak Hour
- Warrant 6: Coordinated Signal System

Warrant 3 (Peak Hour Vehicular Volume) is intended for application when traffic conditions are such that for a minimum of one hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The threshold value of minor street traffic varies depending on the major street traffic volume and number of travel lanes. This signal warrant is primarily used in cases where a high volume of traffic is discharged over a short time.

Warrant 6 (Coordinated Signal System) is intended for application when the progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles.

An evaluation of each warrant analyzed follows.

Warrant 3 (Peak Hour)

This warrant is met as **Figure 9** shows, during the Saturday midday peak hour. However, neither the weekday morning peak hour nor the weekday evening peak hour meet the minimum value for the minor street higher-volume approach (vehicles per hour).

While the year 2022 total projected traffic volumes do not meet the peak hour warrant during the weekday morning and weekday evening peak hours, the provision of a traffic signal at the intersection of Ogden Avenue with Lacey Road will provide opportunity for other developments within the study area to have access to the signal. Based on discussion with the Village of Downers Grove, the proposed Packey Webb Ford auto dealership could provide cross access to the Star Motor Sales located in the southwest quadrant of the intersection of Ogden Avenue with Lee Avenue allowing the customers and employees of Star Motor Sales to utilize the signal at Lacey Road. Additionally, the north leg of the intersection of Ogden Avenue with Lee Avenue could be converted to right-turn in and right-turn out movements only. This conversion would encourage the residences located behind the commercial developments along the north side of Ogden Avenue to utilize the signal to turn left onto Ogden Avenue.





Peak Hour Vehicular Volume Warrant

Figure 9

The traffic projected to be generated by the cross connection to Star Motor Sales were assigned to the study area intersections and the southbound Lee Avenue at Ogden Avenue left-turning and through traffic was reassigned to the roadway network based on the conversion of southbound Lee Avenue to right-in/right-out only. The Star Motor Sales traffic assignment and the Lee Avenue traffic reassignment were combined with the Year 2022 total projected traffic volumes (Figure 7) to represent the Year 2022 total adjusted traffic volumes and are illustrated in **Figure 10**. These traffic volumes were used in the traffic capacity analyses presented later in this report.

Based on the Year 2022 adjusted traffic volumes, Warrant 3 will be marginally met, as shown in Figure 9, during the weekday evening peak hour.

Furthermore, the provision of a traffic signal at this intersection will draw traffic from the existing commercial developments in the northwest and northeast quadrants of the intersection which currently provide six curb cuts along Ogden Avenue. The traffic signal will increase the number of gaps available in the Ogden Avenue traffic stream for the neighboring developments. Additionally, the signal will enhance the long-term redevelopment potential for the immediate parcels within the northeast and northwest quadrants of the intersection. These quadrants have the potential to be developed with approximately 68,000 square-feet of retail which could generate approximately 80 inbound trips and 105 outbound trips during the evening peak hour. The majority of these trips would utilize the signalized intersection, especially the outbound left-turns onto Ogden Avenue, reducing the need for a large number of curb cuts along Ogden Avenue within the vicinity of the intersection.





Warrant 6 (Coordinated Signal System)

As previously indicated, the intersection of Ogden Avenue with Lacey Road is located one-half mile east of the signalized intersection of Ogden Avenue with Finley Road/Belmont Road and seven-tenths of a mile west of the signalized intersection of Ogden Avenue with Saratoga Avenue, creating a total separation distance of approximately 1.2 miles between the signals. This distance between signals causes the potential for speeding along the roadway, the elimination of platooning along the roadway and reduces the number of available gaps in the Ogden Avenue traffic stream for the commercial developments and intersecting minor roadways along Ogden Avenue between the two signals.

Furthermore, the proposed traffic signal at this intersection will be interconnected to the existing signal to the west (Finley Road/Belmont Road) allowing for a continuous coordinated system along Ogden Avenue from the I-355 eastbound and westbound ramps to Lacey Road. The proposed signal would reduce the separation of the previously discussed coordinated systems from approximately 1.2 miles to approximately seven-tenths of a mile.

In addition, the provision of a traffic signal at the intersection of Ogden Avenue with Lacey Road would be beneficial for providing access for emergency vehicles to the planned Sheltered Car Facility on Lacey Road. By providing Traffic Signal Preemption, this signalized intersection will improve response time of emergency vehicles.



Traffic Analysis and Recommendations

Capacity analyses were performed for the key intersections included in the study area to determine the ability of the existing roadway system to accommodate existing and future traffic demands. Analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for the existing, no-build (Year 2022 background) and projected (Year 2022) traffic volumes

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 2010 and using HCS 2010 analysis software.

The analyses for the proposed traffic-signal controlled intersection of Ogden Avenue with Lacey Road were based on the existing cycle lengths (120 seconds for the weekday morning, 120 seconds for the weekday evening, and 90 seconds for the Saturday midday) at the intersection of Ogden Avenue with Finley Road/Belmont Road. These cycle lengths were used to optimize the intersection's overall LOS while minimizing the delays and queuing experienced along Ogden Avenue.

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 LOS and overall intersection delay (measured in seconds) for existing traffic volumes (Figure 4), no-build Year 2022 background (Figure 7) and projected Year 2022 traffic conditions (Figure 8) are presented in **Tables 4** through **6**, respectively. A table summarizing the red time queues for the projected signalized intersection of Ogden Avenue with Lacey Road/Proposed Access Drive is included in the appendix. A discussion of the intersections follows.



CAPACITY ANALYSES RESULTS—EXISTING CONDITIONS							
	Wee Mo Peak	ekday rning t Hour	Weekday Evening Peak Hour		Satu Mic Peak	irday lday Hour	
Intersection	LOS	Delay	LOS	Delay	LOS	Delay	
Ogden Avenue with Lacey Road ¹							
• Southbound Approach	С	20.6	E	40.4	С	23.9	
• Eastbound Lefts	В	12.4	С	18.4	В	13.0	
Ogden Avenue with Lee Avenue ¹							
Southbound Approach	D	28.5	С	22.6	D	31.4	
Northbound Approach	D	27.3	D	29.5	D	28.8	
• Eastbound Lefts	В	12.3	С	18.0	В	13.0	
Westbound Lefts	В	13.5	В	12.7	В	13.2	
LOS = Level of Service Delay is measured in seconds. 1 - Unsignalized Intersection 2 - Signalized Intersection							

Table 4 CAPACITY ANALYSES RESULTS—EXISTING CONDITIONS



	WeekdayWeekdayMorningEveningPeak HourPeak Hour		ekday ening Hour	Saturday Midday Peak Hour		
Intersection	LOS	Delay	LOS	Delay	LOS	Delay
Ogden Avenue with Lacey Road ¹						
Southbound Approach	D	27.9	F	81.5	Е	38.5
• Eastbound Lefts	В	13.0	С	21.9	В	13.8
Ogden Avenue with Lee Avenue ¹						
• Southbound Approach	D	31.7	F	255.5	F	75.1
• Northbound Approach	D	30.7	F	104.0	F	68.6
• Eastbound Lefts	В	12.9	С	19.6	В	13.7
• Westbound Lefts	В	14.3	В	13.3	В	14.0
LOS = Level of Service Delay is measured in seconds. 1 - Unsignalized Intersection 2 - Signalized Intersection						

Table 5CAPACITY ANALYSES RESULTS—YEAR 2022 NO-BUILD CONDITIONS



	Wee Mor Peak	kday ning Hour	Wee Eve Peak	kday ning Hour	Satu Mic Peak	ırday lday Hour
Intersection	LOS	Delay	LOS	Delay	LOS	Delay
Ogden Avenue with Lacey Road/Prop	posed Acc	ess Drive ¹				
Northbound Approach	F	55.5	F	199.4	F	287.0
Southbound Approach	Е	45.7	F	110.4	F	73.3
• Eastbound Lefts	В	13.0	С	21.4	В	13.7
• Westbound Lefts	С	15.1	В	13.7	В	14.7
Ogden Avenue with Lacey Road/Prop	posed Acc	ess Drive ²				
• Overall	А	4.8	В	10.7	А	9.1
Eastbound Approach	А	1.9	А	2.0	А	4.0
Westbound Approach	А	6.0	В	14.1	А	9.9
• Northbound Approach	E	55.8	Е	61.3	D	46.8
Southbound Approach	D	54.9	D	52.8	D	38.2
Ogden Avenue with Lee Avenue ²						
Southbound Approach	С	15.6	С	22.9	С	16.6
Northbound Approach	D	31.6	D	29.2	E	35.2
• Westbound Lefts	В	14.5	В	13.7	В	14.7
Ogden Avenue with Proposed Righ	t-in/Right-	out Access	Drive ¹			
Northbound Approach	С	16.5	С	15.7	С	16.2
LOS = Level of Service Delay is measured in seconds. 1 - Unsignalized Intersection 2 - Signalized Intersection						

Table 6 CAPACITY ANALYSES RESULTS—YEAR 2022 PROJE

Packey Webb Ford Downers Grove, Illinois



Discussion and Recommendations

The following summarizes traffic capacity analysis for the study intersections for the existing and projected future conditions.

Ogden Avenue with Lacey Road

The results of the capacity analyses indicates that this intersection currently operates at LOS C during the weekday morning and Saturday midday peak hour and at LOS E during the weekday evening peak hour. Assuming Year 2022 no-build conditions, the southbound approach is projected to operate at LOS D during the weekday morning peak hour, LOS F during the weekday evening peak hour and LOS E during the Saturday midday peak hour with increases in delay of approximately seven seconds, 41 seconds and 15 seconds, respectively. Under future conditions with the northbound and southbound approaches under stop-sign control, the northbound approach is projected to operate at LOS F during the weekday morning peak hours and the southbound approach is projected to operate at LOS F during the weekday morning peak hours and the southbound approach is projected to operate at LOS F during the weekday morning peak hours and the southbound approach is projected to operate at LOS F during the weekday morning peak hours and the southbound approach is projected to operate at LOS F during the weekday morning peak hours and the southbound approach is projected to operate at LOS F during the weekday morning peak hour and at LOS F during the weekday evening and Saturday midday peak hours.

Assuming the installation of a traffic signal and interconnecting to the signal at the intersection of Finley Road/Belmont Road with Ogden Avenue (approximately one-half mile west) as well as the provision of eastbound and westbound left-turn lanes on Ogden Avenue through restriping, this intersection is projected to operate overall at LOS A during the weekday morning and Saturday midday peak hours and at LOS B during the weekday evening peak hour. The northbound and southbound approaches are projected to operate at LOS E or better during the peak hours. Furthermore, eastbound and westbound left-turns from Ogden Avenue onto Lacey Road/the proposed access drive are projected to operate at LOS B or better during the peak hours with 95th percentile queues of one vehicle which will not extend beyond the full movement driveways of the adjacent commercial developments on the north side of Ogden Avenue. It should be further noted that the 95th percentile queues for the traffic on the eastbound approach on Ogden Avenue are projected to be less than 85 feet during all three peak hours which will not extend onto the curve to the west thus not causing sight distance concerns along Ogden Avenue. When compared to the turnlane guidelines published in Chapter 36 of the IDOT Bureau of Design and Environment Manual, the eastbound and westbound right-turning volumes will not warrant a right-turn lane. As such, the proposed access drive and traffic signal will be adequate in accommodating the traffic projected to be generated by the proposed development and will not negatively impact the operations of Ogden Avenue.



Ogden Avenue with Lee Avenue

The results of the capacity analyses indicates that the northbound and southbound approaches at this intersection currently operate at LOS D or better during the peak hours. Assuming Year 2022 no-build conditions the northbound and southbound approaches are projected to operate at LOS D during the weekday morning peak hour with increases in delay of approximately three seconds and are projected to operate at LOS F during the weekday evening and Saturday midday peak hours with increases in delay of greater than 40 seconds during both peak hours. Assuming future conditions, the southbound approach is projected to operate at LOS C during all three peak hours. The northbound approach is projected to continue to operate at LOS D during the weekday morning and evening peak hours and is projected to operate on the threshold of LOS D/E during the Saturday midday peak hour. Furthermore, westbound left-turns onto Lee Avenue are projected to operate at LOS B during the peak hours with 95th percentile queues of one to two vehicles. However, these levels of service do not take into consideration the proximity of the proposed signalized intersection of Ogden Avenue with Lacey Road that will create additional gaps in the Ogden Avenue traffic stream for traffic to turn onto or off of Lee Avenue. As such, the proposed development and proposed traffic signal will not have a significant impact on the operations of this intersection and no roadway or traffic control improvements will be required.

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

The proposed right-in/right-out access drive will provide one inbound lane and one outbound lane with outbound movements restricted to right-turning movements only with pavement marking and signage. Using pavement markings to restrict movements will allow for trucks to enter the development via the access drive and circulate counter clockwise around the development efficiently and exit at the proposed traffic signal. Additionally, right-turns do not need to be physically restricted as the provision of the traffic signal will allow vehicles to turn left out of the development efficiently. The results of the capacity analyses indicate that the northbound approach is projected to operate at LOS C during all three peak hours with 95th percentile queues of one to two vehicles. Based on the turn lane guidelines published in Chapter 36 of the IDOT BDE Manual and the proposed capacity analyses, widening of Ogden Avenue to provide an eastbound right-turn lane will not be necessary. As such, the proposed right-in/right-out access drive will provide for efficient truck access to the development and will allow for flexible access of passenger vehicles. Furthermore, the access drive will be adequate in accommodating the traffic projected to be generated by the proposed development.



Conclusion

Based on the proposed development plan and the preceding evaluation, the following conclusions and recommendations are made.

- The provision of a traffic signal at the intersection of Ogden Avenue with Lacey Road will be beneficial for the following reasons:
 - It will reduce the separation distance between the two coordinated traffic signal systems stretching from I-355 to Finley Road/Belmont Road and Saratoga Avenue to I-294.
 - It will reduce the potential for speeding on Ogden Avenue between Finley Road/Belmont Road and Saratoga Avenue
 - It will maintain the platooning of traffic along Ogden Avenue
 - It will create additional gaps in the Ogden Avenue traffic stream improving the ability of traffic to turn between Ogden Avenue and the local roadways and access drives serving the existing developments within the vicinity of the site
 - With traffic signal preemption, Lacey Road will provide unobstructed access for emergency vehicles to the Sheltered Care Facility and improve response time.
- The provision of a traffic signal will draw more vehicles from the residential developments to the north and will enhance the long-term development potential of neighboring parcels
- The proposed signal is projected to operate at LOS A with minimal delays experienced on both approaches and minimal queueing along the eastbound approach on Ogden Avenue.
- The proposed development traffic estimated to traverse through the signalized intersection of Ogden Avenue and Lee Avenue during peak hours is projected to have a minimal impact on the operations of the intersections.
- The proposed right-in/right-out access drive will provide flexible access for passenger vehicles and will provide for efficient access for trucks entering the site, allowing them to circulate counterclockwise to the proposed traffic signal.
- The widening of Ogden Avenue to provide an eastbound or westbound right-turn lane at Lacey Road or the proposed right-in/right-out access drive is not warranted based on the turn lane guidelines published in Chapter 36 of the IDOT BDE Manual.



Appendix

Packey Webb Ford Downers Grove, Illinois



Traffic Count Summary Sheets

Packey Webb Ford Downers Grove, Illinois





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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lacey Road Site Code: Start Date: 01/16/2016 Page No: 1

Turning Movement Data

			Ogden Avenue				-	Ogden Avenue					Lacey Road			
Start Time			Eastbound					Westbound								
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:00 PM	0	3	295	0	298	0	331	2	0	333	0	2	4	0	6	637
12:15 PM	0	2	347	0	349	1	371	1	0	373	0	4	4	0	8	730
12:30 PM	0	2	340	0	342	0	312	1	0	313	0	0	1	0	1	656
12:45 PM	0	0	312	0	312	0	368	1	0	369	0	1	3	0	4	685
Hourly Total	0	7	1294	0	1301	1	1382	5	0	1388	0	7	12	0	19	2708
1:00 PM	0	1	283	0	284	0	317	1	0	318	0	0	0	2	0	602
1:15 PM	0	2	328	0	330	0	332	0	0	332	0	0	1	0	1	663
1:30 PM	0	1	306	0	307	0	343	0	0	343	0	0	0	0	0	650
1:45 PM	0	1	334	0	335	0	322	4	0	326	0	0	0	0	0	661
Hourly Total	0	5	1251	0	1256	0	1314	5	0	1319	0	0	1	2	1	2576
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	2	339	0	341	0	250	0	0	250	0	1	0	0	1	592
7:15 AM	0	2	377	0	379	0	296	1	0	297	0	2	0	0	2	678
7:30 AM	0	0	392	0	392	0	330	0	0	330	0	1	1	0	2	724
7:45 AM	0	3	343	0	346	0	340	0	0	340	0	0	2	0	2	688
Hourly Total	0	7	1451	0	1458	0	1216	1	0	1217	0	4	3	0	7	2682
8:00 AM	0	2	321	0	323	0	291	2	0	293	0	0	3	0	3	619
8:15 AM	0	2	319	0	321	0	339	0	0	339	0	0	0	0	0	660
8:30 AM	0	0	348	0	348	0	287	0	0	287	0	2	0	0	2	637
8:45 AM	0	1	324	0	325	0	255	2	0	257	0	2	1	0	3	585
Hourly Total	0	5	1312	0	1317	0	1172	4	0	1176	0	4	4	0	8	2501
*** BREAK ***	-	-		-	-	-	-		-	-	-	-	-	-	-	-
11:00 AM	0	0	206	0	206	0	223	2	0	225	0	0	4	0	4	435
11:15 AM	0	0	285	0	285	0	287	1	0	288	0	0	6	0	6	579
11:30 AM	0	0	266	0	266	0	302	0	0	302	0	0	0	2	0	568
11:45 AM	0	1	273	0	274	0	277	0	0	277	0	0	2	1	2	553
Hourly Total	0	1	1030	0	1031	0	1089	3	0	1092	0	0	12	3	12	2135
12:00 PM	0	4	277	0	281	0	274	3	0	277	0	2	6	0	8	566
12:15 PM	0	2	277	0	279	0	279	4	0	283	0	0	2	0	2	564
12:30 PM	0	0	278	0	278	0	273	1	0	274	0	0	0	0	0	552
12:45 PM	0	1	285	0	286	0	296	2	0	298	0	0	3	0	3	587
Hourly Total	0	7	1117	0	1124	0	1122	10	0	1132	0	2	11	0	13	2269
1:00 PM	0	1	271	0	272	0	267	2	0	269	0	1	1	0	2	543
1:15 PM	0	0	241	0	241	0	311	3	0	314	0	2	3	0	5	560
1:30 PM	0	2	238	0	240	0	326	0	0	326	0	1	1	0	2	568
1:45 PM	0	0	261	0	261	0	300	1	0	301	0	2	3	0	5	567
Hourly Total	0	3	1011	0	1014	0	1204	6	0	1210	0	6	8	0	14	2238
2:00 PM	0	2	274	0	276	0	272	2	0	274	0	0	1	0	1	551

2:15 PM	0	2	267	0	269	0	270	0	0	270	0	2	1	2	3	542
2:30 PM	0	0	298	0	298	0	310	0	0	310	0	0	1	0	1	609
2:45 PM	0	2	262	0	264	0	312	0	0	312	0	2	3	0	5	581
Hourly Total	0	6	1101	0	1107	0	1164	2	0	1166	0	4	6	2	10	2283
3:00 PM	0	6	302	0	308	0	305	2	0	307	0	0	3	0	3	618
3:15 PM	0	1	280	0	281	0	326	1	0	327	0	0	0	0	0	608
3:30 PM	0	0	306	0	306	0	402	0	0	402	0	0	6	0	6	714
3:45 PM	0	4	248	0	252	0	400	0	0	400	0	2	6	0	8	660
Hourly Total	0	11	1136	0	1147	0	1433	3	0	1436	0	2	15	0	17	2600
4:00 PM	0	0	311	0	311	0	406	2	0	408	0	3	4	0	7	726
4:15 PM	0	1	328	0	329	0	498	0	0	498	0	0	0	0	0	827
4:30 PM	0	0	285	0	285	0	474	1	0	475	0	0	1	1	1	761
4:45 PM	0	4	325	0	329	0	469	1	0	470	0	0	2	0	2	801
Hourly Total	0	5	1249	0	1254	0	1847	4	0	1851	0	3	7	1	10	3115
5:00 PM	0	5	335	0	340	0	488	0	0	488	0	0	3	0	3	831
5:15 PM	0	1	370	0	371	0	484	0	0	484	0	2	1	0	3	858
5:30 PM	0	1	311	0	312	0	518	3	0	521	0	0	1	0	1	834
5:45 PM	0	0	308	0	308	0	444	2	0	446	0	2	1	1	3	757
Hourly Total	0	7	1324	0	1331	0	1934	5	0	1939	0	4	6	1	10	3280
6:00 PM	0	1	282	0	283	0	433	0	0	433	0	0	0	0	0	716
6:15 PM	0	1	242	0	243	0	379	1	0	380	0	0	1	0	1	624
6:30 PM	0	3	201	0	204	0	301	0	0	301	0	0	2	0	2	507
6:45 PM	0	2	211	0	213	0	229	0	0	229	0	0	2	0	2	444
Hourly Total	0	7	936	0	943	0	1342	1	0	1343	0	0	5	0	5	2291
7:00 PM	0	0	199	0	199	0	245	0	0	245	0	0	2	0	2	446
7:15 PM	0	1	150	0	151	0	213	0	0	213	0	0	0	0	0	364
7:30 PM	0	0	112	0	112	0	223	2	0	225	0	0	0	1	0	337
7:45 PM	0	0	119	0	119	0	164	1	0	165	0	0	0	1	0	284
Hourly Total	0	1	580	0	581	0	845	3	0	848	0	0	2	2	2	1431
8:00 PM	0	0	108	0	108	0	174	0	0	174	0	0	0	0	0	282
8:15 PM	0	0	100	0	100	0	166	0	0	166	0	0	0	0	0	266
8:30 PM	0	0	109	0	109	0	135	0	0	135	0	0	1	0	1	245
8:45 PM	0	0	88	0	88	0	148	0	0	148	0	0	0	0	0	236
Hourly Total	0	0	405	0	405	0	623	0	0	623	0	0	1	0	1	1029
Grand Total	0	72	15197	0	15269	1	17687	52	0	17740	0	36	93	11	129	33138
Approach %	0.0	0.5	99.5	-	-	0.0	99.7	0.3	-	-	0.0	27.9	72.1	-	-	-
Total %	0.0	0.2	45.9	-	46.1	0.0	53.4	0.2	-	53.5	0.0	0.1	0.3	-	0.4	-
Lights	0	71	14936	-	15007	1	17357	50	-	17408	0	35	89	-	124	32539
% Lights	-	98.6	98.3	-	98.3	100.0	98.1	96.2	-	98.1	-	97.2	95.7	-	96.1	98.2
Buses	0	0	55	-	55	0	65	0	-	65	0	0	0	-	0	120
% Buses	-	0.0	0.4	-	0.4	0.0	0.4	0.0	-	0.4	-	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	1	162	-	163	0	203	2	-	205	0	1	4	-	5	373
% Single-Unit Trucks	-	1.4	1.1	-	1.1	0.0	1.1	3.8	-	1.2	-	2.8	4.3	-	3.9	1.1
Articulated Trucks	0	0	44	-	44	0	62	0	-	62	0	0	0	-	0	106
% Articulated Trucks	-	0.0	0.3	-	0.3	0.0	0.4	0.0	-	0.3	-	0.0	0.0	-	0.0	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	-	-	-	-	11	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lacey Road Site Code: Start Date: 01/16/2016 Page No: 4

Turning Movement Peak Hour Data (12:00 PM)

	Ogden Avenue Eastbound							Ogden Avenue Westbound								
Start Time	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:00 PM	0	3	295	0	298	0	331	2	0	333	0	2	4	0	6	637
12:15 PM	0	2	347	0	349	1	371	1	0	373	0	4	4	0	8	730
12:30 PM	0	2	340	0	342	0	312	1	0	313	0	0	1	0	1	656
12:45 PM	0	0	312	0	312	0	368	1	0	369	0	1	3	0	4	685
Total	0	7	1294	0	1301	1	1382	5	0	1388	0	7	12	0	19	2708
Approach %	0.0	0.5	99.5	-	-	0.1	99.6	0.4	-	-	0.0	36.8	63.2	-	-	-
Total %	0.0	0.3	47.8	-	48.0	0.0	51.0	0.2	-	51.3	0.0	0.3	0.4	-	0.7	-
PHF	0.000	0.583	0.932	-	0.932	0.250	0.931	0.625	-	0.930	0.000	0.438	0.750	-	0.594	0.927
Lights	0	7	1283	-	1290	1	1368	5	-	1374	0	7	12	-	19	2683
% Lights	-	100.0	99.1	-	99.2	100.0	99.0	100.0	-	99.0	-	100.0	100.0	-	100.0	99.1
Buses	0	0	2	-	2	0	2	0	-	2	0	0	0	-	0	4
% Buses	-	0.0	0.2	-	0.2	0.0	0.1	0.0	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	9	-	9	0	8	0	-	8	0	0	0	-	0	17
% Single-Unit Trucks	-	0.0	0.7	-	0.7	0.0	0.6	0.0	-	0.6	-	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	0	-	0	0	4	0	-	4	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.3	0.0	-	0.3	-	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	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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

Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lacey Road Site Code: Start Date: 01/16/2016 Page No: 6

Turning Movement Peak Hour Data (7:15 AM)

	Ogden Avenue							Ogden Avenue								
Start Time			Eastbound					Westbound								
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	2	377	0	379	0	296	1	0	297	0	2	0	0	2	678
7:30 AM	0	0	392	0	392	0	330	0	0	330	0	1	1	0	2	724
7:45 AM	0	3	343	0	346	0	340	0	0	340	0	0	2	0	2	688
8:00 AM	0	2	321	0	323	0	291	2	0	293	0	0	3	0	3	619
Total	0	7	1433	0	1440	0	1257	3	0	1260	0	3	6	0	9	2709
Approach %	0.0	0.5	99.5	-	-	0.0	99.8	0.2	-	-	0.0	33.3	66.7	-	-	-
Total %	0.0	0.3	52.9	-	53.2	0.0	46.4	0.1	-	46.5	0.0	0.1	0.2	-	0.3	-
PHF	0.000	0.583	0.914	-	0.918	0.000	0.924	0.375	-	0.926	0.000	0.375	0.500	-	0.750	0.935
Lights	0	7	1396	-	1403	0	1212	3	-	1215	0	3	6	-	9	2627
% Lights	-	100.0	97.4	-	97.4	-	96.4	100.0	-	96.4	-	100.0	100.0	-	100.0	97.0
Buses	0	0	12	-	12	0	16	0	-	16	0	0	0	-	0	28
% Buses	-	0.0	0.8	-	0.8	-	1.3	0.0	-	1.3	-	0.0	0.0	-	0.0	1.0
Single-Unit Trucks	0	0	22	-	22	0	23	0	-	23	0	0	0	-	0	45
% Single-Unit Trucks	-	0.0	1.5	-	1.5	-	1.8	0.0	-	1.8	-	0.0	0.0	-	0.0	1.7
Articulated Trucks	0	0	3	-	3	0	6	0	-	6	0	0	0	-	0	9
% Articulated Trucks	-	0.0	0.2	-	0.2	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-


Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lacey Road Site Code: Start Date: 01/16/2016 Page No: 10

Turning Movement Peak Hour Data (4:45 PM)

			Ogden Avenue Eastbound					Ogden Avenue Westbound					Lacey Road Southbound			
Start Time	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	0	4	325	0	329	0	469	1	0	470	0	0	2	0	2	801
5:00 PM	0	5	335	0	340	0	488	0	0	488	0	0	3	0	3	831
5:15 PM	0	1	370	0	371	0	484	0	0	484	0	2	1	0	3	858
5:30 PM	0	1	311	0	312	0	518	3	0	521	0	0	1	0	1	834
Total	0	11	1341	0	1352	0	1959	4	0	1963	0	2	7	0	9	3324
Approach %	0.0	0.8	99.2	-	-	0.0	99.8	0.2	-	-	0.0	22.2	77.8	-	-	-
Total %	0.0	0.3	40.3	-	40.7	0.0	58.9	0.1	-	59.1	0.0	0.1	0.2	-	0.3	-
PHF	0.000	0.550	0.906	-	0.911	0.000	0.945	0.333	-	0.942	0.000	0.250	0.583	-	0.750	0.969
Lights	0	11	1328	-	1339	0	1942	4	-	1946	0	1	7	-	8	3293
% Lights	-	100.0	99.0	-	99.0	-	99.1	100.0	-	99.1	-	50.0	100.0	-	88.9	99.1
Buses	0	0	1	-	1	0	2	0	-	2	0	0	0	-	0	3
% Buses	-	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	8	-	8	0	12	0	-	12	0	1	0	-	1	21
% Single-Unit Trucks	-	0.0	0.6	-	0.6	-	0.6	0.0	-	0.6	-	50.0	0.0	-	11.1	0.6
Articulated Trucks	0	0	4	-	4	0	3	0	-	3	0	0	0	-	0	7
% Articulated Trucks	-	0.0	0.3	-	0.3	-	0.2	0.0	-	0.2	-	0.0	0.0	-	0.0	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	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lee Avenue Site Code: Start Date: 01/16/2016 Page No: 1

Turning Movement Data

			Ogden Eastt	Avenue bound					Ogden West	Avenue bound	U				Lee A North	venue bound					Lee A South	venue bound			
Start Time	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	2	286	7	0	295	0	7	318	1	0	326	0	7	0	8	0	15	0	3	0	1	0	4	640
12:15 PM	0	3	362	2	0	367	0	10	363	1	0	374	0	4	1	10	0	15	0	2	0	0	0	2	758
12:30 PM	0	0	358	3	0	361	0	7	302	1	0	310	0	2	1	7	0	10	0	1	1	3	0	5	686
12:45 PM	0	0	318	6	0	324	0	12	366	1	0	379	0	1	0	15	0	16	0	0	0	3	0	3	722
Hourly Total	0	5	1324	18	0	1347	0	36	1349	4	0	1389	0	14	2	40	0	56	0	6	1	7	0	14	2806
1:00 PM	0	2	285	4	0	291	0	9	317	3	0	329	0	1	0	9	0	10	0	1	0	4	2	5	635
1:15 PM	0	2	319	5	1	326	1	5	325	4	0	335	0	3	0	3	0	6	0	3	0	4	1	7	674
1:30 PM	0	3	300	5	0	308	0	4	334	0	0	338	0	3	0	2	0	5	0	0	0	6	0	6	657
1:45 PM	0	1	328	5	0	334	0	7	315	2	0	324	0	1	0	4	0	5	0	1	0	7	0	8	671
Hourly Total	0	8	1232	19	1	1259	1	25	1291	9	0	1326	0	8	0	18	0	26	0	5	0	21	3	26	2637
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	0	335	1	0	336	0	2	260	1	0	263	0	1	0	7	0	8	0	1	0	2	0	3	610
7:15 AM	0	0	378	1	0	379	0	3	306	0	0	309	0	3	0	7	0	10	0	1	0	3	0	4	702
7:30 AM	0	1	389	2	0	392	0	4	346	2	0	352	0	4	0	10	0	14	0	3	0	1	0	4	762
7:45 AM	0	0	341	1	0	342	0	0	352	1	0	353	0	3	0	12	0	15	0	2	0	1	0	3	713
Hourly Total	0	1	1443	5	0	1449	0	9	1264	4	0	1277	0	11	0	36	0	47	0	7	0	7	0	14	2787
8:00 AM	0	0	319	2	0	321	0	5	293	0	0	298	0	1	0	24	0	25	0	0	0	2	0	2	646
8:15 AM	0	0	316	3	0	319	0	2	333	0	0	335	0	1	0	10	0	11	0	0	0	6	0	6	671
8:30 AM	0	1	345	0	0	346	0	1	283	0	0	284	0	4	0	10	0	14	0	0	0	1	0	1	645
8:45 AM	0	1	338	1	0	340	0	3	256	0	0	259	0	3	0	8	0	11	0	2	0	2	1	4	614
Hourly Total	0	2	1318	6	0	1326	0	11	1165	0	0	1176	0	9	0	52	0	61	0	2	0	11	1	13	2576
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	306	4	0	312	0	8	405	4	0	417	0	2	0	1	0	3	0	2	0	2	0	4	736
4:15 PM	0	1	320	1	0	322	0	5	496	3	0	504	0	1	0	4	0	5	0	2	0	2	0	4	835
4:30 PM	0	2	289	3	0	294	0	6	469	3	0	478	0	1	0	7	0	8	0	3	0	3	0	6	786
4:45 PM	0	2	317	4	0	323	0	7	466	4	0	477	0	0	1	5	0	6	0	0	2	3	0	5	811
Hourly Total	0	7	1232	12	0	1251	0	26	1836	14	0	1876	0	4	1	17	0	22	0	7	2	10	0	19	3168
5:00 PM	0	1	328	3	0	332	0	8	482	2	0	492	0	1	0	3	0	4	0	0	0	2	0	2	830
5:15 PM	0	3	348	8	0	359	0	10	477	0	0	487	0	4	0	5	0	9	0	0	0	3	0	3	858
5:30 PM	0	0	318	1	0	319	0	8	537	2	0	547	0	1	0	2	0	3	0	0	0	3	0	3	872
5:45 PM	0	3	303	7	0	313	0	9	445	1	0	455	0	2	0	7	0	9	0	0	0	3	0	3	780
Hourly Total	0	7	1297	19	0	1323	0	35	1941	5	0	1981	0	8	0	17	0	25	0	0	0	11	0	11	3340
Grand Total	0	30	7846	79	1	7955	1	142	8846	36	0	9025	0	54	3	180	0	237	0	27	3	67	4	97	17314
Approach %	0.0	0.4	98.6	1.0	_	-	0.0	1.6	98.0	0.4	-	-	0.0	22.8	1.3	75.9	-	-	0.0	27.8	3.1	69.1	-	-	-
Total %	0.0	0.2	45.3	0.5	-	45.9	0.0	0.8	51.1	0.2	-	52.1	0.0	0.3	0.0	1.0	-	1.4	0.0	0.2	0.0	0.4	-	0.6	-
Lights	0	29	7733	77	-	7839	1	141	8706	35	-	8883	0	53	2	176	-	231	0	27	3	66	-	96	17049
% Lights	-	96.7	98.6	97.5	-	98.5	100.0	99.3	98.4	97.2	-	98.4	-	98.1	66.7	97.8	-	97.5	-	100.0	100.0	98.5	-	99.0	98.5

								-													-				
Buses	0	1	23	1	-	25	0	0	34	1	-	35	0	0	0	2	-	2	0	0	0	0	-	0	62
% Buses	-	3.3	0.3	1.3	-	0.3	0.0	0.0	0.4	2.8	-	0.4	-	0.0	0.0	1.1	-	0.8	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	78	1	-	79	0	1	79	0	-	80	0	1	1	2	-	4	0	0	0	1	-	1	164
% Single-Unit Trucks	-	0.0	1.0	1.3	-	1.0	0.0	0.7	0.9	0.0	-	0.9	-	1.9	33.3	1.1	-	1.7	-	0.0	0.0	1.5	-	1.0	0.9
Articulated Trucks	0	0	12	0	-	12	0	0	27	0	-	27	0	0	0	0	-	0	0	0	0	0	-	0	39
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lee Avenue Site Code: Start Date: 01/16/2016 Page No: 4

Turning Movement Peak Hour Data (12:00 PM)

			Ogden Eastt	Avenue					Ogden West	Avenue bound					Lee A North	venue bound					Lee A South	venue bound			
Start Time	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	2	286	7	0	295	0	7	318	1	0	326	0	7	0	8	0	15	0	3	0	1	0	4	640
12:15 PM	0	3	362	2	0	367	0	10	363	1	0	374	0	4	1	10	0	15	0	2	0	0	0	2	758
12:30 PM	0	0	358	3	0	361	0	7	302	1	0	310	0	2	1	7	0	10	0	1	1	3	0	5	686
12:45 PM	0	0	318	6	0	324	0	12	366	1	0	379	0	1	0	15	0	16	0	0	0	3	0	3	722
Total	0	5	1324	18	0	1347	0	36	1349	4	0	1389	0	14	2	40	0	56	0	6	1	7	0	14	2806
Approach %	0.0	0.4	98.3	1.3	-	-	0.0	2.6	97.1	0.3	-	-	0.0	25.0	3.6	71.4	-	-	0.0	42.9	7.1	50.0	-	-	-
Total %	0.0	0.2	47.2	0.6	-	48.0	0.0	1.3	48.1	0.1	-	49.5	0.0	0.5	0.1	1.4	-	2.0	0.0	0.2	0.0	0.2	-	0.5	-
PHF	0.000	0.417	0.914	0.643	-	0.918	0.000	0.750	0.921	1.000	-	0.916	0.000	0.500	0.500	0.667	-	0.875	0.000	0.500	0.250	0.583	-	0.700	0.925
Lights	0	5	1310	17	-	1332	0	36	1332	4	-	1372	0	14	1	38	-	53	0	6	1	6	-	13	2770
% Lights	-	100.0	98.9	94.4	-	98.9	-	100.0	98.7	100.0	-	98.8	-	100.0	50.0	95.0	-	94.6	-	100.0	100.0	85.7	-	92.9	98.7
Buses	0	0	4	0	-	4	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	6
% Buses	-	0.0	0.3	0.0	-	0.3	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	10	1	-	11	0	0	11	0	-	11	0	0	1	2	-	3	0	0	0	1	-	1	26
% Single-Unit Trucks	-	0.0	0.8	5.6	-	0.8	-	0.0	0.8	0.0	-	0.8	-	0.0	50.0	5.0	-	5.4	-	0.0	0.0	14.3	-	7.1	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lee Avenue Site Code: Start Date: 01/16/2016 Page No: 6

Turning Movement Peak Hour Data (7:15 AM)

			Ogden Eastl	Avenue					Ogden West	Avenue bound					Lee A Northi	venue bound					Lee A South	venue bound			
Start Time	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
7:15 AM	0	0	378	1	0	379	0	3	306	0	0	309	0	3	0	7	0	10	0	1	0	3	0	4	702
7:30 AM	0	1	389	2	0	392	0	4	346	2	0	352	0	4	0	10	0	14	0	3	0	1	0	4	762
7:45 AM	0	0	341	1	0	342	0	0	352	1	0	353	0	3	0	12	0	15	0	2	0	1	0	3	713
8:00 AM	0	0	319	2	0	321	0	5	293	0	0	298	0	1	0	24	0	25	0	0	0	2	0	2	646
Total	0	1	1427	6	0	1434	0	12	1297	3	0	1312	0	11	0	53	0	64	0	6	0	7	0	13	2823
Approach %	0.0	0.1	99.5	0.4	-	-	0.0	0.9	98.9	0.2	-	-	0.0	17.2	0.0	82.8	-	-	0.0	46.2	0.0	53.8	-	-	-
Total %	0.0	0.0	50.5	0.2	-	50.8	0.0	0.4	45.9	0.1	-	46.5	0.0	0.4	0.0	1.9	-	2.3	0.0	0.2	0.0	0.2	-	0.5	-
PHF	0.000	0.250	0.917	0.750	-	0.915	0.000	0.600	0.921	0.375	-	0.929	0.000	0.688	0.000	0.552	-	0.640	0.000	0.500	0.000	0.583	-	0.813	0.926
Lights	0	0	1390	5	-	1395	0	12	1251	3	-	1266	0	11	0	51	-	62	0	6	0	7	-	13	2736
% Lights	-	0.0	97.4	83.3	-	97.3	-	100.0	96.5	100.0	-	96.5	-	100.0	-	96.2	-	96.9	-	100.0	-	100.0	-	100.0	96.9
Buses	0	1	11	1	-	13	0	0	17	0	-	17	0	0	0	2	-	2	0	0	0	0	-	0	32
% Buses	-	100.0	0.8	16.7	-	0.9	-	0.0	1.3	0.0	-	1.3	-	0.0	-	3.8	-	3.1	-	0.0	-	0.0	-	0.0	1.1
Single-Unit Trucks	0	0	20	0	-	20	0	0	24	0	-	24	0	0	0	0	-	0	0	0	0	0	-	0	44
% Single-Unit Trucks	-	0.0	1.4	0.0	-	1.4	-	0.0	1.9	0.0	-	1.8	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.6
Articulated Trucks	0	0	6	0	-	6	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	-	0.0	0.4	0.0	-	0.4	-	0.0	0.4	0.0	-	0.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Rosemont, Illinois, United States 60018 (847)518-9990 Count Name: Ogden Avenue with Lee Avenue Site Code: Start Date: 01/16/2016 Page No: 8

Turning Movement Peak Hour Data (4:45 PM)

			Ogden Eastt	Avenue					Ogden West	Avenue bound					Lee A North	venue bound					Lee A South	venue bound			
Start Time	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
4:45 PM	0	2	317	4	0	323	0	7	466	4	0	477	0	0	1	5	0	6	0	0	2	3	0	5	811
5:00 PM	0	1	328	3	0	332	0	8	482	2	0	492	0	1	0	3	0	4	0	0	0	2	0	2	830
5:15 PM	0	3	348	8	0	359	0	10	477	0	0	487	0	4	0	5	0	9	0	0	0	3	0	3	858
5:30 PM	0	0	318	1	0	319	0	8	537	2	0	547	0	1	0	2	0	3	0	0	0	3	0	3	872
Total	0	6	1311	16	0	1333	0	33	1962	8	0	2003	0	6	1	15	0	22	0	0	2	11	0	13	3371
Approach %	0.0	0.5	98.3	1.2	-	-	0.0	1.6	98.0	0.4	-	-	0.0	27.3	4.5	68.2	-	-	0.0	0.0	15.4	84.6	-	-	-
Total %	0.0	0.2	38.9	0.5	-	39.5	0.0	1.0	58.2	0.2	-	59.4	0.0	0.2	0.0	0.4	-	0.7	0.0	0.0	0.1	0.3	-	0.4	-
PHF	0.000	0.500	0.942	0.500	-	0.928	0.000	0.825	0.913	0.500	-	0.915	0.000	0.375	0.250	0.750	-	0.611	0.000	0.000	0.250	0.917	-	0.650	0.966
Lights	0	6	1298	16	-	1320	0	33	1946	8	-	1987	0	6	1	15	-	22	0	0	2	11	-	13	3342
% Lights	-	100.0	99.0	100.0	-	99.0	-	100.0	99.2	100.0	-	99.2	-	100.0	100.0	100.0	-	100.0	-	-	100.0	100.0	-	100.0	99.1
Buses	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Buses	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	10	0	-	10	0	0	11	0	-	11	0	0	0	0	-	0	0	0	0	0	-	0	21
% Single-Unit Trucks	-	0.0	0.8	0.0	-	0.8	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.2	0.0	-	0.2	-	0.0	0.2	0.0	-	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	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Site Plan







ITE Rates and Equations



 Automobile Sales (841)

 Average Vehicle Trip Ends vs:
 1000 Sq. Feet Gross Floor Area On a:

 Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

 Number of Studies:
 26 Average 1000 Sq. Feet GFA: ,30

Directional Distribution: 75% entering, 25% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

4.

2016-6862

Average Rate	Range of Rates	Standard Deviation
1.92	0.59 - 6.17	1.72



Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. Number of Studies: 41 Average 1000 Sq. Feet GFA: 33 Directional Distribution: 40% entering, 60% exiting

Average Rate	Range of Rates	Standard Deviation
2.62	0.94 - 5.81	1.90

Data Plot and Equation



Automobile Sales (841)Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Saturday, **Peak Hour of Generator** Number of Studies: 4 Average 1000 Sq. Feet GFA: 21 Directional Distribution: 50% entering, 50% exiting Trip Generation per 1000 Sq. Feet Gross Floor Area Average Rate Range of Rates Standard Deviation 4.02 1.41 -5.64 2.58 **Data Plot and Equation** Caution - Use Carefully - Small Sample Size 190 180 170 160 150 140 T = Average Vehicle Trip Ends 130 120 110 100 90 80 70 60 50 40 30 20 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 X = 1000 Sq. Feet Gross Floor Area imes Actual Data Points - Fitted Curve Average Rate $R^2 = 0.92$ Fitted Curve Equation: T = 8.56(X) - 95.28

Automobile Sales (841)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Weekday

Number of Studies:15Average 1000 Sq. Feet GFA:38Directional Distribution:50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
32.30	15.64 - 79.66	15.70

Data Plot and Equation



Automobile Sales

(841)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area On a: Saturday

Number of Studies: 4 Average 1000 Sq. Feet GFA: 30 Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
29.74	15.47 - 52.24	16.58

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



CMAP 2040 Projections Letter





Chicago Metropolitan Agency for Planning

233 South Wacker Drive Suite 800 Chicago, Illinois 60606

312 454 0400 www.cmap.illinois.gov

February 19, 2016

Brendan May Consultant Kenig, Lindgren, O'Hara, and Aboona, Inc. 9575 West Higgins Road Suite 400 Rosemont, IL 60018

Subject: Ogden Avenue @ Lee Avenue IDOT

Dear Mr. May:

In response to a request made on your behalf and dated February 18, 2016, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Year 2040 ADT
Ogden Avenue	39,000
Lee Avenue	900

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2015 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

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

Sincerely,

LR

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

cc: Fortmann (IDOT) S\AdminGroups\ResearchAnalysis\SmallAreaTrafficForecasts_CY16\DownersGrove\du-04-16\du-04-16.docx

Level of Service Criteria



Signalized In	ntersections		
			Average Control
Level of	- · ·		Delay
Service	Interpretation		(seconds per vehicle)
A	Favorable progression. Most vehicles arrive d green indication and travel through the inwithout stopping.	uring the tersection	≤10
В	Good progression, with more vehicles stopping Level of Service A.	, than for	>10 - 20
С	Individual cycle failures (i.e., one or more vehicles are not able to depart as a result of in capacity during the cycle) may begin to Number of vehicles stopping is significant, althouvehicles still pass through the intersection stopping.	e queued sufficient appear. ugh many without	>20 - 35
D	The volume-to-capacity ratio is high an progression is ineffective or the cycle length is Many vehicles stop and individual cycle fai noticeable.	d either too long. lures are	>35 - 55
E	Progression is unfavorable. The volume-to-capa is high and the cycle length is long. Individ failures are frequent.	acity ratio ual cycle	>55 - 80
F	The volume-to-capacity ratio is very high, prog very poor and the cycle length is long. Most cyc clear the queue.	ression is les fail to	>80.0
Unsignalized	I Intersections		
	Level of Service Average	e Total Del	ay (SEC/VEH)
	Α	0 -	10
	В	> 10 -	15
	С	>15 -	25
	D	> 25 -	35
	E	> 35 -	50
	F	> 50)

LEVEL OF SERVICE CRITERIA

Source: Highway Capacity Manual, 2010.



Capacity Analysis Summary Sheets



General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lacey
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2016	North/South Street	Lacey Road
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	pound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	Т				Т	TR							LR	
Volume (veh/h)		7	1433				1312	3						3		6
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	lo			Ν	0	
Median Type								Left +	- Thru							
Median Storage		1														
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		7													9	
Capacity		495													240	
v/c Ratio		0.01													0.04	
95% Queue Length		0.0													0.1	
Control Delay (s/veh)		12.4													20.6	
Level of Service (LOS)		В													С	
Approach Delay (s/veh)		0	.1											20).6	
Approach LOS	A							С								

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General Information		Site Information					
Analyst	BSM	Intersection	Ogden with Lacey				
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT				
Date Performed	2/12/2016	East/West Street	Ogden Avenue				
Analysis Year	2016	North/South Street	Lacey Road				
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.97				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	15-289						

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	oound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	Т				Т	TR							LR	
Volume (veh/h)		11	1341				1975	4						2		7
Percent Heavy Vehicles		0												50		0
Proportion Time Blocked																
Right Turn Channelized		N	0			Ν	lo			N	lo			N	0	
Median Type								Left +	- Thru							
Median Storage		1														
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		11													9	
Capacity		281													111	
v/c Ratio		0.04													0.08	
95% Queue Length		0.1													0.3	
Control Delay (s/veh)		18.4													40.4	
Level of Service (LOS)		C C												E		
Approach Delay (s/veh)		0	.1											40	.4	
Approach LOS	A													E		

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HCS 2010™ TWSC Version 6.70 Ogden with Lacey PMEX.xtw Generated: 2/12/2016 12:45:44 PM

HCS 2010 Two-Way Stop Control Summary Report **General Information Site Information** Analyst BSM Intersection Ogden with Lacey KLOA, Inc. IDOT Agency/Co. Jurisdiction Date Performed 2/12/2016 East/West Street Ogden Avenue Analysis Year 2016 North/South Street Lacey Road Time Analyzed SAT Peak Hour Peak Hour Factor 0.93 Intersection Orientation 0.25 East-West Analysis Time Period (hrs) 15-289 **Project Description**

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound Westbound									North	bound			Northbound Southbound						
Movement	U	L	Т	R	U	L	т	R	U	L	Т	R	U	L	Т	R				
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12				
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	0				
Configuration		L	Т				Т	TR							LR					
Volume (veh/h)		7	1340				1382	5						7		12				
Percent Heavy Vehicles		0												0		0				
Proportion Time Blocked																				
Right Turn Channelized		N	lo			N	lo			N	0			N	lo					
Median Type								Left +	- Thru											
Median Storage		1																		
Delay, Queue Length, and	Level	of Ser	vice																	
Flow Rate (veh/h)		8													21					
Capacity		457													212					
v/c Ratio		0.02													0.10					
95% Queue Length		0.1													0.3					
Control Delay (s/veh)	13.0										23.9									
Level of Service (LOS)		В													С					
Approach Delay (s/veh)		0	.1											23.9						
Approach LOS	A									(C									

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HCS 2010[™] TWSC Version 6.70 Ogden with Lacey SATEX.xtw

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2016	North/South Street	Lee Avenue
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound					West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		1	1429	6		12	1297	3		11	0	53		6	0	7
Percent Heavy Vehicles		0				0				0	0	4		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			Ν	о	
Median Type								Left	Only							
Median Storage	1															
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		1				13					69				14	
Capacity		495				436					230				167	
v/c Ratio		0.00				0.03					0.30				0.08	
95% Queue Length		0.0				0.1					1.2				0.3	
Control Delay (s/veh)		12.3				13.5					27.3				28.5	
Level of Service (LOS)	BBBB										D				D	
Approach Delay (s/veh)		0.0 0.1							27.3 28.5							
Approach LOS	A				A			D				D				

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HCS 2010[™] TWSC Version 6.70 Ogden with Lee AMEX.xtw

Generated: 2/12/2016 12:33:07 PM

HCS 2010 Two-Way Stop Control Summary Report **General Information Site Information** Analyst BSM Intersection Ogden with Lee KLOA, Inc. IDOT Agency/Co. Jurisdiction Date Performed 2/12/2016 East/West Street Ogden Avenue Analysis Year 2016 North/South Street Lee Avenue 0.97 Time Analyzed PM Peak Hour Peak Hour Factor Intersection Orientation 0.25 East-West Analysis Time Period (hrs) **Project Description** 15-289

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound Westbound								North	bound			South	bound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0	
Configuration		L	Т	TR		L	Т	TR			LTR				LTR		
Volume (veh/h)		6	1321	16		33	1962	8		6	1	15		0	2	11	
Percent Heavy Vehicles		0				0				0	0	0		0	0	0	
Proportion Time Blocked																	
Right Turn Channelized		N	0			Ν	lo			N	0			Ν	0		
Median Type								Left	Only								
Median Storage		1															
Delay, Queue Length, and	Level	of Ser	vice														
Flow Rate (veh/h)		6				34					22				13		
Capacity		283				504					169				218		
v/c Ratio		0.02				0.07					0.13				0.06		
95% Queue Length		0.1				0.2					0.4				0.2		
Control Delay (s/veh)		18.0				12.7					29.5				22.6		
Level of Service (LOS)		C B B									D				С		
Approach Delay (s/veh)		0	.1			0	.2			29	9.5		22.6				
Approach LOS	A						A D)		С					

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HCS 2010[™] TWSC Version 6.70 Ogden with Lee PMEX.xtw

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2016	North/South Street	Lee Avenue
Time Analyzed	SAT Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound Westbound								North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		5	1324	18		36	1366	18		14	2	40		6	1	7
Percent Heavy Vehicles		0				0				0	0	4		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	0			Ν	lo			N	lo			N	0	
Median Type								Left	Only							
Median Storage		1														
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		5				39					60				15	
Capacity		458				476					211				151	
v/c Ratio		0.01				0.08					0.28				0.10	
95% Queue Length		0.0				0.3					1.1				0.3	
Control Delay (s/veh)		13.0				13.2					28.8				31.4	
Level of Service (LOS)	B								D				D			
Approach Delay (s/veh)	0.0 0.3								28.8				31.4			
Approach LOS	A A					4		D					D			

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General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lacey/Access
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lacey Road/Full Access
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	bound			North	bound			South	bound		
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	1	0	
Configuration		L	Т				Т	TR							LTR		
Volume (veh/h)		12	1519				1391	9						6	0	9	
Percent Heavy Vehicles		0												0	0	0	
Proportion Time Blocked																	
Right Turn Channelized		N	0			Ν	lo			N	lo			N	0		
Median Type								Left	Only								
Median Storage		1															
Delay, Queue Length, and	Level	of Ser	vice														
Flow Rate (veh/h)		13													15		
Capacity		464													172		
v/c Ratio		0.03													0.09		
95% Queue Length		0.1													0.3		
Control Delay (s/veh)		13.0													27.9		
Level of Service (LOS)		В												D			
Approach Delay (s/veh)		0	.1											27	7.9		
Approach LOS													D				

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General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lacey/Access
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lacey Road/Full Access
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	bound			North	bound		Southbound				
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R	
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	1	0	
Configuration		L	Т				Т	TR							LTR		
Volume (veh/h)		26	1421				2094	10						10	0	14	
Percent Heavy Vehicles		0												0	0	0	
Proportion Time Blocked																	
Right Turn Channelized		N	0			Ν	lo			N	0		No				
Median Type								Left	Only								
Median Storage								:	1								
Delay, Queue Length, and	Level	of Ser	vice														
Flow Rate (veh/h)		27													26		
Capacity		240													72		
v/c Ratio		0.11													0.36		
95% Queue Length		0.4													1.4		
Control Delay (s/veh)		21.9													81.5		
Level of Service (LOS)		С													F		
Approach Delay (s/veh)		0	.4											81	5		
Approach LOS													I	=			

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HCS 2010™ TWSC Version 6.80 Ogden with Lacey Unsig PMPR - No Build.xtw Generated: 6/30/2016 1:11:46 PM

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lacey/Access
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lacey Road/Full Access
Time Analyzed	SAT Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	1	0
Configuration		L	Т				Т	TR							LTR	
Volume (veh/h)		18	1420				1465	16						18	0	22
Percent Heavy Vehicles		0												0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			N	lo	
Median Type								Left	Only							
Median Storage									1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		19													42	
Capacity		430													149	
v/c Ratio		0.04													0.28	
95% Queue Length		0.1													1.1	
Control Delay (s/veh)		13.8													38.5	
Level of Service (LOS)		В											E			
Approach Delay (s/veh)		0	.2											38	3.5	
Approach LOS		E										E				

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General Information		Site Information							
Analyst	BSM	Intersection	Ogden with Lee						
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT						
Date Performed	2/12/2016	East/West Street	Ogden Avenue						
Analysis Year	2022	North/South Street	Lee Avenue						
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.93						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	15-289								

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound Westbound									North	bound		Southbound			
Movement	U	L	T	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0 1 2 0 0 1 2 0								0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		1	1518	6		12	1382	3		11	0	53		6	0	7
Percent Heavy Vehicles		0				0				0	0	4		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			Ν	0	
Median Type								Left	Only							
Median Storage								1	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		1				13					69				14	
Capacity		457				401					208				149	
v/c Ratio		0.00				0.03					0.33				0.09	
95% Queue Length		0.0				0.1					1.4				0.3	
Control Delay (s/veh)		12.9				14.3					30.7				31.7	
Level of Service (LOS)		BBBB									D				D	
Approach Delay (s/veh)		0	.0			0	.1			30).7			31	7	
Approach LOS		D D)					

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HCS 2010[™] TWSC Version 6.80 Ogden with Lee AMPR - No Build.xtw Generated: 6/30/2016 1:25:21 PM

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lee Avenue
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.97
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0 1 2 0 0 1 2						0		0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		6	1409	16		33	2087	8		6	1	15		0	2	11
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	lo			Ν	0	
Median Type		Left Only														
Median Storage								-	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		6				34					22				13	
Capacity		252				465					57				25	
v/c Ratio		0.02				0.07					0.39				0.52	
95% Queue Length		0.1				0.2					1.4				1.6	
Control Delay (s/veh)		19.6				13.3					104.0				255.5	
Level of Service (LOS)	СВ										F				F	
Approach Delay (s/veh)		0	.1			0	.2			10	4.0			25	5.5	
Approach LOS										I	F				=	

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HCS 2010[™] TWSC Version 6.80 Ogden with Lee PMPR - No Build.xtw Generated: 6/30/2016 1:23:36 PM

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lee Avenue
Time Analyzed	SAT Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			Northbound			Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0 1 2 0 0 1 2 0							0	1	0		0	1	0	
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		4	1415	18		36	1460	18		14	2	40		6	1	7
Percent Heavy Vehicles		0				0				0	0	4		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	0			Ν	lo			N	0			Ν	0	
Median Type		Left Only														
Median Storage								1	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		4				39					60				15	
Capacity		419				437					113				66	
v/c Ratio		0.01				0.09					0.53				0.23	
95% Queue Length		0.0				0.3					2.5				0.8	
Control Delay (s/veh)		13.7				14.0					68.6				75.1	
Level of Service (LOS)		В				В			F				F			
Approach Delay (s/veh)		0	.0			0	.3			68	8.6			75	5.1	
Approach LOS										I	=				=	

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HCS 2010[™] TWSC Version 6.80 Ogden with Lee SATPR - No Build.xtw Generated: 6/30/2016 1:22:29 PM

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lacey/Access
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lacey Road/Full Access
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound		Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0 1 2 0 0 1 2 0								0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		13	1522	23		47	1386	9		20	0	12		12	0	9
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	0			Ν	lo			N	lo			N	о	
Median Type		Left Only														
Median Storage								-	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		14				49					34				22	
Capacity		466				405					104				110	
v/c Ratio		0.03				0.12					0.33				0.20	
95% Queue Length		0.1				0.4					1.3				0.7	
Control Delay (s/veh)		13.0				15.1					55.5				45.7	
Level of Service (LOS)		B C									F		E			
Approach Delay (s/veh)		0	.1			0	.5			55	5.5			45	5.7	
Approach LOS		F E										1				

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HCS 2010[™] TWSC Version 6.80 Ogden with Lacey Unsig AMPR.xtw Generated: 6/30/2016 12:59:25 PM

General Information		Site Information							
Analyst	BSM	Intersection	Ogden with Lacey/Access						
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT						
Date Performed	2/12/2016	East/West Street	Ogden Avenue						
Analysis Year	2022	North/South Street	Lacey Road/Full Access						
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.95						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	15-289								

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		22	1425	15		29	2080	10		58	0	34		12	0	14
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			Ν	lo	
Median Type								Left	Only							
Median Storage						1										
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		23				31					97				28	
Capacity		243				447					91				60	
v/c Ratio		0.09				0.07					1.07				0.47	
95% Queue Length		0.3				0.2					6.4				1.8	
Control Delay (s/veh)		21.4				13.7					199.4				110.4	
Level of Service (LOS)		С				В					F				F	
Approach Delay (s/veh)		0	.3			0	.2			19	9.4			11	0.4	
Approach LOS										I	-				F	

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General Information		Site Information							
Analyst	BSM	Intersection	Ogden with Lacey/Access						
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT						
Date Performed	2/12/2016	East/West Street	Ogden Avenue						
Analysis Year	2022	North/South Street	Lacey Road/Full Access						
Time Analyzed	SAT Peak Hour	Peak Hour Factor	0.95						
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25						
Project Description	15-289								

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	Т	TR		L	Т	TR			LTR				LTR	
Volume (veh/h)		23	1431	32		65	1447	16		83	0	49		25	0	22
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			Ν	lo	
Median Type								Left	Only							
Median Storage								1	1							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)		24				68					139				49	
Capacity		437				437					103				98	
v/c Ratio		0.05				0.16					1.36				0.50	
95% Queue Length		0.2				0.5					9.9				2.2	
Control Delay (s/veh)		13.7				14.7					287.0				73.3	
Level of Service (LOS)		В				В					F				F	
Approach Delay (s/veh)		0	.2			0	.6			28	7.0			73	3.3	
Approach LOS										I	=				F	

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HCS 2010[™] TWSC Version 6.80 Ogden with Lacey Unsig SATPR.xtw Generated: 6/30/2016 1:12:26 PM

ORD 2016-6862

HCS 2010 Signalized Intersection Input Data

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General Inforr	nation								Intersec	tion Inf	ormatio	on		↓ ↓ ↓	ba la	
Agency		KLOA, Inc.						Duration	, h	0.25		- The				
Analyst		BSM		Analys	sis Date	e Feb 1	2, 2016		Area Typ	e	Other	-	×		<u>م</u>	
Jurisdiction		IDOT		Time F	Period	AM P	eak Hou	ır	PHF		0.95			WE	↓ ↓	
Urban Street		Ogden Avenue		Analys	sis Yea	r 2022			Analysis	Period	1> 7:	00			*	
Intersection		Ogden Avenue with	Lac	File Na	ame	Ogde	n with L	acey	AMPR.xu	5				*		
Project Descrip	otion	AM Projected Peak	Hour	A										4149	14	
	_						· ·			· ·			1			
Demand Infor	mation			<u> </u>	EB		<u> </u>	W	B	<u> </u>	NB			SB		
Approach Move	ement			L		R			R			R	L		R	
Demand (v), v	/eh/h			13	1522	2 23	47	13	86 9	20	0	12	12	0	9	
Signal Informa	ation				1										1	
Cycle s	120.0	Reference Phase	2	-	1× 1		- CU3	_			×		2		Φ	
Offset s	0	Reference Point	_ Begin			````		4				1	2	3	4	
Uncoordinated	No	Simult Gan E/W	On	Green	3.0	94.7	6.8	0.0	0.0	0.0	- 11	_	Ð−			
Force Mode	Fixed	Simult, Gap N/S	On	Red	3.5	4.5	4.5	0.0		0.0		5	K	7	Y.	
	TIXEU			Reu	0.0	1.5	1.5	10.0	<u> </u>	0.0						
Traffic Informa	ation				EB			WE	3		NB			SB		
Approach Mov	ement			L	Т	R	L	Т	R	L	Т	R	L	T	R	
Demand (v), ve	eh/h			13	1522	23	47	138	6 9	20	0	12	12	0	9	
Initial Queue (0	⊋₀), veh/	′h		0	0	0	0	0	0	0	0	0	0	0	0	
Base Saturatio	n Flow F	Rate (s₀), veh/h		1900	1900	1900	1900	190	0 1900	1900	1900	1900	1900	1900	1900	
Parking (Nm), n	nan/h				None			Non	e		None			None		
Heavy Vehicles	s (<i>Рн</i> v), ^с	%		2	9		2	9			2			2		
Ped / Bike / RT	OR, /h			0	0	0	0	0	0	0	0	0	0	0	0	
Buses (Nb), but	ses/h			0	0	0	0	0	0	0	0	0	0	0	0	
Arrival Type (A	<i>T</i>)			3	4	3	3	3	3	3	3	3	3	3	3	
Upstream Filte	ring (I)			1.00	1.00	1.00	1.00	1.00	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lane Width (W), ft			12.0	12.0		12.0	12.0)		15.0			15.0		
Turn Bay Leng	th, ft			145	0		145	0			0			0		
Grade (<i>Pg</i>), %					0			0			0			0	1	
Speed Limit, m	ii/h			35	35	35	35	35	35	25	25	25	25	25	25	
Phase Informa	ation			EBL	-	EBT	WB		WBT	NBI	-	NBT	SBL	·	SBT	
Maximum Gree	en (<i>G_{max}</i>) or Phase Split, s		10.0)	95.0	10.0)	95.0			15.0			15.0	
Yellow Change	Interval	l (Y), s		3.5		4.5	3.5		4.5			4.5			4.5	
Red Clearance	Interval	I (<i>Rc</i>), s		0.0		1.5	0.0	_	1.5			1.5			1.5	
Minimum Gree	n (Gmin)), S		3		15	3		15	3		8	3		8	
Start-Up Lost I	ime (<i>it</i>)	, S		2.0		2.0	2.0	\rightarrow	2.0	2.0	_	2.0	2.0		2.0	
Extension of E		Green (e), s		2.0		2.0	2.0	_	2.0	2.0	_	2.0	2.0	2.0		
Passage (PT),	s			3.0		7.0	3.0	_	7.0	3.0		4.0	3.0		4.0	
Recall Mode				Un Vee		IVIIN	UT		Οπ	UT		Uπ	Un Vee	_	Oπ Ve e	
				Yes		res	Yes	;	res	Yes	;	res	res		res	
Podestrian Cla	oronco -	Time (PC) a		0.0		10.0	0.0		0.0	0.0	_	17.0	0.0		0.0	
	arance	ппе (гс), s 		0.0		10.0	0.0		0.0	0.0		1 <i>1</i> .U	0.0		0.0	
Multimodal In	formatio	on			EB			WB			NB			SB		
85th % Speed	/ Rest in	Walk / Corner Rad	ius	0	No	25	0	No	25	0	No	25	0	No	25	
Walkway / Cros	sswalk V	Vidth / Length, ft		9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0	
Street Width / I	sland / (Curb		0	0	No	0	0	No	0	0	No	0	0	No	
Width Outside	/ Bike La	ane / Shoulder, ft		12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	
Pedestrian Sig	nal / Oco	cupied Parking		No		0.50	No		0.50	No		0.50	No		0.50	

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ORD 2016-6862

HCS 2010 Signalized Intersection Results Summary

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General Information									Intersec	tion Inf	ormatio	on		1 4 Jak t	4 L	
Agency		KLOA Inc							Duration	h	0.25			*		
Analyst		BSM			sis Date	- Feh 1	2 2016			, ۵	Other		4		۲. ۲.	
Jurisdiction							AM Peak Hour			PHF				W+E		
Lirban Street						r 2022			Analysis	Period	1> 7.0	າດ	* *			
Intersection		Ogden Avenue with	1 ac	File Na	ame	Oade	n with L	acev A	MPR xus		12 7.					
Project Descrip	tion	AM Projected Peak	Hour			- 4	শ মৰ্শ কল	1								
Demand Inform	mation				EB			W	3		NB			SB		
Approach Movement			L	Т	R	L	Т	R	L	Т	R	L	Т	R		
Demand (v), v	/eh/h			13	1522	2 23	47	138	36 9	20	0	12	12	0	9	
				1					_	_						
	120.0	Boforonoo Dhaqo	2	-			242	6					~		\mathbf{V}	
Offect e	120.0	Reference Priase	2 Rogin				1	7				1	Y 2	3	4	
Unseed, S	No		Degin	Green	3.0	94.7	6.8	0.0	0.0	0.0	_	_	<u>A</u>		•	
Eoroo Modo	Fixed	Simult, Cap N/S	On	Yellow	3.5	4.5	4.5	0.0	0.0	0.0		_	¥	7	· Y	
Force Mode	Fixeu	Simult. Gap N/S	OII	Reu	0.0	1.5	1.5	0.0	0.0	0.0		5	8	I	•	
Timer Results				EBI	_	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT	
Assigned Phas	е			5		2	1		6			8			4	
Case Number				1.1		4.0	1.1		4.0			8.0			8.0	
Phase Duration	1, S			6.5		100.7	6.5		100.7			12.8			12.8	
Change Period	, (Y+R	c), S		3.5		6.0	3.5		6.0			6.0			6.0	
Max Allow Hea	Max Allow Headway (MAH), s			4.0		0.0	4.0		0.0			5.2			5.2	
Queue Clearan	ice Time	e (g s), s		2.2			2.6					4.3			3.4	
Green Extensio	on Time	(ge), s		0.0		0.0	0.0	0.0 0.0		0.1		0.1			0.1	
Phase Call Pro	bability			1.00)		1.00	0		0		0.84	34		0.84	
Max Out Proba	bility			0.01			0.07	7				1.00			0.72	
Movement Gro	oup Res	ults			EB			WB			NB			SB		
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R	
Assigned Move	ement			5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow	Rate (v), veh/h		14	814	812	49	735	734		34			22		
Adjusted Satura	ation Flo	w Rate (s), veh/h/	'ln	1774	1743	1734	1774	1743	3 1739		1574			1597	1	
Queue Service	Time (g	g s), S		0.2	0.0	0.9	0.6	18.4	18.4		0.9			0.0	1	
Cycle Queue C	learanc	e Time (<i>g c</i>), s		0.2	0.0	0.9	0.6	18.4	18.4		2.3			1.4		
Green Ratio (g	ŋ∕C)			0.81	0.79	0.79	0.81	0.79	0.79		0.06			0.06		
Capacity (c), v	/eh/h			327	1376	1369	341	1376	6 1373		137			137		
Volume-to-Cap	acity Ra	itio(X)		0.042	0.592	0.593	0.145	0.534	4 0.534		0.245			0.161		
Back of Queue	(Q), ft/	In (95 th percentile)	2.1	34.6	36.8	7.9	251.	5 234.4		47.5			30.8		
Back of Queue	(Q), ve	eh/In (95 th percent	tile)	0.1	1.3	1.5	0.3	9.4	9.4		1.9			1.2		
Queue Storage	Ratio (RQ) (95 th percen	itile)	0.01	0.00	0.00	0.05	0.00	0.00		0.00			0.00		
Uniform Delay	(d 1), s	/veh		3.9	0.0	0.1	2.2	4.6	4.6		54.5			54.1		
Incremental Delay (d 2), s/veh				0.1	1.9	1.9	0.2	1.5	1.5		1.3			0.8		
Initial Queue Delay (d 3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0			
Control Delay (<i>d</i>), s/ve	eh		3.9	1.9	2.0	2.4	6.1	6.1		55.8			54.9		
Level of Service	e (LOS)			Α	A	A	Α	A	A		E			D		
Approach Dela	y, s/veh	/ LOS		1.9		A	6.0		A	55.	8	E	54.9	9	D	
Intersection De	lay, s/ve	eh / LOS				4	.8						A			
Multimodal Pa	sulte				FR			\//P			NR			SR		
Pedestrian I OS	S Score	/108		20		В	20		B	2 Q		С	2 0		C	
Bicycle LOS So	core / I C)S		1.8		A	17		A	0.5		A	0.5		A	
210,010 200 00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1.0			1.7		~	0.0			0.5			

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HCS 2010[™] Streets Version 6.80

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HCS 2010 Signalized Intersection Intermediate Values

															11			
General Inforn	nation									Inter	sectio	n Inf	orma	tion			* ↓ ↓*	L.
Agency		KLOA, Inc.								Dura	tion, h		0.25	5				E I
Analyst		BSM		A	nalysis	Date	Feb 12	, 2016	;	Area	Туре		Oth	er	4			الم الم الم
Jurisdiction		IDOT		Ti	me Pe	riod	AM Pea	ak Ho	ur	PHF			0.95	5			E	+ - -
Urban Street		Ogden Avenue		A	nalysis	Year	2022			Analy	ysis Pe	riod	1>7	7:00				*
Intersection		Ogden Avenue with	Lac	Fi	le Nan	ne	Ogden	with L	acey	/ AMPR	.xus					×	*	
Project Descrip	tion	AM Projected Peak	Hour													<u><u></u><u></u></u>	****	٢
															1			
Demand Inform	mation			⊢		EB			١	NB	\rightarrow		N	B		S	B	
Approach Move	ement			⊢	L	Т	R	L		Т	R	L	Т	- R	L		-	R
Demand (v), v	/eh/h				13	1522	23	47	1	386	9	20	0) 12	12	()	9
Signal Informa	ation							1 11:										
	120.0	Deference Dhase	2		L	л _		245	6						~			
Offect o	120.0	Reference Priase	Z Pogin	-		Ľ		5	7					1	2		3	4
Unseerdingtood	U		ведіп	G	reen 🕄	3.0	94.7	6.8	0	.0	0.0	0.0		_	<u>A</u>			
Eoroo Modo	INO Eived	Simult Con N/S	On	Ye	ellow	3.5	4.5	4.5	0		0.0	0.0			V		7	Y
	Fixed		On	R		5.0	1.5	1.5	0	.0 1	0.0	0.0		5	6		1	8
					FR				VR				NR			90		
Saturation Flo	w / Dela	av	-		T	R	1	·	T	R	1		T	R		T		R
Lane Width Adi	Ustment	-> t Factor (fw)	1 0	00	1 000	1 000		0 1 0		1 000	1 00	0 1		1 000	1 000	1 04	.0	1 000
Heavy Vehicle	Adjustm	ent Factor (f _{HV})	0.9	80	0.917	1.000	0.98		917	1.000	1.00		980	1.000	1.000	0.98	0	1 000
Approach Grad	e Adiust	tment Eactor (f_{α})	1.0	00	1 000	1.000	0.00	0 1 (000	1.000	1.00	0 1	000	1,000	1.000	1.00		1.000
Parking Activity	Adjustr	nent Factor $(f_{\rm p})$	1.0	00	1.000	1.000	1.00	1.0		1.000	1.00	0 1	000	1,000	1.000	1.00		1.000
Bus Blockage A	Adjustme	ent Eactor (f_{bb})	1.0	00	1.000	1.000	1.00	0 1.0		1.000	1.00	0 1	000	1.000	1.000	1.00		1.000
Area Type Adiu	stment	Eactor (f_2)	1.0	00	1.000	1.000	1.00	0 1.0		1.000	1.00	0 1	000	1,000	1.000	1.00		1.000
Lane Utilization	Adjustr	ment Factor (fu)	1.0	00	1.000	1.000	1.00	0 1.0		1.000	1.00	0 1	000	1.000	1.000	1.00		1.000
Left-Turn Adjus	tment F	actor (f_{T})	0.0	52	0.000	1.000	0.95	2 0 0		1.000	1.00		.000	1.000	1.000	0.82	5	1.000
Right-Turn Adju	istment	Eactor (fer)	0.0	02	0.995		0.00	0.0	998				000			0.02	0	
Left-Turn Pede	strian Ad	diustment Factor (fu	b) 10	00	0.000		1 00	0	,00		1 00	0			1 000	0.00		
Right-Turn Ped	-Bike Ac	diustment Factor (f _R))			1 000	2			1 000		-		1 000			+	1 000
Movement Satu	ent Saturation Flow Rate (s), veh/h		17	74	3425		- 1774	1 34	-60				0			0	+	
Proportion of V	ehicles /	Arriving on Green (P) <u>0</u> .()3	1.00	0.79	0.03	3 0.	79	0.79	0.0	3 0	0.00	0.06	0.06	0.0	2	0.06
Incremental De	lav Fac	tor (k)	0.1	11	0.50	0.50	0.11	0.	50	0.50			0.15	0.00	0.00	0.1	5	
					0.00		•			0.00						•		
Signal Timing	/ Mover	ment Groups		EBL		EBT/R	W	'BL	W	/BT/R	N	BL	1	NBT/R	SBI		SE	3T/R
Lost Time (tL)				3.5		6.0	3	.5		6.0				6.0			6	5.0
Green Ratio (g/	/C)		().81		0.79	0.	81	(0.79				0.06			0	.06
Permitted Satur	ration Fl	low Rate (sp), veh/h/	'In	359		0	3	09		0				1428			14	424
Shared Saturat	ion Flow	v Rate (ssh), veh/h/In												1605			16	626
Permitted Effect	tive Gre	en Time (<i>g</i> _p), s		94.7		0.0	94	4.7		0.0				6.8			e	3.8
Permitted Servi	ice Time	e (g _u), s		74.3		0.0	91	1.9		0.0				5.3			2	1.4
Permitted Queu	ue Servi	ce Time (<i>g</i> _{ps}), s		0.8			0	.5						0.9			().0
Time to First Bl	to First Blockage (<i>gt</i>), s			0.0		0.0	0	.0		0.0				1.2			1	1.4
Queue Service	Time Be	efore Blockage (grs),	S											1.1			C).6
Protected Right	ed Right Saturation Flow (<i>s</i> _R), veh/h/lr																	
Protected Right	ed Right Effective Green Time (g_R), s																	
Multimodal	ed Right Effective Green Time (g _R), s odal				EB			V	VB				NB			SE	3	
Pedestrian Fw/	Fv		1	.38	9	0.00	1.3	389	0	0.00	2.	107		0.00	2.10	7	0	.00
Pedestrian Fs /	Fdelay		0	.00	D I	0.039	0.0	000	0	.039	0.	000	(0.160	0.00	0	0.	160
Pedestrian Mcon	rner / M cw	/																
Bicycle cb / db			15	79.	09	2.66	157	9.09	2	2.66	11:	2.57		53.44	112.5	57	53	3.44
Bicycle Fw / Fv			-	3.64	1	1.35	-3	.64	1	1.25	-3	.64		0.06	-3.6	4	0	.04

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--- Messages ----

No errors or warnings exist.

--- Comments ----

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HCS 2010 Signalized Intersection Input Data

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General Inform	nation	1							Intersec	tion Inf	ormatio	on	_		4× 4
Agency		KLOA, Inc.							Duration	, h	0.25				R.
Analyst		BSM		Analys	sis Date	Feb 1	2, 2016		Area Typ	е	Other	-	××		۵. ۲۰۰۲ محمد
Jurisdiction		IDOT		Time F	Period	PM Pe	eak Hou	ır	PHF		0.95			WFE	↓
Urban Street		Ogden Avenue		Analys	sis Yea	2022			Analysis	Period	1> 7:	00			¥ 7
Intersection		Ogden Avenue with	n Lac	File Na	ame	Ogder	n with L	acey	PMPR.xu	S				*	
Project Descrip	tion	PM Projected Peak	Hour											1414Y	<u>* (*</u>
Demand Inform	nation				EB			W	/B		NB			SB	
Approach Move	ement			L	Т	R	L		r R	L	Т	R	L	Т	R
Demand (v), v	/eh/h			22	1425	15	29	20	80 10	58	0	34	12	0	14
Signal Informa	ation	¥.	v		2	1.5	215						_		K
Cycle, s	120.0	Reference Phase	2		۲ e	7₩ *	- 122	2					€ ,	3	ктя
Offset, s	0	Reference Point	Begin	Green	3.0	92.5	9.0	0.0	0.0	0.0			X Z	5	~
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.5	4.5	4.5	0.0	0.0	0.0		~	\mathbf{r}		- N ZZ
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	1.5	1.5	0.0	0.0	0.0		5	6	7	8
										1			1		
Traffic Informa	ation				EB		<u> </u>	WE	3	<u> </u>	NB		<u> </u>	SB	
Approach Move	ement			L	1	R	L		R			R			R
Demand (v), ve	eh/h	<u></u>		22	1425	15	29	208	0 10	58	0	34	12	0	14
Initial Queue (C	₽b), veh/	'n		0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation	n Flow F	Rate (<i>s</i> ₀), veh/h		1900	1900	1900	1900	190	0 1900	1900	1900	1900	1900	1900	1900
Parking (Nm), n	nan/h				None			Non	ie	<u> </u>	None		<u> </u>	None	<u> </u>
Heavy Vehicles	s (<i>Рн</i> v), ч	%		2	9		2	9			2			2	
Ped / Bike / RI	0R, /h			0	0	0	0	0	0	0	0	0	0	0	0
Buses (Nb), bus	ses/h			0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (A	1) in n (1)			3	4	3	3	3	3	3	3	3	3	3	3
Upstream Filter	ring (/)			1.00	1.00	1.00	1.00	1.0	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00
), IL "b. ff			145	12.0		145	12.	0		15.0		<u> </u>	15.0	
Grade (Pa) %	lii, il			145	0		145	0	_		0			0	
Speed Limit m	ade (<i>Pg</i>), %			35	35	25	25	25	35	25	25	25	25	25	25
Speed Linit, III	eed Limit, mi/h			- 55	- 55	- 55	- 35	- 35	- 35	25	25	25	25	25	25
Phase Informa	ation			EBL	-	EBT	WB	L	WBT	NBI	-	NBT	SBL	-	SBT
Maximum Gree	n (G _{max}) or Phase Split, s		10.0)	95.0	10.0)	95.0			15.0			15.0
Yellow Change	Interval	(Y), s		3.5		4.5	3.5		4.5			4.5			4.5
Red Clearance	Interva	l (<i>Rc</i>), s		0.0		1.5	0.0		1.5			1.5			1.5
Minimum Gree	n (<i>Gmin</i>)), S		3		15	3		15	3		8	3		8
Start-Up Lost T	ïme (<i>lt</i>)	, S		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Ef	fective (Green (<i>e</i>), s		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Passage (PT),	assage (<i>PT</i>), s			3.0		7.0	3.0		7.0	3.0		4.0	3.0		4.0
Recall Mode	ecall Mode			Off		Min	Off		Off	Off		Off	Off		Off
Dual Entry	ual Entry			Yes		Yes	Yes	;	Yes	Yes	;	Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		0.0	0.0		7.0	0.0		0.0
Pedestrian Clea	arance	Time (<i>PC</i>), s		0.0		10.0	0.0		0.0	0.0		17.0	0.0		0.0
Multimodal Inf	ormatio	on			EB			WF	3		NB			SB	
85th % Speed	Rest in	Walk / Corner Rad	ius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Cros	kway / Crosswalk Width / Length, ft			9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / I	kway / Crosswalk Width / Length, tt et Width / Island / Curb				0	No	0	0	No	0	0	No	0	0	No
Width Outside	/ Bike La	ane / Shoulder. ft		12	5.0	2.0	12	5.0) 2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Sig	nal / Oc	cupied Parking		No		0.50	No		0.50	No		0.50	No		0.50

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HCS 2010 Signalized Intersection Results Summary

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															UT.
General Informatio	n Ivii on i							Inter	section	on Info	ormatic	on	_	A 244 I	(PA) (4)
Agency	KLOA, Inc.							Durat	tion, ł	1	0.25				K
Analyst	BSM		Analys	sis Date	Feb 1	2, 2016		Area	Туре		Other		_ <u>→</u> _×		۵۵ ۲۵ ۲۵
Jurisdiction	IDOT		Time F	Period	PM Pe	eak Hou	ır	PHF			0.95			WEE	
Urban Street	Ogden Avenue		Analys	sis Year	2022			Analy	ysis P	eriod	1> 7:0	00	1		۲ ۲
Intersection	Ogden Avenue with	Lac	File Na	ame	Ogder	n with L	acey	PMPR	R.xus					*	
Project Description	PM Projected Peak	Hour											1	14144	11
Domand Informatio				ED			١٨	/D	_		ND			CD	
Approach Moyomon	אנ +					1 1	- 1		D			D			
				1405	15	20	20	00	10	E0		24	12		
Demand (v), ven/n			22	1420	15	29	20	00	10	00	0	34	12	0	14
Signal Information		_			5										I
Cycle, s 120	0.0 Reference Phase	2	Ĩ	12 1	-1-3 2	- E-V-3							4		$\mathbf{\Phi}$
Offset, s 0	Reference Point	Beain					а_					1	2	3	4
Uncoordinated No	Simult, Gap E/W	On	Green	3.0	92.5	9.0	0.0		0.0	0.0	_	X	\rightarrow		r † 7
Force Mode Fixe	ed Simult, Gap N/S	On	Red	0.0	1.5	1.5	0.0) (0.0	0.0		5	6	7	
		•			1.10	1.10				10.0					_
Timer Results			EBI		EBT	WB	L	WB	Т	NBL	-	NBT	SBI	_	SBT
Assigned Phase			5		2	1		6				8			4
Case Number			1.1		4.0	1.1		4.0				8.0			8.0
Phase Duration, s			6.5		98.5	6.5		98.5	5			15.0			15.0
Change Period, (Y+	+ <i>R</i> c), s		3.5		6.0	3.5		6.0				6.0			6.0
Max Allow Headway	(<i>MAH</i>), s		4.0		0.0	4.0		0.0				5.2			5.2
Queue Clearance Ti	ime (<i>q</i> s), s		2.3			2.4	-					9.4			3.7
Green Extension Tin	me (<i>q</i> _e), s		0.0		0.0	0.0		0.0				0.0			0.2
Phase Call Probabili	ity		1.00)		1.00)					0.98			0.98
Max Out Probability	-		0.82	2		0.97	7					1.00			0.99
Movement Group	Poculte	_		EB			\٨/٢	2			NB	_		SB	
Approach Movemen	t			Т	R		T	, F	2		T	R		Т	R
Assigned Movement	gned Movement sted Flow Rate (v), veh/h				12	1	6		6	3	8	18	7	4	14
Adjusted Flow Rate	usted Flow Rate (v), veh/h				757	31	110	0 11	00		97	10	-	27	
Adjusted Saturation	usted Flow Rate (v), veh/h usted Saturation Flow Rate (s), veh/h/ln			17/3	1737	1774	174	3 17	240		1530			1663	
	$(\alpha_{\alpha}) \in (\alpha_{\alpha})$		03	0.0	0.6	0.4	47	0 17 0 47	73		5.7			0.0	
Cycle Queue Cleara	$(g_s), g_s$		0.0	0.0	0.0	0.4	47) 47	73		7.4			1.7	<u> </u>
Green Ratio (q/C)			0.80	0.77	0.77	0.9	0.7	7 0	77		0.08			0.08	<u> </u>
Capacity (c) veh/h	1		168	1344	1339	362	1.34	4 13	341		164			169	<u> </u>
Volume-to-Capacity	Ratio (X)		0.138	0 565	0.565	0.084	0.81	9 0 8	320		0.589			0 162	<u> </u>
Back of Queue (Q)	. ft/ln (95 th percentile))	13.7	31	32.3	5.7	594	2 55	5.7	_	146.7			37.1	<u> </u>
Back of Queue (Q)	of Queue (Q), ft/ln (95 th percentile) of Queue (Q), veh/ln (95 th percentile)			1.2	1.3	0.2	22.	2 22	2.2		5.8			1.5	<u> </u>
Queue Storage Rati	eue Storage Ratio (RQ) (95 th percentile)			0.00	0.00	0.04	0.0	0.0	00		0.00			0.00	
Uniform Delay (d 1)	form Delay (d_1), s/veh			0.0	0.1	2.6	8.5	8.	.6		54.7			52.1	<u> </u>
Incremental Delay (<i>d</i> 2), s/veh		0.4	1.7	1.7	0.1	5.7	5	.7		6.5			0.6	<u> </u>
Initial Queue Delav	(<i>d</i> ₃), s/veh		0.0	0.0	0.0	0.0	0.0	0	.0		0.0			0.0	1
Control Delay (d), s	s/veh		14.5	1.7	1.8	2.7	14.	2 14	1.3		61.3			52.8	<u> </u>
Level of Service (LC	DS)		В	Α	A	A	В	E	B		E			D	1
Approach Delay, s/v	roach Delay, s/veh / LOS				A	14.1		B		61.3		E	52,8	3	D
Intersection Delay, s	/veh / LOS				10).7							B		
Multimodal Results	\$			EB			WE	3			NB			SB	
Pedestrian LOS Sco	ore / LOS		2.0		В	2.0		В		2.9		С	2.9		С
Bicycle LOS Score /	LOS		1.8		А	2.3		В		0.6		A	0.5		А

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HCS 2010 Signalized Intersection Intermediate Values

													41.0	1		NIT
General Inform	nation									Inter	section	Informa	tion	_	*	+" '2
Agency		KLOA, Inc.						0040		Dura	tion, n	0.2	5			R.
Analyst		BSM		A	nalysis	Date I	-eb 12,	2016		Area	Туре	Otr	ner -			۵ ج ا
Jurisdiction					me Per	iod I	PM Pea	k Hou	r	PHF		0.9	5		w + E B	
Urban Street		Ogden Avenue		A	nalysis	Year 2	2022			Analy	sis Peri	od 1>	7:00			4
Intersection		Ogden Avenue with	Lac	Fi	le Nam	e (Dgden v	with La	acey	/ PMPR	.xus				*	
Project Descrip	tion	PM Projected Peak	Hour												ነላተዋነ	141
Domand Inform	nation					EB			V	N/R		N	IB		SB	
Approach Move	ment			┢	I	т	R	1	V	т	R	I .			Т	R
	ph/h			⊢	22 ·	1425	15	20	20	080	10	58	1 IX 1 34	12		14
	CHI/H					1420	10	25	2	000		50	0	12		17
Signal Informa	tion						_ <u>5</u> _	25.								I
Cycle, s	120.0	Reference Phase	2			7 C	₫ ₹7	5.4	7					4		$\mathbf{\Phi}$
Offset, s	0	Reference Point	Begin		roop 2				<u>е</u>				1	Y 2	3	4
Uncoordinated	No	Simult. Gap E/W	On		ellow 3	.0	92.5 4.5	9.0	0		0.0 (0.0	7	\rightarrow		sta
Force Mode	Fixed	Simult. Gap N/S	On	R	ed 0	.0	1.5	1.5	0	0.0	0.0).0	5	6	7	8
					EB			W	В			NB			SB	
Saturation Flo	w / Dela	ау	L	-	Т	R	L	Т		R	L	Т	R	L	Т	R
Lane Width Adj	ustment	Factor (fw)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.040	1.000	1.000	1.040	1.000
Heavy Vehicle	Adjustm	ent Factor (fHV)	0.9	80	0.917	1.000	0.980	0.9	17	1.000	1.000	0.980	1.000	1.000	0.980	1.000
Approach Grad	e Adjus	tment Factor (fg)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity	Adjustr	nent Factor (f _p)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage A	djustme	ent Factor (fbb)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adju	stment	Factor (fa)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization	Adjustr	nent Factor (fLU)	1.0	00	1.000	1.000	1.000	1.0	00	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjus	Turn Adjustment Factor (f_{LT})0nt-Turn Adjustment Factor (f_{RT})0				0.000		0.952	0.0	00			0.794			0.858	
Right-Turn Adju	t-Turn Adjustment Factor (f_{RT}) Turn Pedestrian Adjustment Factor (f_{Lpb})				0.996			0.9	98			0.000			0.000	
Left-Turn Pedes	Turn Pedestrian Adjustment Factor (f_{Lpb})1t-Turn Ped-Bike Adjustment Factor (f_{Rpb})						1.000				1.000			1.000		
Right-Turn Ped	t-Turn Ped-Bike Adjustment Factor (f_{Rpb}) ement Saturation Flow Rate (s), veh/h					1.000				1.000			1.000			1.000
Movement Satu	ement Saturation Flow Rate (s), veh/h 1 unition of Vehicles Arriving on Croon (R)			74	3443		1774	346	67			0			0	
Proportion of Ve	ehicles /	Arriving on Green (F	') 0.0	03	1.00	0.77	0.03	0.7	7	0.77	0.08	0.00	0.08	0.08	0.00	0.08
Incremental De	lay Fact	tor (<i>k</i>)	0.	11	0.50	0.50	0.11	0.5	0	0.50		0.22			0.15	
Signal Timing	/ Mover	nent Groups		EBL	. E	BT/R	WE	3L	W	/BT/R	NB	L	NBT/R	SBI	-	SBT/R
Lost Time (tL)	(0)			3.5		6.0	3.	5		6.0			6.0			6.0
Green Ratio (g/	′C)			0.80		0.77	0.8	80	C).77			0.08			0.08
Permitted Satur	ration Fl	ow Rate (s _p), veh/h/	In	176		0	34	3		0			1421			1394
Shared Saturat	ion Flow	v Rate (<i>s</i> sh), veh/h/ln						_					1598			1659
Permitted Effec	tive Gre	en Time (g _₽), s		92.5		0.0	92	.5		0.0			9.0			9.0
Permitted Servi	ermitted Service Time (<i>g_u</i>), s				2	0.0	89	.9		0.0			7.3			1.6
Permitted Queu	ermitted Queue Service Time (g_{ps}), s					0.0	0.3	3		0.0			5.7			0.0
Time to First Bl		(<i>gf</i>), S		0.0	_	0.0	0.	U		0.0			0.3	<u> </u>		2.2
Queue Service	Time Be	etore Blockage (gfs),	S										0.3	<u> </u>		0.6
Protected Right	tected Right Saturation Flow (<i>s</i> _{<i>R</i>}), veh/h/ln tected Right Effective Green Time (<i>g</i> _{<i>R</i>}), s							_			<u> </u>			<u> </u>		
Protected Right	Itimodal								(D							
Multimodal	timodal						· · ·	N	'B			NB	0.00		SB	0.02
Pedestrian F _w /	Fv		1	.389	9	0.00	1.3	89	C	J.00	2.10	07	0.00	2.10	(0.00
Pedestrian Fs /	Fdelay		0	0.00		0.046	0.0	00	0	.046	0.00	0	0.158	0.00	0	0.158
Pedestrian Mcor	mer I M cw	/				• /=										- 1 5 1
Bicycle c _b / d _b			15	641.0	66	3.15	1541	.66	3	3.15	150.	00	51.34	150.0	00	51.34
Bicycle F _w / F _v			-	3.64	1	1.27	-3.6	j4	1	1.84	-3.6	4	0.16	-3.64	4	0.05

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--- Messages ----

No errors or warnings exist.

--- Comments ----

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HCS 2010 Signalized Intersection Input Data

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	_								C -						
General Inform	nation	1							Intersec	tion Inf	ormatio	on	_		
Agency		KLOA, Inc.							Duration	, h	0.25				R.
Analyst		BSM		Analys	sis Dat	e Feb 1	2, 2016		Area Typ	e	Other	•	××		۵۵ ۲ ۲
Jurisdiction		IDOT		Time F	Period	SAT F	eak Ho	ur	PHF		0.95			WĮE	↓ ÷
Urban Street		Ogden Avenue		Analys	sis Yea	r 2022			Analysis	Period	1> 7:(00	4		* •
Intersection		Ogden Avenue with	Lac	File Na	ame	Ogde	n with L	acey	SATPR.xu	IS				*	
Project Descrip	otion	SAT Projected Pea	k Hour											* 1 4 9	14
Demand Infor	mation				FB			W	/B		NB			SB	
Approach Move	ement				Т	R	1	-	r R	1	Т	R	1	Т	R
Demand (v)	/eh/h			23	143	1 32	65	14	47 16	83	0	49	25	0	22
				20	110	. 02			11 10	00	J	10	20		
Signal Informa	ation				_	2	125								L
Cycle, s	90.0	Reference Phase	2		F° •	∼¦⊒ ≥	- •	7			×		A	•	Ц Д
Offset, s	0	Reference Point	Begin	Green	3.0	62.5	9 0			0.0	_	1		3	4
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.5	4.5	4.5	0.0	0.0	0.0		~	\rightarrow		<u>к†</u> 2
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	1.5	1.5	0.0	0.0	0.0		5	6	7	
Traffic Informa	ation				EB			WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), ve	eh/h			23	1431	32	65	144	7 16	83	0	49	25	0	22
Initial Queue (C	⊋₀), veh/	′h		0	0	0	0	0	0	0	0	0	0	0	0
Base Saturatio	n Flow F	Rate (<i>s</i> ₀), veh/h		1900	1900	1900	1900	190	0 1900	1900	1900	1900	1900	1900	1900
Parking (Nm), n	nan/h				None			Non	e		None			None	
Heavy Vehicles	s (Рнv), ^с	%		2	9		2	9			2			2	
Ped / Bike / RT	OR, /h			0	0	0	0	0	0	0	0	0	0	0	0
Buses (Nb), bus	ses/h			0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (A	T)			3	4	3	3	3	3	3	3	3	3	3	3
Upstream Filter	ring (<i>I</i>)			1.00	1.00	1.00	1.00	1.0	0 1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W	'), ft			12.0	12.0		12.0	12.	0		15.0			15.0	
Turn Bay Leng	th, ft			145	0		145	0			0			0	
Grade (<i>Pg</i>), %					0			0			0			0	
Speed Limit, m	eed Limit, mi/h			35	35	35	35	35	35	25	25	25	25	25	25
Phase Informa	ation			FBI		FBT	WB	1	WBT	NBI		NBT	SBI		SBT
Maximum Gree	en (Gmay) or Phase Split s		10 (-	65.0	10 (-)	65.0		-	15.0			15.0
Yellow Change	Interval			3.5	,	4.5	3.5		4.5			4.5			4.5
Red Clearance	Interval	(R_c) , s		0.0		1.5	0.0		1.5			1.5			1.5
Minimum Gree	n (Gmin)) S		3		15	3	-	15	3		8	3		8
Start-Up Lost T	"ime (<i>lt</i>)	, S		2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Extension of Ef	art-Up Lost Time (<i>It</i>), s stension of Effective Green (e), s			2.0		2.0	2.0		2.0	2.0		2.0	2.0		2.0
Passage (PT),	assage (<i>PT</i>), s			3.0		7.0	3.0		7.0	3.0		4.0	3.0		4.0
Recall Mode	ecall Mode			Off		Min	Off		Off	Off		Off	Off		Off
Dual Entry	ual Entry			Yes		Yes	Yes	;	Yes	Yes		Yes	Yes		Yes
Walk (<i>Walk</i>), s				0.0		7.0	0.0		0.0	0.0		7.0	0.0		0.0
Pedestrian Cle	arance	Time (<i>PC</i>), s		0.0		10.0	0.0		0.0	0.0		17.0	0.0		0.0
Multimesclet	low+'				50			10/5)					00	
	ormatic			0	EB	05		VVE		0	NB	25	0	SB	05
		Vidth / Longth ft	us	0	N0	25	0		25	0	10	25	0	10	25
Stroct Width /	kway / Crosswalk Width / Length, ft et Width / Island / Curb				12	U	9.0	12	U	9.0	12	U	9.0	12	U Ni-
Street Width / I				10	0		10		INO	0	U		U 10		
				IZ Ne	5.0	2.0	1Z N	5.0	0.50	IZ Ma	5.0	2.0	IZ Na	5.0	2.0
Peuestnan Sig		cupieu Parking		N0		0.50	INO		0.50	INO		0.50	INO		0.50

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HCS 2010 Signalized Intersection Results Summary

General Inform	nation								Inters	ectio	n Info	ormatio	n		4441	ba lu
Agency		KLOA. Inc.							Duratio	on. h		0.25			*	
Analyst		BSM		Analys	sis Date	Eeb 1	2 2016		Area T	vne		Other				×.
Jurisdiction				Time F			Peak Ho	ur	PHE	700		0.95			W.FE	-\$
Urban Street		Orden Avenue		Analys	is Year	· 2022	cakino		Δnalvs	is Pe	riod	1> 7.0	0	4 W		÷ →
Intersection		Ogden Avenue with			amo	Ogde	o with L	2001	SATOD	VIIC		1.0				
Project Descrip	tion	SAT Projected Pea				Ogue		acey						_	শ বিশক্ষ	12
Project Descrip	nion	SAT FIOJECIEU FEA	K HOUI													
Demand Inform	mation				EB			W	B			NB			SB	
Approach Move	ement			L	Т	R	L	7	- F	र	L	Т	R	L	Т	R
Demand (v), v	/eh/h			23	1431	32	65	14	47 1	6	83	0	49	25	0	22
																R.
Signal Informa	ation	¥	17		2	1.3	4215						_	_		
Cycle, s	90.0	Reference Phase	2		F e	7₩ ⁴	- 1 - SA	2						€ ,	2	ктя
Offset, s	0	Reference Point	Begin	Green	3.0	62.5	9.0	0.0) 0.	0	0.0	_		× ×	5	~
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.5	4.5	4.5	0.0) 0.	0	0.0	_	×	$\mathbf{\mathbf{b}}$		512
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	1.5	1.5	0.0) 0.	0	0.0		5	6	7	8
Timer Results				EBI	-	EBT	WB	L	WBT		NBL		NBT	SB	-	SBT
Assigned Phas	е			5		2	1		6				8			4
Case Number				1.1		4.0	1.1		4.0				8.0			8.0
Phase Duration	1, S			6.5		68.5	6.5		68.5				15.0			15.0
Change Period	, (Y+ R	c), S		3.5		6.0	3.5		6.0				6.0			6.0
Max Allow Hea	dway(/	<i>MAH</i>), s		4.0		0.0	4.0		0.0				5.3			5.3
Queue Clearan	ice Time	e (g s), s		2.3			3.0						10.0			4.4
Green Extension	on Time	(ge), s		0.0		0.0	0.0		0.0				0.0			0.4
Phase Call Pro	bability			1.00)		1.00)					0.99			0.99
Max Out Proba	bility			0.84	-		1.00)				· ·	1.00			1.00
Movement Gro	oup Res	ults			EB			WE	3			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R		L	Т	R	L	Т	R
Assigned Move	ement			5	2	12	1	6	16		3	8	18	7	4	14
Adjusted Flow	d Flow Rate (v), veh/h d Saturation Flow Rate (s), veh/h/ln				772	768	68	771	769	9		139			49	
Adjusted Satura	ed Flow Rate (V), ven/n ed Saturation Flow Rate (s), veh/h/ln			1774	1743	1729	1774	174	3 173	6		1534			1632	
Queue Service	Time (g	g s), S		0.3	7.2	8.2	1.0	21.8	3 21.	9		5.7			0.0	
Cycle Queue C	learanc	e Time (<i>g c</i>), s		0.3	7.2	8.2	1.0	21.8	3 21.	9		8.0			2.4	
Green Ratio (g	g/C)			0.73	0.69	0.69	0.73	0.69	9 0.6	9		0.10			0.10	
Capacity (c), v	veh/h			283	1210	1201	342	121	0 120	6		219			224	
Volume-to-Cap	acity Ra	itio(X)		0.086	0.638	0.640	0.200	0.63	7 0.63	8		0.636			0.220	
Back of Queue	e (Q), ft/ln (95 th percentile)			4.6	87.9	88.7	13.1	309.	5 288	.3		157.5			48.2	
Back of Queue	eue (Q), veh/ln (95 th percentile)			0.2	3.3	3.5	0.5	11.5	5 11.	5		6.2			1.9	
Queue Storage	ue Storage Ratio (<i>RQ</i>) (95 th percentile)			0.03	0.00	0.00	0.09	0.00	0.0	0		0.00			0.00	
Uniform Delay	(d 1), s	/veh		6.8	1.3	1.5	3.9	7.5	7.5	;		40.0			37.5	
Incremental De	elay (d 2), s/veh		0.1	2.6	2.6	0.3	2.6	2.6	;		6.8			0.7	
Initial Queue D	elay (d	3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Control Delay (d), s/ve	eh		6.9	3.9	4.1	4.2	10.1	1 10.	1		46.8			38.2	
Level of Service	e (LOS)			A	A	Α	A	B	B			D			D	
Approach Dela	y, s/veh	/ LOS		4.0		Α	9.9		Α		46.8		D	38.2	2	D
Intersection De	rsection Delay, s/veh / LOS					9	.1							A		
Multimodal Re	sults				EB			WF	3			NB			SB	
Pedestrian LOS	S Score	/ LOS		2.0		В	2.0		В		2.9		С	2.9		С
Bicycle LOS So	core / LC	DS		1.8		А	1.8		А		0.7		А	0.6		А

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HCS 2010 Signalized Intersection Intermediate Values

Intersection Information Agency KLOA, Inc. Duration, in O25 Analysis BSM Analysis Det [Feb 12, 2016] Area Type Other Jurisdiction IDOT Time Period Start Presk Hour Jurisdiction Ogen Avenue Analysis Year 2022 Analysis Period 1>700 Urban Street Oggen Avenue with Lac File Name Oggen with Lacy SATER.xus T R L T R	1										1							
Agency KLOA, Inc. Duration. 0.25 Analysis BSM Analysis Date Feb 12, 2016 Near Type 0.95 Jurisdiction IDOT Time Period SAT Peak Hour PHF 0.95 Urban Street Ogden Avenue with Lac File Name Ogden Avanysis Para (Analysis Para (Analysis Para (Analysi	General Inform	nation	1								Inter	sectior	ו Info	rmat	ion	_		
Analysit BSM Analysis Date Feb 12. 2016 Area type Other Other Analysis Vear 2022 Analysis Period 19.7.00 Image: Control of the type Control of the type Control of the type Control of type Contro of type Control of type	Agency		KLOA, Inc.								Dura	tion, h		0.25	i			
Juniadicion IDOT Time Period SAT Peak Nour PHF 0.95	Analyst		BSM		A	nalysis	Date	Feb 12,	2016		Area	Туре		Othe	er	←		▲ <u>↓</u>
Urban Street Ogden Avenue Analysis Year 2022 Analysis Period 1=7.00 I <td>Jurisdiction</td> <td></td> <td>IDOT</td> <td></td> <td>Т</td> <td>ime Pe</td> <td>riod</td> <td>SAT Pea</td> <td>ak Ho</td> <td>ur</td> <td>PHF</td> <td></td> <td></td> <td>0.95</td> <td>;</td> <td></td> <td>W</td> <td>↓ ↓ ↓ ↓</td>	Jurisdiction		IDOT		Т	ime Pe	riod	SAT Pea	ak Ho	ur	PHF			0.95	;		W	↓ ↓ ↓ ↓
Intersection Ogden Avenue with Lac File Name Ogden with Lacevel SATPR.xus Project Description SAT Projected Peak Hour Saturation Saturation Saturation Demand Information L T R L L L	Urban Street		Ogden Avenue		A	nalysis	Year	2022			Analy	/sis Pe	riod	1> 7	:00			म २
Projected Peak Hour Intersection Intersection Demand Information L T R L T R L T R L T R L T R L T R L T R L T R L T R L T R	Intersection		Ogden Avenue with	Lac	F	ile Nan	ne	Ogden v	vith L	acey	/ SATP	R.xus					*	
Demand Information EB WB NB SB Approach Movement L T R L T	Project Descrip	tion	SAT Projected Peal	k Hour													<u>1</u> 414	747
Demand Information L T R															-			
Approach Movement L I R L T R L T R L T R L T R L T R L T R L T R	Demand Inform	nation			┢		EB		<u> </u>	V	NB	_	<u> </u>		3	<u> </u>	SB	
Demand (v), velvh 23 1431 32 65 1447 16 83 0 49 25 0 22 Signal Information Cycle, s 0 Reference Phase C Green 3.0 62.5 9.0 0.0	Approach Move	ement			╇	L		R	L	-	1	R	L		R	L		R
Signal Information Cycle.s 90.0 Reference Pints Begin Orfset.s 0 Reference Pints Begin Green 3.0 62.5 9.0 0.00 0.	Demand (v), v	/eh/h				23	1431	32	65	14	447	16	83	0	49	25	0	22
Cycle. s 0.0 Reference Point 2 Offset. s 0 Reference Point Begin Creen 3.0 22.5 9.0 0.0	Signal Informa	ation						.	JE			_					-	
Offset. 0 Reference Point Begin Green 3.0 62.5 9.0 0.00 0.00	Cycle s	90.0	Reference Phase	2		-	26	2 🗄	243	_								$\mathbf{\Phi}$
Uncoordinate No No No Force Mode Price On Velocity Status Status Cap N/S On Red 0.00 0.00 <t< td=""><td>Offset s</td><td>0</td><td>Reference Point</td><td>- Begin</td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></t<>	Offset s	0	Reference Point	- Begin					<u> </u>						1	2	3	4
Endegradie Fixed Simult Gap N/S On Red 0.0 1.5 0.0 0.0 0.0 0.0 Saturation Flow / Delay L T R L </td <td>Uncoordinated</td> <td>No</td> <td>Simult Gap F/W</td> <td>On</td> <td>- G</td> <td>Green (</td> <td>3.0</td> <td>62.5</td> <td>9.0</td> <td>0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>- 11</td> <td></td> <td>↔</td> <td></td> <td>-+-</td>	Uncoordinated	No	Simult Gap F/W	On	- G	Green (3.0	62.5	9.0	0	0.0	0.0	0.0	- 11		↔		-+-
East and the prime is the intervent intervent intervent intervent East and the prime is the intervent int	Force Mode	Fixed	Simult. Gap N/S	On			5.5) ()	4.5 1.5	4.5	0		0.0	0.0		5	6	7	Y.
EB WB NB SB Saturation Flow / Delay L T R L<		. incu											0.0					
Saturation Flow / Delay L T R L L D <td></td> <td></td> <td></td> <td></td> <td></td> <td>EB</td> <td></td> <td></td> <td>W</td> <td>'B</td> <td></td> <td></td> <td>١</td> <td>NB</td> <td></td> <td></td> <td>SB</td> <td></td>						EB			W	'B			١	NB			SB	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Saturation Flo	w / Dela	ay		L	T	R	L	T	·	R	L		Т	R	L	Т	R
Heavy Vehicle Adjustment Factor (f_{rr}) 0.980 0.917 1.000 1.0	Lane Width Adj	ustmen	t Factor (fw)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.00) 1.	040	1.000	1.000	1.040	1.000
Approach Grade Adjustment Factor (fb) 1.000 <td>Heavy Vehicle</td> <td>Adjustm</td> <td>ent Factor (fHV)</td> <td>0.9</td> <td>980</td> <td>0.917</td> <td>1.000</td> <td>0.980</td> <td>0.9</td> <td>17</td> <td>1.000</td> <td>1.00</td> <td>0.9</td> <td>980</td> <td>1.000</td> <td>1.000</td> <td>0.980</td> <td>1.000</td>	Heavy Vehicle	Adjustm	ent Factor (fHV)	0.9	980	0.917	1.000	0.980	0.9	17	1.000	1.00	0.9	980	1.000	1.000	0.980	1.000
Parking Activity Adjustment Factor (fb) 1.000<	Approach Grad	e Adjus	tment Factor (fg)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.00) 1.	000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (h_0) 1.000	Parking Activity	Adjustr	nent Factor (f_p)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.00) 1.	000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_{0}) 1.000 <td>Bus Blockage A</td> <td>Adjustm</td> <td>ent Factor (fbb)</td> <td>1.0</td> <td>000</td> <td>1.000</td> <td>1.000</td> <td>0 1.000</td> <td>1.0</td> <td>00</td> <td>1.000</td> <td>1.00</td> <td>) 1.</td> <td>000</td> <td>1.000</td> <td>1.000</td> <td>1.000</td> <td>1.000</td>	Bus Blockage A	Adjustm	ent Factor (fbb)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.00) 1.	000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor $(\hbar u)$ 1.000 0.792 0.842 0.842 Right-Turn Adjustment Factor ($\hbar rr$) 0.992 0.996 0.000 0.000 0.000 0.000 0.842 Right-Turn Ped-Bike Adjustment Factor ($\hbar pob$) 1.000	Area Type Adju	stment	Factor (fa)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.000) 1.	000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (ħ,r) 0.952 0.000 0.952 0.000 0.792 0.842 Right-Turn Adjustment Factor (ħ,r) 0.992 0.996 0.000 0.000 0.000 Right-Turn Adjustment Factor (ħ,r) 1.000 1.000 1.000 1.000 1.000 1.000 1.000 Right-Turn Pedestrian Adjustment Factor (ħ,r) 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 <	Lane Utilization	Adjustr	ment Factor (fLU)	1.0	000	1.000	1.000	0 1.000	1.0	00	1.000	1.00) 1.	000	1.000	1.000	1.000	1.000
Right-Turn Adjustment Factor (fr_7) 0.992 0.996 0.000 0.000 0.000 Left-Turn Pedestrian Adjustment Factor (f_{frpb}) 1.000 1.010 1.010 1.010<	Left-Turn Adjus	tment F	actor (fLT)	0.9	952	0.000		0.952	0.0	00			0.	792			0.842	2
Left-Turn Pedestrian Adjustment Factor (\hbar_{cPb}) 1.000 0.00 0.00 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 0.00<	Right-Turn Adju	ustment	Factor (fRT)			0.992	<u> </u>		0.9	96			0.	000			0.000	,
Right-Turn Ped-Bike Adjustment Factor (f_{rpb}) I 1.000 I <td>Left-Turn Pede</td> <td>strian A</td> <td>djustment Factor (fLp</td> <td>b) 1.0</td> <td>000</td> <td></td> <td></td> <td>1.000</td> <td></td> <td></td> <td></td> <td>1.00</td> <td>2</td> <td></td> <td></td> <td>1.000</td> <td></td> <td></td>	Left-Turn Pede	strian A	djustment Factor (fLp	b) 1.0	000			1.000				1.00	2			1.000		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Right-Turn Ped	-Turn Ped-Bike Adjustment Factor (<i>f_{Rpb}</i>) ment Saturation Flow Rate (<i>s</i>), veh/h					1.000)			1.000				1.000			1.000
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Movement Satu	ment Saturation Flow Rate (s), veh/h			74	3397		1774	34	41				0			0	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Proportion of Ve	ment Saturation Flow Rate (<i>s</i>), veh/h ortion of Vehicles Arriving on Green (<i>P</i>)			03	0.93	0.69	0.03	0.6	69	0.69	0.10	0	.00	0.10	0.10	0.00	0.10
Signal Timing / Movement Groups EBL EBL //R WBL WBT/R NBL NBT/R SBL SBT/R Lost Time (t.) 3.5 6.0 3.5 6.0 6.0 6.0 6.0 Green Ratio (g/C) 0.73 0.69 0.73 0.69 0.10 0.10 Permitted Saturation Flow Rate (s _b), veh/h/ln 335 0 335 0 1410 1374 Shared Saturation Flow Rate (s _b), veh/h/ln 335 0 62.5 0.0 62.5 0.0 9.0 9.0 Permitted Effective Green Time (g _b), s 62.5 0.0 62.5 0.0 66.6 1.0 Permitted Queue Service Time (g _b), s 38.6 0.0 54.3 0.0 6.6 1.0 Permitted Queue Service Time (g _b), s 1.9 2.1 5.7 0.0 1.7 Queue Service Time Behockage (g'), s 0.0 0.0 0.0 0.2 1.7 Queue Service Time Behore Blockage (gr_b), s 1.9 1 1.7 0.9 1.7 <td>Incremental De</td> <td>lay Fac</td> <td>tor (<i>k</i>)</td> <td>0.</td> <td>11</td> <td>0.50</td> <td>0.50</td> <td>0.11</td> <td>0.5</td> <td>50</td> <td>0.50</td> <td></td> <td>0</td> <td>.25</td> <td></td> <td></td> <td>0.15</td> <td></td>	Incremental De	lay Fac	tor (<i>k</i>)	0.	11	0.50	0.50	0.11	0.5	50	0.50		0	.25			0.15	
Signal Timing / Movement GroupsEBLEBLEBT/RWBLWBT/RNBLNBT/RSBLSBT/RLost Time (t_1)3.56.03.56.06.06.06.06.0Green Ratio (g/C)0.730.690.730.690.100.100.100.10Permitted Saturation Flow Rate (s_p), veh/h/ln3350335014101374Shared Saturation Flow Rate (s_p), veh/h/ln335062.50.015901610Permitted Effective Green Time (g_p), s62.50.062.50.09.09.09.0Permitted Service Time (g_p), s38.60.054.30.06.61.01.0Permitted Queue Service Time (g_{PS}), s1.92.15.70.00.0Time to First Blockage (g_f), s0.00.00.00.00.21.70.0Queue Service Time Before Blockage (g_f), s0.00.00.00.20.20.91.7Queue Service Time Before Blockage (g_f), s0.00.00.00.00.20.00.0Protected Right Saturation Flow (s_R), veh/h/ln11.380.001.00.000.000.00Protected Right Effective Green Time (g_R), sIIIIIIIIProtected Right Effective Green Time (g_R), s0.001.3890.002.1070.002.1070.00Prot																		
Lost Time (t.) 3.5 6.0 3.5 6.0 6.0 6.0 Green Ratio (g/C) 0.73 0.69 0.73 0.69 0.10 0.10 Permitted Saturation Flow Rate (s_p), veh/h/ln 335 0 335 0 1410 1374 Shared Saturation Flow Rate (s_h), veh/h/ln 335 0 335 0 1410 1374 Shared Saturation Flow Rate (s_h), veh/h/ln C C 0.0 19.0 1610 Permitted Effective Green Time (g_p), s 62.5 0.0 62.5 0.0 9.0 9.0 Permitted Queue Service Time (g_u), s 38.6 0.0 54.3 0.0 6.6 1.0 Permitted Queue Service Time (g_p), s 1.9 2.1 C 5.7 0.0 Time to First Blockage (gr), s 0.0 0.0 0.0 0.2 1.7 0.0 Queue Service Time Before Blockage (gr), s 0.0 0.0 0.0 0.2 0.9 0.9 Protected Right Saturation Flow (s_R), veh/h/ln C C C 0.2 0.9 Protected Right Effective Green Time (g_R), s C C C C C Multimodal EB WB B B Pedestrian F_w / F_v 1.389 0.00 0.058 0.000 0.144 0.000 0.144 Pedestrian M_{comer} / M_{cw} C C C C C C C Bicycle c_b / d_b 1388.41 4.21 1388.89 <td>Signal Timing</td> <td>/ Move</td> <td>ment Groups</td> <td></td> <td>EB</td> <td>L</td> <td>EBT/R</td> <td>WE</td> <td>3L</td> <td>W</td> <td>/BT/R</td> <td>N</td> <td>BL</td> <td>Ν</td> <td>IBT/R</td> <td>SBI</td> <td>-</td> <td>SBT/R</td>	Signal Timing	/ Move	ment Groups		EB	L	EBT/R	WE	3L	W	/BT/R	N	BL	Ν	IBT/R	SBI	-	SBT/R
Green Ratio (g/C)0.730.690.730.690.100.100.10Permitted Saturation Flow Rate (sp), veh/h/ln3350335014101374Shared Saturation Flow Rate (sp), veh/h/ln15901610Permitted Effective Green Time (gp), s62.50.062.50.09.09.0Permitted Service Time (gu), s38.60.054.30.06.61.0Permitted Queue Service Time (gps), s1.92.15.70.0Time to First Blockage (gr), s0.00.00.00.21.7Queue Service Time Before Blockage (grs), s9.9Protected Right Saturation Flow (sr), veh/h/ln </td <td>Lost Time (tL)</td> <td></td> <td></td> <td></td> <td>3.5</td> <td></td> <td>6.0</td> <td>3.</td> <td>5</td> <td></td> <td>6.0</td> <td></td> <td></td> <td></td> <td>6.0</td> <td></td> <td></td> <td>6.0</td>	Lost Time (tL)				3.5		6.0	3.	5		6.0				6.0			6.0
Permitted Saturation Flow Rate (s_p), veh/h/ln 335 0 335 0 1410 1374 Shared Saturation Flow Rate (s_p), veh/h/ln 1590 1610 Permitted Effective Green Time (g_p), s 62.5 0.0 62.5 0.0 9.0 9.0 9.0 Permitted Service Time (g_u), s 38.6 0.0 54.3 0.0 6.6 1.0 Permitted Queue Service Time (g_{ps}), s 1.9 2.1 5.7 0.0 0.0 Time to First Blockage (g_r), s 0.0 0.0 0.0 0.0 0.2 1.7 Queue Service Time Before Blockage (g_{rb}), s 0.0 0.0 0.0 0.2 0.9 Protected Right Saturation Flow (s_R), veh/h/ln 0.2 0.9 Protected Right Effective Green Time (g_R), s 0.0 0.9 Multimodal 0.00 0.144 Pedestrian F_w / F_v 1.389 0.00 <	Green Ratio (g/	/C)			0.73	3	0.69	0.7	3	C	0.69				0.10			0.10
Shared Saturation Flow Rate (s_{sh}), veh/h/ln Image of the system of t	Permitted Satur	ration F	low Rate (sp), veh/h/	In	335	5	0	33	5		0				1410			1374
Permitted Effective Green Time (g_p) , s 62.5 0.0 62.5 0.0 9.0 9.0 9.0 Permitted Service Time (g_u) , s 38.6 0.0 54.3 0.0 6.6 1.0 Permitted Queue Service Time (g_{ps}) , s 1.9 2.1 5.7 0.0 0.0 Time to First Blockage (g_f) , s 0.0 0.0 0.0 0.0 0.2 1.7 Queue Service Time Before Blockage (g_{fs}) , s 0.0 0.0 0.0 0.0 0.2 0.9 Protected Right Saturation Flow (s_R) , veh/h/ln 0.0 0.0 0.0 0.0 0.0 0.0 0.9 Protected Right Effective Green Time (g_R) , s Multimodal	Shared Saturat	ion Flov	v Rate (ssh), veh/h/ln												1590			1610
Permitted Service Time (g_{u}), s 38.6 0.0 54.3 0.0 6.6 1.0 Permitted Queue Service Time (g_{ps}), s 1.9 2.1 5.7 0.0 0.0 Time to First Blockage (g_{f}), s 0.0 0.0 0.0 0.0 0.2 1.7 Queue Service Time Before Blockage (g_{fs}), s 0.0 0.0 0.0 0.2 0.9 Protected Right Saturation Flow (s_R), veh/h/ln 0.0 0.0 0.0 0.0 0.0 0.2 0.9 0.9 Protected Right Effective Green Time (g_R), s 0.9 0.9	Permitted Effec	tive Gre	en Time (g_p), s		62.5	5	0.0	62	5		0.0				9.0			9.0
Permitted Queue Service Time (g_{PS}) , s 1.9 2.1 5.7 0.0 0.0 Time to First Blockage (g_f) , s 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.7 Queue Service Time Before Blockage (g_f) , s 0.0 0.0 0.0 0.0 0.0 0.2 0.9 Protected Right Saturation Flow (s_R) , veh/h/n 0.0 0.0 0.9 Protected Right Effective Green Time (g_R) , s 0.9 Multimodal	Permitted Servi	rmitted Service Time (g_{μ}) , s			38.6	6	0.0	54	.3		0.0				6.6			1.0
Time to First Blockage (g_f) , s 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 1.7 Queue Service Time Before Blockage (g_{fs}) , s Image: Service Time Service Time (g_{R}) , s Image: Service Time $($	Permitted Queu	mitted Queue Service Time (g_{ps}) , s			1.9			2.	1						5.7			0.0
Queue Service Time Before Blockage (gfs), sImage: final service final serv	Time to First Bl	ockage	(<i>g</i> _f), s		0.0		0.0	0.	C		0.0				0.2			1.7
Protected Right Saturation Flow (s_R), veh/h/n Image: constraint of the set of t	Queue Service	Time B	efore Blockage (gfs),	S											0.2			0.9
Protected Right Effective Green Time (gR), s Image: line line line line line line line line	Protected Right	ected Right Saturation Flow (<i>s</i> _R), veh/h/ln ected Right Effective Green Time (<i>g</i> _R), s																
Multimodal \mathbb{E} \mathbb	Protected Right	ected Right Effective Green Time (g _R), s timodal																
Pedestrian F_w / F_v 1.389 0.00 1.389 0.00 2.107 0.00 2.107 0.00 Pedestrian F_s / F_{delay} 0.000 0.058 0.000 0.058 0.000 0.144 0.000 0.144 Pedestrian M_{comer} / M_{cw} <td>Multimodal</td> <td colspan="3">modal</td> <td></td> <td>EB</td> <td></td> <td></td> <td>V</td> <td>/B</td> <td></td> <td></td> <td>1</td> <td>NB</td> <td></td> <td></td> <td>SB</td> <td></td>	Multimodal	modal				EB			V	/B			1	NB			SB	
Pedestrian Fs / Fdelay 0.000 0.058 0.000 0.058 0.000 0.144 0.000 0.144 Pedestrian Mcomer / Mcw Image: Comparison of the system	Pedestrian Fw /	Fv		· ·	1.38	9	0.00	1.3	89	0	00.0	2.1	07		0.00	2.10	7	0.00
Pedestrian Mcomer / Mcw Image: Moment of Mcw Image: Mcw	Pedestrian Fs /	Fdelay		(0.00	0	0.058	0.0	00	0	.058	0.0	00	C).144	0.00	0	0.144
Bicycle cb / db 1388.41 4.21 1388.89 4.20 200.00 36.45 200.00 36.45	Pedestrian Mcor	rner / Mcv	/															
	Bicycle c _b / d _b			13	388.	41	4.21	1388	8.89	4	4.20	200	0.00	3	86.45	200.0	0	36.45
Bicycle Fw / Fv -3.64 1.29 -3.64 1.33 -3.64 0.23 -3.64 0.08	Bicycle Fw / Fv				-3.6	4	1.29	-3.6	64	1	1.33	-3.	64		0.23	-3.64	4	0.08

--- Messages ----

No errors or warnings exist.

--- Comments ----

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HCS 2010[™] Streets Version 6.80

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lee Avenue
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	1	2	0		0	0	0		0	0	1
Configuration			Т	TR		L	Т	TR			LR					R
Volume (veh/h)			1540	6		12	1429	3		11		53				7
Percent Heavy Vehicles						0				0		4				0
Proportion Time Blocked																
Right Turn Channelized		N	0			Ν	lo			N	0			N	0	
Median Type		Left Only														
Median Storage		1														
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)						13					69					8
Capacity						393					203					348
v/c Ratio						0.03					0.34					0.02
95% Queue Length						0.1					1.4					0.1
Control Delay (s/veh)						14.5					31.6					15.6
Level of Service (LOS)						В					D					С
Approach Delay (s/veh)						0	.1			31	6			15	.6	
Approach LOS										[)			(2	

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General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lee Avenue
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.97
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	T	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	10	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	1	2	0		0	0	0		0	0	1
Configuration			Т	TR		L	Т	TR			LR					R
Volume (veh/h)			1453	18		33	2116	8		6		15				11
Percent Heavy Vehicles						0				0		0				0
Proportion Time Blocked																
Right Turn Channelized		Ν	lo			Ν	lo			N	0			Ν	0	
Median Type		Left Only														
Median Storage		1														
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)						34					21					11
Capacity						446					170					212
v/c Ratio						0.08					0.12					0.05
95% Queue Length						0.2					0.4					0.2
Control Delay (s/veh)						13.7					29.2					22.9
Level of Service (LOS)		B B B D D D C											С			
Approach Delay (s/veh)						0	.2			29).2			22	2.9	
Approach LOS										[)			(2	

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HCS 2010[™] TWSC Version 6.80 Ogden with Lee PMPR.xtw Generated: 6/30/2016 1:19:53 PM

General Information		Site Information	
Analyst	BSM	Intersection	Ogden with Lee
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Lee Avenue
Time Analyzed	SAT Peak Hour	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	1	2	0		0	0	0		0	0	1
Configuration			Т	TR		L	Т	TR			LR					R
Volume (veh/h)			1486	19		36	1525	18		14		40				7
Percent Heavy Vehicles						0				0		4				0
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			N	0			Ν	0	
Median Type								Left	Only							
Median Storage								-	L							
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)						39					58					8
Capacity						408					176					318
v/c Ratio						0.10					0.33					0.03
95% Queue Length						0.3					1.4					0.1
Control Delay (s/veh)						14.7					35.2					16.6
Level of Service (LOS)						В					E					С
Approach Delay (s/veh)						0	.3			35	5.2			16	5.6	
Approach LOS										E				(2	

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General Information		Site Information	
Analyst	BSM	Intersection	Ogden with RIRO
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Right-In/Right-Out Access
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

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General Information		Site Information	
Analyst	BSM	Intersection	Ogden with RIRO
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	2/12/2016	East/West Street	Ogden Avenue
Analysis Year	2022	North/South Street	Right-In/Right-Out Access
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0
Configuration			Т	TR			Т					R				
Volume (veh/h)			1452	15			2152					10				
Percent Heavy Vehicles												0				
Proportion Time Blocked																
Right Turn Channelized		N	lo			Ν	lo			Ν	0			Ν	0	
Median Type								Undi	vided							
Median Storage																
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)												11				
Capacity												347				
v/c Ratio												0.03				
95% Queue Length												0.1				
Control Delay (s/veh)												15.7				
Level of Service (LOS)												С				
Approach Delay (s/veh)										15	5.7					
Approach LOS										(2					

General Information		Site Information	
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Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	15-289		

Lanes



Vehicle Volumes and Adjustments

Approach		Eastb	ound			West	ound			North	bound			South	bound	
Movement	U	L	т	R	U	L	т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0
Configuration			т	TR			т					R				
Volume (veh/h)			1470	32			1552					16				
Percent Heavy Vehicles												0				
Proportion Time Blocked																
Right Turn Channelized		N	0			N	lo			N	0			N	lo	
Median Type								Undi	vided							
Median Storage																
Delay, Queue Length, and	Level	of Ser	vice													
Flow Rate (veh/h)												17				
Capacity												337				
v/c Ratio												0.05				
95% Queue Length												0.2				
Control Delay (s/veh)												16.2				
Level of Service (LOS)												С				
Approach Delay (s/veh)										16	5.2					
Approach LOS										(2					

Red Time Queue Table

Packey Webb Ford Downers Grove, Illinois



(1 + T%)	*	(1 - G/C)	*	(2 * 25)	*	(DHV)	1	(# LANES)	*		(CYCLES / HR)
						A	м					
Movements	EBL	EBT	EBTR	WBL	WBT	WBTR	NBL	NBLTR	NBR	SBL	SBLTR	SBR
Lanes	1	1	1	1	1	1	-	1	-	-	1	-
Т %	2	9	9	2	9	9	-	2	-	-	2	-
DHV	13	773	772	47	698	697	-	32	-	-	21	-
G (Sec)	10	95	95	10	95	95	-	15	-	-	15	-
Gu (Sec)	74.3	0	0	91.9	0	0	-	5.3	-	-	4.4	-
Cycle Length	120	120	120	120	120	120	120	120	120	120	120	120
G+Gu/C	0.70	0.79	0.79	0.85	0.79	0.79	-	0.17	-	-	0.16	-
1+T%	1.02	1.09	1.09	1.02	1.09	1.09	-	1.02	-	-	1.02	-
Cycles/HR	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
95th% Queue	1	33	38	8	235	235	-	48	-	-	30	-
Red Time Queue	7	293	292	12	264	264	-	45	-	-	30	-

						P	Л					
Movements	EBL	EBT	EBTR	WBL	WBT	WBTR	NBL	NBLTR	NBR	SBL	SBLTR	SBR
Lanes	1	1	1	1	1	1	-	1	-	-	1	-
Т %	2	9	9	2	9	9	-	2	-	-	2	-
DHV	22	720	720	29	1045	1045	-	92	-	-	26	-
G (Sec)	10	95	95	10	95	95	-	15	-	-	15	-
Gu (Sec)	43.2	0	0	89.9	0	0	-	7.3	-	-	1.6	-
Cycle Length	120	120	120	120	120	120	120	120	120	120	120	120
G+Gu/C	0.44	0.79	0.79	0.83	0.79	0.79	-	0.19	-	-	0.14	-
1+T%	1.02	1.09	1.09	1.02	1.09	1.09	-	1.02	-	-	1.02	-
Cycles/HR	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
95th% Queue	13	30	33	13	213	215	-	145	-	-	38	-
Red Time Queue	21	273	273	8	396	396	-	127	-	-	38	_

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0	m	

Movements	EBL	EBT	EBTR	WBL	WBT	WBTR	NBL	NBLTR	NBR	SBL	SBLTR	SBR
Lanes	1	1	1	1	1	1	-	1	-	-	1	-
Т %	2	9	9	2	9	9	-	2	-	-	2	-
DHV	23	732	731	65	732	731	-	132	-	-	47	-
G (Sec)	10	65	65	10	65	65	-	15	-	-	15	-
Gu (Sec)	38.6	0	0	54.3	0	0	_	6.6	-	-	1	-
Cycle Length	90	90	90	90	90	90	90	90	90	90	90	90
G+Gu/C	0.54	0.72	0.72	0.71	0.72	0.72	-	0.24	-	-	0.18	-
1+T%	1.02	1.09	1.09	1.02	1.09	1.09	-	1.02	-	-	1.02	-
Cycles/HR	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000
95th% Queue	5	83	88	13	288	288	-	155	-	-	48	-
Red Time Queue	13	277	277	24	277	277	-	128	-	-	49	-

FILE 16-PLC-0009 – Petition for a Planned Unit Development, a Rezoning from B-3, General Services and Highway Business to B-3/PUD, General Services and Highway Business/PUD and a Special Use to construct an automobile dealership. The property is currently zoned B-3, General Services and Highway Business. The property is located on Ogden Avenue at the T-intersection of Lacey Road and Ogden Avenue, commonly known as 1815 Ogden Avenue, Downers Grove, IL (PINs 09-06-304-013 & -014). Brad Webb, Petitioner and ALDI Inc., Owner.

Community Development Director Stan Popovich reviewed the petitioner's request and located the property on the overhead. Elevations of the proposed dealership building were also depicted. The building will sit in the center of the site. Functions within the building were pointed out and a second floor would house offices for the dealership. Two accesses into the site were pointed out – one at the west end, as a right in/right out onto Ogden Avenue, and one at the east end, as a full access. Packey Webb Ford will provide a cross-access point to access the Star Motors property. Parking was highlighted on the site plan. Per staff, the petitioner was not planning to construct a stand-alone car wash building at this time, but did intend to pursue approval of one in case it wanted to construct a car wash in the future. If constructed, the car wash would sit west of the main building. Currently there was a car wash bay within the main building.

Truck turning exhibits were reviewed by Director Popovich, noting car carriers could enter the site from the west and then exit on the east.

Staff pointed out that the existing wetland would be impacted based on the environmental remediation plan with the Illinois Environmental Protection Agency (IEPA). The wetlands would be remediated via a fee-in-lieu to a remediation bank. Water flow and drainage for the site was reviewed. Director Popovich stated that the petitioner plans to construct three (3) basins: one as an open air basin, one as a detention basin located east of the building, and one smaller one located at the northeast corner. All basins were designed to meet the village's stormwater ordinance. Per staff, the stormwater engineering and public works staff did review the plans and both departments indicated the proposal would meet the stormwater floodplain ordinance.

Next, a review of the landscape plan followed. No trees would be located in the detention basin area. Screening for the south property line would not take place because it would interfere with the water flow capacity needed to get through the swale, as cited by staff and the engineers. A solid fence would be inserted in its place.

Per staff, a summary of the petitioner's neighborhood meetings were referenced in the commissioners' packets. And, after the neighborhood meeting, the developer reduced the size of the proposed building based on their requirements. Per staff, the proposal did meet the village's comprehensive plan, the criteria under the zoning ordinance, and all of the standards for approval under the Planned Unit Development, special use standards, and rezoning standards. The project was a desirable development for the community. Staff recommended the commission forward a positive recommendation with the conditions listed in its staff's report.

Commissioner questions raised included whether there was a signalized light proposed at Lacey Avenue (no); whether staff agreed with the traffic counts (staff concurred); and where would the water flow if it exceeded the 100 year flood event (overflow north onto Ogden Avenue, picked up by the LPDA in the southeast corner, then flow over the parking lot). Asked if the petitioner

considered pavers for the parking lot, staff stated the petitioner decided to install the required underground water storage to accommodate the additional pavement on-site. Ms. Hogstrom asked staff to explain where the off-site wetland mitigation took place, wherein Director Popovich explained that mitigation would happen at the permit stage but he was not sure where the mitigation would occur.

Regarding the request for increased signage, Ms. Hogstrom asked if there were other nearby developments that had similar requests, wherein Director Popovich stated that X-Sport on Finley Road and the Art Van Furniture Store were approved developments with similar signage requests. Staff then confirmed that the lighting photometrics plan met the village's requirements and would further meet the village's lighting requirements, at the property lines, for non-residential businesses located next to residential areas. Per another question about audible "paging", Director Popovich understood paging would be done via telephone and no outdoor paging system would exist.

Lastly, Director Popovich explained in detail the three-year wetland monitoring maintenance program that was required by the petitioner and which was in accordance with the village's stormwater ordinance.

Applicant, Mr. Jeff Leitz, with CVG Architects, 1245 E. Diehl Rd., Naperville, stated he represented the owner, Brad Webb. He introduced the development team: wetlands consultant, Tom Mangan, with Geothink; construction manager, Scott Ledbetter, with International Contractors; and civil engineer, Jeff Nance, with R.A. Smith.

Mr. Leitz summarized the property was vacant for the past 30 years, it was contaminated with wetlands present, and reasons existed as to why the property was not developed. It was "not a simple site." A history of the project followed with Mr. Leitz noting that the team was trying to work with staff and a number of agencies on the best approach to make the project a success. Details followed.

Regarding the site plan, Mr. Leitz confirmed there were 815 parking spots on-site, pointing out that the car dealership would act as a display for the product being sold, which was why the lot was landscaped over 20%. As to the neighborhood meeting that took place, Mr. Leitz stated he was considerate of the neighbors, but also stated that more lighting would be installed on the property than what currently exists – and the petitioner was meeting the village's standards. He elaborated as to what would be installed along the various property lines: full vision landscape screening on the south property line with board on board fence; evergreens planted on the west property line; and a full vision fence along the western property line to block lighting from the residents.

Mr. Leitz agreed that loud noise on the site was a concern, and, as voiced at the neighborhood meeting but that communications on-site would continue via cell phones or two-way radios. Speakers would be attached on the exterior of the building for those few instances where someone had to be contacted. As to the future car wash and its location, Mr. Leitz, stated the southern line of the car wash was 130 feet from the property line. The internal equipment for the car wash was not purchased at this time, but Mr. Leitz stated he was aware of the village's noise ordinance and would not create a "disturbance to the neighbors".

Responding to the concerns voiced at the neighborhood meeting Mr. Leitz explained that a sanitary easement will be placed along the east and west property lines to accommodate any future sanitary

needs. As to using a paver-block system instead of asphalt, pavers could not be used due to the site's contamination. Elevations of the building were depicted on the overhead with Mr. Leitz addressing the two-sided silver "brand wall" which element was similar to the Packay Ford. The reason for its increased size was to keep it proportionate to the building and to have the sign visible from the east- and west-bound traffic. No monument or pylon signs were being requested by the petitioner. Details of the building's material followed with Mr. Leitz explaining the building would be a "lantern" at night so that customers could see the building and purchase more vehicles. Delineation of the parking spaces were noted.

Hours of operation were as follows (including the future car wash for customers): Monday through Friday, 7:00 a.m. to 9:00 p.m.; Saturday - open until 6:00 p.m.; and closed on Sunday. Mr. Leitz pointed out the location for on-site delivery of new vehicles via a car-carrier. Addressing a question about the parking study and why the structure was decreased in size, Mr. Leitz indicated it had to do with economics and nothing to do with the number of vehicles to sell or the customers to draw.

Further questions followed as to what happened with the excavated soil on the site (mined per IEPA requirements); the status of the reported documentation to the IEPA; and whether the landscaper could review the list of native plantings again. Signage details were also reviewed.

Chairman Rickard opened up the meeting to public comment.

Mr. Scott Richards, 1130 Warren Ave., Downers Grove, was disappointed that another car dealership was being proposed for the large parcel and believed it was a waste of property. He voiced concern that a signalized light was not being installed at Ogden and Lacey Avenue for safety purposes and due to the proposed senior housing that was to be constructed.

Mr. Kent Conness, 1846 Grant St., Downers Grove, voiced concern that at the March 9, 2016 neighborhood meeting there comments about the project using TIF funds, which he did not believe this site needed. Also at the same meeting there was reference made to a 10-year agreement for a sales tax rebate from the village. Mr. Popovich stated that specific aspect would be addressed at the village council level should this petition move forward.

Continuing, Mr. Conness stated the sales tax rebate should be available to all businesses and not just certain ones. His other concerns included light pollution, light reflection, no landscape screening or fencing at the southeast corner of the site and outside speakers. The current site was a quiet, green 10-acre oasis on Odgen Avenue and would now become noisy. Environmental contaminants were on the property.

Ms. Cathy Fritts, 4417 Stonewall, Downers Grove, was surprised that she and her husband were not "invited" to the March 9th neighborhood meeting since the rear of their lot backed up to the proposed site. She believed all owners surrounding the property should have been included. She agreed that traffic on Ogden Avenue was an issue. She asked for the height of the fence that was going to be installed (6 feet) and where test driving was going to take place.

Mr. John Kahovec, 406 Lincoln Ave., Downers Grove, attended the March 9 neighborhood meeting and did see some changes in the plan from that meeting. Referring to Sheet No. C-11 of the plans depicting the wetlands, he believed the petitioner was going to push the wetlands further south into the residential properties, devalue the property, not landscape as originally discussed at the

neighborhood meeting, and was creating more issues by moving the natural flow of water in the area. Because TIFs and sales tax rebates were being used, he believed the residents should have more say in the development around the residential areas and figure out a way to preserve more of the natural wetlands. He did not believe that just because a developer says he uses Best Management Practices that he does it. He asked the petitioner to identify where the contaminated soil would be buried. He also requested that the residents be protected from the lighting and noise from the future car wash.

Mr. Robert Harunger, 4123 Northcott, Downers Grove, resides north of the project and agreed with many of the prior statements made. He would have preferred a mixed use development on the parcel. Since the petitioner was a long-time business owner, Mr. Harunger stated he would not be in favor of using TIF funds or tax incentives for the parcel and for the intended purpose. He believed a traffic signal at Lacey would solve the traffic issues on Ogden Avenue, provide access to the dealership and to the neighborhood to the north where a senior residence was currently being planned. It would also provide an additional crosswalk for pedestrians.

Mr. Skip Muehlhaus, 1868 Grant St., Downers Grove believed it would be more appropriate to place a signal at Lee Street versus Lacey. He recommended removing the contaminated soil off-site versus keeping it on-site only because then a paver system could be considered versus asphalt, similar to Star Motors, which would assist with the water problem.

Mr. Robert Harunger returned, stating that pavers would be a positive over asphalt since it was aesthetically pleasing and accomplished a drainage issue. However, leaving the contaminated soil on-site was feasible versus running into EPA issues when it is relocated off-site.

After hearing no further comments, Mr. Leitz returned to the podium to respond to some of the questions raised. Discussing the lighting trespass in the southeast corner of the site, he explained that because of the way the stormwater was designed, installing any landscaping or fencing would deter the drainage from the property. As for outside speakers, if there was a case where someone had to be contacted, there was no choice. Test driving would be taken out of the neighborhoods but he could not guarantee that. (Mr. Cozzo recommended that the dealership inform its sales reps to keep vehicles out of the neighborhoods.) Mr. Leitz also apologized to the resident who did not receive an invite to the neighborhood meeting and offered to sit down with her to review the plans if she preferred.

Mr. Tom Mangan from Geothink, 611 Stevens St., Geneva, was present to answer questions regarding the environmental issues of the project. He explained in detail the flow of water from the current wetland (and its contaminants) along the southern part of the site into the larger wetland located at the southeast corner of the site. Details followed on how the mitigation would take place, how the surface contamination would be removed out of the wetland area and across the majority of the site, as well as the steps taken to alleviate some of the flooding issues in the neighborhood. Contaminated soils would be relocated (and separated) to the southeast corner of the site. Details of the property's grading also followed, with Mr. Mangan noting that when the process takes place, there will be a health and safety plan on-site, one with the IEPA, and one with the village due to possible mercury and PNA exposure.

Mr. Quirk asked what the cost difference was for burying the contaminated soil on-site versus hauling it off-site, wherein Mr. Mangan explained it would cost anywhere from \$2.5M to \$3.0M to

haul the soil off-site and by keeping it on-site the cost was half, he estimated. Proper engineering and safeguards would take place on the site.

As for the traffic signal, Mr. Leitz summarized that the traffic study was for a future stop light but that it was not in the works for Packey Webb nor the village at this time. However, if the topic was to be discussed again, he said Packey Webb was willing to discuss it. As for the white color on the building, Mr. Leitz explained white was one of the colors required by Ford and, yes, there would be some reflection. Other than the security lights, the lot lights would be turned off at 9:00 P.M.

Mr. Leitz and the chairman proceeded to discuss whether the proposed parcel could be seen standing from the south property line when the trees were in full bloom, wherein Mr. Leitz stated the view was screened by the tree line.

However, Mr. Jared Fritts, 4417 Stonewall Ave., came forward and stated he resides at the southwest corner of the proposed lot and he could see the lot. He stated he could see the lights from Star Motors and would see the lights from the proposed dealership, especially off a white building.

Given the above statement, Mr. Leitz believed that since Mr. Fritts could see the lighting through the trees, he did not believe adding trees was going to screen the lot anyway. Conversation followed as to why the wetland, north of the tree line, was being located south towards the residents. Mr. Mangan responded that the trees were contaminated along the southern property line.

Mr. Fritts inquired as to why Aldi, the current property owner, was not being included in these discussions, since contaminated soils were being moved around on the property.

Mr. Leitz closed by summarizing that the petitioner has, over the past eight months, gone through many designs and engineering and was making the site better environmentally for the dealership. The petitioner was excited to become part of the community and be a good neighbor.

Per Ms. Gassen's question about lighting shields being used, Mr. Leitz said some shields would be used on the lights to cut down on glare, along with aimed LED lighting. He confirmed there was going to be "more light on this site" but that it would be minimized at all property lines.

Chairman Rickard closed the public hearing.

Asked if within the village there was a similar-sized "vessel" to house the stormwater, Director Popovich could not answer affirmatively, given that the parcel was one of the largest parcels to come in for redevelopment since the new ordinance was in effect. However, he explained that the stormwater plans were sent to an outside engineering consultant who provided comments to staff, and staff was working with the petitioner. Both, in-house village engineers and the outside consultants confirmed the proposed stormwater system met the stormwater ordinance requirements.

Asked what the village's current plans were regarding a proposed traffic light, Director Popovich explained to the chairman that past studies had shown that the traffic light would be better located somewhere other than the Lacey intersection. Asked if the village was aware that contaminants were leaving the property and traveling to the lower wetland, Director Popovich shared that he did not review the IEPA reports and could not say one way or the other that the village was aware of what was going on, on-site. He agreed it was beneficial to clean up the parcel, however.

The chairman pointed out there were three parts to the approval for this petition and proceeded to read the associated standards. Discussion followed on those standards that were met or not met. No changes were voiced by the commissioners. Next, commissioners discussed the standards under the request for a zoning amendment from B-3 to B-3 PUD. Commissioners agreed all criteria was met. Lastly, the third portion, as it related to the request for a special use for a car dealership, commissioners agreed all three standards were met.

Last comments from various commissioners included the following: 1) that the village consider implementing a traffic light in a location that does have traffic issues; 2) that the sign relief was warranted; 3) that the greenspace was a warranted request; and 4) that the future car wash be considered. Mr. Cozzo believed there was a thorough study of the stormwater management and wetlands and applauded the petitioner for the amount of time and effort spent to mitigate the site. However, he was disappointed that no stop light was planned for the Lacey and Ogden intersection, given there was a senior housing facility being planned directly across the street. Ms. Hogstrom concurred. She also thought there was a village restriction for test driving through neighborhoods. Discussion followed on how test drives would be restricted/enforced as well as a discussion that the new development provided an opportunity to stop the run-off of contaminants onto private property.

WITH RESPECT TO FILE 16-PLC-0009, MR. COZZO MADE A MOTION THAT THE PLAN COMMISSION RECOMMEND THE VILLAGE COUNCIL TO APPROVE THE REQUESTED PLANNED UNIT DEVELOPMENT, REZONING AND SPECIAL USE AS REQUESTED, SUBJECT TO THE FOLLOWING CONDITIONS:

- 1. THE PLANNED UNIT DEVELOPMENT, REZONING AND SPECIAL USE SHALL SUBSTANTIALLY CONFORM TO THE STAFF REPORT; ARCHITECTURAL AND PHOTOMETRIC DRAWINGS PREPARED BY CVG ARCHITECTS DATED JANUARY 29, 2016 AND LAST REVISED ON JUNE 28, 2016 AND ENGINEERING AND LANDSCAPE DRAWINGS PREPARED BY R.A. SMITH NATIONAL DATED JUNE 10, 2016, EXCEPT AS SUCH PLANS MAY BE MODIFIED TO CONFORM TO THE VILLAGE CODES AND ORDINANCES.
- 2. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC SUPPRESSION SYSTEM AND AN AUTOMATIC AND MANUAL FIRE ALARM SYSTEM.
- 3. NO ADDITIONAL WALL OR MONUMENT SIGNS SHALL BE PERMITTED FOR THIS SITE THAT WOULD RESULT IN AN INCREASE IN OVERALL SIGN AREA.
- 4. THE APPLICANT SHALL ADMINISTRATIVELY CONSOLIDATE THE TWO LOTS INTO ONE LOT OF RECORD PRIOR TO ISSUING A BUILDING PERMIT.
- 5. THE APPLICANT SHALL PROVIDE A CROSS-ACCESS EASEMENT FROM THE EASTERNMOST OGDEN AVENUE CURB CUT TO THE CROSS-ACCESS DRIVE FOR THE PROPERTY TO THE EAST ON THE ADMINISTRATIVE LOT CONSOLIDATION.

SECONDED BY MR. CRONIN. ROLL CALL:

AYE: MR. COZZO, MR. CRONIN, MRS. GASSEN, MRS. HOGSTROM, MR. QUIRK, MR. THOMAN, CHAIRMAN RICKARD NAY: NONE

MOTION CARRIED. VOTE: 7-0

Director Popovich announced there will be four cases on the August 1, 2016 meeting agenda.

THE MEETING WAS ADJOURNED AT 9:45 P.M. ON MOTION BY MR. QUIRK, SECONDED BY MR. CRONIN. MOTION CARRIED UNANIMOUSLY BY VOICE VOTE OF 7-0.

/s/ Celeste K. Weilandt (As transcribed by MP-3 audio)

Packey Webb Redevelopment Proposal

1815 Ogden Avenue

Stormwater Description

















