ITEM ORD 00-04519

VILLAGE OF DOWNERS GROVE
REPORT FOR THE VILLAGE COUNCIL MEETING
MAY 17, 2011 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
Final Planned Development Amendment to Planned Development #31, Esplanade at Locust Point	Resolution ✓ Ordinance Motion Discussion Only	Tom Dabareiner, AICP Community Development Director

SYNOPSIS
An ordinance has been prepared for a Final Planned Development Amendment to Planned Development #31, Esplanade at Locust Point, to construct a five-story medical and dental teaching clinic office building and a six-level parking garage at 3450 Lacey Road.

STRATEGIC PLAN ALIGNMENT
The Goals 2011 - 2018 identified *Strong, Diverse Local Economy.*

FISCAL IMPACT
N/A

RECOMMENDATION
Approval on the June 7, 2011 active agenda.

BACKGROUND
The petitioner is proposing to construct a five-story 193,200 square foot medical and dental teaching clinic office building and a six-level 341,400 square foot parking garage at 3450 Lacey Road within the Esplanade Planned Development. The property, immediately north of the existing Sara Lee parcel, is zoned ORM, Office, Research and Manufacturing and R-1, Single Family Residential. The proposed clinic building will be located on the east side of the parcel with the parking garage in the middle of the parcel. Currently, the parcel is used for crop farming.

The proposed five-story with a basement clinic building will house medical and dental teaching clinic space for Midwestern University. The interior spaces will include classrooms, laboratories, clinic spaces, exam rooms and offices. The building will be clad with precast concrete panels, thin brick facing and blue-tinted windows. The 901-vehicle parking garage will include six levels, all above grade. The garage will be constructed of precast concrete panels.

The petitioner received Preliminary Planned Development Amendment approval in December 2010. The current proposal is substantially similar to the previously submitted drawings. Additionally, the proposal complies with all zoning requirements and is consistent with the Future Land Use plan to maintain the area for office and research use. The following tables identify how the current proposal compares to the preliminary approvals and how the current clinic and parking garage comply with the bulk requirements of the Zoning Ordinance:

Zoning Requirements for the Clinic Building			
	Required	Preliminary Planned Development Proposal December 2010	Final Planned Development Proposal May 2011
North Setback (Side)	39'-6"	40'	42'
East Setback (Front)	57'	57'-8"	89'
South Setback (Side)	39'-6"	65'	58'
West Setback (Rear)	59'-7"	920'	915'
Building Height	210 ft (max)	79 ft 2 in	79 ft 8 in
Parking Spaces	804	899 (in garage)	901 (in garage)
Loading Spaces	1	1	1
Floor Area Ratio	1.00 max	0.32	0.32
Open Space (Total)	132,144 sf min. required	Approximately 500,000 sq ft	Approximately 490,000 sq ft
Clinic - gross sf	n/a	213,316	193,200

Zoning Requirements for the Parking Garage			
	Required	Preliminary Planned Development Proposal December 2010	Final Planned Development Proposal May 2011
North Setback (Side)	22'-6"	110'-8"	89'-2"
East Setback (Front)	40'	420'	425'
South Setback (Side)	22'-6"	44'	65'-4"
West Setback (Rear)	42'-8"	480'	465'
Building Height	210 ft (max)	45 ft 4 in	56 ft 8 in
Parking garage gross sf	n/a	311,280 sq ft	341,400 sq ft

Per the Village's request, the petitioner completed a comprehensive traffic study. The study examined the estimated traffic based on the existing day care center and the anticipated traffic from the Midwestern University and ASGE sites. The study concluded that all intersections would have an acceptable level of service and the adjoining road system would be able to accommodate the anticipated traffic.

Based on the study's recommendations, the petitioner has modified the site plan to relieve traffic adjacent to the day care. The current site plan indicates vehicles would be able to access the site via two drives from Woodcreek Drive. The existing drive adjacent to the day care center will be improved while a new drive on the west side of the site will be used as a construction entrance and remain open after construction is complete.

Additionally, the petitioner is proposing a service drive south of the clinic building that will only be accessible to service and emergency vehicles. This service drive will have an exit-only drive onto Lacey Road. No general traffic will be permitted to use the service drive as the service drive will be gated. The exit drive onto Lacey Road will be designed so that it does not appear as an entrance to the site for vehicles traveling south on Lacey Road. The existing raised landscape median within Lacey Road will prohibit

vehicles from turning left (north) onto Lacey Road and prohibit northbound traffic on Lacey Road from attempting to turn into the exit drive.

During the December 2010 approval process, the Village expressed three concerns:

- *The use of the existing entrance drive to the site and day care center as a construction entrance.*
    - As noted above, a new western entrance drive from Woodcreek Drive will be used as the construction entrance.

- *An overland stormwater flow pinch point between the service drive and south property line.*
    - The petitioner has addressed this concern by revising the overland flow routes and storm sewers. The petitioner's revised engineering plans will comply with the Village's Stormwater Management Ordinance.

- *The layout of the building and site prohibits the Fire Department from having ladder truck access on two sides, preferably opposite sides, of the proposed clinic building.*
    - The revised site plan provides access to three sides of the building, a grass paved fire lane on the north side, a circle drive on the west side and a service drive on the south side. An auto-turn exhibit was submitted that shows how the Village's fire apparatus can maneuver around the site.

The Plan Commission considered the petition at their May 2, 2011 meeting. The Plan Commission discussed the three concerns from the December 2010 approval process and expressed a concern about the service and emergency vehicle exit drive onto Lacey Road. The Commission was concerned about the site distance vehicles traveling south on Lacey Road would have to see service and emergency vehicles exiting onto Lacey Road. Staff believes the roadway and intersections were designed assuming development of this parcel. As such, the intersection should continue to operate in a safe manner even with the additional traffic.

The Plan Commission discussed the Forest Preserve District of DuPage County's comments regarding the proposal. The Plan Commission noted the District's concern about invasive species. The petitioner indicated at the hearing that they would have their landscape architect explore the use of native plant materials.

The Plan Commission found the proposal is consistent with the December 2010 Preliminary Planned Development approval and meets the standards of approval for a final planned development amendment. The proposal meets all bulk requirements of the Zoning Ordinance, is listed as a permitted use in the Zoning Ordinance and conforms to the Village's planning objectives. The petitioner has made provisions for common open space, public services, parking, utilities, access roads and stormwater management. The proposal is desirable and will contribute to the general welfare of the Village. The development will not be detrimental to the health, safety, morals or general welfare of the community. The proposed medical and dental teaching clinic building and parking garage are in harmony with other developments within the Esplanade at Locust Point and will not impede the development of the adjoining land. Based on their analysis, the Plan Commission recommended approval of the special use by a vote of 7:0. Staff concurs.

ATTACHMENTS

Aerial Map
Ordinance
Staff Report with attachments dated May 2, 2011
Minutes of the Plan Commission Hearing dated May 2, 2011

FPD #31
PC #13-11

ORDINANCE NO. _____

AN ORDINANCE APPROVING A FINAL PLANNED DEVELOPMENT AMENDMENT TO PLANNED DEVELOPMENT #31, FOR THE CONSTRUCTION OF A FIVE-STORY MEDICAL/DENTAL CLINIC AND SIX-LEVEL PARKING GARAGE

WHEREAS, the Village Council has previously adopted Ordinance No. 3302 on April 30, 1990, designating the property described therein as Planned Development #31; and,

WHEREAS, the Village Council has previously adopted Ordinance No. 5186 on December 21, 2010, approving a preliminary planned development amendment; and,

WHEREAS, the Owners have filed with the Director of Community Development, a written petition conforming to the requirements of the Comprehensive Zoning Ordinance and requesting approval of a final planned development amendment to Planned Development #31 to construct a five-story medical/dental clinic and six-level parking garage; and,

WHEREAS, such request was referred to the Plan Commission of the Village of Downers Grove, and the Plan Commission has given the required public notice, conducted a public hearing respecting the petition on May 2, 2011, and has made its findings and recommendations, all in accordance with the statutes of the State of Illinois and the ordinances of the Village of Downers Grove; and,

WHEREAS, the Plan Commission finds that the planned development amendment is consistent with the preliminary planned development amendment; and,

WHEREAS, the Plan Commission had recommended approval of the requested petition, subject to certain conditions; and,

WHEREAS, the Village Council has considered the record before the Plan Commission, as well as the recommendations of Plan Commission.

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

SECTION 1. That the provisions of the preamble are incorporated into and made a part of this ordinance as if fully set forth herein.

SECTION 2. That a Final Planned Development Amendment is hereby authorized for the construction of a five-story medical/dental clinic and six-level parking garage.

SECTION 3. That approval set forth in Section 2 of this ordinance is subject to the findings and recommendations of the Downers Grove Plan Commission regarding File PC-13-11 as set forth in the minutes of their May 2, 2011 meeting, a copy of which is attached hereto and incorporated herein by reference as Exhibit A.

SECTION 4. The approval set forth in Section 2 of this ordinance is subject to the following conditions:

1. The Final Planned Development Amendment shall substantially conform to the staff report dated May 2, 2011 and with preliminary engineering plans, stormwater report, and auto-turn exhibit prepared by Mackie Consultants, LLC dated March 25, 2011, architectural plans, elevations and site plans prepared by DWL Architects & Planners, Inc. dated March 23, 2011, and landscape drawings prepared by Allen L. Kracower & Associates and DWL Architects & Planners, Inc. dated March 23, 2011 except such plans may be modified to conform to Village Codes and Ordinances.

2. The proposed exit onto Lacey Road shall be for service vehicles only. Gates and/or fencing shall be provided which prohibit entrance to the site via this drive aisle and prohibit non-service vehicles from exiting the site. The drive shall be designed such that it is clear to vehicles traveling south on Lacey Road that this is not an entrance.

3. The northern section of the clinic building's drop-off drive shall be a minimum of 20-feet wide.

4. The trash enclosure shall be relocated so that it is not located in front of the proposed building.

5. The property shall comply with the Village's Sign Ordinance.

6. The recommendations listed within the traffic study, including the striping of Woodcreek Drive, shall be implemented.

7. The landscape plan shall incorporate additional native plants per the Forest Preserve's recommendations.

8. The proposed clinic building and parking garage shall have a manual and automatic detection system installed throughout in a manner acceptable to the Village. All areas of the building shall be protected.

9. The proposed clinic building and parking garage shall have a complete automatic sprinkler system installed throughout in a manner acceptable to the Village. All areas of the building shall be protected.

10. Utility easements for stormwater, water main and sidewalk improvements shall be provided to the Village through a plat of easement prior to the issuance of a Certificate of Occupancy for either the clinic or garage. If the abrogation of easements is required, this shall be completed in conjunction with the plat of easement.

SECTION 5. That the construction of a five-story medical/dental clinic and six-level parking garage is consistent with and complimentary to the overall planned development site plan and with the requirements of the "ORM Office-Research-Manufacturing District" zoning district.

SECTION 6. That the Mayor and Village Clerk are authorized to sign the above described plans.

SECTION 7. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION 8. That this ordinance shall be in full force and effect from and after its passage and publication in pamphlet form as provided by law.

_____

Mayor

Passed:
Published:
Attest: _____
Village Clerk

1\wp8\ord.11\FPD#31-Midwestern-PC-13-11

0 100 200 300 400 Feet

3450 Lacey Road Location Map

N

VILLAGE OF DOWNERS GROVE
REPORT FOR THE PLAN COMMISSION
MAY 2, 2011 AGENDA

SUBJECT:	TYPE:	SUBMITTED BY:
PC-13-11 3450 Lacey Road	Final Planned Development Amendment for a medical and dental and a parking garage	Stan Popovich, AICP Planner

REQUEST
The petitioner is requesting approval of a final planned development amendment to Planned Development #31, Esplanade at Locust Point for the construction of a five-story medical and dental teaching clinic office building and a six-level parking garage at 3450 Lacey Road.

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

GENERAL INFORMATION

OWNER\APPLICANT: Midwestern University
555 31st Street
Downers Grove, IL 60515

PROPERTY INFORMATION

EXISTING ZONING: ORM, Office, Research & Manufacturing and R1, Single Family Residential
EXISTING LAND USE: Open Space
PROPERTY SIZE: 15.168 acres (660,718 square feet)
PINS: 06-31-103-007 and 05-36-200-011

SURROUNDING ZONING AND LAND USES

	ZONING	FUTURE LAND USE
NORTH:	ORM, Office, Research & Manufacturing and R1, Single Family Residential	Office Research and Open Space
SOUTH:	ORM, Office, Research & Manufacturing	Office Research
EAST:	ORM, Office, Research & Manufacturing and I-355 Right-of-Way	Office Research and I-355 Right-of-Way
WEST:	R-1, Single Family Residential	Open Space

ANALYSIS

SUBMITTALS

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

1. Application/Petition for Public Hearing
2. Project Summary
3. Plat of Survey
4. Site Plan
5. Engineering Plans
6. Tabbed Stormwater Report
7. Architectural Plans
8. Landscape Plans
9. Auto-Turn Exhibit

PROJECT DESCRIPTION

The petitioner is requesting final planned development amendment approval to construct a five-story 193,200 square foot medical and dental teaching clinic office building and a six-level 341,400 square foot parking garage at 3450 Lacey Road within the Esplanade Planned Development. The 15.168 acre lot is located along the west side of Lacey Road, approximately 230 feet south of Woodcreek Drive. The property also has frontage along Woodcreek Drive via two strips of land extending north from the property. The property consists of two parcels, the eastern parcel is the larger parcel and is zoned ORM, Office, Research and Manufacturing. The second smaller parcel along the west property line is zoned R-1, Single Family Residential. The entire site is currently open space.

The proposed five-story clinic building with a basement is located on the east side of the subject parcel adjacent to Lacey Road. The building will house medical and dental teaching clinics for Midwestern University. The interior spaces will include classrooms, laboratories, clinic spaces, exam rooms and offices. The exterior of the building will be clad with precast concrete on the first level and precast concrete panels with thin brick facing above with blue-tinted windows on all levels. A metal panel clad penthouse will also be provided.

The building entrance is located on the west facade. An entrance canopy stretches across the entry circle drive to provide a covered entrance to the building. A sidewalk leads from the building entry to the parking garage. A service entrance within the basement is located on the south side of the building. The petitioner is proposing to limit access to the service area to only service and emergency vehicles.

Since receiving Preliminary Planned Development approval in December 2010, the petitioners have made slight modifications to the building and site plan. The table below identifies the clinic building differences between the December 2010 submittal and the current submittal. Additionally, the table shows how the current proposal complies with the bulk requirements of the Zoning Ordinance.

Zoning Requirements for the Clinic Building			
	Required	Preliminary Planned Development Proposal December 2010	Final Planned Development Proposal May 2011
North Setback (Side)	39'-6"	40'	42'
East Setback (Front)	57'	57'-8"	89'
South Setback (Side)	39'-6"	65'	58'
West Setback (Rear)	59'-7"	920'	915'
Building Height	210 ft (max)	79 ft 2 in	79 ft 8 in
Parking Spaces	804	899 (in garage)	901 (in garage)
Loading Spaces	1	1	1
Floor Area Ratio	1.00 max	0.32	0.32
Open Space (Total)	132,144 sf min. required	Approximately 500,000 sq ft	Approximately 490,000 sq ft
Clinic - gross sf	n/a	213,316	193,200

A six-level parking garage will be located in the middle of the parcel, immediately west of the clinic building. Since receiving Preliminary Planned Development approval in December 2010, the petitioners have made some slight changes to the parking garage. All six levels of the garage will be above grade and the stair towers will now be clad with light sandblast textured concrete panels and windows. Additionally, all vehicular access to the garage will be on the east side of the garage. The table below identifies the parking garage differences between the December 2010 submittal and the current submittal. Additionally, the table shows how the current proposal complies with the bulk requirements of the Zoning Ordinance.

Zoning Requirements for the Parking Garage			
	Required	Preliminary Planned Development Proposal December 2010	Final Planned Development Proposal May 2011
North Setback (Side)	22'-6"	110'-8"	89'-2"
East Setback (Front)	40'	420'	425'
South Setback (Side)	22'-6"	44'	65'-4"
West Setback (Rear)	42'-8"	480'	465'
Building Height	210 ft (max)	45 ft 4 in	56 ft 8 in
Parking garage gross sf	n/a	311,280 sq ft	341,400 sq ft

COMPLIANCE WITH FUTURE LAND USE PLAN

The Future Land Use Plan designates the site as Office and Research. Staff believes the proposed medical and dental teaching clinic and parking garage is consistent with the future land use designation of Office and Research. As such, staff believes the proposal is consistent with the Future Land Use Plan.

COMPLIANCE WITH ZONING ORDINANCE

The property is zoned ORM, Office, Research and Manufacturing and R-1, Single Family Residential. The medical and dental clinic and parking garage will be located on the eastern ORM-zoned parcel of the property and are permitted uses within the ORM district. The proposed development meets all bulk zoning requirements including setbacks, open space, building height, parking and floor area ratio. The

proposed development also complies with the Planned Development Standards of Approval. Staff believes the proposal is consistent with the Zoning Ordinance.

ENGINEERING/PUBLIC IMPROVEMENTS

As currently proposed, vehicular traffic will enter the site via two drives off of Woodcreek Drive. The existing entrance immediately west to the existing day care center will be improved to include two exit lanes, a landscaped median and a single entrance lane. An east-west boulevard will extend west from the existing entry drive to provide access to both the clinic building and the parking garage. The boulevard will continue to the west and extend to the north to provide a second access point to the property. The west drive will be located on the parcel's strip of land between the ASGE parcel and the detention basin.

The west drive will also serve as the construction entrance to the site. A staff concern during the December approval process was to provide a construction entrance that did not impact the existing day care center or traffic along Lacey Road. Staff believes this concern has been addressed by using the west entry drive as the construction entrance.

The drive located between the clinic and parking garage will provide access to the parking garage, a drop-off area for the clinic building and a service drive. Entry to the parking garage will be on the north end of the east façade while the garage exit will be further south. The circle drive in front of the clinic building is designed as a drop-off area and has also been designed to accommodate emergency vehicle access.

A service drive will be constructed south of the proposed building and will extend westward slightly past the east façade of the parking garage. The service drive adjacent to the clinic building will be gated or fenced to provide access only to service and emergency vehicles. The service drive continues east past the clinic building and exits onto Lacey Road. The exit onto Lacey Road will be for service and emergency vehicles only and no general traffic will be permitted to exit the site via the service drive. Additionally, vehicles will not be permitted to enter the site via Lacey Road. Staff has requested the petitioner examine the exit drive and design the exit drive to ensure that it does not appear as an entrance to the site for vehicles traveling south on Lacey Road. An existing landscaped median within Lacey Road will prohibit left turns onto Lacey Road and northbound traffic on Lacey Road from attempting to enter the site via the exit drive.

Per staff's December 2010 request, a comprehensive traffic study was completed. The study examined the proposed site circulation based on the existing daycare center and the anticipated traffic from the proposed Midwestern clinic and previously approved ASGE development. The study found that the level of service at all four intersections (two site driveways and Woodcreek Drive, the service vehicle drive and Lacey Road and Woodcreek Drive and Lacey Road) would meet acceptable standards after the clinic is completed. The study also concluded that the existing surrounding streets have sufficient capacity to accommodate the additional anticipated traffic.

The study recommended, and staff concurs, three items that the petitioner has included within their proposed development:

- Back-to-back left turn lanes on Woodcreek Drive to provide a left turn lane to eastbound traffic approaching Lacey Road and the westbound approach to the eastern site access road.

- Widening the existing eastern site access drive adjacent to the daycare facility to provide a left turn lane onto Woodcreek Drive and into the daycare's southern entrance. Additionally, stop sign control will be provided at the Woodcreek Drive intersection.

- The service driveway shall be constructed with an angled approach to discourage illegal entries to

the site from southbound Lacey Road. Additionally, provide stop sign control at this intersection.

With regard to stormwater, staff expressed a concern about the proposed overland flow routes traveling around the building and the potential 'pinch points' along the route during the December 2010 review. The revised grading plan provides overland flow routes and storm sewers which eliminate the pinch points.

The petitioner is proposing to construct two rain gardens on the south side of the clinic building and parking garage to meet the Village's stormwater Best Management Practices. Stormwater capacity will be provided by existing detention basins located within the Esplanade development. These basins were designed during the initial Esplanade development to accommodate stormwater from this site. The capacity of these basins has been confirmed by the petitioner. The development will be required to meet the Village's Stormwater Management Ordinance.

A sidewalk to connect the clinic and garage to Lacey Road is located on the north side of the building. Additional sidewalks connect the garage and clinic building. A trash enclosure has been proposed adjacent to the loading dock. The enclosure is located in front of the clinic building and must be relocated so that it is not in front of the building.

Additional public improvements will include the installation of new utility services, including water and sanitary sewers. The utility services will tie into existing mains along Woodcreek Drive and Lacey Road. The proposed looped water main will become a public water main maintained by the Village. The Downers Grove Sanitary District has provided conceptual approval to the petitioner's submittal.

PUBLIC SAFETY REQUIREMENTS

During review of the Preliminary Planned Development submittal in December 2010, the Village expressed concern about the project providing access to at least two sides of the proposed clinic building. The petitioner's current proposal provides access to the building on three sides. The north side is accessible via a grass paved area. The west side of the building is accessible via a circle drive while the south side is accessible via a service drive. All of the proposed access lanes are designed to provide adequate width for the Village's fire apparatus as shown by the auto-turn exhibit.

The Fire Prevention Division of the Fire Department has reviewed the proposed plans, including the previously requested auto-turn exhibit. Based upon the submittal, the Fire Prevention Division believes they have sufficient access to both the clinic building and parking garage. Additionally, both the clinic building and parking garage will be required to have manual and automatic detection systems installed throughout. A complete and automatic sprinkler system will also be required in both facilities.

NEIGHBORHOOD COMMENT

Staff provided the petitioner's submittal to the Downers Grove Forest Preserve District of DuPage County for comment. Per the attached letter, the Forest Preserve District provided a comment regarding the use of non-native plant species which can become invasive and problematic if they spread into natural areas such as the Hidden Lake preserve to the east. Staff has provided the Forest Preserve's letter to the petitioner. Staff recommends that the petitioner revise their planting plan to include the native plant recommendations.

Staff received no additional public comments.

FINDINGS OF FACT

Staff believes the request is substantially similar to the December 2010 Preliminary Planned Development approval. Additionally, staff believes the standards for a Final Planned Development, as shown below,

have been met. The proposed development meets all bulk requirements of the Zoning Ordinance, is listed as a permitted use in the Zoning Ordinance and conforms to the planning objectives of the Village. The petitioner has made provisions for common open space, public services, parking, utilities, access roads and stormwater management. The requested amendment is desirable and will contribute to the general welfare of the Village. The development will not be detrimental to the health, safety, morals or general welfare of the community. The proposed medical and dental teaching clinic building and parking garage are in harmony with other developments within the Esplanade at Locust Point and will not impede the development of the adjoining land.

Section 28.1607 Standards for Approval of Planned Developments

The Plan Commission may recommend a planned development designation, plan or amendment based upon the following findings:

(1) The extent to which the planned development meets the standards of this Article.

(2) The extent to which the planned development departs from the zoning and subdivision regulations otherwise applicable to the subject property, including but not limited to, the density, dimension, area, bulk, and use, and the reasons why such departures are deemed to be in the public interest.

(3) The method by which the proposed plan makes adequate provision for public services, provides adequate control over vehicular traffic, provides for and protects designated common open space, and furthers the amenities of light and air, recreation and visual enjoyment.

(4) Conformity with the planning objectives of the Village.

The Village Council may authorize a planned development designation, plan or amendment with findings such as, but not limited to, the following:

(1) That the planned development at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community.

(2) That the planned development will not, under the circumstances of the particular case, be detrimental to the health, safety, morals, or general welfare of persons residing or working in the vicinity or injurious to property values or improvements in the vicinity.

(3) That the planned development is specifically listed as a special use in the district in which it is to be located.

(4) That the location and size of the planned development, the nature and intensity of the operation involved in or conducted in connection with said planned development, the size of the subject property in relation to the intensity of uses proposed, and the location of the site with respect to streets giving access to it, shall be such that it will be in harmony with the appropriate, orderly development of the district in which it is located.

(5) That the planned development will not be injurious to the use and enjoyment of other property in the immediate vicinity of the subject property for the purposes already permitted in such zoning district, nor substantially diminish and impair other property valuations within the neighborhood.

(6) That the nature, location, and size of the structures involved with the establishment of the planned development will not impede, substantially hinder, or discourage the development and use of adjacent land and structures in accord with the zoning district in which it is located.

(7) That adequate utilities, access roads, drainage, and other necessary facilities have been or will be provided for the planned development.

(8) That parking areas shall be of adequate size for that particular planned development, which areas shall be properly located and suitably screened from adjoining residential uses.

(9) That the planned development shall in all other respects conform to the applicable regulations of the zoning district in which it is located.

RECOMMENDATIONS

The proposed Final Planned Development is consistent with the December 2010 Preliminary Planned Development approval and is compatible with surrounding zoning and land use classifications. Based on the findings listed above, staff recommends the Plan Commission make a positive recommendation to the Village Council regarding this petition subject to the following conditions:

1. The Final Planned Development Amendment shall substantially conform to the staff report dated May 2, 2011 and with preliminary engineering plans, stormwater report, and auto-turn exhibit prepared by Mackie Consultants, LLC dated March 25, 2011, architectural plans, elevations and site plans prepared by DWL Architects & Planners, Inc. dated March 23, 2011, and landscape drawings prepared by Allen L. Kracower & Associates and DWL Architects & Planners, Inc. dated March 23, 2011 except such plans may be modified to conform to Village Codes and Ordinances.
2. The proposed exit onto Lacey Road shall be for service vehicles only. Gates and/or fencing shall be provided which prohibit entrance to the site via this drive aisle and prohibit non-service vehicles from exiting the site. The drive shall be designed such that it is clear to vehicles traveling south on Lacey Road that this is not an entrance.
3. The northern section of the clinic building's drop-off drive shall be a minimum of 20-feet wide.
4. The trash enclosure shall be relocated so that it is not located in front of the proposed building.
5. The property shall comply with the Village's Sign Ordinance.
6. The recommendations listed within the traffic study, including the striping of Woodcreek Drive, shall be implemented.
7. The landscape plan shall incorporate additional native plants per the Forest Preserve's recommendations.
8. The proposed clinic building and parking garage shall have a manual and automatic detection system installed throughout in a manner acceptable to the Village. All areas of the building shall be protected.
9. The proposed clinic building and parking garage shall have a complete automatic sprinkler system installed throughout in a manner acceptable to the Village. All areas of the building shall be protected.
10. Utility easements for stormwater, water main and sidewalk improvements shall be provided to the Village through a plat of easement prior to the issuance of a Certificate of Occupancy for either the clinic or garage. If the abrogation of easements is required, this shall be completed in conjunction with the plat of easement.

Staff Report Approved By:

_____

Tom Dabareiner, AICP
Director of Community Development

TD:sjp
-att

P:\P&CD\PROJECTS\PLAN COMMISSION\2011 PC Petition Files\PC-13-11 Midwestern Univ Dental Clinic - Final PD\Staff Report PC-13-11.doc

0 100 200 300 400 Feet

3450 Lacey Road Location Map

N

KATHLEEN H. GOEPPINGER, PH.D.
PRESIDENT & CHIEF EXECUTIVE OFFICER

March 23, 2011

Mr. Jeff O'Brien
Planner
Downers Grove Plan Commission
801 Burlington Avenue
Downers Grove, IL 60515

Re: Final Planned Development Revision Submission for the Midwestern University Clinical Campus at Esplanade at Locust Point.

Dear Mr. O'Brien,

Attached is our formal application for review and approval of the new Midwestern University Clinical Campus in Downers Grove, Illinois. As you are aware, we previously came before the Zoning Commission and the City Council in December, 2010, for preliminary approval which allowed us to purchase the land from Hamilton Partners, located at the Esplanade at Locust Point.

With your assistance, having received approval from the City Council, we completed the purchase of the land on December 29th, and have spent the last two months revising our plans and refining our drawings and interiors. We are including the revised drawings and documentation for Preliminary Planning Development review and approval as well as our petition to go before the Planning Commission.

Summary/Description

Midwestern University, a not-for-profit, private university is an active member of the Downers Grove community. Midwestern University founded in 1900, moved to Downers Grove in 1986 and since that time has developed many health care graduate programs that have broadened the mission of Midwestern University from a small medical school to a national recognized University that provides many health care professions in both the State of Illinois and nation. The University is know for quality programs in Osteopathic Medicine, Pharmacy, and 19 specialty graduate programs in the health sciences including physical therapy, occupational therapy, behavioral science and physician assistant studies. We have developed an outstanding reputation by providing our quality education, excellent clinical opportunities and a safe and secure campus in Downers Grove, Illinois.

Midwestern University offers only graduate programs in the health sciences. We do not have any undergraduate programs or students. Most of our 2500 students spend two full years on the Downers Grove campus, located on 31st Street, and two clinical years at surrounding

hospitals, pharmacies and clinics.

Midwestern University is enrolling the first class of Dental Students in August, 2011. This College of Dental Medicine - Illinois, as well as our other colleges, need to have a clinical location in which to teach the clinical years of actual patient training to meet the needs of their required curriculum. We anticipate the Chicago College of Osteopathic Medicine, the College of Health Sciences and the Chicago College of Pharmacy to also train students at the new Clinical Campus of Midwestern University.

The plans submitted include both the five story "Midwestern University Clinical Campus" building, proposed parking deck and landscaping plans. Much care has gone into the planning of this campus because of its location. The new facility will serve the entire community and their health care needs. It is both visible and accessible for the public and it is our intention to make this new building reflect the quality of our programs.

The land was purchased because of the location. It is located inside Parcel "B" of the Planned Development # 31, commonly known as Esplanade at Locust Point. The purchased site is 11.687 acres and is currently vacant land located west of Lacey Road and south of Wood creek Drive. The plan development is currently zoned O-R-M (office-research-manufacturing). No variance in zoning was requested when we came before the Zoning Commission in December of 2010.

Midwestern University will construct a five-story, 84'-0" foot high (measured from Ground level floor to roof parapet, not including Penthouse) Clinic Office Building facility, with a total build-out area of 193,200 Gross square feet (GSF), which is built as a teaching clinic for the public. A pre-cast concrete parking garage will be built adjacent to the facility with a build-out area of 341,400 sq. ft. with six tiers or levels. The Parking Garage will be 68'-0" high to the highest point of the structure. The use groups of the Clinic Building will consist primarily of B (Office, Lab, Exam, etc.), with some A3 (Classrooms) and S2 (Parking Garage).

Midwestern University anticipates a large community benefit will be derived by this new facility. One only has to review the findings of our similar clinic on the Glendale, Arizona campus to see that over 25,000 visits for dental services have occurred in less than eight months of operation. For both corporate partners within the community as well as the Village of Downers Grove employees, the citizens of the community and all surrounding communities to become patients at the clinics. Midwestern University will be serving a great need for affordable health care and believe that the services they provide will help the overall health of the community and become an important part of the reputation and services offered in Downers Grove. This health care facility will receive great recognition throughout the Chicago land area for the services it will provide and the patients it serves. The University is interested in becoming a great asset to both the Village of Downers Grove, the corporate community at the Esplanade.

Compliance with Future Land Use Plan

Total site for Planned Development #31 consists of 4,443,691 sq. ft. including the proposed facility, the amended overall site totals are as follows:

- Built-up Footprint: 1,292,517 sq. ft.
- Paved Area: 1,687,687 sq. ft.
- Landscaped Open Areas: 1,056,516 sq. ft.
- Water Elements: 520,196 sq. ft.

These areas result in a Total Open Space (Landscape and Water) of 32.93% which is well above the 20% noted in Article XVI Section 28-1612 of the Zoning Ordinance.

The proposed site of the facility is located in Parcel "B" of the Planned Development #31, and the proposed facility still leaves Parcel "B" well within its limits for future land use.

Compliance with the Zoning Ordinance, Planned Development #31 is zoned O-R-M and is regulated under Article XIII of the zoning ordinance. Section 28-001, in Article XIII, of the Zoning Ordinance lists permitted uses within an O-R-M district. Use of this building specifically falls under the following uses listed in the above mentioned section:

- Office uses
- Any facility, the principle use of which is research and developments of products
- Production, processing, assembly, cleaning, testing and repair limited to the following uses and products: Including dentures, drugs, laboratories, medical, dental, research, experimental and testing, orthopedic and medical appliances
- Warehousing, storage and distribution facilities, excluding motor freight terminals or self-storage facilities (mini-warehouses)
- Retail and service uses, as follows: Medical and dental clinics

The setbacks are as indicated on the attached Site Plan dated 3/23/2011. All setbacks are designed per the village ordinances or within the planned development #31 allowances. No setback variances are requested.

Completed with the initial construction will be the five-story Clinic Office Building facility, with a total build-out area of 193,200 gross square feet (GSF), which will be designed and built as a Teaching Clinic facility for Midwestern University. The First Floor will have a footprint of 33,450 GSF, while the remaining four floors will each be 31,550 GSF. The building will also include a full basement at 33,450 GSF. In the initial construction, a pre-cast parking garage will be built adjacent to the facility with a build-out area of 341,400 GSF, with six tiers or levels and a footprint of 56,900 GSF, which will accommodate 901 parking spaces. The PUD requirement for parking spaces is calculated at 2.5/1000, for a 193,200 GSF building requires 483 parking spaces. The proposed parking garage will accommodate 901 spaces, which is well above the required spaces. The balance of the land will be held or "land banked" for future University building needs.

The future plans include build-out of an additional facility of approximately 185,000 sq. ft. contemplates its use as office space, classroom, and potentially more clinic space. The additional building would require 463 parking spaces, calculated at 2.5/1000 sq. ft. At the time of future expansion, the garage will also be expanded an additional 139,200 sq. ft. to accommodate 388 additional parking spaces for a total of 1,289 spaces, which will be well above the required number of approximately 950 spaces. It is understood that approval of future development will be subject to approval by the Village.

Traffic and Parking Concerns

Most faculty and staff will be arriving to The Esplanade Campus prior to 8:00 a.m. Students will be arriving any time after 6:00 a.m. for set up time and the faculty will be arriving shortly thereafter. Most patient exams will be set between 8:00 a.m. and 4:00 p.m. These appointments are scheduled throughout the day. There is not a large influx of traffic at any one time due to the nature of the clinic scheduling and the use of the buildings. This should ease any traffic issues that would exist if you were to add large office buildings to the campus that require employees to all arrive and depart at the same time. We do not anticipate weekend or evening hours at this time. We have included a Traffic Study with this submission.

Public Safety Requirements

The proposed facility meets the height, area and story requirements of the Downers Grove Building Code. The University will request permit for a Mixed Use (B-Business facility with potentially some special use area. Appropriate egress, safety and emergency requirements are planned.

Engineering/Public Improvements

Adequate public utility mains (water, sanitary and storm sewers) are located within the Planned Development #31 to be extended to the new facility. The proposed water main improvements will allow for completion of a looped system and will provide additional fire hydrants within 100 feet of the building fire department connections. Underground electric service will be extended to pad mounted transformers to serve the building. Adequate storm water detention is already provided for within Planned Development #31; however, there is an existing storm water pipe that will need to be re-routed on the site. In addition, rain gardens are being implemented as a best management practice (BMP) to slow runoff, promote infiltration, and filter pollutants and sediments. Roof drainage from the clinic building will flow through storm sewer to the eastern rain garden, while roof drainage from the parking garage will flow directly to the western rain garden.

Access to the site will be provided from the north along Woodcreek Drive. The existing access drive will be utilized for permanent and construction site access. Entrance monument signage in compliance with the Esplanade standards will be used to designate the entrance and directional signage to aid in the routing of trucks and cars to maintain a safe traffic flow. Adequate site lighting will be provided for the access road, entrance, and parking facilities. A separate paved entrance into the site will be constructed as part of this development to insure safe uninterrupted site access as illustrated on the Site Plan included with this submission.

The site is bordered by lakes on the northwest and south and DuPage County Forest Preserve property on the west. The proposed facility will be constructed on vacant land. The majority of the site is currently covered by an existing agricultural field and the far west side of the site is at present a wooded area. The storm water pollution prevention plan has been designed to protect and preserve the adjacent lakes and wooded areas during construction and facility operation. Landscaping will be added around the building to add to the aesthetic appeal of the building in its relation to the surrounding environment and to maintain a high quality of visual appeal.

Anticipated Easement Revisions

We anticipate creation of the following easements:

- Modification to Utility Easements to reflect field measured locations of constructed utilities.
- Creation of Temporary Grading Easement from adjacent property owner for construction of access roads in accordance with approved plans.
- Creation of Stormwater Easements for stormwater conveyance system to reflect constructed storm sewer.

Thank you for your cooperation and efforts. Please do not hesitate to call with any questions you might have about the proposed work or the attached documents.

Sincerely,

Kathleen H. Goeppinger, Ph.D.

Kathleen H. Goeppinger, Ph.D.
President and Chief Executive Officer

KHG/smr

TRAFFIC STUDY FOR

MIDWESTERN UNIVERSITY DENTAL & MEDICAL INSTITUTE

DOWNERS GROVE, ILLINOIS

January 20, 2011

Prepared for:

DWL Architects + Planners,, Inc.

Prepared by:

JAMES J. BENES AND ASSOCIATES, INC.
950 Warrenville Road, Suite 101
Lisle, Illinois 60532
(630) 719-7570

TABLE OF CONTENTS

A. INTRODUCTION

Midwestern University (MWU) is proposing to construct a dental and medical clinic on currently vacant land at 3450 Lacey Road, in the Esplanade at Locust Point development, Downers Grove, Illinois. (See Exhibit 1, Location Map and Exhibit 2 Site Plan in the Appendix.) The development is planned to be constructed in two phases. This traffic study is for the first phase of development which is planned to be completed in 2012 and will consist of a 213,316 square foot dental and medical clinic. Primary access to Phase I will be via an extension of an existing driveway to Woodcreek Drive approximately 400 feet west of Lacey Road. A new right-out only driveway to Lacey Road is proposed to be constructed 560 feet south of Woodcreek Drive.

Phase II will consist of a second building of a yet to be determined size. A second full access road to Woodcreek Drive is planned as a part of the Phase II; however it may be constructed sooner at Midwestern University's discretion. Traffic impacts for Phase II will be addressed in a separate study when the plans of that phase are developed.

The existing driveway is a combined access road to be shared by MWU, the existing Bright Horizons child care center on the east side of the driveway, and a future office building on the vacant parcel west of the access road. The American Society of Gastrointestinal Endoscopy (ASGE) plans on constructing a 41,822 square foot office building on the west side of the driveway. The ASGE office is planned to be complete and occupied in 2012. The proposed MWU right-out driveway to Lacey Road will be located 175 feet north of the Sara Lee driveway, within the fully developed right turn lane.

This report contains existing traffic volume and operation information, expected site trip generation and an analysis of future traffic conditions after construction of the proposed development.

B. EXISTING CONDITIONS

A field reconnaissance was conducted of the site vicinity to collect information on the existing road network, including traffic control devices, lane configurations, and existing traffic volumes. Existing land uses surrounding the site were also noted.

Surrounding Land Uses

The development area is primarily surrounded by office, industrial or vacant land uses on all sides. Adjoining land uses include Bright Horizons child care immediately north of the proposed MWU building, the ASGE site directly west of Bright Horizons and north of the proposed MWU parking structure, and the Sara Lee office building to the south.

Surrounding Roadways

Lacey Road

Lacey Road is a four lane roadway oriented in a north-south direction adjacent to the MWU site. It extends from Finley Road to Butterfield Road, has a posted speed limit of 35 miles per hour (mph) and is under the jurisdiction of the Village of Downers Grove.

At its intersection with Woodcreek Drive north of the site, northbound Lacey Road has two through lanes and a separate left turn lane. The southbound approach to the intersection has one through lane and one lane shared by through and right turning traffic movements.

Woodcreek Drive

Woodcreek Drive is a wide (44 feet edge to edge of pavement) two lane roadway extending west from Lacey Road near the MWU site, and then curving to the north where it again intersects with Lacey Road, just south of Butterfield Road. It is under the jurisdiction of the Village of Downers Grove. The regulatory speed limit is not posted, and is assumed to be 30 mph.

At its tee intersection with Lacey Road, Woodcreek Drive is under stop sign control. The 22 foot wide approach lane is shared by left- and right-turn traffic movements. However, the approach lane is wide enough to accommodate side by side left and right turning vehicles and frequently functions as if separate left and right turn lanes are provided.

See Exhibit 3 in the Appendix for existing lane configurations and traffic control devices.

Existing Traffic Volumes

Manual weekday morning and evening peak hour traffic counts were conducted at the Woodcreek Drive intersections with Lacey Road and with the existing access road on Tuesday, December 14, 2010. Turning movements were recorded in 15 minute increments from 7:00 to 9:00 am and from 4:00 to 6:00 pm. Existing 2010 weekday peak hour traffic volumes are shown on Exhibit 4 in the Appendix. Tabulations of the traffic counts are also provided in the Appendix.

C. NON-SITE TRAFFIC GROWTH

Phase I of the Midwestern University development and the ASGE development are both planned to be completed in 2012. A design year of 2017, five years after occupancy of MWU Phase I and the ASGE office, was used for this traffic study. Future non-site traffic volumes were estimated by increasing existing through traffic volumes at a rate of 1% per year for seven years to account for general growth of traffic due to other area developments.

D. SITE TRAFFIC GENERATION

The peak hour traffic volumes for the Midwestern University dental and medical clinic and the planned ASGE offices were estimated using trip generation rates contained in Trip Generation, 8th Edition, published by the Institute of Transportation Engineers (ITE). Estimated site generated trips are shown in the following table.

TRIP GENERATION

ITE Code	Description	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Tot.	Enter	Exit	Tot.
720	Medical-Dental Office 263,716 square feet	390	100	490	150	400	550
710	General Office 41,822 square feet	85	10	95	20	105	125

The MWU dental and medical clinic has planned operational hours as follows:

- 6:00 to 7:00 am – staff arrives
- 8:00 am to 4:00 pm – patients are treated
- 4:00 to 5:00 pm – staff departs

The observed vicinity peak traffic hours occurred from 7:30 to 8:30 am and from 4:30 to 5:30 pm. ITE trip generation rates for medical/dental offices are generally representative of medical offices with business hours extending through the morning and evening weekday peak hour periods. Since the expected MWU site traffic will only partially overlap with the street traffic peak hours, performing analyses using ITE peak hour trip generation rates is a conservative approach, as it will yield higher traffic volumes than are likely to occur for the proposed dental and medical clinic use.

From a traffic generating standpoint, the clinic is a complementary land use to the other types of land uses at Esplanade. Much of the traffic generated by the clinic will arrive and depart during the day between the weekday morning and evening peak hours, when traffic volumes at Esplanade are low.

E. SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT

Several factors influence the directions to and from which development traffic will travel on adjacent streets. These include the configuration of the local road network and ease of access to arterials surrounding Esplanade, the ease of travel on area streets, and the locations of residences of visitors and workers in the development. The estimated trips entering and exiting the site were distributed to the surrounding road network based upon a review of the existing roadway alignment, travel patterns and layout of the proposed development.

Midwestern University dental and medical clinic and ASGE traffic was assigned to the surrounding streets using the estimated directional distribution shown in the following table.

Directional Distribution of Site Traffic

Direction of Travel	TO	FROM
North on Lacey Road	40%	25%
South on Lacey Road	30%	30%
West on Woodcreek Dr.	30%	45%
TOTAL	100%	100%

Expected traffic from the ASGE office was added to the projected 2017 non-site traffic to establish the year 2017 Baseline Traffic, representing anticipated traffic volumes on area streets if the proposed MWU dental and medical clinic is not constructed. See Exhibit 5 in the Appendix.

Projected traffic from the Midwestern University dental and medical clinic was then added to the 2017 Baseline Traffic to obtain the projected 2017 Total Traffic. See Exhibit 6 in the Appendix.

F. TRAFFIC OPERATIONS ANALYSES

Intersection Capacity Analyses

Traffic operations at the development area intersections were analyzed under two traffic scenarios; Existing Traffic and 2017 Total Traffic conditions.

The analysis of existing conditions reflects traffic volumes, intersection traffic control devices and numbers of traffic lanes that currently exist on the area streets.

Total Traffic conditions represent the anticipated 2017 design year traffic conditions including existing traffic, normal growth of existing traffic, plus additional traffic generated by the Midwestern University dental and medical offices and the ASGE office development. See Exhibit 7 in the Appendix. Under Total Traffic conditions, the intersection of the primary access road with Woodcreek Drive was performed including the proposed widening of the access road to provide separate outbound left and right turn lanes.

Traffic operations were evaluated using procedures contained in the Highway Capacity Manual (HCM 2000) published by the Transportation Research Board. Analyses were performed using the HCS+ Version 5.5 software implementation of the HCM analysis procedures.

The measure of intersection operation is the average length of time an approaching vehicle is delayed before it can proceed through the intersection, measured in seconds per vehicle. The Level of Service (LOS) at an intersection, as defined in the Highway Capacity Manual, is shown in the following table.

Level of Service Criteria

Level of Service	Signalized Intersections Average Control Delay (seconds/vehicle)	Unsignalized Intersections Average Control Delay (seconds/vehicle)
A	0 to 10	0 to 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Intersection LOS is represented by the letter grades A (best) through F (worst). Design guidelines contained in the IDOT Bureau of Local Roads and Streets Manual specify a minimum LOS "C" for minor arterials and LOS "D" for collector streets. A summary of the intersection capacity analysis results is provided in the table on the following page.

For two-way stop controlled intersections, delay and LOS are computed only for traffic movements that are under stop control and those movements that must yield to opposing traffic.

Intersection Capacity Analysis
Summary of Levels of Service

	Existing Conditions**		2017 Total Traffic Conditions**	
	AM Peak	PM Peak	AM Peak	PM Peak
Woodcreek/Lacey : Stop control Woodcreek only	NBL – A EBA – B	NBL – A EBA – A	NBL – A EBL – C EBR – B	NBL – A EBL – C EBR - A
Site Driveway/Woodcreek: Stop control driveway only	WBA –A NBA – A	WBA – A NBA – A	WBL – A NBL – C NBR – A	WBL – A NBL - B NBR – B
New Site Right-Out to Lacey: Stop control driveway only	--	--	EBR – A	EBR - A

** "NBA – A" indicates LOS "A" on the northbound approach, "EBL – D" indicates LOS "D" In the eastbound left turn lane, etc.

In all cases, the existing and future analyses indicate that all traffic movements at the analyzed intersections will operate at a good LOS "C" or better. However, in order to minimize impacts of left turning traffic on through and right turning traffic flows, we recommend that Woodcreek Drive be re-striped from Lacey Road to west of the existing site driveway to provide back to back left turn lanes 115 feet long on the eastbound approach to Lacey Road, and approximately 65 feet long on the westbound approach to the site driveway. The analysis results in the previous table reflect the recommended pavement marking changes on Woodcreek Drive.

In addition to the aforementioned intersection modifications, it is also recommended that the outbound lanes on the shared access road and the new right-out driveway be placed under stop sign control.

G. ADDITIONAL TRAFFIC OPERATIONS CONSIDERATIONS

Drop-off and Pick-Up Child Care Circulation

Bright Horizons traffic flow was monitored during its peak drop-off and pick-up periods to determine if traffic queues onto the shared access road due to drop-off and pick-up activities. Both morning and evening traffic arrivals and departures at Bright Horizons was sufficiently spread out so that the available on site parking supply could accommodate the majority of vehicles. There were no traffic backups from Bright Horizons onto the shared access road during the entire morning count period. During the evening count period, one vehicle paused briefly (less than five seconds) in the access road northbound lane while waiting for another vehicle to exit a parking space on the Bright Horizons site.

The observations indicate a low likelihood of child care traffic impacting traffic flow on the shared access road. Nonetheless, the shared driveway is proposed to be widened to provide a left turn lane for traffic entering Bright Horizons. This will further reduce the potential for Bright Horizons traffic to block through traffic on the shared access driveway.

Emergency Vehicle Access

The aforementioned widening of the shared access road, in addition to reducing the potential for drop-off/pick-up traffic impacts to traffic flow, also lessens the potential for congestion to occur and adversely impact access for emergency vehicles. In addition, the new right-out exit driveway to Lacey Road provides a secondary access point for emergency services vehicles should the main site access road become blocked during an emergency.

Traffic Signal Warrant Analysis

A review of the projected increase in traffic volumes in the site vicinity was performed to determine if installation of traffic signal control at the intersection of Woodcreek Drive and Lacey Road may be warranted in the future. The projected year 2017 Total Traffic volumes were compared to the Warrant #3, Peak Hour contained in the Manual on Uniform traffic Control Devices. The projected traffic volumes do not meet the peak hour warrant criteria, therefore it is unlikely that a traffic signal will be warranted at this intersection in the forseeable future.

Second Full Access to Woodcreek Drive

The projected 2017 Total Traffic conditions analyses demonstrate that the shared access road is expected to operate at an acceptable Level of Service upon occupancy of the Midwestern University dental and medical clinic and the ASGE office. Construction of a second full access to Woodcreek Drive is not recommended at this time. The need for a

secondary access will be reevaluated as a part of a separate traffic study that will be prepared at such time as Midwestern University petitions for approval of Phase II of the development.

H. SUMMARY OF FINDINGS AND RECOMMENDATIONS

The proposed Midwestern University Dental and Medical Institute location is well suited for the proposed land use. Much of the traffic that it will generate will occur during low traffic generating periods for the surrounding land uses. The surrounding streets have sufficient capacity to accommodate the clinic's projected weekday peak hour traffic with some minor improvements, and still operate at a good Level of Service "C".

A summary of the recommended roadway improvements is provided below. Proposed improvements are shown graphically on Exhibit 7 in the Appendix.

Woodcreek Drive

Re-stripe Woodcreek Drive to provide back-to-back left turn lanes on the eastbound approach to Lacey Road and the westbound approach to the shared access road.

Shared Site Access Road to Woodcreek Drive

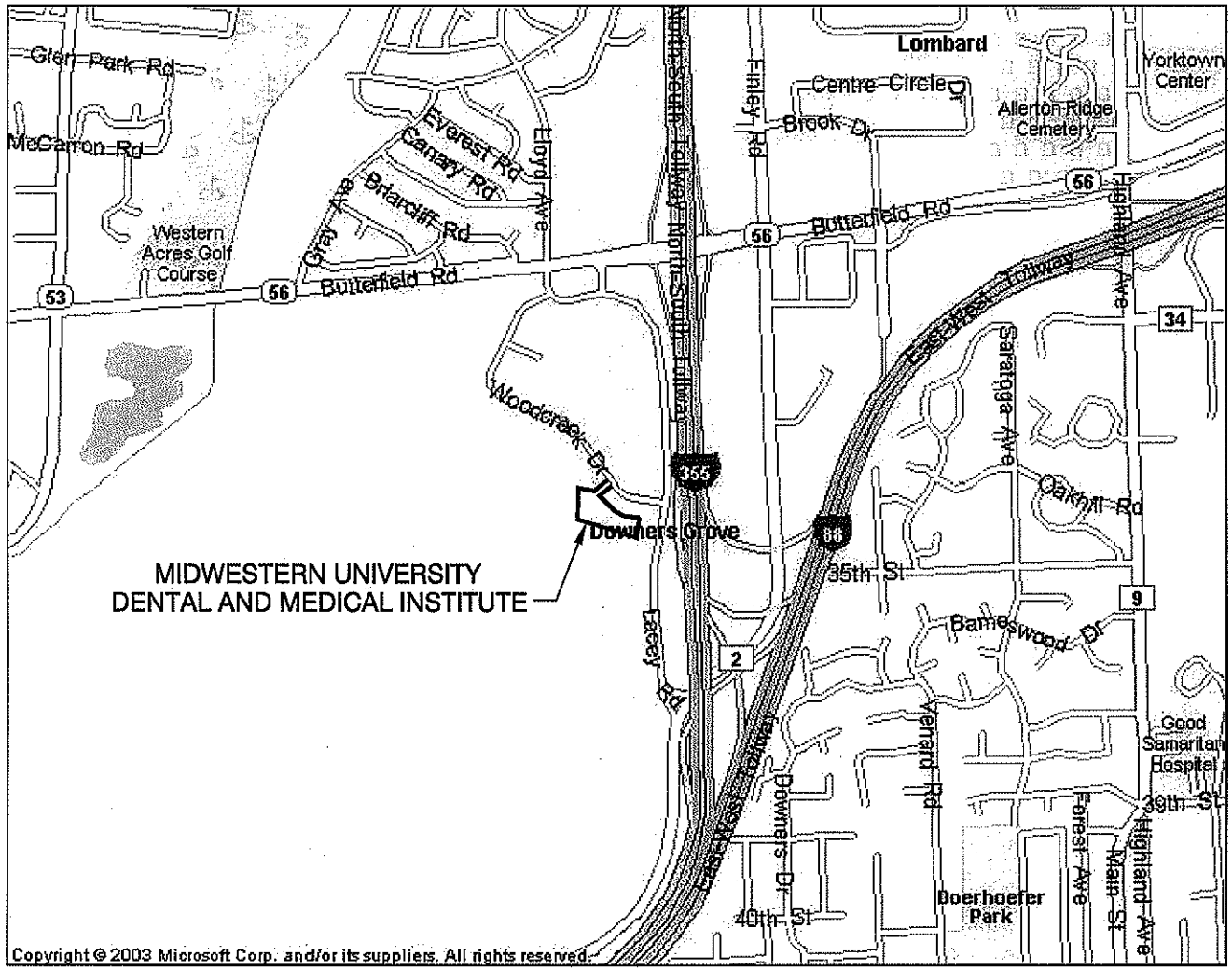
Widen the access road to provide separate left turn lanes on the approaches to Woodcreek Drive and to the Bright Horizons entrance driveway. Place the outbound approach to Woodcreek Drive under stop sign control.

New Right-Out Only Exit to Lacey Road

Construct the driveway with and angled approach to discourage illegal entries from southbound Lacey Road, and place the outbound approach to Lacey Road under stop sign control.

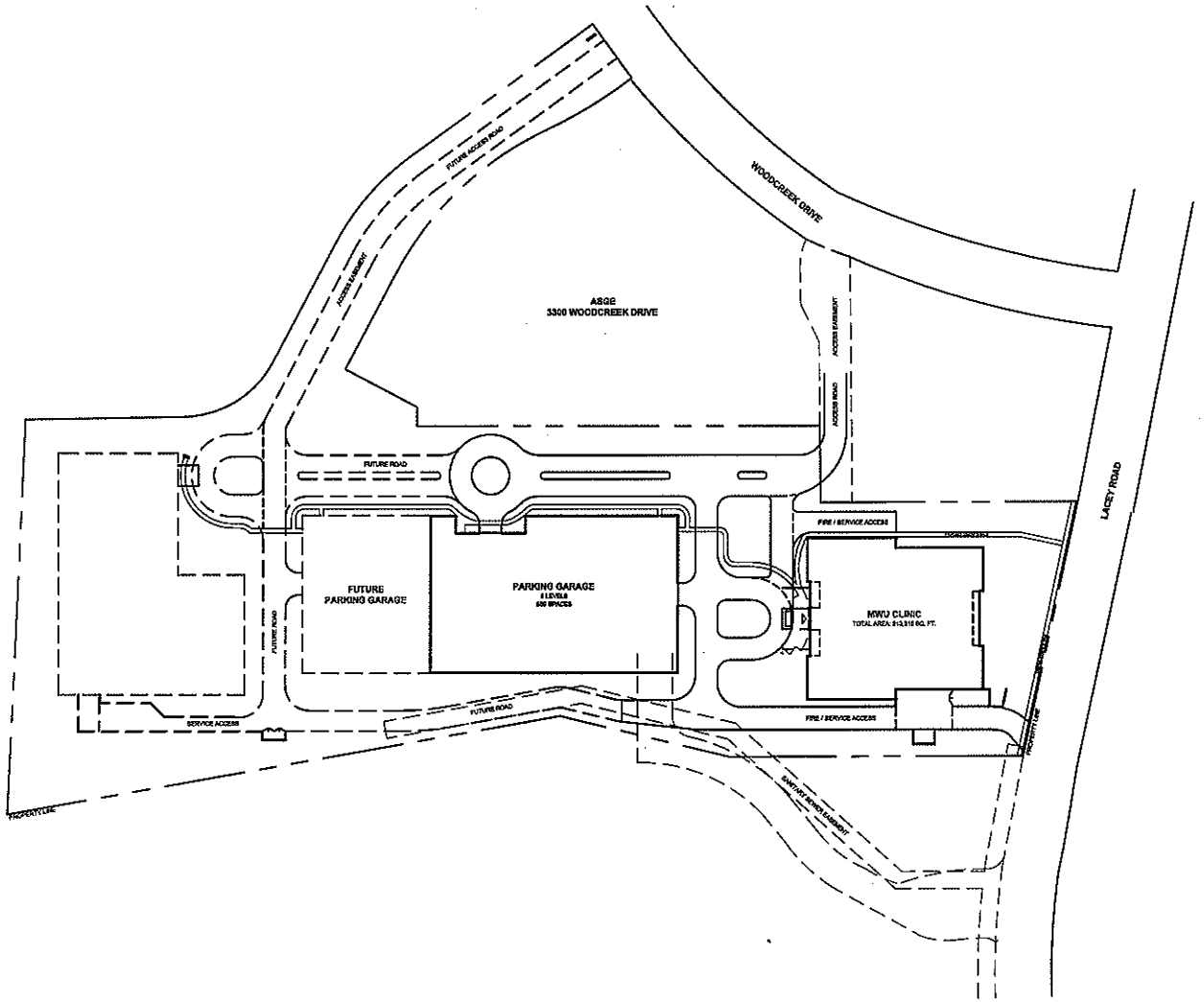
--End--

APPENDIX



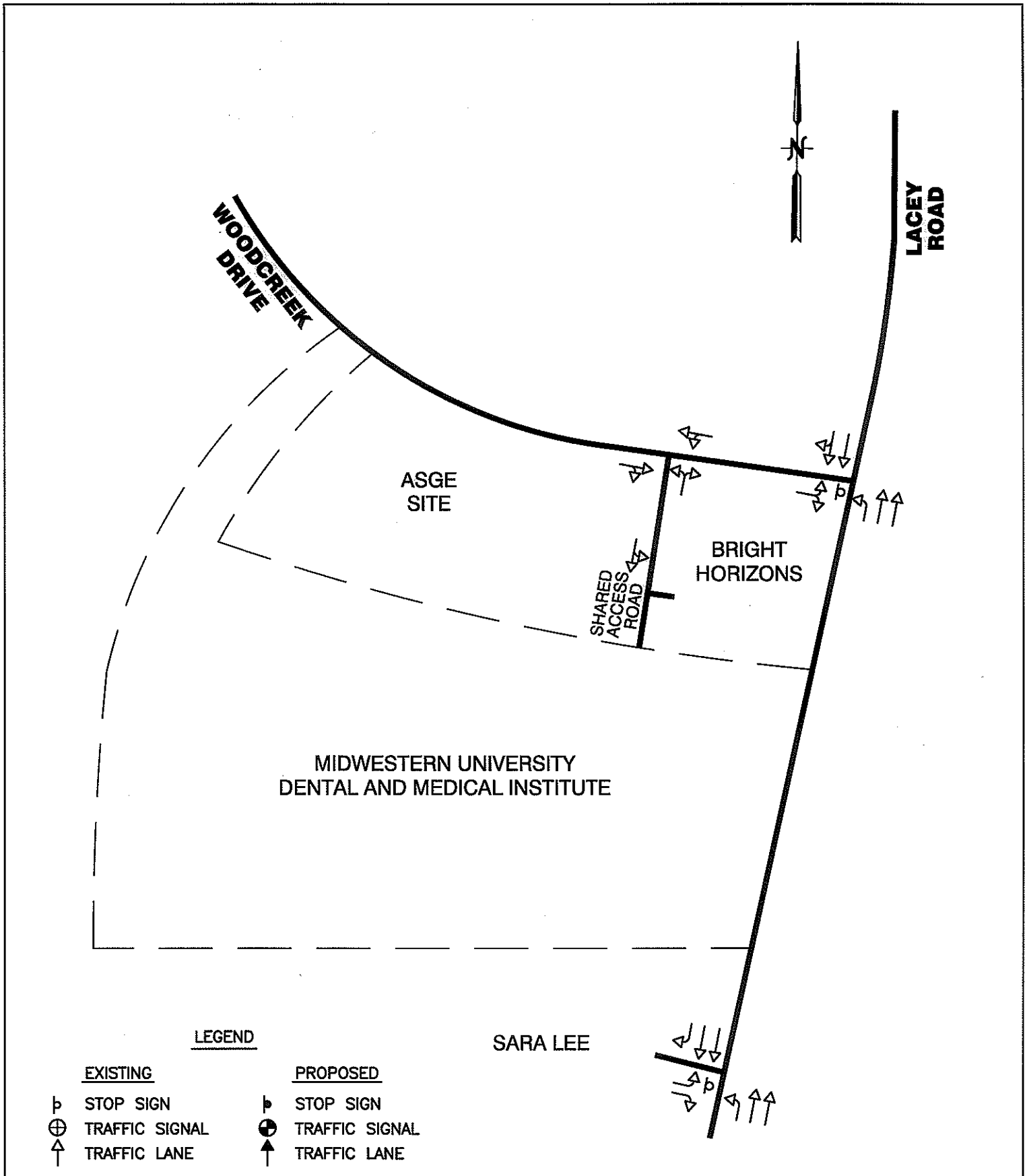
JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 • Fax (630) 719-7589

LOCATION MAP
EXHIBIT 1



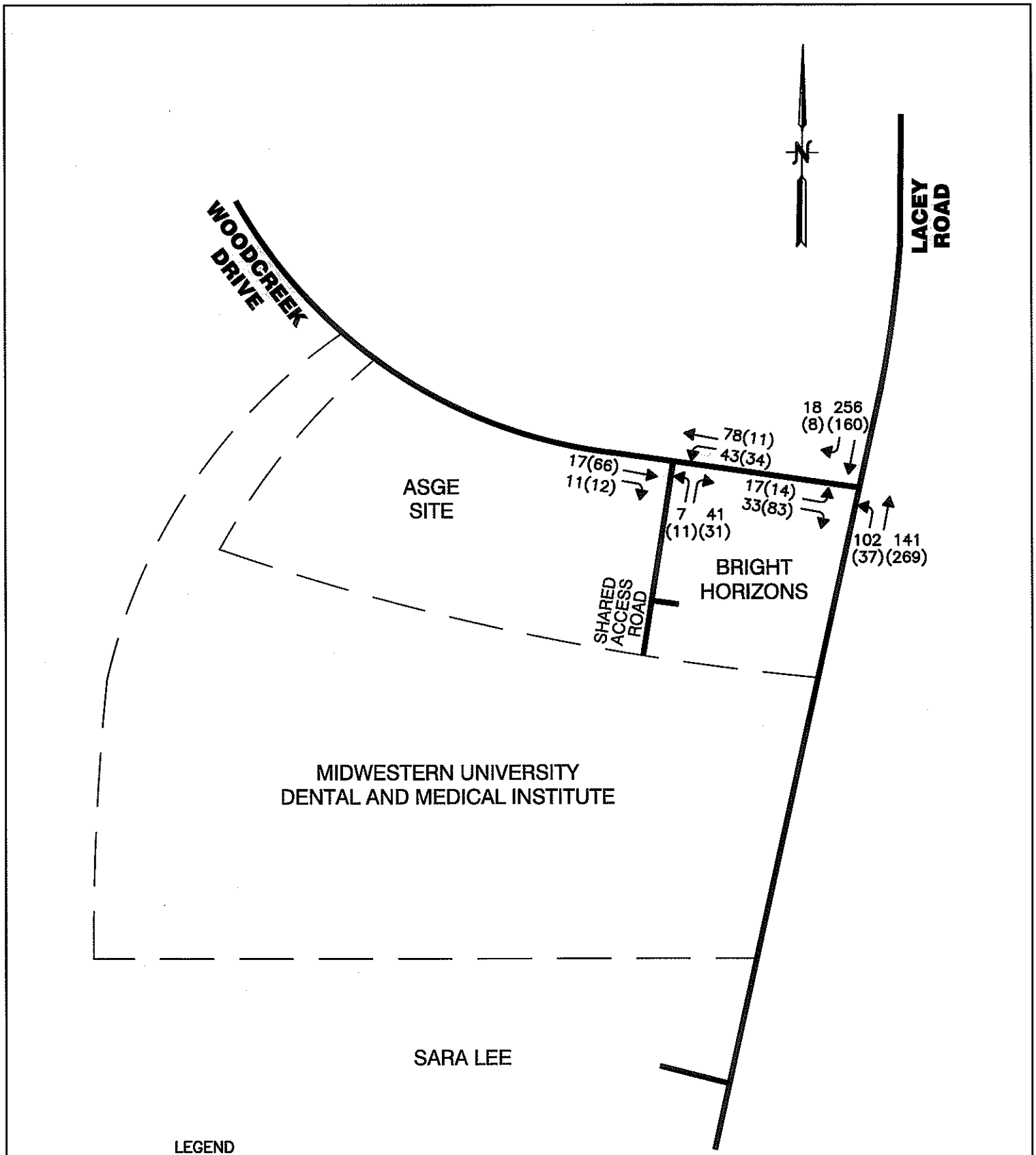
JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

SITE PLAN
EXHIBIT 2



JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

EXISTING CONDITIONS
EXHIBIT 3



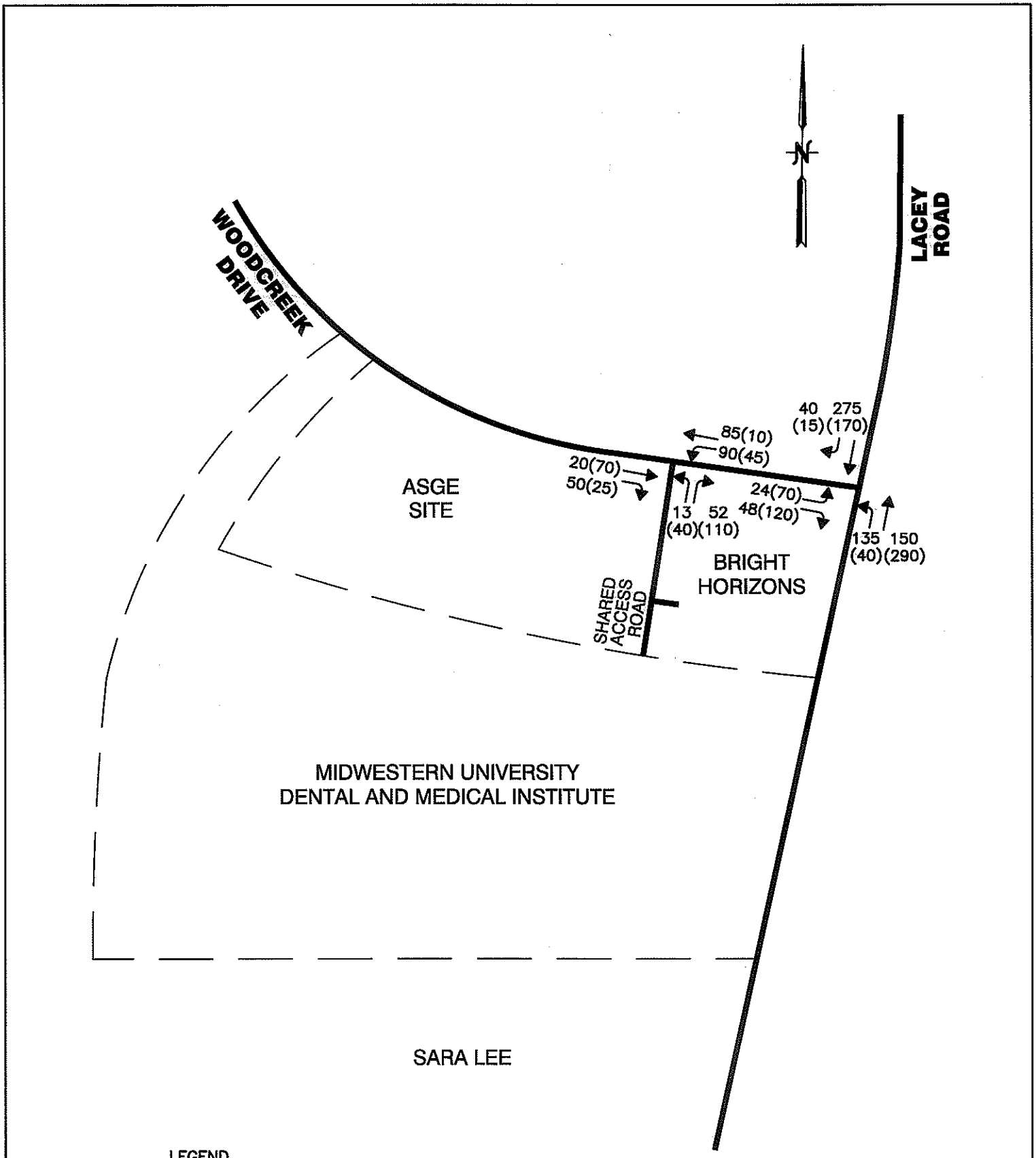
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

2010 EXISTING TRAFFIC
EXHIBIT 4



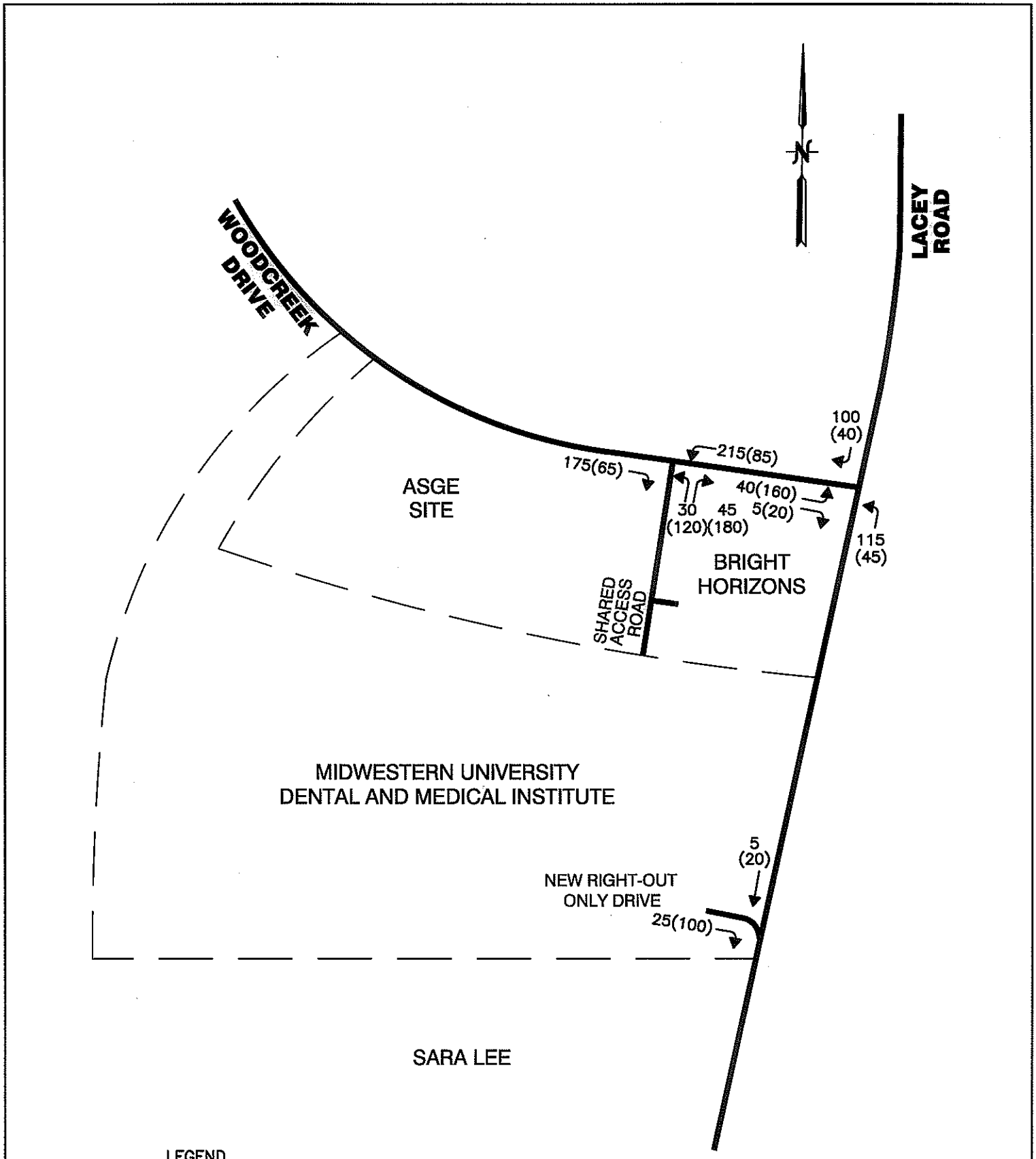
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

2017 BASELINE TRAFFIC
EXHIBIT 5



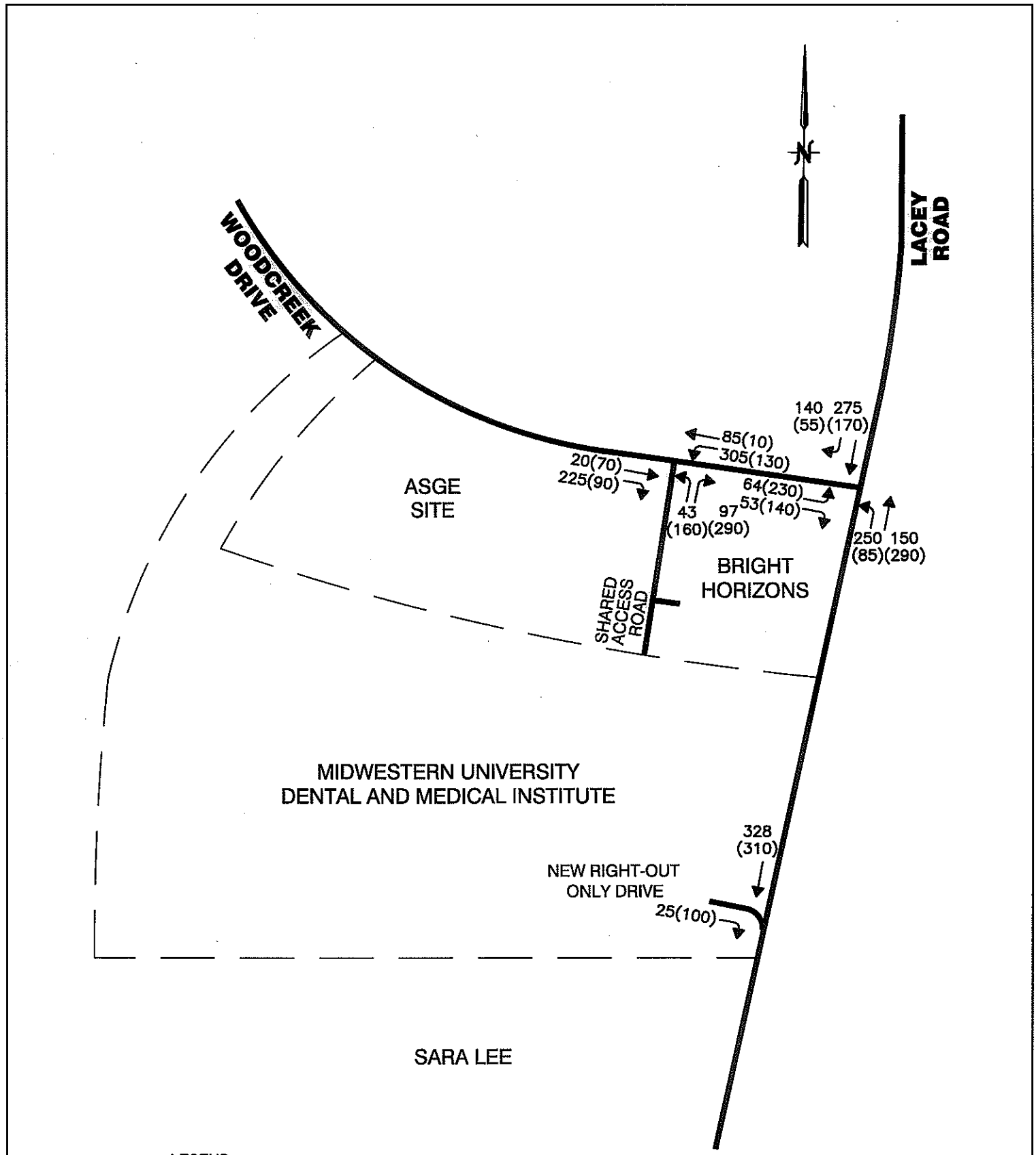
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

MWU SITE TRAFFIC
EXHIBIT 6



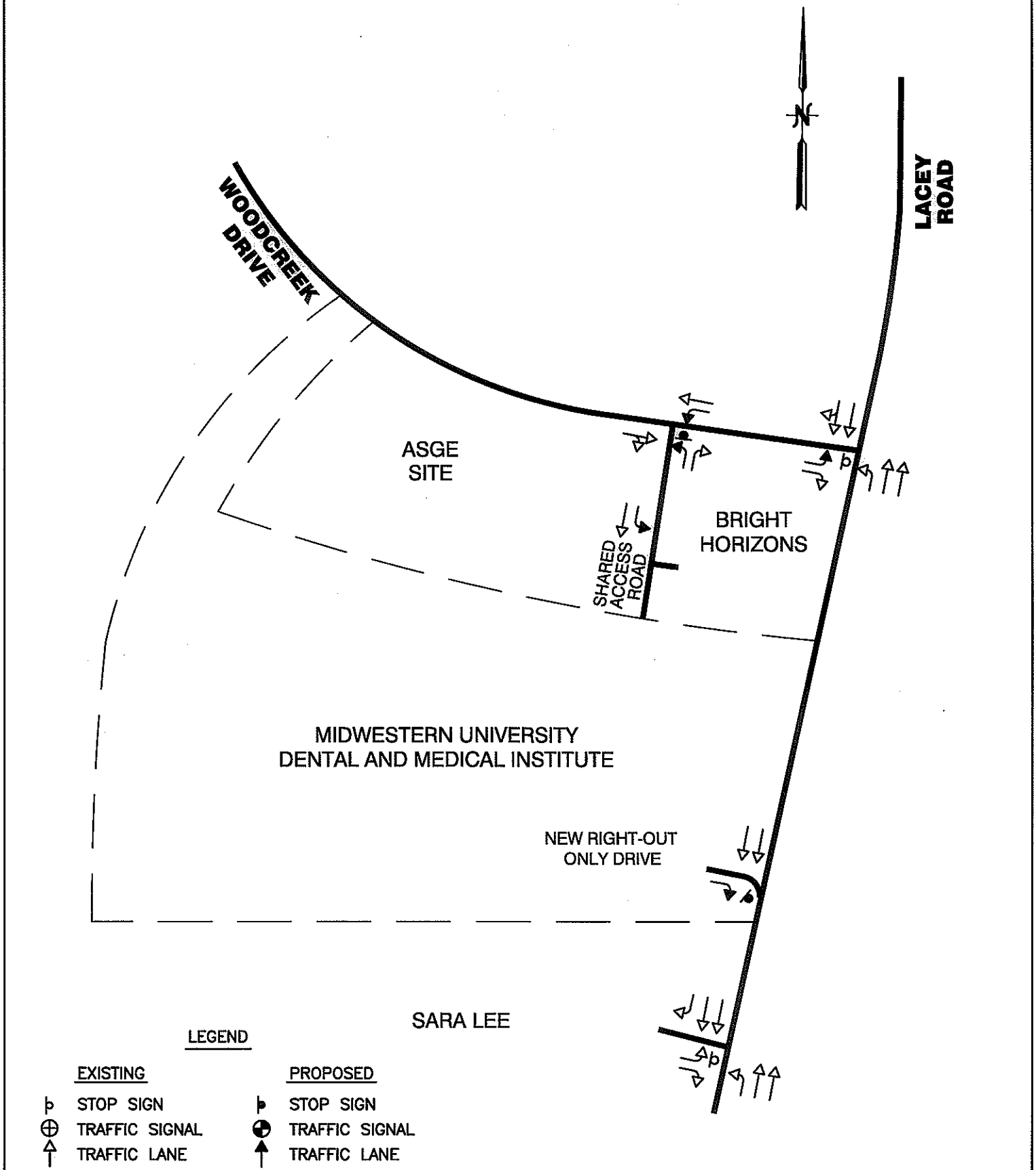
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 • Fax (630) 719-7589

2017 TOTAL TRAFFIC
EXHIBIT 7



JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

PROPOSED IMPROVEMENTS
EXHIBIT 8

SUMMARY OF VEHICLE COUNTS
MORNING PEAK PERIOD

Observer: S.M.P. & J.A.J. Date: December 14, 2010 Day: Tuesday City: Downers Grove, Illinois
East-West Street: Woodcreek Drive North-South Street: Lacey Road

Time Begins A.M.	EASTBOUND				WESTBOUND				Total East West	NORTHBOUND				SOUTHBOUND				Total North South	Total
	Left	Thru	Right	Total	Left	Thru	Right	Total		Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00	1		4	5				0	5	14	19		33		36	0	36	69	74
7:15	2		10	12				0	12	24	30		54		51	4	55	109	121
7:30	3		5	8				0	8	23	41		64		64	4	68	132	140
7:45	4		7	11				0	11	32	39		71		69	2	71	142	153
8:00	7		9	16				0	16	28	35		63		61	4	65	128	144
8:15	3		12	15				0	15	19	26		45		62	8	70	115	130
8:30	5		11	16				0	16	25	32		57		51	3	54	111	127
8:45	5		3	8				0	8	14	29		43		44	2	46	89	97
Total	30	0	61	91	0	0	0	0	91	179	251	0	430	0	438	27	465	895	986
Peak Hour	17	0	33	50	0	0	0	0	50	102	141	0	243	0	256	18	274	517	567

Peak Hour Factor 0.93

SUMMARY OF VEHICLE COUNTS
EVENING PEAK PERIOD

Observer: S.M.P. & J.A.J. Date: December 14, 2010 Day: Tuesday City: Downers Grove, Illinois
East-West Street: Woodcreek Drive North-South Street: Lacey Road

Time Begins P.M.	EASTBOUND				WESTBOUND				Total East West	NORTHBOUND				SOUTHBOUND				Total North South	Total
	Left	Thru	Right	Total	Left	Thru	Right	Total		Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00	4		18	22				0	22	6	40		46		24	0	24	70	92
4:15	1		10	11				0	11	6	37		43		23	0	23	66	77
4:30	2		26	28				0	28	9	46		55		46	3	49	104	132
4:45	2		13	15				0	15	11	56		67		32	2	34	101	116
5:00	3		27	30				0	30	6	86		92		49	1	50	142	172
5:15	7		17	24				0	24	11	81		92		33	2	35	127	151
5:30	1		24	25				0	25	7	57		64		26	0	26	90	115
5:45	3		12	15				0	15	10	62		72		25	0	25	97	112
Total	23	0	147	170	0	0	0	0	170	66	465	0	531	0	258	8	266	797	967
Peak Hour	14	0	83	97	0	0	0	0	97	37	269	0	306	0	160	8	168	474	571

Peak Hour Factor 0.83

SUMMARY OF VEHICLE COUNTS
MORNING PEAK PERIOD

Observer: R.A.J. Date: December 14, 2010 Day: Tuesday City: Downers Grove, Illinois
East-West Street: Woodcreek Drive North-South Street: Site Access Road

Time Begins A.M.	EASTBOUND				WESTBOUND				Total East West	NORTHBOUND				SOUTHBOUND				Total North South	Total
	Left	Thru	Right	Total	Left	Thru	Right	Total		Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00		4	0	4	7	7		14	18	0		1	1				0	1	19
7:15		3	2	5	7	21		28	33	0		9	9				0	9	42
7:30		3	2	5	7	20		27	32	0		5	5				0	5	37
7:45		5	2	7	10	24		34	41	3		6	9				0	9	50
8:00		3	6	9	9	23		32	41	1		13	14				0	14	55
8:15		5	2	7	12	15		27	34	3		10	13				0	13	47
8:30		4	1	5	12	16		28	33	0		12	12				0	12	45
8:45		2	0	2	5	11		16	18	4		6	10				0	10	28
Total	0	29	15	44	69	137	0	206	250	11	0	62	73	0	0	0	0	73	323
Peak Hour	0	17	11	28	43	78	0	121	149	7	0	41	48	0	0	0	0	48	197

Peak Hour Factor 0.90

SUMMARY OF VEHICLE COUNTS
EVENING PEAK PERIOD

Observer: R.A.J. Date: December 14, 2010 Day: Tuesday City: Downers Grove, Illinois
East-West Street: Woodcreek Drive North-South Street: Site Access Road

Time Begins P.M.	EASTBOUND				WESTBOUND				Total East West	NORTHBOUND				SOUTHBOUND				Total North South	Total
	Left	Thru	Right	Total	Left	Thru	Right	Total		Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00		17	0	17	2	4		6	23	2		5	7				0	7	30
4:15		9	1	10	3	3		6	16	0		2	2				0	2	18
4:30		23	2	25	10	2		12	37	1		5	6				0	6	43
4:45		7	2	9	9	4		13	22	4		8	12				0	12	34
5:00		19	3	22	7	0		7	29	3		11	14				0	14	43
5:15		17	5	22	8	5		13	35	3		7	10				0	10	45
5:30		16	2	18	5	2		7	25	5		9	14				0	14	39
5:45		6	3	9	7	3		10	19	0		9	9				0	9	28
Total	0	114	18	132	51	23	0	74	206	18	0	56	74	0	0	0	0	74	280
Peak Hour	0	66	12	78	34	11	0	45	123	11	0	31	42	0	0	0	0	42	165

Peak Hour Factor 0.92

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*TA*	Intersection	*Woodcreek Dr/Lacey Rd*
Agency/Co.	*JJB & A*	Jurisdiction	*Village of Downers Grove*
Date Performed	*12/14/2010*	Analysis Year	*2010 Existing*
Analysis Time Period	*AM Peak Hour*		

Project Description *Midwestern Univ. Dental/Medical Clinic*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*102*	*141*			*256*	*18*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*113*	*156*	*0*	*0*	*284*	*20*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*17*		*33*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*18*	*0*	*36*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*15*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*113*						*54*	
C (m) (veh/h)	*1246*						*681*	
v/c	*0.09*						*0.08*	
95% queue length	*0.30*						*0.26*	
Control Delay (s/veh)	*8.2*						*10.7*	
LOS	*A*						*B*	
Approach Delay (s/veh)	--	--				*10.7*		
Approach LOS	--	--				*B*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/14/2010*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2010 Existing*

Project Description *Midwestern Univ. Dental/Medical Clinic*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*37*	*269*			*160*	*8*
Peak-Hour Factor, PHF	*0.83*	*0.83*	*1.00*	*1.00*	*0.83*	*0.83*
Hourly Flow Rate, HFR (veh/h)	*44*	*324*	*0*	*0*	*192*	*9*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*14*		*83*			
Peak-Hour Factor, PHF	*0.83*	*1.00*	*0.83*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*16*	*0*	*100*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*44*						*116*	
C (m) (veh/h)	*1361*						*877*	
v/c	*0.03*						*0.13*	
95% queue length	*0.10*						*0.46*	
Control Delay (s/veh)	*7.7*						*9.7*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--				*9.7*		
Approach LOS	--	--				*A*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/14/2010*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2010 Existing*

Project Description *Midwestern Univ. Dental/Medical Clinic*

East/West Street: *Woodcreek Drive* | North/South Street: *Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*17*	*11*	*43*	*78*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*18*	*12*	*47*	*86*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*7*		*41*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*7*	*0*	*45*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*-1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*47*		*52*				
C (m) (veh/h)		*1583*		*1004*				
v/c		*0.03*		*0.05*				
95% queue length		*0.09*		*0.16*				
Control Delay (s/veh)		*7.3*		*8.8*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*8.8*					
Approach LOS	--	--	*A*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/14/2010*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2010 Existing*

Project Description *Midwestern Univ. Dental/Medical Clinic*

East/West Street: *Woodcreek Drive* | North/South Street: *Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*66*	*12*	*34*	*11*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*73*	*13*	*37*	*12*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*11*		*31*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*12*	*0*	*34*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*37*		*46*				
C (m) (veh/h)		*1523*		*937*				
v/c		*0.02*		*0.05*				
95% queue length		*0.07*		*0.15*				
Control Delay (s/veh)		*7.4*		*9.0*				
LOS		*A*		*A*				
Approach Delay (s/veh)	--	--	*9.0*					
Approach LOS	--	--	*A*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*TA*	Intersection	*Woodcreek Dr/Lacey Rd*
Agency/Co.	*JJB & A*	Jurisdiction	*Village of Downers Grove*
Date Performed	*12/20/2010*	Analysis Year	*2017 Total Traffic*
Analysis Time Period	*AM Peak Hour*		

Project Description *Midwestern Univ. Dental/Medical Clinic - EXISTING LANES*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*250*	*150*			*275*	*140*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*277*	*166*	*0*	*0*	*305*	*155*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*64*		*53*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*71*	*0*	*58*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*15*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*277*						*129*	
C (m) (veh/h)	*1090*						*387*	
v/c	*0.25*						*0.33*	
95% queue length	*1.01*						*1.44*	
Control Delay (s/veh)	*9.4*						*18.9*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--				*18.9*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*TA*	Intersection	*Woodcreek Dr/Lacey Rd*
Agency/Co.	*JJB & A*	Jurisdiction	*Village of Downers Grove*
Date Performed	*12/20/2010*	Analysis Year	*2017 Total Traffic*
Analysis Time Period	*PM Peak Hour*		

Project Description	*Midwestern Univ. Dental/Medical Clinic - EXISTING LANES*
East/West Street: *Woodcreek Drive*	North/South Street: *Lacey Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*85*	*290*			*170*	*55*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*94*	*322*	*0*	*0*	*188*	*61*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*230*		*140*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*255*	*0*	*155*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (veh/h)	*94*						*410*	
C (m) (veh/h)	*1306*						*606*	
v/c	*0.07*						*0.68*	
95% queue length	*0.23*						*5.18*	
Control Delay (s/veh)	*8.0*						*22.5*	
LOS	*A*						*C*	
Approach Delay (s/veh)	--	--				*22.5*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/20/2010*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *Midwestern Univ. Dental/Medical Clinic - RESTRIPE w/EB LEFT*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*250*	*150*			*275*	*140*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*277*	*166*	*0*	*0*	*305*	*155*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*64*		*53*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*71*	*0*	*58*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*15*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*277*					*71*		*58*
C (m) (veh/h)	*1090*					*276*		*763*
v/c	*0.25*					*0.26*		*0.08*
95% queue length	*1.01*					*1.00*		*0.25*
Control Delay (s/veh)	*9.4*					*22.5*		*10.1*
LOS	*A*					*C*		*B*
Approach Delay (s/veh)	--	--				*16.9*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/20/2010*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *Midwestern Univ. Dental/Medical Clinic - RESTRIPE w/EB Left*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*85*	*290*			*170*	*55*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*94*	*322*	*0*	*0*	*188*	*61*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*230*		*140*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*255*	*0*	*155*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*94*					*255*		*155*
C (m) (veh/h)	*1306*					*498*		*922*
v/c	*0.07*					*0.51*		*0.17*
95% queue length	*0.23*					*2.88*		*0.60*
Control Delay (s/veh)	*8.0*					*19.6*		*9.7*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*15.8*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	TA
Agency/Co.	JJB & A
Date Performed	12/1/2010
Analysis Time Period	AM Peak Hour

Site Information

Intersection	Woodcreek Dr/Site Access Rd
Jurisdiction	Village of Downers Grove
Analysis Year	2017 Total Traffic

Project Description: Midwestern Univ. Dental/Medical Clinic - ADD NB Left

East/West Street: Woodcreek Drive | North/South Street: Existing Site Access Road

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		20	225	305	85	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR (veh/h)	0	22	250	338	94	0
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	43		0			
Peak-Hour Factor, PHF	0.90	0.90	0.90	1.00	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	47	0	0	0	0	0
Percent Heavy Vehicles	0	0	2	0	0	0
Percent Grade (%)	-1			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	L		R			
v (veh/h)		338	47		0			
C (m) (veh/h)		1291	236		904			
v/c		0.26	0.20		0.00			
95% queue length		1.05	0.72		0.00			
Control Delay (s/veh)		8.8	24.0		9.0			
LOS		A	C		A			
Approach Delay (s/veh)	--	--	24.0					
Approach LOS	--	--	C					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	TA
Agency/Co.	JJB & A
Date Performed	12/20/2010
Analysis Time Period	PM Peak Hour

Site Information

Intersection	Woodcreek Dr/Site Access Rd
Jurisdiction	Village of Downers Grove
Analysis Year	2017 Total Traffic

Project Description: Midwestern Univ. Dental/Medical Clinic - ADD NB Left

East/West Street: Woodcreek Drive | North/South Street: Existing Site Access Road

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		70	90	130	10	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR (veh/h)	0	77	100	144	11	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	160		290			
Peak-Hour Factor, PHF	0.90	0.90	0.90	1.00	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	177	0	322	0	0	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	-1			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	L		R			
v (veh/h)		144	177		322			
C (m) (veh/h)		1411	541		932			
v/c		0.10	0.33		0.35			
95% queue length		0.34	1.41		1.55			
Control Delay (s/veh)		7.8	14.9		10.9			
LOS		A	B		B			
Approach Delay (s/veh)	--	--	12.3					
Approach LOS	--	--	B					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	TA
Agency/Co.	JJB & A
Date Performed	12/1/2010
Analysis Time Period	AM Peak Hour

Site Information

Intersection	Woodcreek Dr/Site Access Rd
Jurisdiction	Village of Downers Grove
Analysis Year	2017 Total Traffic

Project Description: Midwestern Univ. Dental/Medical Clinic - ADD NB Left + WB Lt

East/West Street: Woodcreek Drive | North/South Street: Existing Site Access Road

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		20	225	305	85	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR (veh/h)	0	22	250	338	94	0
Percent Heavy Vehicles	0	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	43		97			
Peak-Hour Factor, PHF	0.90	0.90	0.90	1.00	0.90	0.90
Hourly Flow Rate, HFR (veh/h)	47	0	107	0	0	0
Percent Heavy Vehicles	0	0	2	0	0	0
Percent Grade (%)	-1			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
v (veh/h)		338	47		107			
C (m) (veh/h)		1291	236		904			
v/c		0.26	0.20		0.12			
95% queue length		1.05	0.72		0.40			
Control Delay (s/veh)		8.8	24.0		9.5			
LOS		A	C		A			
Approach Delay (s/veh)	--	--	13.9					
Approach LOS	--	--	B					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/20/2010*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *Midwestern Univ. Dentall/Medical Clinic - ADD NB Left & WB Lt*

East/West Street: *Woodcreek Drive* | North/South Street: *Existing Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*70*	*90*	*130*	*10*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*77*	*100*	*144*	*11*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*160*		*290*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*177*	*0*	*322*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*-1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*144*	*177*		*322*			
C (m) (veh/h)		*1411*	*541*		*932*			
v/c		*0.10*	*0.33*		*0.35*			
95% queue length		*0.34*	*1.41*		*1.55*			
Control Delay (s/veh)		*7.8*	*14.9*		*10.9*			
LOS		*A*	*B*		*B*			
Approach Delay (s/veh)	--	--	*12.3*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*12/20/2010*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Site Rt-Out Only/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *Midwestern Univ. Dental/Medical Clinic*

East/West Street: *Site Right-Out Only Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*400*			*375*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*444*	*0*	*0*	*416*	*0*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*			*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*25*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*27*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*27*
C (m) (veh/h)								*831*
v/c								*0.03*
95% queue length								*0.10*
Control Delay (s/veh)								*9.5*
LOS								*A*
Approach Delay (s/veh)	--	--				*9.5*		
Approach LOS	--	--				*A*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*TA*	Intersection	*Site Rt-Out Only/Lacey Rd*
Agency/Co.	*JJB & A*	Jurisdiction	*Village of Downers Grove*
Date Performed	*12/20/2010*	Analysis Year	*2017 Total Traffic*
Analysis Time Period	*PM Peak Hour*		

Project Description	*Midwestern Univ. Dental/Medical Clinic*
East/West Street: *Site Right-Out Only Drive*	North/South Street: *Lacey Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*375*			*310*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*416*	*0*	*0*	*344*	*0*
Percent Heavy Vehicles	*3*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*			*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*100*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*111*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*0*	*0*	*0*
Configuration			*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								*R*
v (veh/h)								*111*
C (m) (veh/h)								*870*
v/c								*0.13*
95% queue length								*0.44*
Control Delay (s/veh)								*9.7*
LOS								*A*
Approach Delay (s/veh)	--	--				*9.7*		
Approach LOS	--	--				*A*		

Copyright © 2010 University of Florida, All Rights Reserved

JAMES J. BENES AND ASSOCIATES, INC.
950 Warrenville Road ▪ Suite 101 ▪ Lisle, Illinois ▪ 60532
Tel. (630) 719-7570 ▪ Fax (630) 719-7589

MEMORANDUM

Date: April 11, 2011

To: Dwight C. Todd AIA
DWL Architects + Planners, Inc.

From: Thomas Adomshick, P.E., PTOE
Vice President

Re: Addendum to January 20, 2011 Traffic Study
Midwestern University Dental & Medical Clinic
Job No. 1346

This memorandum documents the results of supplemental analyses performed for the Traffic Study for the proposed Midwestern University Dental and Medical Clinic dated January 20, 2011.

Background

Traffic counts for the original study were performed in mid December of 2010. Village of Downers Grove staff requested that updated traffic counts be performed, indicating that historically, December traffic counts in town have been lower than typical daily traffic volumes. Additionally, the Village has directed that the right-out driveway to Lacey Road be limited to service and emergency vehicle traffic only, and a second access road to Woodcreek Drive may be constructed as a part of the first phase of the development.

In response to these comments, new traffic counts and supplemental analyses were performed to incorporate the updated existing traffic volume data, a possible second access road to Woodcreek Drive, and vehicular restrictions on the right-out access to Lacey Road.

Updated Traffic Counts, Traffic Projections and Distribution

New traffic counts were performed during the morning and evening peak hour periods from 7:00 to 9:00 am and from 4:00 to 6:00 pm on Wednesday, April 20, 2011. The new traffic volumes were slightly higher than the previous volumes. A summary of the changes is provided in the following table.

Total Intersection Traffic Volumes

Intersection	AM Peak Hour			PM Peak Hour		
	2010 Volume	2011 Volume	Percent Change	2010 Volume	2011 Volume	Percent Change
Lacey Rd. & Woodcreek Dr.	197	191	- 3%	165	169	+ 2%
Woodcreek Dr. & Existing Access	567	601	+ 6%	571	578	+ 1%

Future year 2017 traffic volumes were revised and estimated for two scenarios; 1) with a single site access to Woodcreek Drive, and 2) with a second site access to Woodcreek Drive at the west end of the site. Site traffic was also revised to account for allowing only service and

emergency vehicles to use the driveway to Lacey Road. Traffic projected to be generated by the ASGE site is also included in the estimated future traffic.

Exhibits A through C attached to this memorandum show existing 2011 traffic count volumes and the projected 2017 total traffic volumes with a single access and with two access driveways to Woodcreek Drive.

Analyses

Updated morning and evening peak hour capacity analyses were performed for the Lacey Road/Woodcreek intersection and for the existing site driveway to Woodcreek Drive.

The existing driveway intersection was analyzed both with and without a second driveway to Woodcreek. The number of driveways to Woodcreek does not impact traffic volumes at the Lacey/Woodcreek intersection. Therefore, this intersection was reanalyzed only once.

Intersection capacity analyses were also performed for the newly proposed west driveway to Woodcreek Drive.

New analyses were not performed for the right-out exit to Lacey Road. With the new limitations on use of this driveway, the traffic volumes greatly decrease; improving operations and maintaining the previously determined Level of Service "A".

Intersection Capacity Analysis
Summary of Levels of Service

	Previous 2017 Total Traffic Analyses**		Updated 2017 Total Traffic Analyses**	
	AM Peak	PM Peak	AM Peak	PM Peak
Woodcreek/Lacey : Stop control Woodcreek only	NBL – A EBL – C EBR – B	NBL – A EBL – C EBR - A	NBL – A EBL – D EBR – B	NBL – A EBL – D EBR – B
Existing Site Driveway to Woodcreek: (1 driveway case) Stop control driveway only	WBL – A NBL – C NBR – A	WBL – A NBL - B NBR – B	WBL – A NBL – C NBR – A	WBL – A NBL - C NBR – B
Existing Site Driveway to Woodcreek: (2 driveway case) Stop control driveway only	n/a	n/a	WBL – A NBL – C NBR – A	WBL – A NBL - B NBR – B
New West Driveway to Woodcreek: (2 driveway case) Stop control driveway only	n/a	n/a	WBA –A NBA – B	WBA – A NBA – B
New Site Right-Out to Lacey: Stop control driveway only	EBR – A	EBR - A	EBR – A	EBR - A

** "NBA – A" indicates LOS "A" on the northbound approach, "EBL – D" indicates LOS "D" In the eastbound left turn lane, etc.

Copies of the updated intersection capacity analyses are attached to this memorandum.

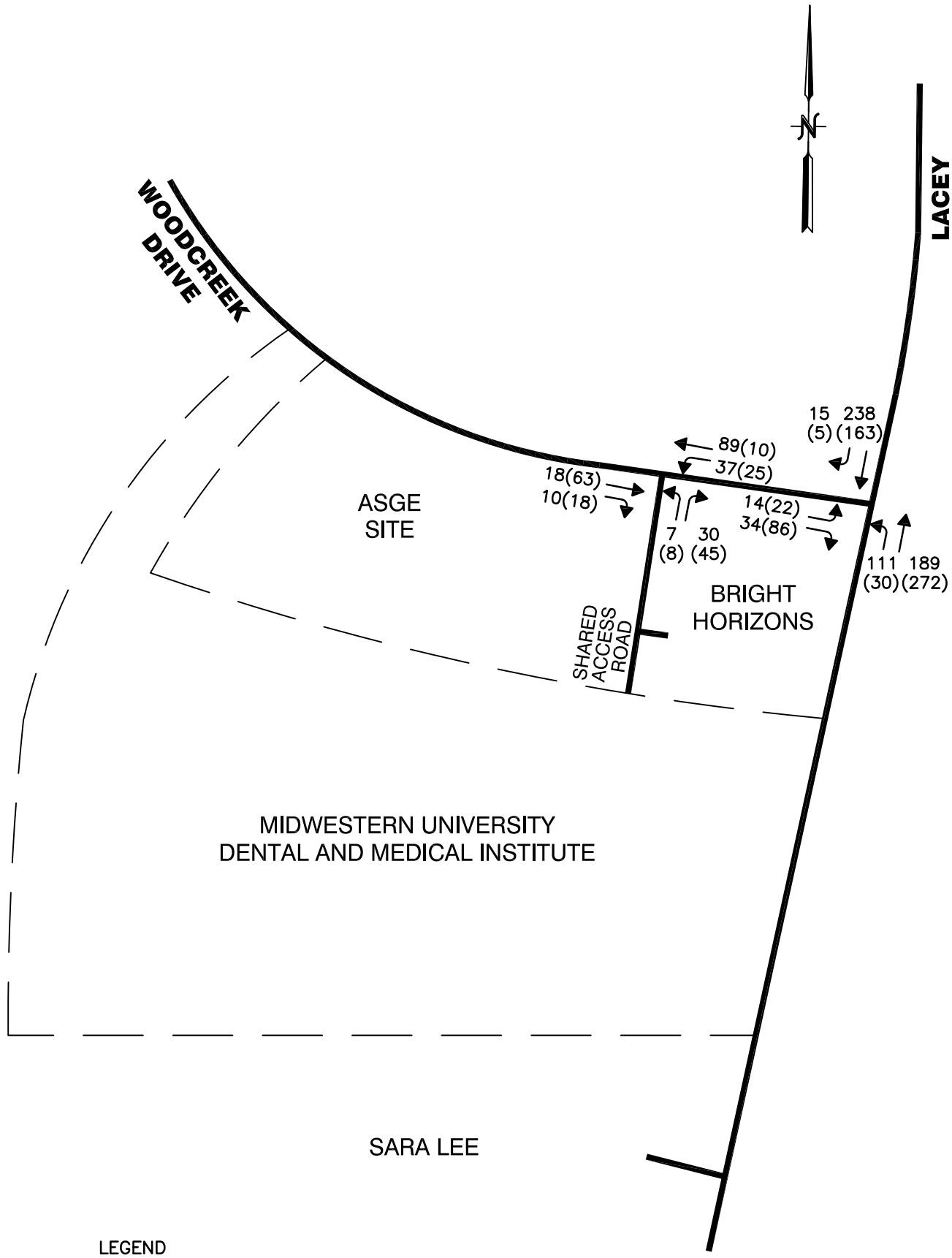
Conclusions and Recommendations

Some individual traffic movements experienced a small increase in delay and a drop in Level of Service using the estimated future traffic based on the updated traffic counts. However, all intersections will still operate at an acceptable Level of Service or better with the proposed roadway geometry and lanes recommended in the January 2011 traffic study. The recommendations contained in the previous study are still valid.

The proposed west access driveway to Woodcreek Drive will operate at a very good Level of Service with a single lane on each approach to the intersection. No exclusive turn lanes are needed at the proposed new driveway to Woodcreek Drive.

See the attached Exhibit D for a graphical depiction of proposed improvements.

-- End--



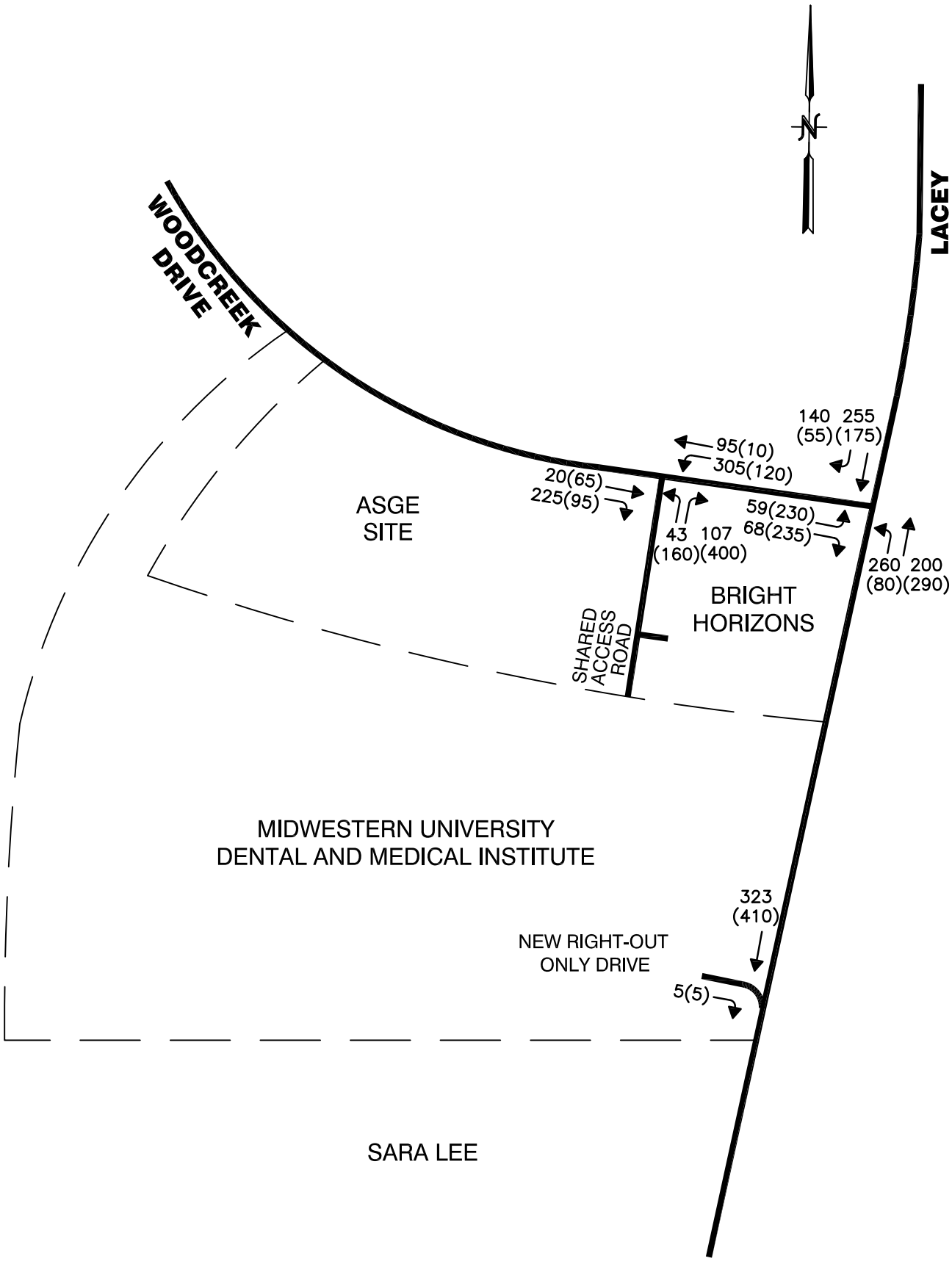
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

2011 EXISTING TRAFFIC
EXHIBIT A



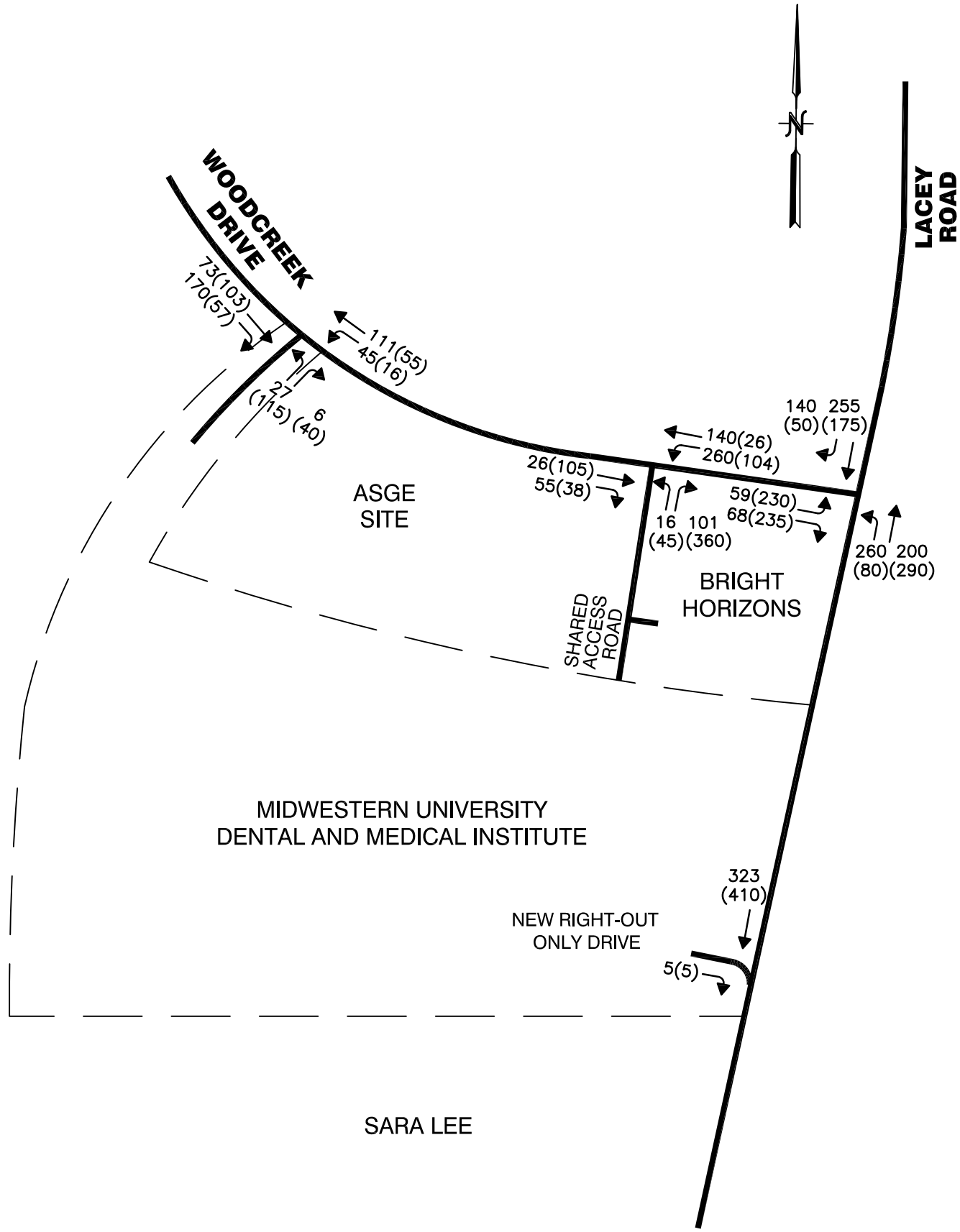
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

2017 TOTAL TRAFFIC SINGLE ACCESS TO WOODCREEK DRIVE EXHIBIT B



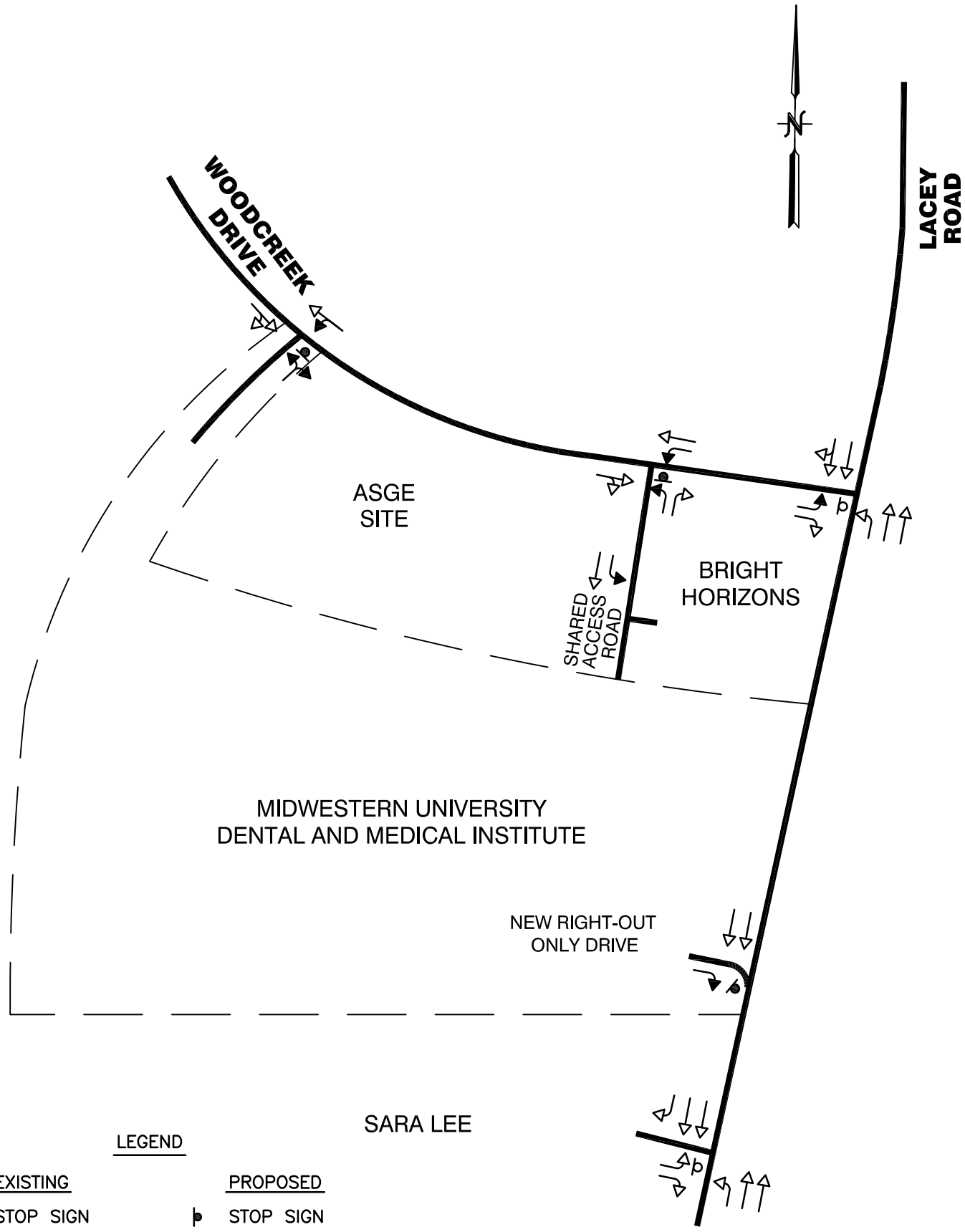
LEGEND

XX AM PEAK HOUR VOLUME

(XX) PM PEAK HOUR VOLUME

JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

2017 TOTAL TRAFFIC
TWO ACCESS DRIVES
TO WOODCREEK DRIVE
EXHIBIT C



JAMES J. BENES & ASSOCIATES, INC.
950 Warrenville Road, Suite 101, Lisle, Illinois 60532
Tel. (630) 719-7570 · Fax (630) 719-7589

PROPOSED IMPROVEMENTS
EXHIBIT D

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/20/2011*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Dental/Medical Clinic - RESTRIPE w/EB LEFT Update*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*260*	*200*			*255*	*140*
Peak-Hour Factor, PHF	*0.84*	*0.84*	*1.00*	*1.00*	*0.84*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*309*	*238*	*0*	*0*	*303*	*166*
Percent Heavy Vehicles	*1*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*59*		*68*			
Peak-Hour Factor, PHF	*0.84*	*1.00*	*0.84*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*70*	*0*	*80*	*0*	*0*	*0*
Percent Heavy Vehicles	*7*	*0*	*9*	*0*	*0*	*0*
Percent Grade (%)		*1*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*309*					*70*		*80*
C (m) (veh/h)	*1096*					*229*		*777*
v/c	*0.28*					*0.31*		*0.10*
95% queue length	*1.16*					*1.24*		*0.34*
Control Delay (s/veh)	*9.6*					*27.5*		*10.2*
LOS	*A*					*D*		*B*
Approach Delay (s/veh)	--	--				*18.3*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/21/2011*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Lacey Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Dental/Medical Clinic - RESTRIPE w/EB Left Update*

East/West Street: *Woodcreek Drive* | North/South Street: *Lacey Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*80*	*290*			*175*	*50*
Peak-Hour Factor, PHF	*0.77*	*0.77*	*1.00*	*1.00*	*0.77*	*0.77*
Hourly Flow Rate, HFR (veh/h)	*103*	*376*	*0*	*0*	*227*	*64*
Percent Heavy Vehicles	*7*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*0*	*0*	*2*	*0*
Configuration	*L*	*T*			*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*230*		*235*			
Peak-Hour Factor, PHF	*0.77*	*1.00*	*0.77*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*298*	*0*	*305*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*5*	*0*	*0*	*0*
Percent Grade (%)	*1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*103*					*298*		*305*
C (m) (veh/h)	*1232*					*456*		*887*
v/c	*0.08*					*0.65*		*0.34*
95% queue length	*0.27*					*4.59*		*1.54*
Control Delay (s/veh)	*8.2*					*26.6*		*11.2*
LOS	*A*					*D*		*B*
Approach Delay (s/veh)	--	--				*18.8*		
Approach LOS	--	--				*C*		

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/20/2011*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Dental/Medical Clinic - ADD NB Left + WB Lt Update*

East/West Street: *Woodcreek Drive* | North/South Street: *Existing Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*20*	*225*	*305*	*95*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*22*	*250*	*338*	*105*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*43*		*107*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*47*	*0*	*118*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*338*	*47*		*118*			
C (m) (veh/h)		*1291*	*233*		*904*			
v/c		*0.26*	*0.20*		*0.13*			
95% queue length		*1.05*	*0.73*		*0.45*			
Control Delay (s/veh)		*8.8*	*24.3*		*9.6*			
LOS		*A*	*C*		*A*			
Approach Delay (s/veh)	--	--	*13.8*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/21/2011*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Dental/Medical Clinic - ADD NB Left & WB Lt Update*

East/West Street: *Woodcreek Drive* | North/South Street: *Existing Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*65*	*95*	*120*	*10*	
Peak-Hour Factor, PHF	*0.90*	*0.74*	*0.74*	*0.74*	*0.74*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*87*	*128*	*162*	*13*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*160*		*400*			
Peak-Hour Factor, PHF	*0.74*	*0.90*	*0.74*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*216*	*0*	*540*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*162*	*216*		*540*			
C (m) (veh/h)		*1367*	*491*		*904*			
v/c		*0.12*	*0.44*		*0.60*			
95% queue length		*0.40*	*2.21*		*4.08*			
Control Delay (s/veh)		*8.0*	*18.0*		*14.7*			
LOS		*A*	*C*		*B*			
Approach Delay (s/veh)	--	--	*15.6*					
Approach LOS	--	--	*C*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/20/2011*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Clinic - ADD NB Left + WB Lt Update w/2 drives*

East/West Street: *Woodcreek Drive* | North/South Street: *Existing Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*26*	*55*	*260*	*140*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*28*	*61*	*288*	*155*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*16*		*101*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*17*	*0*	*112*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*288*	*17*		*112*			
C (m) (veh/h)		*1506*	*307*		*1010*			
v/c		*0.19*	*0.06*		*0.11*			
95% queue length		*0.71*	*0.18*		*0.37*			
Control Delay (s/veh)		*8.0*	*17.4*		*9.0*			
LOS		*A*	*C*		*A*			
Approach Delay (s/veh)	--	--	*10.1*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/21/2011*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/Site Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Clinic - ADD NB Left + WB Lt Update w/2 drives*

East/West Street: *Woodcreek Drive* | North/South Street: *Existing Site Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*105*	*38*	*104*	*26*	
Peak-Hour Factor, PHF	*0.90*	*0.74*	*0.74*	*0.74*	*0.74*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*141*	*51*	*140*	*35*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*1*	*1*	*0*
Configuration			*TR*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*45*		*360*			
Peak-Hour Factor, PHF	*0.74*	*0.90*	*0.74*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*60*	*0*	*486*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*140*	*60*		*486*			
C (m) (veh/h)		*1394*	*506*		*888*			
v/c		*0.10*	*0.12*		*0.55*			
95% queue length		*0.33*	*0.40*		*3.40*			
Control Delay (s/veh)		*7.9*	*13.1*		*13.8*			
LOS		*A*	*B*		*B*			
Approach Delay (s/veh)	--	--	*13.8*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/20/2011*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/2nd Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Clinic - Update w/2nd West Drive to Woodcreek*

East/West Street: *Woodcreek Drive* | North/South Street: *Second Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*75*	*170*	*45*	*111*	
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*83*	*188*	*50*	*123*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*27*		*6*			
Peak-Hour Factor, PHF	*0.90*	*0.90*	*0.90*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*30*	*0*	*6*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*50*		*36*				
C (m) (veh/h)		*1292*		*632*				
v/c		*0.04*		*0.06*				
95% queue length		*0.12*		*0.18*				
Control Delay (s/veh)		*7.9*		*11.0*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*11.0*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*TA*
Agency/Co.	*JJB & A*
Date Performed	*4/21/2011*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Woodcreek Dr/2nd Access Rd*
Jurisdiction	*Village of Downers Grove*
Analysis Year	*2017 Total Traffic*

Project Description *MW Univ. Clinic - Update w/2nd West Drive to Woodcreek*

East/West Street: *Woodcreek Drive* | North/South Street: *Second Access Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*103*	*57*	*16*	*55*	
Peak-Hour Factor, PHF	*0.90*	*0.74*	*0.74*	*0.74*	*0.74*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*139*	*77*	*21*	*74*	*0*
Percent Heavy Vehicles	*0*	--	--	*2*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*115*		*40*			
Peak-Hour Factor, PHF	*0.74*	*0.90*	*0.74*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*155*	*0*	*54*	*0*	*0*	*0*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*0*
Percent Grade (%)	*-1*			*0*		
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (veh/h)		*21*		*209*				
C (m) (veh/h)		*1354*		*735*				
v/c		*0.02*		*0.28*				
95% queue length		*0.05*		*1.17*				
Control Delay (s/veh)		*7.7*		*11.8*				
LOS		*A*		*B*				
Approach Delay (s/veh)	--	--	*11.8*					
Approach LOS	--	--	*B*					

Copyright © 2010 University of Florida, All Rights Reserved

Forest Preserve District of DuPage County

35580 Naperville Road • Wheaton, IL 60189-8761 • 630.933.7200 • Fax 630.933.7204 • TTY 800.526.0857

VIA E-MAIL (spopovich@downers.us)

April 13, 2011

Mr. Stanley Popovich, AICP
Planner
Village of Downers Grove
801 Burlington Avenue
Downers Grove, Illinois 60515

Re: Midwestern University Clinic Property

Dear Mr. Popovich:

The Forest Preserve District of DuPage County recently received information from you regarding the proposed approval of the final plans for the Midwestern University Clinic. We appreciate receiving timely notification of such projects that may have an impact on our adjacent property, and thank you for the opportunity to comment.

District Staff has reviewed the information, and has the following comment at this time. We appreciate the opportunity to review the proposed plant list and are suggesting some possible alternatives. As previously stated in our letter dated November 22, 2010, there are non-native species that can become invasive or problematic if they spread into natural areas such as the adjacent Hidden Lake preserve. We encourage the use of alternate species as noted on the attached list.

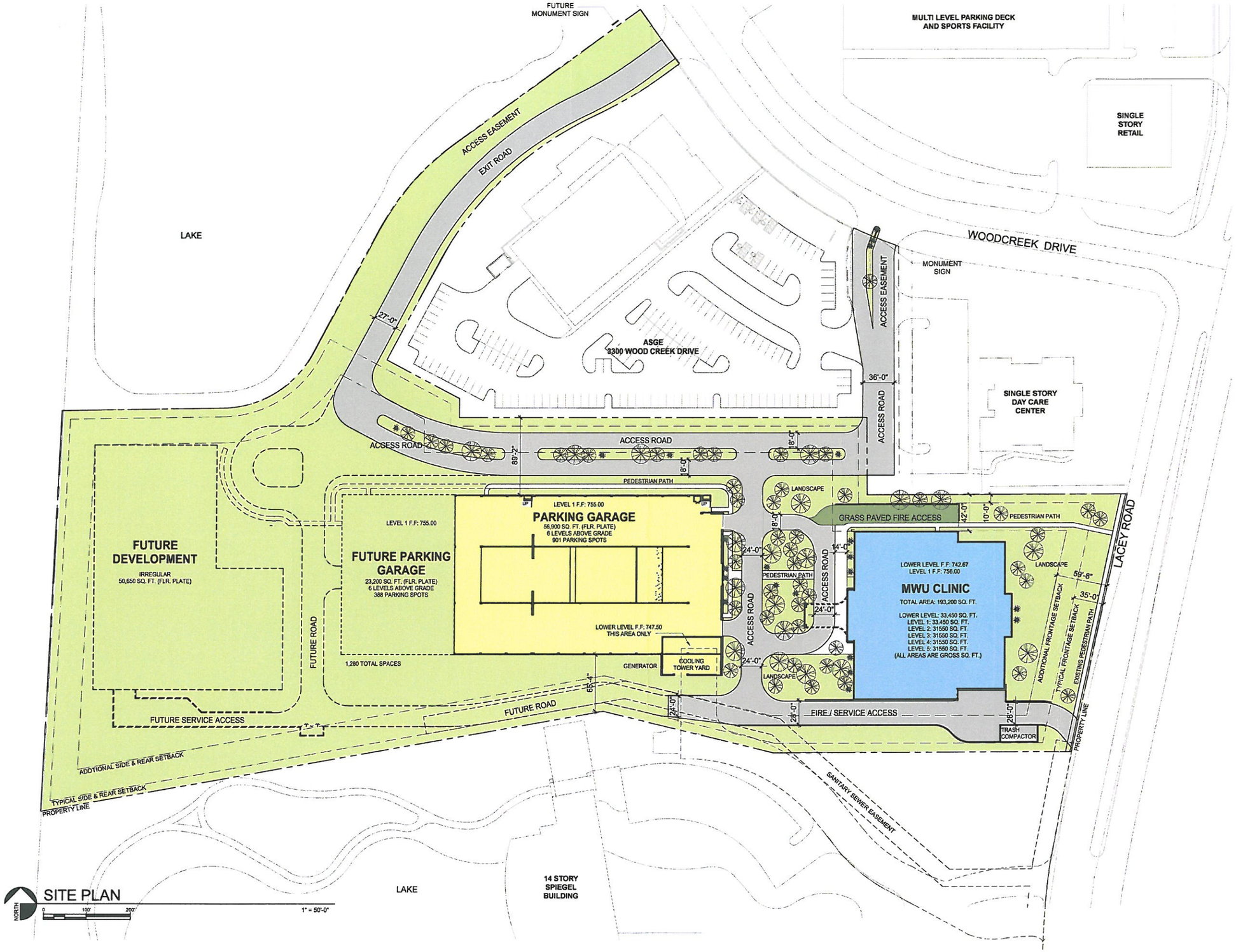
We hope you will allow us the opportunity to review and comment on any major revisions that may be proposed as this project moves forward. Thank you again for the opportunity to review the plans at this stage of the project.

Sincerely,

Brent Manning
Executive Director

Att.
cc: D. "Dewey" Pierotti, President
Joseph Cantore, District 2 Commissioner
Bob Vick, Deputy Director of Natural Resources
John Oldenburg, Director of Natural Resources
Kevin Stough, Director of Land Preservation

Botanical Name	Common Name	Proposed Alternative	Common Name
Trees			
Acer freemanii 'Autumn Blaze'	Autumn Blaze Maple	--	--
Acer freemanii 'Marmo'	Marmo Freeman Maple	Acer Saccharum	Sugar Maple
Acer Miyabei 'Morton'	State Street Maple	Cercis Canadensis	eastern redbud
Platanus x acerifolia 'Bloodgood'	Bloodgood London Planetree	Quercus macrocarpa	bur oak
Pyrus calleryana 'Chanticleer'	Chanticleer Pear Tree	Malus Ioensis	prairie crab apple
Ulmus japorica x wilsoniana Accolad	Accolade Elm	Prunus Americana	American plum
Shrubs			
Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	Rosa Carolina	Carolina rose
Physocarpus opulifolius Diabolo	Diabolo Ninebark	Physocarpus opulifolius	Ninebark
Euonymus alatus 'Compactus'	Dwarf Burning Bush	Cornus Stolonifera	Redosier dogwood
Cornus sericea 'Isanti'	Isanti Dogwood	Cornus Alternifolia	alternateleaf dogwood
Rhus typhina 'Laciniota'	Cutleaf Staghorn Sumac	Ceanothus Americanus	New Jersey tea
Perennials, Sedges & Ornamental Grasses			
Rudbeckia hirta 'Goldilocks'	Black-Eyed Susan	Rudbeckia hirta	blackeyed Susan
Iris pseudecorus	Yellow Flag Iris	Iris Virginica Shrevei	Blue flag iris
Echinacea purpurea 'Ruby Star'	Purple Coneflower	Echinacea purpurea	purple coneflower
Polemonium caeruleum	Jacob's Ladder	P. Reptans	Jacob's Ladder
Tradescantia x andersoniana	Red Cloud Spiderwort	T. Ohiensis	Spiderwort
Carex x hachijoensis 'Evergold'	Variegated Japanese Sedge	Carex Bicknellii	Copper Oval Sedge
Carex muskingumensis	Palm Sedge	Carex Brevior	Plains oval sedge
Carex alata 'Bowle's Golden'	Bowles Golden Sedge	Carex Grevida	Long Awned Sedge
Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	--	--
Panicum virgatum	Switchgrass	Bouteloua curtipendula	Sideoats grama
		Andropogon Scoparius	Little Bluestem



SITE PLAN

DWL
ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

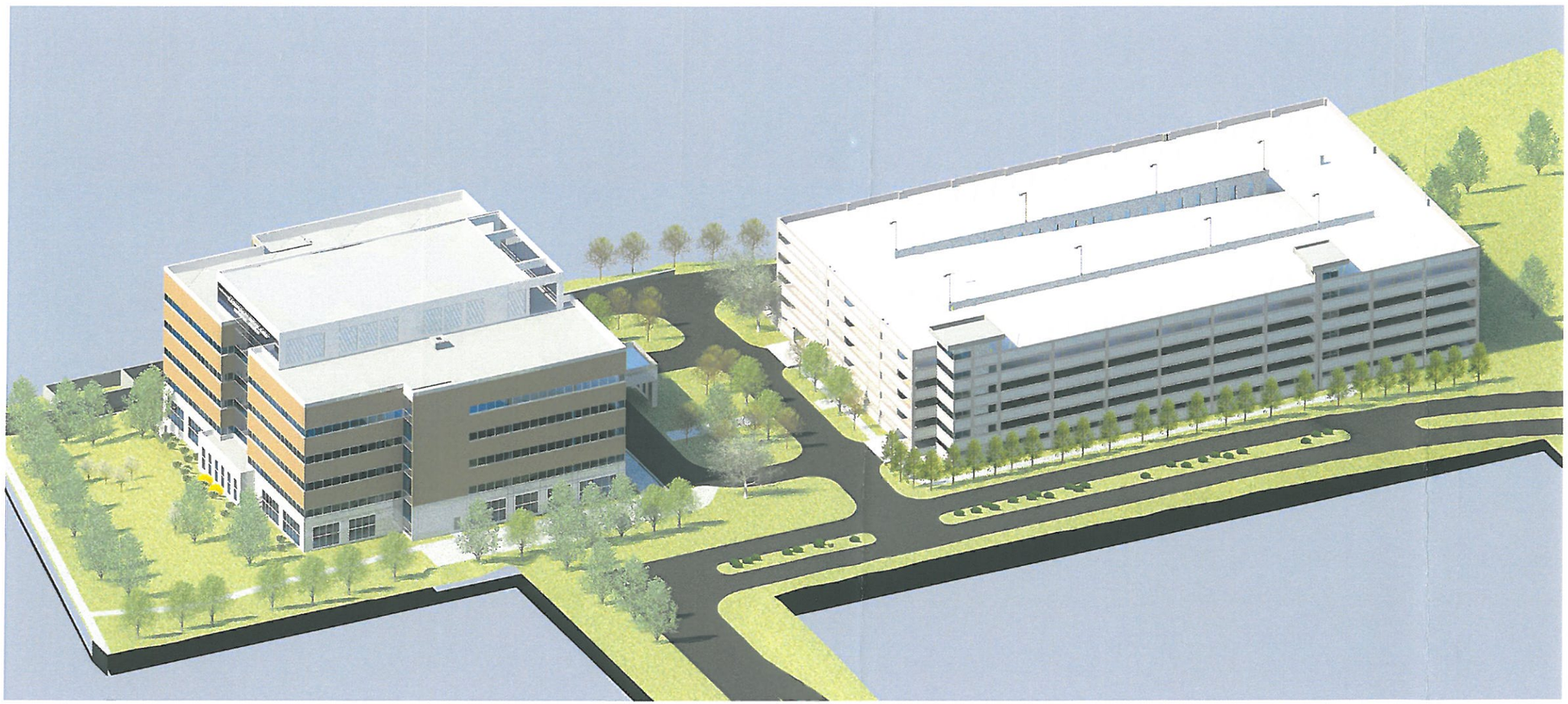
© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

KEY:

SHEET TITLE
SITE PLAN

SHEET NUMBER
A-01

DRAWN BY	REVIEWED BY
NRN	DT
DATE	PROJECT NUMBER
03/23/2011	1013.00



PARTIAL SITE VIEW

DWL
ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS INC.

SHEET TITLE
SITE VIEW

SHEET NUMBER
A-02

DRAWN BY:	REVIEWED BY:
Author	Checker
DATE:	PROJECT NUMBER:
03/23/2011	1013.00

COLOR LEGEND

- ADMINISTRATIVE
- CIRCULATION
- DENTAL
- DENTAL OPEN
- GENERAL USE
- OPTOMETRY
- SERVICE
- UNPROGRAMMED SPACE

BUILDING LEVEL 1 FLOOR PLAN

3/32" = 1'-0"

DWL ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE:
BUILDING LEVEL 1 PLAN

SHEET NUMBER:
A-03

DRAWN BY:	REVIEWED BY:
Author	Checker
DATE:	PROJECT NUMBER:
03/23/2011	1013.00

COLOR LEGEND

- CIRCULATION
- DENTAL
- GENERAL USE
- SERVICE
- UNPROGRAMMED SPACE

BUILDING LOWER LEVEL FLOOR PLAN

3/32" = 1'-0"

DWL ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE
BUILDING PLAN LOWER LEVEL

SHEET NUMBER
A-03.1

DRAWN BY:	REVIEWED BY:
RNH	DT
DATE:	PROJECT NUMBER:
03/23/2011	1013.00

COLOR LEGEND

- CIRCULATION
- DENTAL
- DENTAL OPEN
- GENERAL USE
- SERVICE
- UNPROGRAMMED SPACE

BUILDING LEVEL 2& 3 FLOOR PLAN (TYPICAL)

3/32" = 1'-0"

DWL ARCHITECTS + PLANNERS, INC.
2819 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS INC.

SHEET TITLE:
BUILDING PLAN
LEVEL 2 & 3

SHEET NUMBER:
A-03.2

DRAWN BY:	REVIEWED BY:
RNH	DT
DATE:	PROJECT NUMBER:
03/23/2011	1013.00

COLOR LEGEND

- CIRCULATION
- GENERAL USE
- OPTOMETRY
- SERVICE
- UNPROGRAMMED SPACE

BUILDING LEVEL 4 FLOOR PLAN

3/32" = 1'-0"

DWL ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

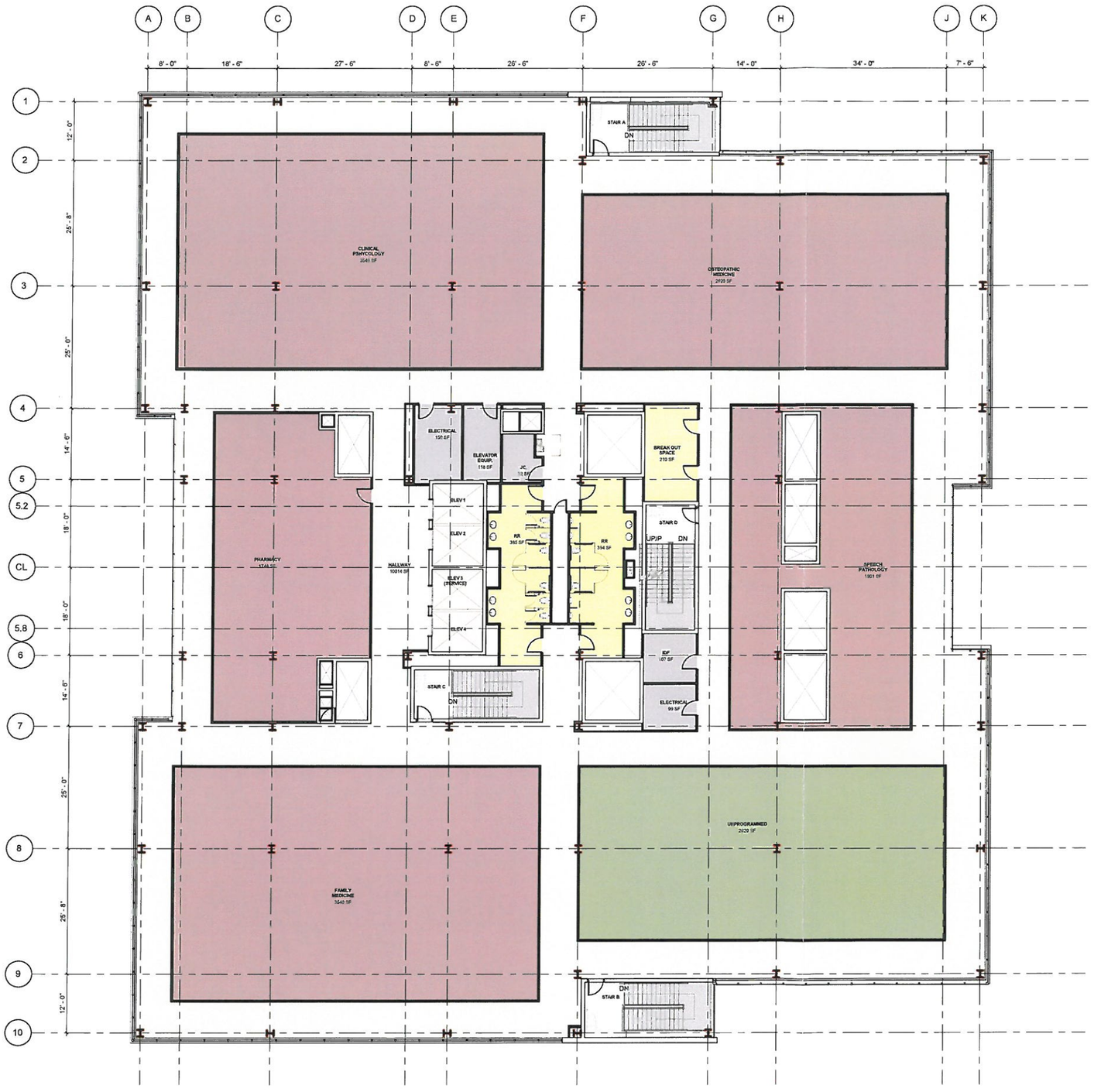
KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE
BUILDING PLAN LEVEL 4

SHEET NUMBER
A-03.3

DRAWN BY:	REVIEWED BY:
RNH	DT
DATE:	PROJECT NUMBER:
03/23/2011	1013.00



COLOR LEGEND

- CIRCULATION
- GENERAL USE
- MULTI SPECIALITY
- SERVICE
- UNPROGRAMMED SPACE

BUILDING LEVEL 5 FLOOR PLAN

3/32" = 1'-0"

DWL ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

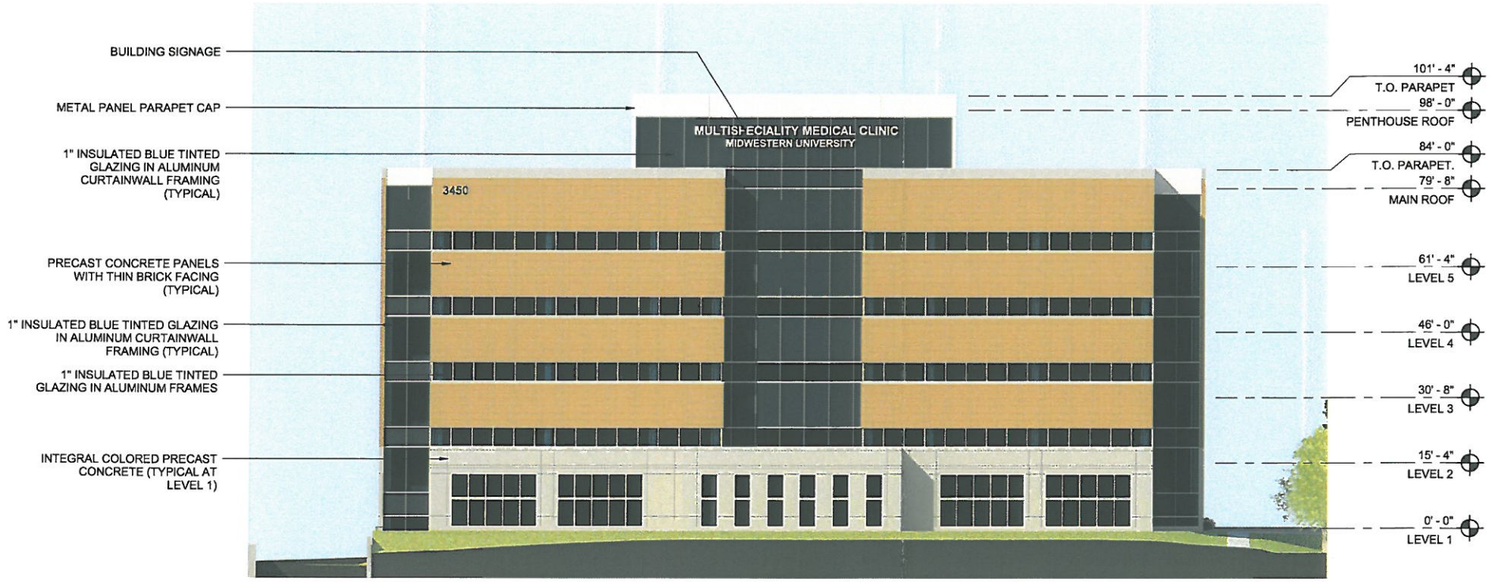
KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE
BUILDING PLAN LEVEL 5

SHEET NUMBER
A-03.4

DRAWN BY	REVIEWED BY
RNH	DT
DATE	PROJECT NUMBER
03/23/2011	1013.00



BUILDING EAST ELEVATION

1/16" = 1'-0"

BUILDING WEST ELEVATION

1/16" = 1'-0"

DWL ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

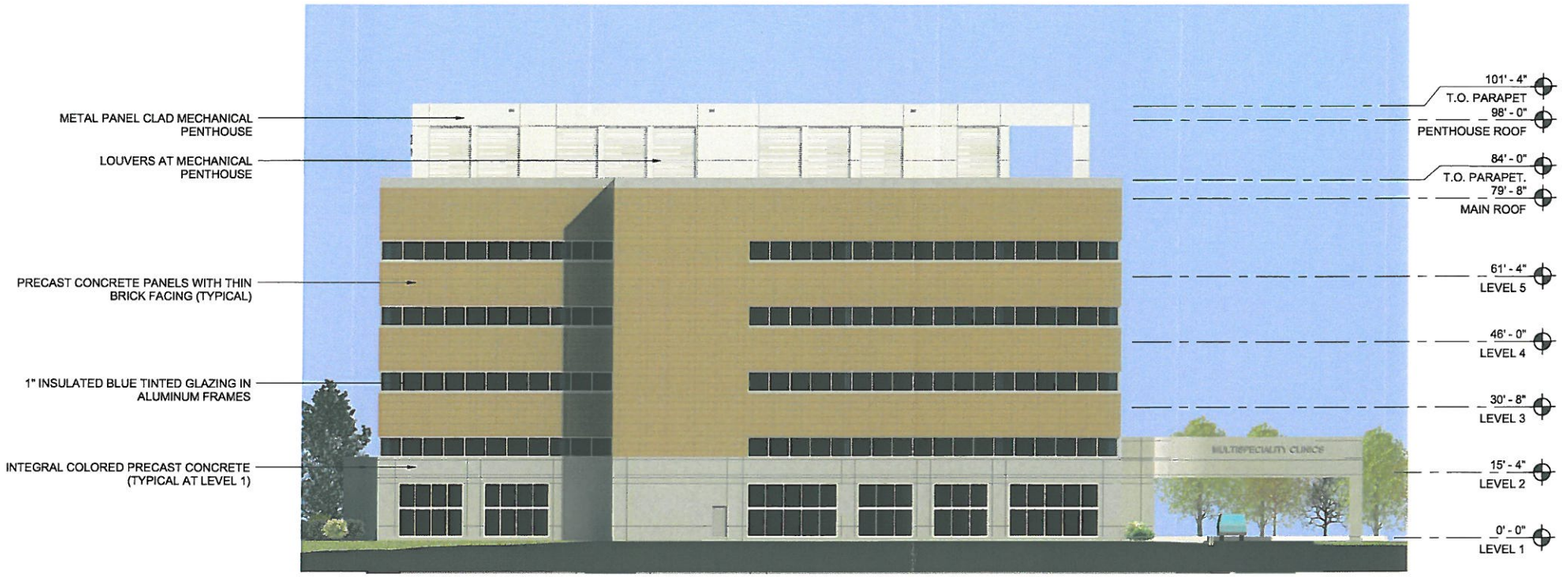
KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC

SHEET TITLE
BUILDING ELEVATIONS

SHEET NUMBER
A-04

DRAWN BY:	REVIEWED BY:
Author	Checker
DATE:	PROJECT NUMBER:
03/23/2011	1013.00



BUILDING NORTH ELEVATION

1/16" = 1'-0"

BUILDING SOUTH ELEVATION

1/16" = 1'-0"

DWL ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

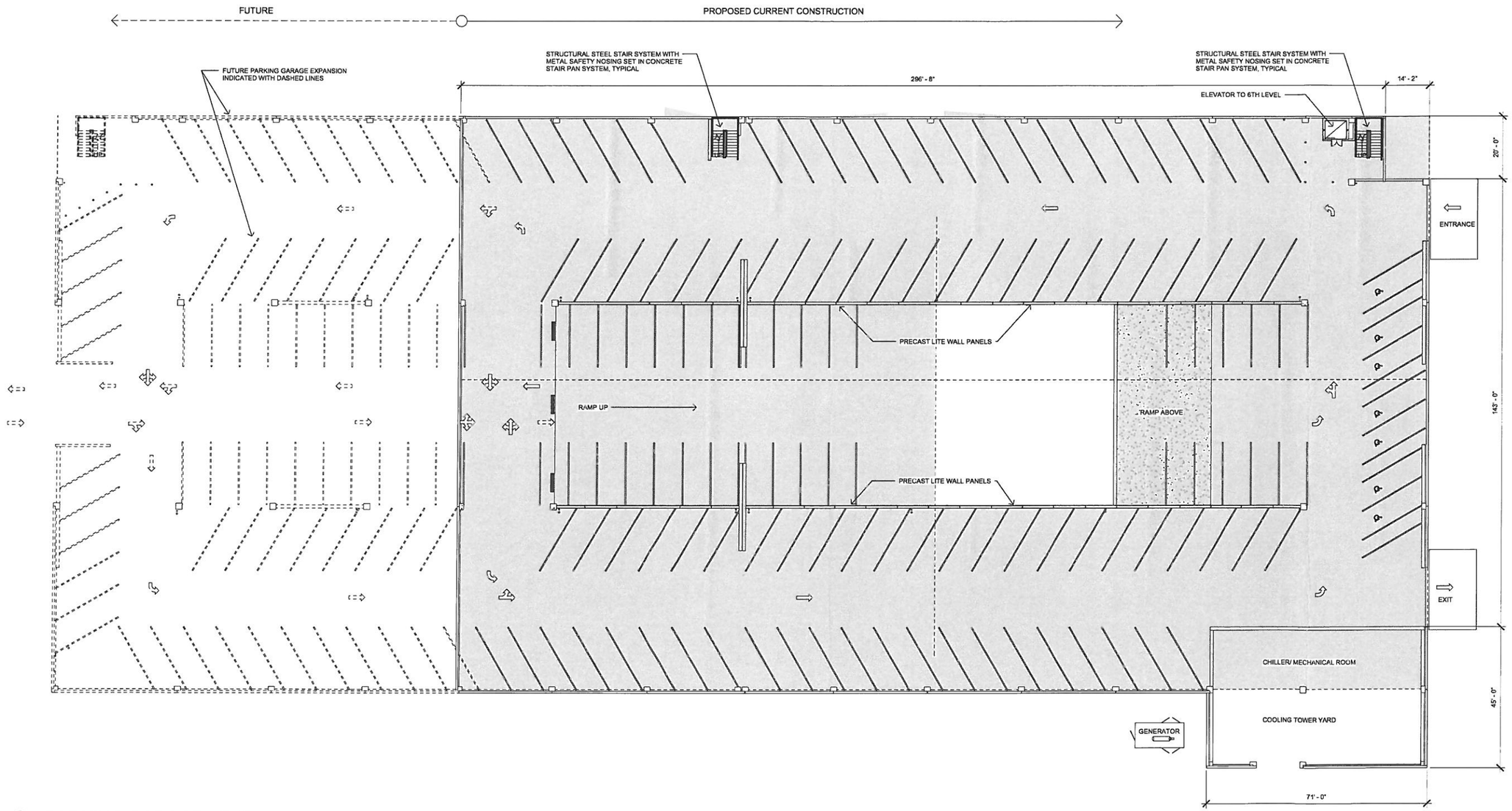
KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS INC

SHEET TITLE
BUILDING ELEVATIONS

SHEET NUMBER
A-05

DRAWN BY:	REVIEWED BY:
NRN	DT
DATE:	PROJECT NUMBER:
03/23/2011	1013.00



NORTH

PARKING GARAGE LEVEL 1

1/16" = 1'-0"

DWL
ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

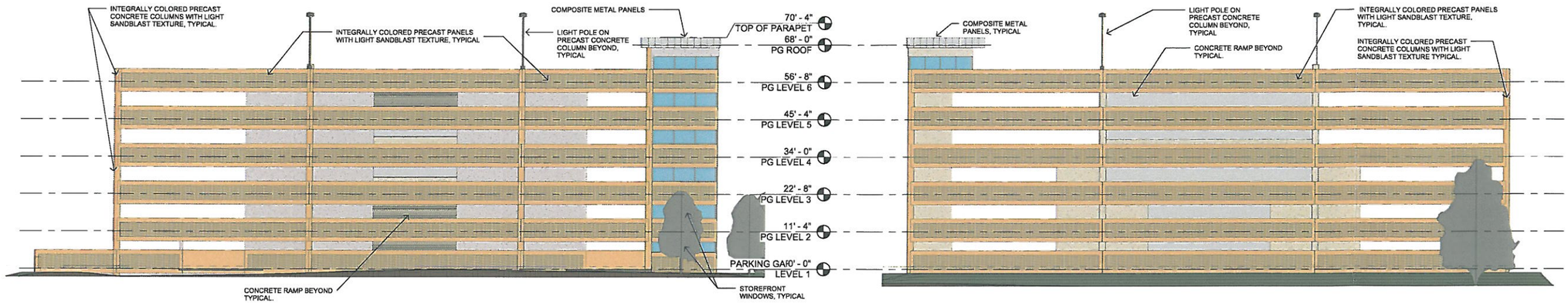
KEY:

© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE
PARKING GARAGE LEVEL 1 PLAN

SHEET NUMBER
A-06

DRAWN BY	REVIEWED BY
FDR	DCT
DATE	PROJECT NUMBER
03/23/2011	1013.01

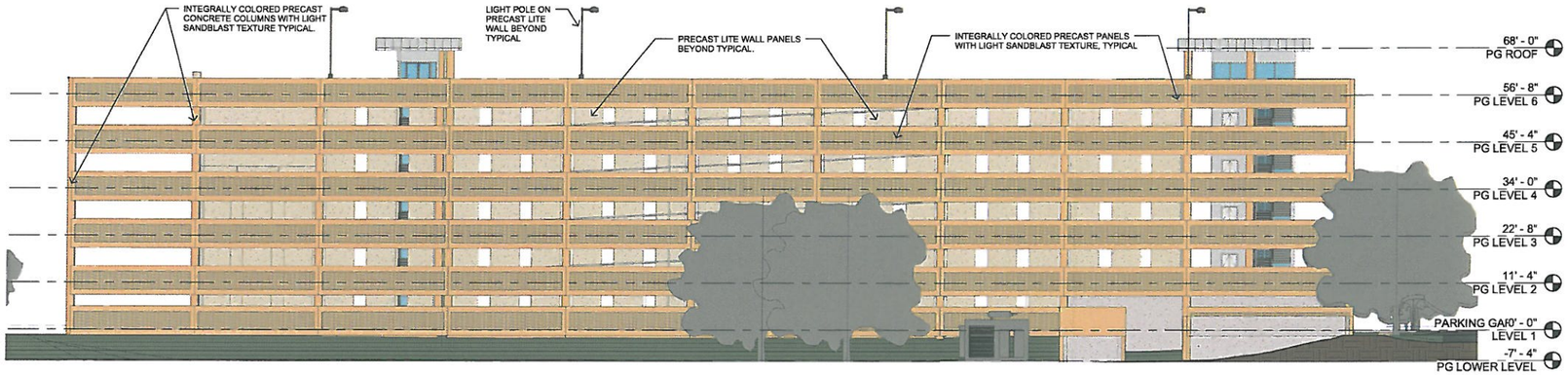


EAST PARKING GARAGE ELEVATION

1/16" = 1'-0"

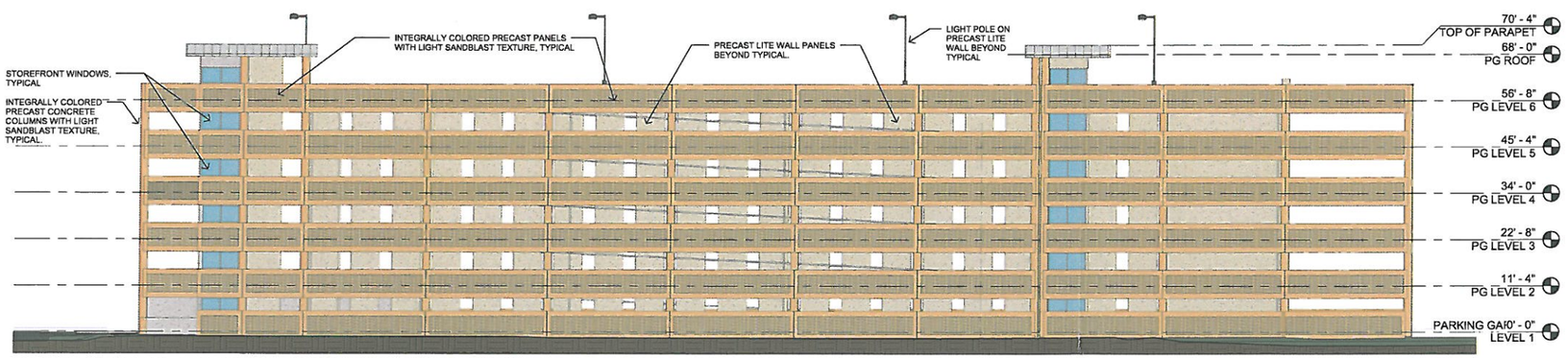
WEST PARKING GARAGE ELEVATION

1/16" = 1'-0"



SOUTH PARKING GARAGE ELEVATION

1/16" = 1'-0"



NORTH PARKING GARAGE ELEVATION

1/16" = 1'-0"

DWL
ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY CLINIC
BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

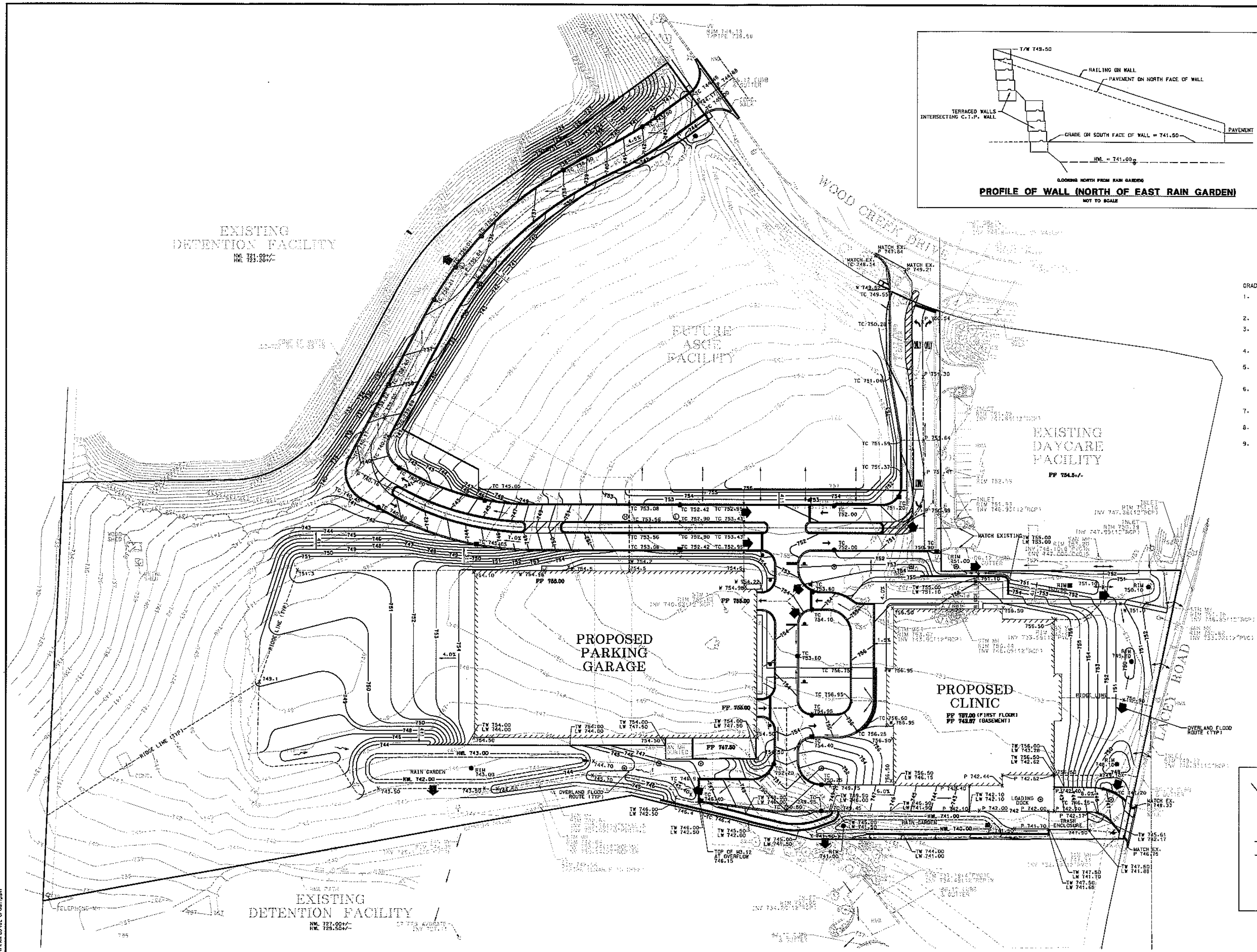
KEY:

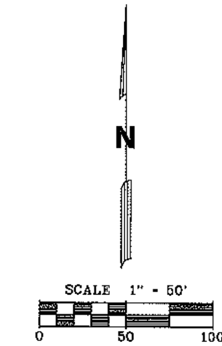
© COPYRIGHT 2011
DWL ARCHITECTS + PLANNERS, INC.

SHEET TITLE
PARKING GARAGE BUILDING ELEVATIONS

SHEET NUMBER
A-07

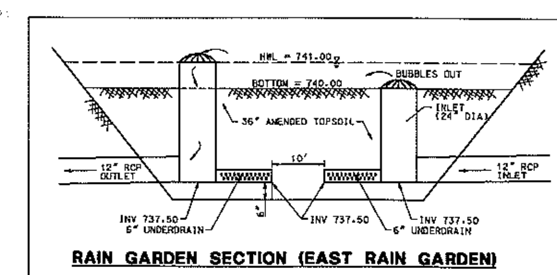
DRAWN BY	REVIEWED BY
MB	DT
DATE	PROJECT NUMBER
03/23/2011	1013.01





GRADING PLAN GENERAL NOTES

1. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS ON OCTOBER 28, 2010. CONTRACTOR SHALL FIELD CHECK EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
2. ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDED.
3. EXCAVATION AND EMBANKMENT SHALL BE PERFORMED PER THE DETAILED SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
4. ALL CURB ELEVATIONS ARE TO BE TOP OF CURB. ALL GUTTER ELEVATIONS ARE 0.5' BELOW TOP OF CURB ELEVATION UNLESS OTHERWISE NOTED.
5. GRADING INDICATED MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO FINE GRADING.
6. ALL DRAIN TILES ENCOUNTERED DURING MASS GRADING/UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT, OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED IN RECORD DRAWINGS.
7. OVERFLOW DRAINAGE ROUTES AND SWALES MUST BE INSTALLED AT THE ELEVATION AND LOCATION SHOWN.
8. DO NOT INTERRUPT DRAINAGE FROM OFF SITE DURING CONSTRUCTION OPERATIONS. PROVIDE TEMPORARY DRAINAGE DITCHES WHERE REQUIRED.
9. CONTRACTOR SHALL MEET EXISTING GROUND ELEVATIONS AT PROPERTY LINE, UNLESS OTHERWISE NOTED AND THE APPROPRIATE EASEMENTS OR PERMISSION HAS BEEN OBTAINED.



NOT FOR CONSTRUCTION

Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

CLIENT:

DWL ARCHITECTS
2333 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004
(602) 264-9731 FAX (602) 264-1928

DATE	DESCRIPTION OF REVISION	BY

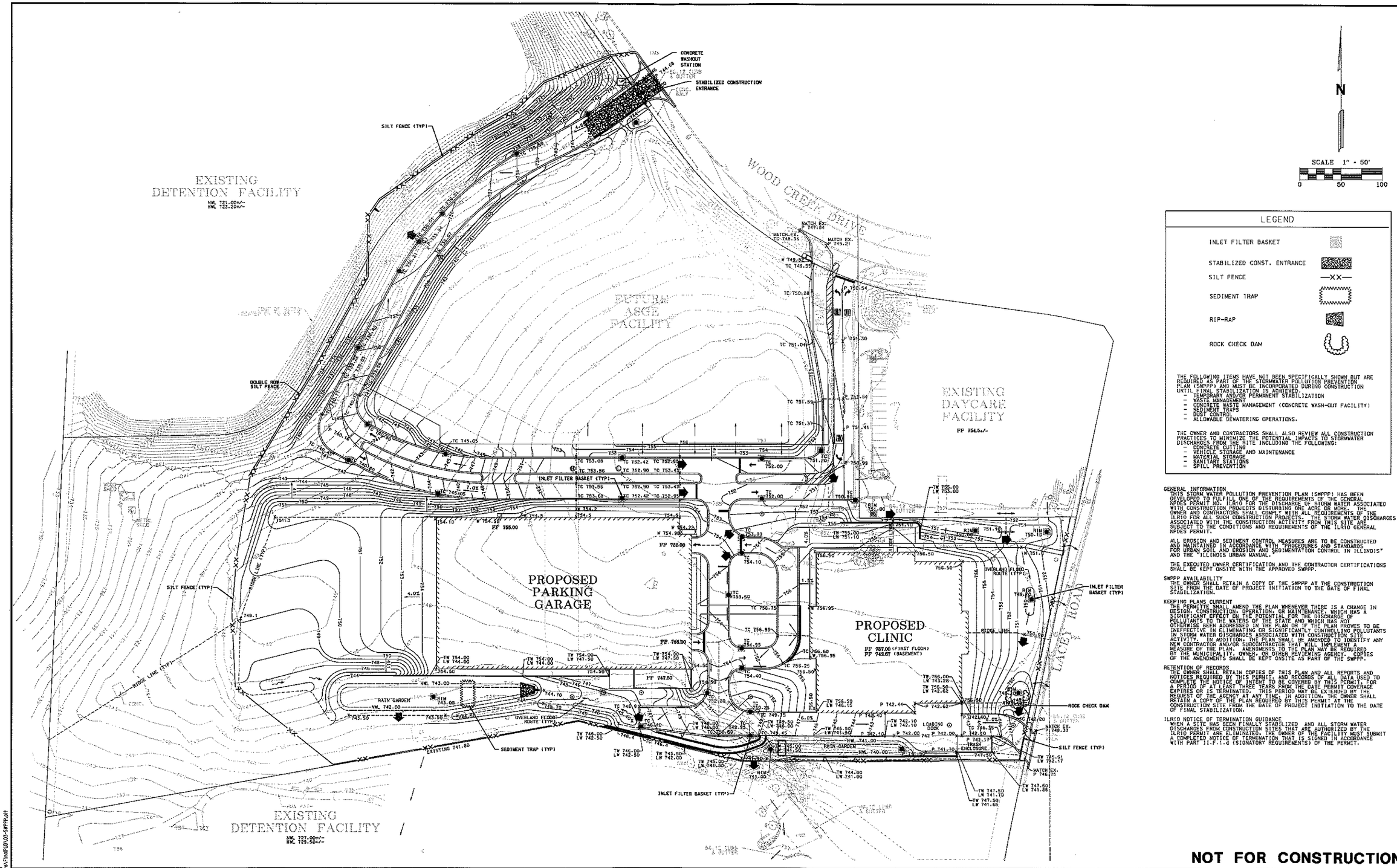
DESIGNED	ETH
DRAWN	WHM
APPROVED	ETH
DATE	3/25/11
SCALE	1"=50'

GRADING PLAN
MULTI-SPECIALTY CLINIC BUILDING
DOWNERS GROVE, ILLINOIS

SHEET 2 OF 6

PROJECT NUMBER: 1929

© MACKIE CONSULTANTS LLC, 2011
ILLINOIS FIRM LICENSE 184-002694



N

SCALE 1" = 50'

0 50 100

LEGEND

- INLET FILTER BASKET
- STABILIZED CONST. ENTRANCE
- SILT FENCE —XX—
- SEDIMENT TRAP
- RIP-RAP
- ROCK CHECK DAM

THE FOLLOWING ITEMS HAVE NOT BEEN SPECIFICALLY SHOWN BUT ARE REQUIRED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MUST BE INCORPORATED DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.
- TEMPORARY AND/OR PERMANENT STABILIZATION
- WASTE MANAGEMENT
- CONCRETE WASTE MANAGEMENT (CONCRETE WASH-OUT FACILITY)
- SEDIMENT TRAPS
- DUST CONTROL
- ALLOWABLE DEWATERING OPERATIONS.

THE OWNER AND CONTRACTORS SHALL ALSO REVIEW ALL CONSTRUCTION PRACTICES TO MINIMIZE THE POTENTIAL IMPACTS TO STORMWATER DISCHARGES FROM THE SITE INCLUDING THE FOLLOWING:
- CONCRETE CUTTING
- VEHICLE STORAGE AND MAINTENANCE
- MATERIAL STORAGE
- SANITARY STATIONS
- SPILL PREVENTION

GENERAL INFORMATION
THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL NPDES PERMIT NO. ILR10 FOR THE DISCHARGE OF STORM WATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE ILR10 FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE ILR10 GENERAL NPDES PERMIT.

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH "PROCEDURES AND STANDARDS FOR URBAN SOIL AND EROSION AND SEDIMENTATION CONTROL IN ILLINOIS" AND THE "ILLINOIS URBAN MANUAL."

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED SWPPP.

SWPPP AVAILABILITY
THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT
THE PERMITTE SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS
THE OWNER SHALL RETAIN COPIES OF THIS PLAN AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

ILR10 NOTICE OF TERMINATION GUIDANCE
WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORM WATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE ILR10 PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH PART II.F.1.c (SIGNATORY REQUIREMENTS) OF THE PERMIT.

NOT FOR CONSTRUCTION

Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

CLIENT:

DWL ARCHITECTS
2333 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004
(602) 264-9731 FAX (602) 264-1928

DATE	DESCRIPTION OF REVISION	BY

DESIGNED	ETH
DRAWN	WHM
APPROVED	ETH
DATE	3/25/11
SCALE	1"=50'

STORMWATER POLLUTION PREVENTION PLAN
MULTI-SPECIALTY CLINIC BUILDING
DOWNERS GROVE, ILLINOIS

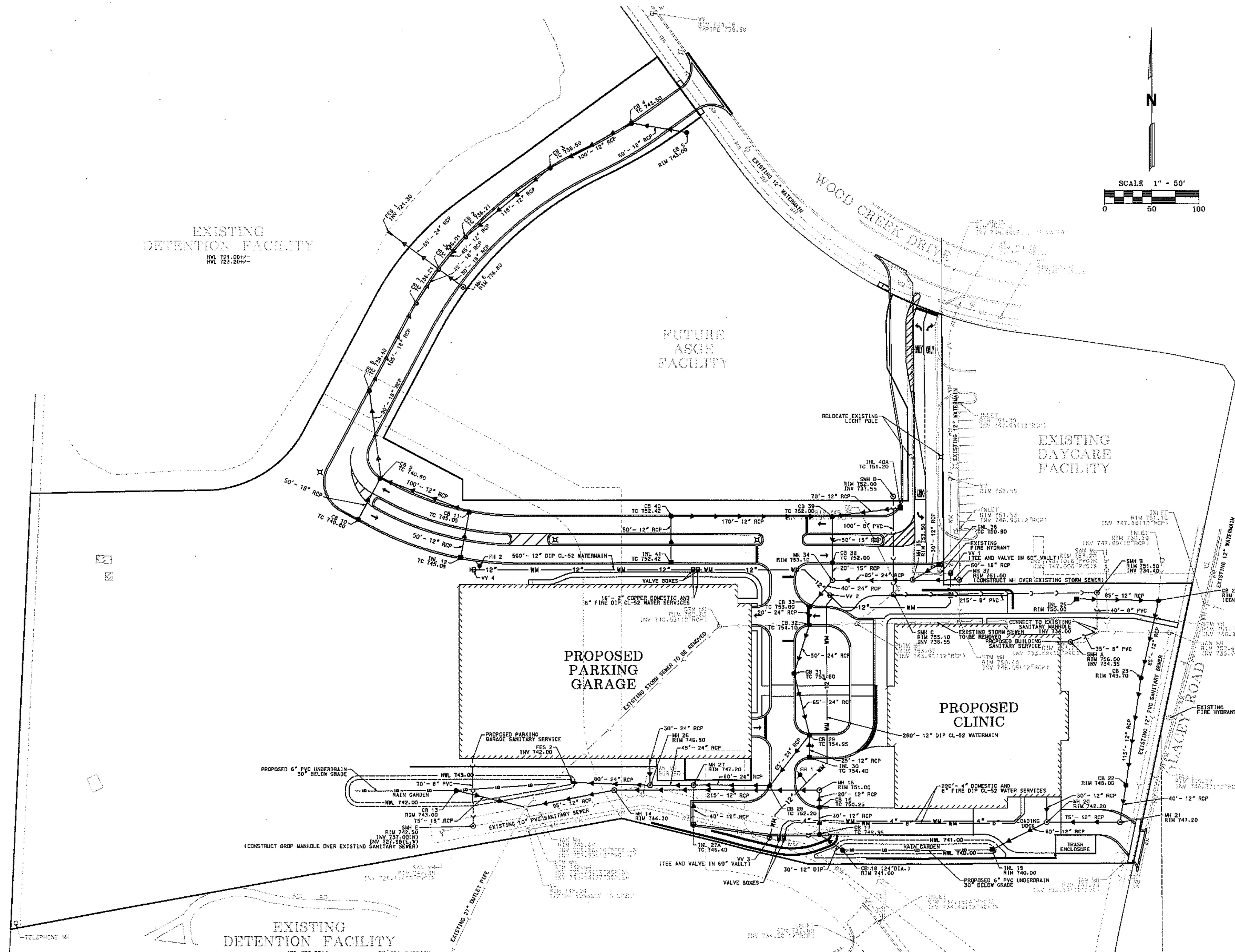
SHEET 3 OF 6

PROJECT NUMBER: 1929

© MACKIE CONSULTANTS LLC, 2011

ILLINOIS FIRM LICENSE 184-002694

3/25/2011 2:25:50 PM
N:\1929\Engineering\Work\Final\PLAN\03-SWPPP.plt



UNDERGROUND UTILITY GENERAL NOTES

1. ALL MANHOLES AND CATCH BASINS SHALL BE 48-INCH DIAMETER, UNLESS OTHERWISE INDICATED.
2. ALL SANITARY SEWER, LESS THAN 15 FEET DEEP, SHALL BE PVC, SDR 26, UNLESS OTHERWISE INDICATED. ALL SANITARY SEWERS GREATER THAN 15-FEET DEEP, SHALL BE DUCTILE IRON, CLASS 52, UNLESS OTHERWISE INDICATED.
3. PVC SANITARY SEWER PIPE SHALL CONFORM TO ASTM D-41 WITH ASTM D-3139 JOINTS.
4. ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 52, AWWA C-600 WITH "PUSH-ON" TYPE JOINTS, UNLESS OTHERWISE INDICATED. ALL WATER MAIN SHALL HAVE A MINIMUM OF 5'-6" OF COVER FROM TOP OF WATERMAIN TO FINISHED GRADE.
5. ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE, MINIMUM CLASS IV, WITH ASTM C76 PIPE AND C443 JOINTS, UNLESS OTHERWISE INDICATED. ALL STORM SEWERS WHICH ARE LOCATED IN THE SIDE YARD SHALL HAVE "O"-RING GASKETED JOINTS. ALL OTHER SEWERS SHALL HAVE BITUMINOUS MASTIC JOINTS.
6. GRANULAR TRENCH BACKFILL (CA-6) SHALL BE PROVIDED FOR ALL SANITARY, WATER AND STORM UTILITIES WHEN THE TRENCH LIMITS FALL WITHIN TWO FEET OF STREETS, SIDEWALKS, DRIVEWAYS.
7. ALL WATERMAIN AND WATER SERVICE LINES SHALL BE PROTECTED FROM OTHER UTILITIES IN ACCORDANCE WITH SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS.
8. ALL DRAIN TILES ENCOUNTERED DURING MASS GRADING UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT, OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED WITH THE RECORD DRAWINGS.
9. ALL UNDERGROUND UTILITY INFORMATION NOTED ON THE PLANS IS BASED ON INFORMATION OBTAINED FROM THE MUNICIPALITY, UTILITY COMPANIES OR FIELD MEASUREMENTS. THIS INFORMATION, WHILE BELIEVED TO BE COMPLETED AND ACCURATE CANNOT BE GUARANTEED.
10. CONTRACTOR SHALL VERIFY ALL BUILDING SERVICE LOCATIONS AND SIZES WITH ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER OR OWNER OF ANY DISCREPANCIES.
11. CONTRACTOR TO VERIFY CANOPY AND ROOF DRAIN CONNECTION SEWER LOCATION AND SIZE WITH ARCHITECTURAL PLANS BEFORE CONSTRUCTION.
12. LOCATION OF ALL BUILDING SIAMESE CONNECTIONS TO BE APPROVED BY VILLAGE FIRE MARSHALL.
13. CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) PRIOR TO START OF CONSTRUCTION TO LOCATE ALL UTILITIES.
14. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES AT ALL PROPOSED CONNECTIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES.
15. A TEN (10) FOOT MINIMUM SEPARATION SHALL BE PROVIDED BETWEEN THE WATERMAIN SERVICE AND THE SANITARY OR STORM SEWER SERVICES.
16. IN CASE OF CONFLICTS, THE VILLAGE OF DOWNERS GROVE STANDARDS AND NOTES SHALL TAKE PRECEDENCE.
17. PLUMBING CONTRACTOR TO MAKE ALL CONNECTIONS WITH BUILDING SERVICES CONSTRUCTED BY UTILITY CONTRACTOR. SITE UTILITY CONTRACTOR TO CONSTRUCT SERVICES TO WITHIN 5-FEET OF BUILDING, EXCEPT WATER INTO BUILDING 1-FOOT ABOVE FLOOR WITH BLIND FLANGE AND PROVIDE TESTING.
18. EXISTING PAVEMENT REMOVED FOR UTILITY CONSTRUCTION SHALL BE DONE BY THE RESPECTIVE UTILITY COMPANY AND PAID FOR SEPARATELY BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THIS WORK INCIDENTAL TO THE CONTRACT.
19. EXISTING OR PROPOSED MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS REQUIRING OVER 12-INCHES OF ADJUSTMENT RINGS SHALL USE AN ADDITIONAL BARREL SECTION TO MAINTAIN A MAXIMUM OF 12-INCH TOTAL ADJUSTMENT RING DEPTH.

NOT FOR CONSTRUCTION

Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

CLIENT:
DWL ARCHITECTS
2333 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004
(602) 264-9731 FAX (602) 264-1928

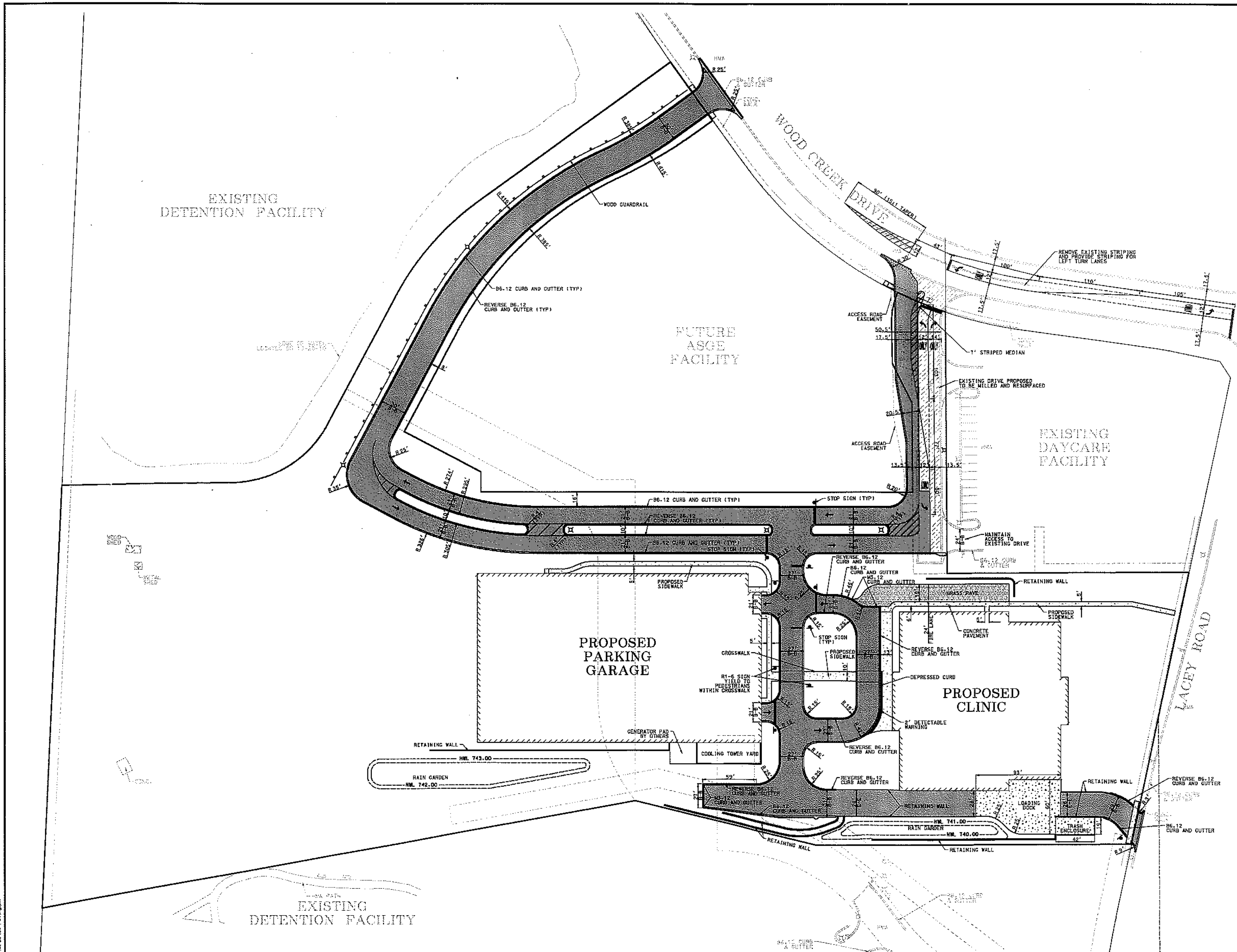
DATE	DESCRIPTION OF REVISION	BY

DESIGNED	ETH
DRAWN	WHM
APPROVED	ETH
DATE	3/25/11
SCALE	1"=50'

UTILITY PLAN
MULTI-SPECIALTY CLINIC BUILDING
DOWNERS GROVE, ILLINOIS

PROJECT NUMBER: 1928

© MACKIE CONSULTANTS LLC, 2011
ILLINOIS FIRM LICENSE 184-002694



LEGEND	
FULL DEPTH HMA PAVEMENT	
HMA RESURFACING	
CONCRETE PAVEMENT	
CONCRETE SIDEWALK	
GRASS PAVE	

SITE PLAN GENERAL NOTES (DIMENSIONS AND PAVING)

1. ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF BUILDING, UNLESS OTHERWISE NOTED.
2. ALL RADII ARE TO BACK OF CURB, UNLESS OTHERWISE NOTED.
3. ALL BUILDING DIMENSIONS ARE BASED ON ARCHITECTURAL PLANS DATED MARCH 14, 2011. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND CONTACT THE ARCHITECT FOR ANY DISCREPANCIES.
4. ALL ONSITE PAVEMENT MARKINGS SHALL BE PAINTED, UNLESS OTHERWISE NOTED.
5. ALL PROPOSED CURB AND GUTTER SHALL BE B6.12 AND SHALL BE DEPRESSED CURB WHERE SIDEWALK MEETS A STREET, UNLESS OTHERWISE INDICATED.
6. ALL JOINTS MADE WITH EXISTING PAVEMENT, CURB, WALK OR CURB AND GUTTER ARE TO BE SAWCUT FULL DEPTH WITHIN 24 HOURS OF PLACEMENT.
7. SEE ARCHITECTURAL PLANS FOR DETAILS OF LOADING DOCK, TRASH COMPACTORS, TRASH COLLECTORS, AND SIDEWALK PLAN. SEE LANDSCAPE PLANS FOR DETAILS OF RETAINING WALLS.

NOT FOR CONSTRUCTION

Mackie Consultants, LLC
9575 W. Higgins Road, Suite 500
Rosemont, IL 60018
(847)696-1400
www.mackieconsult.com

CLIENT:

DWL ARCHITECTS
2333 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004
(602) 264-9731 FAX (602) 264-1928

DATE	DESCRIPTION OF REVISION	BY

DESIGNED	ETH
DRAWN	WHM
APPROVED	ETH
DATE	3/25/11
SCALE	1"=50'

PAVING PLAN
MULTI-SPECIALTY CLINIC BUILDING
DOWNERS GROVE, ILLINOIS

SHEET 5 OF 6
PROJECT NUMBER: 1929

© MACKIE CONSULTANTS LLC, 2011
ILLINOIS FIRM LICENSE 184-002694

ACCESS DRIVE

PROPOSED 6 LEVEL PARKING GARAGE

PROPOSED MWU CLINIC

Lawn

Canopy Trees (Typ.)

Deciduous and Evergreen Shrubs

Entry Plaza

Paving

Canopy Trees

Ornamental Grasses & Perennials

Ornamental Plantings
Evergreen Shrubs
Flowering Deciduous Shrubs

Evergreen Trees

Canopy Trees (Typ.)

Ornamental Trees (Typ.)

Cooling Tower Yard

Rain Garden (See LP-3 for Detail)

Native Forbs, Grasses and Sedges

Trash Enclosure

LACEY ROAD

Landscape Development Plan

Scale 1"=20'

COPYRIGHT
The drawings, designs, ideas, specifications, and other documents contained within and prepared by the Landscape Architect for the project are instruments of the Landscape Architect's service for use solely with respect to the project and, unless otherwise provided, the Landscape Architect shall be deemed the author of these documents and shall retain all common law, statutory, and other reserved rights, including the copyright.
© 2010 Allen Kracower & Associates, Inc.

DWL
ARCHITECTS + PLANNERS, inc.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

ALLEN L. KRACOWER & ASSOCIATES, INCORPORATED
PLANNERS
LANDSCAPE ARCHITECTS
REAL ESTATE CONSULTANTS

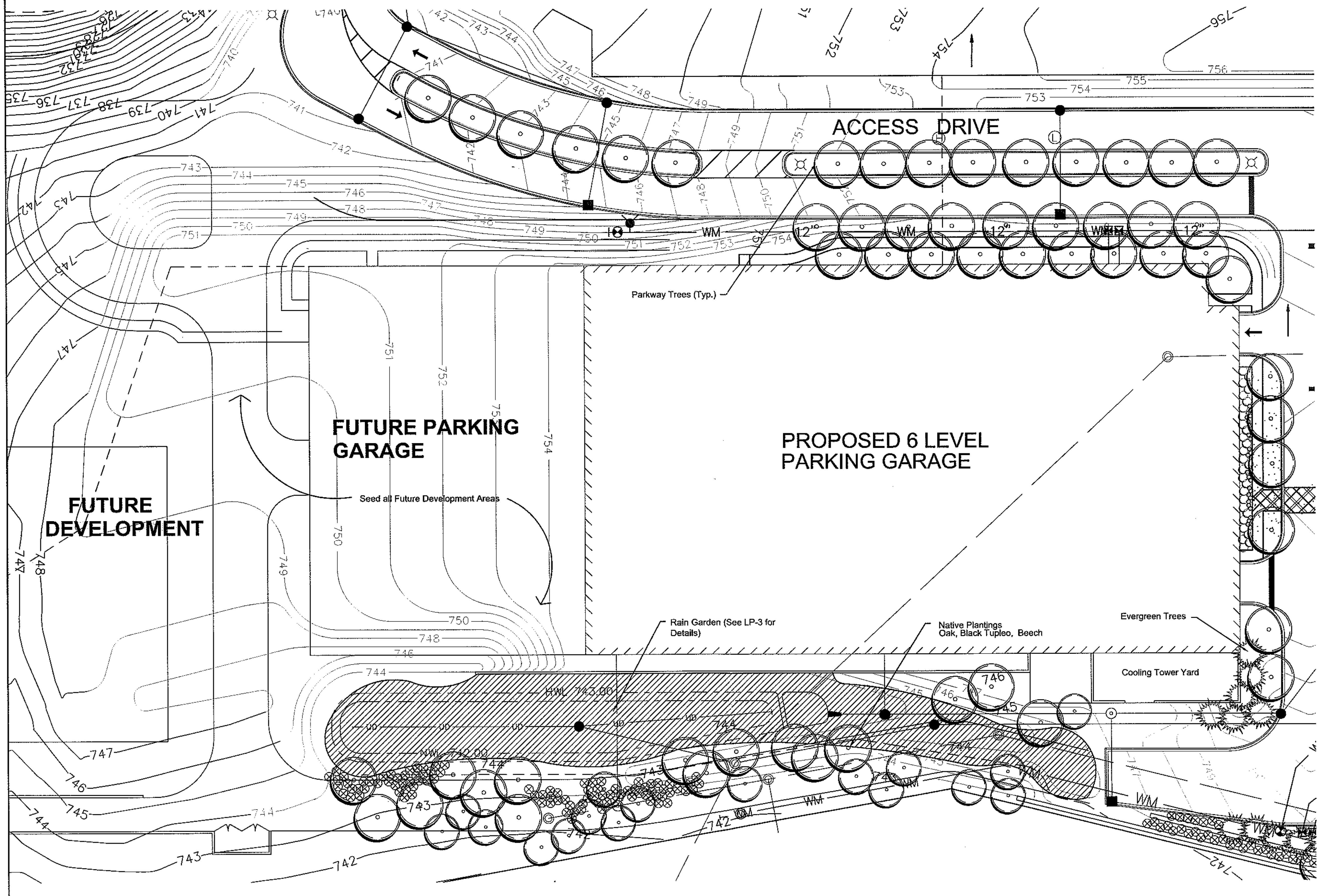
MIDWESTERN UNIVERSITY
MULTI-SPECIALITY
CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

REVISIONS	DATE
PUD Submittal	3-23-11

SHEET TITLE
Clinic Landscape Development Plan

SHEET NUMBER
LP-1

LD	LD
03/23/2011	21102



Landscape Development Plan
Scale 1"=20'

DWL
ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

ALLEN L. KRACOWER
& ASSOCIATES, INCORPORATED
PLANNERS
LANDSCAPE ARCHITECTS
REAL ESTATE CONSULTANTS

MIDWESTERN UNIVERSITY
MULTI-SPECIALITY
CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

KEY:

	DATE:
PUD Submittal	3-23-11

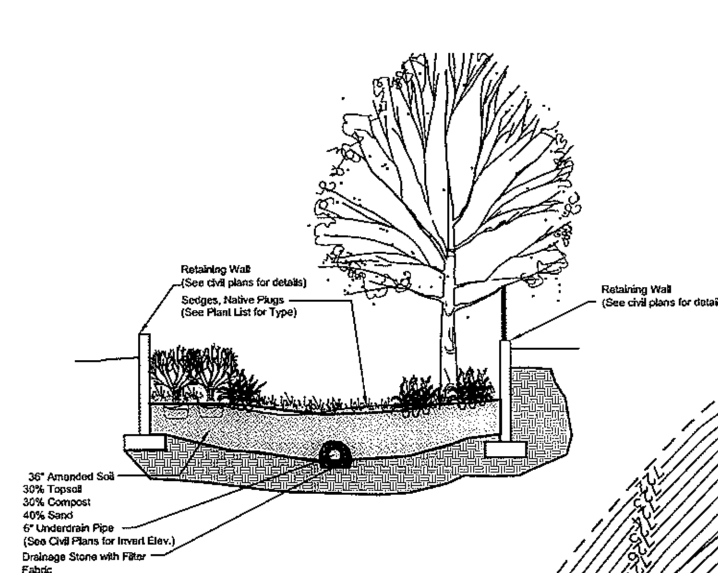
Clinic Landscape Development Plan

LP-2

LD	LD
03/23/2011	21102

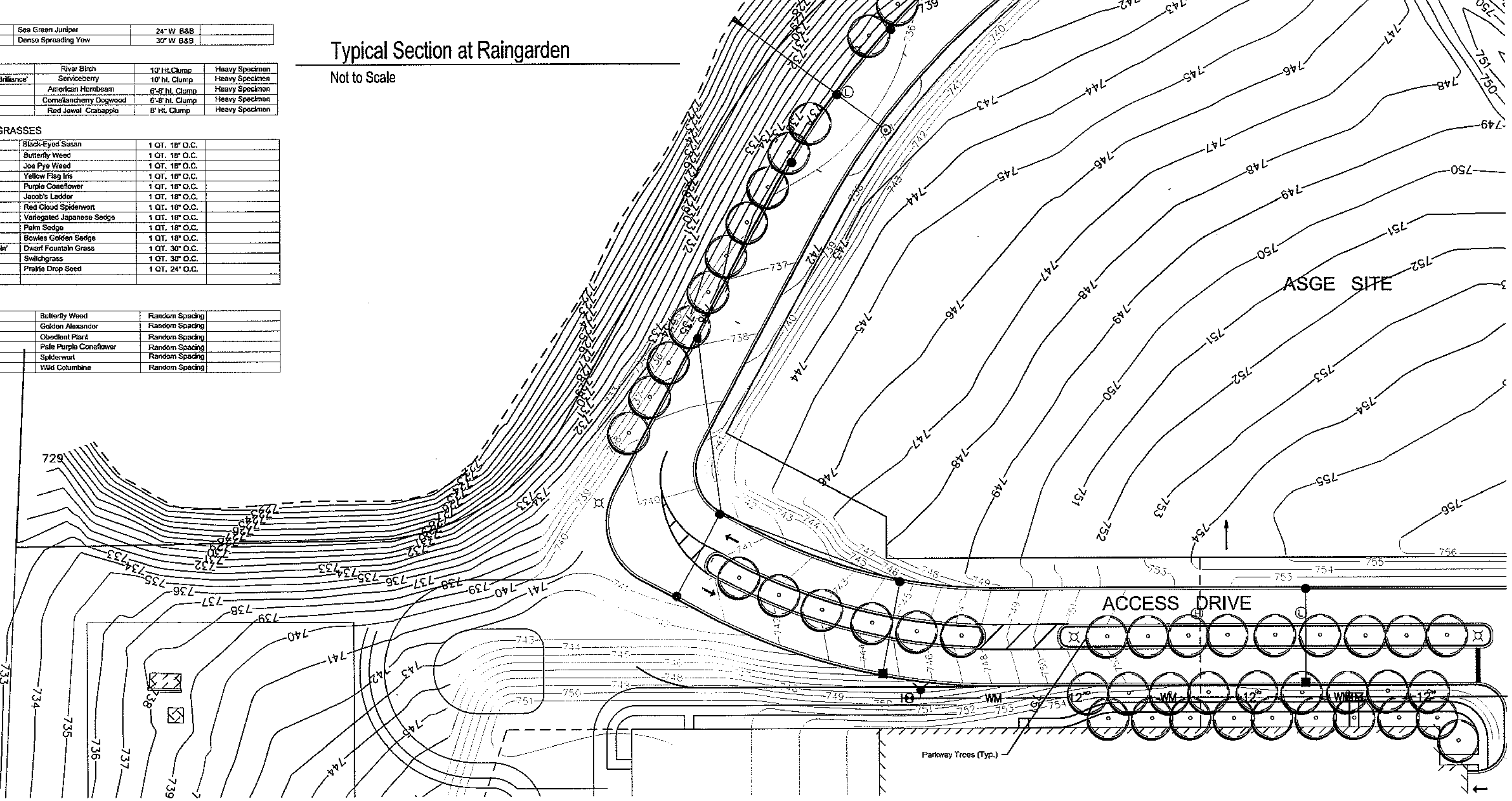
PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
SHADE TREES					
QUIM		Quercus imbricaria	Shingle Oak	2.5"-3" Cal.	
QUMU		Quercus muehlenbergii	Chinquapin Oak	2.5"-3" Cal.	
ACFR 3"		Acer freemanii 'Autumn Blaze'	Autumn Blaze Maple	3" Cal.	Matched Specimen
ACFR 4"		Acer freemanii 'Autumn Blaze'	Autumn Blaze Maple	4" Cal.	
ACFM		Acer freemanii 'Marmo'	Marmo Freeman Maple	5" Cal.	
ACMI 3"		Acer miyabei 'Morton'	State Street Maple	5" Cal.	
ACMI 3"		Acer miyabei 'Morton'	State Street Maple	3" Cal.	Matched Specimen
NYSY		Nyssa sylvatica	Black Tupelo	3" Cal.	
PLAC		Platanus x acerifolia 'Bloodgood'	Bloodgood London Planetree	4"-5" Cal.	
QUBI		Quercus bicolor	Swamp White Oak	2.5"-3" Cal.	
PYCA 3"		Pyrus calleryana 'Chanticleer'	Chanticleer Pear Tree	3" Cal.	
PYCA 4"		Pyrus calleryana 'Chanticleer'	Chanticleer Pear Tree	4" Cal.	Matched Specimen
ULJA		Ulmus japonica x wilsoniana Accolad	Accolade Elm	3" Cal.	
SHRUBS					
HAVE		Hamamelis vernalis	Spring Witchhazel	36" B&B	
MYPE		Myrica pensylvanica	Northern Bayberry	36" B&B	
HYAR		Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	24" B&B	
PHOP		Physocarpus opulifolius Diabolo	Diabolo Ninebark	36" B&B	
EUAL		Euonymus alatus 'Compactus'	Dwarf Burning Bush	36" B&B	
COSE		Cornus sericea 'Isanti'	Isanti Dogwood	24" Cont.	
VILE		Viburnum lentago	Nannyberry Viburnum	24" Cont.	
VIDE		Viburnum dentatum	Arrowwood Viburnum	24" Cont.	
SACA		Sambucus canadensis	Elderberry	24" B&B	
RHTY		Rhus typhina 'Laciniata'	Cutleaf Staghorn Sumac	24" B&B	
ARAR		Aronia arbutifolia	Red Chokeberry	24" B&B	
Evergreen Shrubs					
JUCA		Juniperus chinensis 'Sea Green'	Sea Green Juniper	24" W B&B	
TAME		Taxus x media 'Densiformis'	Dense Spreading Yew	30" W B&B	
Ornamental Trees					
BENI		Betula nigra	River Birch	10' Ht.Clump	Heavy Specimen
AMGR		Amelanchier grandiflora 'Autumn Brilliance'	Serviceberry	10' ht. Clump	Heavy Specimen
CABE		Carpinus carolinia	American Hornbeam	6'-8' ht. Clump	Heavy Specimen
COMA		Cornus mas	Corneliancherry Dogwood	6'-8' ht. Clump	Heavy Specimen
MARJ		Malus Red Jewel 'Jewelcole'	Red Jewel Crabapple	8' Ht. Clump	Heavy Specimen
PERENNIALS, SEDGES & ORNAMENTAL GRASSES					
RUHI		Rudbeckia hirta 'Goldilocks'	Black-Eyed Susan	1 QT. 18" O.C.	
ASTU		Asclepias tuberosa	Butterfly Weed	1 QT. 18" O.C.	
EUMA		Eupatorium maculatum	Joe Pye Weed	1 QT. 18" O.C.	
IRPS		Iris pseudacorus	Yellow Flag Iris	1 QT. 18" O.C.	
ECPU		Echinacea purpurea 'Ruby Star'	Purple Coneflower	1 QT. 18" O.C.	
POCA		Polemonium caeruleum	Jacob's Ladder	1 QT. 18" O.C.	
TRAN		Tradescantia x andersoniana	Red Cloud Spiderwort	1 QT. 18" O.C.	
CAHA		Carex x hachijoensis 'Evergold'	Variegated Japanese Sedge	1 QT. 18" O.C.	
CAMU		Carex muskingumensis	Palm Sedge	1 QT. 18" O.C.	
CAEL		Carex elata 'Bowle's Golden'	Bowles Golden Sedge	1 QT. 18" O.C.	
PEAL		Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	1 QT. 30" O.C.	
PAVI		Panicum virgatum	Switchgrass	1 QT. 30" O.C.	
SPHE		Sporobolus heterolepis	Prairie Drop Seed	1 QT. 24" O.C.	
RAIN GARDEN GRO PLUGS					
		Asclepias tuberosa	Butterfly Weed	Random Spacing	
		Zizia aurea	Golden Alexander	Random Spacing	
		Physostegia virginiana	Obedient Plant	Random Spacing	
		Echinacea pallida	Pale Purple Coneflower	Random Spacing	
		Tradescantia ohiensis	Spiderwort	Random Spacing	
		Aquilegia canadensis	Wild Columbine	Random Spacing	



Typical Section at Raingarden

Not to Scale



Access Road Planting Plan

Scale: 1"=30'

DWL
ARCHITECTS + PLANNERS, INC.
2333 N. Central Ave.
Phoenix, AZ 85004
tel 602.264.9731
dwlarchitects.com

ALLEN L. KRACOWER & ASSOCIATES, INCORPORATED
900 NORTH SHORE DRIVE, LAKE BLUFF, ILLINOIS 60044 (847) 604-9600
PLANNERS
LANDSCAPE ARCHITECTS
REAL ESTATE CONSULTANTS

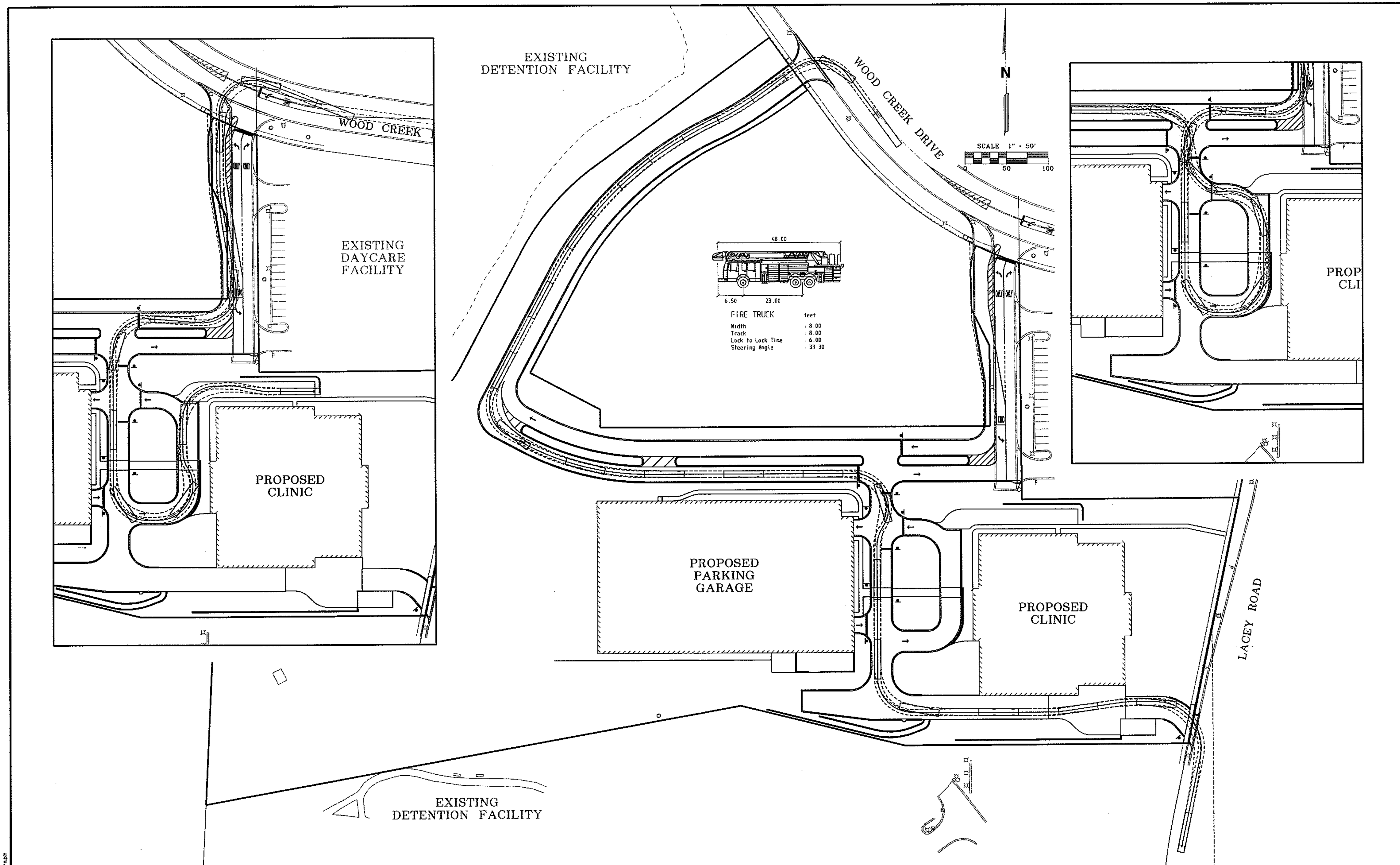
MIDWESTERN UNIVERSITY
MULTI-SPECIALITY
CLINIC BUILDING
3450 LACEY ROAD
DOWNERS GROVE, ILLINOIS

ISSUED FOR	DATE
PUD Submittal	3-23-11

SHEET TITLE: Clinic Landscape Development Plan & Details

SHEET NUMBER: LP-3

LD	LD
03/23/2011	21102



Mackie Consultants, LLC 9575 W. Higgins Road, Suite 500 Rosemont, IL 60018 (847)696-1400 www.mackieconsult.com	CLIENT: **DWL ARCHITECTS** 2333 NORTH CENTRAL AVENUE PHOENIX, ARIZONA 85004 (602) 264-9731 FAX (602) 264-1928	DATE / DESCRIPTION OF REVISION / BY	DESIGNED ETH DRAWN WHM APPROVED ETH DATE 3/25/11 SCALE 1"=50'	**AUTOTURN EXHIBIT** **MIDWESTERN UNIVERSITY** **DOWNERS GROVE, ILLINOIS**	SHEET **1 OF 1** PROJECT NUMBER: 1929 © MACKIE CONSULTANTS LLC, 2011 ILLINOIS FIRM LICENSE 184-002694