WHEELING PLAN COMMISSION
THURSDAY, JULY 28, 2016 6:30 P.M.

AGENDA FOR A REGULAR MEETING OF THE PLAN COMMISSION
to be held in the Board Room of the Village Hall
2 Community Boulevard, Wheeling, Illinois

This meeting will stream live and be televised on Wheeling's Cable Channels 17 & 99

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1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. CHANGES TO THE AGENDA

5. CITIZEN CONCERNS AND COMMENTS

6. CONSENT ITEMS - none

7. ITEMS FOR REVIEW

A) Docket No. 2016-16
OMNI Youth Services
210-212 N. Wolf Road
Special Use-Site Plan Approval of a Social Service Facility

B) Docket No. 2016-17
Blooming Minds Academy
581-583 N. Wolf Road
Special Use-Site Plan Approval of a Daycare Center

C) Docket No. 2016-15
Dundee Commons
430 W. Dundee Road
Special Use-Site Plan Approval of a Preliminary Planned Unit Development for Retail Use

8. APPROVAL OF MINUTES – July 14, 2016 (includes findings for Docket No. 2016-13)

9. OTHER BUSINESS

10. ADJOURNMENT

IF YOU WOULD LIKE TO ATTEND A VILLAGE MEETING BUT REQUIRE AUXILIARY AID SUCH AS A SIGN LANGUAGE INTERPRETER, PLEASE CALL (847) 459-2600 AT LEAST 72 HOURS PRIOR TO THE MEETING.

Public Hearing Information
Wheeling Plan Commission Meeting
July 28, 2016
(Attachment to Agenda)

Docket No. 2016-15 Bill Hein & Associates, applicant, on behalf of 400 W Dundee Wheeling LLC, owner, is seeking Special Use-Site Plan Approval of a Preliminary Planned Unit Development for a retail development in the MXT Transit Oriented Mixed Use District, as required under Chapter 19-05 Mixed Use and Overlay Districts, Chapter 19-09 Planned Unit Developments; Chapter 19-10 Use Regulations, and Chapter 19-12 Site Plan Approval Requirements, and associated sections. The subject property consists of the vacant parcel at 430 W. Dundee Road, which is approximately 2.96 acres at the northeast corner of Dundee Road and Northgate Parkway.

Docket No. 2016-16 OMNI Youth Services, Inc., owner, is seeking Special Use-Site Plan Approval as required under Chapter 19-05 Mixed Use and Overlay Districts, Chapter 19-10 Use Regulations, Chapter 19-12 Site Plan Approval Requirements, and associated sections, to establish a Social Service Facility at 210-212 N. Wolf Road, Wheeling, Illinois, which is zoned MXC Commercial Residential Mixed Use Area.

Docket No. 2016-17 Olga Khamichonak, President of Blooming Minds Academy, is seeking Special Use-Site Plan Approval as required under Chapter 19-05 Mixed Use and Overlay Districts, Chapter 19-10 Use Regulations, Chapter 19-12 Site Plan Approval Requirements, and associated sections, to operate a Daycare Center and Recreational and Instructional Facility at 581-583 N. Wolf Road, Wheeling, Illinois.

REQUEST FOR PLAN COMMISSION ACTION
STAFF PROJECT REVIEW

TO: Chairperson Ruffatto and Members of the Wheeling Plan Commission

FROM: Andrew C. Jennings, Director of Community Development
Brooke A. Jones, Senior Planner

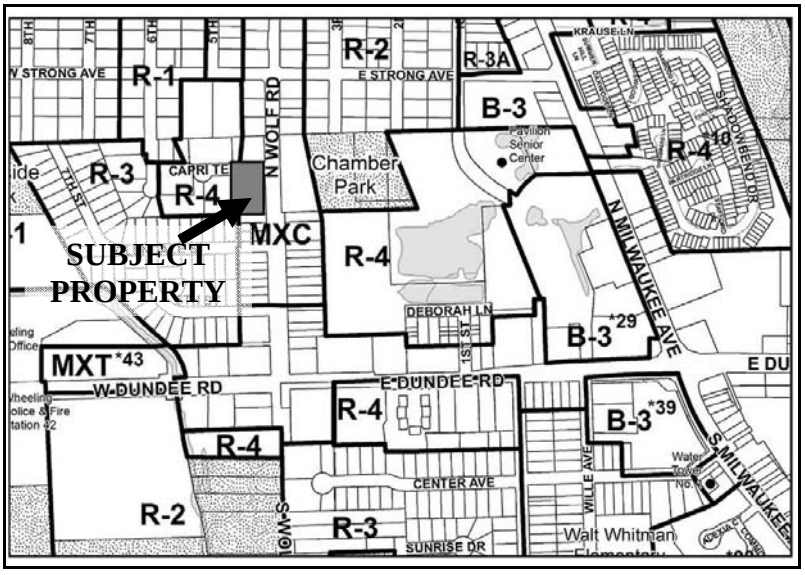
RE: **Docket No. 2016-16**
OMNI Youth Services
210-212 N. Wolf Road
Special Use-Site Plan Approval for a Social Service Facility

DATE OF REPORT: July 20, 2016

DATE OF MEETING: July 28, 2016

PROJECT OVERVIEW: The petitioner is seeking special use-site plan approval to establish a social service facility at an existing commercial property at 210 N. Wolf Road.

LOCATION MAP:



GENERAL PROPERTY INFORMATION

Applicant Name: Jay Meyer, Executive Director

Property Owner: OMNI Youth Services

Common Property Address: Located at the northwest corner of Wolf Road and Capri Terrace.

Neighboring Property Land Use(s): North: Commercial

	South: Commercial West: Multi-Family Residential East: Institutional / Open Space
Comprehensive Plan Designation:	Commercial Residential Mixed Use
Property size:	24,220 sq. ft. (total lot) 7,740 sq. ft. (building)
Existing Use of Property:	Vacant
Proposed Use of Property:	Social Service Facility
Existing Property Zoning:	MXC Commercial Residential Mixed Use District

Previous Zoning Action on Property:

PC 173 Site plan approval granted by Ordinance No. 2341.
AC 87-9 Architectural, landscaping, and lighting approval.

DESCRIPTION OF PROPOSAL

The petitioner is requesting special use approval to establish a social service facility at the existing one story-stand-alone building at 210-212 N. Wolf Road. The proposed facility will offer out-patient counseling, substance abuse and pregnancy prevention, and community resource programs to local youth aged 12 to 18.

The proposed office hours are:

- 9am-9pm Monday through Thursday,
- 9am-4pm Friday, and
- 10am-3pm Saturday.

The proposed maximum capacity (youth, parents, and staff combined) is 26. The proposed average capacity is 12.

No exterior building modifications are proposed.

Minor site work includes some landscaping and fencing. The parking lot will be grinded, repaved, and restriped.

SITE PLAN REVIEW

Scale of Site Plan: 1" = 20" reduced for reproduction.

Proposed General Site Layout: The only proposed change to the existing site layout is the redirection of traffic through the south (side parking area). The parking stall angle has been adjusted to accommodate one-way traffic from west to east. Appropriate one-way traffic signage/pavement markings shall be provided. Staff has added a condition of approval addressing this issue.

Floor Plan: The floor plan includes many small meeting rooms, some larger meeting rooms, a reception, employee areas, offices, storage and toilets.

Total Number of Parking Spaces: The site plan shows that there are 28 parking stalls located on the subject property. 21 stalls are in the rear lot and 7 are located in the angled parking on the south side of the building. There is no parking requirement in the parking table of the Zoning Code for social service facility. Therefore, the parking requirement is based upon the operations and is approved by the Plan Commission. The applicant indicates the facility will have a maximum occupancy (clients and staff) of 26 and an average occupancy of 12. There are 28 parking stalls. It appears that the existing parking is more than adequate for the proposed use.

Bicycle parking: The site plan does not show a bike. Bicycle parking for two shall be provided. Staff has added a condition of approval that parking for two bicycles shall be provided.

Site Lighting: No change to the site lighting is proposed. There are four existing wall-mounted lights for the existing parking areas. Since there are no exterior or parking changes to the site, the existing lighting should be adequate for the proposed use.

Fencing and Trash enclosure: The site plan indicates the existing fence (along the west and north parking areas), trash enclosure (at northwest corner of site) and utilities enclosure (along the rear of the building) will be reconstructed with a 6-foot tall stockade-style cedar fence with metal posts. The existing fencing is stained brown. The Plan Commission may wish to discuss if the proposed fence will be natural wood or stained.

Ownership: The subject property is owned by the applicant.

Sidewalks: There is an existing 5-foot sidewalk along the Wolf Road and Capri Terrace right-of-ways.

LANDSCAPING PLAN REVIEW

Existing Landscaping: There are existing mature shrubs and trees along the front (east) façade of the building.

Landscape Plan: The site plan indicates a small rain garden will be constructed south of the south parking area. A written description of the rain garden installation is provided. A two-page visual plant list of wet soil tolerant (rain garden) grasses and perennials is also provided. While the exact plant species list is not provided, the written description indicates 28 perennials selected from the visual plant list will be planted. Milieu Design has been contracted for the design and installation of the rain garden.

Along the front (east) façade, one tree directly north of the south entrance is dead and will be replaced. Another tree will be installed directly south of the north entrance, which will create a visual balance along the building front. The new tree species is not identified. The Plan Commission may wish to identify the proposed trees.

Landscape Irrigation: Irrigation is not addressed in the submittal. The new landscaped area, the rain garden, should be not irrigated due to its function. The Plan Commission may wish to discuss if the existing landscaped areas are irrigated.

STANDARDS FOR SPECIAL USE

Following are standards for special use with the petitioner's responses. **(Staff comments are in bold.)**

1. State why the Special Use is necessary for the public convenience at the proposed location. (Explain how the proposed use will benefit residents, the neighborhood or the community-at-large.)

   "It is anticipated that the largest concentration of village residents utilizing this facility will come from residences within one square mile of the location. This reflects the geographic demographic of Wheeling residents that most frequently seek our services, and is consistent with our historic counseling and Resource Center service sites that were located in that geographic area from 1990 thru 2015.

   Access in terms of proximity of services to residence, affordability, and the positive identification of an organization as being a part of the community are often important factors/barriers for the families seeking services that are offered by OMNI. Establishing our services in this location should reduce/eliminate travel barriers or hardships, and encourage more families who would benefit from such services to proactivity would seek assistance before the challenges they are encountering become more severe and problematic:

   a) Improved/convenient geographic accessibility for Wheeling residents to sliding fee scale subsidized counseling services for adolescents and parents.
   b) Services offered in English and Spanish language.
   c) Improved/convenient access to after school services for Wheeling middle school students.
   d) Improved/convenient access to fully subsidized referral and linkage services to low income families in Wheeling through our Wheeling Resource Center.
   e) Allows OMNI to more effectively attract county/state/local/private funding that can be directed towards services for Wheeling residents.

   In addition to the above, OMNI would be providing services that have a meaningful impact on quality of life for youth, families, and ultimately the community. Based upon county, state and federal measures and outcomes for youth and families that engage in our programs, OMNI demonstrates:

   1) Improved school success for at-risk populations.
   2) Reduction in family conflict that otherwise results in runaway youth and abuse.

3) *Reducing the initiation alcohol and drug use among teens.*
4) *Reducing/eliminating existing alcohol and other drug use for teens.*
5) *Reducing teen pregnancy rates.*
6) *Reduction in need for state supported institutional/residential/correctional care for teens.*
7) *Reduction in re-occurring child abuse or neglect."*

The applicant has identified the targeted location and demographic of its clients and believes a significant segment of its clients live within a square mile of the proposed use. The applicant has provided a long list of services that OMNI would provide that would have a meaningful impact on the quality of life for youth, families, and the community.

2. State how the special use will not alter the essential character of the area in which it is to be located. (Explain how the proposed special use is appropriate for the neighborhood or shopping center and how the overall character will not be affected by the special use.)

"This location is an office building, and a portion of the building was a rental space for OMNI's counseling and Resource Center services from the mid-1990's to 2008. Our occupancy would maintain the characteristics of a commercial office.

Proposed changes to the facility would be to the inside to meet code requirements and improve space functionality. On the exterior, there will be minor cosmetic upgrades to the building appearance, along with replacement of the surrounding fencing and complete parking lot repaving.

We do not anticipate any current adverse impact on the overall character of the neighborhood and believe we would be viewed as positive addition. OMNI occupied a part or this building as rental tenants from the mid-1990's – 2008, and there were no adverse results."

OMNI occupied a portion of the property for approximately ten years without any negative effects on the character of the neighborhood. At this time the applicant will reoccupy the entire property. The proposed use will look similar to an office user, which is consistent with the original site plan approval of the building and property.

3. State how the location and size of the Special Use, the nature and intensity of the operation involved in or conducted in connection with it, the size of the site in relation to it, and the location of the site with respect to streets giving access to it, will be in harmony with and will not impede the normal, appropriate, and orderly development of the district in which it is to be located and the development of surrounding properties. (Explain how the proposed use will allow the surrounding area to develop appropriately. Is the use too large for the site? Will it be in a location on the lot that will cause conflicts with adjacent properties? Does the use create noise, odor, smoke, or light that will affect other properties?)

"No changes are anticipated to square footage or the footprint of the existing structure.

Proposed office hours will be 9 am – 9 pm Monday thru Thursday, Friday 9 am – 4 pm, Saturday 10 am – 3 pm. The most significant usage will occur between the hours of 4-9 pm, M-TH, and Saturdays 10 am - 3 pm, when families are typically more available for services. At peak times, we would anticipate a maximum of 26 persons in the facility at any one time, (youth, parents, staff), in the facility, with a typical average of 12 persons. Wolf Road is the main thoroughfare, and the parking lot is accessed off of Capri Ct. There is noticeable foot traffic that is currently evidenced by those residents in proximity to the location.

There is no noise, odor, smoke, or light issues affecting adjacent properties that is anticipated.

Our current operations are located in Buffalo Grove, on a site which is about double the size of the proposed site and serves about three times as many people as anticipated at this location, is immediately adjacent to a residential area on two sides, a high-end jewelry store and bank on another side, and is fronted by a major thoroughfare. Same type of services, same service population, and over 25 years we have not had any problems, complaints, concerns, or adverse impacts on the neighbors."

The proposed social service facility use will operate in harmony with the developed parcels in the vicinity and will not impede additional development.

4. State how the location, nature and height of buildings, walls and fences, and the nature and extent of the landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings, or will not impair the value thereof. (Explain how the proposed use will not prevent development on adjacent properties. Will the proposed use have a negative impact on existing adjacent land uses?)

"There are no changes to building size in any manner, and the fence will be replaced with one of similar design and height to maintain privacy and appearance.

No adverse effects on surrounding properties is anticipated, and it is be believed that cosmetic improvements and ongoing maintenance should improve attractiveness of the location."

The applicant proposes improvements to the property, as needed. The existing fencing and trash enclosure will be replaced. A dead tree will be replaced. A rain garden will be added to improve stormwater management and add visual interest to the landscape.

5. State how the parking areas will be of adequate size for the particular use, properly located, and suitably screened from adjoining residential uses, entrance and exit drives shall be laid out so as to prevent traffic hazards and nuisances, and the development will

not cause traffic congestion. (Is adequate parking provided? Is parking area visible from adjacent homes? Are the entrance and exit drives designed for safe access to the site? Will the special use generate so much traffic as to cause congestion? Will visitors to the special use access the site through residential streets?)

"The parking lot currently accommodates 29 parking spots, which would be changed to 25 slots and two handicapped slots.

Currently the parking lot has two combined entrances/exists, which would be changed to one entrance/exit and one solely dedicated exit.

The building screens the main parking from the east and north, and six foot high stockade style fencing provides screening west and northeast.

Given past history, we anticipate a minimal impact due to auto traffic, as the proximity of housing and neighborhoods that are likely to include our service population allow for/promote foot traffic.

The parking lot will be completely repaved and restriped."

Based upon the proposed maximum occupancy of 26, the parking is more than adequate for the proposed use. The parking lots are adequately screened by a 6-foot stockade fence. The side parking area has been reconfigured to safely accommodate traffic.

6. State how the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulation in that zone. (Other than the special use listed in this application, the proposal must meet all other requirements of the Zoning Code. Note any other exceptions.)

"It is our understanding that the issue in question as related to requiring a Special Use classification is our request to provide outpatient substance abuse counseling services for youth ages 12-18 years. These services are different from other counseling services only in the focus of problem remediation.

The substance abuse treatment services OMNI provides are classified as either: 'Early Intervention', which are for youth who have used alcohol or other drugs at some point in the past six months but are nor regular users nor do they have an identified consequence in conjunction with their use; or 'Substance Abuse', which are for youth who have used more regularly and are having an identified consequence as a result of their usage, but do not meet the severity criteria for 'addiction'.

For most youth who are presented for services, their alcohol or other drug use is often only identified through engagement in counseling. Failure to secure a Special Use

classification that would allow for the provision of related substance abuse services would have the following consequences:

a) Families that have a substance using youth would have to locate another youth serving provider, and in many cases a provider that would accept Medicaid payment, or that would provide a subsidized service.

b) If the substance use by the teen was not recognized until after services were initiated, as is frequently the situation, a referral would have to be made to another site or organization, limiting ease of access for service recipients and increasing the chance of non-compliance with service attendance.

c) OMNI would not be able to receive financial reimbursement for services through Medicaid, health insurance policies, or state funding that subsidizes services for many families for services rendered past or future."

No other zoning relief is requested besides the proposed special use.

STAFF REVIEW

Fire Department Review: The Fire Department has reviewed the plans and provided a comment memo, dated July 19, 2016. Based on the information provided on the floor plan dated June 14, 2016 (received June 23, 2016), the improvements to the interior are to be completed in three phases. The program for the space in the full three-phase buildout appears to represent an increase in the occupant load as compared to the previous use. As noted in the Fire Department memo, an increase in the occupant load would require the installation of a Fire Suppression system. See additional notes under Staff Recommended Action.

Engineering Division Review: The Engineering Division has provided a comment memo on July 15, 2016. These comments should be addressed at permit.

Impact on Adjacent Uses: There is no significant impact anticipated on adjacent uses.

Staff Recommended Action: Prior to making a motion, staff recommends that the Plan Commission review the following list of items with the petitioner:

- Determine if the proposed fence will be natural wood or stained;
- Identify the proposed tree species;
- Discuss if the existing landscaped areas are irrigated; and

ADDITIONALLY, the Plan Commission may wish to seek additional details from the petitioner regarding the schedule for the phased buildout, as well as details for the function of the group rooms, meeting rooms, and large group room. The conditions of approval relating to the length of time for initiating the special use and the occupant load of the unit may need to be adjusted following the discussion.

SUGGESTED CONDITIONS OF APPROVAL:

1. The improvements of the space as shown on the floor plan submitted June 23, 2016 may be completed in multiple phases, with the expectation that the full buildout will be complete within X years of special use approval;
2. The unit shall be retrofitted with an automatic fire sprinkler system at such time as required by the Code, and subject to a review of the occupant load associated with the building permits for each phase of the improvements to the unit.

PROPOSED MOTION

If the Plan Commission approves of the requested special use for a social service facility, an appropriate motion would be to:

Recommend approval of Docket No. 2016-16 to grant special use approval for a social service facility in accordance with the following exhibits submitted June 23, 2016 (except as noted), by OMNI Youth Services, to be located at 210-212 N. Wolf Road, Wheeling, Illinois.

- Project description (2 sheets)
- Floor plan,
- Site plan, received 7.11.2016,
- Site plan notes, received 7.11.2016, and
- Plant list, received 7.11.2016.

And with the following conditions of approval:

1. Parking for two bicycles shall be provided;
2. One-way signage/pavement markings shall be installed to accommodate the new site flow through the side parking area;
3. The improvements of the space as shown on the floor plan submitted June 23, 2016 may be completed in multiple phases, with the expectation that the full buildout will be complete within X years of special use approval; and
4. The unit shall be retrofitted with an automatic fire sprinkler system at such time as required by the Code, and subject to a review of the occupant load associated with the building permits for each phase of the improvements to the unit.

Andrew C. Jennings, AICP
Director of Community Development

Brooke A. Jones
Senior Planner

Attachments:

Fire Department comments, dated 7.19.2016

Engineering Division comments, dated 7.15.2016

Photos of existing conditions (staff)

Project description (2 sheets)

Floor plan

Site plan, received 7.11.2016

Site plan notes, received 7.11.2016

Plant list, received 7.11.2016

Plat of survey

MEMO – Fire Prevention Bureau

TO: Brooke Jones, Village Planner

FROM: Ronald S. Antor, Fire Inspector

CC: Andrew Jennings, Director of Community Development

Keith MacIsaac, Fire Chief

FPB File

DATE: July 19, 2016

SUBJECT: Proposed Youth Services Office Building – 210-212 North Wolf Road - Plans received for review by the Fire Department, July 6, 2016.

The Wheeling Fire Department has reviewed the submittals received related to the above referenced project and has the following comments:

Site Plan

1. There petitioner's plans do not show any significant changes to the existing site plan.

210-212 North Wolf Road - Proposed Youth Services Office Building

1. The petitioner is proposing to remodel and occupy an existing one-story with mezzanine multi-tenant office building. There would be no change in Use Group from the existing (B) Business Use Group occupancy as defined in the 2012 Edition of the International Building (IBC) and Fire Prevention Codes (IFC) for the new occupant.
2. All construction within the building would need to comply with the Village's Building and Fire Prevention Codes (2012 Editions of the International Building Code & International Fire Code – with amendments).
3. As noted in Comment #2, the proposed tenant buildout will need to comply with the Village's Building and Fire Prevention Codes. Some of the items that this would include and would need to be addressed during the permitting process are:

    a. The building would be required to be retrofitted with an automatic fire sprinkler system. Although there is no change in the buildings Use Group, the revisions to the building provide for the addition of seven large rooms to be used as meeting rooms and/or large group rooms. Based on a variety of options for utilization of these rooms, these changes would all lead to varying increases in the building's design occupancy load. Under Section 1103.5.3 of the Village's Fire Prevention Code, an automatic sprinkler system is required in existing buildings in Use Groups A, B, E, F, H, I, M, R, and S when the hazard category or occupancy load is increased.

b. The building would be required to be provided with a monitored fire alarm system designed and installed in accordance with NFPA 72.

At this time there are no other Fire Department comments related to the project as presented in the documents reviewed.

MEMORANDUM

TO: Brooke Jones, Senior Planner

FROM: Kyle Goetzelmann, Civil Engineer I

COPY: Jon Tack, Village Engineer

DATE: **July 14th, 2016**

SUBJECT: **OMNI Youth Services – Special Use**
210-212 N. Wolf Road - Review Comments

The Engineering Division received a Project Description, Plat of Survey, Site Plan with Notes, Floor Plan, Demolition Plan, Ceiling Plan, Room Finishing Schedule, and Plant List for the subject project on June 29th, 2016. The Engineering Division has completed a review of the above referenced submittal and offers the following comments at this time:

1. Positive drainage towards Capri Terrace curb line must be maintained when the parking lot is repaved.
2. Locations of (4) 9”x9” catch basins must be included on the site plan.
3. Underdrain must be installed according to the Village’s “Underdrain Trench Standard” detail which can be found on the Village website.
4. Must adhere to the Village “Parking Lot Pavement” standard detail in areas where there is trenching through the parking lot.
5. Overland flow route must be shown for when rain garden underdrain system fills with water. The concern is standing water on the sidewalk and possible ice.
6. Parking lot striping plan with dimensions will be required.
7. Entrances must remain ADA compliant. Parking lot striping plan must include appropriate amount of ADA parking stalls.
8. Engineering permits must be obtained before any work is done on site.

Received July 15, 2016

OMNI Youth Services – 210-212 N. Wolf Road

Docket No. PC 2016-16 (Special Use-Site Plan Approval for a Social Service Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions of front entrance along Wolf Road – looking west

OMNI Youth Services – 210-212 N. Wolf Road

Docket No. PC 2016-16 (Special Use-Site Plan Approval for a Social Service Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions of rear of property – looking north

OMNI Youth Services – 210-212 N. Wolf Road

Docket No. PC 2016-16 (Special Use-Site Plan Approval for a Social Service Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions along Capri Terrace using panoramic view – looking north

OMNI youth services

OMNI Youth Services is submitting a Special Use Application to the Village of Wheeling for the property at 210 – 212 N. Wolf Road. The application and supporting documentation completed by the Executive Director is attached. Below is a brief description of the program.

OMNI Youth Services

OMNI Youth Services has been providing unparalleled services to youth since 1972. OMNI has developed comprehensive, innovative programming for youth and has become one of the leading youth service agencies in Illinois incorporating experiential therapy and a positive youth development approach into its every day functioning. The mission of OMNI Youth Services is partnering with parents and the community to provide innovative transformational behavioral and educational support services to children, adolescents, and young adults that create pathways to successful and healthy behaviors throughout life.

OMNI Youth Services is proposing to use the facility in Wheeling to provide three programs: Out-patient Counseling, Substance Abuse and Pregnancy Prevention, and Community Resource Programs.

Out-Patient Counseling Program

OMNI will provide counseling and early intervention services to local youth ages 12 – 18. Youth are referred by local community sources including: school staff, police, courts, other families, and other youth themselves. Youth are referred for a variety of reasons. During the past fiscal year youth were referred for mood and anxiety issues, substance use and experimentation, youth development, and legal issues. OMNI's service delivery system is unique in its comprehensiveness, providing a broad range of intervention, crisis, and aftercare services. The multiple services that are available to all community adolescents and their families at OMNI include the following: family counseling, individual counseling, group counseling, substance abuse assessment, early intervention and counseling, 24-hour crisis intervention, youth development, and parent education.

Service recipients from the Village of Wheeling make up the largest portion of the clients that receive counseling services at OMNI. It is anticipated that the largest concentration of Wheeling village residents utilizing this facility will come from residences within one square mile of the location.

Prevention and Development

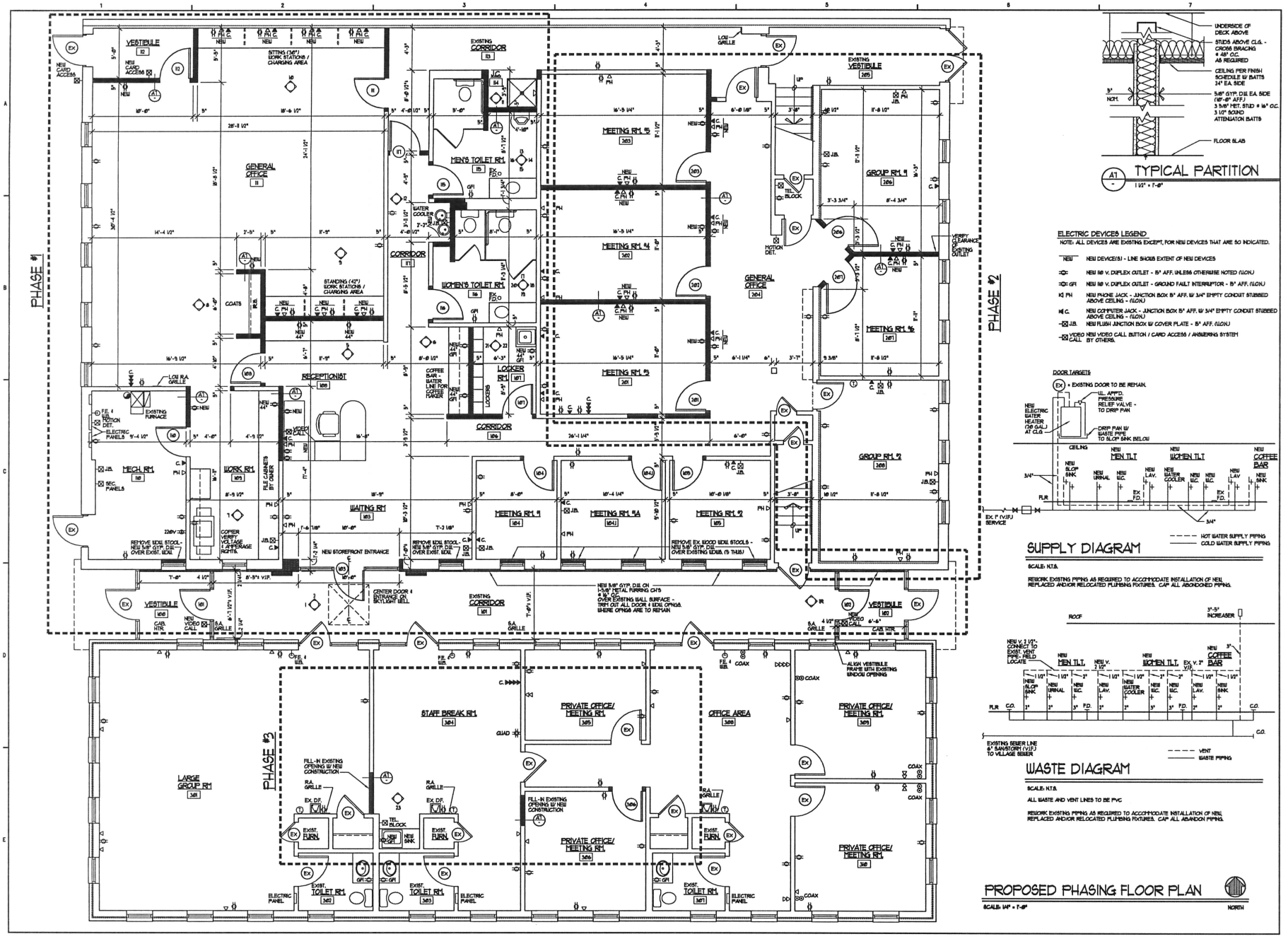
Our prevention efforts focus on community coalition building, education, awareness and policy development which promote and support the prevention of alcohol, tobacco, and other drugs use by youth. Examples of our prevention efforts include: Linked Together Coalition and Social Norms Campaign. A newly secured will grant focus on reducing rates of teen pregnancy and replicating an evidence-based teen pregnancy prevention program in the Wheeling community. OMNI continues to offer youth development opportunities that facilitate the acquisition of leadership skills, encourage connections to the community, promote the development of personal assets and increase the likelihood

that youth will become healthy and successful adults. Examples of opportunities includes: Student Advisory Board, MYLE Youth Leadership, and Peer Juries.

Community Outreach and Resource Programs

OMNI does effective community outreach to immigrants and low-income community members through programs from CHiL, an innovative approach to after-school services in a middle school, to the provision of emergency assistance to families in need. Services include: information and referral, resource assistance, parenting education classes, and social emotional learning events. These services are provided in English and Spanish through relationships that respect the culture and dignity of all by promoting self-sufficiency.

Proposed office hours will be 9 am – 9 pm Monday thru Thursday, Friday 9 am – 4 pm, Saturday 10 am – 3 pm. The most significant usage will occur between the hours of 4-9 pm, M-TH, and Saturdays 10 am - 3 pm, when families are typically more available for services. At peak times, we would anticipate a maximum of 26 persons in the facility at any one time, (youth, parents, staff), in the facility, with a typical average of 12 persons. The parking lot is designed to accommodate 27 cars at any given time.



ELECTRIC DEVICES LEGEND

NOTE: ALL DEVICES ARE EXISTING EXCEPT, FOR NEW DEVICES THAT ARE SO INDICATED.

- NEW — NEW DEVICE(S) - LINE SHOWS EXTENT OF NEW DEVICES
- NEW 110 V. DUPLEX OUTLET - 15" AFF, UNLESS OTHERWISE NOTED (TYP.)
- NEW GFI — NEW 110 V. DUPLEX OUTLET - GROUND FAULT INTERRUPTOR - 15" AFF. (TYP.)
- NEW PHONE JACK - JUNCTION BOX 15" AFF. W/ 3/4" EMPTY CONDUIT STUBBED ABOVE CEILING - (TYP.)
- NEW COMPUTER JACK - JUNCTION BOX 15" AFF. W/ 3/4" EMPTY CONDUIT STUBBED ABOVE CEILING - (TYP.)
- J.B. — NEW FLUSH JUNCTION BOX W/ COVER PLATE - 15" AFF. (TYP.)
- VIDEO CALL — NEW VIDEO CALL BUTTON / CARD ACCESS / ANSWERING SYSTEM BY OTHERS.

SUPPLY DIAGRAM

SCALE: N.T.S.

REWORK EXISTING PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW, REPLACED AND/OR RELOCATED PLUMBING FIXTURES. CAP ALL ABANDONED PIPING.

WASTE DIAGRAM

SCALE: N.T.S.

ALL WASTE AND VENT LINES TO BE PVC

REWORK EXISTING PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW, REPLACED AND/OR RELOCATED PLUMBING FIXTURES. CAP ALL ABANDON PIPING.

PROPOSED PHASING FLOOR PLAN

SCALE: 1/4" = 1'-0" — NORTH

EHLKE LONIGRO Architects
224 S. Milwaukee Ave.-Ste. F
Wheeling, IL 60090
Office 847.243.8380
Fax 847.243.8381

Exhibit received June 23, 2016

OMNI YOUTH SERVICES
219 - 701 N. WOLF ROAD
WHEELING, ILLINOIS

6/14/2016

SHEET TITLE: PROPOSED PHASING FLOOR PLAN

© 2016 EHLKE ARCHITECTS

PROJECT NO. 16-005
DRAWN BY: MGL
CHECKED BY: SJE
SHEET NO. A102
SHEET 3 OF 5

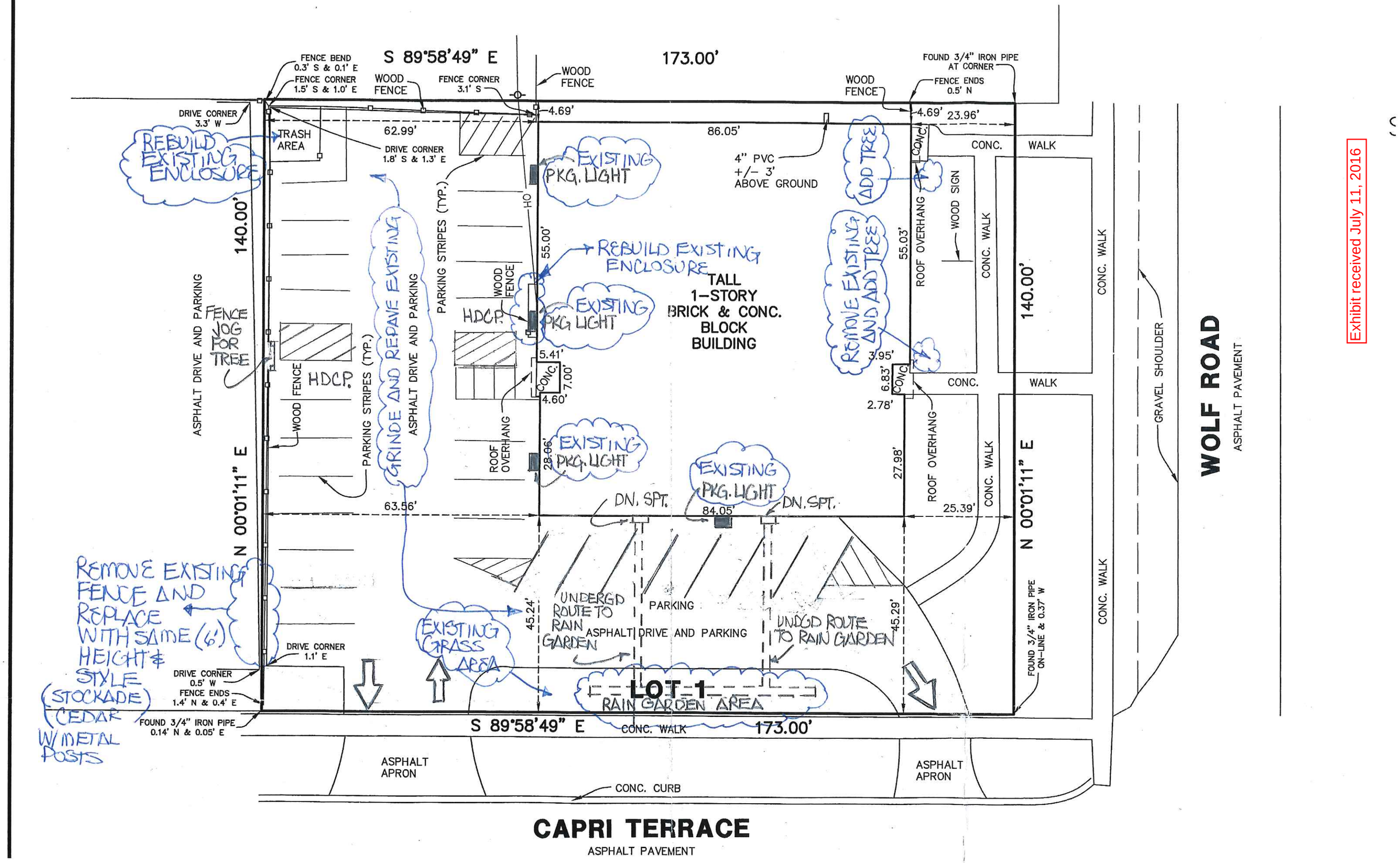


Exhibit received July 11, 2016

Drainage Development

Trench Excavation
- Excavation of trenches to install draintile
- Depth of trench will vary in depth to allow for positive drainage - approx. 24"- 30" in depth

Draintile Installation
- Install 6" solid draintile from downspouts within 2' deep trench & backfill
- Install 4" corrugated draintile within a 3' x 3'x 45' long detention area
- Backfill with 3" rip rap and topsoil
- All necessary connection hardware is included

Catch Basin Installation
- Install 4 (9"x9") catch basins within drainage system

Disposal and Clean Up
- Excavation debris to be hauled away and disposed of off site

Planting Development & Mulch

Planting Bed Preparation and Compost Installation
- Install compost soil amendment to all planting beds at a depth of 4" and rototill into existing soil

Perennial Planting Development
- Furnish and install 28 perennials in a rain garden bed around the french drain

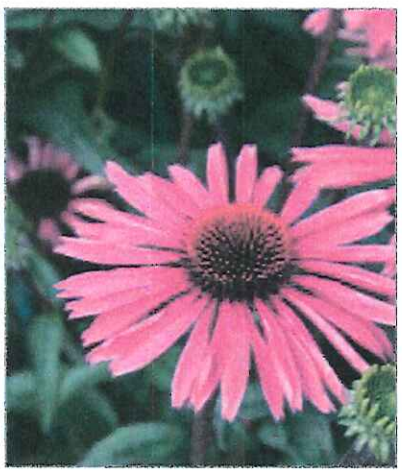
Mulch Installation
- Install 1 yd of shredded bark mulch within planting beds after plant material has been installed
- Mulch enables plants to flourish by moderating soil temperatures, reducing weeds, and retaining moisture

Permit Application

Permit Application Work
- Milieu will assist with permitting work.This includes detailed drawings and specifications per Omni's request. Estimated time is 3 hours

DISCRIPTION OF RAIN GARDEN SYSTEM. FOLLOWING PAGES INCLUDE TYPE OF PLANTINGS TO CHOOSE FROM.

Exhibit received July 11, 2016

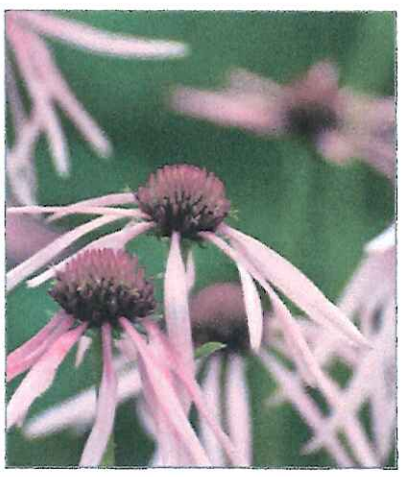


PURPLE CONEFLOWER

BUTTERFLY MILKWEED

RATTLESNAKE MASTER

WILD BERGAMOT



PALE CONEFLOWER

CULVER'S ROOT

BLUE FLAG IRIS

CARDINAL FLOWER

VIRGINIA BLUE BELLS

WET SOIL TOLERANT PERENNIALS

OMNI RAINREADY GARDEN DESIGN

MILIEU DESIGN | APRIL 2016

LITTLE BLUESTEM

NORTHERN SEA OATS

SWITCH GRASS

BLAZING STAR

WILD ONION

PURPLE PRAIRIE CLOVER

OBEDIENT PLANT

SEDGE

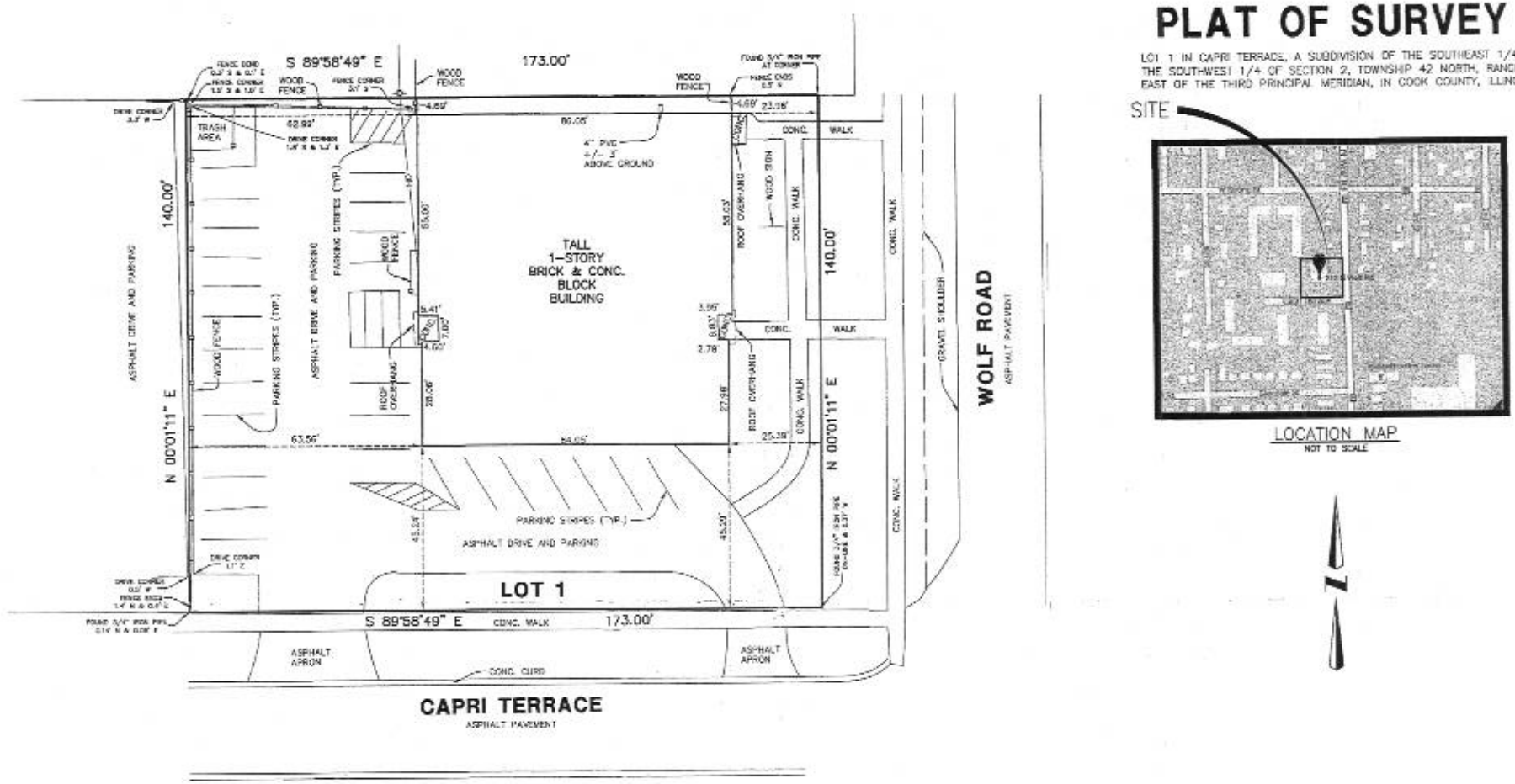
ASTER

WET SOIL TOLERANT GRASSES & PERENNIALS

Exhibit received July 11, 2016

PLAT OF SURVEY

LOT 1 IN CAPRI TERRACE, A SUBDIVISION OF THE SOUTHEAST 1/4 AND THE SOUTHWEST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



SITE

LOCATION MAP
NOT TO SCALE

LEGEND

-O- POWER POLE

—— OH —— OVERHEAD LINES

SURVEYORS NOTES:

1. THIS SURVEY IS SUBJECT TO MATTERS OF TITLE WHICH MAY BE REVEALED BY A CURRENT TITLE REPORT.
2. ( ) DENOTES RECORD DIMENSION.
3. BEARINGS HEREON SHOWN ARE ON AN ASSUMED BASIS.
4. ORIGINAL CLIENT– GORDON
5. ORIGINAL FIELD WORK COMPLETED– 09-02-15

GENERAL NOTES:

1. DISTANCES ARE MARKED IN FEET AND DECIMAL PLACES THEREOF.
2. NO DIMENSION SHALL BE ASSUMED BY SCALE MEASUREMENT HEREON.
3. ONLY THOSE BUILDING LINE SETBACKS AND EASEMENTS WHICH ARE SHOWN ON THE RECORDED PLAT OF SUBDIVISION ARE SHOWN HEREON. THERE MAY BE ADDITIONAL TERMS, PROVISIONS AND LIMITATIONS CONTAINED IN AN ABSTRACT, DEED, LOCAL ORDINANCES, DEEDS, TRUSTS, COVENANTS OR OTHER INSTRUMENTS OF RECORD.
4. COMPARE DEED DESCRIPTION AND SITE CONDITIONS WITH THE DATA GIVEN ON THIS PLAT AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE SURVEYOR.

AREA

24,220 Sq. Ft. OR 0.56 ACRES (MORE OR LESS)

STATE OF ILLINOIS } SS
COUNTY OF LAKE }

WE, GREENGARD INC., DO HEREBY STATE THAT WE HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATED THIS 10th DAY OF SEPTEMBER, A.D., 2015.

Joseph R. Sadoski

JOSEPH R. SADOSKI
ILLINOIS
PROFESSIONAL LAND SURVEYOR NO. 3316
MY RENEWABLE LICENSE EXPIRES 11/30/16.

GREENGARD, INC.
111 BARCLAY BOULEVARD, SUITE 310
LINCOLNSHIRE, ILLINOIS 60069

JOSEPH R. SADOSKI 3316 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS

		DESIGNED BY: AN	DATE: 09-08-15
		CHECKED BY: JRS	DATE: 09-10-15
DRAWN BY:	DATE:	APPROVED BY:	DATE:
	REVISIONS		

GREENGARD, INC.
Engineers • Surveyors • Planners
111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3615
PHONE 847-634-9855 E-MAIL: SURVEY@GREENGARDENG.COM
FAX 847-634-0887 IL REGISTRATION NO. 184-003995

SCALE	1"=20'
DRAWING No.	61199
SHEET	1 or 1

212 N. WOLF ROAD – WHEELING, ILLINOIS

PLAT OF SURVEY

Drawing File: J:\61199\dwg\Survey\61199-SB.dwg Sep 09,2015-2:27pm

REQUEST FOR PLAN COMMISSION ACTION
STAFF PROJECT REVIEW

TO: Chairperson Ruffatto and Members of the Wheeling Plan Commission

FROM: Andrew C. Jennings, Director of Community Development
Brooke A. Jones, Senior Planner

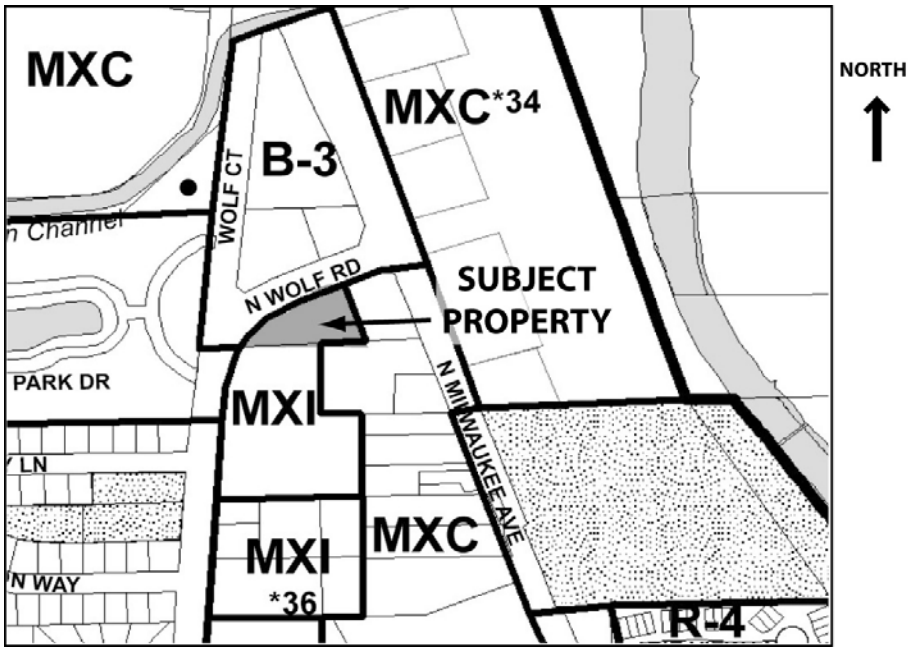
RE: Docket No. 2016-17
Blooming Minds Academy
581-583 N. Wolf Road
Special Use-Site Plan Approval of a Daycare Center

DATE OF REPORT: July 21, 2016

DATE OF MEETING: July 28, 2016

PROJECT OVERVIEW: The petitioner is requesting special use-site plan approval to expand its tutoring facility to include daycare facilities. The existing business is also expanding from 581 N. Wolf to also include 583 N. Wolf Road.

LOCATION MAP:



GENERAL PROPERTY INFORMATION

Applicant Name: Olga Khamichonak

Property Owner Name: Baker Holdings of Green Oaks, LLC

Common Property Address: 581-583 N. Wolf Road

Common Location:	Located at the eastern intersection of Wolf Court and Wolf Road
Neighboring Property Land Use(s):	North: Light industrial / office West: Multi-Family Residential South: Light industrial / office East: Commercial
Comprehensive Plan Designation:	Commercial
Property size:	45,767 sq. ft. for the entire site; 13,133 sq. ft. for the entire building; 3,600 sq. ft. leased building space
Existing Use of Property:	Recreation and Instruction (tutoring) Facility
Proposed Use of Property:	Recreation and Instruction (tutoring) Facility and Daycare Facility
Existing Property Zoning:	MXI Mixed Use Industrial

Previous Zoning Action on Property:

2012-13	Ordinance No. 4722, passed 9.17.2012, granted a Special Use for a Specialty School (Recreation and Instruction Facility) at 581 N. Wolf.
PC 16-02	Minor Site Plan & Appearance Approval of an outdoor play area for 581 N. Wolf (5.26.2016).

BACKGROUND / DESCRIPTION OF PROPOSAL

In 2012, the applicant was approved for a special use (through Docket No. 2012-12) for a tutoring facility (recreation and instructional facility) that allows for education enrichment programs for children aged 1 to 17 at 581 N. Wolf Road. On May 26, 2016, the applicant was granted minor site plan and appearance approval (through Docket No. PC 16-02) to create an outdoor fenced play space at the rear of the building. The outdoor play area plans have been refined since the May 26th Plan Commission review.

At this time, the applicant proposes two objectives:

1. Expand the current tutoring facility into the adjacent 583 N. Wolf Road space; and
2. Expand the current tutoring facility to also include DCFS licensed daycare facilities.

The hours of operation for the expanded business will be:

- Monday-Friday: 7am-8pm; and
- Saturday-Sunday: 9am-3pm.

The applicant anticipates growth over the next few years. At maximum capacity, the applicant expects there to be no more than 50 students (daycare and tutoring combined) at one time.

Daycare will be offered for full-time and part-time service. Tutoring classes will last one to two hours. Due to the range of services offered, pickup and drop off times will be staggered.

SITE PLAN REVIEW

Scale of Site Plan: 1" = 20'

General Site Layout: The only site changes are at the rear of the property. The petitioner is proposing to create a fenced outdoor play area for children. The fenced area will be directly accessible to each unit. The proposal appears to meet the requirements of DCFS. The play area configuration includes an area for infants/toddlers separate from preschool school-aged children. Minor changes to the location of the fencing will be necessary to avoid utility conflicts. A minimum drive aisle width of 12-feet must be maintained for safety and clearance. A condition of approval has been added to address these issues.

There are 8 parallel parking stalls along the building front. These spaces will likely be used by parents during drop-off and pick-up.

Floor Plan: The petitioner is proposing to expand from the current location at 581 into the adjacent unit 583. Both units will be reconfigured to accommodate the changing use and additional daycare facilities. There will be a total of 7 classrooms, an office, a waiting area, a kitchenette, and toilets.

Ownership: The applicant is currently occupying (leasing) 581 N. Wolf as a tutoring (recreational and instructional facility). The applicant is also now leasing 583 N. Wolf and is currently allowed to use this unit as a small (no more than 12 occupants) tutoring facility. Upon approval of the proposed special use, the units will be combined for tutoring throughout the units and for the addition of daycare services in the units.

Total Number of Parking Spaces:
The parking requirement for a commercial daycare is 2/1000 sq. ft. plus 1/employee at peak shift. At 3,465 sq. ft. the space requires 7 stalls plus 1 for each employee (7), which is a total of 14 spaces. The total number of parking spaces located on site is 33. Subtracting the subject unit, the floor area of the building is 9,533 sq. ft. with 700 sq. ft. of office space and 8,833 sq. ft. of warehouse space. Therefore, the total parking requirement for the remaining uses of the building is 12 stalls. There is more than ample parking for the proposed use at the existing multi-tenant building.

Bicycle parking: It is not likely that clients would bike to the facility. However, bicycle parking may be utilized by employees. The Plan Commission may wish to require an exterior bike rack or discuss if options for indoor bicycle parking can be accommodated for employees.

Appearance review: The petitioner has provided fencing details on sheet T1. The proposal includes a solid white vinyl fence that is 6-feet in height. Safety bollards will also be installed on the outside of the fence. The previously approved fence for the play area was white. The Plan Commission may wish to inquire about the color of the currently proposed fence.

Minor modifications are also proposed to the existing windows and doors at the rear of the units. An overhead garage door at the rear of unit 581 will be replaced with a storefront window

configuration noted as Window Elevation #3 on the Window and Door Schedule. An existing window and door at the rear of unit 583 will be replaced with a storefront window and door configuration noted as Window Elevation #2 on the Window and Door Schedule.

STANDARDS FOR SPECIAL USE

Following are standards for special use with the petitioner's responses in italics. **(Village Planner comments are in bold.)**

1. State why the Special Use is necessary for the public convenience at the proposed location.

   "Per multiple client requests, it appears there is a shortage of full-time day care services that can offer high-quality instruction in Russian to the large Russian-speaking community in the area. At the moment, we are told by moms who are looking for such day-care centers, that they have to be on the waiting list. They are continuously asking us to offer such services to them."

   The petitioner has provided testimony of the need for the proposed use. The proposed use may also provide some indirect benefits to neighboring businesses from increased customer trips from the families dropping off, picking, or waiting for students taking classes at the proposed facility.

2. State how the Special Use will not alter the essential character of the area in which it is to be located.

   "Blooming Minds Academy is currently offering enrichment services to the community, and by adding additional array of services it will enhance the attractiveness of the residential area located near-by by being able to offer full-time day care service to the families with both parents working full time. Adding such extra service will not change the current nature of the operations."

   There is a mix of light industrial and office businesses in the 571-593 N. Wolf Road building complex. The existing use allows for a children's instruction facility. No impact on adjacent uses is expected from the proposed additional daycare facility use.

3. State how the location and size of the Special Use, the nature and intensity of the operation involved in or conducted with it, the size of the site in relation to it, and the location of the site with respect to streets giving access to it will be in harmony with and not impede the normal, appropriate and orderly development of the district in which it is to be located and the development of surrounding properties.

   "Blooming Minds Academy (BMA) will continue operating its enrichment tutoring services, but adding unit 583 will allow it to offer full-time day care services. However, BMA will remain small, as the overall number of students will not change. BMA has currently a little over 120 students, who attend the center at various times throughout the day. BMA will seek day-care license for only 54 students, who will also be dropped off

and picked up at various times of the day to allow parents flexibility in care for their children. As such, we do not foresee any major changes to the current operation of the business, and think that it will mainly benefit the community, rather than create any major changes to the established order."

The proposed use will occupy about 27 percent of the existing multi-tenant building. Students/clients will attend classes and attend childcare at various days and times, though the hours and maximum capacity are not expected to have an impact adjacent uses.

4. State how the location, nature and height of buildings, walls and fences, and the nature and extent of the landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings, or will not impair the value thereof.

"The only change to the site that we are currently offering is addition of a fence in the back of the building. It will not be visible from the road and will be secluded, so that it will not change the appearance of the building from the front or the sides."

No new exterior modifications are proposed. On May 26, 2016, the PC approved the proposed outdoor play space and fencing through Docket No. PC 16-02. The outdoor play space has not yet been installed. The proposed partial site plan is consistent with the approved outdoor play space per Docket No. PC 16-02.

5. State how the parking areas will be of adequate size for the particular use, properly located and suitably screened from adjacent residential uses, entrance and exit drives shall be laid out so as to prevent traffic hazards and nuisances and the development will not cause traffic congestion.

"The needs for parking for the site will not change. Parents will come to drop off and pick up their children throughout the day, the same way as it is done at the moment."

The are 33 existing on-site parking spaces at the multi-tenant commercial facility, which meets the needs of the proposed daycare facility as well as the existing building tenants.

6. State how the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulation in that zone.

"Unfortunately, with the recent state of economy, more and more families will have to rely on dual income. We have noticed that a lot of our moms have to start working to supplement their income, especially when second and third children are born. As a result, we see that more moms take their children somewhere else, get on waiting lists in other day-care centers, despite the fact that they would really like to stay as our clients. A lot of our parents have been asking us to start offering full-time day care services to them. We truly believe that by offering such services, we will be able to benefit financial as a business, we will create additional work places, and will generate more tax income for the village of Wheeling."

If the applicant is not approved for the proposed special use, the business will not be able to expand at the current location as proposed. The business would be able to continue its tutoring (recreational and instructional facility) operations at 581. The business would also be able to operate a small tutoring (recreational and operational facility) with no more than 12 occupants at one time at 583 without a special use.

STAFF REVIEW

Fire Department Review: The Fire Department has provided a comment memo dated July 22, 2016. These comments can be addressed at building permit.

Engineering Division Review: The Engineering Division has provided a comment memo dated July 20, 2016. Due to the configuration of the proposed fence, there is a potential conflict with the underground sanitary sewer. Minor adjustments to the location of the fence will need to be made to satisfy the engineering review. Staff is suggesting a condition of approval that the exact location of the fence may be adjusted to avoid utility conflicts provided there is a min8imum drive aisle clearance of 12-feet.

Health Division Review: The Health Officer has reviewed the proposal and has determined that the Health Division requirements are met.

Impact on adjacent uses: No impact on adjacent uses is expected.

Staff Recommended Action: Staff recommends the Plan Commission discuss the following prior to making a motion:

1. Discuss if a bike rack shall be added to the site or if employee bicycle parking can be accommodated indoors; and
2. Determine the color of the fence.

PROPOSED MOTION

If the Plan Commission approves of the requested site modifications, an appropriate motion would be to:

Approve Docket No. 2016-17 granting special use-site plan approval for a daycare facility in accordance with the following exhibits submitted July 20, 2016 (except as noted) by Blooming Minds Academy, located at 581-583 N. Wolf Road, Wheeling, Illinois:

- Cover letter (2 pages), received 6.29.2016;
- A1, Existing floor plan;
- A2, Proposed floor plan;
- T1, Site plan and fence elevation; and
- A3, Window and door schedule.

And with the following condition of approval:

1. That the exact location of the fence may be adjusted to avoid utility conflicts provided there is a minimum drive aisle clearance of 12-feet.

Andrew C. Jennings, AICP
Director of Community Development

Brooke A. Jones
Senior Planner

Attachments:

Fire Department review, dated 7.22.2016

Engineering Division review, dated 7.20.2016

Photos of existing conditions (staff)

Cover letter

A1, Existing floor plan

A2, Proposed floor plan

T1, Site plan and fence elevation

A3, Window and door schedule

Plat of survey

MEMO – Fire Prevention Bureau

TO: Brooke Jones, Village Planner

FROM: Ronald S. Antor, Fire Inspector

CC: Andrew Jennings, Director of Community Development

Keith MacIsaac, Fire Chief

FPB File

DATE: July 22, 2016

SUBJECT: Expansion of Day Care Facility into Adjacent Tenant Space and Remodeling of Both Tenant Spaces plus an Outdoor Recreation Area – 581-583 North Wolf Road – Blooming Minds Academy – Plans received for review by the Fire Department, July 6, 2016 and July 20, 2016.

The Wheeling Fire Department has reviewed the submittals received related to the above referenced project and has the following comments:

Site Plan

1. As with previous submittals, the Fire Department has safety concerns with the location of the proposed fenced area due to the proposed location being directly adjacent to a parking lot that serves an industrial building used by a number of trucks on a daily basis. The petitioner has worked to address this concern by providing protective posts to protect against vehicle impact.

   The installation of the posts shown shall comply with the Fire Prevention Code (Section 312) for protective bollards.

2. The fenced area is part of the exiting system for the petitioners tenant space. The gates referenced in the submittal documents shall meet the requirements in Chapter 10 of the Village's Fire Prevention Code. This would include:

   a. The use of padlocks to secure the gate would prohibited.

   b. Latching hardware provided shall be lever type or a push bar to meet the requirements in Section 1008.1.9 of the Fire Prevention Code

3. The clearance for the drive aisle between the fence/bollards and the nearby curbing shall be a minimum width of 12'-0" with 13'-0" preferred.

581-583 N. Wolf Road – Proposed Expansion of Existing Day Care Facility into an Adjacent Tenant Space

1. The petitioner is proposing to expand their existing business at 581 N. Wolf Road into an adjacent tenant space at 583 N. Wolf Road. They would then remodel and occupy both tenant spaces as one tenant space. There would be a change in Use Group from the existing mixed use (B) Business Use Group and (F) Factory or (S) Storage occupancy as defined in the 2012 Edition of the International Building (IBC) and Fire Prevention Codes (IFC) to an (E) Educational Use Group occupancy for the proposed occupancy.
2. All construction within the building would need to comply with the Village's Building and Fire Prevention Codes (2012 Editions of the International Building Code & International Fire Code – with amendments).
3. As noted in Comment #2, the proposed tenant buildout will need to comply with the Village's Building and Fire Prevention Codes. Some of the items that this would include and would need to be addressed during the permitting process are:

    a. The building has an existing sprinkler system that will require modifications.
    b. The building has an existing fire alarm system that will require modifications.
    c. Sufficient exits and spacing of those will need to be provided and verified during the remodeling Building Permit permitting process.

At this time there are no other Fire Department comments related to the project as presented in the documents reviewed.

MEMORANDUM

TO: Brooke Jones, Senior Planner

FROM: Kyle Goetzelmann, Civil Engineer I

COPY: Jon Tack, Village Engineer

DATE: **July 15th, 2016**

SUBJECT: **Blooming Minds Academy**
581 N. Wolf Rd. - Review Comments

The Engineering Division received a Cover Letter, Plat of Survey, Floor Plan, and Revised Fencing Plan for the subject project on July 6th, 2016. The Engineering Division has completed a review of the above referenced submittal and has the following comments:

1. A fence/bollard setup installed in the configuration proposed will potentially conflict with the underground sanitary sewer. Fence/Bollard post hole details showing foundation depth will need to be provided along with sanitary sewer invert elevation data. Fence/Bollard post spacing should be maximized at the location of the sanitary sewer crossing.
2. Access to the Village owned sanitary sewer must be maintained at all times.
3. Building permit must be obtained prior to installing fence in a configuration that is approved.

Recevied July 20, 2016

Blooming Minds Academy – 581-583 N. Wolf Road

Docket No. PC 2016-17 (Special Use-Site Plan Approval for a Daycare Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions of storefronts – looking south

Blooming Minds Academy – 581-583 N. Wolf Road

Docket No. PC 2016-17 (Special Use-Site Plan Approval for a Daycare Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions of rear space – looking east

Blooming Minds Academy – 581-583 N. Wolf Road

Docket No. PC 2016-17 (Special Use-Site Plan Approval for a Daycare Facility)

Plan Commission Meeting – July 28, 2016

Existing conditions of rear space – looking northeast

Exhibit received June 29, 2016

June 6, 2016

Blooming Minds Academy
581 N. Wolf Rd.
Wheeling, IL 60090

Re: Special Use Permit for 583 N. Wolf Rd.

Dear Officers:

I am the owner of Make Your Child Happy, Inc. DBA Blooming Minds Academy (BMA). For the past few years, I have successfully operated a specialty school/tutoring center for children ages 1 through 14. However, more and more parents are asking me to expand the range of services that I currently offer, and allow their children, ages 2 - 5 to stay for longer hours at BMA.

At the moment, we offer 1 and 2-hour tutoring classes, and we ask parents to stay on premises while children are in class. A lot of our parents ask us for extended hours and an ability to leave the premises while children are in class. In order for us to be able to provide such services, we are required to obtain DCFS licenses for a daycare center.

Adding such license will influence the way we do current operations in the following way:

1. Children will be able to stay for longer hours.
2. Parents will have ability to leave their children at the center and pick them up at their convenience.
3. There will be less traffic, as there will be less exchange of students per day throughout the work hours.
4. The overall number of children at the center will change slightly, but not significantly; hence the number of parking spaces used will not be affected. Although, parking has never presented any slightest concerns, but it will improve, as parents will not have to stay at the center, and will not use parking spaces for prolonged periods of time.
5. Adding a day-care service to the range of services we provide to our students will create additional working spaces.
6. As a business, we will financially grow and will be in a better position to contribute to the community.

In the evening and over the weekends, after the day-care hours, we would like to continue providing educational services to our students.

Hours of Operation:
Day Care Rooms: Mon – Fri 7:00 am – 6:00 pm
Tutoring Rooms: Mon – Fri 9:00 am – 2:00 pm and 5:00 pm – 8:00 pm
Saturday: 9:00 am – 3:00 pm
Sunday: 9:00 am – 3:00 pm

Number of Day Care Rooms: 3
Number of Tutoring Rooms: 4

Capacity of Children in Day Care Rooms: Room 1 – 16, Room 2 – 20, Room 3 – 11
Total at one time: 41

Capacity of Children in Tutoring Rooms: Room 1 – 9, Room 2 – 7, Room 3 – 5, Room 4 – 9.

Total at one time: 30

Exhibit received June 29, 2016

As classes are staggered throughout the day, and not all students are there at once, I think the maximum students that will be in both units at the same time (that after a few years, as we think the first year we will be at 20 students at one time, then 30) may be 50 students after a few years.

Traffic and Parking:
Drop off:
Children will come gradually in small groups. The majority of day care students will be dropped off between the hours of 7:00 – 8:45 am. Tutoring students will be dropped off from 8:45 – 12:00 pm, and from 4:45 to 7:00 pm.

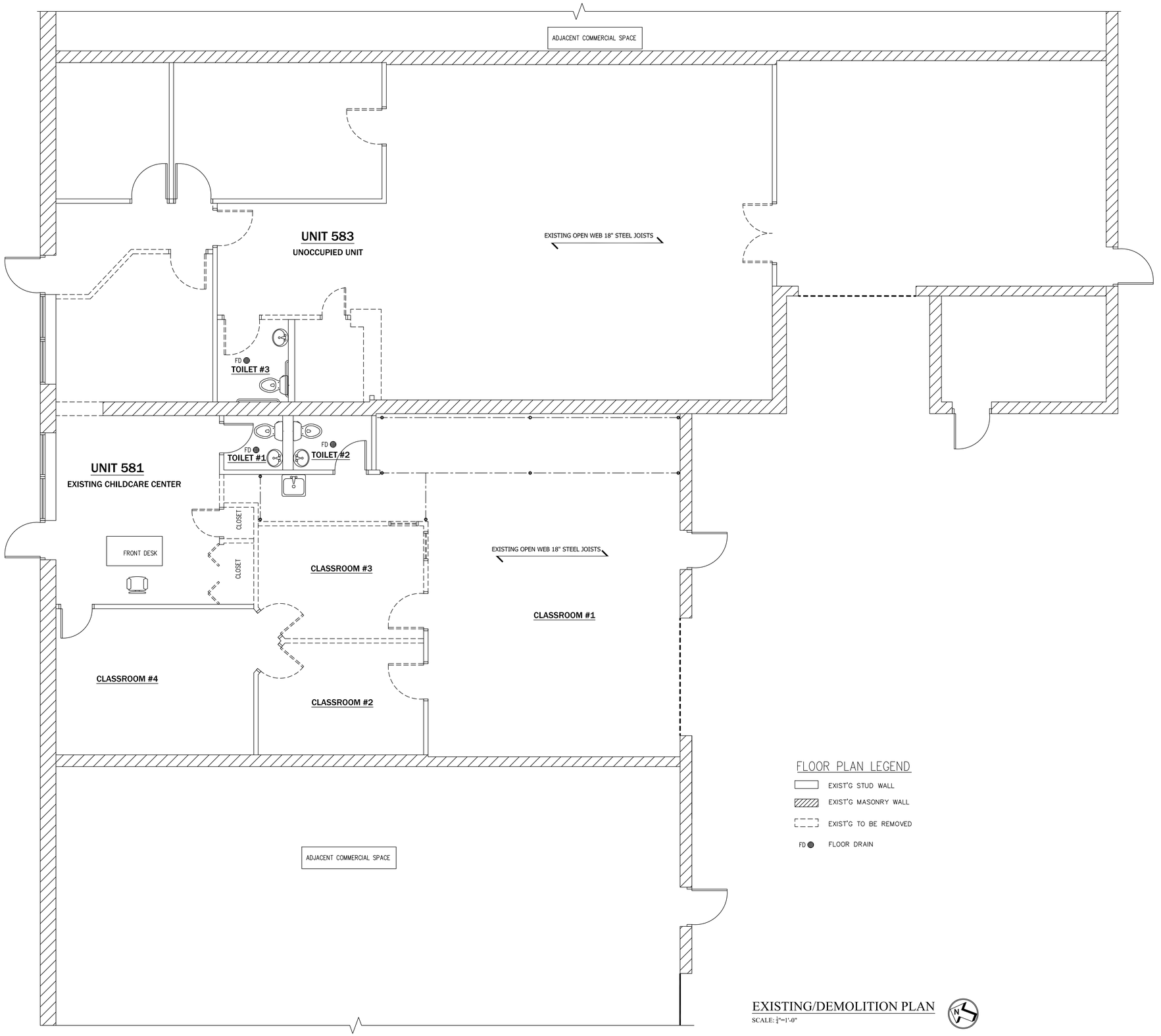
During a drop off period, parents will park a car, drop off a child, and will drive away. Because the overall capacity of children for day-care rooms is small, it will not present any issues.

Pick up:
Pick up times for day care rooms will be from 1:00 – 6:00 pm. Pick up times for tutoring rooms will be 10:00 – 2:00 pm and from 6:00 – 8:00 pm.

During pick up period, parents will park their car, pick up their child, and will drive off. Since day care rooms will offer both full-time and part-time service, children will be picked up in small groups throughout the day, which will not represent any parking issues. Tutoring classes will be scheduled in such a way that bigger classes will be facilitated after day-care hours, and such pick up will not present any issues, and will not be different from what it is now.

I will be glad to answer any questions that may arise.

Thank you so much.
Olga Khamichonak



FLOOR PLAN LEGEND

- EXIST'G STUD WALL
- EXIST'G MASONRY WALL
- EXIST'G TO BE REMOVED
- FD FLOOR DRAIN

EXISTING/DEMOLITION PLAN

SCALE: $\frac{1}{4}$"=1'-0"

ERR Design

GEORGE W. SIMOULIS
ARCHITECT

EWA ROMANOWSKA
PROJECT DESIGNER

2360 HIGH POINT DR.
LINDENHURST IL 60046
Tel. (847) 347-0037

Renovate Existing & New Space to Daycare Center

581-583 N Wolf Rd.
Wheeling, IL 60090

Exhibit received July 20, 2016

LICENSE EXP. 11/30/16

FOR PERMIT
DATE: 07-18-2016

CORRECTION
DATE:

A-1

ADJACENT COMMERCIAL SPACE

CLASSROOM #4
3 CHILDREN 4 YEARS AND OLDER
111 SQ.FT.

CLASSROOM #5
5 CHILDREN 4 YEARS AND OLDER
205 SQ.FT.

CLASSROOM #6
20 CHILDREN 3-5 YEARS OLD
887 SQ.FT.

CLASSROOM #7
11 CHILDREN 4-5 YEARS OLD
537 SQ.FT.

8' HT. WALL

(6) DOUBLE LOCKERS

EXISTING OPEN WEB 18" STEEL JOISTS

EXISTING OPENING LINTEL TO REMAIN

UNIT 583

OFFICE
112 SQ.FT.

CORRIDOR
72 SQ.FT.

TOILET #3
57 SQ.FT.

KITCHENETTE
70 SQ.FT.

TOILET #4
42 SQ.FT.

(4) DOUBLE LOCKERS

UNDER COUNTERTOP 6 GAL. WATER HEATER
MICROWAVE

HAND WASH SINK: CHILDREN SIZE ADULT SIZE

30"X48" CLEARE FLOOR SPACE

(10) DOUBLE LOCKERS

EXIST'G SPRINKLER ROOM

NEW LINTEL. PROVIDE ONE 3-½"x3-½"x5/16" STEEL ANGLE FOR EACH 4" THICKNESS OF MASONRY, W/6" OF END BEARING.

TOILET #1
EXIST'G N.I.C.

TOILET #2
EXIST'G N.I.C.

3 GAL. WATER HEATER

FRONT DESK

EXIST'G SINK TO REMAIN

EXIST'G MEZZANINE

EXIST'G C 6" METAL BEAM, TYP.

EXIST'G 3"ø METAL POST, TYP.

HAND WASH SINK: CHILDREN SIZE ADULT SIZE

(8) DOUBLE LOCKERS

359 SQ.FT. PLAYGROUND
2 YEARS OLD
16 CHILD/4=4X75 SQ.FT/CHILD=300 SQ.FT.

EXISTING BOLLARD

SEWER MANHOLE

CONCRETE CURB

3'-0" GATE W/EXIT HARDWARE

RUBBER FLOOR MAT

UNIT 581
WAITING AREA
245 SQ.FT.

FREESTANDING WATER DISPENSER

CLOSET

JANITORIAL CLOSET

(5) DOUBLE LOCKERS

EXISTING OPEN WEB 18" STEEL JOISTS

CLASSROOM #1
16 CHILDREN 2 YEARS OLD
743 SQ.FT.

CLASSROOM #3
5 CHILDREN 4 YEARS AND OLDER
209 SQ.FT.

CLASSROOM #2
4 CHILDREN 4 YEARS AND OLDER
175 SQ.FT.

EXISTING OPENING LINTEL TO REMAIN

902 SQ.FT. PLAYGROUND
3+ YEARS OLD
48 CHILDREN/4=12X75 SQ.FT/CHILD=900 SQ.FT.

6'-0" HIGH VINYL FENCE, SEE ELEVATION 1/T-1

4"ø X 42" HIGH STEEL BOLLARD W/ CONCRETE INSIDE, MAX. 6'-0" O.C.

12'-0"

3'-0" GATE W/EXIT HARDWARE

EASEMENT FOR ACCESS

PROPERTY LINE

10'-0"

ADJACENT COMMERCIAL SPACE

FLOOR PLAN LEGEND

- EXIST'G STUD WALL
- EXIST'G MASONRY WALL
- NEW STUD WALL
- EXIST'G DOOR
- NEW DOOR
- DOOR NUMBER
- WINDOW NUMBER
- FD FLOOR DRAIN
- N.I.C. NOT IN CONTRACT

PROPOSED PLAN

SCALE: ¼"=1'-0"

ERR Design
GEORGE W. SIMOULIS
ARCHITECT
EWA ROMANOWSKA
PROJECT DESIGNER
2360 HIGH POINT DR.
LINDENHURST IL 60046
Tel. (847) 347-0037

Renovate Existing & New Space to Daycare Center

581-583 N Wolf Rd.
Wheeling, IL 60090

Exhibit received July 20, 2016

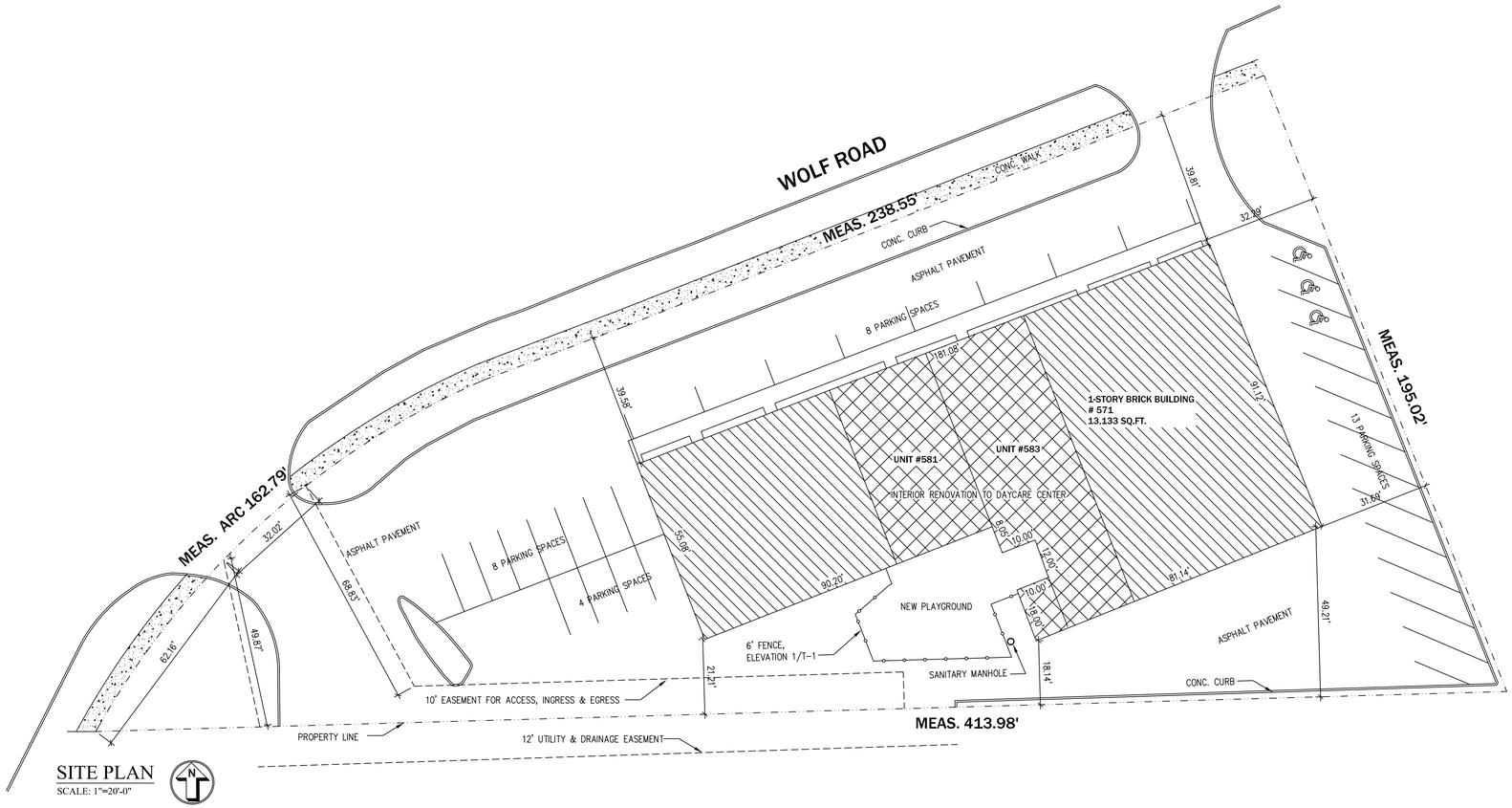
LICENSE EXP. 11/30/16

FOR PERMIT
DATE: 07-18-2016

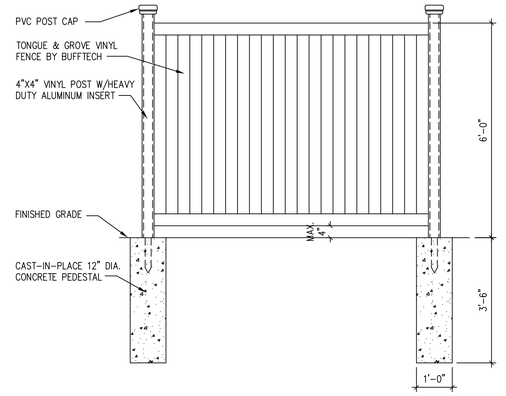
CORRECTION
DATE:

A-2

Renovate Existing & New
Space to Daycare Center
581-583 N Wolf Rd. Wheeling, IL 60090



SITE PLAN
SCALE: 1"=20'-0"



1/T-1 FENCE ELEVATION
SCALE: N.T.S.

EXISTING FIRE SUPPRESSION SYSTEM. SEPARATE PERMIT SHALL BE SUBMITTED FOR RELOCATING SPRINKLER HEADS.

THE PROJECT ARCHITECT WILL NOT BE RESPONSIBLE FOR ANY ACTION TAKEN BY ANY PERSON ON THIS PROJECT IF THAT PERSON HAS KNOWLEDGE OF ANY DISCREPANCY, ERROR, OR AMBIGUITY IN THE CALCULATIONS, DRAWINGS AND/OR SPECIFICATIONS UNTIL THE PROJECT ARCHITECT OR ENGINEER HAS BEEN NOTIFIED AND HAS CORRECTED, MADE THE INCLUSION OR HAS MORE CLEARLY EXPLAINED THE INTENT OF THE DRAWINGS CALCULATIONS AND/OR SPECIFICATIONS. CONTRACTOR SHALL BEAR ALL COSTS OF ANY ITEMS OR CHANGES MADE BY THE BLDG DEPT OR THEIR INSPECTORS AT NO COST TO THE ARCHITECT OR HIS CONSULTANTS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION.

BUILDING CODE

WITH VILLAGE OF WHEELING AMENDMENTS

2012 International Building Code
2011 National Electric Code
2012 International Mechanical Code
2011 International Plumbing Code &
Illinois State Plumbing Code, Latest Edition
2012 International Energy Conservation Code
2012 Property Maintenance Code

SCOPE OF WORK:

DEMOLITION OF INTERIOR PARTITION WALLS

REMOVE OVERHEAD GARAGE DOORS

NEW STOREFRONT WINDOWS AND DOOR

NEW PARTITION WALLS

NEW TOILET AND HAND WASH SINKS

NEW KITCHENETTE WITH SINK (NOW OVEN)

NEW/REPLACE S.A.T. CEILING

MECHANICAL ALTERATION. EXISTING HVAC EQUIPMENT TO REMAIN

NEW PLAYGROUND

DRAWING INDEX

ERR Design
EWA ROMANOWSKA
PROJECT DESIGNER
GEORGE W. SIMOULIS
ARCHITECT
2360 HIGH POINT DR.
LINDENHURST IL 60046
Tel. (847) 347-0037

Renovate Existing & New
Space to Daycare Center
581-583 N Wolf Rd.
Wheeling, IL 60090

CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH ALL BUILDING AND LIFE SAFETY CODE REQUIREMENT FOR VILLAGE OF WHEELING, IL

GEORGE W. SIMOULIS

Exhibit received July 20, 2016

LICENSE EXP. 11/30/16

FOR PERMIT
DATE: 07-18-2016

CORRECTION
DATE:

T-1

DOOR SCHEDULE

DOOR No.	SIZE	QTY.	MATERIAL		REMARKS
			DOOR	FRAME	
1	3'-0"x 6'-10" x 1 3/4"	3	WOOD	WOOD	ADA, SOLID CORE (S.C.) LEVER HANDLE
2	3'-0"x 6'-10" x 1 3/4"	1	WOOD	WOOD	LEVER HANDLE, LOCKSET
3	4'-0"x 6'-10" x 1 3/4"	1	WOOD	WOOD	BI-FOLD, DUMMY KNOB
4	3'-0"x 6'-10" x 1 3/4"	1	WOOD	WOOD	ADA, S.C. LEVER HANDLE, PRIVACY LOCK @ OFFICE
5	3'-0"x 6'-10" x 1 3/4"	1	WOOD	WOOD	ADA, S.C. LEVER HANDLE, PRIVACY LOCK @ TOILET
6	3'-0"x 6'-10" x 1 3/4"	1	WOOD	WOOD	ADA, LEVER HANDLE, KEYLESS
7	3'-0"x 6'-10" x 1 3/4"	1	GLASS	ALUM.	CLOSER, UNIT LOCKSET, PANIC HARDWARE W/PULL ON REVERSE, ADA, SEE ELEVATION #I

DOOR SCHEDULE NOTES:

-VERIFY THAT ALL EXISTING EGRESS DOORS ARE OPERABLE AND KEYLESS FROM THE SIDE OF WHICH EGRESS IS MADE.

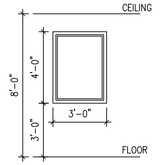
-VERIFY ALL EXISTING DOOR HARDWARE IN FIELD.

-DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE AT A MAX. HEIGHT OF 48" A.F.F. THE OPERATING DEVICES SHALL BE CAPABLE OF OPERATION WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.

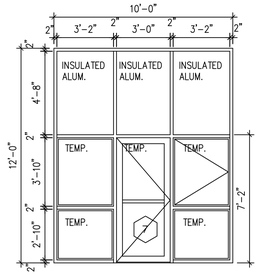
-THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE 5 LBF.

WINDOW SCHEDULE

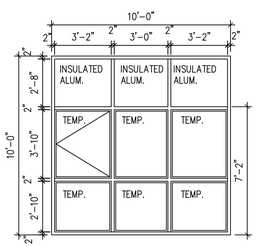
WINDOW No.	SIZE	QTY.	FINISH	TYPE	REMARKS
1	3'-0"X4'-0"	1	WOOD	PICTURE	ELEVATION # I
2	10'-0"X12'-0"	1	ALUM.	STOREFRONT	ELEVATION # II
3	10'-0"X10'-0"	2	ALUM.	STOREFRONT	ELEVATION # III



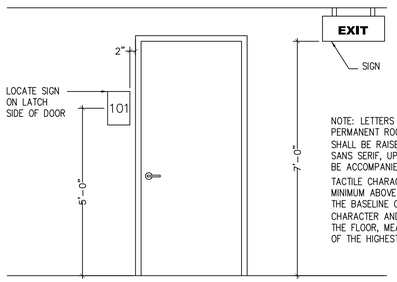
ELEVATION #I
SCALE: 1"=1'-0"



ELEVATION #II
SCALE: 1"=1'-0"

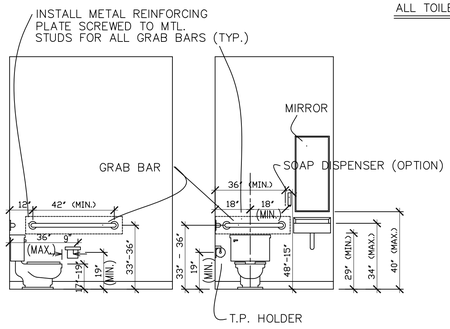


ELEVATION #III
SCALE: 1"=1'-0"

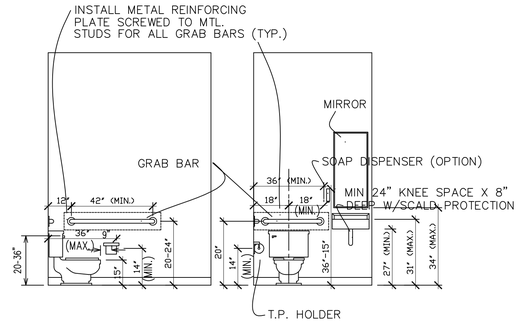


ROOM AND SPACE SIGNAGE

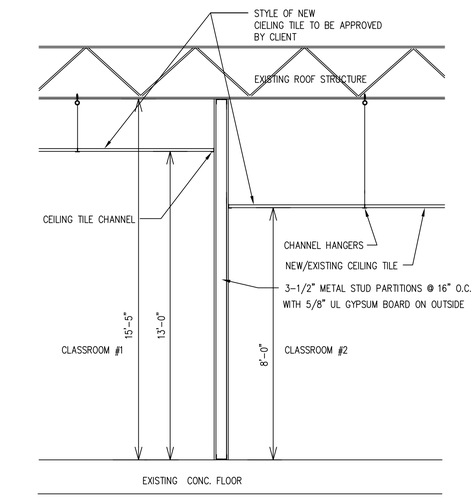
ALL TOILETS ARE UNISEX



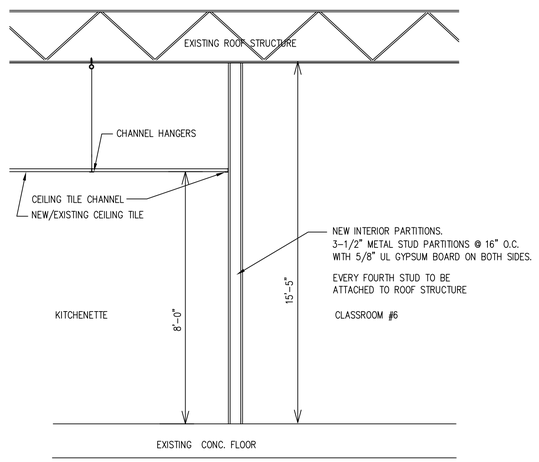
ADULT TOILET ELEVATION
SCALE: 1/4"=1'-0"



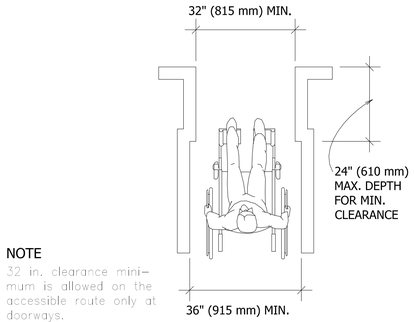
CHILD TOILET ELEVATION
SCALE: 1/4"=1'-0"



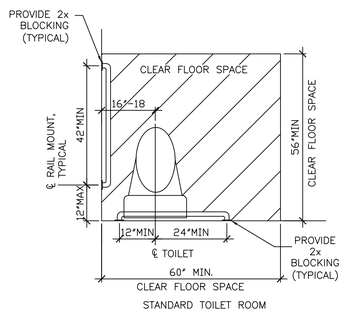
1 A-3 WALL SECTION
SCALE: N.T.S.

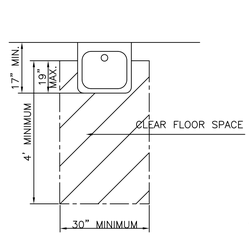


2 A-3 WALL SECTION
SCALE: N.T.S.



NOTE
32 in. clearance minimum is allowed on the accessible route only at doorways.





ADA CLEAR SPACE REQUIREMENTS
SCALE: 1/2"=1'-0"

ERR Design
GEORGE W. SIMOULIS
ARCHITECT
EWA ROMANOWSKA
PROJECT DESIGNER
2360 HIGH POINT DR.
LINDENHURST IL 60046
Tel. (847) 347-0037

Renovate Existing & New Space to Daycare Center

581-583 N Wolf Rd.
Wheeling, IL 60090

Exhibit received July 20, 2016

LICENSE EXP. 11/30/16

FOR PERMIT
DATE: 07-18-2016

CORRECTION
DATE:

A-3

UNITED SURVEY SERVICE CO.
CONSTRUCTION AND LAND SURVEYORS
8033 CHURCHILL, NILES, IL 60714
TEL.: (847) 581 - 0040
FAX : (847) 581 - 0041

ALTA / ACSM LAND TITLE SURVEY

OF

PARCEL 1 :

THAT PART OF LOT 3 (EXCEPT PART OF SAID LOT 3 FALLING IN LOT 2 OF OWNERS' SUBDIVISION OF PART OF LOT 2 AND PART OF LOT 3) IN THE SUBDIVISION OF G. HECKINGER'S FARM IN THE NORTHEAST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, LYING SOUTH OF THE SOUTHERLY LINE OF WOLF ROAD EXTENSION ACCORDING TO DOCUMENT 3014370 AND LYING EAST OF THE EASTERLY LINE OF WOLF ROAD AND WEST OF A LINE DRAWN AS POINT ON THE NORTH LINE OF SAID LOT 3, 175.00 FEET WEST, AS MEASURED ON SAID NORTH LINE OF THE WESTERLY OF MILWAUKEE AVENUE TO A POINT ON THE SOUTH LINE OF SAID LOT 3, 175.00 FEET WEST, AS MEASURED ON SAID SOUTH LINE OF THE WESTERLY LINE OF MILWAUKEE AVENUE (EXCEPTING THEREFROM THAT PART OF SAID LOT 3 IN G. HECKINGER'S FARM LYING SOUTH OF THE NORTH LINE OF LOT 5 IN SAID OWNERS' SUBDIVISION), IN COOK COUNTY, ILLINOIS.

PARCEL 2 :

THAT PART OF LOT 2, LYING SOUTH OF SAID SOUTHERLY LINE OF WOLF ROAD EXTENSION IN OWNERS' SUBDIVISION OF PART OF LOTS 2 AND 3 IN SAID SUBDIVISION OF G. HECKINGER'S FARM IN SECTION 2, TOWNSHIP 42 NORT, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 3:

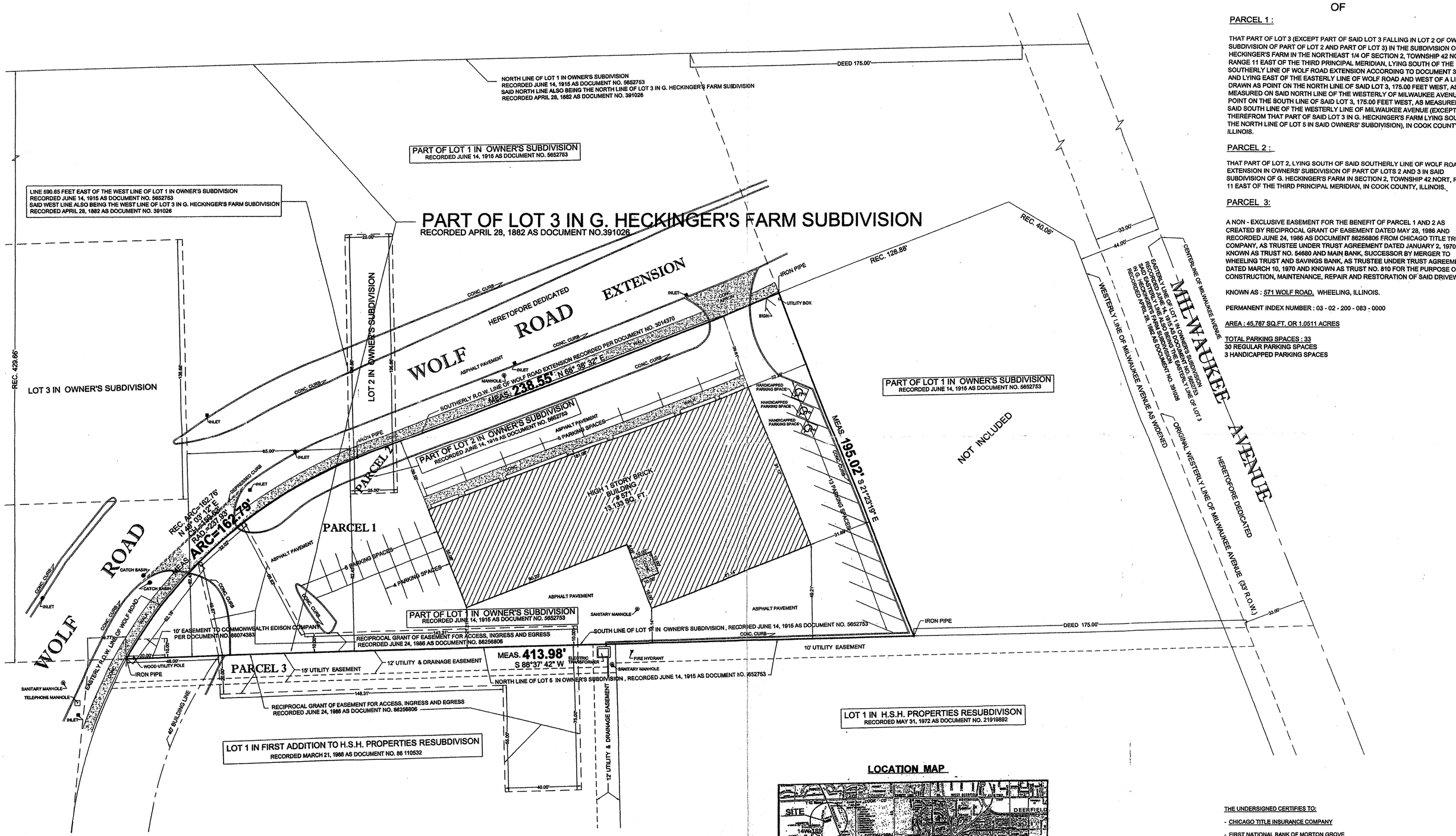
A NON - EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCEL 1 AND 2 AS CREATED BY RECIPROCAL GRANT OF EASEMENT DATED MAY 28, 1986 AND RECORDED JUNE 24, 1986 AS DOCUMENT 86256806 FROM CHICAGO TITLE TRUST COMPANY, AS TRUSTEE UNDER TRUST AGREEMENT DATED JANUARY 2, 1970 AND KNOWN AS TRUST NO. 54680 AND MAIN BANK, SUCCESSOR BY MERGER TO WHEELING TRUST AND SAVINGS BANK, AS TRUSTEE UNDER TRUST AGREEMENT DATED MARCH 10, 1970 AND KNOWN AS TRUST NO. 810 FOR THE PURPOSE OF CONSTRUCTION, MAINTENANCE, REPAIR AND RESTORATION OF SAID DRIVEWAY.

KNOWN AS : 571 WOLF ROAD, WHEELING, ILLINOIS.

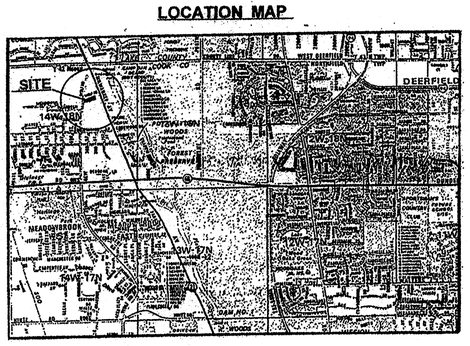
PERMANENT INDEX NUMBER : 03 - 02 - 200 - 083 - 0000

AREA : 45,787 SQ.FT. OR 1.0511 ACRES

TOTAL PARKING SPACES : 33
30 REGULAR PARKING SPACES
3 HANDICAPPED PARKING SPACES



LOCATION MAP



THE UNDERSIGNED CERTIFIES TO:

- CHICAGO TITLE INSURANCE COMPANY
- FIRST NATIONAL BANK OF MORTON GROVE
- WOLF ROAD, L.L.C.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARDS DETAIL REQUIREMENTS FOR ALTA / ACSM LAND TITLE SURVEYS" JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 1999, AND INCLUDES ITEMS 1, 2, 3, 4, 6, 7(a), 7(b1),8, 9,10, 11 AND 15 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA, NSPS AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION UNDERSIGNED FURTHER CERTIFIES THAT THE SURVEY MEASUREMENTS WERE MADE IN ACCORDANCE WITH THE "MINIMUM ANGLE, DISTANCE, AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA / ACSM LAND TITLE SURVEYS".

NILES, ILLINOIS, FEBRUARY 6, A.D. 2001.

BY: _____
ROY G. LAWNICZAK, REGISTERED ILLINOIS LAND SURVEYOR NO. 35-2290

ORDERED BY: ROSENBLUM & VANDENBERG Attorneys at Law		
SCALE : 1" = 20'		
DATE : FEBRUARY 6, 2001		
FILE No.: 2001 - 6557	2/28/01	ADDED PARCEL 3 LEGAL DESCRIPTION
	DATE	REVISION

THE SUBJECT PROPERTY IS NOT IN A FLOOD HAZARD AREA, AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, AS SHOWN ON FLOOD INSURANCE MAP:

FLOOD ZONE: "C" - AREAS OF MINIMAL FLOODING

COMMUNITY PANEL NO.: 170173 0005 C

EFFECTIVE DATE: OCTOBER 18, 1983

REQUEST FOR PLAN COMMISSION ACTION
STAFF PROJECT REVIEW

TO: Chairperson Ruffatto and Members of the Wheeling Plan Commission

FROM: Andrew C. Jennings, Director of Community Development
Brooke A. Jones, Senior Planner

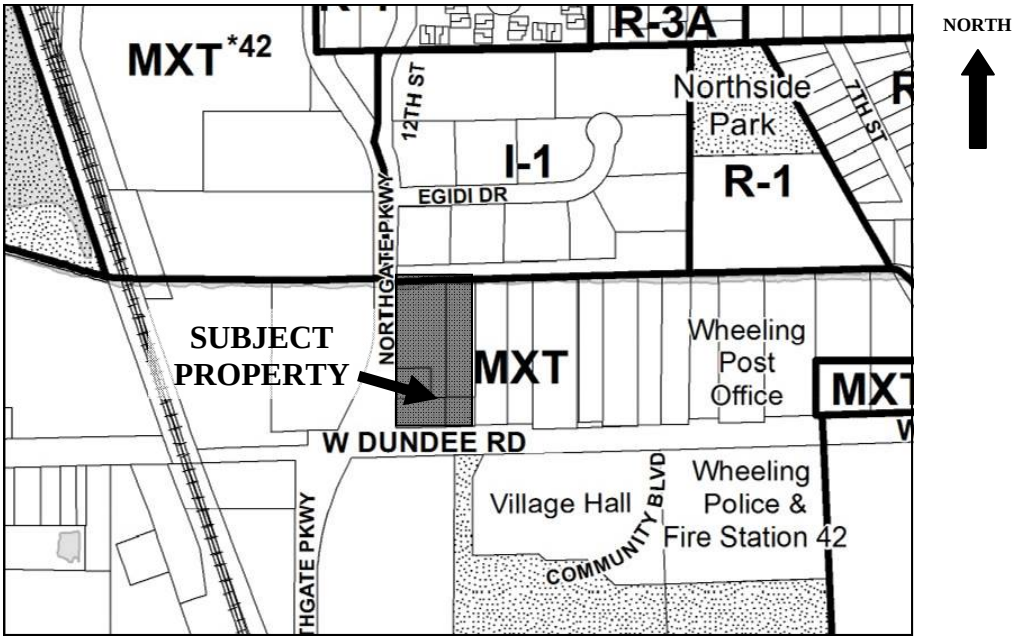
RE: **Docket No. 2016-15**
Dundee Commons
430 W. Dundee Road
Special Use-Site Plan Approval of a Planned Unit Development for Retail Use

DATE OF REPORT: July 22, 2016

DATE OF MEETING: July 28, 2016

PROJECT OVERVIEW: The petitioner is seeking Preliminary Planned Unit Development (PUD) approval to construct speculative retail at the vacant northeast corner of Dundee Road and Northgate Parkway, which is zoned MXT Transit Oriented Mixed Use District.

LOCATION MAP:



Applicant Name: Bill Hein & Associates

Property Owner: Bill Hein & Associates

Common Property Address: Located on the northeast corner of Dundee Road and Northgate Parkway.

Neighboring Property Land Use(s):	North: Industrial South: Institutional (Village Hall and vacant) West: Vacant East: Commercial
Comprehensive Plan Designation:	Transit Oriented Mixed Use
Property size:	2.96 acres (total lot) 6,370 sq. ft. (Building One) 9,000 sq. ft. (Building Two)
Existing Use of Property:	Vacant
Proposed Use of Property:	Speculative retail and restaurant uses
Existing Property Zoning:	MXT Transit Oriented Mixed Use District

Previous Zoning Action on Property:
None.

BACKGROUND INFORMATION

On June 6, 2016 the Village Board reviewed this project on a conceptual basis. On June 9, 2016, the applicant attended the Plan Commission Meeting for preliminary review. The following comments were provided by the Plan Commission during concept review:

1. The plans should be fully developed for both retail buildings and include cohesive engineering, traffic flow, lighting, landscaping, and architecture.
2. Consider site design that prevents cut-through traffic.
3. Consider a centralized trash enclosure.
4. Provide pedestrian access to the Village-owned plaza on the corner.
5. Design the buildings to be viewed from multiple sides.

ROLE OF PRELIMINARY AND FINAL PUD REVIEW

The purpose of the preliminary Planned Unit Development (PUD) approval is to provide a formal approval of the basic elements of the plans that have been discussed in the informal Concept Review. Please see the following excerpt from the Zoning Code for a more detailed description of the role of the preliminary PUD approval. Once preliminary approval has been granted, the Final Plan must be in substantial conformance with the materials attached to the preliminary approval ordinance.

The following table summarizes the differences between a preliminary and final PUD plan. For a complete description of the requirements for each type of application, see Chapter 9 of the Zoning Code:

Preliminary PUD	Final PUD
Written plan describing the project and how the various standards for a PUD are to be met.	Same.
Maximum projected figures for the following elements: dwelling units, buildings, bedrooms, paved area. Projected number of parking spaces and bike parking spaces. Minimum amount of land to be landscaped open space.	Actual count of the items listed for preliminary review plus the amount of land to be devoted to accessory structures areas.
A map of features within 500'	A map of features within 1000'
Plat of survey	Same.
Scaled existing conditions plan.	Same.
A site plan showing general locations of buildings, building uses, approx. building heights, open spaces, setbacks, buffers, access to existing and proposed streets, pedestrian and vehicular circulation, parking and loading.	Actual locations of items listed for preliminary review plus refuse collection facilities and exterior lighting.
General information on proposed signage.	Detailed sign information.
Preliminary landscaping plan.	A final landscape plan showing details of all proposed plantings and screening elements including parkway trees.
Pictures of the site and surrounding context	Same.
Any additional materials required by staff.	Materials required as a condition of preliminary approval.
Preliminary list of code relief (variations).	Final list of code relief (variations).
Preliminary elevations	Final exterior elevations for all buildings.
Preliminary engineering	Detailed engineering (Site Grading Plan & Site Utility Plan)

DESCRIPTION OF PROPOSAL

The petitioner is requesting a special use for a Preliminary Planned Unit Development to facilitate the construction of a two-building retail development. The proposal includes two-one story buildings with drive-through restaurants in each. Operating details or seating/floor plans for the restaurants have not been provided, which will be required at time of individual special use review and approval.

CODE RELIEF REQUESTED

In conjunction with most Planned Unit Developments, the petitioner requests some form of code relief from Title 19 (Zoning) and/or Title 17 (Planning, Subdivision, and Developments) in order to provide for a development of a particular character or layout. A complete list of the required code relief must be submitted with a Final PUD plan, while a projection of the code relief is sufficient for a preliminary PUD plan. The petitioner did not project any variations would be necessary for the proposal. However, staff has identified the following:

1. Open Space: The preliminary geometry (site) plan indicates an open space measurement of 24%. The minimum required green space is 25%. Either the plan should be revised or a green space variation is required.
2. Number of Buildings on the Lot: The Zoning Code only allows for one principal building per zoning lot. The proposal requires a variation to allow two buildings.
3. Building Setback: The required minimum building setback from any street is 25'. The proposed setback for Building One is 23.4'. Either the plan should be revised or a setback variation is required.
4. Parking Aisle Width: According to Title 17 (Planning, Subdivision, and Developments) of the Village Code, the minimum parking aisle width is 25'. There are three locations on the plan with 24' aisles. Either the plan should be revised or a Title 17 variation is required.

5. Required Parking: Based upon a speculative retail use for both retail buildings, 5.5 spaces are required per 1,000 sq. ft. of space. The proposed 15,370 sq. ft. of net space requires 85 spaces. However, at least two additional accessible parking stalls shall be provided, which will likely reduce the parking provided. If any other adjustments are made to the site plan, this parking figure may be reduced even further. Moreover, when the restaurant and other uses are identified, parking variations will very likely be required because the sum of the actual uses will have a parking requirement higher than the spec requirement of 5.5/1,000. THIS ISSUE IS FURTHER DISCUSSED UNDER **Total Number of Parking Spaces** BELOW.

SITE PLAN REVIEW

Scale of Site Plan: 1"= 30'

Proposed General Site Layout: The plan narrative states the petitioner attempted to address the Board's and Plan Commission's request to place the access from Northgate Parkway as far north as possible. However, due to the topography of the site, the access point had to be placed in the middle of site (closer to Dundee Road than requested). The proposed drive from Northgate Parkway is full access. There is also a full access drive from Dundee Road. Parking wraps two sides of each building. A long drive-through queue also wraps each building. There is a second possible drive lane inside (directly adjacent) to the buildings. Staff is unsure of the purpose of this paving. It does not appear to be striped for parking. There is a T-intersection at the east end of the site where traffic from each building will cross. Staff suggests that this intersection will need to be a three-way stop to provide safe traffic movement. Per the request of the Plan Commission, pedestrian access is provided to the Village-owned corner plaza. Detention basins are provided along the north and east property lines. A future connection to the possible redevelopment to the east is reserved and will continue directly east along the access drive from Northgate Parkway.

Floor Plans: Not provided.

Site Access: Staff has concerns with the site access as proposed. Due to the location of the Northgate access drive and the change in topography, left turns out of the site cannot be safely made. Staff suggests that the left turns shall be restricted from this access drive. Furthermore, staff suggests that the access drive at Dundee Road should be reconfigured to three lanes: one northbound (ingress) lane and two southbound (egress) lanes. The southbound lanes should allow for separate left and right turn lanes. Lastly, the staff suggests that the parking lot aisle width be increased from 24' to 25' per Village Code. The Plan Commission may wish to discuss these site access issues with the petitioner.

Traffic Study: A draft traffic study has been provided that does not reference the correct site plan. Staff suggests the Plan Commission request a final traffic study that references the actual site plan for the proposed development.

Total Number of Parking Spaces: The petitioner has stated that the speculative parking requirement of 5.5 stalls per 1,000 sq. ft. of retail space is met. However, due to minor site

adjustments (especially for additional accessible parking stalls), the total parking provided will likely be reduced and the spec parking requirement will not be met. Moreover, it is almost certain that the parking requirement will not be met when the actual restaurant uses are proposed. The draft traffic study references a coffee shop in "Phase I." However, no other details of the drive-through restaurants are made in the submittal. Since the Zoning Code parking requirement is based upon number of seats and number of employees (both unknown at this time), the exact parking requirement cannot be determined at this time. Due to the limited availability of on-site parking, configuration of the site, and the fact that the site is being marketed to restaurants, staff suggests that the Plan Commission allow for a framework of parking requirements that would address the parking needs of future tenants while providing flexibility for different possible uses. This could be accomplished in two different ways. First, as in the Westin's PUD, the petitioner could propose a new parking requirement for the proposed uses (retail/restaurant/service). At the Westin, the following parking ratios were assumed: 5/1000 for retail and 10/1000 for restaurants. In this framework, it would be up to the developer to find the balance of tenants that would not exceed the availability of parking based upon the occupancy of space (not based upon the tenant operations in terms of seats or employees). Another option is to look at Northbrook's parking requirements, which are more restrictive once a threshold is exceeded in terms of floor area of use. In Northbrook's shopping centers, the parking requirement is only 4/1000 when no more than 10% of the development space is dedicated to restaurant use. If additional restaurant space is requested, then they must be able to satisfy the parking requirement of 14/1000 for the additional restaurant square footage. In either of these (Westin or Northbrook) frameworks, it would be up to the developer to find the balance of tenants that would not exceed the availability of parking based upon the occupancy of space (not based upon the tenant operations in terms of seats or employees). It should be up to the applicant to prescribe a parking requirement framework that would be functional to their desired users. Staff believes it would be beneficial to the PUD process for this framework to be determined at the time of Preliminary PUD.

Bicycle parking: The plan narrative indicates that a spot for bicycle parking is located on the Village owned plaza at the intersection of Dundee Road and Northgate Parkway. The site plan indicates bicycle parking for 5 is provided at the "Vestibule Park extension." The exact location of the parking is not located on the plan. The Plan Commission may wish to discuss this with the petitioner.

Site Lighting: The site lighting plan calls for a combination of parking lot pole-mounted lights and building-mounted lights. Specifications for the lighting standards are not provided. This information should be provided at Final PUD.

Ownership: The subject property is owned by the developer who intends to lease to the retail/restaurant tenants.

Sidewalks: There are existing public walks in the right-of-way along Northgate Parkway and Dundee Road. Per the request of the Plan Commission, the plan also proposes a connection to the Village-owned plaza at the southwest corner of the site. The connection requires installation of a "terrace" and walkway in the right-of-way.

LANDSCAPING PLAN REVIEW

Existing Landscaping to Remain: An existing conditions landscape plan is provided. The site is mostly vacant. It appears that nearly all trees will be removed from the site prior to construction.

Proposed Landscaping: The preliminary landscape plan includes shade trees, ornamental trees, large flowering shrubs, low shrubs, and dwarf flowering shrubs. The Plan Commission may also wish to encourage the installation of perennials, ground covers, seasonal flowers, and ornamental grasses. At time of Final PUD, a detailed plant list for the parking lot islands, foundation plantings, buffers, and detention basins should be provided.

Buffers and Screening: A"low flowering shrub buffer" is provided along the parking lots adjacent to Dundee Road and Northgate Parkway.

Landscape Irrigation: No reference to irrigation is provided. The Plan Commission may wish to discuss this requirement and require a delineated irrigated plan at Final PUD.

APPEARANCE REVIEW

Building/Unit Size: Two buildings are proposed. Building One (south building) is 6,370 sq. ft. in area. Building Two is 9,000 sq. ft. in area. The exact number of units in each building is unknown.

Elevation Plan Review: One elevation plan has been provided for the development that indicates a typical front and rear elevation. The Plan Commission had requested that the buildings be designed to be viewed from multiple sides. The Plan Commission should discuss if all elevation plans are desired at Preliminary PUD review.

The elevations provided indicate an end-unit with octagonal facades and a hipped roof that projects above the flat roofline of the other units. The flat roof is 22'3". The Octagonal unit has a ridge height of 30'6".

The primary exterior building material is block stone veneer and appears gray in color. The secondary exterior building material is face brick veneer in "red hue." There is also an unidentified pinkish/reddish wall material on the typical front elevation plan. The Plan Commission may wish to request details regarding all building wall materials and colors.

HVAC/Mechanical Components Screened: The screening of gas and electric meters are illustrated on the typical rear elevation plan. The proposed screen is a cedar fence enclosure. The Plan Commission may wish to discuss if rooftop units will be visible or screened.

Trash enclosure: An elevation of the trash enclosure is provided on the Elevation Plan. A single, centralized trash enclosure is located east of Building One, near the detention basin. The elevation indicates it will be 6-feet high with cedar gates, block veneer stone, and painted metal caps.

SIGNAGE PLAN REVIEW

The petitioner has indicated that all signs will conform to the Title 21 requirements with regard to backlighting and graphics. One monument sign is proposed on the site plan. Wall sign areas are designated on the building elevation plans.

STANDARDS FOR SPECIAL USE

Following are standards for a special use with the petitioner's responses in italics. **(Village Planner comments are in bold.)**

1. State why the Special Use is necessary for the public convenience at the proposed location.

"There are many national franchise restaurants that provide a valuable service to the community. With the many new residents that will be moving to Northgate Crossings the new franchise venue and our location will provide that service."

The Comprehensive Plan identifies a vibrant mix of uses for the town center and MXT District.

2. State how the Special Use will not alter the essential character of the area in which it is to be located.

"Dundee Road is a major state highway with over 32,000 vehicles using it per day. The zoning in this area is by design an appropriate use for this site. It will not alter the essential character of the area."

The proposed development is consistent with the concept of a mixed-use town center described in the Comprehensive Plan.

3. State how the location and size of the special use, the nature and intensity of the operation involved in or conducted in connection with it, the size of the site in relation to it, and the location of the site with respect to streets giving access to it, will be in harmony with and will not impede the normal, appropriate, and orderly development of the district in which it is to be located and the development of surrounding properties.

"The location of the building a good ratio of site use. The access points to the center provide easy in and out to Dundee Road with a controlled access at Dundee and Northgate. It will also provide easy access to Lake/Cook Road via Northgate Parkway. There is no conflict with adjacent properties. The use and location will not create noise, odor, smoke, or light that will affect other properties."

Staff has concerns regarding site access and safety. Staff believes that the draft traffic study should be corrected and finalized based upon the proposed site plan.

4. State how the location, nature and height of buildings, walls and fences, and the nature and extent of the landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings, or will not impair the value thereof.

"Careful use of site location, design height of building, property fence design, special attention given to choice of landscaping, natural rain garden designed by professional licensed landscaping architects will only enhance the value and development on adjacent properties with no negative impact on these properties."

The Plan Commission may wish to request additional details regarding building materials and landscaping prior to making a response to this standard.

5. State how the parking areas will be of adequate size for the particular use, properly located, and suitably screened from adjoining residential uses, entrance and exit drives shall be laid out so as to prevent traffic hazards and nuisances, and the development will not cause traffic congestion.

"Parking is adequate and we are not asking for relief of parking spaces. It properly located and suitable screened from adjacent residential use. There are no residents near-by."

Staff has concerns regarding site access and safety. Staff believes that the draft traffic study should be corrected and finalized based upon the proposed site plan.

6. State how the special use will conform to all applicable regulations and standards of the zoning district in which it is to be located.

"All restaurants are a special use in the Village of Wheeling, thus we are applying for this use. We are asking for no other variations or special use. Our property is located in a area that has flood-way issues thus causing undue hardship. We will be applying for TIF assistance and use all available comp-storage available to us. This land complies for TIF assistance. This property in its present use will not yield a reasonable value and return to the Village of Wheeling."

Staff has identified several variations that would be required based upon the current plan. The variations are identified under the CODE RELIEF REQUESTED section of this report.

STAFF REVIEW

Fire Department Review: The Fire Department has provided a comment memo, dated July 19, 2016. The Fire Department is requesting a turning radius analysis. The petitioner should also address comment #9, which states the dead-end parking lot on the south side of Building One exceeds the maximum 150' length for a fire access route. The memo also notes that the FDC for each building is not identified on the plans and may result in the loss of additional parking.

Engineering Division Review: The Engineering Division has provided a comment memo on July 20, 2016.

Impact on adjacent uses: Staff suggests that the Plan Commission request an update of the draft study so that the true impacts on adjacent uses can be identified based upon the current proposal.

Items requiring discussion or clarification

1. Location of bicycle parking.
2. Determine the purpose of the driving/parking lanes adjacent to the drive-through lanes.
3. Acknowledgment that a three-way stop will be required for the T-intersection.
4. Discuss the left-turn restriction to Northgate Parkway.
5. Discuss the reconfiguration of the Dundee Road access drive to three lanes.
6. Request that the parking lot drive aisles be increased from 24' to 25' in width.
7. Request a revised traffic study that references the correct site plan.
8. Discuss possible parking requirement frameworks to be agreed upon at Preliminary PUD.
9. Consider adding perennials, ground covers, seasonal flowers, and ornamental grasses.
10. Discuss the requirement of landscape irrigation and the timing of an irrigation plan.
11. Discuss if elevation plans for all sides of each building are required at Preliminary PUD.
12. Request additional details regarding wall material and colors.
13. Request material and color details of all trims and accent features.
14. Determine if rooftop units will be visible.
15. Request a turning radius analysis for the fire apparatus access roads.
16. Request the petitioner address the length of the fire access route along the south side of Building One.
17. Request the identification of each building's FCDs so that impacts on parking can be identified.

Staff Recommended Action: Staff suggests the Petitioner and Plan Commission review the above stated items for discussion or clarification. Staff believes the petitioner will need a second Plan Commission meeting to fully address all issues.

PROPOSED MOTION

If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of special use-site plan-building appearance approval for a Preliminary PUD Plan, an appropriate motion would be to:

Recommend approval of Docket No. 2016-15; PRELIMINARY Review of Special Use-Site Plan-Building Appearance for Dundee Commons Planned Unit Development, consisting of two one-story retail buildings with one-drive through restaurant each, as required under Chapter 19-05, Mixed-Use and Overlay Districts, Chapter 19-09 Planned Unit Developments, Chapter 19-10 Use Regulations, and Chapter 19-12 Site Plan Approval Requirements, as shown on the following plans/exhibits submitted on June 29, 2016 (except as noted), for the Dundee Commons Planned Unit Development to be located on the property currently known as 430 W. Dundee Road, Wheeling, Illinois:

- Project Narrative
- Signage Narrative

- Plat of Survey
- Engineering Plans (6 pages)
- Elevation Plan
- Existing Conditions Landscape Plan
- Proposed Preliminary Landscape Plan
- Photometric Plan
- Draft Traffic Impact Study (80 pages), received 7.14.2016

And with the following conditions of approval:

1. To be determined at hearing...

Andrew C. Jennings, AICP
Director of Community Development

Brooke A. Jones
Senior Planner

Attachments:

Fire Department review, dated 7.19.2016

Engineering Division review, dated 7.20.2016

Photo of existing conditions (staff)

Project Narrative

Signage Narrative

Plat of Survey

Engineering Plans (6 pages)

Elevation Plan

Existing Conditions Landscape Plan

Proposed Preliminary Landscape Plan

Photometric Plan

Draft Traffic Impact Study (80 pages)

MEMO – Fire Prevention Bureau

TO: Brooke Jones, Village Planner

FROM: Ronald S. Antor, Fire Inspector

CC: Andrew Jennings, Director of Community Development

Keith MacIsaac, Fire Chief

FPB File

DATE: July 19, 2016

SUBJECT: Proposed Multi-Tenant Shopping Center PUD (Dundee Commons) – Dundee Road and Northgate Parkway - Plans received for review by the Fire Department, July 6, 2016.

The Wheeling Fire Department has reviewed the submittals received related to the above referenced project and has the following comments:

Site Plan

1. The site plan reviewed includes two new one-story buildings with associated driveways, parking lots and surrounding landscaping features for the site.
2. A turning radius analysis was not included and needs to be provided to the Fire Department for review. Any required turns along the fire apparatus access roads shall be designed to accommodate a minimum inside vehicle turning radius of 23 feet and a minimum outside turning radius of 33 feet.
3. The Fire Department has concerns with access to the site for emergency apparatus due to the location of the entry drives to the site and their proximity to the intersection of Dundee Road and Northgate Parkway. A third entry to the site at the northern drive and parking lot would provide for better site access
4. The site water main shall comply with all Village of Wheeling Municipal Codes which includes, but is not limited to the "Manual of Practice for the Design of Public & Private Improvements" and the 2012 Edition of the International Fire Code. Water main improvements required would include:
    a. The site water main system shall be designed based on the fire flow requirements for the new structure. Based on the information provided to date, insufficient information has been provided to review this. An analysis of the needed fire flow shall be provided to the Wheeling Fire Department utilizing the ISO "Guide for Determination of Needed Fire Flow" with all supporting documentation and calculations.
    b. Additional looped water main lines shall be provided along the drive on the north and east sides of building two.

c. Additional fire hydrants shall be provided at the following locations:
    i. In the additional water mains along the north and east sides of Building 2.
    ii. Hydrant spacing shall not exceed 300 feet between hydrants.
    iii. A fire hydrant is required within 50 feet of each building's Fire Department Connection (FDC).

5. A separate fire service supply and domestic supply is required for each building. The fire service supply main size shall be based on the building's needed fire flow.
6. Trees and light fixtures along the drives shall not hang over the drives/parking lots in a manner that hinders Fire Department access. A minimum of 13'6" overhead clearance shall be provided over the fire apparatus access roads. This may not be provided along drives where the shade trees are shown.
7. A clear space of at least 4-feet shall be maintained around the circumference of any fire hydrants. This includes light fixtures, transformers, and landscaping.
8. Other site landscaping features shall not impede access to fire protection equipment, i.e. Fire Department Connection (FDC).
9. The dead-end parking lot on the south side of building one exceeds the maximum 150 foot length for a fire access route.

Dundee Commons Shopping Center – Dundee Road and Northgate Parkway – Two new one-story building multi-tenant shopping center PUD

1. The petitioner's submittal shows two one-story buildings, one at 6,370 square feet and the second at 9,000 square feet. Other than one potential restaurant for each building, the submittal does not indicate what types of occupancies are planned for the individual tenant spaces. Anticipated Use Groups for the occupancies could include (A) Assembly, (B) Business and (M) Mercantile Use Group occupancies as defined in the 2012 Edition of the International Building (IBC) and Fire Prevention Codes (IFC).
2. All construction for the new building would need to comply with the Village's Building and Fire Prevention Codes (2012 Editions of the International Building Code & International Fire Code – with amendments). The current submittal documents do not contain sufficient information to evaluate the proposed building related to these codes. Some of the code requirements that this would include are:
    a. Height/area requirements based on construction type and use.
    b. The buildings are required to be fully sprinklered with a system designed and installed in accordance with NFPA 13.
    c. The building is required to be provided with a monitored fire alarm system designed and installed in accordance with NFPA 72.

d. Any kitchen cooking equipment that is required to be provided with a Type I exhaust hood shall be protected with a fire extinguishing system designed and installed in accordance with NFPA 17A.

3. The Fire Department Connection (FDC) for each building's fire sprinkler system shall be located at the front of the building or other location as approved by the Fire Department. This information is not provided and location of the FDC may require the elimination of parking spaces.

At this time there are no other Fire Department comments related to the project as presented in the documents reviewed.

MEMORANDUM

TO: Brooke Jones, Senior Planner

FROM: Kyle Goetzelmann, Civil Engineer I

COPY: Jon Tack, Village Engineer

DATE: **July 15th, 2016**

SUBJECT: **Dundee Commons Retail Development**
404 W. Dundee Road – Engineering Review Comments

The Engineering Division received a Cover Letter, Alta Land Survey, Traffic Study, Site Plan, Preliminary Storm water Report, Lighting Plan, Elevations, and Sign Descriptions for the subject project on July 6th, 2016. The Engineering Division has completed a review of the above referenced submittal and offers the following comments at this time:

1. Water level in the parking lot that is located in the floodway must not exceed 1 foot in depth [22.16.050(H)]
2. The developer must provide a written request for storm water compensatory storage credits to be obtained from Heritage Lake. The compensatory storage requirements according Village code 22.80.018 state the excavation volume shall be at least equal to one and one-half times the volume of storage lost due to the fill or structure.
3. 100 year overland flow routes must be identified for the development.
4. Some of the gutter grades at the north edge of the parking lot appear to be lower than the berm surrounding the basin. Will the rip-rap be slightly lower than that 646.0' berm to allow positive drainage into the basin?
5. Separate domestic and fire water service lines must be used for each building.
6. If the buildings are intended to be restaurants, exterior underground grease traps will be required.
7. West, South and East parking lots have an aisle width of 24'. The Village code states that a 25' width is needed for parking aisles.
8. ADA Parking needed for North building.
9. Provide turning radius analysis.
10. Site distance analysis for Northgate Parkway access.

Received July 20, 2016

11. Letter of map amendment for development will be required.
12. Owner needs to consider stream bank stabilization of Buffalo Creek and what impact their development will have on the stream bank.
13. Basin dewatering design is required.
14. All Village details and notes will be required.
15. Engineer's estimate of construction cost is required.
16. MWRD, IEPA and Village of Wheeling Engineering and Site Alteration permits will be needed.

Dundee Commons – 430 W. Dundee Road

Docket No. 2016-15 (Preliminary Planned Unit Development Approval for Retail Use in the MXT District)
Plan Commission Meeting – July 28, 2016

Existing conditions of the vacant property (looking north)

Dundee Commons
Preliminary PUD Plan Narrative

The project consists of 2 one story buildings with drive thru restaurants in each. A special use for the restaurants will be required. The standards established in Title 19 Chapter 9 of the Zoning Code are met. Please look at the Site Geometry Plan prepared by Haegar Associates the plan indicates the Landscape buffers, Building locations, Driveway flows, and ingress and egress.

At the Concept Review Meeting the direction we received asked for placing the access off of Northgate Parkway as far to the north as possible. The Civil Engineer attempted that but the existing Topograpy would not allow us to move it to the top of the site. There are severe topographical issues. The Grade at the street is 5' above the grade on the property. The access must be slid down to the south. Since the developers master plan calls for development of parcels to the east of the property an access road to those parcels is allowed for as the extension of this access. This is indicated on the Geometry Plan and all the subsequent engineering plans.

A concern was raised that complete engineering had not been done for the site. The engineering developed by Haeger associates has now been developed. Storm water detention is now shown to the East and to the North of the development. Extensive detention is required.

Parking has been revised to comply with the 5.5 per thousand square foot requirement. The total number of parking spaces required is met. Please see the Project Statistic sheet.

As requested by the review a Vest Pocket Park connection is now beautifully accommodated by a paved area adjacent to the site. Please see the Landscape Plan. A spot for Bike Parking is now located here.

Another suggestion was the use of a centralized Trash Enclosure. We now have moved the trash enclosure to an area adjacent to the connecting access. The large paving area adjacent to the drive thru at the building also has been made smaller at the suggestion of the commissioners.

To alleviate the concern of a dead end in case all the parking spots were filled a dedicated turnaround area is now shown on the Site Plan.

The Rear elevations since they will always be visible will have detailing and signage. Awnings have been added. Utilities are screened with materials that match the building. The trash enclosure matches.

EXHIBITS

- Preliminary Engineering Plans – 5 pages by Haegar Engineering
- Vicinity Map- Haegar Engineering
- Existing Conditions Plan – by Exterior Dimensions -Landscape Architect
- Preliminary Landscape Plan - – by Exterior Dimensions -Landscape Architect
- Typical Building Exterior Elevations – by Chicago Workshop Architects
- Signage Plan – by Chicago Workshop Architects
- Preliminary list of Variations from Title 19, 17 and Title 21

Dundee Commons
Preliminary List of Variations from Title 19, 17 and 21.

A special use will be required for the Drive Thru Restaurants for Buildings One and Two.

All tenants will require signs on all building facades of their space. The sign size shall be a maximum of 60 sq. ft.

Dundee Commons
Signage Plan

All signs will conform to Title 21 Village of Wheeling with regards to, backlighting and graphics.

Individual Block lettering will be required. A maximum of 60 square foot will be allowed on each face of a façade that the Tenant leases.

CHICAGO WORKSHOP ARCHITECTS

P.I.N. No. 03-02-316-048
03-02-316-049
03-02-316-050
03-02-316-051
03-02-316-052

ALTA / ACSM LAND TITLE SURVEY

OF

PARCEL 1:

~~LOT 1 (EXCEPT THE EAST 210 FEET THEREOF AND EXCEPT THE SOUTH 17 FEET THEREOF)~~ IN WHEELING HEIGHTS, BEING A SUBDIVISION OF THE EAST 50.01 ACRES OF THE SKINNER FARM IN THE SOUTHWEST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 2:

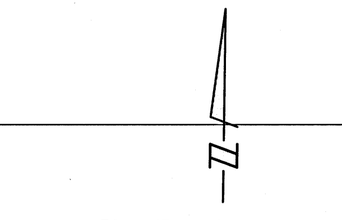
THE WEST 100 FEET (EXCEPT THE SOUTH 17 FEET THEREOF) OF THE EAST 210 FEET OF LOT 1 IN WHEELING HEIGHTS, BEING A SUBDIVISION OF THE EAST 50.01 ACRES OF THE SKINNER FARM IN THE SOUTHWEST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

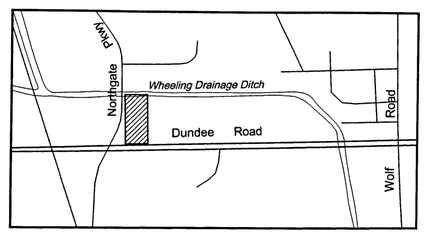
LEGEND

- Manhole
- Catch Basin
- Inlet
- Fire Hydrant
- Valve Box
- B-Box
- Light Pole
- Hand Hole
- Pipe Bollard
- Sign
- OHW — Overhead Utility Line
- Guy Wire
- Utility Pole
- (X) — Number of Parking Stalls
- Curb & Gutter
- Depressed Curb
- O.L. — On Line
- R — Record
- M — Measured

PARKING SUMMARY

Regular Spaces	*15*
Accessible Spaces	*0*
TOTAL	*15*





LOCATION MAP
NOT TO SCALE

Outot A

EDGEBROOK BUSINESS CENTER SUBDIVISION
Rec. As Doc. No. 85253758

℄ Ditch
Top of Bank
Drainage Easement

WHEELING DRAINAGE DITCH

Heretofore Dedicated per Doc. No. 6572881
Found Iron Pipe 0.81' W, 0.27'S
Found Iron Pipe at Corner
N 88° 20' 59" E 276.00'
33'
33.02'
176.00'
100.00'
110.00'
4" PVC Pipe
Flap Gate
Conc. Bridge Wall
Conc. Bridge
Zone AE Floodway
Zone X
Limits of Zone AE Floodway scaled in per 17031C0068J
Zone AE
Limits of Zone AE scaled in per 17031C0068J
NORTHGATE PARKWAY
Conc. Walk
Bit. Apron
Bit. Drive
Bituminous Pavement
Cinder Block Wall
Electrical Control Box
Brick Paver Walk
Set Cross Notch at Corner
Set Iron Pipe at Corner
Bituminous Path
S 88° 14' 12" W 276.02'
North Line of the South 17 feet of Lot 1
N 00° 28' 39" E 467.30'
549.84' (M) 550' (R)
S 00° 28' 39" W 466.75'
549.53' (M) 550' (R)
West Line of the East 210' of Lot 1
East line of the West 100' of the East 210' of Lot 1
49.52'
49.76'
PARCEL 1
AREA = 82,161 S.F.
1.8861 Ac.
PARCEL 2
AREA = 46,650 S.F.
1.0709 Ac.
Heretofore Dedicated per Doc. No. 6572881
Center Line of Dundee Road
DUNDEE ROAD
IL RTE 68

Surveyor's notes:

1. The basis of bearing shown hereon is assumed.
2. Underground utilities are not shown hereon.
3. Based on information provided on the Flood Insurance Rate Map Community – Panel No. 17031C0068 J dated August 19, 2008 produced by the Federal Emergency Management Agency (FEMA) for Cook County, Illinois, the property shown and described hereon is located within Zone X(shaded), which is defined by FEMA as "Areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood",and Zoned AE - Special Flood Hazard Areas (SFHAs) Subject to Inundation by the 1% Annual Chance Flood, "Base Flood Elevations determined".
4. The flood zones shown hereon are only approximate as taken from the FEMA Flood Insurance Rate Maps referenced in the Surveyor's Notes.
5. In the preparation of this survey reference was made to Old Republic National Title Insurance Company Commitment for Title Insurance File No. 1558839 with an Effective Date of December 14, 2015.

AREA SUMMARY

PARCEL 1	82,161 S.F.	1.8861 AC.
PARCEL 2	46,650 S.F.	1.0709 AC.
	128,811 S.F.	2.9570 AC.

State of Illinois)
) SS:
County of Cook)

To: 400 West Dundee Wheeling LLC
Old Republic National Title Insurance Company its successors and/or assigns,

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 3, 4, 8, 9, and 11a of Table A thereof. The field work was completed on December 28, 2015.

This professional service conforms to the current Illinois minimum standards for a boundary survey.

Schaumburg, Illinois December 29, 2015

By: _____
Illinois Professional Land Surveyor No. 3760

STATE OF ILLINOIS
LEENDERT KLEINJAN
035-3760
SCHAUMBURG, ILLINOIS
PROFESSIONAL LAND SURVEYOR
EXPIRES 11-30-16

HAEGER ENGINEERING LLC
Illinois Professional Design Firm No. 184-003152
Consulting Engineers and Land Surveyors
1304 N. Plum Grove Road
Schaumburg, Illinois 60173
Tel: 847/394-6600 Fax: 847/394-6608

Exhibit received June 29, 2016

Ordered By: 400 West Dundee Wheeling LLC
Order No. : 15-211

HAEGER ENGINEERING
consulting engineers • land surveyors
1304 N. Plum Grove Road, Schaumburg, IL 60173
Tel: 847.394.6600 Fax: 847.394.6608
Illinois Professional Design Firm License No. 184-003152
www.haegerengineering.com

Plot Date: Dec 29, 2015 - 12:28pm Plotted By: mike-a Layout: 24x36-Surv-PT
File Name: P:\2015\15211\Drawings\Final Survey\15211-ALTA-ACSM LTS.dwg

15-211

DUNDEE COMMONS
PRELIMINARY ENGINEERING PLANS
RETAIL DEVELOPMENT

SECTIONS 2 TOWNSHIP 42N RANGE 11E
WHEELING, ILLINOIS
COOK COUNTY

DEVELOPER / SUBDIVIDER:

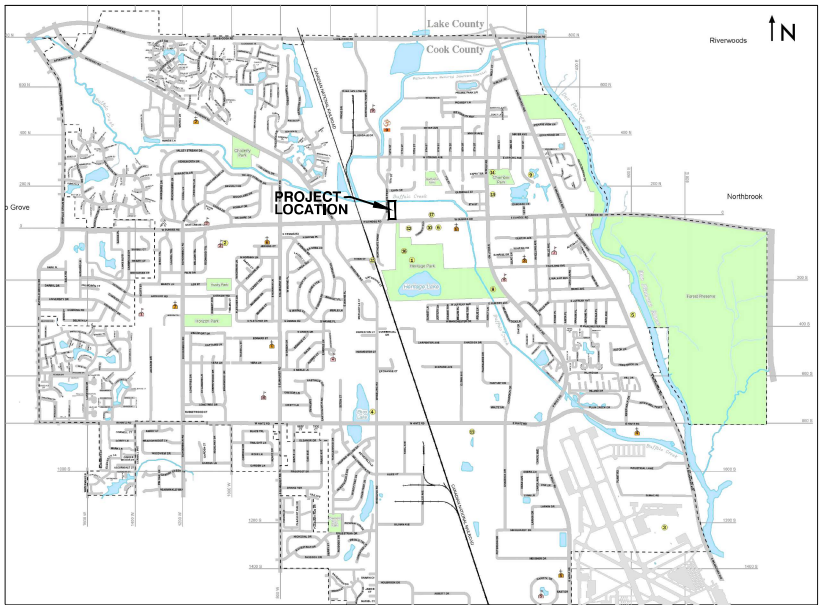
Neder Capital Services
350 E. Dundee Road, Suite 305
Wheeling, IL 60090

PREPARED BY:

Haeger Engineering LLC
Illinois Prof. Design Firm #184-003152
1304 N. Plum Grove Road
Schaumburg, IL 60173
Tel: 847-394-6600

VILLAGE OF WHEELING

2 Community Boulevard
Wheeling, IL 60090
Tel: 847-459-2600



LOCATION MAP
Not to Scale

Benchmark

Source Benchmark

Description: Wheeling BM # 8
Brass Disk on Head Wall
Location: West Side Northgate Parkway 160 Feet North of Dundee Rd.
Elevation: 652.118 NAVD 88

Site Benchmark

CP # 12010 (See Survey)
Description: Mag Nail
Elevation: 645.97 NAVD 88

INDEX TO SHEETS

NO.	DESCRIPTION
C1.0	TITLE SHEET
C2.0	EXISTING CONDITIONS & DEMOLITION PLAN
C3.0	PRELIMINARY SITE GEOMETRY PLAN
C4.0	PRELIMINARY SITE GRADING & EROSION CONTROL PLAN
C5.0	PRELIMINARY SITE UTILITY PLAN

LEGAL DESCRIPTION

PARCEL 1:

LOT 1 (EXCEPT THE EAST 210 FEET THEREOF AND EXCEPT THE SOUTH 17 FEET THEREOF) IN WHEELING HEIGHTS, BEING A SUBDIVISION OF THE EAST 50.01 ACRES OF THE SKINNER FARM IN THE SOUTHWEST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 2:

THE WEST 100 FEET (EXCEPT THE SOUTH 17 FEET THEREOF) OF THE EAST 210 FEET OF LOT 1 IN WHEELING HEIGHTS, BEING A SUBDIVISION OF THE EAST 50.01 ACRES OF THE SKINNER FARM IN THE SOUTHWEST 1/4 OF SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

LEGEND

Existing Symbol	Description	Proposed Symbol
	Storm Sewer Manhole	
	Catch Basin	
	Inlet	
	Flared End Section	
	Headwall	
	Area Drain	
	Sanitary Sewer Manhole	
C.O.	Clean Out	C.O.
	Storm Sewer	
	Storm Sewer Service	
	Perforated Underdrain	
	Sanitary Sewer	
	Sanitary Sewer Service	
	Combined Sewer	
FM	Force Main	FM
W	Water Main	
	Water Main Service	
	Fire Hydrant	
	Valve Vault	
	Valve Box	
	B-Box	
	Well Head	
	Light Pole	
	Light Pole With Mast Arm	
	Traffic Signal	
	Traffic Signal With Mast Arm	
	Hand Hole	
	Fence	
	Guardrail	
	Pipe Bollard	
	Sign	
	Gas Valve	
G	Gas Line	G
E	Electric Line	E
OHW	Overhead Utility Line	OHW
FO	Fiber Optic Line	FO
	Electrical Pedestal	
E	Electric Manhole	
	Guy Wire	
	Utility Pole	
	Telephone Pedestal	
T	Telephone Manhole	
T	Telephone Line	T
CATV	Cable TV Line	CATV
	Cable TV Pedestal	
	Flagpole	
M	Mailbox	M
	Handicapped Parking Stall	
X	Number of Parking Stalls	X
	Curb & Gutter	
	Reverse Pitch Curb & Gutter	
	Depressed Curb	
	Retaining Wall	
C XXX.XX G/P XXX.XX	Curb Elevation and Gutter/Pavement Elevation	C XXX.XX G XXX.XX
XXX.XX	Pavement Elevation	P XXX.XX
XXX.XX	Sidewalk Elevation	W XXX.XX
XXX.X +	Ground Elevation	XXX.X
	Open Lid Frame & Grate	Gr XXX.XX
	Closed Lid Frame & Lid	Rim XXX.XX
	Swale	
	Hardscape Flow	
	Softscape Flow	
100	Contour Line	100
	Deciduous Tree	
	Coniferous Tree	
	Brushline	

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

Note:
Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

Exhibit received June 29, 2016

062-053274
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STATE OF ILLINOIS
EXPIRES 11-30-17

No.	Date	Revision

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www.haegerengineering.com

TITLE SHEET

DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES

Project Manager:	M.L.A.
Engineer:	M.L.A.
Date:	6.29.2016
Project No.	15-211
Sheet	C1.0 / C5

Plot Date: Jun 29, 2016 - 10:37am Plotted By: mlaw
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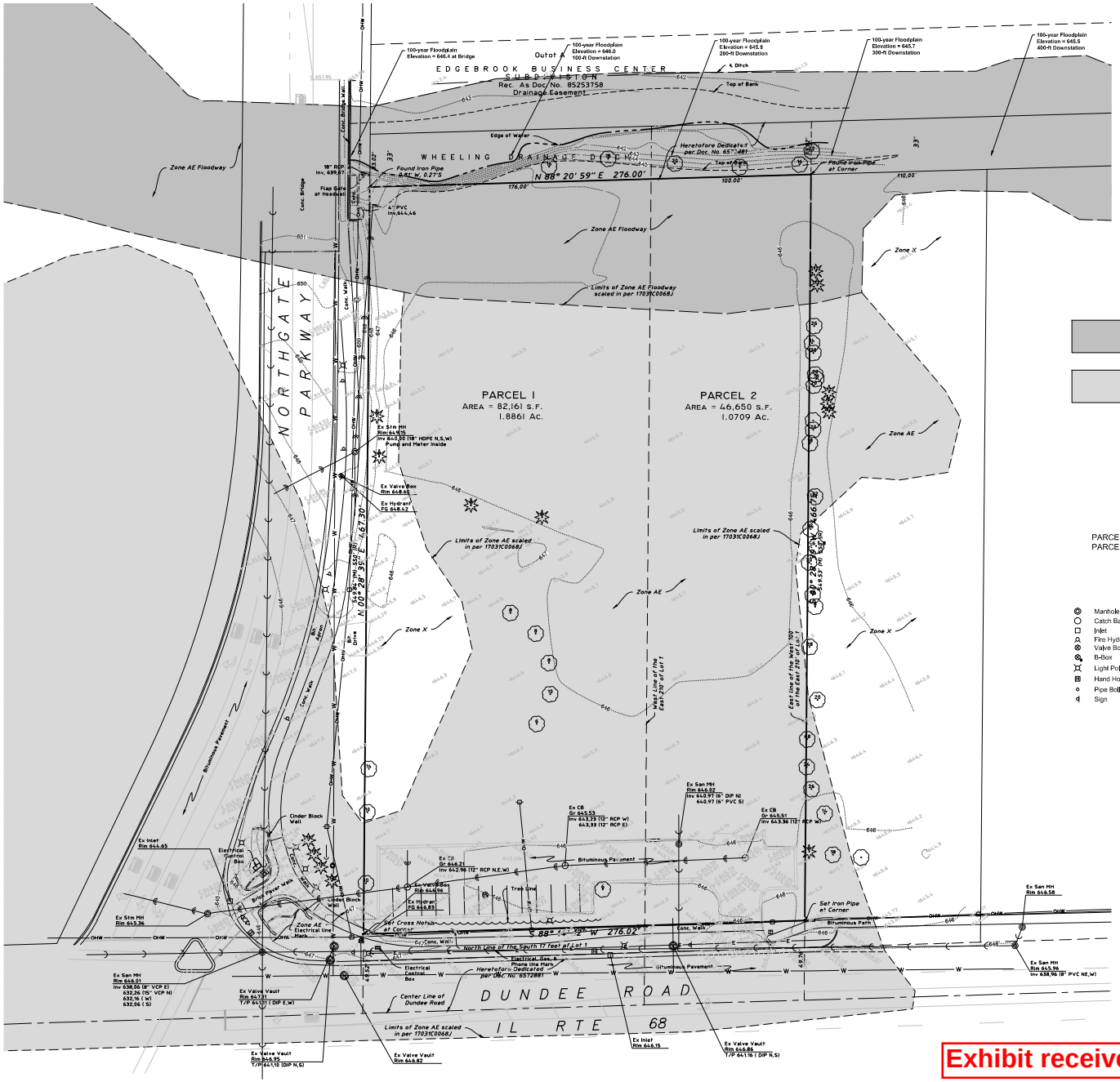

LEGEND

- Floodway
- Zone AE Floodplain

AREA SUMMARY

PARCEL 1	82,161 S.F.	1.8861 AC.
PARCEL 2	46,650 S.F.	1.0709 AC.
	128,811 S.F.	2.9570 AC.

LEGEND

- Manhole
- Catch Basin
- Inlet
- Fire Hydrant
- Valve Box
- B-Box
- Light Pole
- Hand Hole
- Pipe Bollard
- Sign
- OHW — Overhead Utility Line
- Guy Wire
- Utility Pole
- (X) Number of Parking Stalls
- Curb & Gutter
- Depressed Curb
- O.L. On Line
- R Record
- M Measured

Benchmark

Source Benchmark

Description: Wheeling BM # 8
Brass Disk on Head Wall
Location: West Side Northgate Parkway 160 Feet North of Dundee Rd.
Elevation: 652.118 NAVD 88

Site Benchmark

CP # 12010 (See Survey)
Description: Mag Nail
Elevation: 645.97 NAVD 88

Exhibit received June 29, 2016

NORTH
Scale: 1" = 30'

No. | Date | Revision

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www.haegerengineering.com

EXISTING CONDITIONS PLAN
DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

Project Manager: M.L.A.
Engineer: M.L.A.
Date: 6.29.2016
Project No. 15-211
Sheet C2.0 / C5

Plot Date: Jun 29, 2016 - 10:39am Plotted By: mlaw
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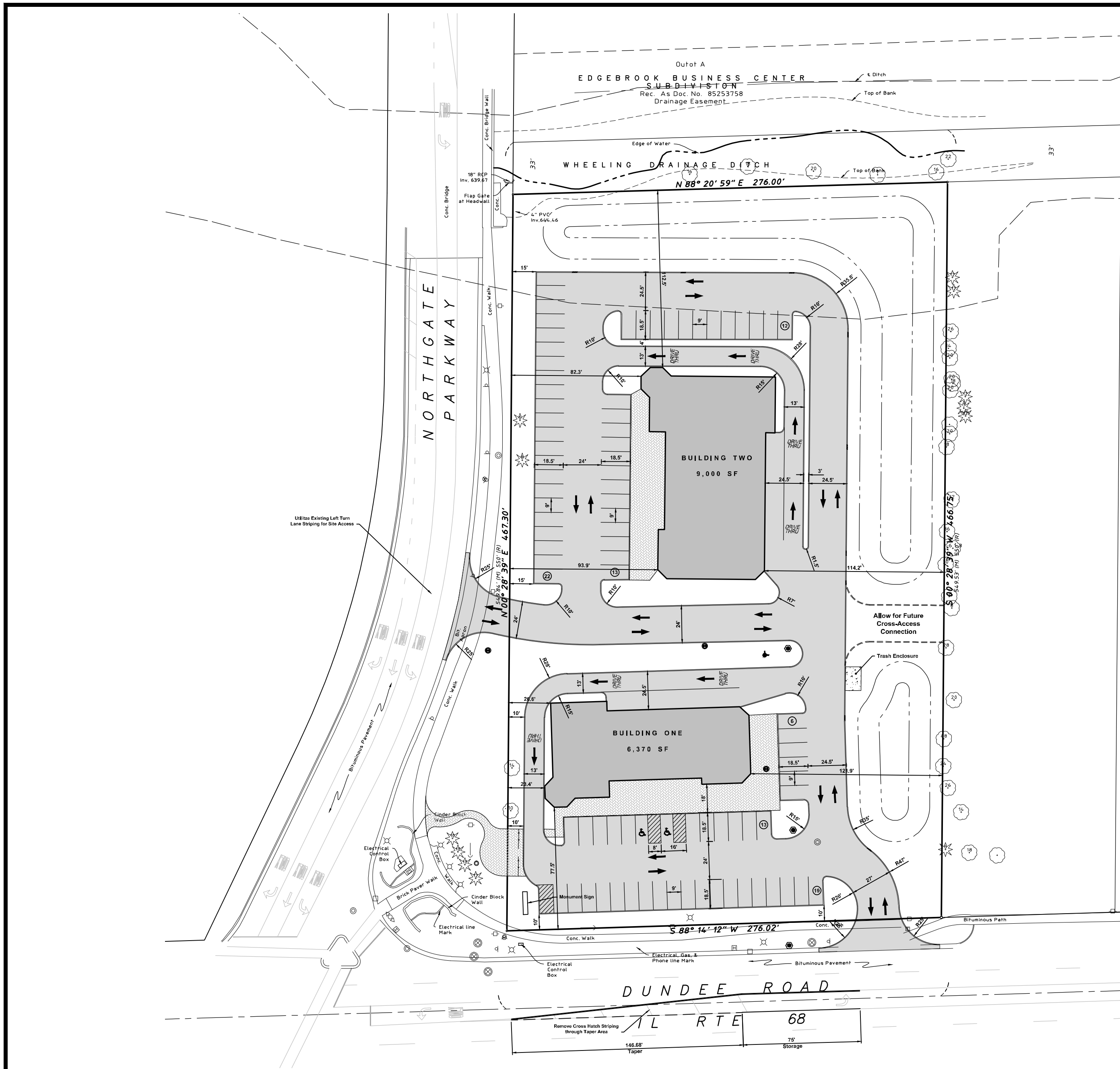

PROJECT STATISTICS

Site Area	128,111 sq. ft.	2.96 Acres	100%
Buildings	15,370 sq. ft.	.35 Acres	12%
Parking and Drives	83,200 sq.ft.	1.91 Acres	65%
Open Space	30,492 sq.ft.	.70 Acres	24%
Building One	6,370 sq. ft		
Building Two	9,000 sq. ft.		
Parking required Bldg 1 @ 5.5/1000=	35 spaces		
Parking provided Bldg 1 =	38 spaces		
Parking required Bldg 2 @5.5/1000=	50 spaces		
Parking provided Bldg 2 =	47 spaces		

Bike Parking at Vestibule Park extension = 5 spaces

Building 1 Use is Retail and Drive thru Restaurant One Story 22'-8" To top of Parapet Wall

Building 2 Use is Retail and Drive thru Restaurant One Story 22'-8" To top of Parapet Wall

No. | Date | Revision

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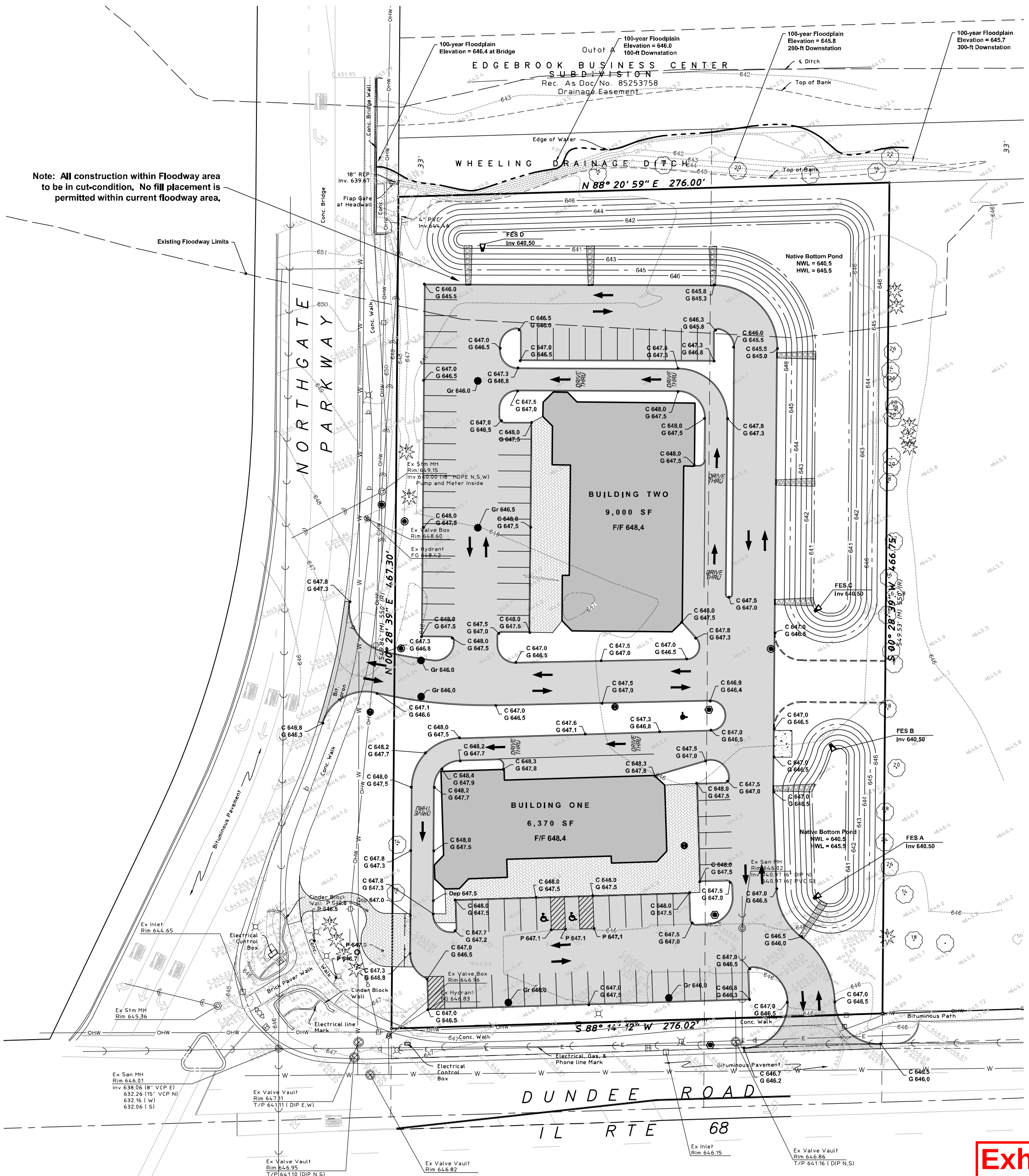
PRELIMINARY SITE GEOMETRY PLAN

DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

Project Manager: MLA
Engineer: MLA
Date: 6.29.2016
Project No. 15-211
Sheet C3.0 / C5

Exhibit received June 29, 2016



DETENTION SUMMARY

Project Area	**2.96 ac.**
Impervious Area	**2.26 ac.**
Pervious Area	**0.70 ac.**
Weighted CN	**90**
Required Detention Volume, std.	**0.67 ac-ft**
Required Detention Volume, Zero Release	**1.58 ac-ft**

Detention Volume Storage provided in surface detention pond.

COMPENSATORY STORAGE SUMMARY

	(cu.ft.)	(ac-ft)
Overall Site Existing Floodplain Volume	**14,960**	**0.34**
Proposed Site Floodplain Fill Volume	**14,200**	**0.33**

Compensatory Storage provided by Village comp.storage credits within the Heritage Park system.

NORTH
Scale: 1" = 30'

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PRELIMINARY SITE GRADING & EROSION CONTROL PLAN

DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

Project Manager:	M L A
Engineer:	M L A
Date:	6.29.2016
Project No.	15-211
Sheet	C4.0 / C5

Exhibit received June 29, 2016

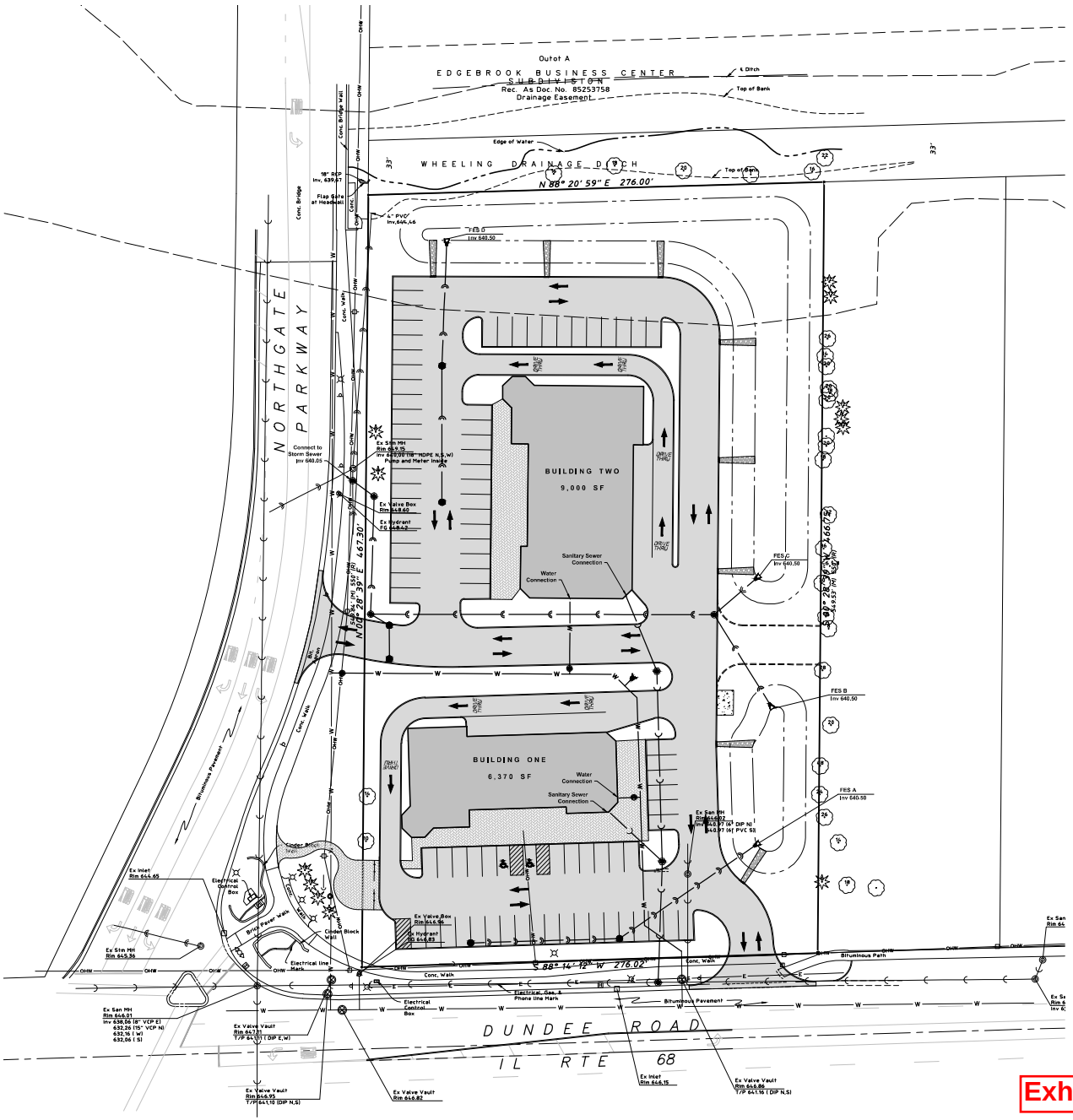

Exhibit received June 29, 2016

NORTH

Scale: 1" = 30'

No.	Date	Revision

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www.haegerengineering.com

PRELIMINARY SITE UTILITY PLAN

DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

Project Manager:	M.L.A.
Engineer:	M.L.A.
Date:	6.29.2016
Project No.	15-211
Sheet	C5.0 / C5

Plot Date: Jun 29, 2016 - 10:39am Plotted By: mlaw
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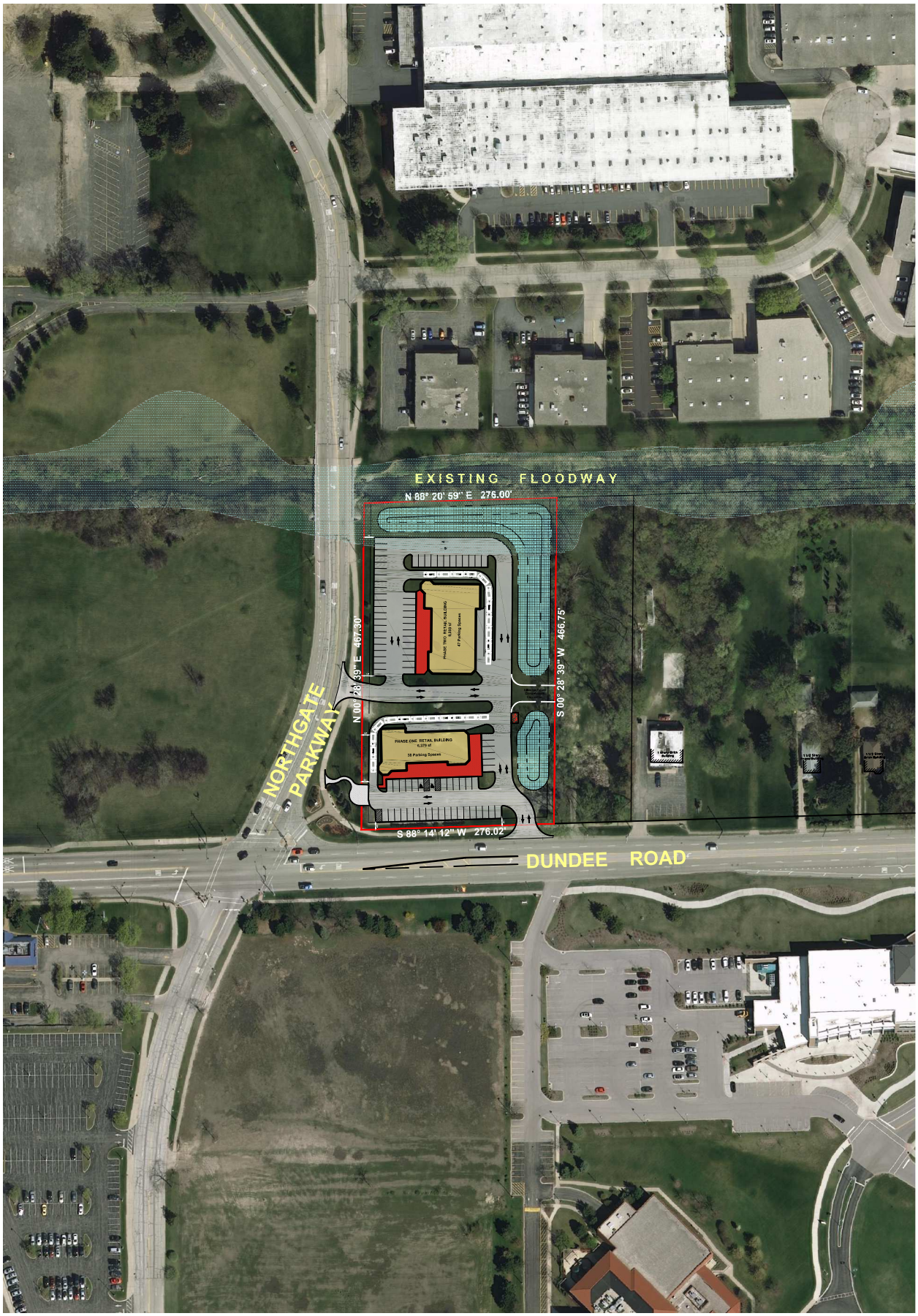

PROPOSED SITE VICINITY PLAN

DUNDEE COMMONS
WHEELING, IL
NEDER CAPITAL SERVICES

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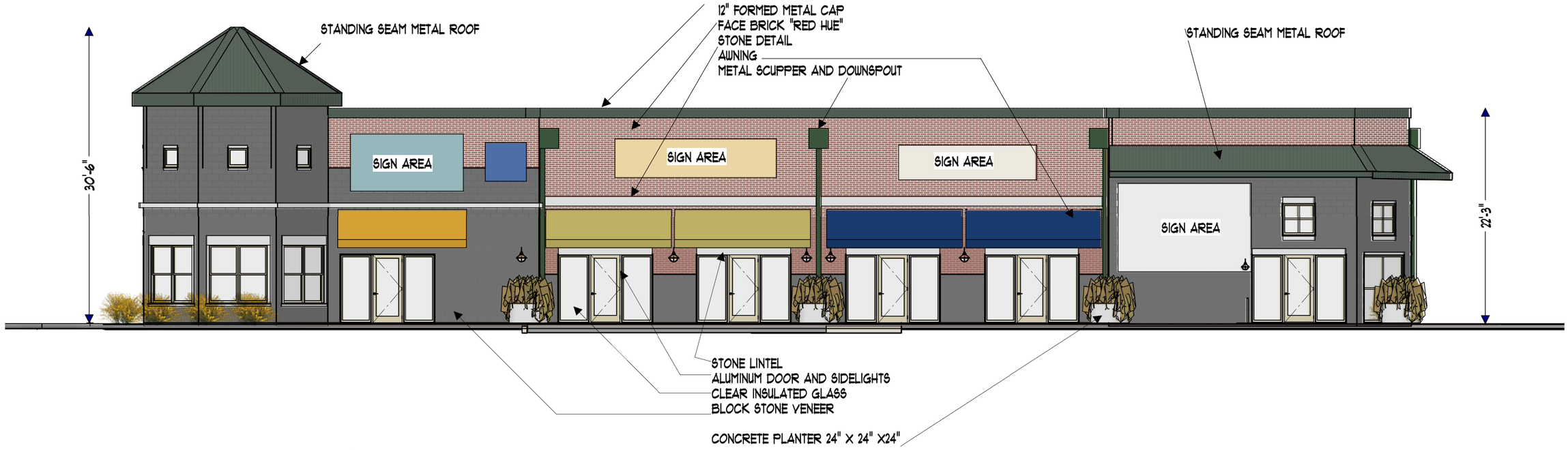
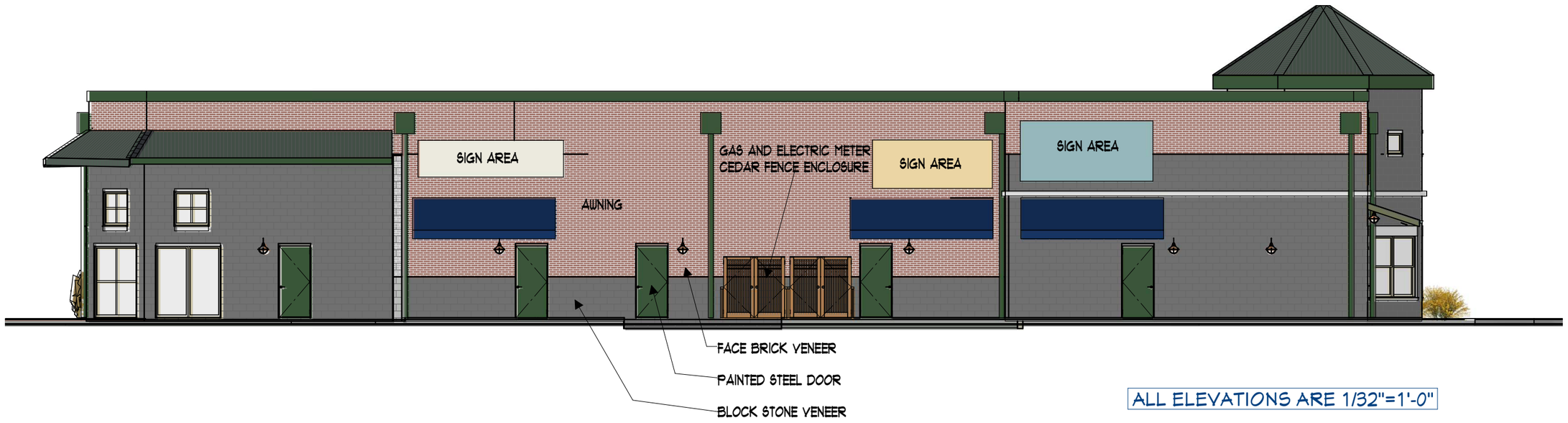
NORTH
0 130
Scale: 1" = 130'

Project Manager: M L A
Engineer: M L A
Date: 05.03.2016
Project No. 15-211
Sheet



TYPICAL FRONT ELEVATION

CENTRAL TRASH ENCLOSURE



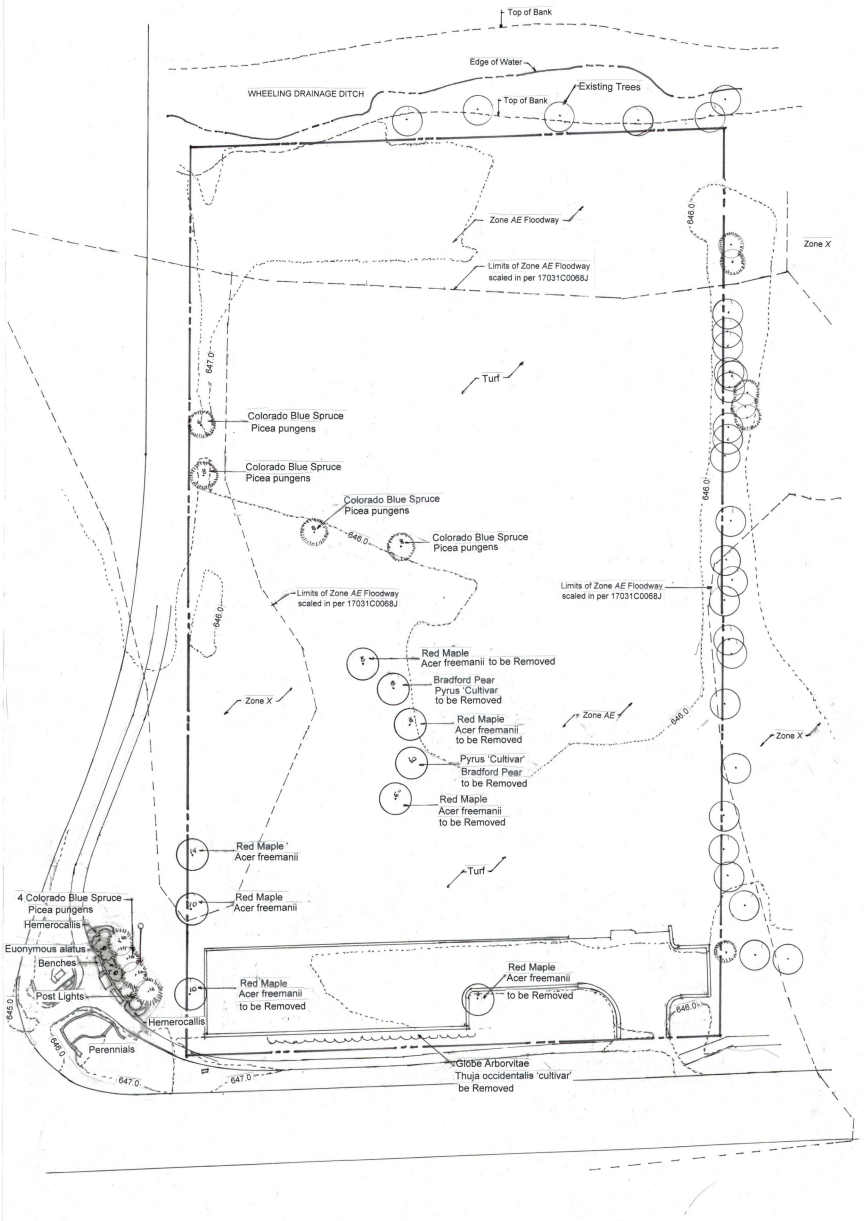
ALL ELEVATIONS ARE 1/32"=1'-0"

TYPICAL REAR ELEVATION

DUNDEE COMMONS PRELIMINARY PUD

Exhibit received June 29, 2016

CHICAGO WORKSHOP ARCHITECTS

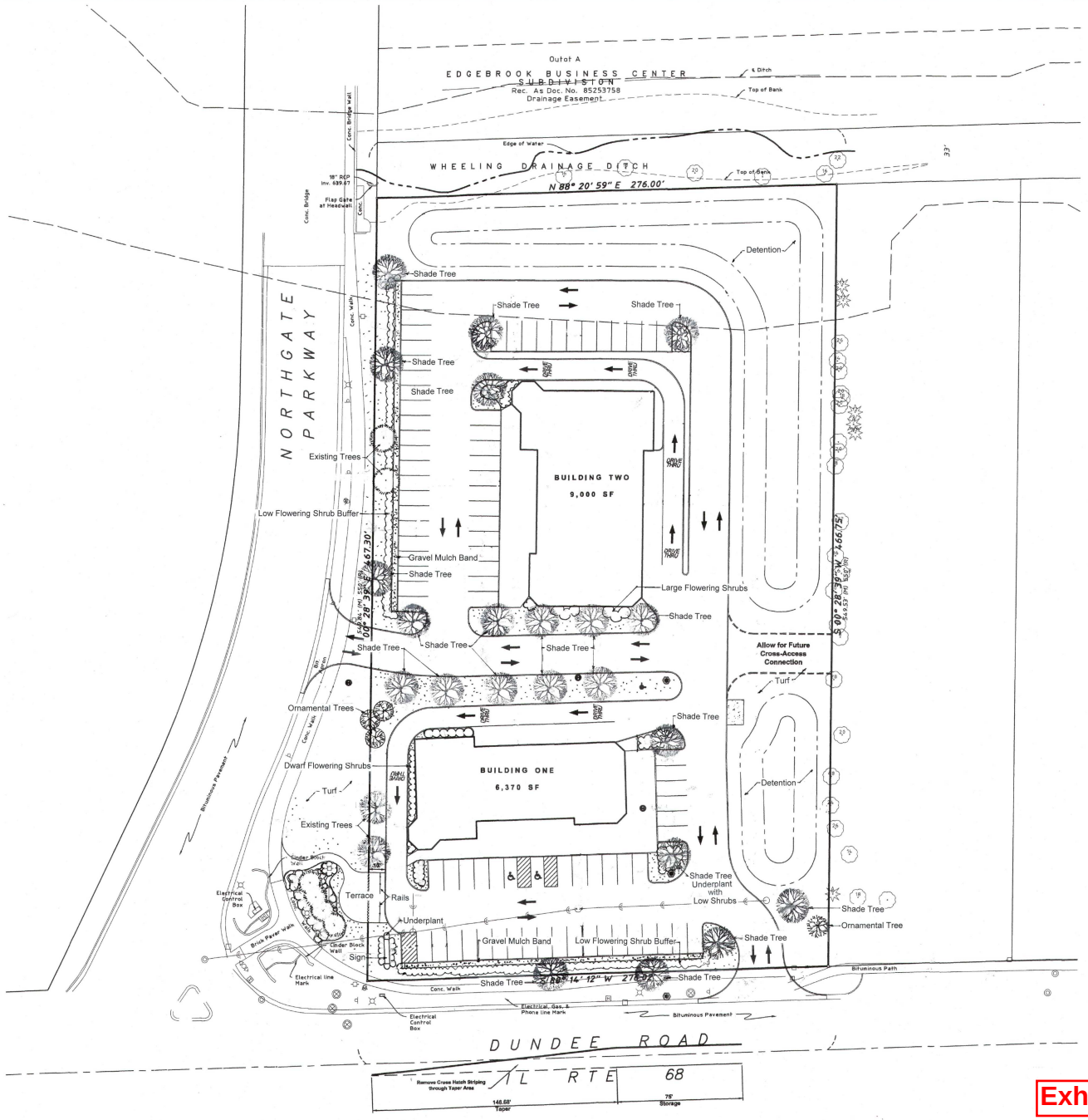


1 **EXISTING CONDITIONS**

Scale: 1" = 30'

Exhibit received June 29, 2016

DUNDEE COMMONS WHEELING, ILLINOIS		
SCALE: As Shown	APPROVED BY:	DRAWN BY WE
DATE: 6-27-16		REVISED
		DRAWING NUMBER



NORTH
Scale: 1" = 30'

EXTERIOR DIMENSIONS landscape architecture
765 Old Mill Grove Road, Lake Zurich, IL 847-882-0193

PRELIMINARY LANDSCAPE PLAN

DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

Exhibit received June 29, 2016

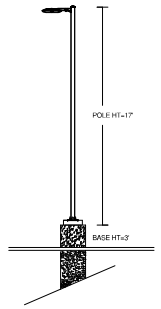
Plot Date: Jun 28, 2016 - 3:10pm Plotted By: jason-h
File Name: P:\2015\15211\Drawings\Preliminary\15211-PRELIMINARY.dwg

Luminaire Schedule / "Did you know that utility rebates can cover 25% or more of a product's cost? Email rebates@cree.com to get help on your project!"							
Symbol	Qty	Label	Arrangement	Lumens/Lamp	LLF	Description	Lum. Watts
	15	OSQ-4ME w BLS	SINGLE	9747	0.930	OSQ-A-NM-4ME-A-57K-XX-XX (W/ OSQ-BLSMF BACKLIGHT SHIELD)	112
	3	OSQ 2ME w BLS	SINGLE	9985	0.930	OSQ-A-NM-2ME-A-57K-XX-XX (W/ OSQ-BLSMF BACKLIGHT SHIELD)	112
	2	A XSPW Type 2	SINGLE	2722	1.000	XSPW-A-2-2-M-SX-X	25
	1	OSQ-4ME-2	BACK-BACK	11412	0.930	OSQ-A-NM-4ME-A-57K-XX-XX	112

Footcandles calculated using predicted lumen values after 50K hours of operation					
Label	Avg	Max	Min	Avg/Min	Max/Min
SITE	2.35	6.9	0.5	4.70	13.80
BUILDING 1 LOT	2.29	6.1	0.5	4.58	12.20
BUILDING 2 LOT	2.38	6.9	0.5	4.76	13.80

FIXTURE MOUNTING HEIGHT: AS SHOWN
PROPOSED POLES MEET 140 MPH SUSTAINED WINDS
CUSTOMER TO VERIFY VOLTAGE & COLOR BEFORE ORDERING

ADDITIONAL REQUIRED EQUIPMENT
(29) - OSQ-DAXX (DIRECT MOUNT ARM)
(18) - PS4S17C1XX (17' X 4" SQUARE STEEL POLES, SINGLE MOUNT)
(1) - PS4S17C2XX (17' X 4" SQUARE STEEL POLES, TWIN 180° MOUNT)



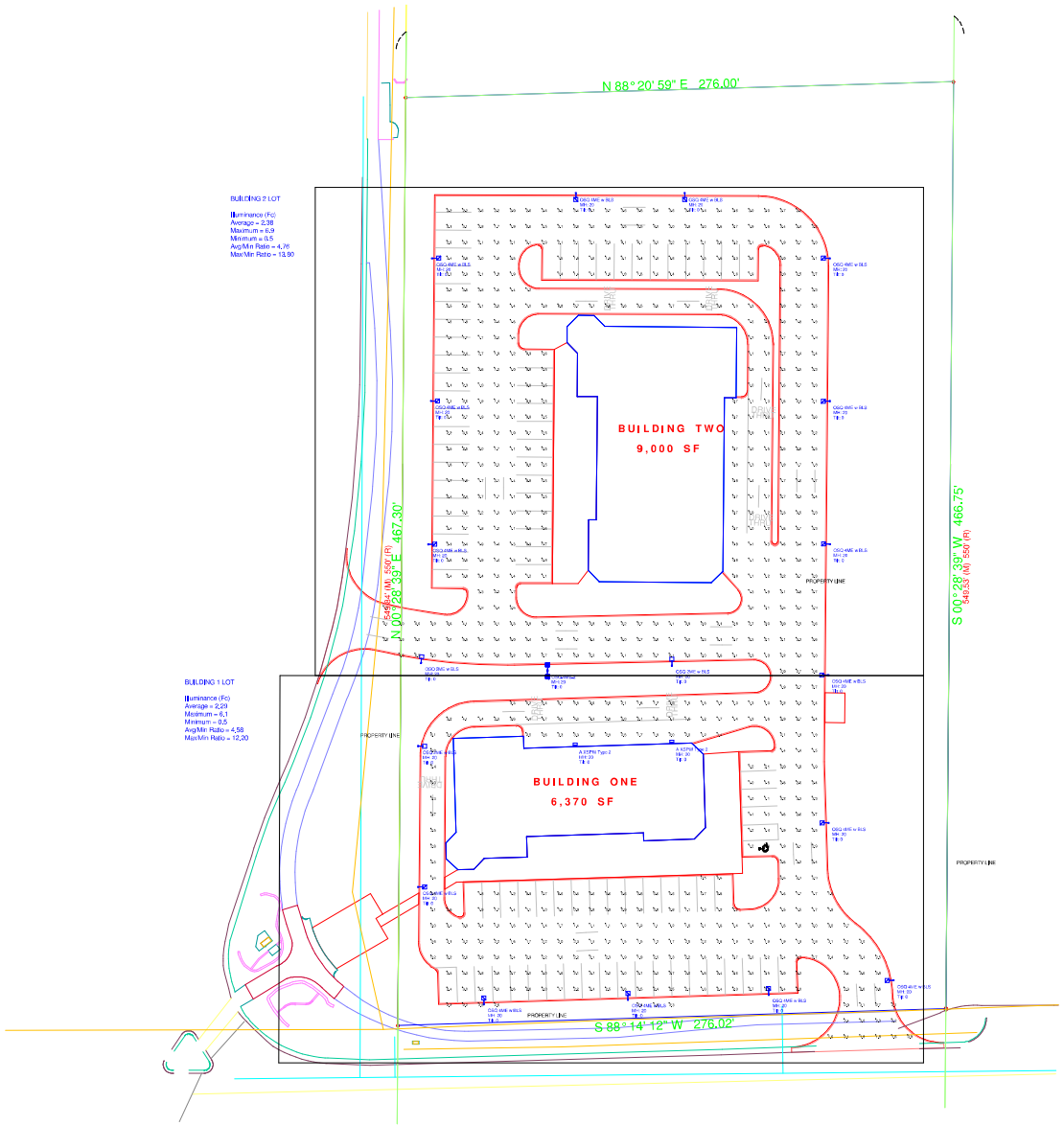


Exhibit received June 29, 2016

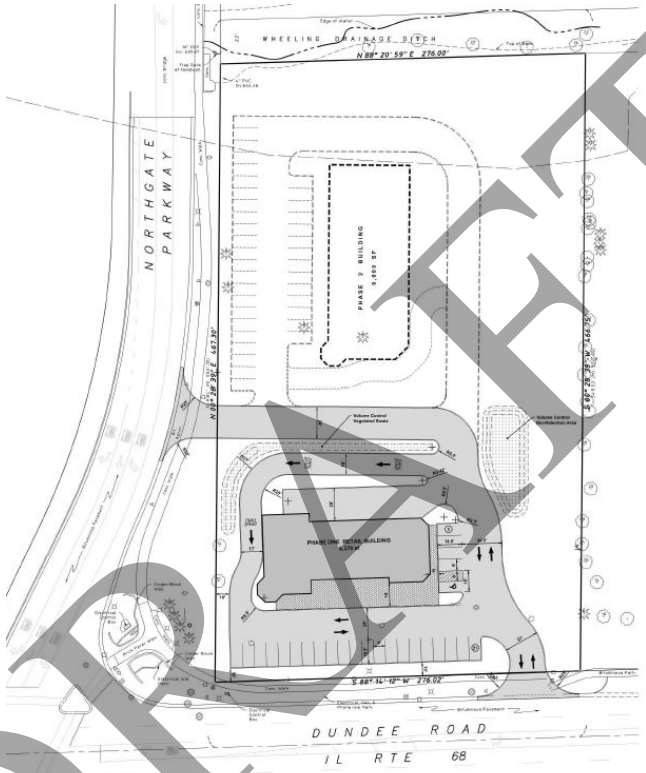
CREE

1920 Wind Street • Sturtevant, WI 53177
www.cree.com • (800) 236-6800

Project Name: DUNDEE COMMONS - R1 | SR-14544
Date:6/27/2016 | Scale: 1"=30' | Footcandles calculated at grade
Filename: V:\Common App\Eng\Working\Mtl\160509CC1MDJR1.AGI | Layout by: MARK JANAKY

Illumination results shown on this lighting design are based on project parameters provided to Cree, Inc, used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy code.

Traffic Impact Study
Proposed Dundee Commons
Wheeling, Illinois



Prepared For:

Neder Capital Services, LLC

Prepared By

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

July 13, 2016

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 Dundee Commons commercial development to be located in the northeast quadrant of the intersection of Dundee Road (IL 68) with Northgate Parkway in Wheeling, Illinois. As proposed, the site will be developed in two phases with Phase I containing a 6,370 square-foot retail building that will include a drive-through coffee shop and Phase II will contain a 9,000 square-foot retail building. Access to both phases of the development will be provided via a full movement access drive off Dundee Road and via a full movement access drive off Northgate Parkway.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The sections of this report present the following.

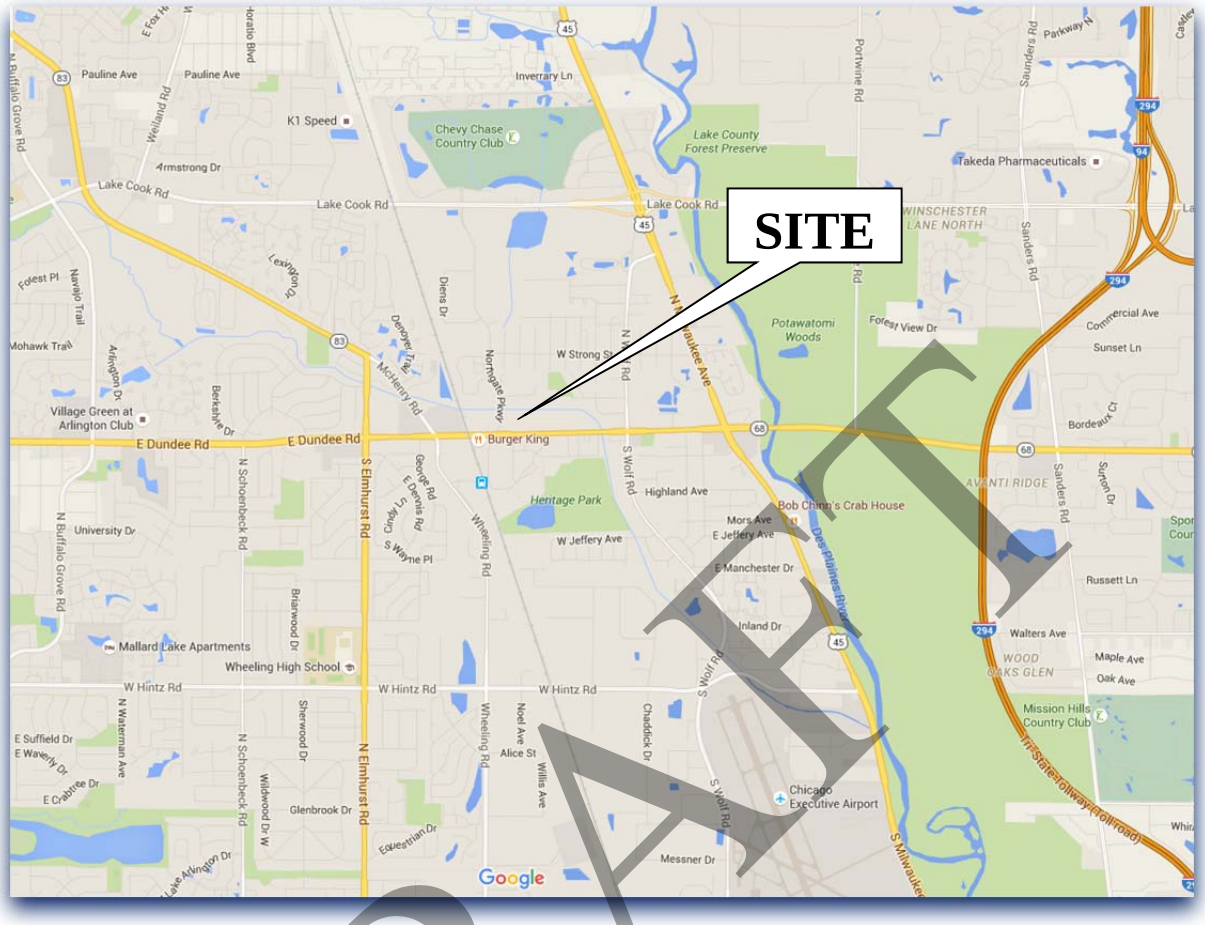
- Existing roadway conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning, weekday evening and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

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

1. Existing 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 and traffic projected to be generated by the proposed Wheeling Town Center.

3. Future Condition - The future projected traffic volumes include the existing traffic volumes, ambient area growth not attributable to any particular development and the buildout of the Wheeling Town Center the traffic estimated to be generated by the proposed subject development.



Site Location **Figure 1**

Aerial View of Site Location **Figure 2**

Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on a field visit conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices and existing peak hour traffic volumes.

Site Location

The site, which is currently partially occupied by a surface parking lot, is located in the northeast quadrant of the intersection of Dundee Road with Northgate Parkway. Land uses in the vicinity of the site are primarily commercial and residential in all directions including Northgate Crossing to the northwest, Lynn Plaza Shopping Center to the west, Burger King to the southwest and Wheeling Community Campus to the southeast. Located approximately one-quarter of a mile to the southwest is the Wheeling Metra Station.

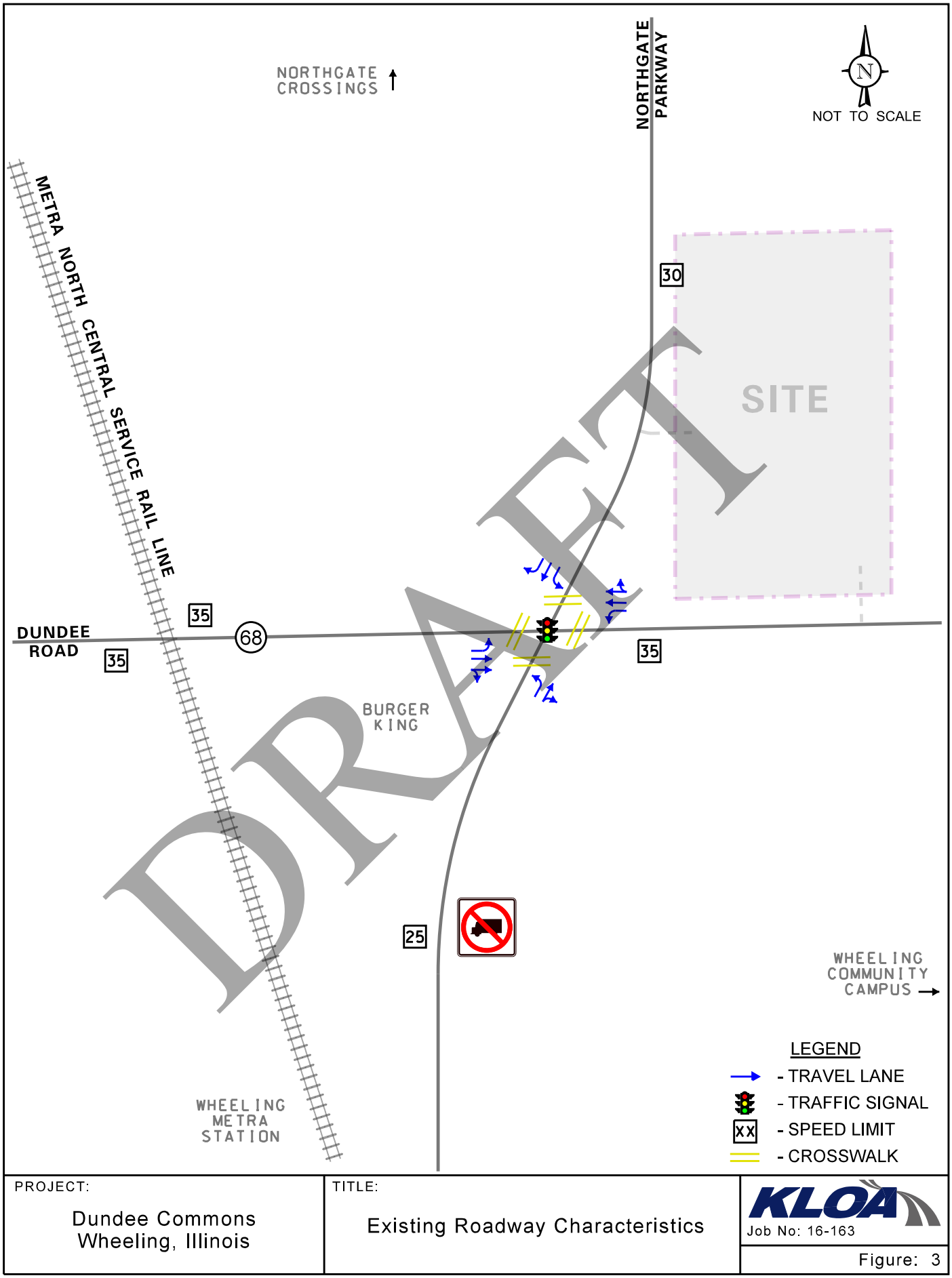
Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics.

Dundee Road (IL 68) is an east-west arterial roadway that in the vicinity of the site provides two lanes in each direction separated by a two-way left-turn lane. At its signalized intersection with Northgate Parkway, Dundee Road provides an exclusive left-turn lane, an exclusive through lane and a shared through/right-turn lane on both the eastbound and westbound approaches. Both approaches provide a standard style crosswalk and pedestrian countdown signals. Dundee Road is under the jurisdiction of the Illinois Department of Transportation (IDOT), carries an annual average daily traffic (AADT) volume of 26,900 vehicles (IDOT AADT 2015) and has a posted speed limit of 35 miles per hour.

Approximately 550 feet to the east of Northgate Parkway, Dundee Road has an at-grade crossing with the Metra North Central Service Rail Line. It should be noted that under existing conditions the through traffic along Dundee Road experiences heavy congestion and delays caused primarily by the train crossing at Dundee Road, especially during the weekday evening peak hour.

Northgate Parkway is a north-south local roadway that extends from Lake Cook Road south to the Wheeling Metra Station and in the vicinity of the site provides one lane in each direction. At its signalized intersection with Dundee Road, Northgate Parkway provides an exclusive left-turn lane, an exclusive through lane and an exclusive right-turn lane on the southbound approach and an exclusive left-turn lane and a shared through/right-turn lane on the northbound approach. Both approaches provide standard style crosswalks with pedestrian countdown signals. Northgate Parkway is under the jurisdiction of the Village of Wheeling and has a posted speed limit of 30 miles per hour north of Dundee Road and posted speed limit of 25 miles per hour south of Dundee Road.



PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Existing Roadway Characteristics	KLOA Job No: 16-163 Figure: 3

Existing Traffic Volumes

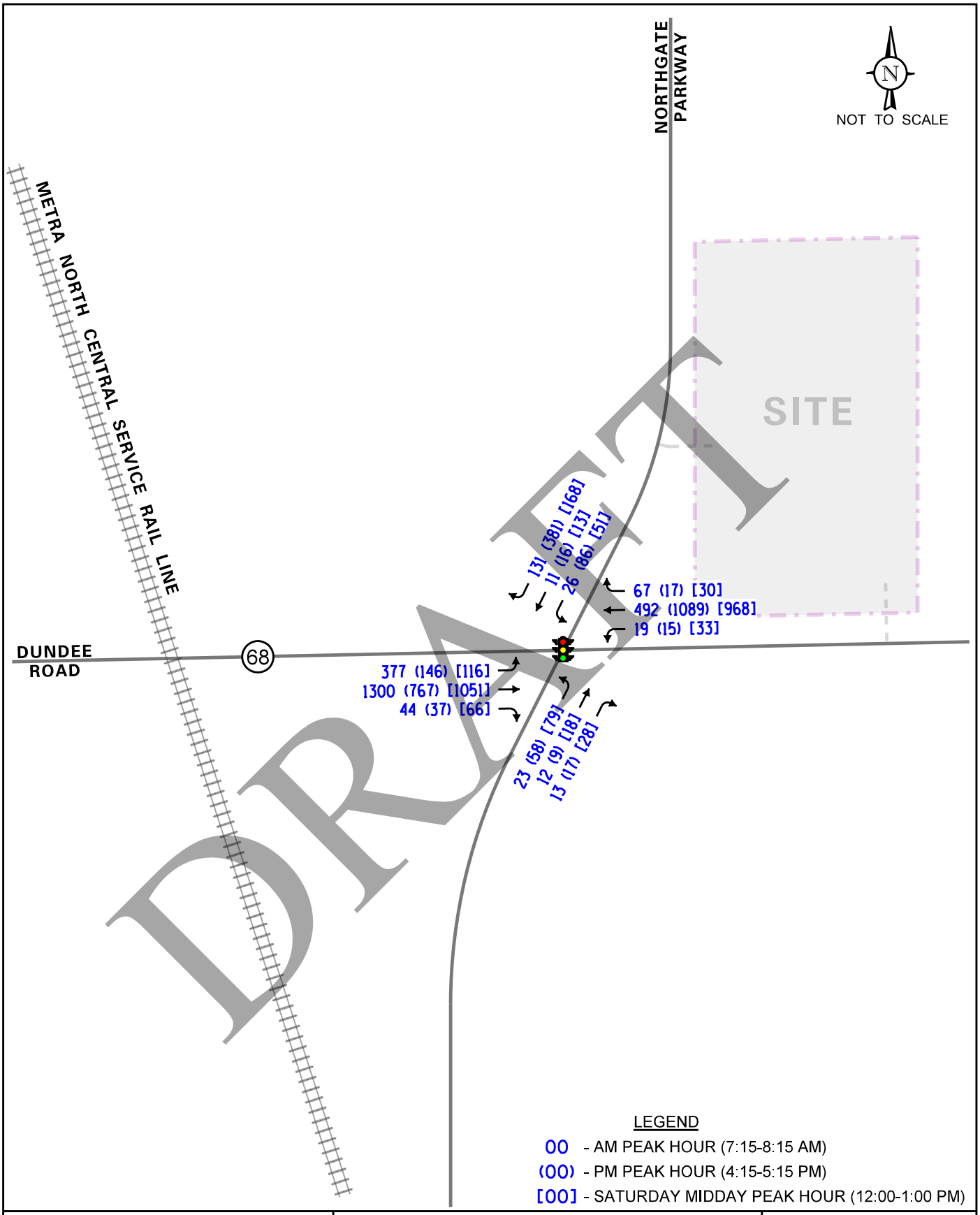
In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units on Saturday, June 25, 2016 during the Saturday midday (12:00 P.M. to 2:00 P.M.) peak period and on Tuesday, June 28, 2016 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) peak periods at the intersections of Dundee Road with Northgate Parkway. The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:15 A.M. to 8:15 A.M., the evening peak hour of traffic occurs from 4:15 P.M. to 5:15 P.M. and the Saturday midday peak hour of traffic occurs from 12:00 P.M. to 1:00 P.M. **Figure 4** illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.

Crash Data

KLOA, Inc. obtained crash data for the past five years (2010 to 2014) for the intersection of Dundee Road with Northgate Parkway. The crash data for the intersection is summarized in **Table 1**. A review of the crash data indicated that there were no fatalities reported at any of the intersections.

Table 1
DUNDEE ROAD WITH NORTHGATE PARKWAY CRASH SUMMARY

	Type of Crash Frequency						
Year	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2010	1	0	8	0	1	1	11
2011	1	1	10	2	3	1	18
2012	1	0	7	0	3	1	12
2013	0	2	6	1	1	1	11
2014	0	0	12	1	4	0	17
Total	**3**	**3**	**43**	**4**	**12**	**4**	**69**
Average/Year	**< 1**	**< 1**	**8.6**	**< 1**	**2.4**	**< 1**	**13.8**



PROJECT:	TITLE:	KLOA
Dundee Commons Wheeling, Illinois	Existing Traffic Volumes	Job No: 16-163 Figure: 4

Traffic Characteristics of the Proposed Retail Development

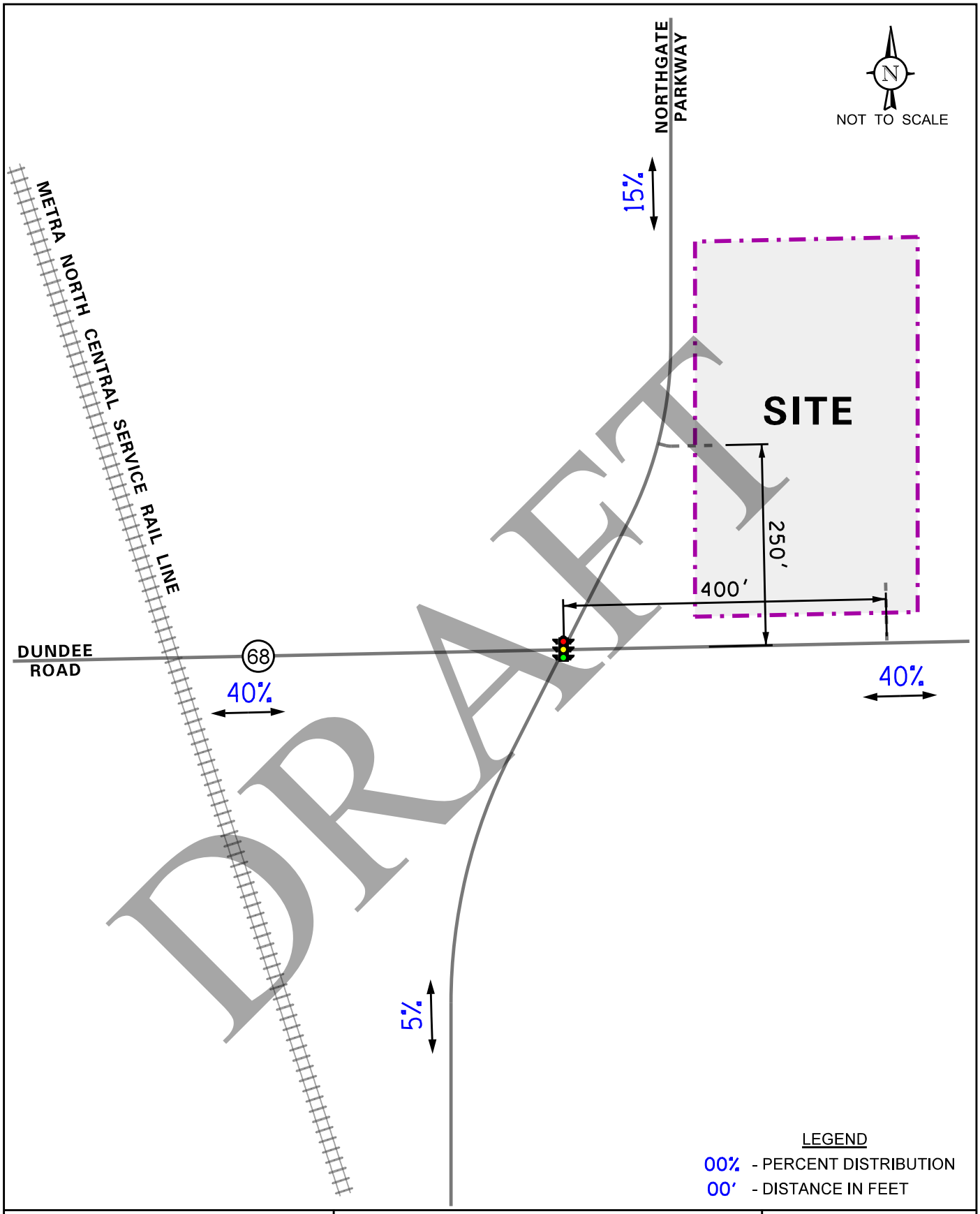
In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Proposed Development Plan

As proposed, the plans call for developing the site in two phases. Phase I of the development will consist of a commercial building containing an approximately 2,290 square-foot coffee shop with a drive-through and approximately 4,092 square-feet of retail space. Access to the proposed development will be provided via a full movement access drive off Dundee Road and via a full movement access drive off Northgate Parkway. The access drive off Dundee Road will be located 400 feet east of Northgate Parkway and will utilize the existing curb cut. This access drive will provide on inbound lane and one outbound lane with outbound movements under stop-sign control. Left-turns from Dundee Road onto the access drive can be accommodated by the existing two-way left-turn lane along Dundee Road. The access drive off Northgate Parkway will be located 250 feet north of Dundee Road and will utilize the existing curb cut. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop-sign control. Left-turns form Northgate Parkway onto the access drive can be accommodated by the existing southbound left-turn lane serving the intersection of Dundee Road with Northgate Parkway. Phase II of the development will consist of an approximately 9,000 square-foot retail building with access provided via the Phase I access system. A total of 64 parking spaces will be provided with 27 spaces built in Phase I and 37 spaces built in Phase II. A copy of the preliminary site plan depicting the proposed development and access is included in the Appendix.

Directional Distribution

The directional distribution of future site-generated trips on the roadway system is a function of several variables, including the operational characteristics of the roadway system and the ease with which drivers can travel over various sections of the roadway system without encountering congestion. The directions from which patrons of the commercial buildings will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development generated traffic.



PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Estimated Directional Distribution	KLOA Job No: 16-163 Figure: 5

Estimated Site Traffic Generation

The volume of traffic generated by a development is based on the type of land uses and the size of the development. The number of peak hour vehicle trips estimated to be generated by the proposed development of a 2,290 coffee shop with drive-through and 13,092 square-feet of retail is based on vehicle trip generation rates contained in *Trip Generation*, 9th Edition, published by the Institute of Transportation Engineers (ITE). It should be noted that surveys conducted by ITE have shown that a considerable number of trips made to coffee shops are diverted from the existing traffic on the area roadways. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. These surveys indicate that on average 89 percent of the peak hour trips generated by a coffee shop are diverted from existing traffic on the adjacent roads. However, in order to provide a conservative analysis (worst case), a pass-by reduction of only 70 percent was applied to the site generated traffic volumes. **Table 2** shows the site-generated traffic volumes for the proposed development.

Table 2
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Phase I										
937	Coffee/Donut Shop (2,290 s.f.)	117	113	230	49	49	98	97	97	194
70% Pass-By Reduction		*-80*	*-80*	*-160*	*-34*	*-34*	*-68*	*-68*	*-68*	*-136*
826	Retail (4,092 s.f.)	2	1	3	14	17	31	9	8	17
Total Phase I New Trips		**39**	**34**	**73**	**29**	**32**	**61**	**38**	**37**	**75**
Phase II										
826	Retail (9,000 s.f.)	4	2	6	19	24	43	19	18	37
Total Development Trips		**43**	**36**	**79**	**48**	**56**	**104**	**57**	**55**	**112**

Projected Traffic Conditions

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

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The total new traffic assignment for the commercial development is illustrated in **Figure 6**. The total pass-by traffic assignment for the commercial development is illustrated in **Figure 7**.

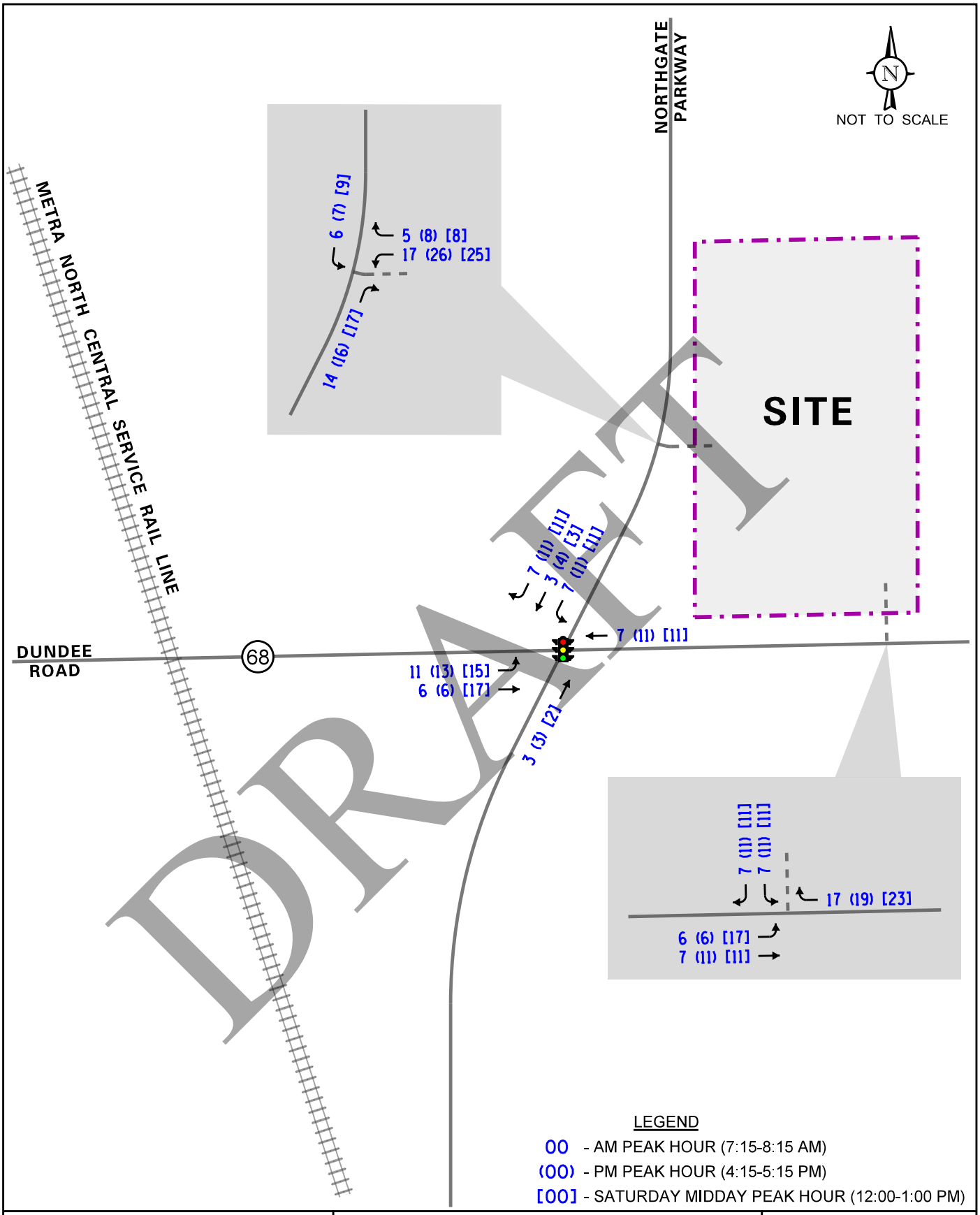
Background (No-Build) Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated June 22, 2016 an increase of approximately one-third of a percent per year for ten years was applied to project Year 2026 conditions. A copy of the CMAP 2040 projections letter is included in the Appendix. Year 2026 was chosen to be consistent with the build out year as contained in the Erickson Engineering Associates, Ltd. traffic study dated October 2015 (revised December 2015) for the proposed Wheeling Town Center to be located on the south side of Dundee Road between the Metra North Central Service Rail Line and the Wheeling Park District building. The traffic projected to be generated by the proposed Wheeling Town Center was assigned to the study area intersections to represent the Year 2026 no-build traffic volumes. The Year 2026 no-build traffic volumes are illustrated in **Figure 8**.

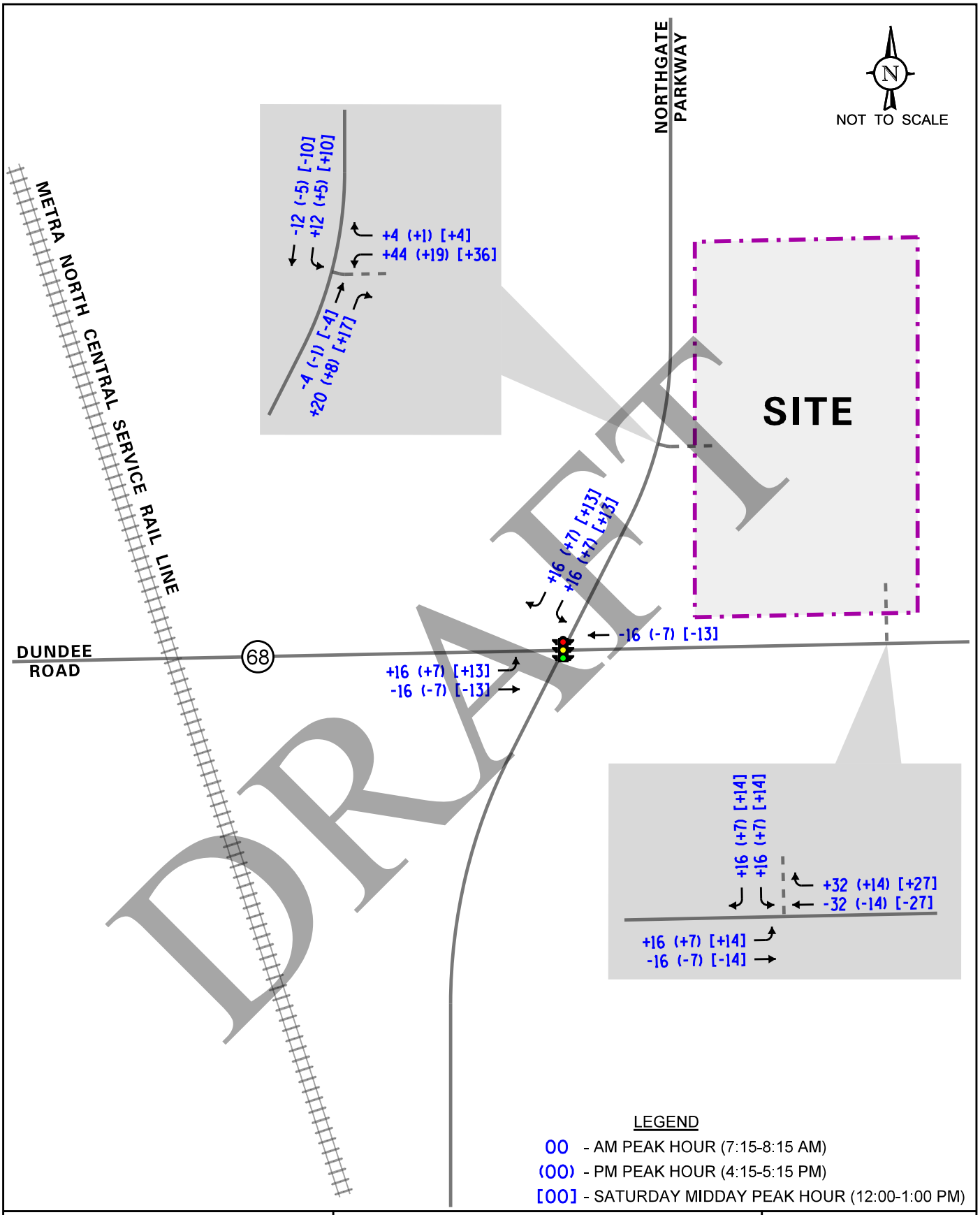
It should be noted that as part of the development of the Town Center, the intersection of Dundee Road with Northgate Parkway will be modified to provide dual left-turn lanes and a shared through/right-turn lane on the northbound approach, an exclusive left-turn lane, a shared through/right-turn lane and an exclusive right-turn lane on the southbound approach and an eastbound right-turn lane. Additionally, the Village of Wheeling has plans to signalize the intersection of Dundee Road with Community Boulevard located approximately 1,100 feet to the east of Northgate Parkway

Total Projected Traffic Volumes

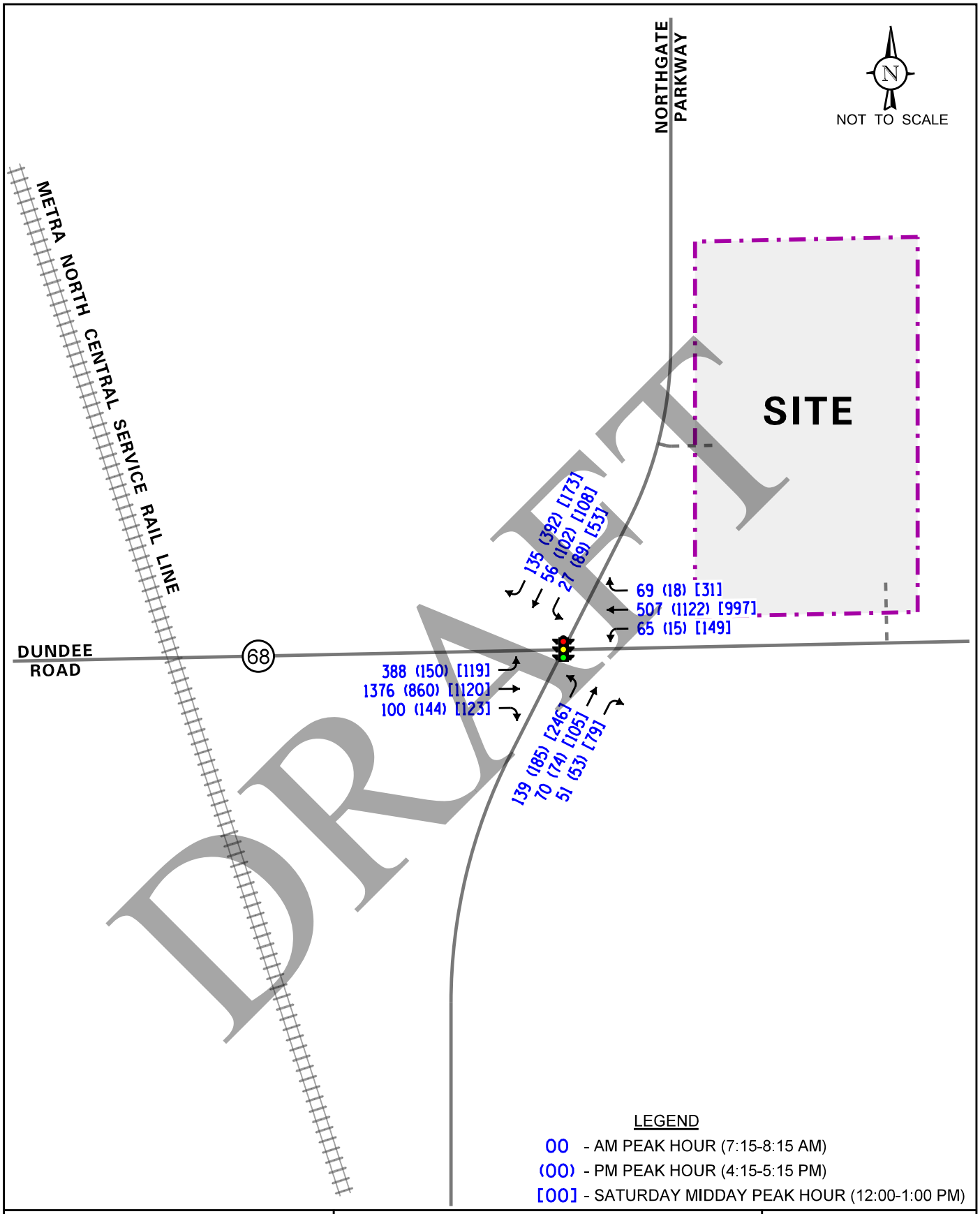
The development generated traffic was added to the existing traffic volumes accounting for background growth and the traffic projected to be generated by other nearby developments, to determine the Year 2026 total projected traffic volumes, are shown in **Figure 9**.



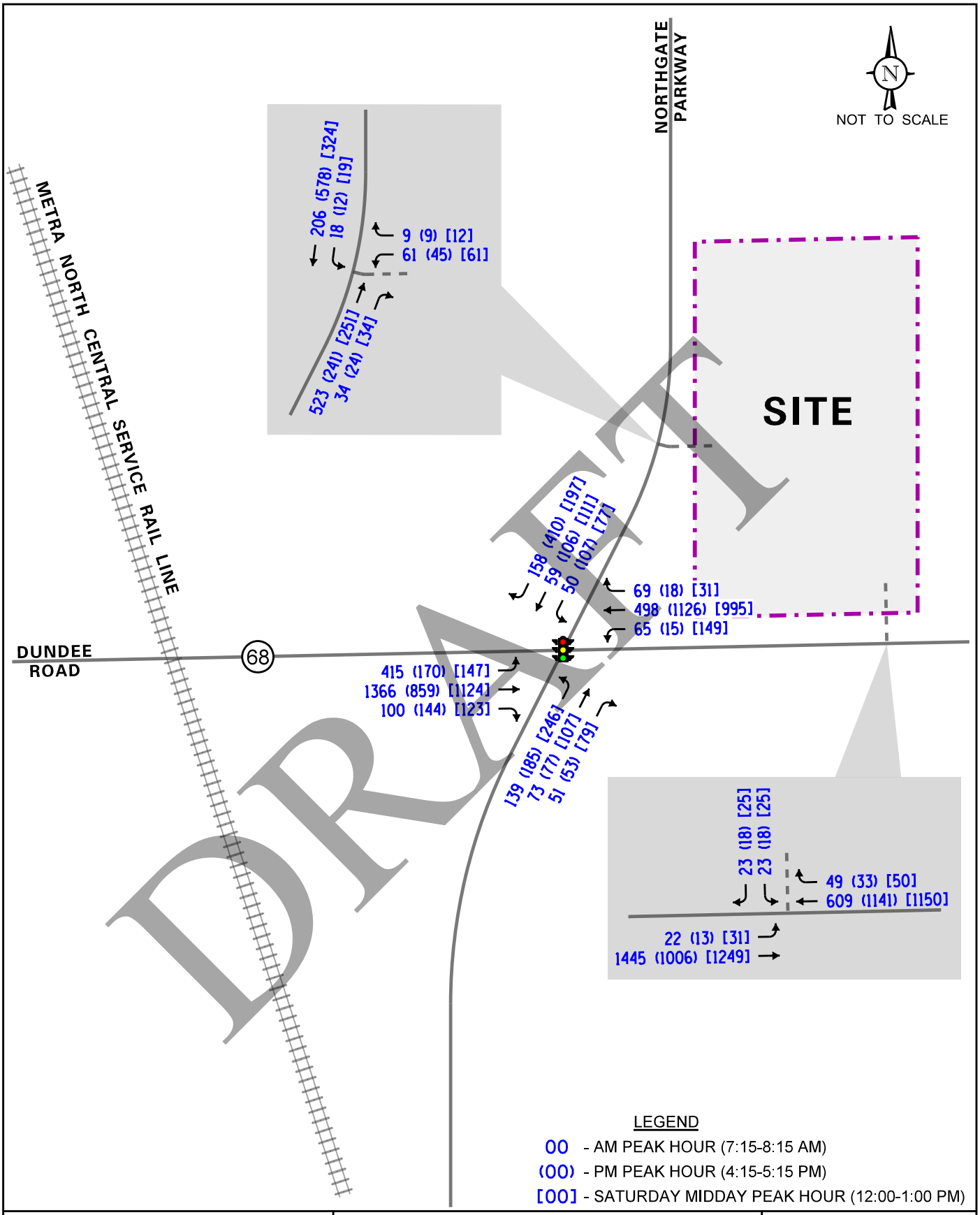
PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Total Development Site Traffic Assignment	KLOA Job No: 16-163 Figure: 6



PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Total Development Pass-By Site Traffic Assignment	KLOA Job No: 16-163 Figure: 7



PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Year 2026 Background Traffic Volumes	KLOA Job No: 16-163 Figure: 8



PROJECT:	TITLE:	
Dundee Commons Wheeling, Illinois	Year 2026 Total Projected Traffic Volumes	KLOA Job No: 16-163 Figure: 9

Traffic Analysis and Recommendations

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

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning, weekday evening and Saturday midday peak hours for the existing (Year 2016), Year 2026 no-build, and future projected (Year 2026) traffic volumes. The traffic analyses performed for the Year 2022 no-build and future projected traffic volumes assumed the Dundee Road with Northgate Parkway intersection improvements included in the October 2015 (revised December 2015) Wheeling Town Center traffic impact study prepared by Eriksson Engineering Associates, Ltd.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 2010* and analyzed using the HCS 2010 computer software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, background and Year 2026 total projected conditions are presented in **Tables 3** through **5,** respectively. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3A
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS
DUNDEE ROAD WITH NORTHGATE PARKWAY– SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	
Existing Conditions	Weekday Morning Peak Hour	A 6.9	A 2.7	A 3.1	A 8.5	A 4.8	A 6.4	D 54.3	E 57.8		D 54.1	E 56.8	E 78.3	A – 9.9
		A – 3.8			A – 5.7			E – 56.1			E – 73.1			
	Weekday Evening Peak Hour	B 10.8	A 5.5	A 6.2	A 10.0	A 8.5	A 8.8	D 47.2	D 51.4		D 45.9	D 49.0	F 308.9	D – 54.0
		A – 6.6			A – 8.7			D – 48.5			F – 253.5			
	Saturday Midday Peak Hour	A 8.2	A 5.7	A 6.5	A 8.6	A 6.3	A 6.7	D 42.1	D 46.0		D 42.9	D 46.0	E 68.1	B – 13.0
		A – 6.3			A – 6.5			D – 43.5			E – 61.3			

Delay is measured in seconds.
1- Assuming intersection improvements as proposed in the October 2015 Wheeling Town Center traffic impact study.

Table 3B
CAPACITY ANALYSIS RESULTS – FUTURE CONDITIONS
DUNDEE ROAD WITH NORTHGATE PARKWAY– SIGNALIZED

No-Build Conditions[1]	Weekday Morning Peak Hour	B 10.2	A 5.5	A 6.3	B 12.4	A 9.2	B 11.0	F 82.7	E 55.7		F 100.4	E 58.0	E 72.8	B – 17.7
		A – 6.5			B – 10.3			E – 70.2			E – 72.4			
	Weekday Evening Peak Hour	C 20.1	B 11.9	B 12.0	B 16.5	B 19.4	B 19.8	E 69.3	D 45.8		E 77.1	D 45.1	F 154.7	D – 40.0
		B – 13.0			B – 19.6			E – 59.7			F – 123.7			
	Saturday Midday Peak Hour	B 12.5	B 10.8	A 8.8	B 12.9	B 10.7	B 11.1	E 59.6	D 46.0		E 72.5	D 48.3	E 61.5	C – 21.4
		B – 10.8			B – 11.1			D – 53.8			E – 59.0			
Projected Conditions[1]	Weekday Morning Peak Hour	C 24.9	A 8.8	A 8.4	B 15.6	B 14.5	B 15.1	F 82.7	E 56.4		F 84.4	E 56.0	E 76.3	C – 22.0
		B – 12.3			B – 14.9			E – 70.3			E – 73.3			
	Weekday Evening Peak Hour	C 21.6	B 11.9	B 12.0	B 16.8	C 20.3	C 20.7	E 69.3	D 47.3		F 82.9	D 45.2	F 175.3	D – 44.0
		B – 13.3			C – 20.5			E – 60.2			F – 137.3			
	Saturday Midday Peak Hour	B 13.8	B 12.1	A 9.6	B 14.0	B 12.5	B 13.0	E 59.6	D 46.6		E 67.7	D 46.6	E 64.4	C – 23.1
		B – 12.0			B – 12.9			D – 54.0			E – 59.9			

Delay is measured in seconds.
1- Assuming intersection improvements as proposed in the October 2015 Wheeling Town Center traffic impact study.

Table 4
CAPACITY ANALYSIS RESULTS
DUNDEE ROAD WITH ACCESS DRIVEWAY – UNSIGNALIZED

	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
Intersection	LOS	Delay	LOS	Delay	LOS	Delay
Projected Conditions						
• Southbound Approach	C	16.9	C	22.0	D	25.8
• Eastbound Lefts	A	9.1	B	11.6	B	12.0

LOS = Level of Service
Delay is measured in seconds.

Table 5
CAPACITY ANALYSIS RESULTS
NORTHGATE PARKWAY WITH ACCESS DRIVE – UNSIGNALIZED

	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
Intersection	LOS	Delay	LOS	Delay	LOS	Delay
Projected Conditions						
• Westbound Approach	C	17.9	C	17.7	B	14.6
• Southbound Lefts	A	8.7	A	7.8	A	7.9

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements to accommodate the development traffic.

Dundee Road with Northgate Parkway

The results of the capacity analysis indicate that overall this intersection currently operates at LOS A during the weekday morning peak hour, LOS D during the weekday evening peak hour and LOS B during the Saturday midday peak hour. It should be noted that during the weekday evening peak hour, the southbound approach operates at LOS F due to the high number of southbound right-turning vehicles and the limited amount of green time allocated to the southbound approach.

Under Year 2026 No-Build traffic conditions assuming full buildout of the Wheeling Town Center and proposed intersection improvements, this intersection is projected to overall operate at LOS B during the weekday morning peak hour, LOS D during weekday evening peak hour and LOS C during the Saturday midday peak hour. The southbound approach will continue operating at LOS F during the weekday evening peak hour. Furthermore, northbound and southbound left-turns are projected to operate at LOS F during the weekday morning peak hour due to the limited amount of green time allocated to these movements and the operation of these movements under a protected phase only.

Under Year 2026 total projected traffic condition the intersection overall is projected to operate at LOS C during the weekday morning peak hour, LOS D during the weekday evening peak hour and LOS C during the Saturday midday peak hour with increases in delay of approximately four seconds or less over no-build conditions. The southbound approach is projected to continue operating at LOS F during the weekday evening peak hour with increases in delay of approximately 14 seconds over no-build conditions. Additionally, northbound left-turns are projected to continue to operate at LOS F during the weekday morning peak hour and southbound left-turns are projected to operate at LOS F during the weekday morning and weekday evening peak hours primarily due to the limited amount of green time allocated to these movements and the operation of these movements under protected phase only. This indicates that site traffic will have a limited impact on the overall operations of this intersection.

Dundee Road with Full Movement Access Drive

The results of the capacity analysis indicate that outbound movements from the access drive are projected to operate at LOS C during the weekday morning and weekday evening peak hours and are projected to operate at LOS D during the Saturday midday peak hour. Eastbound left-turns onto the access drive are projected to operate at LOS B or better during the peak hours with 95th percentile queues of one to two vehicles which can be accommodated by the existing two-way left-turn lane along Dundee Road. It should be noted that these analyses do not take into consideration the congestion created by the at-grade crossing of Dundee Road with the Metra North Central Service Rail Line, particularly the queues created in the westbound direction during the weekday evening peak hour. However, the proposed signalized intersection of Dundee Road with Community Boulevard will create gaps in the Dundee Road traffic stream allowing vehicles to ingress/egress the site more efficiently. Additionally, "Do Not Block Intersection" signs should be installed to further ensure back-ups to not impact the ingress/egress operations of this access drive during the peak hours. As such the proposed access drive will be adequate in accommodating the traffic projected to be generated by the proposed development and will provide efficient and flexible access.

Northgate Parkway with Full Movement Access Drive

The results of the capacity analysis indicate that outbound movements from the access drive are projected to operate at LOS C during the weekday morning and weekday evening peak hours and are projected to operate at LOS B during the Saturday midday peak hour. Outbound 95th percentile queues are projected to be one to two vehicles which will not impact the operations of the Phase II connection to the access system. Furthermore, southbound left-turns are projected to operate at LOS A during the three peak hours with 95th percentile queues of one to two vehicles. As such, this access drive will be adequate in accommodating the traffic projected to be generated by the proposed development and will provide efficient and flexible access.

On-Site Circulation Evaluation

As proposed, the pick-up window will be located on the west side of the building with the order board located on the north side of the building. Motorists will enter the drive-through lane from the northeast side of the building and travel around the north and west sides of the building. The drive-through lane will provide stacking for eight to nine vehicles meeting the Village of Wheeling Zoning Code which states that a drive through must provide stacking space for six vehicles. The drive-through lane should be under stop sign control at its intersection with the east-west drive aisle along the south frontage of the proposed building.

Based on a review of the plan, the provision of a donut/coffee shop with a drive-through lane can be accommodated from a traffic standpoint without undue congestion for the following reasons:

- Donut/coffee stores draw the majority of their traffic during the peak period (as much as 89 percent) from the existing traffic on the adjacent roadway system and, as such, add minimal new traffic to the roadway system during the critical peak periods.

- The drive-through operation's peak demand will occur in the morning when the other uses within the proposed retail space are either closed or generating a limited number of trips. This variation in traffic usage allows for good synergy between the coffee/donut shop and the rest of the development. As a result and in the unlikely event that stacking demand exceeds the proposed drive-through lane, adequate room exists within the parking lot to accommodate the vehicles without negatively impacting on-site circulation.

In order to provide efficient and orderly internal traffic flow, the following is recommended:

- Way finding signs directing traffic to the drive-through lane should be provided at the access drives on Dundee Road and Northgate Parkway and at the entrance of the drive-through lane.

- "Do Not Enter" signs facing south should be posted at the exit throat of the drive-through lane.

- Exiting movements from the drive-through lane should be under stop sign control.

Parking Evaluation

The development is proposed to provide 64 parking spaces upon full buildout. Based on Village of Wheeling Code, parking is to be provided at four spaces for every 1,000 square-feet of retail space and one space per every three seats plus one space per employee for the restaurant. This equates to a total of 61 parking spaces resulting in a surplus of three parking spaces. As such, the proposed development will provide a sufficient number of parking spaces to accommodate the projected parking demand.

Conclusion

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

- The development is well located with respect to the area roadway system.
- The development generated traffic will not have a significant impact on area roadways.
- Providing access off Dundee Road and Northgate Parkway will be adequate in accommodating the development generated traffic and will ensure that an efficient and flexible access is provided.
- The drive-through lane will provide stacking for eight to nine vehicles which will be adequate in accommodating the projected the peak demand of the drive-through operation.
- The proposed development will provide a sufficient number of parking spaces to accommodate the projected parking demand.

Appendix

-Traffic Count Summary Sheets
-Preliminary Site Plan
-CMAP 2040 Projections Letter
-Level of Service Criteria
-Capacity Analysis Summary Sheets

Dundee Commons
Wheeling, Illinois

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

Traffic Count Summary Sheets

Dundee Commons
Wheeling, Illinois

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

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Dundee Road with Northgate Parkway
Site Code:
Start Date: 06/25/2016

Turning Movement Data

Start Time	Dundee Road Eastbound						Dundee Road Westbound						Northgate Parkway Northbound						Northgate Parkway Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	30	278	14	0	322	0	10	246	8	0	264	0	11	3	3	0	17	0	7	3	44	0	54	657
12:15 PM	0	34	253	16	0	303	0	11	241	8	0	260	0	25	5	10	0	40	0	10	4	32	0	46	649
12:30 PM	0	34	250	14	0	298	0	6	245	6	0	257	0	22	7	6	0	35	0	23	1	62	0	86	676
12:45 PM	0	18	270	22	0	310	0	6	236	8	0	250	0	21	3	9	0	33	0	11	5	30	0	46	639
Hourly Total	0	116	1051	66	0	1233	0	33	968	30	0	1031	0	79	18	28	0	125	0	51	13	168	0	232	2621
1:00 PM	0	25	205	28	0	258	0	9	217	10	1	236	0	26	5	0	0	31	0	8	6	30	1	44	569
1:15 PM	0	29	201	16	0	246	0	9	211	6	1	226	0	10	3	9	1	22	0	8	2	52	0	62	556
1:30 PM	0	28	223	19	0	270	0	6	225	6	2	237	0	15	1	10	0	26	0	6	1	45	1	52	585
1:45 PM	0	31	237	28	0	296	0	11	243	2	1	256	0	16	1	7	1	24	0	3	3	28	1	34	610
Hourly Total	0	113	866	91	0	1070	0	35	896	24	5	955	0	67	10	26	2	103	0	25	12	155	3	192	2320
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	76	281	17	0	374	0	11	102	23	1	136	0	5	2	6	2	13	0	30	9	46	0	85	608
7:15 AM	0	83	330	14	0	427	0	11	113	13	2	137	0	5	3	8	2	16	0	13	6	32	1	51	631
7:30 AM	0	92	323	9	0	424	0	4	117	18	1	139	0	9	3	0	1	12	0	4	3	34	1	41	616
7:45 AM	0	115	309	12	0	436	0	3	152	18	0	173	0	4	5	4	2	13	0	3	1	32	0	36	658
Hourly Total	0	366	1243	52	0	1661	0	29	484	72	4	585	0	23	13	18	7	54	0	50	19	144	2	213	2513
8:00 AM	0	87	338	9	0	434	1	0	110	18	0	129	0	5	1	1	0	7	0	6	1	33	0	40	610
8:15 AM	0	82	265	11	0	358	0	1	153	19	0	173	0	5	2	5	2	12	0	7	0	28	0	35	578
8:30 AM	0	73	293	24	1	390	0	2	166	9	1	177	0	7	3	4	0	14	0	4	3	33	1	40	621
8:45 AM	0	97	259	44	0	400	0	5	153	18	0	176	0	11	3	4	0	18	0	18	3	32	0	53	647
Hourly Total	0	339	1155	88	1	1582	1	8	582	64	1	655	0	28	9	14	2	51	0	35	7	126	1	168	2456
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	38	201	8	0	247	0	4	257	7	0	268	0	19	3	6	2	28	0	15	5	86	2	106	649
4:15 PM	0	26	182	11	0	219	0	3	295	4	1	302	0	9	3	5	1	17	0	13	2	76	0	91	629
4:30 PM	0	39	204	9	0	252	0	6	276	2	1	284	0	23	0	4	0	27	0	36	4	102	0	142	705
4:45 PM	0	43	172	6	0	221	0	2	274	5	1	281	0	8	3	6	0	17	0	11	0	91	0	102	621
Hourly Total	0	146	759	34	0	939	0	15	1102	18	3	1135	0	59	9	21	3	89	0	75	11	355	2	441	2604
5:00 PM	0	38	209	11	1	258	0	4	244	6	3	254	0	18	3	2	1	23	0	26	10	112	1	148	683
5:15 PM	0	22	190	8	0	220	0	4	218	2	2	224	0	23	5	6	0	34	0	10	3	83	2	96	574
5:30 PM	0	26	191	4	0	221	1	2	268	1	7	272	0	27	12	16	1	55	0	12	3	74	3	89	637
5:45 PM	0	36	195	12	2	243	0	2	200	6	5	208	0	39	6	5	5	50	0	12	0	101	0	113	614
Hourly Total	0	122	785	35	3	942	1	12	930	15	17	958	0	107	26	29	7	162	0	60	16	370	6	446	2508
Grand Total	0	1202	5859	366	4	7427	2	132	4962	223	30	5319	0	363	85	136	21	584	0	296	78	1318	14	1692	15022
Approach %	0.0	16.2	78.9	4.9	-	-	0.0	2.5	93.3	4.2	-	-	0.0	62.2	14.6	23.3	-	-	0.0	17.5	4.6	77.9	-	-	-
Total %	0.0	8.0	39.0	2.4	-	49.4	0.0	0.9	33.0	1.5	-	35.4	0.0	2.4	0.6	0.9	-	3.9	0.0	2.0	0.5	8.8	-	11.3	-
Lights	0	1159	5714	364	-	7237	2	128	4828	212	-	5170	0	358	83	134	-	575	0	287	77	1289	-	1653	14635
% Lights	-	96.4	97.5	99.5	-	97.4	100.0	97.0	97.3	95.1	-	97.2	-	98.6	97.6	98.5	-	98.5	-	97.0	98.7	97.8	-	97.7	97.4

Buses	0	2	14	1	-	17	0	2	17	1	-	20	0	1	0	0	-	1	0	0	0	1	-	1	39
% Buses	-	0.2	0.2	0.3	-	0.2	0.0	1.5	0.3	0.4	-	0.4	-	0.3	0.0	0.0	-	0.2	-	0.0	0.0	0.1	-	0.1	0.3
Single-Unit Trucks	0	32	104	1	-	137	0	2	102	6	-	110	0	4	1	2	-	7	0	5	1	18	-	24	278
% Single-Unit Trucks	-	2.7	1.8	0.3	-	1.8	0.0	1.5	2.1	2.7	-	2.1	-	1.1	1.2	1.5	-	1.2	-	1.7	1.3	1.4	-	1.4	1.9
Articulated Trucks	0	9	27	0	-	36	0	0	15	4	-	19	0	0	0	0	-	0	0	4	0	9	-	13	68
% Articulated Trucks	-	0.7	0.5	0.0	-	0.5	0.0	0.0	0.3	1.8	-	0.4	-	0.0	0.0	0.0	-	0.0	-	1.4	0.0	0.7	-	0.8	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	1	-	1	2
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.2	0.0	-	0.2	-	0.0	0.0	0.1	-	0.1	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	30	-	-	-	-	-	21	-	-	-	-	-	14	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Dundee Road with Northgate Parkway
Site Code:
Start Date: 06/25/2016

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Dundee Road Eastbound						Dundee Road Westbound						Northgate Parkway Northbound						Northgate Parkway Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	30	278	14	0	322	0	10	246	8	0	264	0	11	3	3	0	17	0	7	3	44	0	54	657
12:15 PM	0	34	253	16	0	303	0	11	241	8	0	260	0	25	5	10	0	40	0	10	4	32	0	46	649
12:30 PM	0	34	250	14	0	298	0	6	245	6	0	257	0	22	7	6	0	35	0	23	1	62	0	86	676
12:45 PM	0	18	270	22	0	310	0	6	236	8	0	250	0	21	3	9	0	33	0	11	5	30	0	46	639
Total	0	116	1051	66	0	1233	0	33	968	30	0	1031	0	79	18	28	0	125	0	51	13	168	0	232	2621
Approach %	0.0	9.4	85.2	5.4	-	-	0.0	3.2	93.9	2.9	-	-	0.0	63.2	14.4	22.4	-	-	0.0	22.0	5.6	72.4	-	-	-
Total %	0.0	4.4	40.1	2.5	-	47.0	0.0	1.3	36.9	1.1	-	39.3	0.0	3.0	0.7	1.1	-	4.8	0.0	1.9	0.5	6.4	-	8.9	-
PHF	0.000	0.853	0.945	0.750	-	0.957	0.000	0.750	0.984	0.938	-	0.976	0.000	0.790	0.643	0.700	-	0.781	0.000	0.554	0.650	0.677	-	0.674	0.969
Lights	0	115	1038	65	-	1218	0	33	955	30	-	1018	0	79	18	28	-	125	0	51	13	167	-	231	2592
% Lights	-	99.1	98.8	98.5	-	98.8	-	100.0	98.7	100.0	-	98.7	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	99.4	-	99.6	98.9
Buses	0	0	0	1	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	1.5	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	1	11	0	-	12	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	1	-	1	22
% Single-Unit Trucks	-	0.9	1.0	0.0	-	1.0	-	0.0	0.9	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.6	-	0.4	0.8
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	0.3	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Dundee Road with Northgate Parkway
Site Code:
Start Date: 06/25/2016

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Dundee Road Eastbound						Dundee Road Westbound						Northgate Parkway Northbound						Northgate Parkway Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	0	83	330	14	0	427	0	11	113	13	2	137	0	5	3	8	2	16	0	13	6	32	1	51	631
7:30 AM	0	92	323	9	0	424	0	4	117	18	1	139	0	9	3	0	1	12	0	4	3	34	1	41	616
7:45 AM	0	115	309	12	0	436	0	3	152	18	0	173	0	4	5	4	2	13	0	3	1	32	0	36	658
8:00 AM	0	87	338	9	0	434	1	0	110	18	0	129	0	5	1	1	0	7	0	6	1	33	0	40	610
Total	0	377	1300	44	0	1721	1	18	492	67	3	578	0	23	12	13	5	48	0	26	11	131	2	168	2515
Approach %	0.0	21.9	75.5	2.6	-	-	0.2	3.1	85.1	11.6	-	-	0.0	47.9	25.0	27.1	-	-	0.0	15.5	6.5	78.0	-	-	-
Total %	0.0	15.0	51.7	1.7	-	68.4	0.0	0.7	19.6	2.7	-	23.0	0.0	0.9	0.5	0.5	-	1.9	0.0	1.0	0.4	5.2	-	6.7	-
PHF	0.000	0.820	0.962	0.786	-	0.987	0.250	0.409	0.809	0.931	-	0.835	0.000	0.639	0.600	0.406	-	0.750	0.000	0.500	0.458	0.963	-	0.824	0.956
Lights	0	359	1256	44	-	1659	1	14	462	62	-	539	0	18	12	13	-	43	0	25	11	128	-	164	2405
% Lights	-	95.2	96.6	100.0	-	96.4	100.0	77.8	93.9	92.5	-	93.3	-	78.3	100.0	100.0	-	89.6	-	96.2	100.0	97.7	-	97.6	95.6
Buses	0	2	2	0	-	4	0	2	3	1	-	6	0	1	0	0	-	1	0	0	0	0	-	0	11
% Buses	-	0.5	0.2	0.0	-	0.2	0.0	11.1	0.6	1.5	-	1.0	-	4.3	0.0	0.0	-	2.1	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	14	36	0	-	50	0	2	27	3	-	32	0	4	0	0	-	4	0	1	0	2	-	3	89
% Single-Unit Trucks	-	3.7	2.8	0.0	-	2.9	0.0	11.1	5.5	4.5	-	5.5	-	17.4	0.0	0.0	-	8.3	-	3.8	0.0	1.5	-	1.8	3.5
Articulated Trucks	0	2	6	0	-	8	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	1	-	1	10
% Articulated Trucks	-	0.5	0.5	0.0	-	0.5	0.0	0.0	0.0	1.5	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.8	-	0.6	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	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Dundee Road with Northgate Parkway
Site Code:
Start Date: 06/25/2016

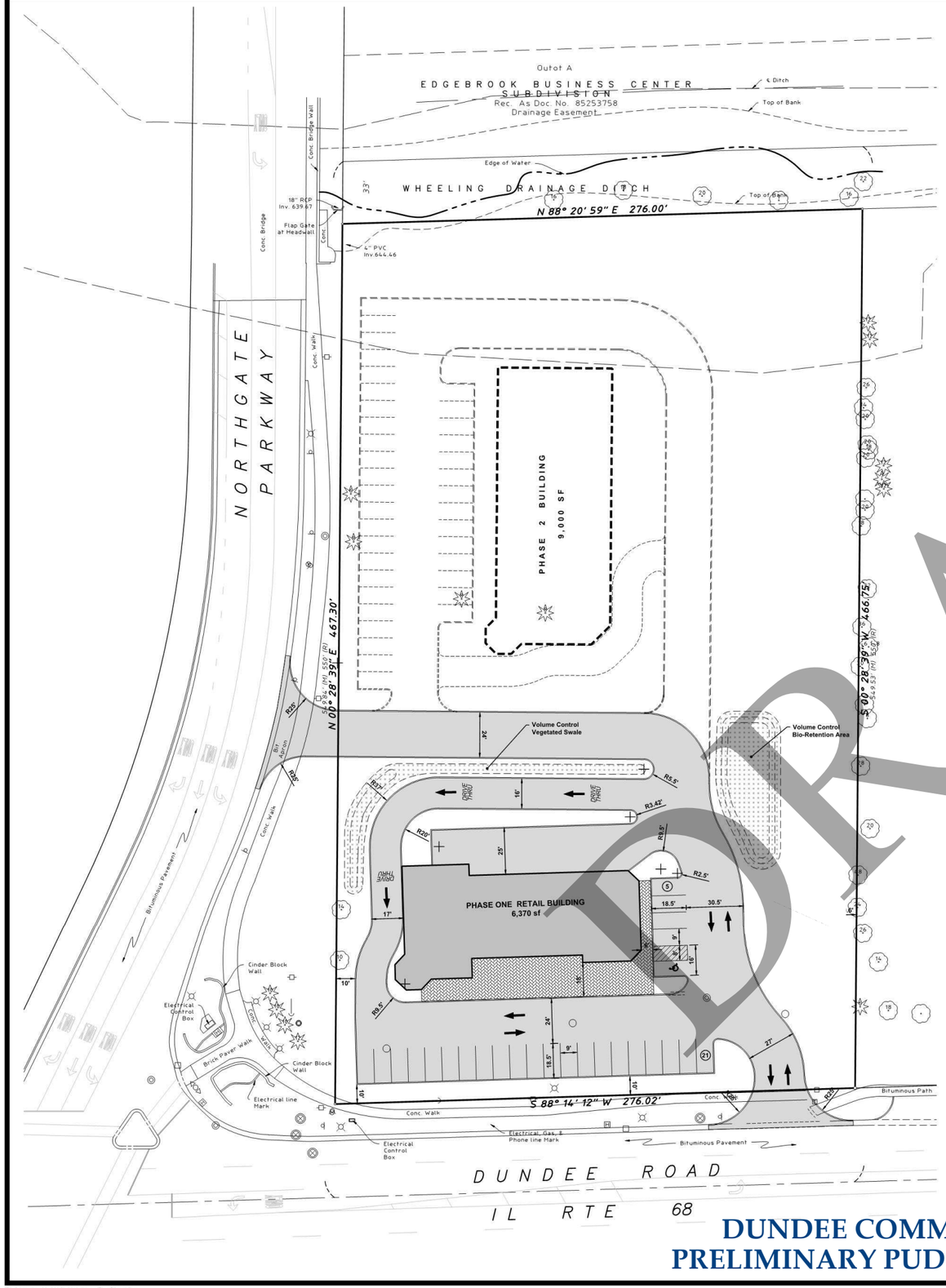
Turning Movement Peak Hour Data (4:15 PM)

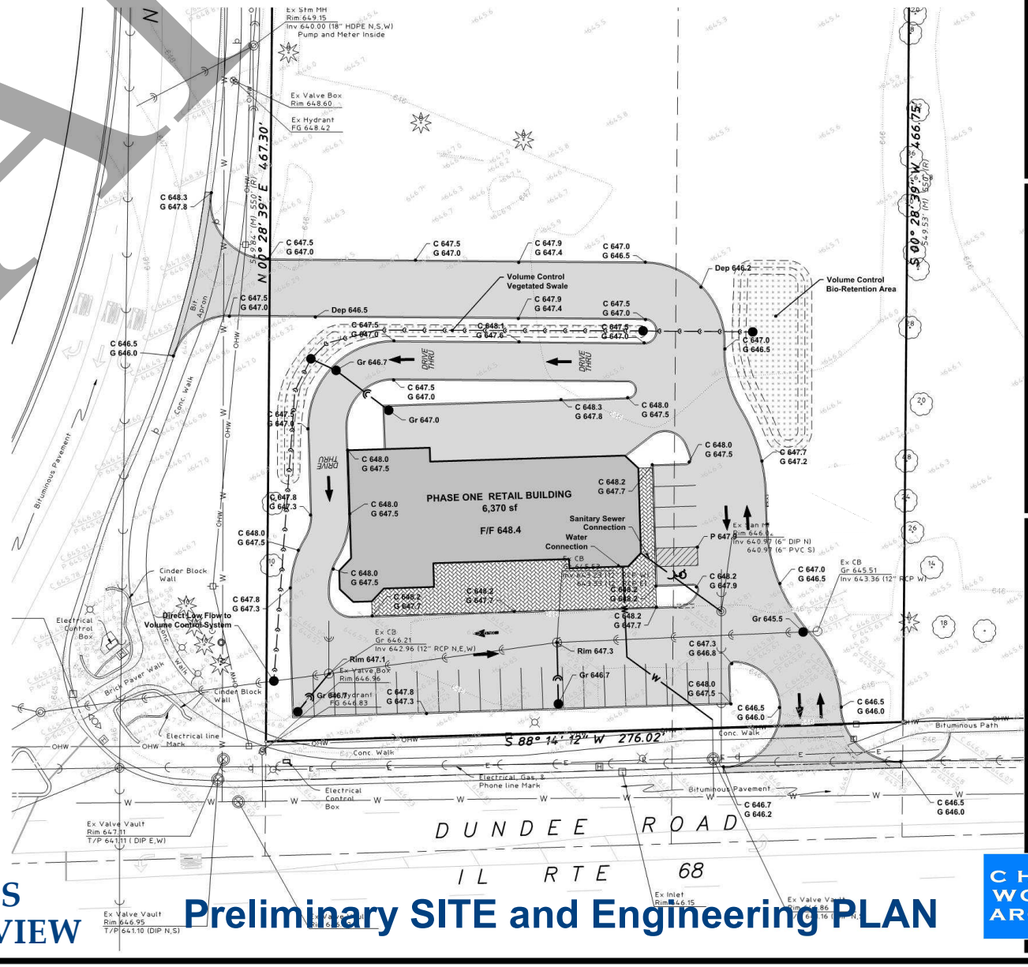
Start Time	Dundee Road Eastbound						Dundee Road Westbound						Northgate Parkway Northbound						Northgate Parkway Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:15 PM	0	26	182	11	0	219	0	3	295	4	1	302	0	9	3	5	1	17	0	13	2	76	0	91	629
4:30 PM	0	39	204	9	0	252	0	6	276	2	1	284	0	23	0	4	0	27	0	36	4	102	0	142	705
4:45 PM	0	43	172	6	0	221	0	2	274	5	1	281	0	8	3	6	0	17	0	11	0	91	0	102	621
5:00 PM	0	38	209	11	1	258	0	4	244	6	3	254	0	18	3	2	1	23	0	26	10	112	1	148	683
Total	0	146	767	37	1	950	0	15	1089	17	6	1121	0	58	9	17	2	84	0	86	16	381	1	483	2638
Approach %	0.0	15.4	80.7	3.9	-	-	0.0	1.3	97.1	1.5	-	-	0.0	69.0	10.7	20.2	-	-	0.0	17.8	3.3	78.9	-	-	-
Total %	0.0	5.5	29.1	1.4	-	36.0	0.0	0.6	41.3	0.6	-	42.5	0.0	2.2	0.3	0.6	-	3.2	0.0	3.3	0.6	14.4	-	18.3	-
PHF	0.000	0.849	0.917	0.841	-	0.921	0.000	0.625	0.923	0.708	-	0.928	0.000	0.630	0.750	0.708	-	0.778	0.000	0.597	0.400	0.850	-	0.816	0.935
Lights	0	144	746	37	-	927	0	15	1062	17	-	1094	0	58	9	16	-	83	0	82	15	376	-	473	2577
% Lights	-	98.6	97.3	100.0	-	97.6	-	100.0	97.5	100.0	-	97.6	-	100.0	100.0	94.1	-	98.8	-	95.3	93.8	98.7	-	97.9	97.7
Buses	0	0	3	0	-	3	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	-	0.0	0.4	0.0	-	0.3	-	0.0	0.5	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	2	12	0	-	14	0	0	19	0	-	19	0	0	0	1	-	1	0	4	1	3	-	8	42
% Single-Unit Trucks	-	1.4	1.6	0.0	-	1.5	-	0.0	1.7	0.0	-	1.7	-	0.0	0.0	5.9	-	1.2	-	4.7	6.3	0.8	-	1.7	1.6
Articulated Trucks	0	0	6	0	-	6	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	1	-	1	10
% Articulated Trucks	-	0.0	0.8	0.0	-	0.6	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.3	-	0.2	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.3	-	0.2	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Preliminary Site Plan

Dundee Commons
Wheeling, Illinois

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





DETENTION SUMMARY

Phase One

Project Area	1.40 ac.
Impervious Area	0.93 ac.
Pervious Area	0.47 ac.
Weighted CN	82
Detention Storage Rate (MWRD)	0.20 ac-ft/ac.
Required Detention Volume	0.28 ac-ft

Phases One & Two

Project Area	2.96 ac.
Impervious Area	1.80 ac.
Pervious Area	1.16 ac.
Weighted CN	80
Detention Storage Rate (MWRD)	0.18 ac-ft/ac.
Required Detention Volume	0.53 ac-ft

COMPENSATORY STORAGE SUMMARY

	(cu.ft.)	(ac-ft)
Overall Site Existing Floodplain Volume	14,960	0.343
Proposed Phase One Floodplain Fill	2,500	0.057
Required Phase One Comp. Storage (110%)	2,750	0.063
Proposed Phase One-Two Floodplain Fill	12,000	0.275
Proposed Phase One-Two Comp. Storage	13,200	0.303

NORTH
15 0 30
Scale: 1" = 30'

No. | Date | Revision

HAEGER ENGINEERING
consulting engineers • land surveyors
1304 N. Main Grove Road, Schaumburg, IL 60173 • tel: 847.394.6600 fax: 847.394.6608
Illinois Professional Design Firm License No.: 184.003152
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PRELIMINARY SITE AND ENGINEERING PLAN
4
DUNDEE COMMONS
WHEELING, ILLINOIS
NEDER CAPITAL SERVICES LLC

DUNDEE COMMONS
PRELIMINARY PUD REVIEW

Preliminary SITE and Engineering PLAN

CHICAGO WORKSHOP ARCHITECTS

Plot Date: May 03, 2016 - 11:34am Plotted By: mike-a
File Name: P:\2015\15211\Drawings\Preliminary\15211-PRELIMINARY.dwg

CMAP 2040 Projections Letter

Dundee Commons
Wheeling, Illinois

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

Chicago Metropolitan
Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

June 22, 2016

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

Subject: Dundee Road (IL 68) @ Northgate Parkway
IDOT

Dear Mr. Butler:

In response to a request made on your behalf and dated June 22, 2016, we have developed a year 2040 average daily traffic (ADT) projection of 29,000 for the subject location.

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2016 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,

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

cc: Fortmann (IDOT)
S:\AdminGroups\ResearchAnalysis\SmallAreaTrafficForecasts_CY16\Wheeling\ck-47-16\ck-47-16.docx

Level of Service Criteria

Dundee Commons
Wheeling, Illinois

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

LEVEL OF SERVICE CRITERIA

Signalized Intersections

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

Unsignalized Intersections

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

Source: *Highway Capacity Manual*, 2010.

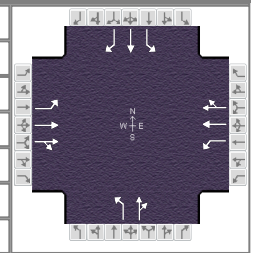
Capacity Analysis Summary Sheet

Dundee Commons
Wheeling, Illinois

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

HCS 2010 Signalized Intersection Input Data

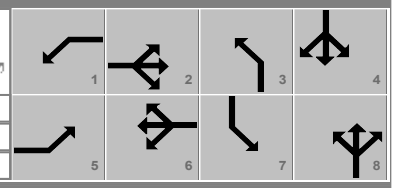
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMEX.xus		
Project Description	AM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	377	1300	44	19	492	67	23	12	13	26	11	131

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	7.4		88.9	3.8	0.1	14.3					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	0.0	0.0	1.5					



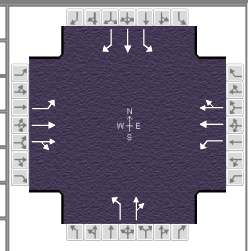
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	377	1300	44	19	492	67	23	12	13	26	11	131
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	5	3		22	6		22	0		4	0	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0		70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	52.0	90.0	14.0	52.0	12.0	24.0	12.0	24.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

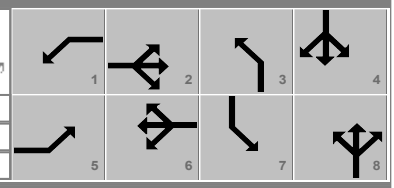
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMEX.xus		
Project Description	AM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	377	1300	44	19	492	67	23	12	13	26	11	131

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	7.4	88.9	3.8	0.1	14.3	
Yellow	3.5	3.5	4.5	3.5	0.0	4.5	
Red	0.0	0.0	1.5	0.0	0.0	1.5	



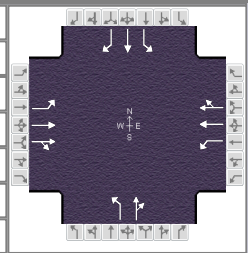
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0
Phase Duration, s	17.4	105.8	6.5	94.9	7.3	20.3	7.4	20.4
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.3	4.1	5.3
Queue Clearance Time (g_s), s	12.4		2.7		4.0	3.9	3.9	13.9
Green Extension Time (g_e), s	1.5	0.0	0.0	0.0	0.0	0.8	0.0	0.5
Phase Call Probability	1.00		1.00		0.95	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.61	0.00	0.50	0.16

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	393	703	697	20	296	286	24	26		27	11	136
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1723	1845	1823	1483	1792	1717	1483	1737		1740	2000	1579
Queue Service Time (g_s), s	10.4	5.4	7.0	0.7	4.6	6.0	2.0	1.9		1.9	0.7	11.9
Cycle Queue Clearance Time (g_c), s	10.4	5.4	7.0	0.7	4.6	6.0	2.0	1.9		1.9	0.7	11.9
Green Ratio (*g/C*)	0.75	0.71	0.71	0.66	0.63	0.63	0.13	0.10		0.13	0.10	0.10
Capacity (*c*), veh/h	699	1315	1299	287	1138	1090	189	177		220	206	163
Volume-to-Capacity Ratio (*X*)	0.562	0.535	0.536	0.069	0.260	0.262	0.126	0.147		0.123	0.056	0.839
Back of Queue (*Q*), ft/ln (95 th percentile)	164.7	74.9	88.9	9.9	76.5	96.5	36.2	39.6		40.5	17.4	234.5
Back of Queue (*Q*), veh/ln (95 th percentile)	6.3	2.9	3.6	0.4	3.0	3.9	1.4	1.6		1.6	0.7	9.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.46	0.00	0.00	0.16	0.00	0.00	0.37	0.00		0.07	0.00	1.08
Uniform Delay (d_1), s/veh	6.2	1.1	1.5	8.4	4.3	5.9	54.0	57.3		53.8	56.6	61.7
Incremental Delay (d_2), s/veh	0.7	1.6	1.6	0.1	0.6	0.6	0.3	0.5		0.2	0.2	16.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	6.9	2.7	3.1	8.5	4.8	6.4	54.3	57.8		54.1	56.8	78.3
Level of Service (LOS)	A	A	A	A	A	A	D	E		D	E	E
Approach Delay, s/veh / LOS	3.8	A		5.7	A		56.1	E		73.1	E	
Intersection Delay, s/veh / LOS	9.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.4	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	2.0	A	1.0	A	0.6	A	0.8	A

HCS 2010 Signalized Intersection Intermediate Values

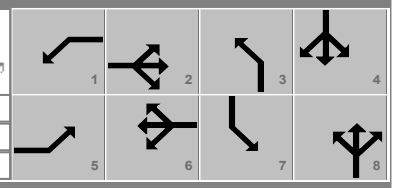
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMEX.xus		
Project Description	AM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	377	1300	44	19	492	67	23	12	13	26	11	131

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	7.4		88.9	3.8	0.1	14.3					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	0.0	0.0	1.5					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.971	1.000	0.820	0.943	1.000	0.820	1.000	1.000	0.962	1.000	0.980
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.988			0.958			0.914			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1723	3548		1483	3090		1483	834		1740	2000	
Proportion of Vehicles Arriving on Green (P)	0.10	0.95	0.71	0.02	0.85	0.63	0.03	0.10	0.10	0.03	0.10	0.10
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15		0.11	0.15	0.18

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.75	0.71	0.66	0.63	0.13	0.10	0.13	0.10
Permitted Saturation Flow Rate (s_p), veh/h/ln	805	0	321	0	1168	0	1352	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	90.9	0.0	88.9	0.0	14.3	0.0	14.3	0.0
Permitted Service Time (g_u), s	82.8	0.0	88.9	0.0	11.7	0.0	12.4	0.0
Permitted Queue Service Time (g_{ps}), s	7.7		0.0		0.1		0.0	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln								0
Protected Right Effective Green Time (g_R), s								0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.557	0.00	1.710	0.00	2.107	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.070	0.000	0.090	0.000	0.162	0.000	0.162
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1425.26	5.78	1269.89	9.33	204.24	56.43	206.02	56.32
Bicycle F_w / F_v	-3.64	1.48	-3.64	0.50	-3.64	0.08	-3.64	0.29

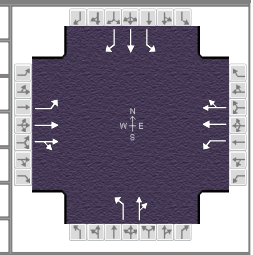
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

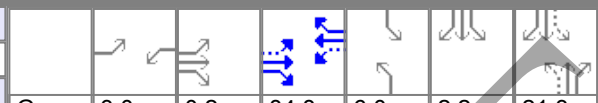
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMEX.xus		
Project Description	PM Existing Peak Hour				

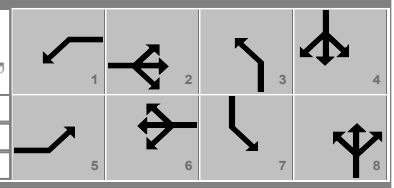


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	146	767	37	15	1089	17	58	9	17	86	16	381

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	0.2	84.8	6.0	2.2	21.3						
Yellow	3.5	3.5	4.5	3.5	0.0	4.5						
Red	0.0	0.0	1.5	0.0	0.0	1.5						



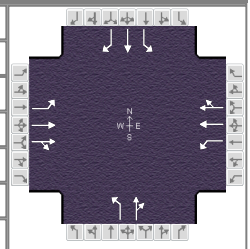
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	146	767	37	15	1089	17	58	9	17	86	16	381
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	3		0	3		0	0		5	6	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0		70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	18.0	87.0	14.0	83.0	14.0	25.0	14.0	25.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

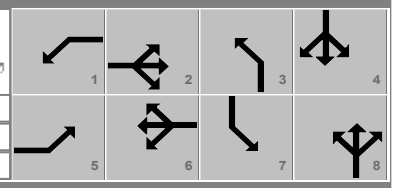
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMEX.xus		
Project Description	PM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	146	767	37	15	1089	17	58	9	17	86	16	381

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	0.2	84.8	6.0	2.2	21.3						
Yellow	3.5	3.5	4.5	3.5	0.0	4.5						
Red	0.0	0.0	1.5	0.0	0.0	1.5						



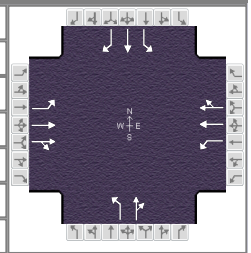
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0
Phase Duration, s	10.2	94.5	6.5	90.8	9.5	27.3	11.7	29.5
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.3	4.1	5.3
Queue Clearance Time (g_s), s	6.4		2.5		6.0	4.0	8.2	25.5
Green Extension Time (g_e), s	0.3	0.0	0.0	0.0	0.0	2.7	0.0	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.04		0.00		0.67	0.04	1.00	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	155	431	424	16	590	587	62	28		91	17	405
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1845	1814	1810	1845	1834	1810	1700		1723	1887	1594
Queue Service Time (g_s), s	4.4	7.5	8.3	0.5	15.0	15.4	4.0	2.0		6.2	1.1	23.5
Cycle Queue Clearance Time (g_c), s	4.4	7.5	8.3	0.5	15.0	15.4	4.0	2.0		6.2	1.1	23.5
Green Ratio (*g/C*)	0.67	0.63	0.63	0.63	0.61	0.61	0.20	0.15		0.22	0.17	0.17
Capacity (*c*), veh/h	375	1166	1147	456	1118	1112	336	259		337	316	267
Volume-to-Capacity Ratio (*X*)	0.414	0.370	0.370	0.035	0.528	0.528	0.184	0.107		0.272	0.054	1.516
Back of Queue (*Q*), ft/ln (95 th percentile)	78.8	118.8	128.5	8.4	211.9	211.6	84	39.2		122.6	23.7	1088.4
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	4.6	5.1	0.3	8.3	8.5	3.3	1.6		4.9	0.9	43.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.22	0.00	0.00	0.12	0.00	0.00	0.76	0.00		0.23	0.00	4.99
Uniform Delay (d_1), s/veh	10.0	4.6	5.3	10.0	6.7	7.0	47.0	51.2		45.5	48.9	58.3
Incremental Delay (d_2), s/veh	0.7	0.9	0.9	0.0	1.8	1.8	0.3	0.3		0.4	0.1	250.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	10.8	5.5	6.2	10.0	8.5	8.8	47.2	51.4		45.9	49.0	308.9
Level of Service (LOS)	B	A	A	A	A	A	D	D		D	D	F
Approach Delay, s/veh / LOS	6.6	A		8.7	A		48.5	D		253.5	F	
Intersection Delay, s/veh / LOS	54.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.4	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	1.3	A	1.5	A	0.6	A	1.3	A

HCS 2010 Signalized Intersection Intermediate Values

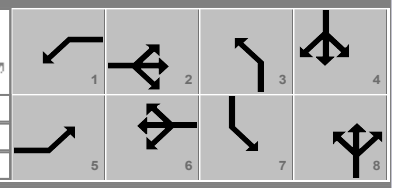
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMEX.xus		
Project Description	PM Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	146	767	37	15	1089	17	58	9	17	86	16	381

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	0.2		84.8	6.0	2.2	21.3					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	0.0	0.0	1.5					



Saturation Flow / Delay	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.971	1.000	1.000	0.971	1.000	1.000	1.000	1.000	0.952	0.943	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.984			0.994			0.895			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3491		1810	3623		1810	588		1723	1887	
Proportion of Vehicles Arriving on Green (P)	0.05	0.84	0.63	0.02	0.81	0.61	0.04	0.15	0.15	0.06	0.17	0.17
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15		0.11	0.15	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.67	0.63	0.63	0.61	0.20	0.15	0.22	0.17
Permitted Saturation Flow Rate (s_p), veh/h/ln	479	0	656	0	1418	0	1338	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	86.8	0.0	84.8	0.0	21.3	0.0	22.0	0.0
Permitted Service Time (g_u), s	69.5	0.0	78.2	0.0	20.4	0.0	19.3	0.0
Permitted Queue Service Time (g_{ps}), s	8.3		0.2		0.0		0.2	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln								0
Protected Right Effective Green Time (g_R), s								0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.557	0.00	1.710	0.00	2.107	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.090	0.000	0.096	0.000	0.157	0.000	0.156
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1264.34	9.47	1211.79	10.87	304.21	50.32	335.42	48.49
Bicycle F_w / F_v	-3.64	0.83	-3.64	0.98	-3.64	0.15	-3.64	0.85

--- Messages ---

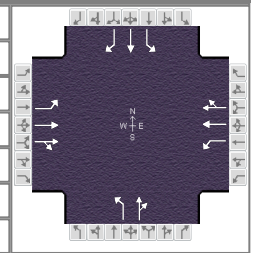
WARNING: If demand exceeds capacity, a multiple-period analysis should be conducted.

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

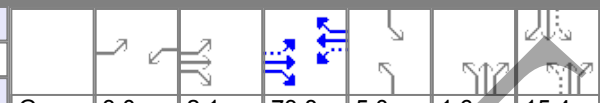
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATEX.xus		
Project Description	Saturday Existing Peak Hour				

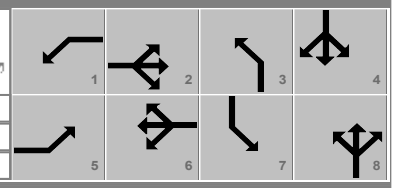


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	116	1051	66	33	968	30	79	18	28	51	13	168

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	2.1		73.8	5.0	1.6	15.4					
Yellow	3.5	0.0		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	0.0	0.0	1.5					



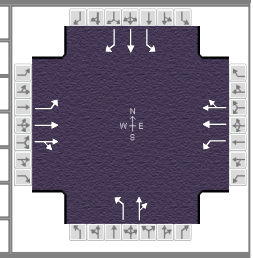
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	116	1051	66	33	968	30	79	18	28	51	13	168
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		0	1		0	0		0	0	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0		70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	14.0	68.0	14.0	68.0	13.0	25.0	13.0	25.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

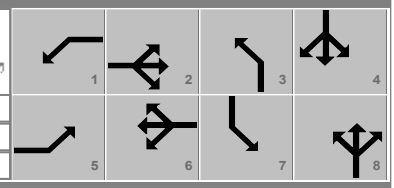
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATEX.xus		
Project Description	Saturday Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	116	1051	66	33	968	30	79	18	28	51	13	168

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	2.1	73.8	5.0	1.6	15.4
Yellow	3.5	0.0	4.5	3.5	0.0	4.5
Red	0.0	0.0	1.5	0.0	0.0	1.5



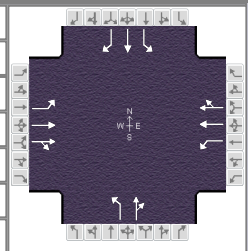
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	3.0
Phase Duration, s	8.6	81.9	6.5	79.8	10.1	23.1	8.5	21.4
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.3	4.1	5.3
Queue Clearance Time (g_s), s	4.9		2.8		6.6	4.9	5.0	14.7
Green Extension Time (g_e), s	0.2	0.0	0.0	0.0	0.0	1.2	0.0	0.7
Phase Call Probability	1.00		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	0.60	0.45

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	120	582	570	34	517	512	81	47		53	13	173
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1881	1842	1810	1881	1861	1810	1712		1810	2000	1594
Queue Service Time (g_s), s	2.9	9.9	11.2	0.8	9.4	9.9	4.6	2.9		3.0	0.7	12.7
Cycle Queue Clearance Time (g_c), s	2.9	9.9	11.2	0.8	9.4	9.9	4.6	2.9		3.0	0.7	12.7
Green Ratio (*g/C*)	0.66	0.63	0.63	0.64	0.61	0.61	0.19	0.14		0.17	0.13	0.13
Capacity (*c*), veh/h	430	1190	1165	364	1157	1144	335	243		275	257	205
Volume-to-Capacity Ratio (*X*)	0.278	0.489	0.489	0.093	0.447	0.447	0.243	0.195		0.191	0.052	0.845
Back of Queue (*Q*), ft/ln (95 th percentile)	48.7	139.5	158	14.4	140.8	147.9	96.2	58.6		61.8	16.4	251.9
Back of Queue (*Q*), veh/ln (95 th percentile)	1.9	5.5	6.3	0.6	5.6	5.9	3.8	2.3		2.5	0.7	10.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.14	0.00	0.00	0.20	0.00	0.00	0.87	0.00		0.11	0.00	1.15
Uniform Delay (d_1), s/veh	7.9	4.2	5.0	8.5	5.0	5.4	41.7	45.4		42.6	45.9	51.1
Incremental Delay (d_2), s/veh	0.3	1.4	1.5	0.1	1.3	1.3	0.4	0.5		0.3	0.1	16.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	8.2	5.7	6.5	8.6	6.3	6.7	42.1	46.0		42.9	46.0	68.1
Level of Service (LOS)	A	A	A	A	A	A	D	D		D	D	E
Approach Delay, s/veh / LOS	6.3	A		6.5	A		43.5	D		61.3	E	
Intersection Delay, s/veh / LOS	13.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.4	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	1.5	A	1.4	A	0.7	A	0.9	A

HCS 2010 Signalized Intersection Intermediate Values

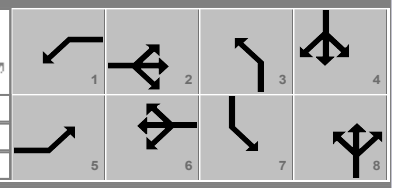
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2016	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATEX.xus		
Project Description	Saturday Existing Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	116	1051	66	33	968	30	79	18	28	51	13	168

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	2.1		73.8	5.0	1.6	15.4					
Yellow	3.5	0.0		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	0.0	0.0	1.5					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.990	1.000	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.979			0.989			0.901			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3503		1810	3630		1810	670		1810	2000	
Proportion of Vehicles Arriving on Green (P)	0.04	0.84	0.63	0.03	0.82	0.61	0.06	0.14	0.14	0.04	0.13	0.13
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15		0.11	0.15	0.22

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Green Ratio (g/C)	0.66	0.63	0.64	0.61	0.19	0.14	0.17	0.13
Permitted Saturation Flow Rate (s_p), veh/h/ln	551	0	496	0	1423	0	1380	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	74.4	0.0	73.8	0.0	15.6	0.0	15.4	0.0
Permitted Service Time (g_u), s	63.8	0.0	62.7	0.0	14.7	0.0	12.1	0.0
Permitted Queue Service Time (g_{ps}), s	2.9		0.8		0.1		0.1	
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln								0
Protected Right Effective Green Time (g_R), s								0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.557	0.00	1.710	0.00	2.107	0.00	2.107	0.00
Pedestrian F_s / F_{delay}	0.000	0.084	0.000	0.088	0.000	0.152	0.000	0.153
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1265.42	8.09	1229.89	8.90	284.38	44.15	257.26	45.56
Bicycle F_w / F_v	-3.64	1.05	-3.64	0.88	-3.64	0.21	-3.64	0.39

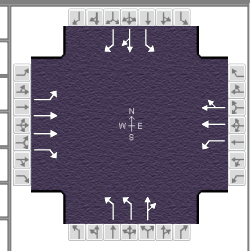
--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

--- Comments ---

HCS 2010 Signalized Intersection Input Data

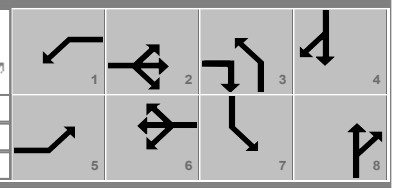
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMNB.xus		
Project Description	AM No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	388	1376	100	65	507	69	139	70	51	27	56	135

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.8	8.2		79.1	2.8	1.6	15.5					
Yellow	3.5	3.5		4.5	3.5	3.5	4.5					
Red	0.0	0.0		1.5	1.0	1.0	1.5					



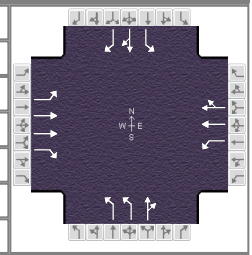
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	388	1376	100	65	507	69	139	70	51	27	56	135
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	5	3	0	22	6		22	0		4	0	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	52.0	84.0	12.0	44.0	14.0	30.0	14.0	30.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

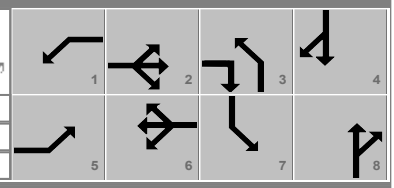
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMNB.xus		
Project Description	AM No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	388	1376	100	65	507	69	139	70	51	27	56	135

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	Begin									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	4.8	8.2	79.1	2.8	1.6	15.5		
				Yellow	3.5	3.5	4.5	3.5	3.5	4.5		
				Red	0.0	0.0	1.5	1.0	1.0	1.5		



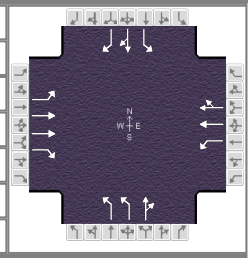
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	20.0	96.8	8.3	85.1	13.4	27.6	7.3	21.5
Change Period, ($Y+R_c$), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.2	4.1	5.2
Queue Clearance Time (g_s), s	15.0		4.7		8.9	11.1	4.3	14.2
Green Extension Time (g_e), s	1.5	0.0	0.1	0.0	0.0	1.7	0.0	1.3
Phase Call Probability	1.00		1.00		1.00	1.00	0.67	1.00
Max Out Probability	0.00		0.00		1.00	0.01	0.19	0.15

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	404	1433	104	68	306	294	145	126		28	58	141
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1723	1849	1610	1483	1792	1717	1440	1766		1740	2000	1579
Queue Service Time (g_s), s	13.0	15.2	2.8	2.7	7.6	9.0	6.9	9.1		2.3	3.7	12.2
Cycle Queue Clearance Time (g_c), s	13.0	15.2	2.8	2.7	7.6	9.0	6.9	9.1		2.3	3.7	12.2
Green Ratio (*g/C*)	0.70	0.65	0.71	0.60	0.56	0.56	0.06	0.15		0.02	0.11	0.11
Capacity (*c*), veh/h	651	2398	1147	266	1013	970	184	272		35	221	174
Volume-to-Capacity Ratio (*X*)	0.620	0.598	0.091	0.255	0.302	0.304	0.788	0.463		0.797	0.264	0.806
Back of Queue (*Q*), ft/ln (95 th percentile)	215.8	174.4	42.6	43.1	132.2	149	142.1	190.3		61.8	90.3	232.8
Back of Queue (*Q*), veh/ln (95 th percentile)	8.3	6.8	1.7	1.7	5.2	6.0	5.5	7.6		2.4	3.5	9.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.61	0.00	0.00	0.70	0.00	0.00	1.46	0.00		0.11	0.00	1.08
Uniform Delay (d_1), s/veh	9.3	4.4	6.2	11.9	8.5	10.2	64.6	54.0		68.3	57.1	60.8
Incremental Delay (d_2), s/veh	1.0	1.1	0.2	0.5	0.8	0.8	18.1	1.7		32.1	0.9	12.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	10.2	5.5	6.3	12.4	9.2	11.0	82.7	55.7		100.4	58.0	72.8
Level of Service (LOS)	B	A	A	B	A	B	F	E		F	E	E
Approach Delay, s/veh / LOS	6.5	A		10.3	B		70.2	E		72.4	E	
Intersection Delay, s/veh / LOS	17.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	2.1	B	1.0	A	0.9	A	0.9	A

HCS 2010 Signalized Intersection Intermediate Values

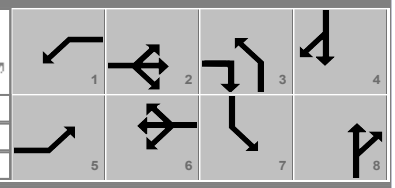
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMNB.xus		
Project Description	AM No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	388	1376	100	65	507	69	139	70	51	27	56	135

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.8	8.2		79.1	2.8	1.6	15.5					
Yellow	3.5	3.5		4.5	3.5	3.5	4.5					
Red	0.0	0.0		1.5	1.0	1.0	1.5					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.971	1.000	0.820	0.943	1.000	0.820	1.000	1.000	0.962	1.000	0.980
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.958			0.929			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1723	3697		1483	3090		2880	1022		1740	2000	
Proportion of Vehicles Arriving on Green (P)	0.12	0.86	0.65	0.03	0.75	0.56	0.06	0.15	0.15	0.02	0.11	0.11
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.30	0.15		0.11	0.15	0.16

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.70	0.65	0.60	0.56	0.06	0.15	0.02	0.11
Permitted Saturation Flow Rate (s_p), veh/h/ln	792	0	311	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	81.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	70.1	0.0	73.6	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	11.4		1.5					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		8.9						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.086	0.000	0.104	0.000	0.157	0.000	0.161
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1297.24	8.64	1129.81	13.25	307.98	50.10	220.92	55.39
Bicycle F_w / F_v	-3.64	1.60	-3.64	0.55	-3.64	0.45	-3.64	0.37

--- Messages ---

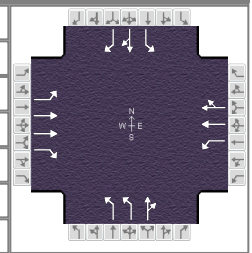
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

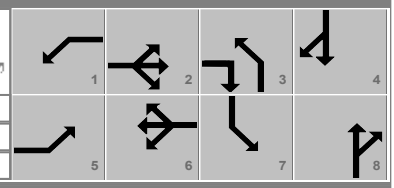
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMNB.xus		
Project Description	PM No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	860	144	15	1122	18	185	74	53	89	102	392

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	Begin	Green	3.0	1.5	70.5	9.4	0.6	31.4		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.5	3.5	4.5	3.5	0.0	4.5		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	1.5	1.0	0.0	1.5		



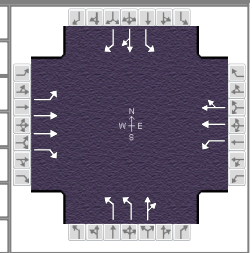
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	860	144	15	1122	18	185	74	53	89	102	392
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	3	0	0	3		0	0		5	6	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	16.0	73.0	15.0	72.0	20.0	32.0	20.0	32.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

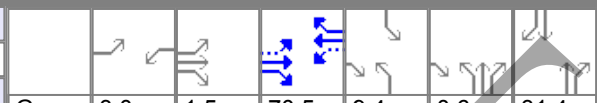
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMNB.xus		
Project Description	PM No-Build Peak Hour				

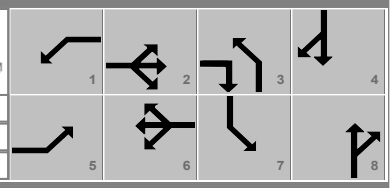


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	860	144	15	1122	18	185	74	53	89	102	392

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.0	1.5	70.5	9.4	0.6	31.4
Yellow	3.5	3.5	4.5	3.5	0.0	4.5
Red	0.0	0.0	1.5	1.0	0.0	1.5



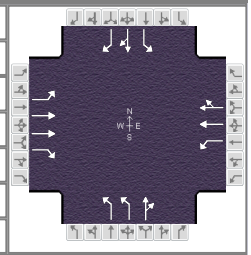
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	11.5	81.5	6.5	76.5	14.6	38.0	13.9	37.4
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.3	4.1	5.3
Queue Clearance Time (*g s*), s	7.8		2.6		9.7	10.9	9.6	33.4
Green Extension Time (*g e*), s	0.2	0.0	0.0	0.0	0.3	4.1	0.1	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	0.97	1.00
Max Out Probability	0.60		0.00		0.29	0.05	0.17	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	160	915	153	16	608	605	197	135		95	109	417
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1849	1610	1810	1845	1834	1757	1767		1723	1887	1594
Queue Service Time (*g s*), s	5.8	14.5	5.7	0.6	27.0	27.3	7.7	8.9		7.6	6.6	31.4
Cycle Queue Clearance Time (*g c*), s	5.8	14.5	5.7	0.6	27.0	27.3	7.7	8.9		7.6	6.6	31.4
Green Ratio (*g/C*)	0.58	0.54	0.61	0.53	0.50	0.50	0.07	0.23		0.07	0.22	0.22
Capacity (*c*), veh/h	297	1994	984	351	929	924	252	405		116	424	358
Volume-to-Capacity Ratio (*X*)	0.538	0.459	0.156	0.045	0.654	0.655	0.780	0.334		0.814	0.256	1.165
Back of Queue (*Q*), ft/ln (95 th percentile)	112	224.3	95.5	11.4	397.5	392.9	166.7	183.3		170.2	147	824.4
Back of Queue (*Q*), veh/ln (95 th percentile)	4.4	8.8	3.8	0.5	15.5	15.7	6.6	7.3		6.8	5.7	33.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.32	0.00	0.00	0.16	0.00	0.00	1.50	0.00		0.31	0.00	3.78
Uniform Delay (*d 1*), s/veh	18.6	11.1	11.7	16.4	15.9	16.2	63.9	45.1		64.4	44.7	54.3
Incremental Delay (*d 2*), s/veh	1.5	0.8	0.3	0.1	3.6	3.6	5.4	0.7		12.7	0.4	100.4
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	20.1	11.9	12.0	16.5	19.4	19.8	69.3	45.8		77.1	45.1	154.7
Level of Service (LOS)	C	B	B	B	B	B	E	D		E	D	F
Approach Delay, s/veh / LOS	13.0	B		19.6	B		59.7	E		123.7	F	
Intersection Delay, s/veh / LOS	40.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	1.5	A	1.5	A	1.0	A	1.5	A

HCS 2010 Signalized Intersection Intermediate Values

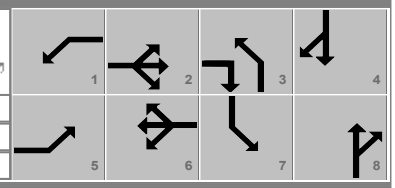
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMNB.xus		
Project Description	PM No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	860	144	15	1122	18	185	74	53	89	102	392

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	1.5		70.5	9.4	0.6	31.4					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.971	1.000	1.000	0.971	1.000	1.000	1.000	1.000	0.952	0.943	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.994			0.930			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3697		1810	3621		3514	1030		1723	1887	
Proportion of Vehicles Arriving on Green (P)	0.06	0.72	0.54	0.02	0.67	0.50	0.07	0.23	0.23	0.07	0.22	0.22
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15		0.11	0.15	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.58	0.54	0.53	0.50	0.07	0.23	0.07	0.22
Permitted Saturation Flow Rate (s_p), veh/h/ln	463	0	620	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	72.5	0.0	70.5	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	43.2	0.0	59.0	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	15.4		0.3					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		10.1						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.108	0.000	0.114	0.000	0.150	0.000	0.150
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1078.60	14.86	1007.18	17.25	457.84	41.62	449.20	42.09
Bicycle F_w / F_v	-3.64	1.01	-3.64	1.01	-3.64	0.55	-3.64	1.02

--- Messages ---

WARNING: If demand exceeds capacity, a multiple-period analysis should be conducted.

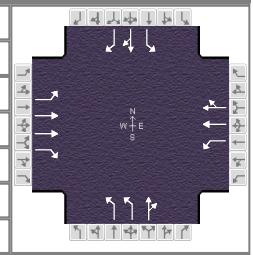
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

HCS 2010 Signalized Intersection Input Data

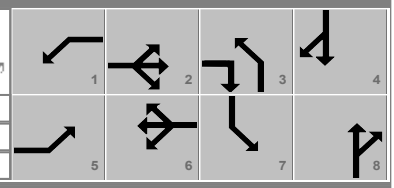
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATNB.xus		
Project Description	Saturday No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	119	1120	123	149	997	31	246	105	79	53	108	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.8	0.9	65.5	4.7	1.7	16.8						
Yellow	3.5	0.0	4.5	3.5	3.5	4.5						
Red	0.0	0.0	1.5	1.0	1.0	1.5						



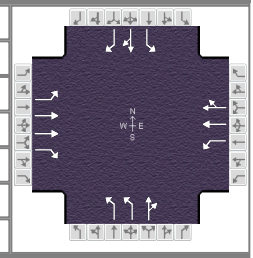
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	119	1120	123	149	997	31	246	105	79	53	108	173
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1	0	0	1		0	0		0	0	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	14.0	61.0	14.0	61.0	20.0	25.0	20.0	25.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

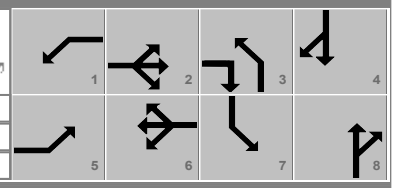
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATNB.xus		
Project Description	Saturday No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	119	1120	123	149	997	31	246	105	79	53	108	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.8	0.9	65.5	4.7	1.7	16.8
Yellow	3.5	0.0	4.5	3.5	3.5	4.5
Red	0.0	0.0	1.5	1.0	1.0	1.5



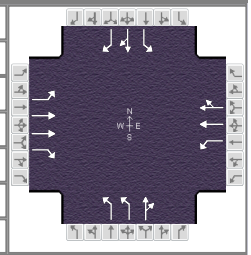
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	9.3	71.5	10.2	72.5	15.4	29.0	9.2	22.8
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.2	4.1	5.2
Queue Clearance Time (*g s*), s	5.6		6.4		10.5	13.7	5.6	15.0
Green Extension Time (*g e*), s	0.2	0.0	0.3	0.0	0.4	2.5	0.1	1.8
Phase Call Probability	1.00		1.00		1.00	1.00	0.84	1.00
Max Out Probability	0.00		0.00		0.57	0.05	0.00	0.40

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	123	1155	127	154	533	527	254	190		55	111	178
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1885	1610	1810	1881	1861	1757	1764		1810	2000	1594
Queue Service Time (*g s*), s	3.6	16.9	3.7	4.4	14.3	14.8	8.5	11.7		3.6	6.1	13.0
Cycle Queue Clearance Time (*g c*), s	3.6	16.9	3.7	4.4	14.3	14.8	8.5	11.7		3.6	6.1	13.0
Green Ratio (*g/C*)	0.59	0.55	0.64	0.60	0.55	0.55	0.09	0.19		0.04	0.14	0.14
Capacity (*c*), veh/h	369	2059	1026	362	1042	1031	320	338		72	280	223
Volume-to-Capacity Ratio (*X*)	0.333	0.561	0.124	0.424	0.511	0.511	0.793	0.562		0.764	0.398	0.799
Back of Queue (*Q*), ft/ln (95 th percentile)	64.3	232.4	58.6	80.4	215.8	220.1	183.8	228.9		88.3	142.5	246.6
Back of Queue (*Q*), veh/ln (95 th percentile)	2.6	9.2	2.3	3.2	8.6	8.8	7.3	9.2		3.5	5.7	9.9
Queue Storage Ratio (*RQ*) (95 th percentile)	0.18	0.00	0.00	1.14	0.00	0.00	1.66	0.00		0.16	0.00	1.13
Uniform Delay (*d 1*), s/veh	11.9	9.7	8.6	12.1	8.9	9.3	53.4	44.0		57.1	47.0	50.0
Incremental Delay (*d 2*), s/veh	0.5	1.1	0.2	0.8	1.8	1.8	6.2	2.1		15.4	1.3	11.5
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	12.5	10.8	8.8	12.9	10.7	11.1	59.6	46.0		72.5	48.3	61.5
Level of Service (LOS)	B	B	A	B	B	B	E	D		E	D	E
Approach Delay, s/veh / LOS	10.8	B		11.1	B		53.8	D		59.0	E	
Intersection Delay, s/veh / LOS	21.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	1.6	A	1.5	A	1.2	A	1.1	A

HCS 2010 Signalized Intersection Intermediate Values

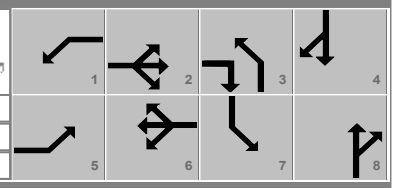
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATNB.xus		
Project Description	Saturday No-Build Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	119	1120	123	149	997	31	246	105	79	53	108	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.8	0.9	65.5	4.7	1.7	16.8						
Yellow	3.5	0.0	4.5	3.5	3.5	4.5						
Red	0.0	0.0	1.5	1.0	1.0	1.5						



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.990	1.000	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.989			0.928			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3770		1810	3629		3514	1006		1810	2000	
Proportion of Vehicles Arriving on Green (P)	0.05	0.73	0.55	0.06	0.74	0.55	0.09	0.19	0.19	0.04	0.14	0.14
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.15	0.15		0.11	0.15	0.20

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.59	0.55	0.60	0.55	0.09	0.19	0.04	0.14
Permitted Saturation Flow Rate (s_p), veh/h/ln	536	0	494	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	65.5	0.0	65.5	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	49.7	0.0	48.7	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	4.7		7.6					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		10.9						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.101	0.000	0.099	0.000	0.147	0.000	0.152
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1092.35	12.36	1107.75	11.94	382.90	39.23	279.87	44.38
Bicycle F_w / F_v	-3.64	1.16	-3.64	1.00	-3.64	0.73	-3.64	0.57

--- Messages ---

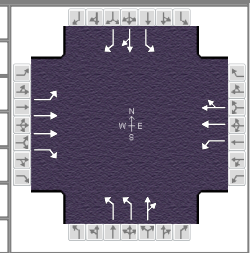
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

HCS 2010 Signalized Intersection Input Data

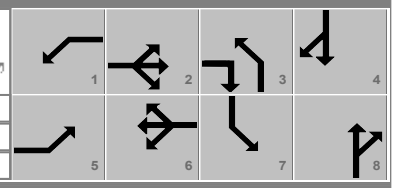
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMPR.xus		
Project Description	AM Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	415	1366	100	149	995	31	139	73	51	50	59	158

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.8	6.2		75.0	5.4	3.6	17.5					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



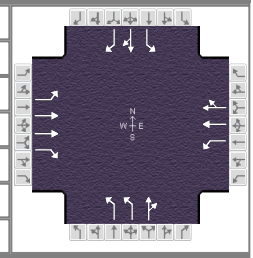
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	415	1366	100	149	995	31	139	73	51	50	59	158
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	5	3	0	22	6		22	0		4	0	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	52.0	84.0	12.0	44.0	14.0	30.0	14.0	30.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

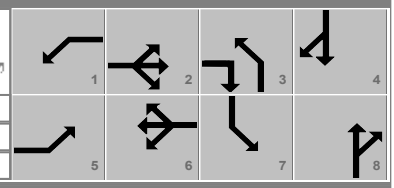
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMPR.xus		
Project Description	AM Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	415	1366	100	149	995	31	139	73	51	50	59	158

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.8	6.2		75.0	5.4	3.6	17.5					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



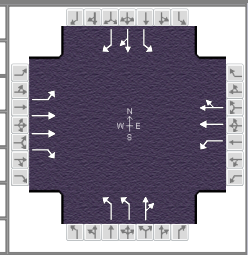
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	22.0	90.7	12.3	81.0	13.4	27.1	9.9	23.5
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.2	4.1	5.2
Queue Clearance Time (*g s*), s	16.9		8.6		8.9	11.4	6.2	16.3
Green Extension Time (*g e*), s	1.6	0.0	0.2	0.0	0.0	1.8	0.0	1.2
Phase Call Probability	1.00		1.00		1.00	1.00	0.87	1.00
Max Out Probability	0.00		0.09		1.00	0.02	1.00	0.35

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	432	1423	104	155	537	531	145	129		52	61	165
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1723	1849	1610	1483	1792	1773	1440	1769		1740	2000	1579
Queue Service Time (*g s*), s	14.9	21.4	3.2	6.6	20.0	20.5	6.9	9.4		4.2	3.9	14.3
Cycle Queue Clearance Time (*g c*), s	14.9	21.4	3.2	6.6	20.0	20.5	6.9	9.4		4.2	3.9	14.3
Green Ratio (*g/C*)	0.68	0.61	0.67	0.60	0.54	0.54	0.06	0.15		0.04	0.13	0.13
Capacity (*c*), veh/h	478	2238	1077	282	960	950	184	266		67	250	197
Volume-to-Capacity Ratio (*X*)	0.905	0.636	0.097	0.550	0.560	0.560	0.788	0.485		0.781	0.246	0.834
Back of Queue (*Q*), ft/ln (95 th percentile)	355	245.5	51.2	107.2	285.8	288.6	142.1	195.2		102	93.2	271
Back of Queue (*Q*), veh/ln (95 th percentile)	13.7	9.6	2.0	4.1	11.2	11.5	5.5	7.8		3.9	3.6	10.8
Queue Storage Ratio (*RQ*) (95 th percentile)	1.00	0.00	0.00	1.73	0.00	0.00	1.46	0.00		0.18	0.00	1.25
Uniform Delay (*d 1*), s/veh	18.2	7.4	8.2	13.9	12.1	12.7	64.6	54.5		66.7	55.3	59.8
Incremental Delay (*d 2*), s/veh	6.7	1.4	0.2	1.7	2.4	2.4	18.1	1.9		17.7	0.7	16.4
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	24.9	8.8	8.4	15.6	14.5	15.1	82.7	56.4		84.4	56.0	76.3
Level of Service (LOS)	C	A	A	B	B	B	F	E		F	E	E
Approach Delay, s/veh / LOS	12.3	B		14.9	B		70.3	E		73.3	E	
Intersection Delay, s/veh / LOS	22.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	2.1	B	1.5	A	0.9	A	0.9	A

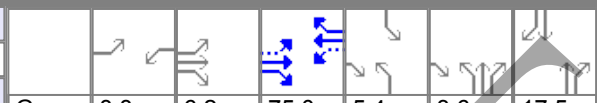
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	AM Peak Hour	PHF	0.96
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate AMPR.xus		
Project Description	AM Projected Peak Hour				

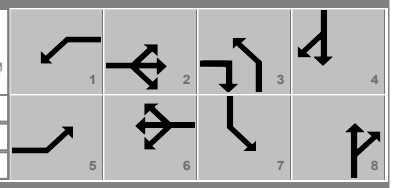


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	415	1366	100	149	995	31	139	73	51	50	59	158

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



	EB			WB			NB			SB		
Green	8.8	6.2		75.0	5.4	3.6	17.5					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



Saturation Flow / Delay	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.952	0.971	1.000	0.820	0.943	1.000	0.820	1.000	1.000	0.962	1.000	0.980
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.989			0.931			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1723	3697		1483	3458		2880	1041		1740	2000	
Proportion of Vehicles Arriving on Green (P)	0.13	0.81	0.61	0.06	0.71	0.54	0.06	0.15	0.15	0.04	0.13	0.13
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.30	0.15		0.11	0.15	0.22

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.68	0.61	0.60	0.54	0.06	0.15	0.04	0.13
Permitted Saturation Flow Rate (s_p), veh/h/ln	511	0	314	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	77.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	54.1	0.0	61.2	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	54.1		13.5					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		8.9						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.096	0.000	0.109	0.000	0.157	0.000	0.160
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1210.64	10.90	1071.60	15.08	301.07	50.51	250.09	53.59
Bicycle F_w / F_v	-3.64	1.62	-3.64	1.01	-3.64	0.45	-3.64	0.46

--- Messages ---

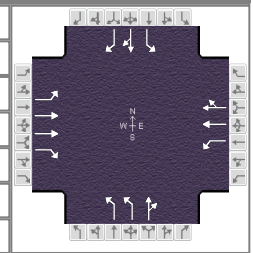
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

HCS 2010 Signalized Intersection Input Data

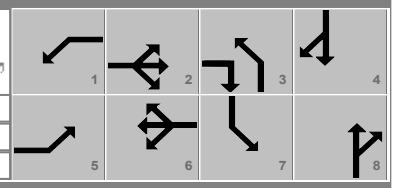
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMPR.xus		
Project Description	PM Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	170	859	144	15	1126	18	185	77	53	107	106	410

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	2.4		69.6	10.1	1.0	30.4					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



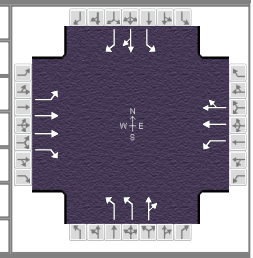
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	170	859	144	15	1126	18	185	77	53	107	106	410
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	3	0	0	3		0	0		5	6	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	16.0	73.0	15.0	72.0	20.0	32.0	20.0	32.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

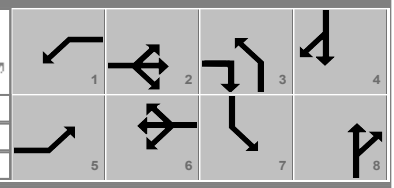
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMPR.xus		
Project Description	PM Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	170	859	144	15	1126	18	185	77	53	107	106	410

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	2.4		69.6	10.1	1.0	30.4					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



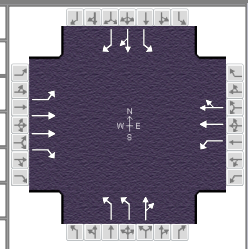
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	12.4	81.5	6.5	75.6	14.6	36.4	15.6	37.4
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.3	4.1	5.3
Queue Clearance Time (*g s*), s	8.7		2.6		9.7	11.3	11.1	33.4
Green Extension Time (*g e*), s	0.2	0.0	0.0	0.0	0.3	4.2	0.1	0.0
Phase Call Probability	1.00		1.00		1.00	1.00	0.99	1.00
Max Out Probability	1.00		0.00		0.29	0.08	0.78	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	181	914	153	16	610	607	197	138		114	113	436
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1849	1610	1810	1845	1834	1757	1770		1723	1887	1594
Queue Service Time (*g s*), s	6.7	14.5	5.7	0.6	27.9	28.2	7.7	9.3		9.1	6.9	31.4
Cycle Queue Clearance Time (*g c*), s	6.7	14.5	5.7	0.6	27.9	28.2	7.7	9.3		9.1	6.9	31.4
Green Ratio (*g/C*)	0.58	0.54	0.61	0.52	0.50	0.50	0.07	0.22		0.08	0.22	0.22
Capacity (*c*), veh/h	302	1994	984	352	918	912	252	384		137	424	358
Volume-to-Capacity Ratio (*X*)	0.600	0.458	0.156	0.045	0.665	0.665	0.780	0.360		0.834	0.266	1.218
Back of Queue (*Q*), ft/ln (95 th percentile)	130.4	224.1	95.5	11.6	412.1	407	166.7	190.8		209.6	153.3	908.7
Back of Queue (*Q*), veh/ln (95 th percentile)	5.2	8.8	3.8	0.5	16.1	16.3	6.6	7.6		8.3	6.0	36.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.37	0.00	0.00	0.16	0.00	0.00	1.50	0.00		0.39	0.00	4.16
Uniform Delay (*d 1*), s/veh	19.4	11.1	11.7	16.8	16.5	16.8	63.9	46.5		63.5	44.8	54.3
Incremental Delay (*d 2*), s/veh	2.2	0.8	0.3	0.1	3.8	3.8	5.4	0.8		19.3	0.5	121.0
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	21.6	11.9	12.0	16.8	20.3	20.7	69.3	47.3		82.9	45.2	175.3
Level of Service (LOS)	C	B	B	B	C	C	E	D		F	D	F
Approach Delay, s/veh / LOS	13.3	B		20.5	C		60.2	E		137.3	F	
Intersection Delay, s/veh / LOS	44.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	1.5	A	1.5	A	1.0	A	1.6	A

HCS 2010 Signalized Intersection Intermediate Values

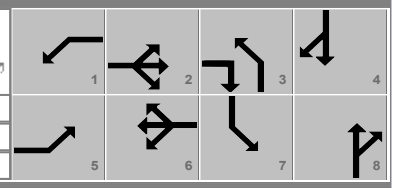
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	PM Peak Hour	PHF	0.94
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate PMPR.xus		
Project Description	PM Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	170	859	144	15	1126	18	185	77	53	107	106	410

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.0	2.4		69.6	10.1	1.0	30.4					
Yellow	3.5	3.5		4.5	3.5	0.0	4.5					
Red	0.0	0.0		1.5	1.0	0.0	1.5					



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.971	1.000	1.000	0.971	1.000	1.000	1.000	1.000	0.952	0.943	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.994			0.932			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3697		1810	3621		3514	1048		1723	1887	
Proportion of Vehicles Arriving on Green (P)	0.06	0.72	0.54	0.02	0.66	0.50	0.07	0.22	0.22	0.08	0.22	0.22
Incremental Delay Factor (k)	0.12	0.50	0.50	0.11	0.50	0.50	0.11	0.15		0.18	0.15	0.50

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.58	0.54	0.52	0.50	0.07	0.22	0.08	0.22
Permitted Saturation Flow Rate (s_p), veh/h/ln	461	0	621	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	71.6	0.0	69.6	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	41.5	0.0	59.0	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	19.4		0.3					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		10.1						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.108	0.000	0.115	0.000	0.151	0.000	0.150
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1078.60	14.86	994.82	17.68	434.40	42.89	449.20	42.09
Bicycle F_w / F_v	-3.64	1.03	-3.64	1.02	-3.64	0.55	-3.64	1.09

--- Messages ---

WARNING: If demand exceeds capacity, a multiple-period analysis should be conducted.

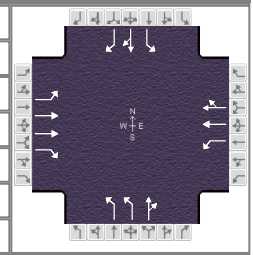
WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

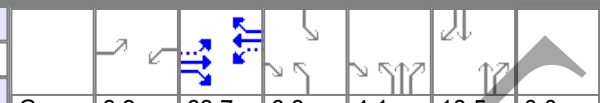
HCS 2010 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATPR.xus		
Project Description	Saturday Projected Peak Hour				

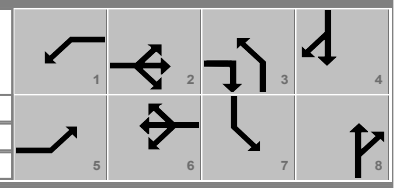


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	1124	123	149	995	31	246	107	79	77	111	197

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.9	63.7	6.8	4.1	18.5	0.0
Yellow	3.5	4.5	3.5	0.0	4.5	0.0
Red	0.0	1.5	1.0	0.0	1.5	0.0



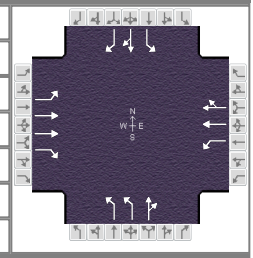
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	1124	123	149	995	31	246	107	79	77	111	197
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	2000	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1	0	0	1		0	0		0	0	1
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	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	12.0		12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	355	0	0	70	0		110	0		560	0	220
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	25	25	25	30	30	30

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	14.0	61.0	14.0	61.0	20.0	25.0	20.0	25.0
Yellow Change Interval (*Y*), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Red Clearance Interval (R_c), s	0.0	1.5	0.0	1.5	1.0	1.5	1.0	1.5
Minimum Green (G_{min}), s	3	15	3	15	3	8	3	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective 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	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Walk (*Walk*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (*PC*), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS 2010 Signalized Intersection Results Summary

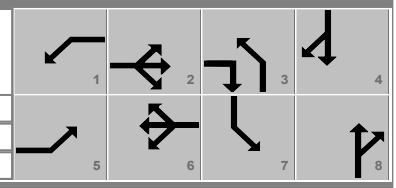
General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATPR.xus		
Project Description	Saturday Projected Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	1124	123	149	995	31	246	107	79	77	111	197

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.9	63.7	6.8	4.1	18.5	0.0						
Yellow	3.5	4.5	3.5	0.0	4.5	0.0						
Red	0.0	1.5	1.0	0.0	1.5	0.0						



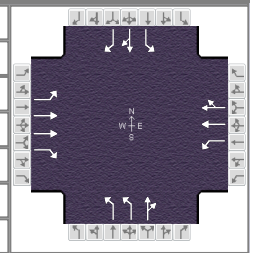
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	2.0	4.0	2.0	3.0
Phase Duration, s	10.3	69.7	10.4	69.8	15.4	28.6	11.3	24.5
Change Period, (*Y+R c*), s	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Max Allow Headway (*MAH*), s	4.0	0.0	4.0	0.0	4.2	5.2	4.1	5.2
Queue Clearance Time (*g s*), s	6.6		6.6		10.5	13.9	7.2	16.8
Green Extension Time (*g e*), s	0.3	0.0	0.3	0.0	0.4	2.5	0.1	1.6
Phase Call Probability	1.00		1.00		1.00	1.00	0.93	1.00
Max Out Probability	0.02		0.02		0.57	0.11	0.01	0.68

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	152	1159	127	154	532	526	254	192		79	114	203
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1792	1885	1610	1810	1881	1861	1757	1765		1810	2000	1594
Queue Service Time (*g s*), s	4.6	18.2	3.9	4.6	15.9	16.3	8.5	11.9		5.2	6.2	14.8
Cycle Queue Clearance Time (*g c*), s	4.6	18.2	3.9	4.6	15.9	16.3	8.5	11.9		5.2	6.2	14.8
Green Ratio (*g/C*)	0.59	0.53	0.62	0.59	0.53	0.53	0.09	0.19		0.06	0.15	0.15
Capacity (*c*), veh/h	365	2003	1002	350	1000	989	320	333		102	308	245
Volume-to-Capacity Ratio (*X*)	0.415	0.579	0.127	0.439	0.532	0.532	0.793	0.577		0.776	0.372	0.828
Back of Queue (*Q*), ft/ln (95 th percentile)	82.9	249.7	61.9	84.3	238.5	242.2	183.8	232.1		122.8	143.5	281
Back of Queue (*Q*), veh/ln (95 th percentile)	3.3	9.9	2.5	3.3	9.5	9.7	7.3	9.3		4.9	5.7	11.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.23	0.00	0.00	1.20	0.00	0.00	1.66	0.00		0.22	0.00	1.29
Uniform Delay (*d 1*), s/veh	13.1	10.9	9.3	13.1	10.5	11.0	53.4	44.3		55.9	45.6	49.2
Incremental Delay (*d 2*), s/veh	0.8	1.2	0.3	0.9	2.0	2.0	6.2	2.2		11.8	1.1	15.2
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	13.8	12.1	9.6	14.0	12.5	13.0	59.6	46.6		67.7	46.6	64.4
Level of Service (LOS)	B	B	A	B	B	B	E	D		E	D	E
Approach Delay, s/veh / LOS	12.0	B		12.9	B		54.0	D		59.9	E	
Intersection Delay, s/veh / LOS	23.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	2.9	C	3.0	C
Bicycle LOS Score / LOS	1.7	A	1.5	A	1.2	A	1.1	A

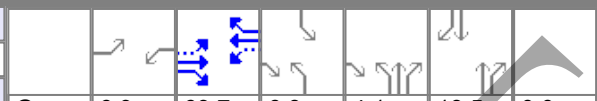
HCS 2010 Signalized Intersection Intermediate Values

General Information				Intersection Information	
Agency	KLOA, Inc.			Duration, h	0.25
Analyst	BSM	Analysis Date	Jul 12, 2016	Area Type	Other
Jurisdiction	IDOT	Time Period	SAT Peak Hour	PHF	0.97
Urban Street	Dundee Road (IL 68)	Analysis Year	2026	Analysis Period	1> 7:00
Intersection	Northgate Parkway	File Name	Dundee with Northgate SATPR.xus		
Project Description	Saturday Projected Peak Hour				

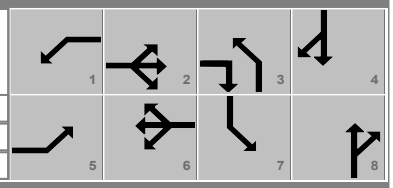


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	147	1124	123	149	995	31	246	107	79	77	111	197

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	6.9	63.7	6.8	4.1	18.5	0.0						
Yellow	3.5	4.5	3.5	0.0	4.5	0.0						
Red	0.0	1.5	1.0	0.0	1.5	0.0						



	EB			WB			NB			SB		
Saturation Flow / Delay	L	T	R	L	T	R	L	T	R	L	T	R
Lane Width Adjustment Factor (f_w)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicle Adjustment Factor (f_{HV})	0.990	0.990	1.000	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	0.990
Approach Grade Adjustment Factor (f_g)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Parking Activity Adjustment Factor (f_p)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Bus Blockage Adjustment Factor (f_{bb})	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Area Type Adjustment Factor (f_a)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Lane Utilization Adjustment Factor (f_{LU})	1.000	0.952	1.000	1.000	1.000	1.000	0.971	1.000	1.000	1.000	1.000	1.000
Left-Turn Adjustment Factor (f_{LT})	0.952	0.000		0.952	0.000		0.952	0.000		0.952	0.000	
Right-Turn Adjustment Factor (f_{RT})		0.000			0.989			0.929			0.000	
Left-Turn Pedestrian Adjustment Factor (f_{Lpb})	1.000			1.000			1.000			1.000		
Right-Turn Ped-Bike Adjustment Factor (f_{Rpb})			1.000			1.000			1.000			1.000
Movement Saturation Flow Rate (s), veh/h	1792	3770		1810	3629		3514	1015		1810	2000	
Proportion of Vehicles Arriving on Green (P)	0.06	0.71	0.53	0.06	0.71	0.53	0.09	0.19	0.19	0.06	0.15	0.15
Incremental Delay Factor (k)	0.11	0.50	0.50	0.11	0.50	0.50	0.15	0.15		0.11	0.15	0.26

Signal Timing / Movement Groups	EBL	EBT/R	WBL	WBT/R	NBL	NBT/R	SBL	SBT/R
Lost Time (t_L)	3.5	6.0	3.5	6.0	4.5	6.0	4.5	6.0
Green Ratio (g/C)	0.59	0.53	0.59	0.53	0.09	0.19	0.06	0.15
Permitted Saturation Flow Rate (s_p), veh/h/ln	537	0	492	0	0	0	0	0
Shared Saturation Flow Rate (s_{sh}), veh/h/ln								
Permitted Effective Green Time (g_p), s	63.7	0.0	63.7	0.0	0.0	0.0	0.0	0.0
Permitted Service Time (g_u), s	45.5	0.0	45.5	0.0	0.0	0.0	0.0	0.0
Permitted Queue Service Time (g_{ps}), s	7.2		8.3					
Time to First Blockage (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Service Time Before Blockage (g_{fs}), s								
Protected Right Saturation Flow (s_R), veh/h/ln		1610						0
Protected Right Effective Green Time (g_R), s		10.9						0.0

Multimodal	EB		WB		NB		SB	
Pedestrian F_w / F_v	1.710	0.00	1.710	0.00	2.107	0.00	2.224	0.00
Pedestrian F_s / F_{delay}	0.000	0.103	0.000	0.103	0.000	0.147	0.000	0.151
Pedestrian M_{corner} / M_{cw}								
Bicycle c_b / d_b	1062.49	13.18	1062.84	13.17	376.76	39.52	307.73	42.96
Bicycle F_w / F_v	-3.64	1.19	-3.64	1.00	-3.64	0.73	-3.64	0.65

--- Messages ---

WARNING: Since queue spillover from turn lanes and spillback into upstream intersections is not accounted for in the HCM procedures, use of a simulation tool may be advised in situations where the Queue Storage Ratio exceeds 1.0.

WARNING: The shared-plus-exclusive turn lane solution is an approximation of the HCM method, because more than three lane groups cannot be accommodated. Input data for Percent Turns in Shared Lane are used to specify proportion of turning vehicles in the shared lane.

--- Comments ---

HCS 2010 Two-Way Stop Control Summary Report

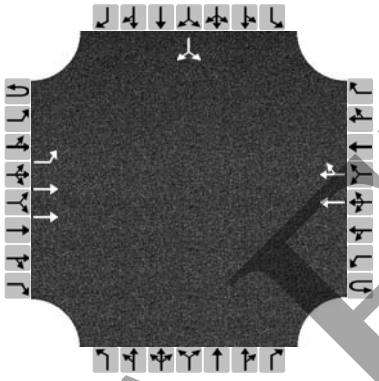
General Information

Analyst	BSM
Agency/Co.	KLOA, Inc.
Date Performed	7/12/2016
Analysis Year	2026
Time Analyzed	AM Projected Peak Hour
Intersection Orientation	East-West
Project Description	16-163

Site Information

Intersection	Dundee with Access Drive
Jurisdiction	IDOT
East/West Street	Dundee Road
North/South Street	Access Drive
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	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	T				T	TR							LR	
Volume (veh/h)		22	1445				609	49						23		23
Percent Heavy Vehicles		2												2		2
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Left Only															
Median Storage	1															

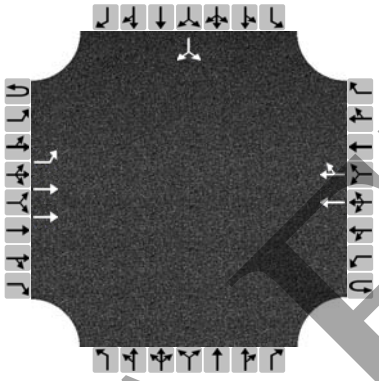
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23													48	
Capacity		898													351	
v/c Ratio		0.03													0.14	
95% Queue Length		0.1													0.5	
Control Delay (s/veh)		9.1													16.9	
Level of Service (LOS)		A													C	
Approach Delay (s/veh)	0.1												16.9			
Approach LOS													C			

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	BSM	Intersection	Dundee with Access Drive
Agency/Co.	KLOA, Inc.	Jurisdiction	IDOT
Date Performed	7/12/2016	East/West Street	Dundee Road
Analysis Year	2026	North/South Street	Access Drive
Time Analyzed	PM Projected Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	16-163		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	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	T				T	TR							LR	
Volume (veh/h)		13	1006				1141	33						18		18
Percent Heavy Vehicles		2												2		2
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Left Only															
Median Storage	1															

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		14													38	
Capacity		559													250	
v/c Ratio		0.03													0.15	
95% Queue Length		0.1													0.5	
Control Delay (s/veh)		11.6													22.0	
Level of Service (LOS)		B													C	
Approach Delay (s/veh)	0.2												22.0			
Approach LOS													C			

HCS 2010 Two-Way Stop Control Summary Report

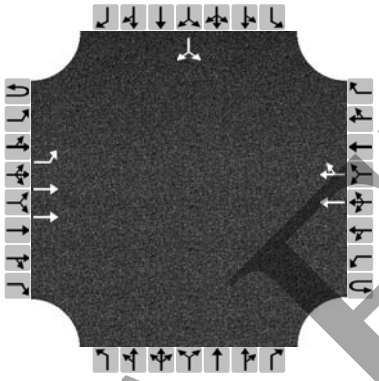
General Information

Analyst	BSM
Agency/Co.	KLOA, Inc.
Date Performed	7/12/2016
Analysis Year	2026
Time Analyzed	Sat Projected Peak Hour
Intersection Orientation	East-West
Project Description	16-163

Site Information

Intersection	Dundee with Access Drive
Jurisdiction	IDOT
East/West Street	Dundee Road
North/South Street	Access Drive
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	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	T				T	TR							LR	
Volume (veh/h)		31	1249				1150	50						25		25
Percent Heavy Vehicles		2												2		2
Proportion Time Blocked																
Right Turn Channelized		No				No				No				No		
Median Type	Left Only															
Median Storage	1															

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		33													52	
Capacity		546													224	
v/c Ratio		0.06													0.23	
95% Queue Length		0.2													0.9	
Control Delay (s/veh)		12.0													25.8	
Level of Service (LOS)		B													D	
Approach Delay (s/veh)	0.3												25.8			
Approach LOS													D			

HCS 2010 Two-Way Stop Control Summary Report

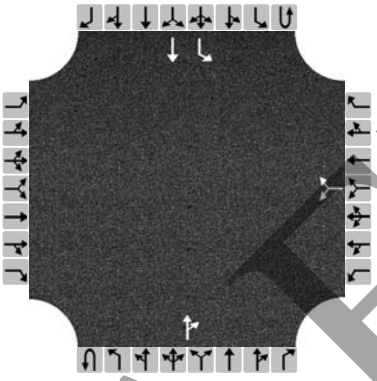
General Information

Analyst	BSM
Agency/Co.	KLOA, Inc.
Date Performed	7/12/2016
Analysis Year	2026
Time Analyzed	AM Projected Peak Hour
Intersection Orientation	North-South
Project Description	16-163

Site Information

Intersection	Northgate with Access
Jurisdiction	IDOT
East/West Street	Northgate Parkway
North/South Street	Access Drive
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						61		9			523	34		18	206	
Percent Heavy Vehicles						2		2						2		
Proportion Time Blocked																
Right Turn Channelized		No				No				No				No		
Median Type		Undivided														
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)							73							19		
Capacity							352							987		
v/c Ratio							0.21							0.02		
95% Queue Length							0.8							0.1		
Control Delay (s/veh)							17.9							8.7		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						17.9								0.7		
Approach LOS						C										

HCS 2010 Two-Way Stop Control Summary Report

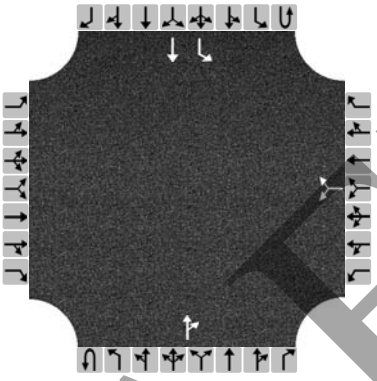
General Information

Analyst	BSM
Agency/Co.	KLOA, Inc.
Date Performed	7/12/2016
Analysis Year	2026
Time Analyzed	PM Projected Peak Hour
Intersection Orientation	North-South
Project Description	16-163

Site Information

Intersection	Northgate with Access
Jurisdiction	IDOT
East/West Street	Northgate Parkway
North/South Street	Access Drive
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						45		9			241	24		12	578	
Percent Heavy Vehicles						2		2						2		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)							56							13		
Capacity							339							1283		
v/c Ratio							0.17							0.01		
95% Queue Length							0.6							0.0		
Control Delay (s/veh)							17.7							7.8		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					17.7								0.2			
Approach LOS					C											

HCS 2010 Two-Way Stop Control Summary Report

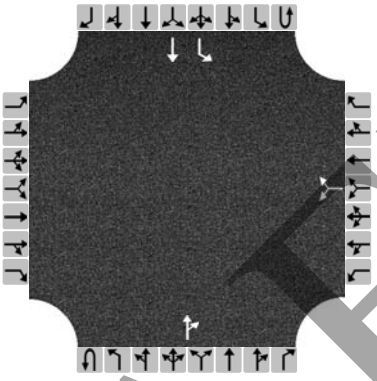
General Information

Analyst	BSM
Agency/Co.	KLOA, Inc.
Date Performed	7/12/2016
Analysis Year	2026
Time Analyzed	Sat Projected Peak Hour
Intersection Orientation	North-South
Project Description	16-163

Site Information

Intersection	Northgate with Access
Jurisdiction	IDOT
East/West Street	Northgate Parkway
North/South Street	Access Drive
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						61		12			251	34		19	324	
Percent Heavy Vehicles						2		2						2		
Proportion Time Blocked																
Right Turn Channelized		No				No				No				No		
Median Type		Undivided														
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)							77							20		
Capacity							453							1260		
v/c Ratio							0.17							0.02		
95% Queue Length							0.6							0.0		
Control Delay (s/veh)							14.6							7.9		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						14.6								0.4		
Approach LOS						B										

1. CALL TO ORDER

Chairman Ruffatto called the meeting to order at 6:30 p.m. on Thursday, July 14, 2016.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Present were Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis and Zangara. Also present were Brooke Jones, Senior Planner and Mallory Milluzzi, Village Attorney.

4. CHANGES TO THE AGENDA

Ms. Jones reported the agenda was revised today. Alondra Bakery was removed from the Consent Agenda and moved to Items for Review.

5. CITIZEN CONCERNS AND COMMENTS - None

6. CONSENT ITEMS

A) Docket No. SCBA 16-12
Richelieu Foods
120 W. Palatine Road
Appearance Approval of a Freestanding Sign

B) Docket No. SCBA 16-15
Lexington Commons
1112 Scanlon Drive
Appearance Approval of a Subdivision Sign

C) Docket No. SCBA 16-16
Wheeling Town Center
351 W. Dundee Road
Appearance Approval of a Development Sign

D) Docket No. SCBA 16-17
Neighborhood Auto Care
84 McHenry Road
Appearance Approval of a Wall Sign

Commissioner Dorband moved, seconded by Commissioner Johnson to approve the following consent items.

Approval of Docket No. SCBA 16-12 to permit the modifications to the existing freestanding sign in accordance with the sign plan submitted May 31, 2016 and the landscape plan submitted June 24, 2016 by Signs By Tomorrow, on behalf of Richelieu Foods, located at 120 West Palatine Road, Wheeling, Illinois.

Approval of Docket No. SCBA 16-15 to permit the installation of the subdivision sign in accordance with the sign and landscape plans submitted June 23, 2016 on behalf of Lexington Commons, to be located at 1112 Scanlon Road, Wheeling, Illinois.

Approve SCBA 16-16, granting appearance approval for a development sign as indicated in the sign image submitted by June 24, 2016, by Wheeling Town Center LLC, for 351 W. Dundee Road, Wheeling, Illinois.

Approve SCBA 16-17, granting appearance approval for a wall sign as indicated in the sign plan submitted by June 28, 2016, by Neighborhood Auto Care located at 84 McHenry Road, Wheeling, Illinois.

On the roll call, the vote was as follows:

AYES:	Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis, Zangara
NAYS:	None
ABSENT:	None
PRESENT:	None
ABSTAIN:	None

There being seven affirmative votes, the motion was approved.

7. ITEMS FOR REVIEW

A) Docket No. SCBA 16-14
Alondra Bakery
63 N. Wolf Road
Appearance Approval of a Wall Sign

Mr. Eliseo Chavez, Only Signs, Inc., 63 North Wolf Road, Wheeling Road was present.

Mr. Chavez explained he was asked to remove the existing sign. They are replacing it with a small sign on the wall.

Commissioner Zangara wants to make sure the fascia gets repaired when the sign is removed. Mr. Chavez confirmed the fascia had been redone. Commissioner Zangara wants to make sure the fascia behind the sign gets repaired. Ms. Jones confirmed the photograph provided was taken about a week ago. Chairman Ruffatto felt it was in poor condition. Mr. Chavez explained they were having issues

with the company that repaired the fascia. Commissioner Zangara asked the petitioner to have the company fix it.

Commissioner Sianis asked if they considered using No 2 instead of the pound symbol. Mr. Chavez explained he was the landlord and the tenant was the person designing the sign. He agreed No 2 would look a lot nicer than using the pound symbol.

Commissioner Dorband was surprised they were not more creative with the design. Mr. Chavez agreed. Commissioner Dorband was not impressed with the sign since there was no interest or imagination. Mr. Chavez explained they were concerned with the small space.

Commissioner Powers didn't like the pound sign. He looked at their sign in Palatine and it just said Alondra Bakery. He would prefer not to include the number 2. Mr. Chavez agreed the number should not be included. He offered to speak with the owner. Commissioner Dorband suggested using a different font. Commissioner Powers suggested using a larger font size and using a bigger sign. Ms. Jones explained if they included a graphic element they get up to a 50% bonus so they could go considerably larger. Ms. Jones mentioned the maximum allowed size is 30 square feet if they only had text. If they used some type of graphic in their sign they could go up to 45 square feet.

Commissioner Issakoo shared the same sentiment. He did not think a number needed to be included.

Commissioner Issakoo suggested getting a consensus regarding the color.

Commissioner Johnson agreed with the comments from the other Commissioners. He wants the number 2 removed and wanted a more creative sign. He questioned if they were allowed to go above the roofline. Ms. Jones confirmed it was not permitted.

Chairman Ruffatto questioned if they would fill the pavement with asphalt when the cleaner sign is removed. Mr. Chavez confirmed he would repair the parking lot. The pavers will come in once the sign is removed.

Chairman Ruffatto feels the same about the number 2. He suggested speaking with the tenant. Mr. Chavez didn't think it would be a problem since he was in agreement with the comments from the Commission. Chairman Ruffatto questioned if he thought the petitioner would agree to add a graphic to the sign. Mr. Chavez thought the owner would be in agreement. Ms. Jones explained it could be tabled or approved with the removal of the number 2 if the Commission was all in agreement. Chairman Ruffatto agreed to table it to allow Mr. Chavez to go back to the owner.

Mr. Chavez questioned if there was a way the sign could be voted on tonight. Chairman Ruffatto explained a motion could be made with the removal of the number 2. Mr. Chavez wants the business to open so he could start getting rent. Commissioner Dorband questioned if they could do business without the sign. Mr. Chavez explained he wasn't sure since there were a lot of issues. Commissioner Dorband suggested using a temporary sign. Ms. Jones confirmed the business could use a temporary sign.

Mr. Chavez questioned if the large sign needed to be removed. Commissioner Powers thought it would block the sign on the building. Ms. Jones explained the large sign was not conforming. They are not allowed to modify it without a variation.

Commissioner Powers moved, seconded by Commissioner Issakoo to aapprove SCBA 16-14, granting appearance approval for a wall sign as indicated in the sign plan submitted by June 20, 2016, by Only Signs, Inc., on behalf of Alondra Bakery, located at 63 N. Wolf Road, Wheeling, Illinois with the following condition:

1. Remove the number 2.

On the roll call, the vote was as follows:

AYES:	Commissioners Issakoo, Johnson, Ruffatto, Sianis, Zangara
NAYS:	Commissioners Dorband, Powers
ABSENT:	None
PRESENT:	None
ABSTAIN:	None

There being five affirmative votes, the motion was approved.

B) Docket Nos. 2016-13A&B
Café Zupas
1590 Lake Cook Road
(2016-13A) Title 19, Zoning, Variation to Reduce the Required Parking for a Restaurant
(2016-13B) Special Use-Site Plan Approval to Establish a Sit-Down Restaurant

See Findings of Fact and Recommendation for Docket No. 2016-13.

Commissioner Dorband moved, seconded by Commissioner Issakoo to recommend approval of Docket No. 2016-13A, granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11 General Development Standards, Chapter 19.11 General Development Standards, Section 19.11.010 Off-Street Parking and Loading, Section E Parking Standards, Subsection 1 Minimum Required Parking per Land Use Category, and associated sections, to reduce the required parking for a sit-down restaurant, from forty-seven (47) to thirty-six (36), for Café Zupas, to be located at 1590 Lake Cook Road, Wheeling Illinois.

On the roll call, the vote was as follows:

AYES:	Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis, Zangara
NAYS:	None
ABSENT:	None
PRESENT:	None
ABSTAIN:	None

There being seven affirmative votes, the motion was approved.

Commissioner Dorband moved, seconded by Commissioner Johnson to recommend approval of Docket No. 2016-13B to grant special use approval for a health clinic in accordance with the following exhibits submitted May 17, 2015 (except as noted), Café Zupas, to be located at 1590 Lake Cook Road, Wheeling, Illinois:

- Project description,
- Site plan,
- Parking plan,
- Floor plan, and
- Elevation plans (2 sheets).

And with the following conditions of approval:

1. Parking stall numbers 42 and 43 shall be striped to prevent parking;
2. The drive on the east side of the building shall be posted as a Fire Lane and for one-way traffic only;
3. Within 90 days of Special Use approval, the petitioner shall return to the Plan Commission for minor site plan and appearance approval of a landscape plan;
4. The bike rack shall be relocated to a location with enough room to accommodate bike parking;
5. The stucco color shall be light gray;
6. The stucco proposed at grade shall be replaced with a more durable material; and
7. The windows may extend to grade or may remain at their existing location.

On the roll call, the vote was as follows:

AYES: Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis, Zangara
NAYS: None
ABSENT: None
PRESENT: None
ABSTAIN: None

There being seven affirmative votes, the motion was approved.

Commissioner Dorband moved, seconded by Commissioner Zangara to close Docket No. 2016-13. The motion was approved by a voice vote.

8. APPROVAL OF MINUTES – June 23, 2016 (includes findings for Docket No. 2016-9)

Commissioner Powers moved, seconded by Commissioner Johnson to approve the minutes dated June 23, 2016 as proposed. The motion was approved by a voice vote. Commissioner Powers abstained.

9. OTHER BUSINESS

Commissioner Zangara referred to the Town Center and questioned if they needed to return now that Flix was no longer coming to the center. Ms. Jones explained they still need to return to the Plan Commission for final plan unit development approval.

Chairman Ruffatto reminded the Commission it was imperative to ask a question if there was something on the consent agenda that a Commissioner felt strongly about could be removed from the consent agenda.

10. ADJOURNMENT

Commissioner Ruffatto moved, seconded by Commissioner Dorband to adjourn the meeting at 7:38 p.m. All were in favor on a unanimous voice vote and the meeting was adjourned.

Respectfully submitted,

_____
Steve Powers, Secretary
Wheeling Plan Commission

DISTRIBUTED TO THE COMMISSION 7.22.2016
FOR APPROVAL ON 7.28.2016

FINDINGS OF FACT AND RECOMMENDATION

To: Village President and Board of Trustees

From: Wheeling Plan Commission/Sign Code Board of Appeal

Re: Docket No. 2016-13A&B
Café Zupas
1590 Lake Cook Road
(2016-13A) Title 19, Zoning, Variation to Reduce the Required Parking for a Restaurant
(2016-13B) Special Use-Site Plan Approval to Establish a Sit-Down Restaurant

Docket No. 2016-13A&B Café Zupas, contract tenant, is seeking the following for the property at 1590 Lake Cook Road, which is zoned B-1 Planned Shopping Center District, in order to establish a restaurant at the existing commercial building:

2016-13A Variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11 General Development Standards, Section 19.11.010 Off-Street Parking and Loading, Section E Parking Standards, Subsection 1 Minimum Required Parking per Land Use Category, and associated sections to reduce the required parking for a sit-down restaurant; and

2016-13B Special Use-Site Plan Approval as required under Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19-06 Commercial Districts, Chapter 19-10 Use Regulations, Chapter 19-12 Site Plan Approval Requirements, and associated sections, in order to establish a sit-down restaurant in the existing commercial building.

Chairman Ruffatto called Docket No. 2016-13A&B on June 9, 2016. Present were Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis and Zangara. Also present were Brooke Jones, Senior Planner and Mallory Milluzzi, Village Attorney.

Commissioner Ruffatto read the following statements aloud.
A zoning variation is intended to be a method of adjustment to equalize regulations where Title 19 of the Village of Wheeling (Zoning) has created an unnecessary hardship. A variation is designed to allow affected property owners the same rights and privileges that others enjoy in the same zoning district. In order to be granted a variation a petitioner is required to demonstrate through testimony to the Plan Commission at the public hearing why their request meets the conditions of the village code including, but not limited to, how their individual situation is unique or unusual. Prior to the public hearing the petitioner provides written statements meant to show that their request for variation meets the standards established in Title 19. The Commission Chairperson will typically direct that these statements be entered into the record without a full reading of them at the hearing.

Based upon the testimony and supporting materials submitted, the Plan Commission will make findings in support of, or against, the petitioner's testimony and report those findings to the Village Board.

A zoning Special Use, as defined in Title 19, of the village of Wheeling (Zoning), is a use of parcel of land that requires review and consideration before approval due to circumstances or effects on the surrounding properties that may adversely affect them. In order to be considered for a special use the petitioner is required to demonstrate through testimony to the Plan Commission at the public hearing why their request meets the conditions of the village code including, but not limited to, how the proposed use will not damage the enjoyment or use of the surrounding properties. Prior to the public hearing the petitioner provides written statements meant to show that their request for a special use meets the standards established in Title 19. The Commission Chairperson will typically direct that these statements be entered into the record without a full reading of them at the hearing. Based upon the testimony and supporting materials submitted, the Plan Commission will make findings in support of, or against, the petitioner's testimony and report those findings to the Village Board.

Ms. Jones provided an update on the parking variation. Ms. Jones realized she had overlooked a portion of the Zoning Code which relates to shared parking in a shopping center. Due to the size of the property between 40,000 square feet and 60,000 square feet there is a 15% parking reduction granted to any use within a shopping center. She has revised the figures for the parking requirement for Café Zupas. The new parking variation request is now only 11 spaces.

Mr. Edgar Cepuritis, Café Zupas, 460 Universal Circle, Sandy, UT was present and sworn in.

Mr. Cepuritis explained Café Zupas was a soup, salad, sandwich fast casual restaurant based in Sandy, UT. They have 36 restaurants currently opened. Most of their restaurants are in Utah, Nevada, Arizona and Idaho. They just entered Minnesota in 2015 and will enter Chicago in 2016. The two restaurants they plan to open in Chicago will be in Wheeling and Schaumburg. The concept is that everything is actually made in the restaurant in-house every day. The soups are made from scratch in the restaurant. The vegetables come in as whole vegetables and are chopped in the restaurants. The dressings are made from scratch in the restaurants. They are promoting made in house and made fresh. They have been well received in their existing markets as well as their new markets. They are excited about coming to Wheeling. The Wheeling location is a former Fifth Third Bank and roughly 4,100 square feet. The restaurant will have 114 seats. There are two large openings with glass windows behind the line looking into the cooler with the fruits and vegetables. The second large window looks into the kitchen with chefs making the soups. They want to communicate the food isn't prepackaged meals.

Mr. Cepuritis explained they were proposing to tear down the drive-thru canopy. They will add parking stalls in that space. The site sits in the Schwinn Crossing Shopping Center and is somewhat separated with curbing for the bank but does have cross access with the shopping center. They will add 22 parking spaces but may take out a couple for Fire Department requirements. They are proposing to remove some of the rounded Fifth Third branding to square off the top and add some of their own branding elements to the front.

Mr. Cepuritis explained they were asking for the parking variation since parking requirements were more significant for a restaurant than a bank.

Commissioner Johnson felt it was a very attractive building. He questioned if the 114 seats would reduce the parking variation. Ms. Jones confirmed it would reduce the parking variation to 10. Mr. Cepuritis didn't expect the seat count to go up but explained it could go down by 1 or 2.

Commissioner Johnson referred to the existing bike rack. He questioned if they were maintaining the bike rack. Mr. Cepuritis agreed to relocate it.

Commissioner Issakoo is excited about the restaurant. He questioned if the windows were being changed. Mr. Cepuritis explained they hadn't determined if they were changing out the windows. They will fill in the window in the back and patch with matching brick.

Commissioner Issakoo questioned if the existing landscaping gets reviewed. Ms. Jones explained it should be reviewed with the Special Use, Site Plan and Appearance Review. She confirmed there was existing landscaping. She investigated the approved landscape plan for the Fifth Third Bank and it wasn't detailed with regard to the foundation plantings. The plants shown in front of the windows include knockout roses, decorative grasses and other types of bushes. They are not on the plans so she did not suggest approving it as the Fifth Third plan was approved. She thinks the plants are viable but just need to be trimmed up. If the Commission is in agreement with the existing, she suggests approving it with a condition that the existing landscaping get cleaned up.

Commissioner Issakoo requested an explanation regarding the parking variation. Ms. Jones explained the required parking is determined based upon the indoor and outdoor seating plus employees. The number was figured at 55 but factoring the 15% reduction for shopping center it is down to 47. The former bank building was allocated 17 parking spaces plus 19 for a total of 36. If they are required 47, there is a difference of 11.

Commissioner Powers thanked the petitioner for removing the drive-thru lanes and adding the parking.

Commissioner Powers questioned the location of the one-way traffic. Ms. Jones confirmed it was the east side of the building.

Commissioner Powers likes the outdoor patio feature. He mentioned the railing and wants them to use a similar railing used at other local establishments. He assured the Commission they would not go cheap on the railing.

Commissioner Dorband expressed her disappointment that they would not be open on Sundays.

Commissioner Dorband didn't think the parking issue would be a problem. She thinks it would be self regulating. She felt most of the businesses in the center were in and out businesses.

Commissioner Dorband felt it was a great use for the building and would be a welcome addition.

She likes the menu. She questioned the number of soups that would be offered. Mr. Cepuritis explained there would be 12 soups available every day.

Commissioner Sianis referred to the drive aisle on the east side of the building. He didn't know that there was a good way to solve the 21' width without removing sidewalk. He questioned if Engineering had any comments. Ms. Jones explained the solution was to just maintain a one-way traffic. Commissioner Sianis questioned if there would need to be signage. Ms. Jones explained Engineering would sign off on it.

Commissioner Zangara thinks it looks great. He referred to the front entrance that was labeled stucco all the way down to the ground. He explained the Commission does not promote stucco. He suggested using something else. Mr. Cepuritis understood. He suggested wrapping the columns with glass with a kick plate.

In reply to Commissioner Zangara's question, Mr. Cepuritis explained there business was about 50% lunch and 50% dinner. They compete with Chipotle and Potbelly. Commissioner Zangara questioned if delivery service was offered at any of their existing locations. Mr. Cepuritis confirmed they don't currently offer delivery service except for catering orders.

Chairman Ruffatto referred to the landscaping. He questioned if it could be voted on tonight with them returning with the landscaping. Ms. Jones questioned if the Commission wanted them to add additional plants. Chairman Ruffatto was unsure since they didn't have a landscape plan. Ms. Jones explained it was operating as Fifth Third and the landscaping looks fairly good considering the building is vacant. If the Commission doesn't think they need additional landscaping they would hate to have them return just for an existing landscape plan. Mr. Cepuritis stated they were spending significant money and wanted it to look good. Chairman Ruffatto explained his intention was not to hold it up. Ms. Jones suggested having them return prior to occupancy for a minor site plan approval. Ms. Milluzzi explained if they were just going to update the plan to reflect what actually exists it should just be able to be submitted to Staff. If they were making changes to the landscaping plan, the Commission may want to see it. Chairman Ruffatto believes they will want to improve the landscaping plan with the amount of money they were spending. Commissioner Zangara felt the landscaping would get ruined if they were cutting the brick out.

Chairman Ruffatto wants to see a landscape plan.

Mr. Cepuritis stated they planned to open in late fall. Chairman Ruffatto wants a landscaping plan before spring. Commissioner Dorband didn't want to see it if it would slow down the opening date. Ms. Jones questioned if Chairman Ruffatto wanted to see it before they planted the plants.

Chairman Ruffatto felt if they were adding landscaping it needed to come before the Commission. Commissioner Zangara suggested making it part of the sign package.

In reply to Commissioner Powers' question, Ms. Jones confirmed the approved landscaping plan on file did not show foundation plantings.

Mr. Cepuritis stated they were replacing the monument sign. Chairman Ruffatto suggested bringing the landscaping plan at the time of sign approval. Ms. Jones suggested having them return for minor site plan and appearance approval of the landscaping within 90 days of special use approvals.

Chairman Ruffatto referred to the proposed stucco and the problems associated with using it. He asked about the color. Mr. Cepuritis stated it would be a light gray with an accent. He offered to work with Staff to find an alternative material to the stucco on the columns. He mentioned they used a stainless steel kick plate at the bottom in Minnesota so it doesn't get damaged from the snow. The Commission was in agreement to add a condition to work with Staff on the material.

Chairman Ruffatto asked if they were wrapping the band on the building. Mr. Cepuritis confirmed they would wrap the bands. He explained they want the colors to be uniform.

In reply to Commissioner Powers' question, Mr. Cepuritis confirmed the proposed colors were their typical color scheme for the buildings.

Chairman Ruffatto asked for an explanation about the parking since it was a standalone building. Ms. Jones explained that Café Zupas is a tenant and has one lease area of a greater shopping center.

Chairman Ruffatto felt it would be a great addition to the Village on a great corner.

Chairman Ruffatto questioned what they would do with the safe located in the building. Mr. Cepuritis explained it was being removed.

Chairman Ruffatto referred to the drawings showing the windows going down and the petitioner's comment about not having a decision about the windows. He questioned if it was something to be concerned about. Ms. Jones explained a condition could be added that would allow them to extend the windows to grade or maintain them as existing. Chairman Ruffatto explained a landscaping plan would be needed if they would be extended to grade.

Commissioner Dorband moved, seconded by Commissioner Issakoo to recommend approval of Docket No. 2016-13A, granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11 General Development Standards, Chapter 19.11 General Development Standards, Section 19.11.010 Off-Street Parking and Loading, Section E Parking Standards, Subsection 1 Minimum Required Parking per Land Use Category, and associated sections, to reduce the required parking for a sit-down restaurant, from forty-seven (47) to thirty-six (36), for Café Zupas, to be located at 1590 Lake Cook Road, Wheeling Illinois.

On the roll call, the vote was as follows:

AYES:	Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis, Zangara
NAYS:	None
ABSENT:	None
PRESENT:	None
ABSTAIN:	None

There being seven affirmative votes, the motion was approved.

Commissioner Dorband moved, seconded by Commissioner Johnson to recommend approval of Docket No. 2016-13B to grant special use approval for a health clinic in accordance with the following exhibits submitted May 17, 2015 (except as noted), Café Zupas, to be located at 1590 Lake Cook Road, Wheeling, Illinois:

- Project description,
- Site plan,
- Parking plan,
- Floor plan, and
- Elevation plans (2 sheets).

And with the following conditions of approval:

1. Parking stall numbers 42 and 43 shall be striped to prevent parking;
2. The drive on the east side of the building shall be posted as a Fire Lane and for one-way traffic only;
3. Within 90 days of Special Use approval, the petitioner shall return to the Plan Commission for minor site plan and appearance approval of a landscape plan;
4. The bike rack shall be relocated to a location with enough room to accommodate bike parking;
5. The stucco color shall be light gray;
6. The stucco proposed at grade shall be replaced with a more durable material; and
7. The windows may extend to grade or may remain at their existing location.

On the roll call, the vote was as follows:

AYES:	Commissioners Dorband, Issakoo, Johnson, Powers, Ruffatto, Sianis, Zangara
NAYS:	None
ABSENT:	None
PRESENT:	None
ABSTAIN:	None

There being seven affirmative votes, the motion was approved.

Commissioner Dorband moved, seconded by Commissioner Zangara to close Docket No. 2016-13. The motion was approved by a voice vote.

Respectfully submitted,

_____
Jim Ruffatto, Chairman
Wheeling Plan Commission/
Sign Code Board of Appeals

DISTRIBUTED TO THE COMMISSION 7.22.2016
FOR APPROVAL ON 7.28.2016