Ordinance No. 24-32

AN ORDINANCE APPROVING A SPECIAL USE PERMIT FOR A MAJOR CHANGE TO THE "MARKETPLACE OF ROLLING MEADOWS" PLANNED DEVELOPMENT TO AUTHORIZE THE "PACIFICA ON GOLF" REDEVELOPMENT
(1460-1470 Golf Road)

WHEREAS, Pacifica Rolling Meadows, LLC (***"Developer"***) owns the property commonly known as 1460-1470 Golf Road, as legally described in ***Exhibit A*** (collectively, "***Subject Property***"), which is within the City's C-2 "Corridor Commercial" District; and

WHEREAS, the Subject Property is located within, and subject to, the regulations of the "Marketplace of Rolling Meadows" Planned Development adopted by the City's Ordinance No. 99-17, as amended from time-to-time ("***Subject PD***"); and

WHEREAS, within Chapter 122 of the Rolling Meadows Municipal Code ("***Zoning Regulations***"), Division 4 of Article VI ("***PD Regulations***") sets forth a process for the City to authorize planned developments as a special use, which may include providing flexibility in the application of the Zoning Regulations without the demonstration of a hardship; and

WHEREAS, the Subject Property was formerly used as a +/- 126,758 square foot discount club retailer, has been vacant for an extended period of time, and is in a condition that the City Council has previously found to be blighted and in need of renewal owing to its: dilapidation; deterioration; obsolescence; depreciation or lack of physical maintenance; excessive vacancies; inadequate utilities; excessive land coverage; deleterious land-use or layout; and decline in equalized assessed value over at least three of the preceding five years; all of which are conditions that uniquely affect the Subject Property and are contrary to the intent and purposes of the Subject PD and the Zoning Regulations (Resolution No. 22-R-111); and

WHEREAS, Developer seeks to redevelop and reuse the Subject Property for, generally, a mix of retail, restaurant, and entertainment tenant uses and to modify the site plan of the Subject Property consistent with its proposed reuse (collectively, the "***Redevelopment***"), which the City finds to be a major change to the Subject PD pursuant to the PD Regulations; and

WHEREAS, pursuant to the PD Regulations, a Commission Pre-Application Review concerning the Redevelopment was conducted at a regularly scheduled meeting of the City's Planning and Zoning Commission ("***PZC***") on Tuesday, September 5, 2023; and

WHEREAS, after notice was duly provided as required by the Zoning Regulations, the PZC conducted a public hearing on May 23, 2024 to consider the concurrent approval of a Preliminary Plan and Final Plan authorizing the Redevelopment as well as any other zoning relief requested to complete the Redevelopment ("***Requested Relief***"); and

WHEREAS, after taking and considering all testimony presented at the public hearing, the PZC made the findings of fact enumerated in **Exhibit B** and recommended that the City Council approve the Requested Relief; and

WHEREAS, the Corporate Authorities of the City of Rolling Meadows have determined that it would be in the best interest of the City to approve the Requested Relief in accordance with, and subject to, the conditions, restrictions, and provisions of this Ordinance.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Rolling Meadows, Illinois:

Section 1: Recitals.

The recitals set forth above are incorporated herein by reference as the true and correct findings of the Corporate Authorities.

Section 2: Approval of Major Change to the Subject PD.

Pursuant to the standards and procedures set forth in the PD Regulations and the City's home rule authority, and subject to and contingent upon the conditions, restrictions, and provisions set forth in Section 4 of this Ordinance, the City hereby approves a special use permit for a major change to the Subject PD to authorize the Redevelopment to occur within the Subject Property, together with any necessary modifications to the underlying C-2 District zoning regulations and the Subject PD. In the case of a conflict between this Ordinance and either the Zoning Ordinance or the Subject PD, this Ordinance shall control. Nothing in this Ordinance modifies: (i) the underlying zoning district assignment of the Subject Property, which shall remain C-2 "Commercial Corridor" District, or (ii) any provision of the Subject PD except as applied to the Subject Property.

Section 3: Approval of Final Development Plan.

A. Initial Plans. Subject to and contingent upon the conditions, restrictions, and provisions set forth in Section 4 of this Ordinance, the City hereby approves, pursuant to the PD Regulations and the City's home rule authority, the Developer's "***Final Development Plan***" consisting of the following documents attached as **Exhibit C** (collectively "***Plans***," and as originally attached hereto the "***Initial Plans***"):

1. Floor Plan and Elevations, prepared by Hung-Chun Fang and consisting of one sheet with a latest revision date of March 13, 2024;
2. New Landscaping Plan, Monument Sign, and Details, prepared by Hung-Chun Fang and consisting of one sheet with a latest revision date of May 21, 2024;
3. Existing Landscape Plan and Demolition Plan, prepared by Hung-Chun Fang and consisting of one sheet with a latest revision date of May 21, 2024;
4. Bioswale Plant List and Monitoring and Maintenance Plan, prepared by Gary R. Weber Associates, Inc. and consisting of four pages;
5. Photometric Plan, prepared by KSA Lighting and Controls and consisting of one sheet with a latest revision date of February 5, 2024;
6. Site and Utility Plan, prepared by Ridgeline Consultants and consisting of two sheets with a latest revision date of May 22, 2024;
7. Grading and Erosion Control Plan, prepared by Ridgeline Consultants and consisting of two sheets with a latest revision date of April 11, 2024;
8. Engineering Details prepared by Ridgeline Consultants and consisting of three sheets with a latest revision date of April 11, 2024;
9. Traffic Study prepared by Kenig, Lindgren, O'Hara, Aboona, Inc. ("***KLOA***") and dated April 16, 2024, including the exhibits and appendices attached to KLOA's "Response to Review Comments" memorandum dated April 16, 2024, and the supplementary exhibits prepared by KLOA dated May 21, 2024;

10. Stormwater Management Report and Watershed Management Ordinance Permit prepared by Ridgeline Consultants and dated January 2024; and,

11. Landlord's Design Criteria for Tenant Signs consisting of three pages, which shall be the "***Signage Plan***" described in Section 4.G of this Ordinance.

B. Reviewed Plans. Prior to the issuance of any building permit in furtherance of the Redevelopment, the Zoning Administrator shall have reviewed and approved a final, construction-ready version of each Initial Plan listed in Section 3(A) of this Ordinance (each a "***Reviewed Plan***") except the Signage Plan. The Signage Plan must be reviewed and approved as described herein prior to the issuance of any sign permit in furtherance of the Redevelopment.

Upon approval by the Zoning Administrator, each Reviewed Plan shall, automatically and without further action by the Corporate Authorities, be deemed to be incorporated in, and made a part of the Final Development Plan and this Ordinance and shall, for all purposes in this Ordinance, supersede and replace the respective Initial Plan within the Plans. Each Reviewed Plan shall:

1. Be consistent with every other Reviewed Plan, such that the Reviewed Plans collectively will depict the Redevelopment without conflict or ambiguity;

2. Substantially conform to the respective Initial Plan as determined by the Zoning Administrator, except as may be necessary to comply with all applicable federal, state, and City statutes, ordinances, resolutions, rules, codes, and regulations ("***Requirements of Law***") including, without limitation: this Ordinance, the Zoning Regulations (except as modified by the Subject PD and this Ordinance), and Chapters 18 (Building), 110 (Utilities), and 114 (Vegetation) of the Rolling Meadows Municipal Code; and,

3. Have been approved by any other governmental agency in satisfaction of the applicable Requirements of Law, including, without limitation: the Illinois Department of Transportation; the Illinois Environmental Protection Agency; and the Metropolitan Water Reclamation District of Greater Chicago ("***MWRD***") pursuant to its Watershed Management Ordinance ("***WMO***").

4. Specific Changes to Reviewed Plans. The Reviewed Plans shall incorporate the following modifications:

   i. Bicycle Parking. Provide at least six bicycle parking spaces serving the south façade of the Redevelopment, and ten bicycle parking spaces serving the east façade of the Redevelopment. Bicycle parking provided shall satisfy Section 122-160 of the Zoning Regulations; the dimensional standards of *Bicycle Parking Guidelines, 2nd ed.,* published by the Association of Pedestrian and Bicycle Professionals; and shall be of a design recommended in *Essentials of Bike Parking* by the Association of Pedestrian and Bicycle Professionals. Locate parking spaces centrally or distribute them so that they are accessible to visitors of tenant spaces throughout the respective façade of the Redevelopment.

ii. South Façade Parking and Drive Aisle: Specify that the raised crosswalk be constructed with dyed concrete and incorporate signage and pavement markings. Install a sidewalk along the south edge of the south parking area. Create an additional landscaped area at the southeast corner of the building, between the crosswalk ramp (east) and the first parking space (west).

iii. Southwest Entrance. Create a landscape median island at the southwest (unsignalized) entrance to the Redevelopment that is at least six feet wide with curb to create a clear zone for the existing light pole.

iv. Traffic. Where there are any conflicts within the Initial Plans, the most recent of KLOA's exhibits control as to any matter concerning the flow of traffic within the Redevelopment, such as traffic control signage and pavement width, geometry, and markings. Incorporate the reduced pavement width shown in the "Truck Access Modifications" exhibit prepared by KLOA within the Plans.

v. Satisfy the photometric and lighting requirements of the Zoning Regulations.

vi. Satisfy the minimum landscaping requirements of the Zoning Regulations within all landscape areas shown within the Plans, including new areas created or required by this Ordinance.

vii. Satisfy the screening requirements of the Zoning Regulations.

Section 4: Conditions of Approval.

Each and every approval granted in Sections 2 and 3 of this Ordinance is hereby expressly subject to and contingent upon each of the following conditions, restrictions, and provisions:

A. No Authorization of Work. The approvals granted pursuant to this Ordinance do not authorize the development, construction, reconstruction, alteration, demolition, or moving of any buildings or structures on the Subject Property, but merely authorize the preparation, filing, and processing of applications for any permits or approvals that may be required by the codes and ordinances of the City, including, without limitation, any demolition and building permits.

B. Compliance with Plans. Except for minor changes and site work approved by the Zoning Administrator and any authorized minor changes to the Subject PD, the Business and the Subject Property must be developed, used, and maintained in substantial compliance with the Plans.

C. Compliance with Applicable Law. In addition to the other specific requirements of this Ordinance, the Redevelopment, the Subject Property, and all operations conducted thereon and therein must comply at all times with all applicable Requirements of Law, including, without limitation: this Ordinance, the MWRD WMO, the Zoning Regulations (except as modified by the Subject PD and this Ordinance), and Chapters 18 (Building), 110 (Utilities), and 114 (Vegetation) of the Rolling Meadows Municipal Code.

D. Private Utility Systems and Maintenance.

1. For the purposes of this Section 4.D, "***Private Utilities***" includes any part of a waterworks and sewerage system that either: (i) is located outside of a dedicated public utility easement or (ii) has not been accepted by formal action of the City. Private Utilities includes any such part to be installed by the Developer as well as any such part that exists within the Subject Property prior to the Redevelopment.

2. Every part of the Private Utilities proposed within the Redevelopment and located within the Subject Property shall be private and shall be constructed, installed, managed, and maintained by the Developer as provided in the Final Development Plan and pursuant to the Requirements of Law including, without limitation, Chapter 110 (Utilities) of the Rolling Meadows Municipal Code and the MWRD WMO.

3. As required by Section 110-1 of the Rolling Meadows Municipal Code, Developer shall provide to the City, for recording in the Cook County Clerk's office and in a form acceptable to the City Attorney, a written agreement to run with the Subject Property concerning the operation and maintenance of the Private Utilities.

E. Landscaping Maintenance.

1. In addition to any other applicable requirement of the Zoning Regulations, Developer must maintain the landscaping within the Subject Property on an ongoing basis in a safe and healthy manner in accordance with the Plans; consistent with good arboriculture and landscaping practices; and in a manner that prevents any hazards to persons, property, and other vegetation.

2. If any of the landscaping within the Subject Property becomes diseased, distressed, dead, or dangerous, the Developer must cause such landscaping to be treated or removed and replaced.

3. If, for whatever reason, any of the landscaping depicted on the Final Landscape Plan is removed, destroyed, or fails to survive, Developer shall, not later than the next planting season occurring at least 30 days after Developer receives notice from the City, replace such plantings with substitute plantings that substantially conform to the size and type of the original plantings, as depicted on the Plans and as approved by the Zoning Administrator.

4. All vegetation included as part of the stormwater facilities serving the Subject Property shall additionally be maintained in accordance with the provisions of the MWRD WMO.

F. Authorized Uses within the Redevelopment. The permitted and special uses within the Redevelopment shall be those provided within the underlying C-2 "Commercial Corridor" District, as the District's regulations may be amended from time to time, except that:

1. Initial Tenants. For the first year after the issuance of the any certificate authorizing occupancy of the Redevelopment, the initial tenants for the Redevelopment shall be substantially the uses and square footages identified in the Plans. Any space identified as vacant within the Plans may be occupied pursuant to this Subsection 4.F.

2. Additional Restaurants. Given the Level of Service projected at the intersection of Golf Road with Marketplace Access Drive ("***Subject Intersection***"), no additional tenant spaces within the Redevelopment beyond the initial tenants shall provide food service unless the Zoning Administrator determines, with or without a formal traffic study, that signalized delays at the Subject Intersection are and will remain substantially less than those projected by the Traffic Study within the Plans.

3. Restriction on Banks. No use classified as a "bank or financial institution" may locate within the Redevelopment unless there are two or fewer such uses operating within the Subject PD at the time that a building permit or business license would be issued for the use.

G. Signage.

1. Tenant Signage. All tenant signage within the Redevelopment shall comply with the Signage Plan within the Plans including, without limitation, compliance with the type, size, location, materials, and illumination of signage. In the event of a conflict between the Signage Plan and the City's generally applicable sign regulations, the more restrictive provision shall control.

2. Development Signage. As shown in the Plans, the following additional signage is authorized within the Redevelopment, not withstanding any contrary provision of the Zoning Regulations:

   i. Development Wall Sign (East Façade). The "PACIFICA ON GOLF" sign substantially as depicted on the East Elevation within the Plans in addition to any other permitted tenant signage. Only the "PACIFICA ON GOLF" sign may be mounted to this overhanging structural element.

   ii. Multi-Tenant Monument Sign (Southwest Entrance). The new multi-tenant monument sign substantially as depicted on the Landscape Plan within the Plans. No other monument sign, as defined in the Zoning Regulations, may be erected within the Redevelopment. The minimum landscape requirements for monument signs within the Zoning Regulations shall apply to this sign.

H. Construction Timeline.

1. Revised Plan and Construction Deadline. Except for signage, Developer shall submit all Revised Plans and commence construction no later than September 16, 2024. The Corporate Authorities may provide, by Resolution duly adopted, an extension to this deadline for good cause shown and without a public hearing.

2. Diligent Pursuit. In the event the Developer commences construction of the Redevelopment, Developer shall pursue, or cause to be pursued, all required redevelopment, demolition, construction, and installation of structures, buildings, and private improvements authorized by this Ordinance in a diligent and expeditious manner and in compliance with all applicable Requirements of Law.

3. Completion Deadline. No later than January 17, 2026, Developer shall substantially complete the entire Redevelopment in accordance with the Plans. Completion does not require that any vacant tenant spaces be provided with signage and interior tenant fit-out or finish work so long as any vacant tenant spaces are otherwise ready for occupancy. The Corporate Authorities may provide, by Resolution duly adopted, an extension to this deadline for good cause shown and without a public hearing.

4. Temporary Certificates of Occupancy. In addition to any other requirement of Section 122-397 of the Zoning Regulations, in order to receive a temporary certificate of occupancy for any part of the Redevelopment prior to completion of all exterior site improvements called for by the Plans, the Developer shall to the satisfaction of the Zoning Administrator: (i) demonstrate good cause shown which was unforeseen and outside of the Developer's reasonable control; and (ii) post a financial security with the City in the amount of not less than 110% of the value of the site improvements. The financial security shall be as described in Section 98-227 of the Rolling Meadows Municipal Code, notwithstanding that the security will guarantee private improvements.

Section 5: Enforcement.

A. The City shall not be obligated to issue, and may withhold, building permits, certificates of occupancy, and other approvals: (i) that do not completely comply with and satisfy the conditions, restrictions, and provisions of this Ordinance; or, (ii) if, at the time of application for such approval, Developer or the Redevelopment is not in compliance with this Ordinance or any other permit issued in furtherance of the Redevelopment.

B. Upon failure or refusal of Developer to comply with any or all of the conditions, restrictions, or provisions of this Ordinance, the approvals granted in Section 3 and 4 of this Ordinance may, at the sole discretion of the Corporate Authorities, by ordinance duly adopted, be revoked and become null and void and of no force and effect.

Section 6: Ordinance to Run With The Land.

The privileges, obligations, and provisions of each and every section and provision of this Ordinance are for and inure to the benefit of and run with and bind the Subject Property, unless otherwise explicitly set forth in this Ordinance. They shall be binding upon the Developer, upon any and all of the Developer's heirs, successors, and assigns, and upon any and all of the successor legal or beneficial owners of the Subject Property, and references to "***Developer***" in this Ordinance shall refer to and bind any such successor legal or beneficial owner.

Section 7: No Third-Party Beneficiaries.

Nothing in this Ordinance shall create, or shall be construed or interpreted to create, any third-party beneficiary rights.

Section 8: Effective Date.

A. This Ordinance will be effective only upon the occurrence of all of the following events:

i. Passage by the Corporate Authorities of the City of Rolling Meadows in the manner required by law;

ii. Publication in pamphlet form in the manner required by law; and,

iii. The filing by the Developer with the City Clerk, for recording in the Office of the Cook County Clerk, of an unconditional agreement and consent to accept and abide by each and all of the terms, conditions and limitations set forth in this Ordinance. The unconditional agreement and consent must be executed by the Developer. The unconditional agreement and consent must be substantially in the form attached hereto and incorporated herein as **Exhibit D.**

B. In the event that the Developer does not file with the City Clerk the unconditional agreement and consent required by Paragraph 8.A.iii of this Ordinance within 60 days after the date of final passage of this Ordinance, the Corporate Authorities will have the right, in their sole discretion, to declare this Ordinance null and void and of no force or effect.

PASSED AND APPROVED by the City Council of Rolling Meadows, Cook County, Illinois this 18th day of June, 2024.

AYES: O'Brien, Vinezeano, Boucher, Reyez, Koehler, Budmats

NAYS: 0

ABSENT: McHale

Lara Sanoica, Mayor

ATTEST:

Judith Brose, Deputy City Clerk

Published this 20th day of June, 2024.

Judith Brose, Deputy City Clerk

EXHIBIT A

Legal Description of the Subject Property

PARCEL 1: THAT PART OF LOT 1 IN THE RESUBDIVISION OF THE MARKETPLACE OF ROLLING MEADOWS, ACCORDING TO THAT PLAT THEREOF RECORDED SEPTEMBER 27, 1999 AS DOCUMENT 99910798, BEING A RESUBDIVISION OF LOTS 1, 2, 4 AND 5 IN JCP MEADOWS P.U.D., BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUB-DIVISION, IN THE SOUTHWEST 1/4 OF SECTION 9 AND THE SOUTHEAST 1/4 OF SECTION 9 AND THE SOUTHEAST 1/4 OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF DATED DECEMBER 18, 1985, AS DOCUMENT 85329240, AND CORRECTED BY A CERTIFICATE OF CORRECTION RECORDED AUGUST 11, 1988 AS DOCUMENT 88364191, AND ALSO OF LOT 1 AND OUTLOT "A" IN MTM RESUBDIVISION, BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D., IN THE SOUTHWEST 1/4 OF SECTION 9, AND THE SOUTHEAST 1/4 OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED SEPTEMBER 16, 1993, AS DOCUMENT 93742116, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF LOT 1, ON THE NORTHERLY RIGHT OF WAY OF GOLF ROAD, THENCE NORTH 01 DEGREE 27 MINUTES 05 SECONDS EAST, ALONG THE WEST LINE OF LOT 1, A DISTANCE OF 544.26 FEET; THENCE NORTH 89 DEGREE 56 MINUTES 18 SECONDS EAST, A DISTANCE OF 425.00 FEET; THENCE NORTH 70 DEGREES 05 MINUTES 30 SECONDS EAST, A DISTANCE OF 59.50 FEET, THENCE NORTH 89 DEGREES 56 MINUTES 18 SECONDS EAST, A DISTANCE OF 400.00 FEET; THENCE SOUTH 08 DEGREES 51 MINUTES 37 SECONDS WEST, A DISTANCE OF 409.27 FEET; THENCE SOUTH 14 DEGREES 30 MINUTES 13 SECONDS WEST, A DISTANCE OF 154.94 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 25.00 FEET; TO THE NORTHERLY RIGHT OF WAY LINE OF GOLF ROAD; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 61.58 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, A DISTANCE OF 46.50 FEET; THENCE NORTH 14 DEGREES 30 MINUTES 13 SECONDS EAST, A DISTANCE OF 84.04 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST, A DISTANCE OF 20.14 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, A DISTANCE OF 558.97 FEET; THENCE SOUTH 64 DEGREES 29 MINUTES 39 SECONDS WEST, A DISTANCE OF 105.00 FEET; THENCE SOUTH 00 DEGREES 50 MINUTES 00 SECONDS EAST, A DISTANCE OF 92.01 FEET; TO THE NORTHERLY RIGHT OF WAY LINE OF GOLF ROAD; THENCE NORTH 88 DEGREES 04 MINUTES 15 SECONDS WEST, ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 100.00 FEET, TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS.

PARCEL 2: NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS 1 AND 1A AFORESAID AND OTHER PROPERTY AS CREATED BY EASEMENT AGREEMENT BETWEEN CHICAGO TITLE AND TRUST COMPANY, A CORPORATION OF ILLINOIS, AS TRUSTEE UNDER TRUST AGREEMENT DATED NOVEMBER 2, 1970 AND KNOWN AS TRUST NUMBER 56088 AND J. C. PENNEY PROPERTIES, INC., A DELAWARE CORPORATION, DATED DECEMBER 10, 1971 AND RECORDED JANUARY 10, 1972 AS DOCUMENT 21769213 FOR INGRESS AND EGRESS OVER, UPON, AND ACROSS THAT PART OF LOT 4 IN 58-62 VENTURE SUBDIVISION, A SUBDIVISION IN SECTIONS 8 AND 9, TOWNSHIP 41 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, SHOWN AS "HATCHED" ON EXHIBIT "B" TO THE AFORESAID EASEMENT AGREEMENT AND DESIGNATED AS "TRUST SITE EASEMENT AREA", ALL IN COOK COUNTY, ILLINOIS.

PARCEL 3: A NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS 1 AND 1A AND RIGHTS TO THE USE OF COMMON AREAS FOR THE PURPOSES FOR WHICH THEY ARE PROVIDED AND INTENDED, INCLUDING, BUT NOT LIMITED TO (A) INGRESS, EGRESS, ACCESS, LOADING AND UNLOADING, PARKING AND VEHICULAR AND PEDESTRIAN TRAFFIC, INCLUDING COMMERCIAL VEHICULAR TRAFFIC SUCH AS DELIVERY TRUCKS, UPON OR ACROSS, AS APPLICABLE, THE PARKING AREAS, ENTRANCES, EXITS, DRIVEWAYS, WALKS OR SERVICE DRIVES LOCATED WITHIN THE COMMON AREAS; (B) INSTALLATION, OPERATION, MAINTENANCE AND USE OF SANITARY SEWERS STORM DRAINS, DETENTION BASINS, WHETHER UNDERGROUND OR AT GRADE, WATER, ELECTRIC AND GAS LINES, TELEPHONE LINES, VAULTS, CONDUITS AND TRANSFORMERS AND OTHER UTILITY LINES AND RELATED FACILITIES (WHICH SHALL BE LOCATED UNDERGROUND WHENEVER FEASIBLE); AND (C) USE OF LANDSCAPING, DIRECTION SIGNS AND OTHER AREAS INTENDED FOR COMMON USE, OVER THE LAND AS DESCRIBED IN SAID INSTRUMENT, AS SET FORTH IN THE DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS DATED JUNE, 1999 AND RECORDED JUNE 23, 1999 AS DOCUMENT NO. 99606491 MADE BY REPUBLIC BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED JULY 22, 1997 AND KNOWN AS TRUST NUMBER 1391 AND AS CREATED BY THE DEED FROM REPUBLIC BANK OF CHICAGO AS TRUSTEE UNDER TRUST NUMBER 1391 TO FIRST AMERICAN BANK DATED JULY 10, 2000 AND RECORDED JULY 27, 2000 AS DOCUMENT 00568873.

PARCEL 4: A NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS 1 AND 1A FOR INGRESS AND EGRESS FOR VEHICULAR TRAFFIC OVER AND ACROSS THE PORTION OF THE FRONTAGE ROAD RUNNING EAST AND WEST ON THE NORTHERLY PORTION OF THE OUTLOT AS DEPICTED BY CROSSHATCHING ON THE DRAWING ATTACHED HERETO TO EXHIBIT D, AS SET FORTH IN THE DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS DATED JULY 10, 2000 AND RECORDED JULY 27, 2000 AS DOCUMENT NO. 00568872 MADE BY REPUBLIC BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED JULY 22, 1997 AND KNOWN AS TRUST NUMBER 1391.

PARCEL 5: A NON-EXCLUSIVE EASEMENT FOR THE BENEFIT OF PARCELS 1 AND 1A FOR INGRESS AND EGRESS FOR VEHICULAR TRAFFIC OVER AND ACROSS THE ACCESS AND DRIVEWAY PORTIONS OF THE COMMON AREA OF THE CENTER; THE PORTION OF THE FONTAGE ROAD RUNNING EAST AND WEST ON THE NORTHERLY PORTION OF THE OUTLOT AS SET FORTH IN THE DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS DATED JULY 21, 2000 AND RECORDED JULY 27, 2000 AS DOCUMENT NO. 00568875 MADE BY REPUBLIC BANK OF CHICAGO, AS TRUSTEE UNDER TRUST AGREEMENT DATED JULY 22, 1997 AND KNOWN AS TRUST NUMBER 1391 AND SOUTHWIND FINANCIAL, LTD. AN ILLINOIS CORPORATION.

PARCEL 6: EASEMENT FOR THE BENEFIT OF PARCEL 1 AS CREATED BY DECLARATION RECORDED JULY 7, 1976 AS DOCUMENT NUMBER 23549143 MADE BY J.C. PENNEY PROPERTIES, INC., A DELAWARE CORPORATION TO USE, MAINTAIN, REPAIR, REPLACE AND RELOCATE UTILITIES.

PINs: 08-08-403-036 & 08-09-302-034

Commonly known as: 1460-1470 Golf Road, Rolling Meadows, Illinois.

Pacifica Rolling Meadows, LLC

Judy Ni
Director of Real Estate
330-807-2272
judy@windfallusa.com
www.windfallusa.com

May 14, 2024

City of Rolling Meadows
3600 Kirchoff Road
Rolling Meadow, IL 60008

Subject: Required Findings Response to Each Standard

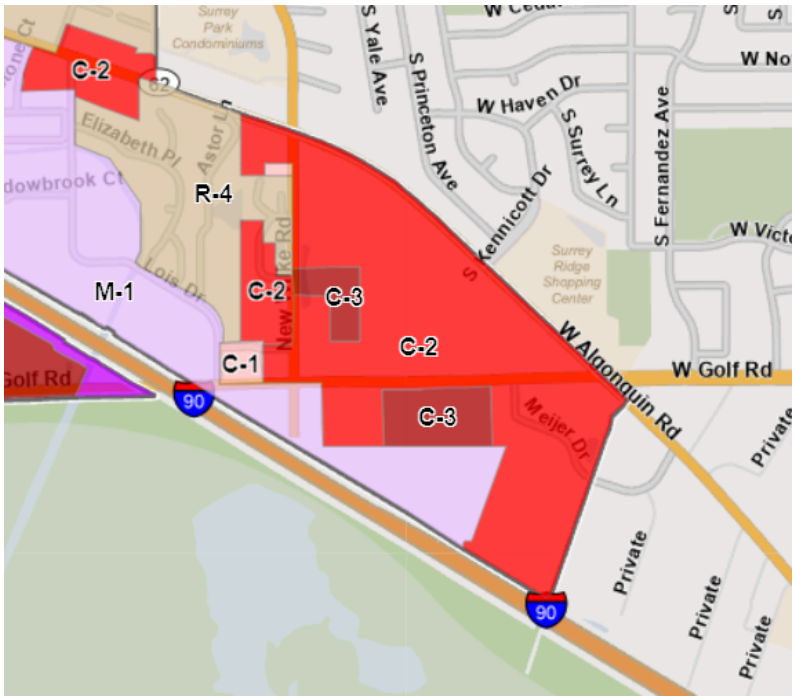
To whom it may concern,

On behalf of Windfall, we present our response to the required findings outlined by the Planning and Zoning Commission (PZC). It is with careful consideration and thorough evaluation that we address each standard set forth for the proposed redevelopment project. As a responsible and committed entity, we understand the importance of meeting these standards to ensure the alignment of our project with the community's regulations and expectations. In this letter, we aim to demonstrate how our redevelopment plan fulfills each criterion outlined by the PZC, showcasing Pacifica Rolling Meadows, LLC's dedication to contributing positively to the local landscape while adhering to all necessary guidelines and requirements.

1. **Potential impact:** The special use shall not unduly impact adjacent or nearby properties or the general health, safety, and welfare of the general area and overall community. Impacts to be considered include ingress and egress to the site, potential traffic impacts from cars and trucks, and impacts to the appearance and character of the area.

Our property is located within a retail building zoned as C-2, General Commercial Services District, surrounded by similar zoning designations such as C-2, as well as C-1, Commercial District, and C-3, Minor Commercial Services District. This zoning configuration is intended to support the neighboring R-4, General Residential District, situated to the west, in accordance with the city's zoning objectives. Please refer to the zoning map below. The proposed development comprises a diverse mix of business uses, including a grocery store, a retail shop, restaurants, and indoor family entertainment/amusement facilities. It is located at the heart of

the Golf and Algonquin Road Area, in alignment with the city's vision for Golf Road Retail Corridor. Traffic impact is carefully studied by traffic consultants, with parking study and fire truck and loading truck autorun analysis, to confirm that the proposed parking and site arrangement is appropriate.



2. **Consistency:** The proposed special use shall be in keeping with the recommendations and intent of the City's Comprehensive Plan, Official Map, and all other plans and policies adopted by the city.

No changes in zoning are necessary for the proposed development. Pacifica Rolling Meadows LLC, under the umbrella of the Windfall Group, renowned for revitalizing struggling suburban shopping centers nationwide, including this former Sam's Club location. This site, vacant since January 2010, resulted in the loss of 137 jobs. Now, it's poised to transform into a vibrant, pedestrian-friendly lifestyle center. Featuring a diverse array of tenants, including prominent storefronts and a plethora of dining, shopping, and entertainment options, the development has 95% confirmed leases and Letters of Intent (LOIs), with secured funding and loans in place. Beyond its evident economic impact, the project signifies a community investment, bolstering both employment and the tax base. Moreover, it addresses the long-awaited demand for shops and restaurants, catering to neighboring residents and office workers alike.

3. **Trend of development:** Special uses should be a logical extension of the trend of development in the area around the subject site and not interfere with the use and development of adjacent or nearby properties.

The exterior modifications primarily focus on the existing exterior enclosure. The existing indoor vestibule will be transformed into a covered walkway, connecting to a newly created sidewalk to the south. This enhancement aims to establish a comfortable and attractive sidewalk along the storefronts, as outlined in the City's Comprehensive Plan. The exterior facade is meticulously designed to promote identity and visibility for individual tenants, fostering a vibrant and inviting mixed-use environment.

A Project signage at the Golf Road entrance will serve as a clear wayfinding marker, directing visitors to the development. This initiative supports the city's objective of enhancing the appearance of the Golf Road corridor and raising awareness that visitors are in Pacifica Golf in Rolling Meadows.

4. **Public facilities:** Adequate public facilities and services shall be available to serve the special use and the property on which it is located; including, without limitation, storm water, sanitary sewer, water service, public safety service, and waste disposal services.

As an adaptive reuse of an existing facility this is a new development over the existing facility, adequate public utilities including sanitary sewers, Storm sewers and water main exist on site. Storm water detention also exists onsite but will be appended as a result of MWRD current requirements.

Based on the current state of Illinois plumbing code, the design team has completed an evaluation of the existing water and underground sewer systems. The current water main which is 3" for domestic use is sufficient to support all new stores.

The existing internal underground 4" sewer pipe at the east portion needs to be partially upgraded to a 6" pipe that will extend to the exterior sewer pipe to accommodate new stores.

The existing internal underground 6" sewer & grease pipes at the center of the main building are sufficient to handle the south and west store usage.

Public Safety and Fire Protection will be provided by the City of Rolling Meadows. Waste Disposal will be contracted through private Waste Management service.

5. **Site design:** The on-site development design shall be understandable to users, safe, and maintainable in terms of road and pedestrian patterns, preserve natural features and

incorporate such features into a maintainable development, and provide adequate parking, loading, and site maintenance.

The proposed development is part of a larger development area governed by shared parking and common area agreements. Due to a reduction in overall square footage by approximately 5,775 square feet (where indoor vestibule converted to outdoor walkway, indoor retail space converted to common back of house and setback at southeast corner) from the previous Sam's Club, no additional parking spaces are required. The loading area has been relocated to the west of the building, with the addition of two new loading docks to accommodate both the grocery store and other tenants. The remaining width is still adequate to meet the one-way fire truck requirement.

In accordance with the city's vision to enhance north-south pedestrian connections across Golf Road, aiming to improve access to Busse Wood for employees and residents, and to entice Busse Woods users to Rolling Meadows as potential shoppers, the pedestrian connection with the development is crucial. This emphasis ensures a pedestrian-friendly environment. Therefore, clear markings and driver compliance with the crosswalks from various parking areas to the storefronts are essential.

In addition to the parking arrangements and pedestrian accessibility, maintaining the site's overall cleanliness and functionality is paramount. As part of the larger development area governed by shared parking and common area agreements, a comprehensive site maintenance plan will be implemented to ensure the property remains in optimal condition. This plan will encompass regular upkeep of parking lots, landscaping features, and common areas, as well as the monitoring of lighting fixtures and signage to guarantee visibility and safety for all visitors. By prioritizing ongoing maintenance efforts, we aim to uphold the attractiveness and functionality of the Pacifica on Golf redevelopment project, thereby contributing to its success as a vibrant hub within Rolling Meadows.

6. **Character and density of land use.** The uses proposed and their density and arrangement on the site shall be of a visual and operational character which:
    1. Is compatible to the physical nature of the site, with particular concern for preservation of natural features, tree growth, and open space.

The proposed development is an adaptive reuse project, repurposing an existing building. Pacifica Rolling Meadows LLC's proposed renovation enhances the physical nature of the site. We are preserving trees, adding green space with a bioswale feature and creating an attractive outdoor patio on the south side.

2. Would produce an attractive environment of sustained aesthetic and ecologic desirability, economic stability and functional practicality compatible with the general development plans for the area as established by the community.

With over 95% of the leasing space already leased/committed through Letters of Intent (LOIs), the Pacifica on Golf redevelopment project is poised to become a significant economic driver for the city of Rolling Meadows. This development promises to not only inject vitality into the area but also aligns seamlessly with the overarching goals outlined in the City of Rolling Meadows Comprehensive Plan. In essence, the Pacifica on Golf redevelopment project represents more than just a revitalization effort; it embodies a strategic investment in the future of Rolling Meadows, promising to deliver lasting benefits to both residents and businesses while remaining in harmony with the broader vision outlined by the greater community.

Would not adversely affect the anticipated provision for school or other municipal services.

By repurposing the existing building, and reducing the footprint to serve the current uses, we anticipate no adverse effects to any municipal services. Our goal is to reintroduce vibrant retail and dining options to a previously vacant property, ensuring that its revitalization remains in line with its original purpose.

3. Would not create a traffic or parking demand incompatible with the existing or proposed facilities to serve it.

The traffic impact has been thoroughly assessed by a traffic consultant, including parking and analysis of fire truck and semi loading truck autorun analysis for our property and the neighbor on the south, confirming the appropriateness of the proposed parking and site arrangement.

7. **Economic feasibility and impact.** There shall be satisfactory evidence of the planned development's economic feasibility and support of the economic prosperity of the city or the values of surrounding properties.

Pacifica Rolling Meadows LLC is keenly aware of the importance of demonstrating the economic feasibility and positive impact of our planned development on both the city and the surrounding properties. Our thorough analysis and planning have provided us with robust evidence of the economic viability and potential prosperity that our project will bring.

Firstly, our proposed mix of businesses, including an Asian grocery, retail shops, restaurants, entertainment venues, and a family entertainment/amusement center, is carefully designed to

meet the diverse needs and preferences of the community. By offering a wide range of amenities and experiences, we anticipate attracting a steady flow of foot traffic, thereby stimulating economic activity within the development and its vicinity.

Moreover, our strategic location within Rolling Meadows positions us as a focal point for commercial and recreational activities, drawing visitors from both the local area and beyond. This increased traffic is expected to benefit surrounding businesses by creating spin-off opportunities and fostering a thriving ecosystem of commerce and leisure.

In addition to the direct economic impact generated by our development, we are committed to enhancing the overall attractiveness and desirability of the area. Through thoughtful design, landscaping, and architectural aesthetics, we aim to elevate the value of surrounding properties, contributing to a more vibrant and prosperous community. Our planned development not only demonstrates economic feasibility but also stands to significantly enhance the economic prosperity of the city and the value of surrounding properties.

8. **Engineering design standards.** The width of street rights-of-way, width and location of streets or other paving, outdoor lighting, location of sewer and water lines, provision for stormwater drainage, or other similar environmental engineering considerations shall implement their specific function to ensure the public safety and welfare. In addition, pedestrian and bicycle facilities shall be designed to comply with chapter 98 - Subdivisions.

Our proposed site plan encompasses a vibrant economic development that is easily accessible and pedestrian friendly. Striping, markings and road signage will direct cars to adequate parking. Building signage will allow visitors to park near their intended destination, limiting their movement in parking areas. Ample and connected sidewalks will allow easy movement throughout the development. Code compliant lighting will assure safe movement at night. Additionally, tenants' loading & trash will be done in the rear (west) of the building separating delivery trucks from the customer vehicle circulations. New Pedestrian pathway and bike parking is considered and provided within the development. Pedestrian pathway is clearly marked with raised crosswalks from south parking areas to the south storefronts.

Although the existing site conditions need updating, there are several trees located in parking islands that are in good condition, which we plan to preserve. Site maintenance will be

done on a daily basis which will include making sure the site is clean, landscaping is manicured and watered and everything looks amenable for a positive customer experience.

The site was originally developed in 1999. The Development takes over the site with the intention of maintaining the majority of the site intact while modifying the south portion of the property, to suit the intended functionality of the development. The asphalt parking lot and the drives within the property will either be completely modified with a brand new pavement section or resurfaced. There are no changes to the sanitary and water service and main location. Existing underground and surface detention is maintained while additional detention/volume control is proposed via a Bioretention facility to meet the current MWRD requirements. The existing site lighting is maintained with new stand-alone light poles as well as wall-mounted lights are added, mainly on the improved area on the south edge of the property.

9. **Preservation and maintenance of open space.** Adequate provision shall be made for the permanent preservation and maintenance of common open space, either by private reservation or dedication to the public.

The Pacifica on Golf redevelopment project, involves repurposing a former retail space located alongside other retail establishments, common spaces will primarily consist of parking and driveways, as well as light poles and landscape islands. These areas play integral roles in the functionality and aesthetics of the property.

In accordance with the requirement for the preservation and maintenance of common space, it's crucial to ensure the ongoing care and upkeep of these elements. Regular maintenance will be essential to uphold safety standards, ensure efficient traffic flow, and enhance the overall appearance of the property.

As such, we are committed to implementing comprehensive maintenance protocols to guarantee the longevity and functionality of these common spaces. Through diligent upkeep, we aim to create a well-maintained environment that enhances the experience for residents and visitors alike within the Pacifica on Golf redevelopment project.

10. **Implementation schedule.** A realistic schedule for the implementation of the development shall be submitted to the satisfaction of the city, including suitable phasing and assurance that each segment of the project shall constitute a logical module of

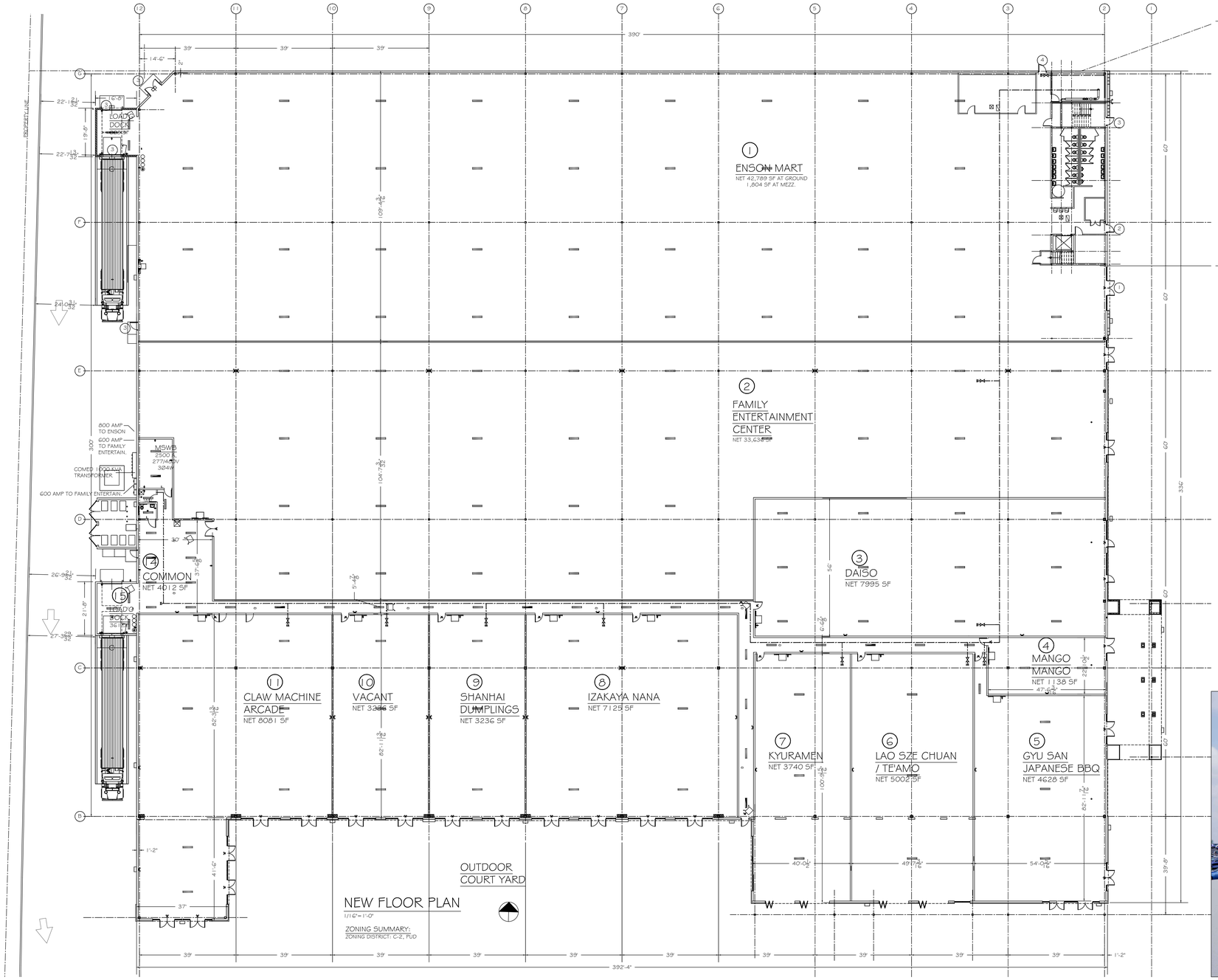
development, and will not adversely effect the community as a result of termination at that point.

Pacifica Rolling Meadows LLC is requesting committee approval during this review so we can submit permit drawings to the village and to MWRD. We are hopeful that Rolling Meadows will approve our building plans and allow us to begin work in the building prior to the MWRD approval. If this is the case, we expect to begin construction in August 2024 and complete the shell and site work in ten months. This would allow us to have all of the tenant work completed by the end of 2025.

We look forward to the opportunity to further discuss and address any questions or concerns the PZC may have regarding Windfall's proposed redevelopment project.

Sincerely,

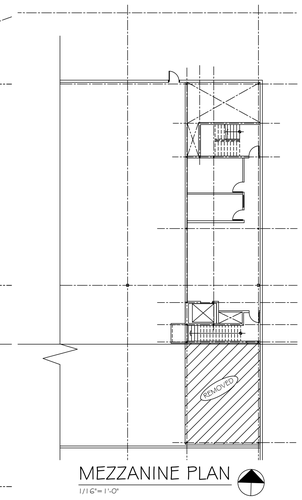
Judy Ni
Director of Real Estate
330-807-2272
judy@windfallusa.com
www.windfallusa.com



NEW FLOOR PLAN

1/16"=1'-0"

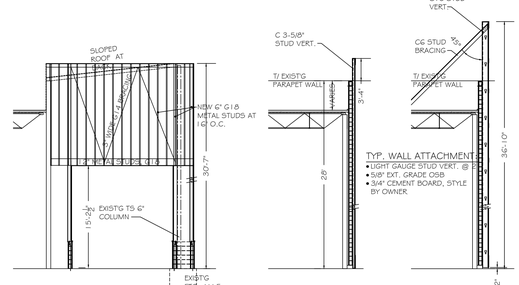
ZONING SUMMARY:
ZONING DISTRICT: C-2, PUD



MEZZANINE PLAN

1/16"=1'-0"

TENANT AREA SUMMARY				
SUITE NO.	TENANT NAME	STORE GROSS AREA	COMMON AREA	REMARKS
1	ENSON MART	42,789	292	FIRE SPRINKLER ROOM AS COMMON AREA FOR ALL UNITS
	LOADING DOCK	328		
SUMMARY OF STORE 1		43117		
2	FAMILY ENTERTAINMENT	33,636	4374	
3	DAISO	7,995		
4	MANGO MANGO	1,138		
5	GYU SAN JAPANESE BBQ	4,628		246534
6	LAO SZE CHUAN / TE'AMO	5,002		
7	KYURAMEN	3,740		
8	IZAKAYA NANA	7,125		
9	SHANGHAI DUMPLINGS	3,236		
10	VACANT	3,236		
11	CLAW MACHINE ARCADE	8,051		
SUMMARY OF STORE 2-11		77817		
14, 15	COMMON CORRIDOR & LOADING DOCK	4,374	0.055241	STORE 2-15
16	FIRE SPRINKLER ROOM	292	0.002325	STORE 1 THRU 15
TOTAL PLAZA AREA		125600		

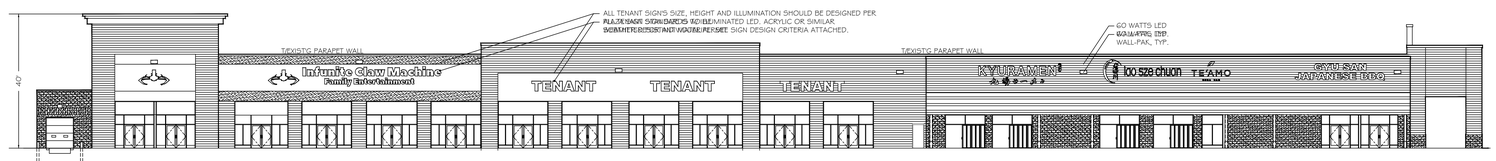


3 SECT. 3 — 1/8"=1'-0"

2 SECT. 2 — 1/8"=1'-0"

1 SECT. 1 — 1/8"=1'-0"





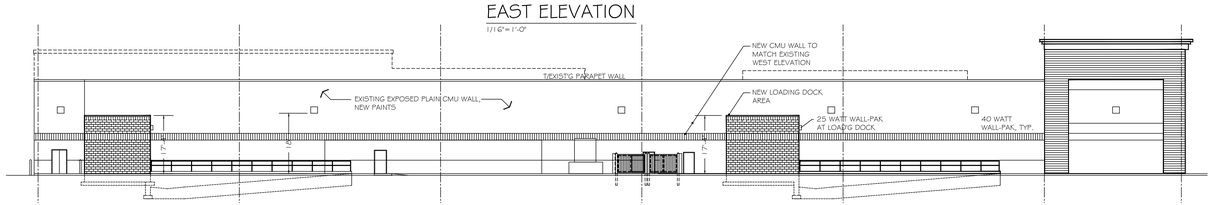
SOUTH ELEVATION

1/16"=1'-0"



EAST ELEVATION

1/16"=1'-0"







ARCHITECT:
RAY H.C. FANG
739 RED OAK DRIVE, BARTLETT, IL. 60103
630-766-9595 HFANG@SBCGLOBAL.COM

DEVELOPER/OWNER:
PACIFICA PLAZA II
CODE NI. 330-352-7706
1450 GOLF ROAD, ROLLING MEADOWS, IL. 60008

PROJECT NAME:
PACIFICA PLAZA II @ ROLLING MEADOWS

PROJECT ADDRESS:
1458-1470 GOLF ROAD, ROLLING MEADOWS, IL. 60008

DRAWING CONTENTS:
NEW FLOOR PLAN & ELEVATION

REVISION LOGS

REV NO	DESCRIPTIONS	BY/DATE
0	FOR ZONING	RAY / 2/13/2023

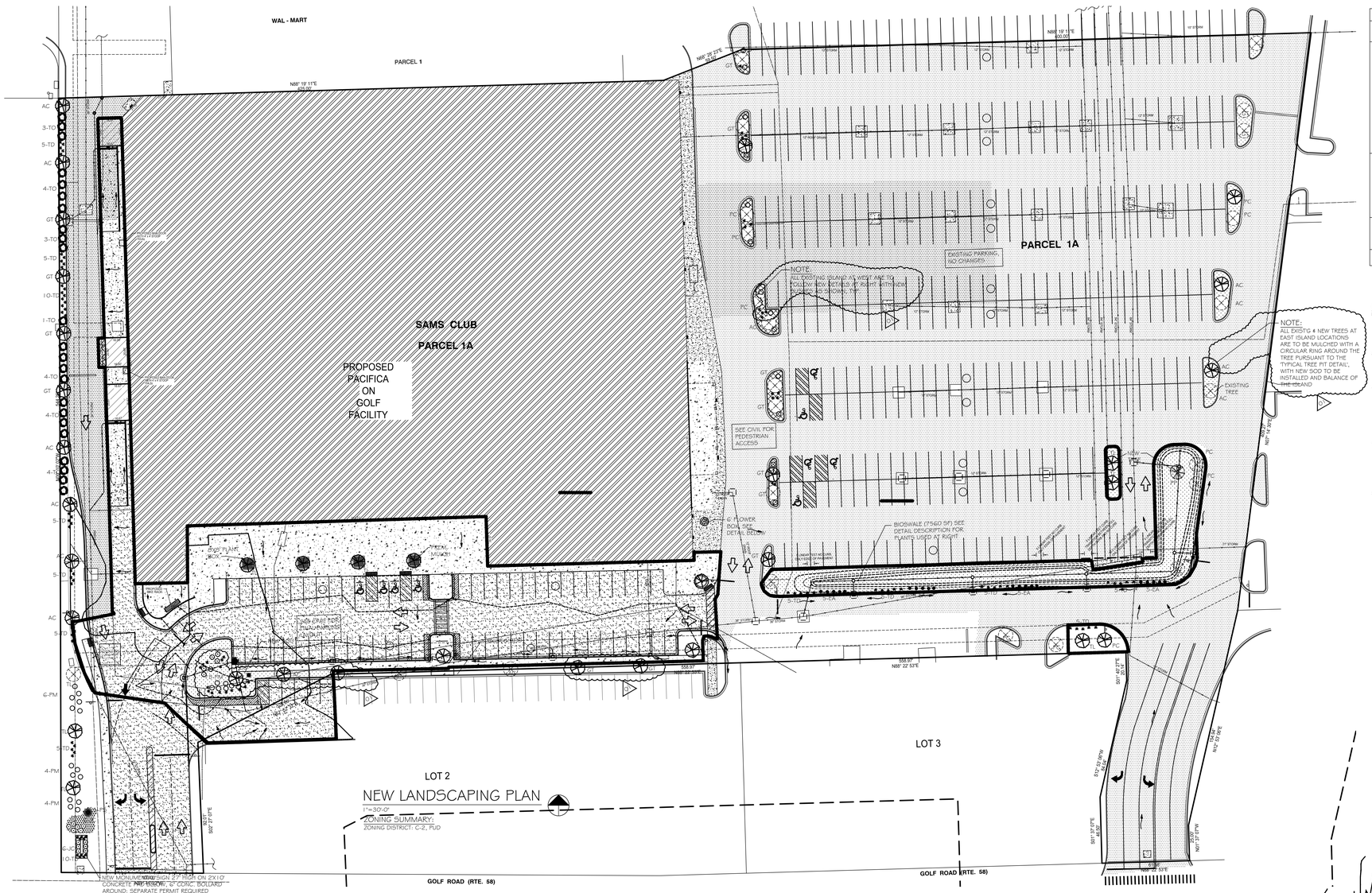
PREPARER: RAY — DATE: 3/13/2024
REVIEWER: EDDIE — DATE: 3/13/2024
APPROVER: — DATE:
PROJECT NUMBER: RM-01
SCALE: AS SHOWN

REFERENCES:
FOR DETAILED SITE PLAN, SEE CIVIL DRAWINGS PREPARED BY RIDGELINE CONSULTANTS, LLC.

ARCHITECT STAMP:
STATE OF ILLINOIS
HUNG-CHUN FANG
001-011348
REGISTERED ARCHITECT
EXP.: 11/30/2024

DRAWING NO.:
A-1

2024 COPYRIGHT



NEW LANDSCAPING PLAN

1"=30'-0"

ZONING SUMMARY:
ZONING DISTRICT: C-2, PUD

LANDSCAPE DATA

SPECIES	TYPES	SYMBOL	STATUS NEW	STATUS EXISTG	TOTAL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
CANOPY TREES	DECIDUOUS	GT	13	6	19	GLEDITSIA TRIACANTHOS	HONEY LOCUST	3"Ø	
		PC	4	6	10	PRYUS CALLERYANA	JACK PEAR	3"Ø	
		TL	7	2	9	TILIA	LINDEN TREE	4" Ø	
		AC	10	4	14	ACER	MAPLE	4" Ø	
		BG	1	0	0	'GINKGO' BLAGON	GINGKO	3" Ø	
	EVERGREEN	PP	1	0	1	PICEA PINGENS	COLORADO BLUE	8'	
		PS	0	1	1	PINUS STROBUS	WHITE PINE		
		TO	23	0	23	THUJA OCCIDENTALIS	ARBORVITAE	8'	
SHRUBS	DECIDUOUS	EA	20	0	20	ENOYMOUS ALATUS	BURNING BUSH	3'-0"	
	EVERGREEN	TD	104	0	104	TAXUS 'DWARF'	DWARF YEW	3'-0"	
		JC	6	6	12	JUNIPERUS COMMUNIS	COMMON JUNIPER		DWARF TYPE
		PM	40	0	40	PINUS MUGO	DWARF MUGO PINE	2'-0"	
GROUND COVER	SOD								
	MULCHES								
	WINTER CREEPER								

GENERAL NOTES:

1.) TOP SOIL:
TOPSOIL SHALL BE FERTILE, NATURAL LOAM, CONTAINING A LIBERAL AMOUNT HUMUS AND FREE OF ADMIXTURE OF SUBSOIL AND FREE OF QUACK GRASS ROOTS. IT SHALL BE REASONABLY FREE OF OBNOXIOUS WEED SEED, STONES, LUMPS PLANTS OR THEIR ROOTS, STICKS AND OTHER EXTRANEOUS MATTER, AND SHALL NOT BE USED FOR PLANTING OPERATION WHILE IN A FROZEN OR MUDDY CONDITION.

2.) MULCH:
SHREDDED BARK MULCH SHALL CONSIST OF A MIXED HARDWOOD SPECIES FINE IN TEXTURE OR MUSHROOM COMPOST. IMMEDIATELY AFTER PLANTING IS COMPLETED, ALL TREE PITS, SHRUBS, GROUND COVER AND PERENNIAL BEDS SHALL BE COVERED WITH 3" DEEP OF SPECIFIED MULCH INSIDE THE RIDGE OF SOIL.

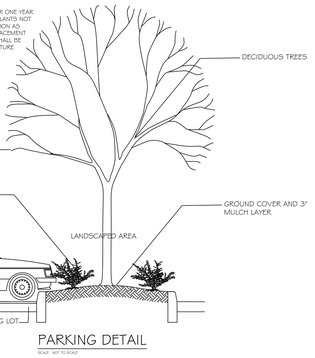
3.) PRUNING:
EACH TREE, SHRUBS SHALL BE PRUNED ACCORDING TO STANDARD HORTICULTURE PRACTICE TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL WEAK OR DAMAGED AND UNDESIRABLE BRANCHES, SUCKER, THOSE THAT DETRACT THE APPEARANCE OF THE PLANT SHALL BE REMOVED BY THINNING OUT AND SHORTENING BRANCHES. USE SHARP TOOLS FOR PRUNING. ANY CUT OVER 1" DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT OR COMPOUND TO COVER EXPOSED LIVING TISSUE. ANY COMPOUND WHICH MAY BE HARMFUL TO THE PLANTS ARE PROHIBITED.

4.) PROTECTION OF WORK AND CLEAN-UP:
REMOVAL OF ALL DEBRIS FROM THE PLANTING OPERATION SHALL BE PERFORMED EACH EVENING OF EVERY WORKING DAY. ALL DEBRIS SHALL BE COLLECTED AS THEY ARE UNCOVERED DURING CULTIVATION OPERATION AND SHALL BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION ALL ALL TIMES FOR ALL PLANTED AREA AGAINST TRESPASSING AND DAMAGE INCLUDING EROSION. MAINTENANCE OF THE PLANTS SHALL BE STARTED IMMEDIATELY AFTER PLANTING OF THE PLANTS.

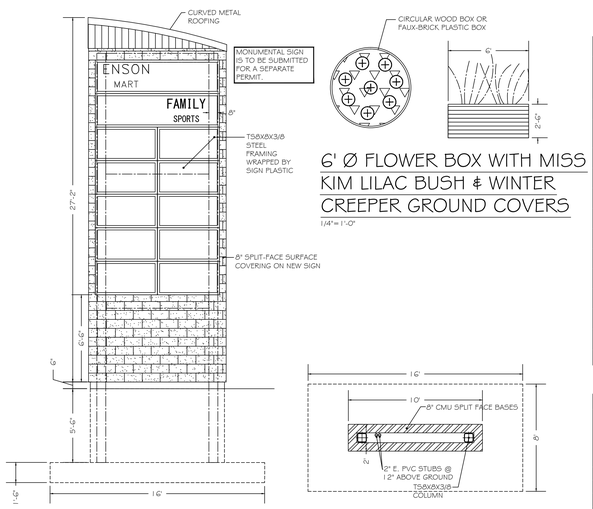
5.) GUARANTEE:
ALL PLANTED TREES, SHRUBS, ETC. SHALL BE GUARANTEED FOR ONE YEAR FROM ACCEPTANCE OF THE PLANTING. ALL DEAD PLANTS OR PLANTS NOT IN VIGOROUS THRIVING CONDITION SHALL BE REPLACED AS SOON AS WEATHER CONDITION PERMITTED. ALL PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME KIND AND SIZE AS SPECIFIED. THEY SHALL BE FURNISHED AND PLANTED IN ACCORDANCE GENERAL HORTICULTURE PRACTICE.

BIOSWALE PLANTING NOTES:

A MIXTURE OF THE FOLLOWING PLANTS TO BE USED:
CAREX VULPINOIDEA — BROWN FOX SEDGE
CAREX LUPULINA — COMMON HOP SEDGE
ECHINACEA PURPUREA — PURPLE CONE FLOWER
LIATRIS SPICATA — DENSE BLAZINGSTAR
RUDBECKIA SUBTOMENTOSA — SWEET BLACK-EYED SUSAN
ASTER NOVAE-ANGLIAE — NEW ENGLAND ASTER
LOBELIA SIPHILITICA — GREAT LOBELIA
PYCNANTHEMUM TENUIFOLIUM — NARROW LEAVED MOUNTAIN MINT
LOBELIA CARDINALIS — CARDINAL FLOWER
SPOROBOLUS HETEROLEPIS — PRAIRIE DROPSEED



PARKING DETAIL
SCALE: NOT TO SCALE



NEW MONUM. SIGN
1/4"= 1'-0"
(TO BE SUBMITTED FOR A SEPARATE SIGN PERMIT LATER)

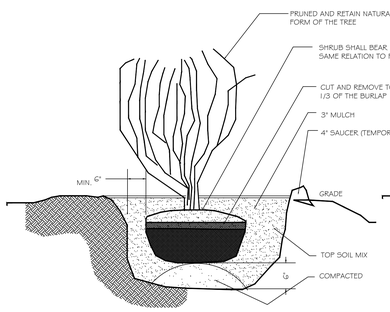
6' Ø FLOWER BOX WITH MISS KIM LILAC BUSH & WINTER CREEPER GROUND COVERS
1/4"= 1'-0"

TENANTS

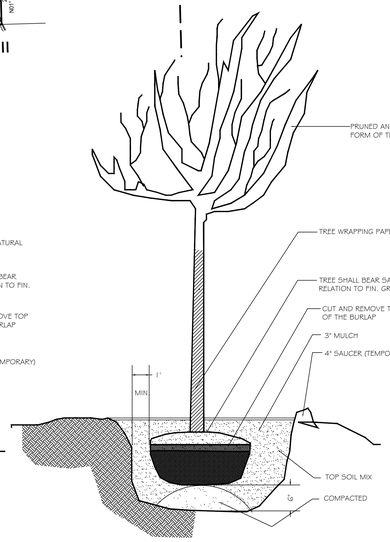
SUITE NO.	TENANT NAME	RENTAL AREA	TYPE OF USE	PARKING REQT	NO. OF PARKINGS	FACTORED LEASING AREA	REMARKS
1	ENSON MART	43,117	GROCERY	4 PER 1000 SF	172		
2	FAMILY ENTERTAINMENT CENTER	33,636	ATHLETIC SPORTS	5 PER 1000 SF	168		
3	DAISO	7,995	RETAIL	4 PER 1000 SF	32		
4	MANGO MANGO	1,138	RESTAURANT	10 PER 1000 SF	11		
5	GYU SAN JAPANESE BBQ	4,628	RESTAURANT	10 PER 1000 SF	46		
6	LAO SZE CHUAN & TE AMO	5,002	RESTAURANT	10 PER 1000 SF	50		
7	KYURAMEN	3,740	RESTAURANT	10 PER 1000 SF	37		
8	IZAKAYA NANA	7,125	RESTAURANT	10 PER 1000 SF	71		
9	SHANGHAI DUMPLINGS	3,236	RETAIL	4 PER 1000 SF	13		
10	AVAILABLE	3,236	RETAIL	4 PER 1000 SF	13		
11	CLAW MACHINE ARCADE	8,081	ARCADE	4 PER 1000 SF	32		
14,15	CORRIDOR & LOADING DOCK, COMMON	4,666	ACCESSORY	-			
SUMMARY		125600			647		

PARKING SUMMARY

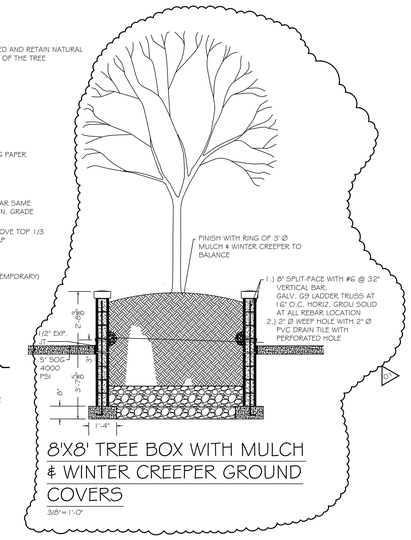
DIRECTION	ORIGINAL BUILDING AREA: 120688.4 @ 4/1000 SF	ORIGINAL BUILDING PARKINGS PROVIDED	NEW BUILDING AREA TOTAL AREA @ 125600 SF	NEW BUILDING AREA NO. OF PARKINGS	REMARKS
EAST	515 PARKINGS REQ'D	456	NEED 647 PARKINGS	409	VERIFY WITH CIVIL REQ'D
SOUTH		29		63	
WEST		0		0	
TOTAL	515	485	647	472	



TYPICAL BUSH PIT DETAIL
N.T.S.



TYPICAL TREE PIT DETAIL
N.T.S.



8'X8' TREE BOX WITH MULCH & WINTER CREEPER GROUND COVERS
3/8"= 1'-0"

ARCHITECT: RAY H.C. FANG
719 RED OAK DRIVE, BARTLETT, IL. 60103
630-765-9592, HCFANG001@GMAIL.COM
DEVELOPER/OWNER: PACIFICA PLAZA II
DEVELOPER PHONE: 1-630-352-7766
1450-1470 GOLF ROAD, ROLLING MEADOWS, IL. 60008

PROJECT NAME: PACIFICA PLAZA II @ ROLLING MEADOWS
PROJECT ADDRESS: 1458-1470 GOLF ROAD, ROLLING MEADOWS, IL. 60008

DRAWING CONTENTS: NEW LANDSCAPING PLAN, MONUMENTAL SIGN, L-DETAILS

REVISION LOGS

REV. NO.	DESCRIPTIONS	BY/DATE
0	FOR ZONING	RAY 12/13/2023
01	INCORP. COMMENTS	RAY 5/21/2024

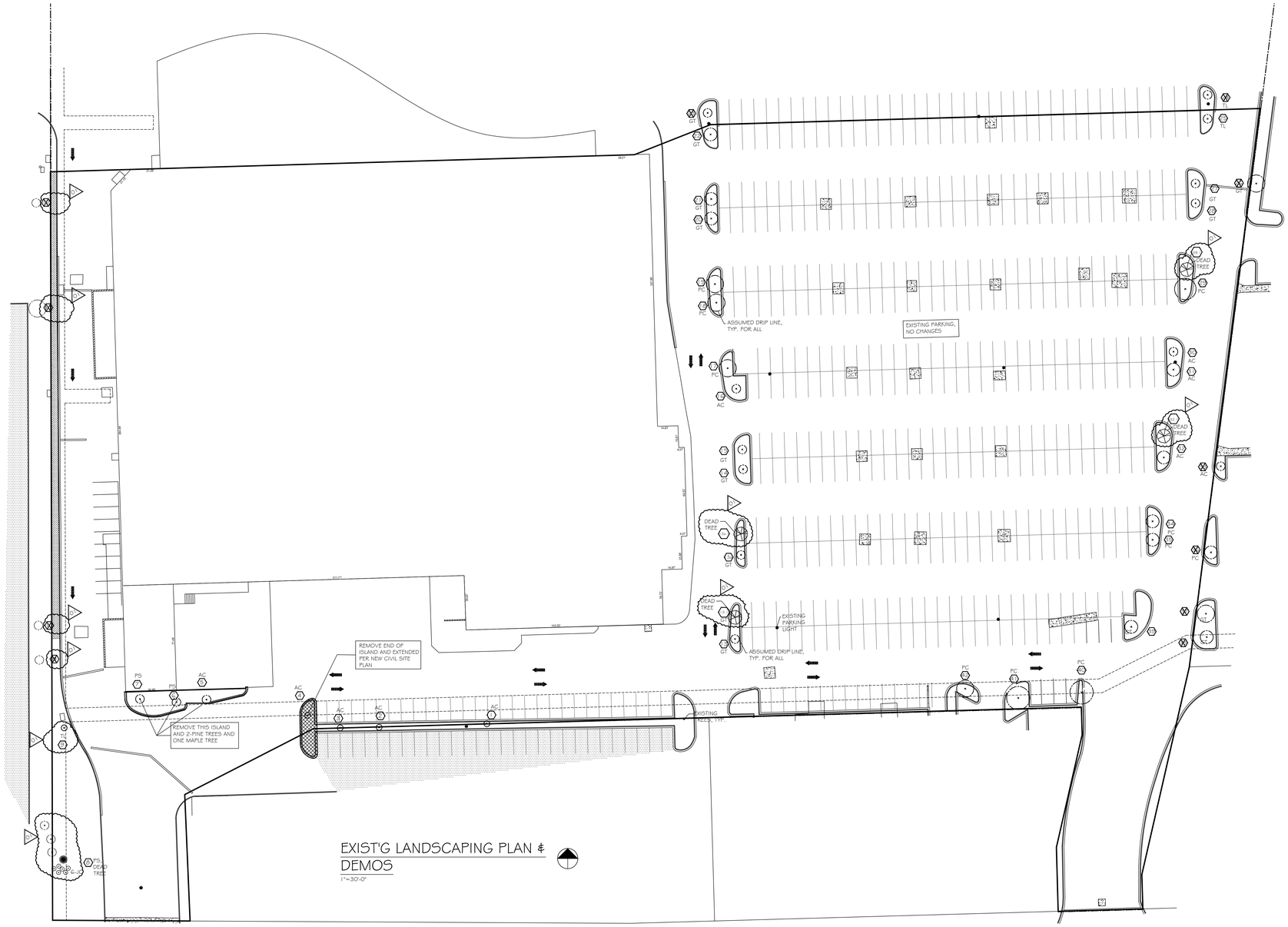
PREPARER: RAY — DATE: 3/13/2024
REVIEWER: EDDIE — DATE: 3/13/2024
APPROVER: — DATE:
PROJECT NUMBER: RM-01 — SCALE: AS SHOWN

REFERENCES:
FOR DETAILED SITE PLAN, SEE CIVIL DRAWINGS PREPARED BY RIDGELINE CONSULTANTS, LLC.

ARCHITECT STAMP:
HUNG-CHUN FANG 001-011348 REGISTERED ARCHITECT
EXP. 11/30/2024

DRAWING NO.: L-1

2024 COPYRIGHT



EXISTING LANDSCAPE DATA

SPECIES	SEQ. NO	TYPE	SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE	RATING	CONDITION	REMARKS
TREES	1	MAPLE	AC	ACER	MAPLE	4" Ø	1	GOOD	
	2	MAPLE	AC	ACER	MAPLE	4" Ø	1	GOOD	
	3	MAPLE	AC	ACER	MAPLE	4" Ø	1	POOR	
	4	MAPLE	AC	ACER	MAPLE	4" Ø	1	GOOD	DEMOLISHED
	5	MAPLE	AC	ACER	MAPLE	6" Ø	1	GOOD	DEMOLISHED
	6	PINE	PS	PINUS STROBUS	WHITE PINE	10'Ø	1	GOOD	DEMOLISHED
	7	PINE	PS	PINUS STROBUS	WHITE PINE	10'Ø	1	GOOD	DEMOLISHED
	8	PINE	PS	PINUS STROBUS	WHITE PINE	10'Ø	5	DEAD	
	9	LINDEN	TL	TILIA	LINDEN TREE	4" Ø	1	GOOD	
	[redacted]								
	13	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	4"Ø	1	GOOD	
	13.1	-	-	-	-	-	-	DEAD	TO BE REMOVED
	13a	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	4"Ø	1	GOOD	
	13a.1	-	-	-	-	-	-	DEAD	TO BE REMOVED
	14	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	4"Ø	1	GOOD	
	15	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	4"Ø	1	GOOD	
	16	MAPLE	AC	ACER	MAPLE	4" Ø	1	GOOD	
	17	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	10'Ø	1	GOOD	
	18	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	8'Ø	2	FAIR	
	19	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	8'Ø	2	FAIR	
	20	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	6"Ø	1	GOOD	
	21	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	6"Ø	1	GOOD	
	22	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	6"Ø	1	GOOD	
	[redacted]			TRIACANTHOS	LOCUST				
	26	LINDEN	TL	TILIA	LINDEN TREE	4" Ø	1	GOOD	
	27	LOCUST	GT	TRIACANTHOS	LOCUST	4"Ø	1	GOOD	
	28	LOCUST	GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	4"Ø	1	GOOD	
	29	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	10'Ø	2	FAIR	
	29.1	-	-	-	-	-	-	DEAD	TO BE REMOVED
	30	MAPLE	AC	ACER	MAPLE	4" Ø	3	POOR	TO BE REMOVED
	31	MAPLE	AC	ACER	MAPLE	6" Ø	2	FAIR	
	32	MAPLE	AC	ACER	MAPLE	6" Ø	1	GOOD	
	32.1	-	-	-	-	-	-	DEAD	TO BE REMOVED
	[redacted]								
	34	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	6"Ø	2	FAIR	
	35	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	6"Ø	2	FAIR	
	[redacted]			CALLERYANA					
	39	MAPLE	AC	ACER	MAPLE	6" Ø	1	GOOD	
	40	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	12"Ø	1	GOOD	TO BE REMOVED
	41	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	12"Ø	1	GOOD	
	42	PEAR	PC	PRYUS CALLERYANA	JACK PEAR	8"Ø	1	GOOD	

ARCHITECT:
RAY H.C. FANG
739 RED OAK DRIVE, BARTLETT, IL. 60103
630-766-9592, HCFANG00@AOL.COM
DEVELOPER/OWNER:
CODE NL 330-352-7766
1456-1470 GOLF RD, ROLLING MEADOWS, IL. 60008

PROJECT NAME:
PACIFICA PLAZA II @ ROLLING MEADOWS

PROJECT ADDRESS:
1456-1470 GOLF ROAD, ROLLING MEADOWS, IL. 60008

PACIFICA PLAZA II

DRAWING CONTENTS:
EXISTING LANDSCAPING PLAN & SUMMARY

REVISION LOGS

REV. NO	DESCRIPTIONS	BY/DATE
0	FOR ZONING	RAY 12/1/2023
01	INCORP. COMMENTS	RAY 5/21/2024

PREPARER: RAY — DATE: 3/13/2024
REVIEWER: EDDIE — DATE: 3/13/2024
APPROVER — DATE:
PROJECT NUMBER: RM-01 — SCALE: AS SHOWN

REFERENCES:
FOR DETAILED SITE PLAN, SEE CIVIL DRAWINGS PREPARED BY RIDGELINE CONSULTANTS, LLC.

ARCHITECT STAMP:
STATE OF ILLINOIS
HUNG-CHUN FANG
001-011348
REGISTERED ARCHITECT
EXP. 11/30/2024

DRAWING NO.:
L-2

2024 COPYRIGHT

Bioswale Plant List

Raingarden species are chosen to tolerate periods of inundation and survive drier conditions between storm events. Typically will not hold water longer than 24 hours.

Live plugs shall be planted in natural groupings within designed locations. Plants within groupings shall be planted at 2 foot centers.

Botanical Name	Common Name	lbs / AC	Plugs/AC	Location
Bouteloua curtipendula	Side Oats Grama	4.000	494	Slope Planting
Calamagrostis canadensis	Bluejoint Grass	0.031	494	Bottom Planting
Carex bebbii	Bebb's Oval Sedge	0.250	494	Bottom Planting
Carex vulpinoidea	Brown Fox Sedge	0.500	494	Bottom Planting
Echinacea purpurea	Purple Coneflower	0.500	494	Slope Planting
Glyceria striata	Fowl manna grass	0.250		
Liatris spicata	Marsh Blazing Star	0.250	494	Bottom Planting
Lobelia cardinalis	Cardinal Flower	0.063	494	Bottom Planting
Lobelia siphilitica	Great Lobelia	0.063		
Monarda fistulosa	Wild Bergamont	0.125		
Rudbeckia subtomentosa	Sweet Black-eyed Susan	0.250	494	Slope/Bottom Planting
Schizachyrium scoparium	Little Bluestem	3.000		
Solidago rigida	Stiff goldenrod	0.125	494	Slope/Bottom Planting
Sporobolus heterolepis	Prairie Dropseed	2.000	494	Slope Planting
Symphyotrichum novae-angliae	New England Aster	0.125		
	Total	**11.532**	**4940**	

1.0 INITIAL MAINTENANCE AND MONITORING

The proposed bioswale consists of a depressional area that temporarily holds water during high storm events. This area is to be seeded with a native seed mix and supplemented with live plugs as shown on the attached plan. The area will be monitored and maintained as described below. The landscape contractor will complete all work described in Section 1.1 below to establish the native areas. Monitoring requirements with Performance standards are noted in Section 1.2.

The native area shall be managed during establishment and in perpetuity.

1.1 SEEDED NATIVE AREA MAINTENANCE (3-YR PERIOD): Bioswale

A. Mowing shall be conducted in accordance with all applicable codes and by personnel with appropriate training in safety and use of the machinery. Mowing shall commence during late May/early June and subsequently four weeks apart or anytime a large number of weedy species begins to flower. Mowing shall be timed in a manner that prevents viable seed from being produced on site. Mowing shall be conducted with a conventional rotary mower, sickle type mower, or a flail type mower. To reduce thatch, at no time shall more than 6 inches (height) of vegetation be cut in a pass. Applicant shall ensure that cut materials are not allowed to drop seed or smother desired vegetation. On slopes that are too steep to mow, around structures, and in areas that are too wet to mow, mowing shall be conducted with the use of a hand-held brush cutter or weed-wacker only. Damage to landscape material or other structures shall be replaced/repaired by the Applicant.

1. First Growing Season: Native plantings shall be kept under 12 inches. Recommend budgeting for 5 mowings
2. Second Growing Season: Native planting areas shall be spot mown targeting non-native/ weedy species. If non-native/weedy species are dominant, native planting areas shall be kept mown at under 18 inches. Recommend budgeting for 3 mowings
3. Third Growing Season: Native planting areas shall be spot mown targeting non-native/ weedy species. If non-native/weedy species are dominant, native planting areas shall be kept mown at under 18 inches.

B. Herbicide application must be conducted by the Applicant on a consistent basis and must respond to seasonal weather and to the life cycle of each target species.

1. Spot Herbicide Applications - Small scattered populations or individual specimens of undesirable species shall be controlled with spot herbicide applications. Large-scale colonization shall not be allowed.
    i. Backpack Spray Treatments – Applicants shall utilize a 3-5 gallon backpack style sprayer such as Solo, SP2, Field King, or acceptable substitution

ii. Hand-wicking – IN areas of high-quality native vegetation where desirable species are directly adjacent to targeted plants or where the growth habit of the target plant makes it impossible to avoid off-target damage, the appropriate herbicide shall be selectively hand wiped onto the target plant utilizing a sponge-wicking applicator or a saturated cloth glove.

2. Broadcast Herbicide Applications - On a larger site where a broad-scale application is needed because large colonies of the target species have become established, broadcast applications by large tank-equipped spray-gun, all terrain vehicle or tractor may be utilized to treat undesirable species.
   i. Broad-spectrum Herbicide Broadcast Application – Large tank-equipped ATV equipped with a boom-sprayer to apply large amounts of glyphosate which will kill all vegetation
   ii. Selective Herbicide Broadcast Application – Large tank-equipped ATV equipped with a boom-sprayer to apply large amounts of a selective herbicide resulting in kill of targeted species

Annual M&M Schedule – Bioswale

Management Task	**Year**
Debris Management	Monthly

ACTIVITY	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Site Visit	X	X	X	X	X	X	X	X	X	X	X	X
Debris Management	X	X	X	X	X	X	X	X	X	X	X	X

Management Task	**Year**
Vegetation Maintenance	Monthly

ACTIVITY	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
WEED CONTROL					X				X			
NATIVE OVERSEEDING				X	X						X	X
SIDE SLOPE MOWING					X							
CATTAIL TREATMENT AND REMOVAL								X	X		X	

1.2 ANNUAL MONITORING

Annual inspections shall occur to remove debris and litter from the native areas. Stormwater structures shall be inspected for sediment buildup and debris.

A. Monitoring
Perform one (1) qualitative monitoring visit shall be conducted anytime during the months of May- September. A meander-search survey method will be utilized to gather the following data.
    1. Total, native, and non-native/weedy vegetation coverage throughout each planting zone.
    2. Plant inventory for entire site.

One (1) annual monitoring report shall be submitted to the County by January 31st.

B. Performance Criteria

1. 1st Full Growing Season: There shall be no bare areas greater than two (2) square feet in seeded areas. At least 25% of vegetation coverage shall be native, non-invasive species.

2. 2nd Full Growing Season: All areas shall exhibit full vegetative cover. At least 50% of the vegetation coverage shall be native, non-invasive species.

3. 3rd Full Growing Season: At least 85% of vegetation coverage shall be native, non-invasive species. Non-native species shall constitute no more than 10% relative aerial coverage of the planted area. Invasive species for this project shall include the following: Ambrosia artemisiifolia & trifida (Common & Giant Ragweed), Cirsium arvense (Canada Thistle), Dipsacus laciniatus (Cut-leaved Teasel), Dipsacus sylvestris (Common Teasel), Lythrum salicaria (Purple Loosestrife), Melilotus sp. (Sweet Clover), Phalaris arundinacea (Reed Canary Grass), Phragmites australis (Giant Reed), Fallopia japonica (Japanese Knotweed), Rhamnus cathartica & frangula (Common & Glossy Buckthorn), Typha sp. (Broadleaf, Narrowleaf, and Hybrid Cattail). Edit as necessary based on project specifics.



Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Lumens	Watts	Description
	2	R3_HS	Single	1.000	11481	133.14	RSX1 LED P4 40K R3 HS
	1	R5	Single	1.000	16793	133.14	RSX1 LED P4 40K R5
	8	R5-2	2 @ 180°	1.000	16793	133.14	RSX1 LED P4 40K R5
	6	WM-R3	Single	1.000	16359	133.14	RSX1 LED P4 40K R3
	13	WM-R4	Single	1.000	16573	133.14	RSX1 LED P4 40K R4

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.71	10.7	0.0	N.A.	N.A.
Property Line	Illuminance	Fc	0.71	5.1	0.0	N.A.	N.A.

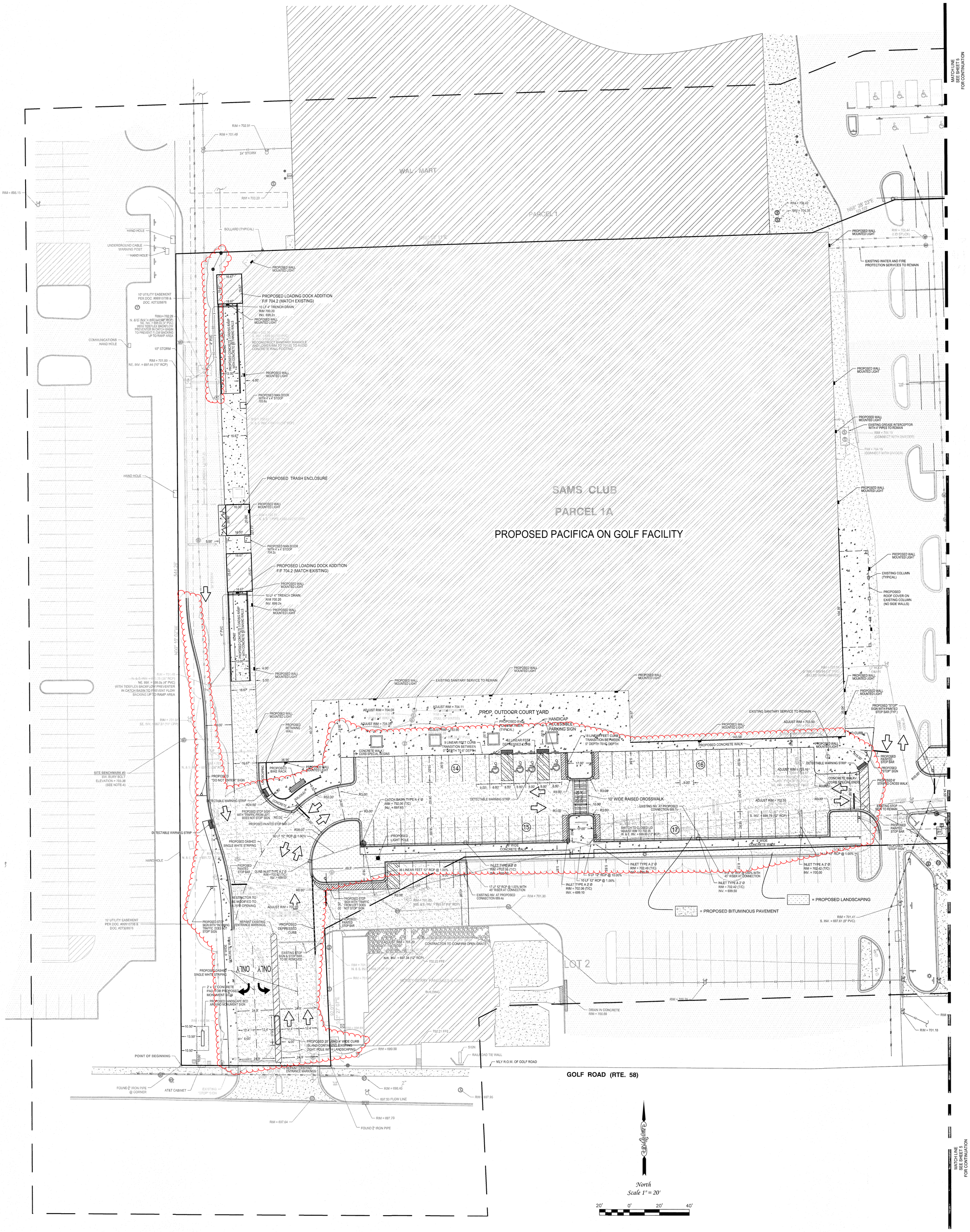
**This document contains confidential and proprietary information of KSA Lighting & Controls. This document may only be used by or for the benefit of KSA Lighting & Controls representatives and customers. This lighting layout is not a professional engineering drawing and is provided for informational purposes only, without warranty as to accuracy, completeness, reliability or otherwise. KSA Lighting & Controls is not responsible for specifying the light fixtures or illumination requirements for any specific project, nor is it responsible for meeting municipal or building code requirements. It is the obligation of the end-user to consult with a professional engineering advisor to determine whether this lighting layout meets the applicable project requirements for lighting system performance, safety, suitability and effectiveness for use in a particular application. Field verification is recommended when calculations are based on end-user or customer-provided information. End-user environment and application (including, but not limited to, voltage variation and dirt accumulation) can cause actual field performance to differ from the calculated photometric performance represented in this lighting layout. In no event will KSA Lighting & Controls be responsible for any loss resulting from any use of this drawing.

Notes :
1. Calculation Work Plane : Grade
2. Fixture Mounting Height : AS NOTED
3. Calculation Point Spacing : 10'x10'

KSA LIGHTING & CONTROLS

Pacifica on Golf, Rolling Meadows

Drawn By: Ben Foster
Date:2/5/2024
Notes :



North
Scale 1" = 20'

20' 0' 20' 40'

NOTES:

1) ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2) ALL PROPOSED CURBS ARE B6.12 COMBINATION CONCRETE CURB AND GUTTER EXCEPT THOSE ON THE SOUTH EDGE OF CONCRETE WALK/OUTDOOR COURTYARD WHERE CONCRETE WALK/CURB SPECIAL IS PROPOSED. SEE SHEET 8 FOR DETAILS

NOTE:

TOTAL NUMBER OF PARKING STALLS PROVIDED = 463 INCLUDING 9 HANDICAP ACCESSIBLE PARKING STALLS

INCLUDING ALL PARKING STALLS LOCATED ENTIRELY WITHIN PROPERTY BOUNDARY, AND EXCLUDING 13 SPACES NORTH OF BUILDING IN LOT 3 AND 5 SPACES NORTH OF BULLDOG ALE HOUSE.

SHEET 4 OF 10

SITE & UTILITY PLAN

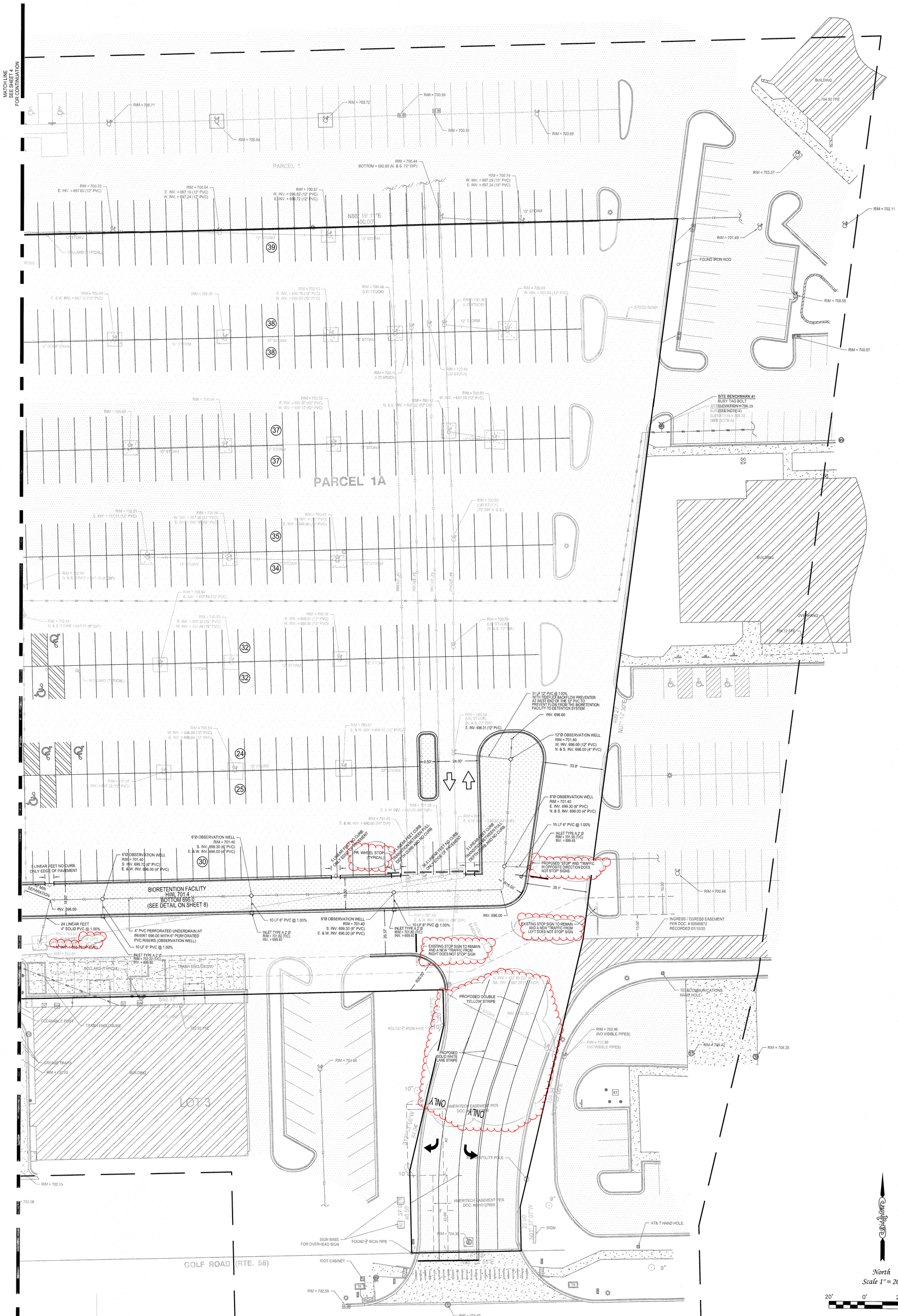
PROPERTY ADDRESS: PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline CONSULTANTS
CONSULTING ENGINEERS - LAND SURVEYORS

Ridgeline Consultants LLC
Illinois Professional Design Firm No. 184-004766
1661 Aucutt Road, Montgomery, IL 60538
PH: 630.801.7927 FAX: 630.701.1385
Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
George H. Skulavik P.L.S. 2580 Expiration Date 11/30/2024
Stacy L. Stewart P.L.S. 3415 Expiration Date 11/30/2024

REVISION	DATE	DESC
1	01/31/2024	PER CITY OF ROLLING MEADOWS REVIEW DATED 10/06/2023 (REW)
2	02/26/2024	ADDED TRASH ENCLOSURE, LOADING DOCK & RAMP AND UPDATED TRAFFIC SIGNAGE (REW)
3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)
4	05/22/2024	GENERAL REVISION IN PREPARATION FOR PUBLIC HEARING (KS)

BOOK: DWG. SIZE: E
DRAWN: KS CHECKED: JGL
REFERENCE:
DATE: 08/08/2023
PROJECT NO. 2022-0717



NOTES:

1) ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

2) ALL PROPOSED CURBS ARE B6.12 COMBINATION CONCRETE CURB AND GUTTER EXCEPT THOSE ON THE SOUTH EDGE OF CONCRETE WALK/OUTDOOR COURTYARD WHERE CONCRETE WALK /CURB SPECIAL IS PROPOSED. SEE SHEET 8 FOR DETAILS.

   FOR B6.12 FULL DEPTH REGULAR PITCH CURB & GUTTER: T/C = PAVEMENT + 0.42' = GUTTER + 0.50'
   FOR B6.12 FULL DEPTH REVERSED PITCH CURB & GUTTER: T/C = PAVEMENT + 0.56' = GUTTER + 0.50'
   FOR B6.12 DEPRESSED REGULAR PITCH CURB & GUTTER: T/C = PAVEMENT + 0.04' = GUTTER + 0.12'
   FOR B6.12 DEPRESSED REVERSED PITCH CURB & GUTTER: T/C = PAVEMENT + 0.18' = GUTTER + 0.12'
   FOR B6.12 DEPRESSED REGULAR PITCH CURB & GUTTER AT HANDICAP ACCESSIBLE RAMP: T/C = PAVEMENT - 0.01' = GUTTER + 0.04'
   FOR B6.12 DEPRESSED REVERSED PITCH CURB & GUTTER AT HANDICAP ACCESSIBLE RAMP: T/C = PAVEMENT + 0.09' = GUTTER + 0.04'

3) SEE LANDSCAPE PLAN FOR THE DESIGN OF MONUMENT SIGN AT WEST ENTRANCE OFF GOLF ROAD.

4) ALL EXISTING ASPHALT DRIVES & PARKING SPACES WITHIN THE PROPERTY HOLDING, INCLUDING TWO ENTRANCES OFF GOLF ROAD, ARE TO BE COLD MILLED 1.5" BITUMINOUS CONCRETE SURFACE COURSE, PATCHED AS NEEDED, AND RE-PAVED WITH APPROPRIATE TACK COAT AND NEW 1.5" BITUMINOUS CONCRETE SURFACE COURSE BEFORE APPLYING NEW STRIPING.

5) INDIVIDUAL SERVICES IN AN INTERIOR ROOM SHALL BE EQUIPPED WITH LOCKING WINGNUT VALVES BEFORE THE METERS AN THAT THE CITY SHALL BE PROVIDED WITH A KEY TO THE ROOM FOR EMERGENCY ACCESS.

SHEET 5 OF 10

SITE & UTILITY PLAN

PROPERTY ADDRESS: PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline CONSULTANTS
CONSULTING ENGINEERS • LAND SURVEYORS

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Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
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3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)
4	05/22/2024	GENERAL REVISION IN PREPARATION FOR PUBLIC HEARING (KS)

BOOK: DWG. SIZE: E
DRAWN: KS CHECKED: JGL
REFERENCE:
DATE: 08/08/2023
PROJECT NO. 2022-0717

LOT COVERAGE TABULATION WITHIN DEVELOPMENT AREA					
	EXISTING		PROPOSED		
PERVIOUS	0.03 ACRES	2.0%	0.21 ACRES	16.3%	
IMPERVIOUS	1.25 ACRES	98.0%	1.07 ACRES	83.7%	
TOTAL	1.28 ACRES	100%	1.28 ACRES	100%	

WAL - MART

PARCEL 1

N88° 19' 11"E
425.90'

N68° 28' 23"E
59.50'

MATCH LINE
SEE SHEET 7
FOR CONTINUATION

PROPOSED WALL MOUNTED LIGHT

EXISTING WATER AND FIRE PROTECTION SERVICES TO REMAIN

SITE BENCHMARK #2
NE BOLT
ELEVATION = 704.77
(SEE NOTE 4)

PROPOSED LOADING DOCK ADDITION
F/F 704.2 (MATCH EXISTING)

4" TRENCH DRAIN
RIM 700.20

PROPOSED CONCRETE LOADING RAMP WITH CONCRETE RETAINING WALLS

PROPOSED MAN DOOR WITH 4' x 4' STOOP
703.6±

PROPOSED TRASH ENCLOSURE

PROPOSED MAN DOOR WITH 4' x 4' STOOP
704.2±

10' UTILITY EASEMENT
PER DOC. #99910798 &
DOC #27328878

COMMUNICATIONS HAND HOLE

HAND HOLE

SAMS CLUB

PARCEL 1A

PROPOSED PACIFICA ON GOLF FACILITY

DEVELOPMENT AREA
(- - - - -) (TYPICAL)
58,716 SF = 1.35 ACRES

PROPOSED BOLLARD (TYPICAL)

PROPOSED EXISTING COLUMN (TYPICAL)

PROPOSED ROOF COVER ON EXISTING COLUMN (NO SIDE WALLS)

PROP. OUTDOOR COURT YARD

PROPOSED EXIST. PLANTER AREA (TYPICAL)

9 LINEAR FEET CURB TRANSITION BETWEEN 0" DEPTH TO 6" DEPTH

52 LINEAR FEET DEPRESSED CURB

18 LINEAR FEET CURB TRANSITION BETWEEN 0" DEPTH TO 6" DEPTH

PROPOSED CONCRETE WALK

DETECTABLE WARNING STRIP

10 LINEAR FEET CURB TRANSITION BETWEEN 6" DEPTH CURB TO 6" FULL DEPTH CURB

CONCRETE WALK / CURB SPECIAL ENDS

CONCRETE WALK / CURB SPECIAL BEGINS

WALL BEGINS
T/W=704.14
B/W=702.80

WALL ENDS
T/W=703.83
B/W=703.83

PROPOSED RETAINING WALL

PROPOSED "DO NOT ENTER" SIGN

TEMPORARY CONCRETE WASHOUT

STABILIZED CONSTRUCTION ENTRANCE

OVERLAND FLOW ROUTE 701.50

RIDGELINE (OVERFLOW)

PROPOSED DEPRESSED CURB

EXISTING STOP SIGN & STOP BAR TO BE REMOVED

PROPOSED LIGHT POLE

= PROPOSED BITUMINOUS PAVEMENT

LOT 2

HONEY BERRY PANCAKES & CAFE
BUILDING

SIGN

RAILROAD TIE WALL

N'LY R.O.W. OF GOLF ROAD

GOLF ROAD (RTE. 58)

AT&T CABINET

EXISTING "STOP" SIGN

SITE BENCHMARK #3
SW BURY BOLT
ELEVATION = 703.36
(SEE NOTE 4)

MATCH LINE
SEE SHEET 7
FOR CONTINUATION

North
Scale 1" = 20'

20' 0' 20' 40'

SHEET 6 OF 10

GRADING & EROSION CONTROL PLAN

PROPERTY ADDRESS:
PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

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BOOK: DWG. SIZE: E
DRAWN: KS CHECKED: JGL
REFERENCE:
DATE: 08/08/2023
PROJECT NO. 2022-0717

MATCH LINE
SEE SHEET 6
FOR CONTINUATION

PARCEL 1

PARCEL 1A

LOT 3

BOLLARD (TYPICAL)

N88° 19' 11"E
400.00'

SPEED BUMP

BUILDING

704.50 FFE

SITE BENCHMARK #1
BURY TAG BOLT
(SEE NOTE 4)
ELEVATION = 704.59
(SEE NOTE 4)

BUILDING

OVERHANG

704.12 FFE

DEVELOPMENT AREA
( ) (TYPICAL)
58,716 SF = 1.35 ACRES

HWL OF EXISTING PARKING LOT DETENTION 701.5
(FROM MARKET PLACE PLAN AND CONVERTED TO CURRENT PROJECT DATUM)

5 LINEAR FEET NO CURB.
ONLY EDGE OF PAVEMENT

5 LINEAR FEET NO CURB
ONLY EDGE OF PAVEMENT

6 LINEAR FEET CURB
TRANSITION BETWEEN FULL
DEPTH CURB AND NO CURB

36.5 LINEAR FEET NO CURB
ONLY EDGE OF PAVEMENT

5 LINEAR FEET CURB
TRANSITION BETWEEN FULL
DEPTH CURB AND NO CURB

BIORETENTION FACILITY
HWL 701.4
BOTTOM 695.0
(SEE DETAIL ON SHEET 7)

HWL 701.4

TRASH ENCLOSURE

BOLLARD (TYPICAL)

CLEARANCE POST

TRASH ENCLOSURE

BOLLARD (TYPICAL)

702.93 FFE

GREASE TRAPS

BUILDING

N88° 22' 53"E
558.97'

S00° 40' 27"E
20.14'

S12° 53' 06"W
84.04'

S00° 37' 07"W
785.00'

N00° 37' 07"W
825.00'

N00° 14' 30"E
1103.27'

N88° 22' 53"E
618.53'

AMERITECH EASEMENT PER
DOC. #91012699

ONLY

UTILITY POLE

SIGN BASE
FOR OVERHEAD SIGN

SIGN

RIM = 704.36

RIM = 703.40

IDOT CABINET

GOLF ROAD (RTE. 58)

INGRESS / EGRESS EASEMENT
PER DOC. # 00568872
RECORDED 07/10/20

TELECOMMUNICATIONS
HAND HOLE

AT&T HAND HOLE

RIM = 706.28

MATCH LINE
SEE SHEET 6
FOR CONTINUATION

North
Scale 1" = 20'

20' 0' 20' 40'

SHEET 7 OF 10

GRADING & EROSION CONTROL PLAN

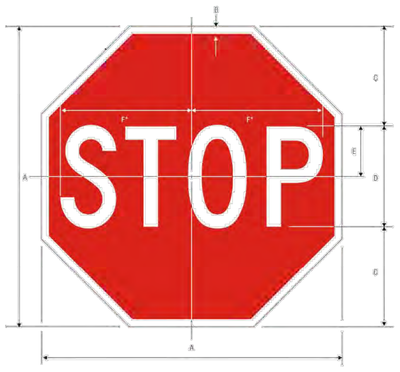
PROPERTY ADDRESS:
PACIFICA ON GOLF
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ROLLING MEADOWS, ILLINOIS

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3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)

BOOK:
DRAWN: KS
CHECKED: JGL
REFERENCE:
DATE: 08/08/2023
PROJECT NO. 2022-0717
DWG. SIZE: E



R1-1
STOP

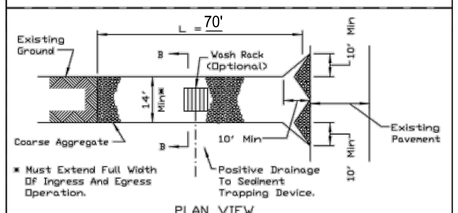
*Reduce spacing 40%

	A	B	C	D	E	F
	18	.375	6	6 C	3	7.75
	24	.625	8	8 C	4	10
C	30	.75	10	10 C	5	12.5
	36	.875	12	12 C	6	15
	48	1.25	18	18 C	8	20

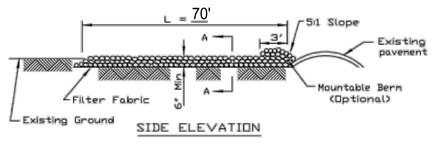
COLORS: LEGEND — WHITE (RETROREFLECTIVE)
BACKGROUND — RED (RETROREFLECTIVE)

1-1

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



SIDE ELEVATION

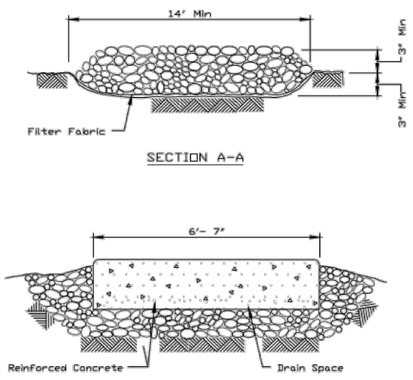
NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-630
SHEET 1 OF 2
DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-630
SHEET 2 OF 2
DATE 8-18-94

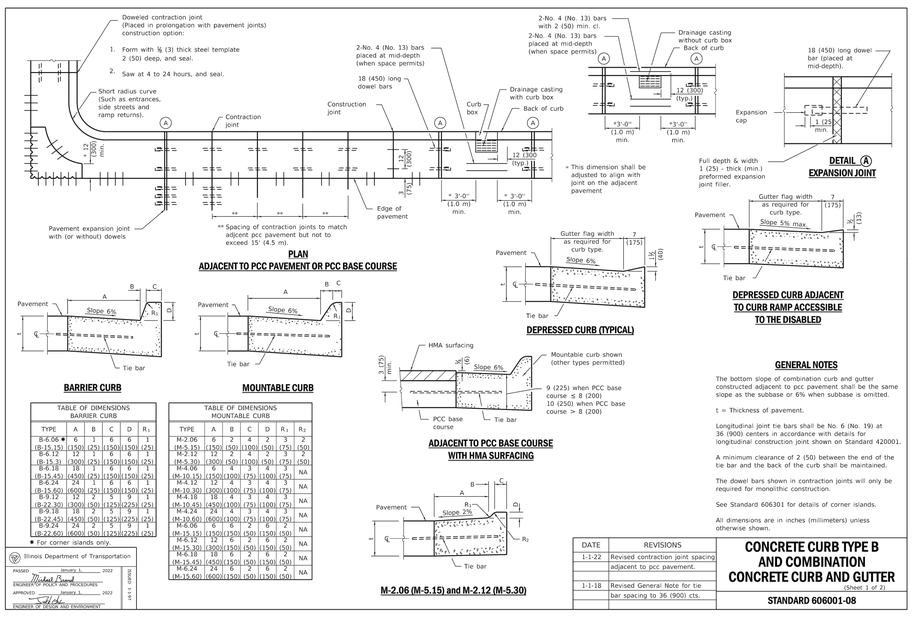


TABLE OF DIMENSIONS BARRIER CURB

TYPE	A	B	C	D	R1
B-6.06 *	6	7	6	3	3
(B-15.15)	(150)	(25)	(150)	(150)	(25)
B-6.12	12	7	6	3	3
(B-15.30)	(300)	(25)	(150)	(150)	(25)
B-6.18	18	7	6	3	3
(B-15.45)	(450)	(25)	(150)	(150)	(25)
B-6.24	24	7	6	3	3
(B-15.60)	(600)	(25)	(150)	(150)	(25)
B-9.12	12	7	9	3	3
(B-22.30)	(300)	(50)	(225)	(225)	(25)
B-9.18	18	7	9	3	3
(B-22.45)	(450)	(50)	(225)	(225)	(25)
B-9.24	24	7	9	3	3
(B-22.60)	(600)	(50)	(225)	(225)	(25)

* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB

TYPE	A	B	C	D	R1	R2
M-2.06	6	2	6	2	3	3
(M-5.15)	(150)	(50)	(100)	(50)	(75)	(50)
M-2.12	12	2	6	2		
(M-5.30)	(300)	(50)	(100)	(50)	(75)	(50)
M-4.06	6	4	6	4	3	NA
(M-10.15)	(150)	(100)	(150)	(100)	(75)	
M-4.12	12	4	6	4		NA
(M-10.30)	(300)	(100)	(150)	(100)	(75)	
M-4.18	18	4	6	4		NA
(M-10.45)	(450)	(100)	(150)	(100)	(75)	
M-4.24	24	4	6	4		NA
(M-10.60)	(600)	(100)	(150)	(100)	(75)	
M-6.06	6	6	2	6		NA
(M-15.15)	(150)	(150)	(50)	(150)	(50)	
M-6.12	12	6	2	6		NA
(M-15.30)	(300)	(150)	(50)	(150)	(50)	
M-6.18	18	6	2	6		NA
(M-15.45)	(450)	(150)	(50)	(150)	(50)	
M-6.24	24	6	2	6		NA
(M-15.60)	(600)	(150)	(50)	(150)	(50)	

Illinois Department of Transportation
PASSED January 1, 2022 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2022 — ENGINEER OF DESIGN AND ENVIRONMENT
07-11-18 C06001

DATE	REVISIONS
1-1-22	Revised contraction joint spacing
	adjacent to pcc pavement.
1-1-18	Revised General Note for tie
	bar spacing to 36 (900) cts.

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 1 of 2)

STANDARD 606001-08

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 36 (900) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

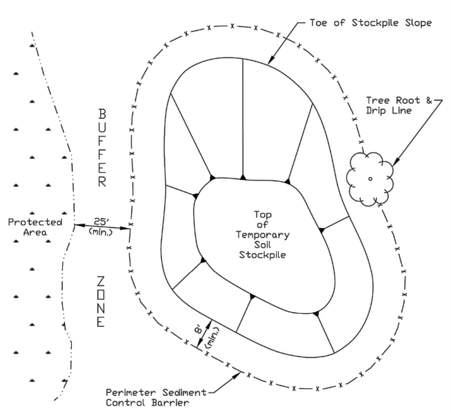
A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

See Standard 606301 for details of corner islands.

All dimensions are in inches (millimeters) unless otherwise shown.

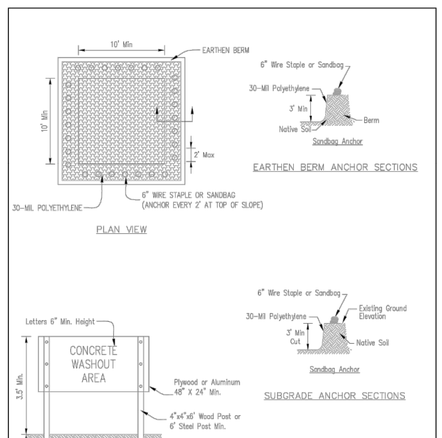
TEMPORARY SOIL STOCKPILE DETAIL



NOTES:
1. Stockpile slopes should be based on angle of repose of the soil material to avoid potential sloughing of the slope.
2. Soil stockpile to be stabilized in accordance with practical standards.
3. Do not locate stockpile within overland drainage flow path, designated floodways, drip line or over the root crown of adjacent trees.
4. Provisions for sediment control practices may be required along haul roads and entrance/exit locations for access the soil stockpile that can create flow path for stormwater runoff.
5. Installation of benches, terraces, or slope interrupters should be considered.
6. Avoid building soil stockpiles on impervious surfaces.
7. Linear sediment trap surrounding the stockpile base may be used to control sediment.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO. IUM-627
SHEET 1 OF 1
DATE JANUARY 2017



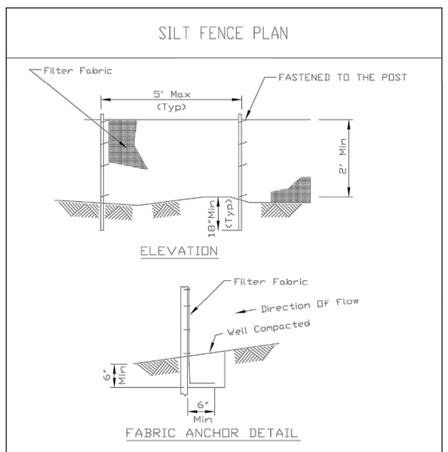
NOTES:
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

6" PVC Pipe	10 Bollards	2.0 Ø Pipe	Wall

TEMPORARY CONCRETE WASHOUT FACILITY — EARTHEN TYPE

Designed _____ Date _____
Drawn S. Chevalier _____ 4/2018
Checked _____ Date _____
Approved _____ Date _____

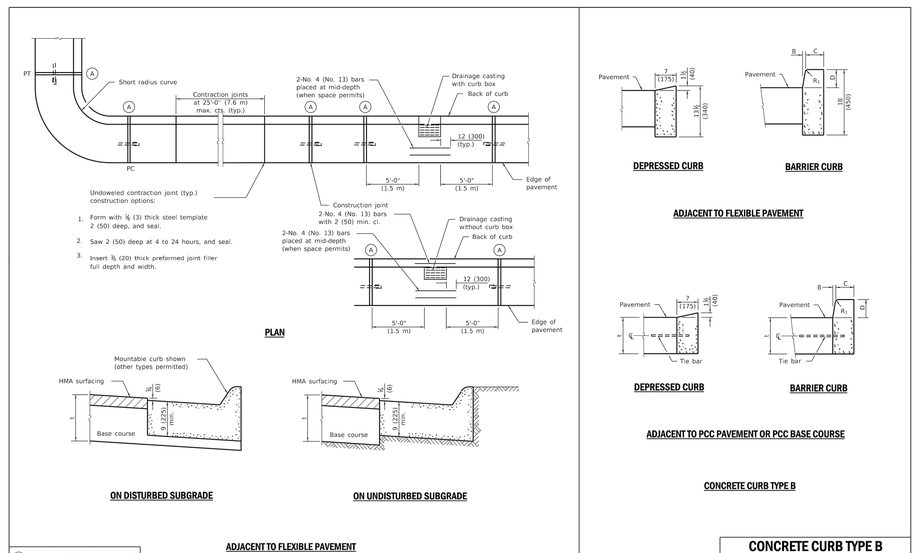
SILT FENCE PLAN



NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2.
3. Fence posts shall be either standard steel post or wood post 2" X 2" nominal.

REFERENCE
Project
Designed _____ Date _____
Checked _____ Date _____
Approved _____ Date _____

STANDARD DWG. NO. IUM-620A
SHEET 1 OF 2
DATE 04-15-2021



Illinois Department of Transportation
PASSED January 1, 2022 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2022 — ENGINEER OF DESIGN AND ENVIRONMENT
07-11-18 C06001

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

STANDARD 606001-08

Accessible Parking Signs (for parking lots subject to the Illinois Vehicle Code) shall comply with the R 7-8 sign shown in figure 502.6(a) (U.S. Department of Transportation Standard). Existing signs may remain, but their useful lives shall not be extended by other means than normal maintenance.



Legend and Border—Pantone 340C
International Symbol of Accessibility—White on Pantone 286 Background
Background—White
Reduce Spacing 80%

Note:
This is a standard sign and may be ordered from any traffic sign supplier by number.
The arrow may be
- *Omitted if there is only one accessible space.*
- *Made to point in one direction.*
- *Replaced by a range of time such as "9 AM-5 PM" where a part-time restriction exists.*

The sign must be supplemented with the Illinois Standard R7-I101 plate showing the amount of the fine for illegally parking in the reserved accessible space(s).

Figure 502.6 (a)
Parking Sign

ILLINOIS STANDARD
R7-I101P



COLOR	LEGEND AND BORDER	GREEN	REFLECTORIZED
	BACKGROUND	WHITE	REFLECTORIZED

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
12 X 6	12.00	6.00	1.50	10.00	4.25

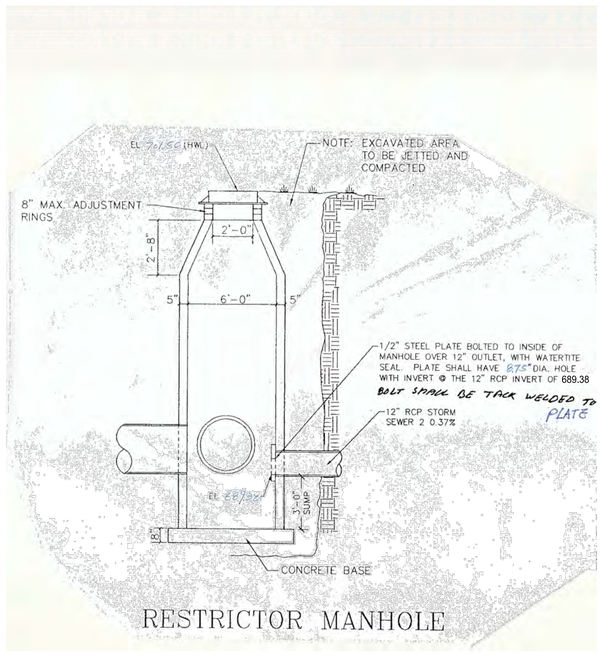
SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
	1		
12 X 6	2.5 B	0.375	0.438

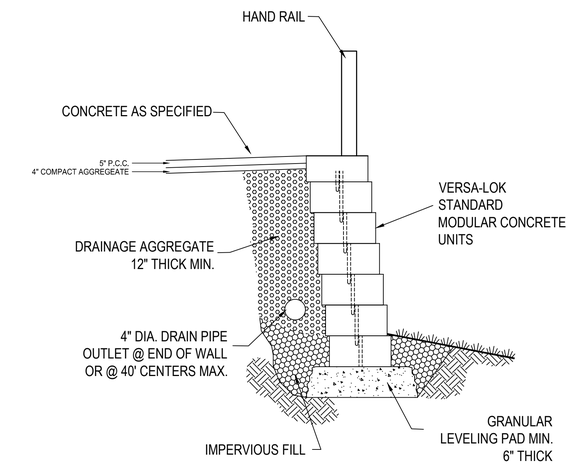
All dimensions in inches. Sign not to scale.

Where a fine in excess of $250 is established by an agency in accordance with the statutes, the actual amount of the fine should be shown.

This plate may be mounted directly below the R7-8 sign or combined with that sign on a single 12 inch by 24 inch sign (R7-I101).

Figure 502.6 (b)
Parking Fine Sign





TYPICAL SECTION-UNREINFORCED RETAINING WALL

SOIL PROTECTION CHART

STABLIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C			*	D*					
SODDING			E**									
MULCHING	F											

A. KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH PERENNIAL RYEGRASS 30 LBS/AC
B. KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENNIAL RYEGRASS 45 LBS/AC + 2 TONS STRAW MULCH/AC
C. SPRING OATS 100 LBS/AC
D. WHEAT OR CEREAL RYE 150 LBS/AC
E. SOD
F. STRAW MULCH 2 TONS/AC

* IRRIGATION NEEDED DURING JUNE AND JULY

** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

OWNER'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

OWNER

SIGNATURE _____ TITLE _____ DATE _____

COMPANY _____

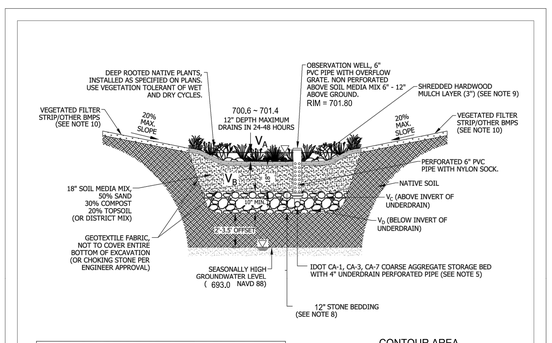
CONTRACTOR'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR 10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

GENERAL CONTRACTOR

SIGNATURE _____ TITLE _____ DATE _____

COMPANY _____



BOTTOM OF THE FACILITY:	ELEV.	695.0
SEASONALLY HIGH GROUNDWATER SEPARATION:	ELEV.	693.0
	FEET	2.0'

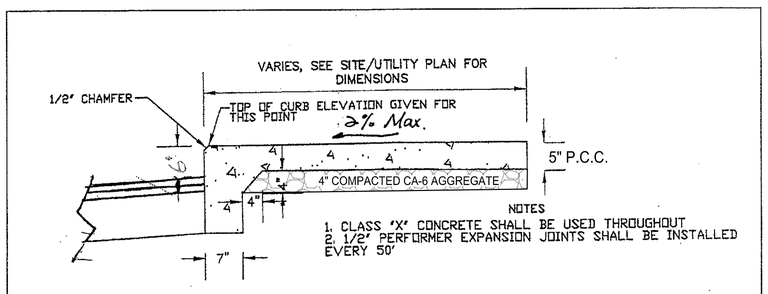
CONTOUR AREA
701.4 = 5,300 SF
700.6 = 3,094 SF

VOLUME TYPE	SURFACE AREA	DEPTH	POROSITY	STORAGE VOLUME	VOLUME PROVIDED
V_A : SURFACE STORAGE	4,197	0.8'	1.00	1.00 X V_A	3,358
V_B : SOIL MEDIA MIX	4,197	1.5'	0.25	0.50 X 0.25 X V_B	787
V_C : COARSE AGGREGATE (ABOVE INVERT)	4,197	3.1'	0.36	0.50 X 0.36 X V_C	2,342
V_D : COARSE AGGREGATE (BELOW INVERT)	4,197	1'	0.36	0.36 X V_D	1,511
				TOTAL	7,998

NOTES:
1. THE PERIMETER OF THE VOLUME CONTROL FACILITY SHALL MAINTAIN THE MINIMUM HORIZONTAL SEPARATION DISTANCE OF: 10-FEET FROM FOUNDATIONS, UNLESS WATERPROOFED; 20-FEET FROM ROADWAY GRAVEL SHOULDER; AND 100-FEET FROM POTABLE WATER WELLS, SEPTIC TANKS/FIELDS, OR OTHER UNDERGROUND TANKS.
2. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED WITHIN THE VOLUME CONTROL FACILITY. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED BELOW THE FOOTPRINT OF THE VOLUME CONTROL FACILITY. WHEN LOCAL CONDITIONS PREVENT THE SEWER FROM BEING LOCATED OUTSIDE THE FOOTPRINT OF THE FACILITY THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN QUALITY STANDARDS, OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
3. AVOID INSTALLATION ON SLOPES GREATER THAN 3.00%. AVOID COMPACTING NATIVE SOILS. SCARIFY ANY COMPACTED SOIL.
4. GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592. FOR WOVEN: APPARENT OPENING SIZE OF 0.50 MM (TABLE 1, CLASS I). FOR NON WOVEN: APPARENT OPENING SIZE OF 0.30 MM (TABLE 2, CLASS II).
5. STONE STORAGE OPTIONS ARE IDOT CA-1, CA-3, CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
6. MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
7. UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. NO MORE THAN 1 UNDERDRAIN EVERY 30 FEET ON CENTER. PROVIDE A SOIL REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FOREGO UNDERDRAINS. NO FILTER FABRIC COVER/SOCK.
8. MINIMUM UNDERDRAIN BEDDING OF 2 INCHES, MAXIMUM OF 12 INCHES.
9. MULCH LAYER SHALL BE HARDWOOD MULCH OR OTHER NON-FLOATING GROUND COVER.
10. FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.

NOT TO SCALE

TECHNICAL GUIDANCE MANUAL — 10/11/18
BIORETENTION FACILITY DETAIL — STD. DWG. NO.1 — PAGE NO.1



CONCRETE WALK/CURB SPECIAL

SHEET 8 OF 10

CONSTRUCTION DETAILS

PROPERTY ADDRESS: PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline CONSULTANTS
CONSULTING ENGINEERS · LAND SURVEYORS

Ridgeline Consultants LLC
Illinois Professional Design Firm No. 184-004766
1661 Aucutt Road, Montgomery, IL 60538
PH: 630.801.7927 FAX: 630.701.1385
Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
George H. Skulavik P.L.S. 2580 Expiration Date 11/30/2024
Stacy L. Stewart P.L.S. 3415 Expiration Date 11/30/2024

REVISION	DATE	DESC	BOOK:	DWG. SIZE: E
1	01/31/2024	PER CITY OF ROLLING MEADOWS REVIEW DATED 10/06/2023 (REW)	DRAWN: KS	CHECKED: JGL
2	02/26/2024	ADDED TRASH ENCLOSURE, LOADING DOCK & RAMP AND UPDATED TRAFFIC SIGNAGE (REW)	REFERENCE:	
3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)	DATE: 08/08/2023	
			PROJECT NO.	2022-0717

GRANITE environmental

Coir Logs





Coir logs are a strong, natural, & flexible product that have been used for **stabilization and re-vegetation** in locations with steep slopes or in areas that have a high exposure to waves or currents. Built from all natural coconut coir fiber & wrapped in coir mesh netting, these coir logs are **excellent way to reinforce, stabilize or control erosion.**

Perfect for use in:

- Check Dams
- Stabilization Along Shores
- River Bank Support
- Beach Restoration
- Stream Stabilization
- Vegetative Re-growth
- Marsh Restoration
- Slope Stabilization

Typical Coir Log Specifications
(other sizes, materials, etc. available)

Type	Diameter	Density	Length	Material Used	Eye Size
Rolanka™	12", 16" or 20"	7 lbs/cu ft. or 9 lbs/cu ft.	10 ft	Coir twine & coir fiber	-
Hayley's™	30 cm	-	3 m or 4 m	Coir twine & Polyethylene	25 mm x 50 mm

GRANITE environmental

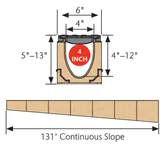
Product Solutions for a Cleaner World

P.O. Box 780928 Sebastian, FL 32978 Toll Free: (1) 888.703.9889 Fax: (+1) 772.589.3343 Int: (+1) 772.646.0597 Info@GraniteEnvironmental.com
www.GraniteEnvironmental.com

PowerDrain S100K

4" Internal Width Heavy Duty System





S100K is a 4" wide system with choice of Class F (90 ton) slotted or ADA compliant longitudinal ductile iron grates featuring PowerLok patented boltless locking system. A 4-Bolt slotted grate is also available.

Typical Applications:

- Heavy duty industrial areas
- Docks & ports
- Military bases
- Gas stations
- Truck stops
- Highways
- Airports

POWERDRAIN S100K SELECTION CRITERIA

- Light to heavy industrial duty loads
- Product can be used towards LEED & EPA requirements
- Resistant to many everyday chemicals
- Multiple grate options to meet legal requirements
- Multiple grate options to meet design requirements
- General, everyday hydraulic capacity
- Constant depth and/or sloped depth channels



Series 37

- Installs between pipe flanges, eliminating valve body.
- Offers minimal face-to-face dimension—only the thickness of the flange.
- Features unique, maintenance-free, one-piece elastomer check sleeve design.
- Eliminates chatter—silent, non-slamming.
- Closes on entrapped solids.

Materials of Construction

- Valves are available in pure gum rubber, neoprene, Hypalon®, buna-N, Viton® and EPDM.
- ANSI Class 125 Flanges, DIN PN6, PN10, PN16.
- Special coating available.

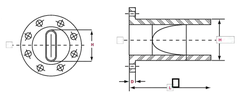
Tideflex® Technologies' Series 37 Flanged InLine Check Valve is a simple, reliable, cost-effective solution to backflow problems. Designed to be installed between twomating flanges, the Series 37 eliminates the need for a valve body.

With only one moving part, the maintenance-free rubber check sleeve, the Series 37 InLine Check Valve is simple in design. Sliding, rotating, swinging and spring parts are eliminated. There are no seats to corrode or packing to maintain. In addition, the Series 37 is a passive design, requiring no external source of air or electricity to operate. The result is reduced operating costs.

The Series 37 InLine Check Valve can be ordered in a variety of elastomers. Flanges conform to ANSI B16.1 Class 125 specifications. Special custom designs or metric flanged models are also available. When ordering, specify line pressure, backpressure and whether an SST is required.



The pressure drop of the Series 37 *is* increased because of the smaller I.D. required to fit the check valve in the line.



Dimensions Series 37 Flanged InLine Check Valve

Nominal Size* (Pipe I.D.)	Length L	Height of Bill H	Flange Thickness D	Max. Backpressure (psi) Standard Tideflex®	Max. Backpressure (psi) With Saddle Support
2	5	1 7/8	3/8	150	N/A
3	5 1/2	2 7/8	3/8	100	N/A
4	7	3 7/8	3/8	75	150
6	11	5 7/8	3/8	75	150
8	12 1/2	7 7/8	1/2	60	125
10	15 1/2	9 7/8	1/2	45	75
12	18 1/2	11 7/8	1/2	35	75
14	22	13 3/4	5/8	25	70
16	23	15 3/4	3/4	20	60
18	24	17 3/4	1	15	45
20	32	19 3/4	1	10	40
24	37	23 3/4	1	10	40
30	41	29 3/4	11/2	8	40
36	47	35 3/4	11/2	8	35
42	49	41 1/2	1 3/4	5	25
48	52	47 1/2	1 3/4	5	25
54	57	53 1/2	2	5	
60	64	59 1/2	2	5	CONTACT FACTORY
72	73	71 1/2	2	5	

Numbers indicate maximum dimensions in inches.
** Larger sizes available upon request.*

Tideflex® Technologies

Technical Data

Series TF-1—Tideflex® Check Valve

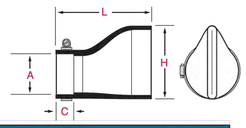
Features & Benefits

- Ideal for manhole installations
- Lightweight, all-elastomer design
- Seals around entrapped solids
- Cost-effective, maintenance-free design

Materials of Construction

- Elastomers available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM, and Viton®





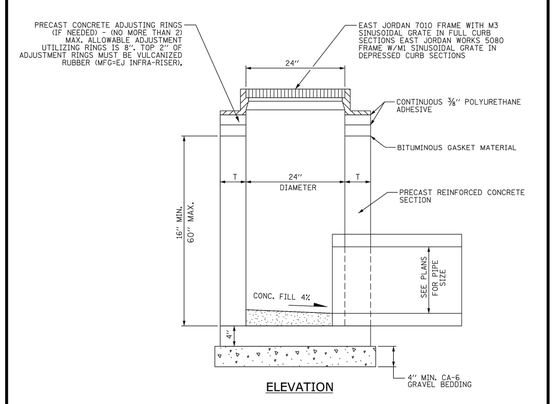
We are pleased to announce the introduction of the revolutionary TF-1 Check Valve. It functions and operates under the same simple principle of operation as the original TF-2 Tideflex®.

This design is ideal for existing manhole installations where the invert of the pipe is close to the floor of the vault. There are many check valves in interceptors, manholes, and vaults. These vaults are designed so that there would be a maximum gravity head; thus, the invert pipe is as close to the base as possible. The TF-1 allows installations in such applications.

The Tideflex® Technologies Series TF-1 Tideflex® Check Valve is designed for applications in manholes, where the bottom of the manhole is close to the invert of the pipe. The TF-1 configuration allows the valve to be properly installed without manhole modification, ensuring positive backflow prevention and a lifetime of maintenance-free performance.

Pipe O.D. (A)	Length (L)	Bill Height (H)	Cuff Length (C)
4	10	8	1 1/2
5	10	8	1 1/2
6	16	12	2
8	18	16	2
10	23	19	3
12	27	23	4
14	27	23	4
16	35	30	5
18	36	34	6
20	44	37	8
22	44	37	8
24	48	43	8
26	48	43	8
28	48	43	8
30	56	55	9
32	56	55	9
36	67	69	10
38	67	69	10
40	67	69	10
42	61	71	10
44	61	71	10
48	66	78	10
50	66	78	10
54	66	78	10
58	66	78	10
60	73	91	14
68	73	91	14
72	96	115	16

Numbers indicate maximum dimensions in inches.



ELEVATION

MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE SECTION	3"

NOTES:

1. UNLESS OTHERWISE SPECIFIED CONSTRUCTION AND MATERIALS SHALL CONFORM TO IDOT STANDARD SPECIAL ARTICLE 602.
2. THE INLET RIM SHALL BE ¼" BELOW PAVEMENT GRADE.

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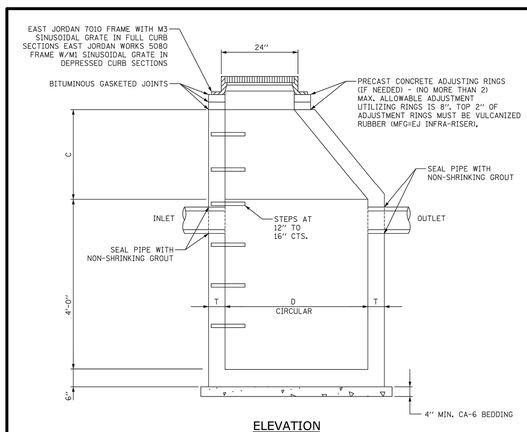
ENGINEERING DETAILS

CURB INLET TYPE A

DATE: 4/25/2018 | DETAIL NO. ST-1
REV 1: | REV 2: | REV 3:

PAGE 1 OF 2

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ELEVATION

MATERIALS FOR WALLS	D	C*	T (MIN.)
PRECAST REINFORCED CONCRETE SECTION	4'-0"	2'-6"	4"
	5'-0"	3'-9"	5"
	6'-0"	5'-0"	6"

*DIMENSION "C" MAY VARY FROM THE DIMENSION GIVEN TO PLUS 6".

NOTES:

1. USE ECCENTRIC CONES UNLESS OTHERWISE INDICATED ON THE DRAWING. FLAT TOP SLABS PERMITTED ONLY FOR MANHOLES TOO SHALLOW FOR CONES.
2. USE 4'-0" DIAMETER FOR SEWER SIZES THRU 21", 5'-0" DIAMETER FOR SEWER SIZES 24" THRU 30", 6'-0" DIAMETER FOR SEWER SIZES GREATER THAN 30", UNLESS OTHERWISE NOTED.
3. UNLESS OTHERWISE SPECIFIED, CONSTRUCTION AND MATERIALS SHALL CONFORM IDOT STANDARD SPECIAL ARTICLE 602.
4. REMOVE TOP TWO MANHOLE STEPS PRIOR TO FINAL INSPECTION.

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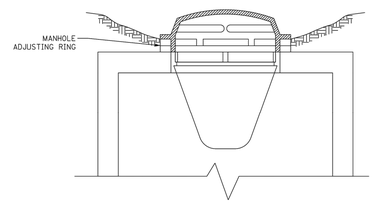
ENGINEERING DETAILS

CATCH BASIN TYPE A

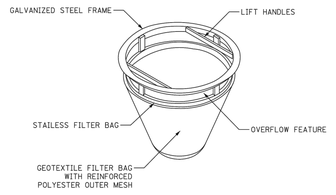
DATE: 4/25/2018 | DETAIL NO. ST-2
REV 1: | REV 2: | REV 3:

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SECTION THROUGH MANHOLE



FILTER INSERT

RECTANGULAR BASKETS REQUIRED FOR CURB INLETS

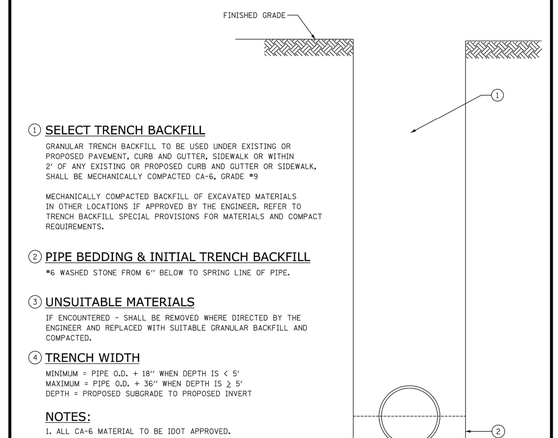
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Rolling Meadows, Illinois 60008
(847) 394-9500

ENGINEERING DETAILS

TEMPORARY SILTATION BASKET INSTALLATION BETWEEN INLET FRAME AND GRATE

DATE: 4/25/2018 | DETAIL NO. ST-6
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\STORM\ST-6_9836BRe.sht



① SELECT TRENCH BACKFILL

GRANULAR TRENCH BACKFILL TO BE USED UNDER EXISTING OR PROPOSED PAVEMENT, CURB AND GUTTER, SIDEWALK OR WITHIN 2' OF ANY EXISTING OR PROPOSED CURB AND GUTTER OR SIDEWALK, SHALL BE MECHANICALLY COMPACTED CA-6, GRADE *9

MECHANICALLY COMPACTED BACKFILL OF EXCAVATED MATERIALS IN OTHER LOCATIONS IF APPROVED BY THE ENGINEER. REFER TO TRENCH BACKFILL SPECIAL PROVISIONS FOR MATERIALS AND COMPACT REQUIREMENTS.

② PIPE BEDDING & INITIAL TRENCH BACKFILL

*6 WASHED STONE FROM 6" BELOW TO SPRING LINE OF PIPE.

③ UNSUITABLE MATERIALS

IF ENCOUNTERED - SHALL BE REMOVED WHERE DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE GRANULAR BACKFILL AND COMPACTED.

④ TRENCH WIDTH

MINIMUM = PIPE O.D. + 18" WHEN DEPTH IS < 5'
MAXIMUM = PIPE O.D. + 36" WHEN DEPTH IS ≥ 5'
DEPTH = PROPOSED SUBGRADE TO PROPOSED INVERT

NOTES:

1. ALL CA-6 MATERIAL TO BE IDOT APPROVED.

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ENGINEERING DETAILS

TYPICAL STORM SEWER TRENCH CROSS SECTION

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REV 1: | REV 2: | REV 3:

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Miscellaneous Sanitary Sewer Notes

1. Sanitary sewers, main, and services and their fittings shall be constructed of one (1) or more of the following materials:
   a. PVC pipe, ASTM D-3034, SDR26 with elastomeric gasket joints conforming to ASTM D-3212.
   b. Ductile iron pipe Class 52 with joints conforming to ANSI A21.11. Only when approved for structural purposes by the City Engineer or Director of Public Works or designated representative.
2. Sanitary sewer manholes shall be five (5)-feet zero (0)-inches diameter precast structures. Frames shall be East Jordan 1020, 1022 on 1050 HD with self-sealing application lids with concealed pick holes. Lids shall be imprinted with the word "sanitary."
3. Sanitary sewer manholes and inspection manholes shall have eccentric cones. All manhole sections and adjusting rings shall be securely sealed to each other using pre-formed bituminous mastic such as "RAM-NEK." This mastic shall be applied in such a manner that ground water inflow cannot enter the manhole through gaps between barrel sections or cone sections and adjusting rings. Double "TAR STICK" may be required in areas with high water tables. External "CRETEX" brand chimney seals shall be installed in all manholes. "MAC RAP" is to be used at all manhole section joints. All sanitary structures to be tar-coated including cones.
4. All pipe connections in/out of a sanitary manhole shall be cored and booted with gasket type water stop gaskets, with stainless steel bands per ASTM C923.
5. Sanitary sewer service risers shall be used when sewer main exceeds 12-feet in depth. The bedding under the riser tee shall thoroughly compacted. The engineer reserves the right to require concrete encasement of the riser or a concrete thrust block under the tee.
6. All sanitary sewers including service stubs shall be subject to an air test Section 31 of the Standard Specifications. Applicable portions of main line sewer including main with riser sections shall be subjected to a deflection test conducted by the contractor. All testing shall be observed by a City of Rolling Meadows Public Works Department Representative.
7. The main sanitary sewer shall be televised prior to acceptance. A videotape, CD, or DVD along with a paper report shall be submitted to the City of Rolling Meadows Public Works Department. All sewer televising must be performed by NASSCO certified operators using current NASSCO standards and coding system that can be found in current NASSCO documents. The contractor, without delay, shall preform all necessary corrective work.

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ENGINEERING DETAILS

MISCELLANEOUS SANITARY SEWER NOTES

DATE: 1/22/2018 | DETAIL NO. SAN-0
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8. Control and sampling manholes must be installed in the ROW or as approved by the City of Rolling Meadows on a straight portion of the line without any bends inside the manhole or within five (5)-feet of the exterior of the manhole. In the event that a grease trap is needed, the grease trap shall precede the sample manhole. The grease waste service must connect to a main service before the sample manhole.
9. All sump pumps must discharge outside of the home or to the storm sewer system. All interior floor drains waste ejector pits must connect to the sanitary sewer system.
10. All sanitary sewer stubs shall be marked with 4x4 post painted green.
11. Structures, manholes, inlets, catch basin sumps, and valve vaults shall be cleaned prior to any inspection at the end of the project and prior to City acceptance. Sanitary and storm sewer main shall be jet cleaned if evidence of debris build-up is present at the time of City acceptance.
12. Vehicle and truck dock drains must meet the plumbing code requirements, including waste interceptors, and must be approved by the City Public Works Director or designated representative.
13. When existing stubs are not available, all service connections to mainline sewer shall consist of the following:
    a. If existing sewer is PVC or clay pipe, the mainline sewer shall be cut and a wye section with chamfer shall be installed with non-sheer mission coupling placed over connection points; for clay, a minimum of two (2)-feet of PVC is required on each side of wye;
    b. Existing stubs or services planned for use must be televised and verified by the City of Rolling Meadows to be in acceptable condition prior to use or reuse; and
    c. **Break in connections are not permitted.**
    d. Sanitary Services must be a minimum of 6" and have an outside clean out access.

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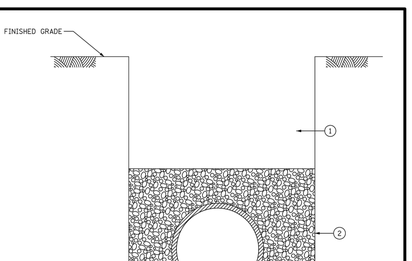
ENGINEERING DETAILS

MISCELLANEOUS SANITARY SEWER NOTES

DATE: 1/22/2018 | DETAIL NO. SAN-0
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① TRENCH BACKFILL UNDER PAVEMENT, CURB AND GUTTER AS INDICATED IN ROAD SUBGRADES AND WITHIN 2' OF ANY PROPOSED CURB AND GUTTER OR SIDEWALK, MECHANICALLY COMPACTED BACKFILL OF EXCAVATED MATERIALS IN OTHER LOCATIONS IF APPROVED BY THE PROVISIONS FOR MATERIALS AND COMPACTION REQUIREMENTS.
② FOR SANITARY SEWER PVC, COMPACTED GRANULAR MATERIAL CA-6 TO 12" ABOVE TOP PIPE. (ALSO SEE NOTE *1 BELOW)
③ 6" COMPACTED BEDDING, CA-6 GRADATION
④ UNSUITABLE MATERIAL TO BE REMOVED WHERE DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE AND COMPACTED MATERIAL
⑤ TRENCH WIDTH - PIPE O.D. + 12" MINIMUM PIPE O.D. + 18" MAXIMUM

NOTES:

1. PVC PIPE CONFORMING TO THE SDR SPECIFIED IN THE PLANS SHALL BE INSTALLED TO THE LATEST REVISED SPECIFICATION REQUIREMENTS OF ASTM D2321 USING EITHER COMPACTED CLASS I OR CLASS II GRANULAR MATERIALS FOR BEDDING, HAUNCHING AND INITIAL BACKFILL TO 12" OVER THE TOP OF PIPE. TO PROVIDE THE NECESSARY SUPPORT FOR THE PIPE SO THAT THE MAXIMUM DEFLECTION DOES NOT EXCEED 5% OF THE PIPE'S ORIGINAL INTERNAL DIAMETER.
2. ALL CA-6 MATERIAL TO BE IDOT APPROVED

SANITARY SEWER AND SERVICES

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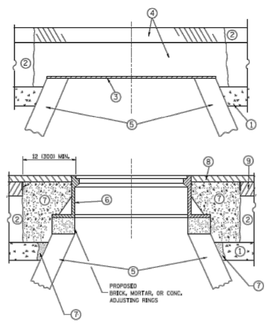
ENGINEERING DETAILS

TYPICAL SANITARY TRENCH CROSS SECTION

DATE: 1/22/2018 | DETAIL NO. SAN-6
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\SANITARY\SAN-6_9836BRe.sht

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WHEN MILLING



STAGE 1 (BEFORE PAVEMENT MILLING)
A) REMOVE A MINIMUM OF 12" OF THE PAVEMENT FROM AROUND THE STRUCTURE.
B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE
C) COVER THE STRUCTURE OPENING WITH A 36" DIAMETER METAL PLATE.
D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2" THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)
A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1 CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND:

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 36" DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND HMA SURFACE MIX
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS PP-1 CONCRETE
8. PROPOSED HMA SURFACE COURSE
9. PROPOSED HMA BINDER COURSE

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT, UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER .

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

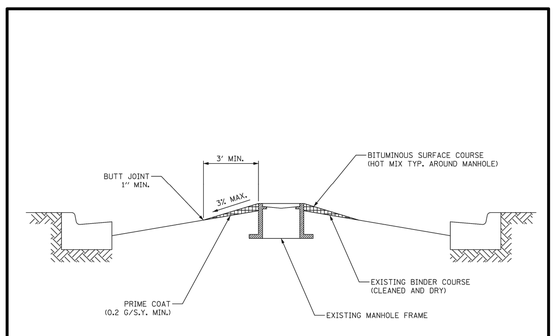
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ENGINEERING DETAILS

FRAME ADJUSTMENT WHEN MILLING

DATE: 8/31/2018 | DETAIL NO. R-5
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\ROADWAY\R-05_9836BRe.sht



NOTES:

1. TO BE USED WHEN PLATING PROCEDURE OF R-5 NOT POSSIBLE.
2. RAMP TO BE MAINTAINED THROUGHOUT THE WINTER BY DEVELOPER.
3. RAMP MATERIAL TO BE REMOVED BY MILLING OR OTHERWISE REMOVED BEFORE PLACEMENT OF FINAL SURFACE COURSE.

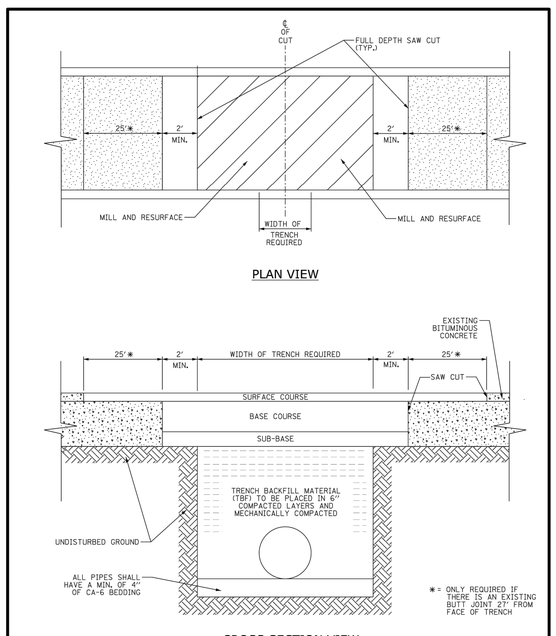
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ENGINEERING DETAILS

MANHOLE RAMPING DETAIL

DATE: 8/31/2018 | DETAIL NO. R-6
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\ROADWAY\R-06_9836BRe.sht



PLAN VIEW

CROSS SECTION VIEW

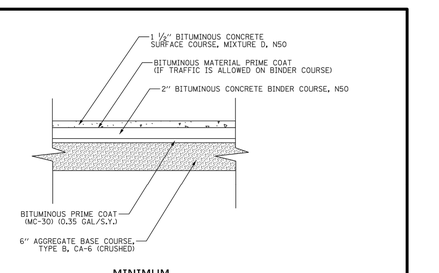
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ENGINEERING DETAILS

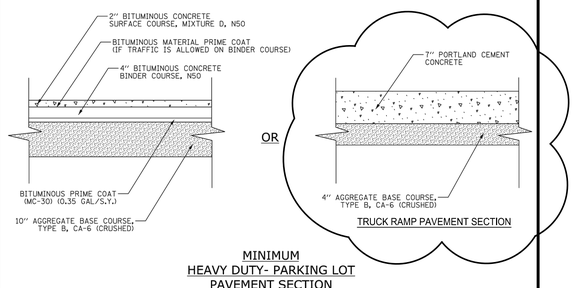
PAVEMENT REMOVAL AND REPLACEMENT

DATE: 8/31/2018 | DETAIL NO. R-7
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\ROADWAY\R-07_9836BRe.sht



MINIMUM
TYPICAL PARKING LOT
PAVEMENT SECTION



TRUCK RAMP PAVEMENT SECTION

MINIMUM
HEAVY DUTY- PARKING LOT
PAVEMENT SECTION

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Rolling Meadows, Illinois 60008
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ENGINEERING DETAILS

PARKING LOT PAVEMENT SECTIONS

DATE: 8/31/2018 | DETAIL NO. R-8
REV 1: | REV 2: | REV 3:

FILE NAME N:\ROLLINGMEADOWS\98036LBR\e\BR200\e\98368R200\Civil\DETAILS\ROADWAY\R-08_9836BRe.sht

SIGN PANEL

- ALL TRAFFIC CONTROL SIGNAS SHALL BE PRIZMATIC 3M REFLECTIVE MATERIAL W/1150 CLEAR OVERLAY
- ALL SIGNS SHALL BE 0.08 GAL ALUMINUM 1.5 RC
- INSTALLATION OF SIGNS SHALL BE IN ACCORDANCE WITH LATEST VERSION OF ILLINOIS MUTCD
- ALL STOP SIGN SHALL BE 30" x 30"

METAL POST

- POSTS SHALL BE FRANKLIN INDUSTRIES EZE-ERECT, D-CHANNEL GALVANIZED WITH WALKWAY BASE
- POSTS SHALL BE 3 LBS/FT FOR ALL TRAFFIC CONTROL SIGNS (STOP, YIELD, SPEED LIMIT, LANE USE, STRET NAMES, ETC.)
- POST SHALL BE 2 LBS/FT INFORMATIONAL SIGNS

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ENGINEERING DETAILS

STREET SIGN AND POST STANDARDS

DATE: 8/31/2018 | DETAIL NO. R-11
REV 1: | REV 2: | REV 3:

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SHEET 9 OF 10

CONSTRUCTION DETAILS

PROPERTY ADDRESS:
PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline CONSULTANTS
CONSULTING ENGINEERS · LAND SURVEYORS

Ridgeline Consultants LLC
Illinois Professional Design Firm No. 184-004766
1661 Aucutt Road, Montgomery, IL 60538
PH: 630.801.7927 FAX: 630.701.1385
Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
George H. Skulavik P.L.S. 2580 Expiration Date 11/30/2024
Stacy L. Stewart P.L.S. 3415 Expiration Date 11/30/2024

REVISION	DATE	DESC	BOOK:	DWG. SIZE: E
1	01/31/2024	PER CITY OF ROLLING MEADOWS REVIEW DATED 10/06/2023 (REW)	DRAWN: KS	CHECKED: JGL
2	02/26/2024	ADDED TRASH ENCLOSURE, LOADING DOCK & RAMP AND UPDATED TRAFFIC SIGNAGE (REW)	REFERENCE:	
3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)	DATE: 08/08/2023	
			PROJECT NO.	2022-0717

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF _____ MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF _____ ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS _____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
   ROLLING MEADOWS

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

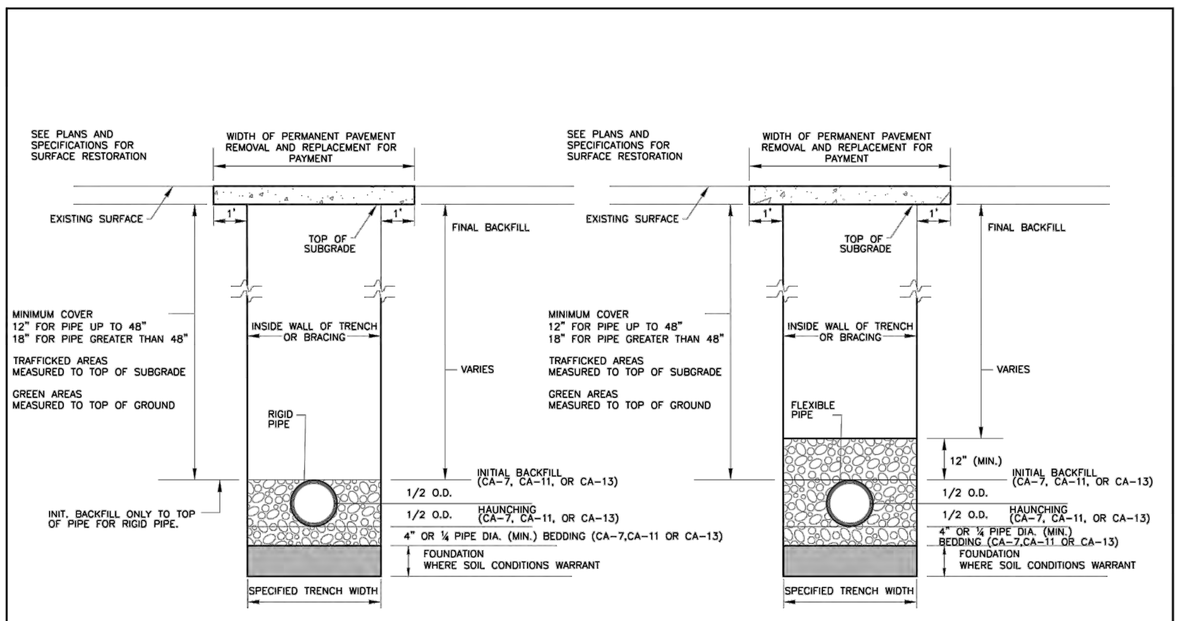
20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

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RIGID PIPE INSTALLATION DETAIL

FLEXIBLE PIPE INSTALLATION DETAIL

NOTES:
1. FOR QUALIFIED SEWER CONSTRUCTION ONLY.
2. SHORING, OR EQUIVALENT PROTECTIVE SYSTEM, REQUIRED FOR TRENCHES OF 5' DEPTH OR GREATER, OR AS REQUIRED BY MUNICIPALITY.

NOT TO SCALE

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RIGID AND FLEXIBLE PIPE INSTALLATION DETAIL	STD. DWG. NO. 34
	PAGE NO. 35

SHEET 10 OF 10

MWRD GENERAL NOTS

PROPERTY ADDRESS: PACIFICA ON GOLF
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline Consultants LLC
Illinois Professional Design Firm No. 184-004766
1661 Aucutt Road, Montgomery, IL 60538
PH: 630.801.7927 FAX: 630.701.1385
Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
George H. Skulavik P.L.S. 2580 Expiration Date 11/30/2024
Stacy L. Stewart P.L.S. 3415 Expiration Date 11/30/2024

REVISION	DATE	DESC	BOOK:	DWG. SIZE: E
1	01/31/2024	PER CITY OF ROLLING MEADOWS REVIEW DATED 10/06/2023 (REW)	DRAWN: KS	CHECKED: JGL
2	02/26/2024	ADDED TRASH ENCLOSURE, LOADING DOCK & RAMP AND UPDATED TRAFFIC SIGNAGE (REW)	REFERENCE:	
3	04/11/2024	GEOMETRY MODIFICATIONS PER KLOA (REW)	DATE: 08/08/2023	
			PROJECT NO.	2022-0717

Traffic and Parking Impact Study
Pacifica on Golf
Rolling Meadows, Illinois



Prepared For:

Pacifica on Golf

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

April 16, 2024

1. Introduction

This report summarizes the results of a traffic and parking impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed redevelopment of the existing former Sam's Club building within the Marketplace shopping center in Rolling Meadows, Illinois. As proposed, the existing one-story building will be repurposed with the Pacifica on Golf mixed-use development which will contain the following uses:

- An approximately 42,789 square-foot grocery store
- A family entertainment center and a claw machine arcade totaling approximately 41,717 square feet
- Approximately 11,231 square feet of retail space
- An approximately 1,138 square-foot café
- A Japanese BBQ restaurant that will be approximately 4,628 square feet
- Three restaurants totaling approximately 11,978 square feet

Access to the development will be provided via the existing Marketplace shopping center access system. Parking will be provided within the existing surface parking lot, which will have minor modifications in conjunction with the development.

The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, determine if any roadway or access improvements are necessary to accommodate the traffic estimated to be generated by the proposed development, and evaluate the adequacy of the parking supply in meeting the existing and future parking demands.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site. The sections of this report present the following:

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

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

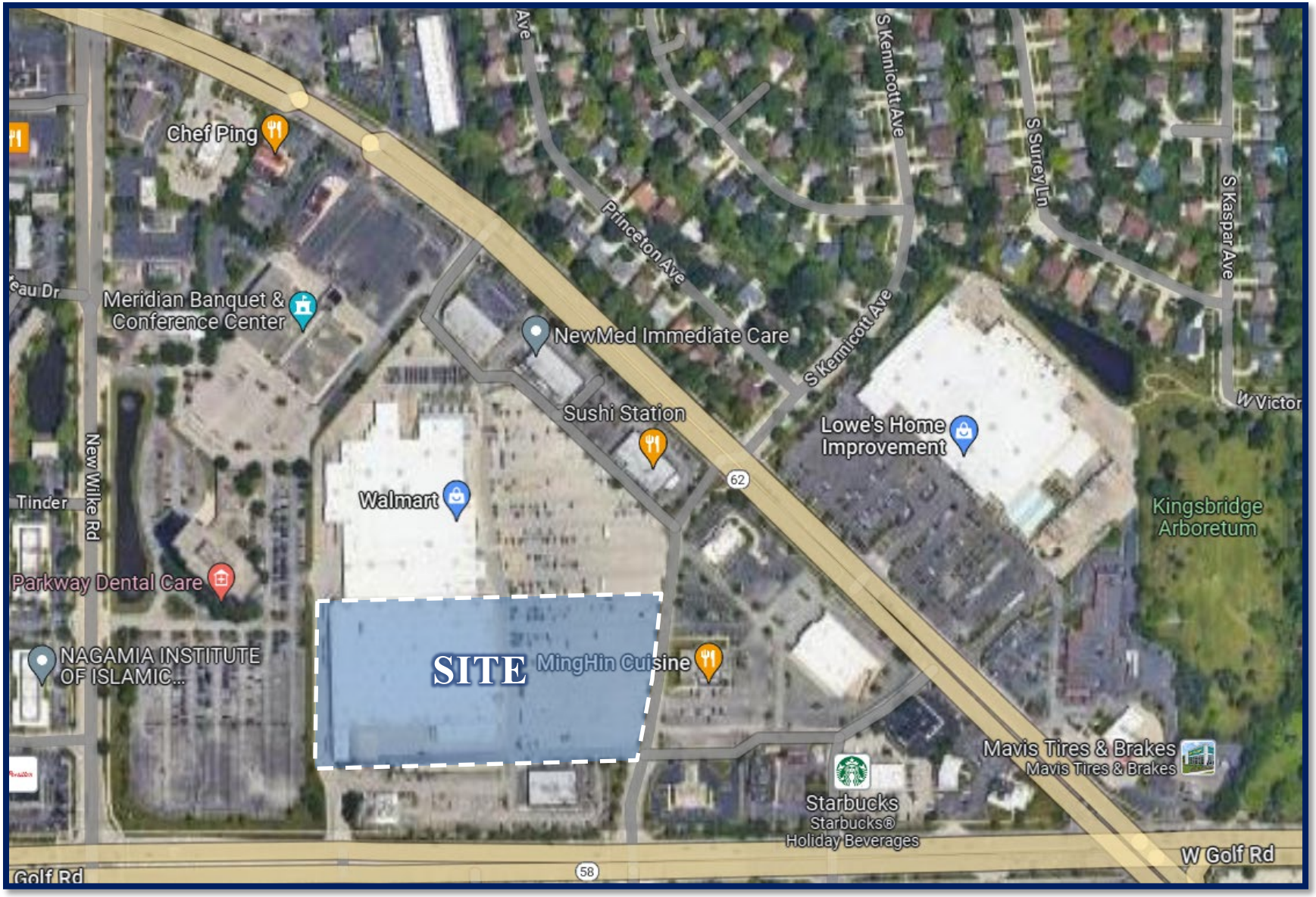
1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. Year 2029 No-Build Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes increased by an ambient traffic growth rate and traffic generated by other area developments.

3. Year 2029 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, background development traffic growth, and the traffic estimated to be generated by the buildout of the proposed development.



Site Location **Figure 1**



Aerial View of Site **Figure 2**

2. Existing Conditions

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

Site Location

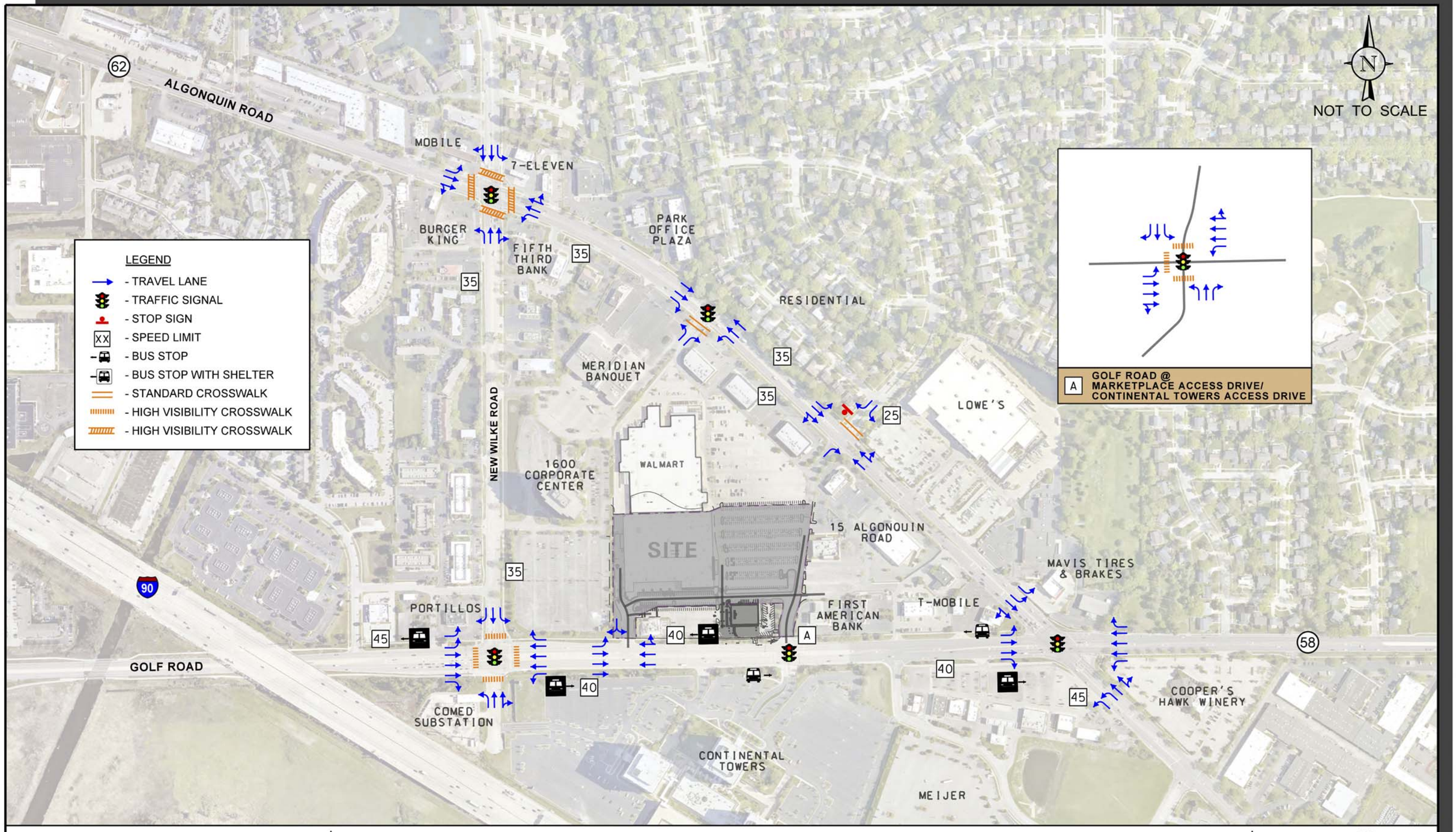
The existing former Sam's Club building is located within the Marketplace shopping center in Rolling Meadows, Illinois. The former Sam's Club building is located adjacent to the existing Walmart building. Also within the Marketplace shopping center are outlots containing various commercial uses. Access to the shopping center is provided off Golf Road and Algonquin Road via two signalized access drives and multiple unsignalized access drives. Area uses are primarily commercial.

Existing Roadway System Characteristics

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

Golf Road (IL 58) is an east-west, other principal arterial roadway that typically provides three through lanes in each direction in the vicinity of the site. Left-turn lanes are typically provided at all intersections within the study area. Right-turn lanes are typically provided at signalized intersections. Golf Road carries an annual average daily traffic volume (AADT) of 26,000 vehicles east of Algonquin Road and 26,300 vehicles west of Algonquin Road (IDOT 2021). Golf Road is under the jurisdiction of the Illinois Department of Transportation (IDOT) and is classified as a Strategic Regional Arterial (SRA) east of Algonquin Road. Golf Road has a posted speed limit of 40 miles per hour east of New Wilke Road and 45 miles per hour west of New Wilke Road.

Algonquin Road (IL 62) is a northwest-southeast roadway that typically provides two through lanes in each direction in the vicinity of the site. North of Golf Road, Algonquin Road is classified as an other principal arterial and south of Golf Road it is classified as a minor arterial. Left-turn lanes are typically provided at intersections within the study area. Algonquin Road carries an AADT volume of 24,000 vehicles south of Golf Road, 23,000 vehicles between Golf Road and New Wilke Road, and 24,400 vehicles west of New Wilke Road (IDOT 2021). Algonquin Road is under the jurisdiction of IDOT and is classified as an SRA north of Golf Road. Algonquin Road has a posted speed limit of 45 miles per hour south of Golf Road and 35 miles per hour north of Golf Road.



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 23-270 Figure: 3

New Wilke Road is a north-south, major collector roadway that typically provides two lanes in each direction. Left-turn lanes are typically provided at signalized intersections. New Wilke Road carries an AADT volume of 14,500 vehicles north of Golf Road (IDOT 2022) and is under the jurisdiction of the City of Rolling Meadows south of Algonquin Road and the Village of Arlington Heights north of Algonquin Road. New Wilke Road has a posted speed limit of 35 miles per hour.

Existing Traffic Volumes

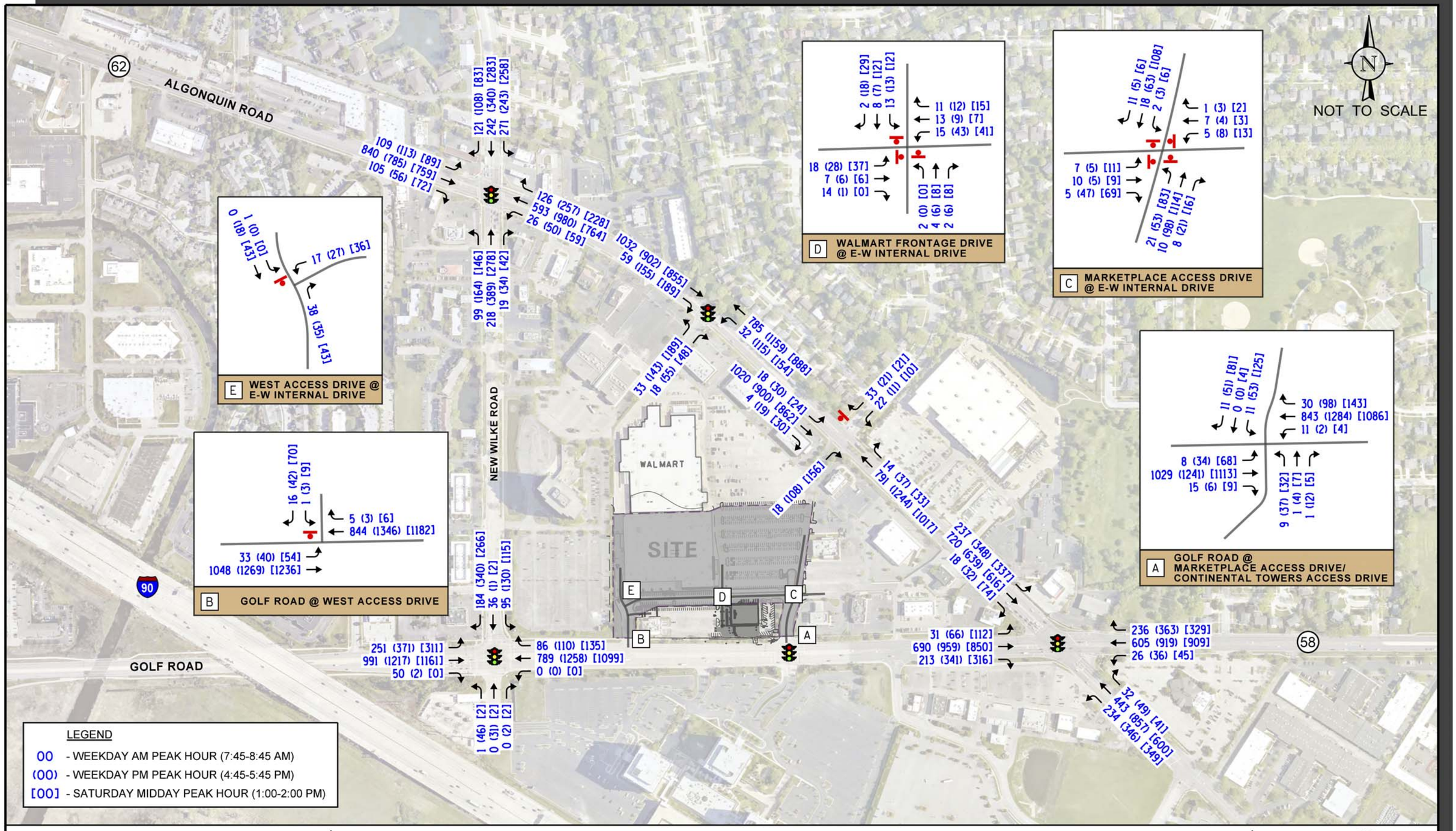
In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. conducted peak period traffic counts on Thursday, October 26, 2023 during the weekday morning (7:00-9:00 A.M.) and weekday evening (4:00-6:00 P.M.) peak periods and on Saturday, October 28, 2023, during the Saturday midday (12:00-2:00 P.M) peak period at the following intersections:

- Golf Road with Algonquin Road
- Golf Road with New Wilke Road
- Algonquin Road with New Wilke Road
- Golf Road with Marketplace Access Drive
- Algonquin Road with Meridian Access Drive
- Golf Road with West Access Drive
- Algonquin Road with Kennicott Avenue Right-In/Right-Out Access Drive

The results of the traffic counts show that the weekday morning peak hour generally occurs between 7:45 A.M. and 8:45 A.M., the weekday evening peak hour generally occurs between 4:45 P.M. and 5:45 P.M, and the Saturday midday peak hour generally occurs between 1:00 P.M. and 2:00 P.M.

These counts were supplemented with counts conducted on Tuesday, October 18, 2022 and on Saturday, October 15, 2022 at the east-west internal drive with the Marketplace Access Drive and the Walmart Frontage Access Drive.

The existing peak hour traffic volumes are illustrated in **Figure 4**. Copies of the traffic count summary sheets are included in the Appendix.



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

EXISTING TRAFFIC VOLUMES

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3. Traffic Characteristics of the Proposed Development

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

Proposed Development Plan

As proposed, the existing former Sam's Club building within the Marketplace shopping center will be redeveloped into Pacifica on Golf, a mixed-use development which will contain the following uses:

- Enson Mart, an approximately 42,789 square-foot grocery store
- A family entertainment center that is approximately 33.636 square feet
- Daiso Japanese gift shop, an approximately 7,995 square-foot retail store
- Mango Mango, an approximately 1,138 square-foot dessert café
- Gyu San Japanese BBQ, an approximately 4,628 square-foot sit-down restaurant
- Lao Sze Chuan/Te'Amo, an approximately 5,002 square-foot restaurant and bubble tea café
- Kyuramen, an approximately 3,740 square-foot restaurant
- Izakaya Nana, an approximately 7,125 square-foot sit-down restaurant
- Shanghai Dumplings, an approximately 3,236 square-foot restaurant
- An approximately 3,236 square feet of space assumed to be occupied by a retail use
- A claw machine arcade providing approximately 8,081 square feet of retail space

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

Site Access

Access to the site will continue to be provided via the existing access system serving the Marketplace shopping center. The two signalized access drives are provided off Golf Road, approximately 1,190 feet west of Algonquin Road and off Algonquin Road, approximately 2,130 feet northwest of Golf Road. Four unsignalized access drives serve the shopping center which include the west access drive located approximately 585 feet east of New Wilke Road and a right-in/right-out only access drive off Algonquin Road located opposite Kennicott Drive. Cross-access is also provided to adjacent properties to the west of the shopping center providing additional access drives connecting with New Wilke Road.

It should be noted that the outbound approach on the west access drive off Golf Road is approximately 24 feet wide and, while it is unstriped, its width allows it to operate as two outbound lanes. As such, it is recommended that the outbound lane be striped to provide a separate left-turn lane and a separate right-turn lane.

Truck deliveries will utilize the existing loading area behind the building.

Parking

Parking for the development will be provided via the existing surface lot that previously served the former Sam's Club. The parking lot will be reconfigured to provide 21 additional parking spaces. This will include the addition of a row of parking along the south building frontage and extending the existing parking aisle to the west. This will result in approximately 67 parking spaces south of the building that will primarily serve the proposed restaurant/retail uses that face south.

Proposed Internal Traffic Control

With the proposed development, traffic control is proposed to be improved in conjunction with the modifications to the parking lot. The proposed traffic control additions are illustrated in a figure included in the Appendix and also described below:

- A stop bar and a stop sign will be added on the westbound approach of the two-way drive aisle along the south frontage of the building where the drive aisle intersects with the one-way loading dock aisle and the west access drive.

- A stop bar and a stop sign will be added to each of the westbound and southbound approaches at the internal intersection of the west access drive and the Honeyberry Pancakes and Café parking lot access drive. The existing stop bar and stop sign on the northbound approach will be removed.

- The internal intersection at the southeast corner of the Sam's Club building that serves the north-south internal drive along the east side of the building and the east-west internal drive along the south side of the building will be converted to an all-way stop intersection. This will consist of the addition of a stop bar and stop sign on the westbound approach. Currently only the southbound and eastbound approaches are under stop sign control and the southbound approach stop sign will require replacement and the addition of a stop bar. The south leg of this internal intersection allows for southbound-only traffic in conjunction with the new Chipotle restaurant within the outlot. However, the intersection operates with drivers making northbound approach movements and as such operates currently as an all-way stop intersection.

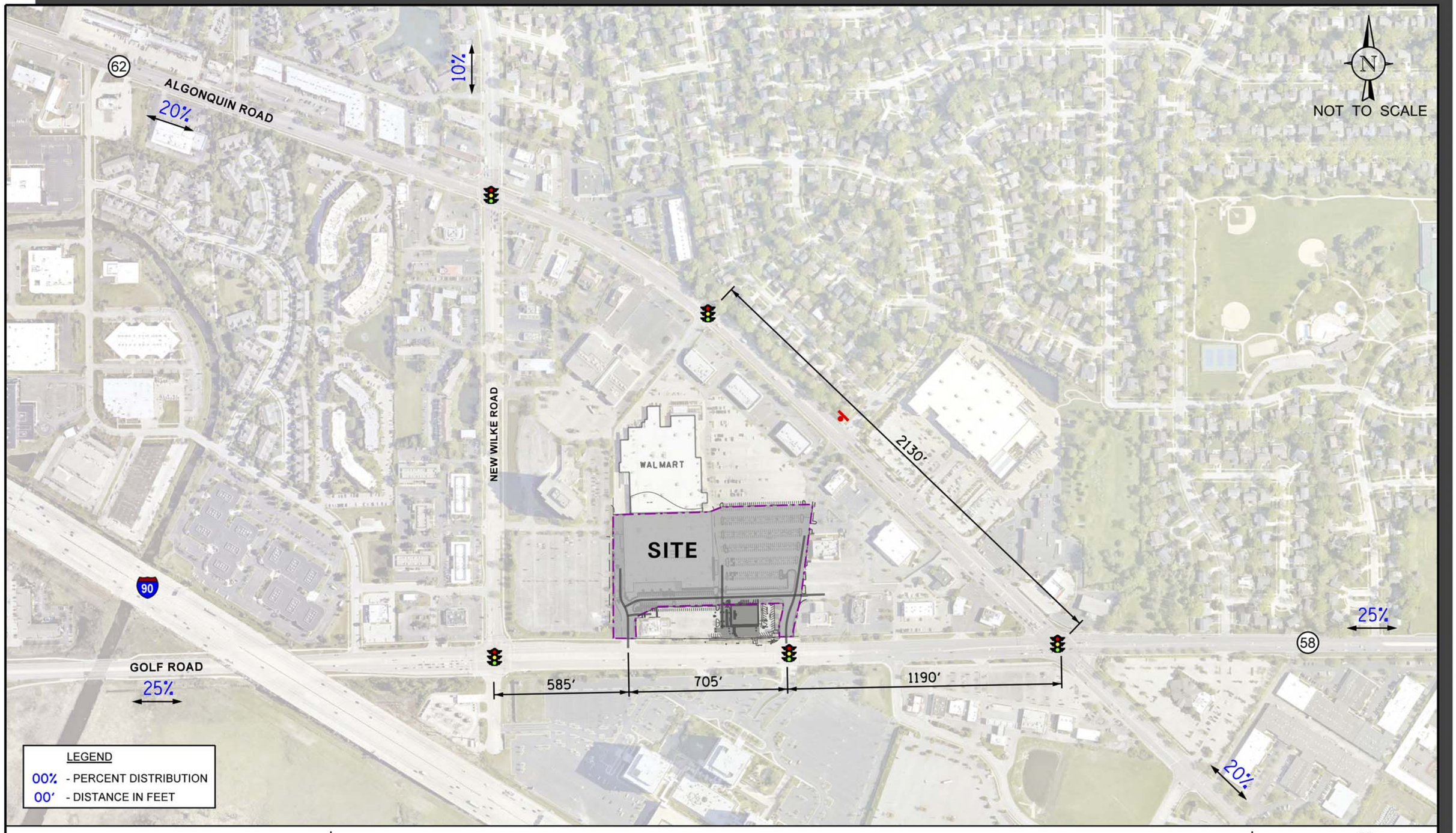
- A mid-block raised crosswalk will be added to accommodate pedestrians crossing the two-way drive aisle on the south side of the building.

- A landscaped island will be provided to block the first drive aisle to the north of the internal intersection immediately north of the signalized Marketplace access drive off Golf Road.

- The landscaping should be designed to not obstruct driver vision between the internal drive aisles.

Directional Distribution

The directional distribution of how traffic will approach and depart the site was estimated based on existing travel patterns within the study area derived from the peak hour traffic volumes. **Figure 5** illustrates the directional distribution of traffic.



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

DIRECTIONAL DISTRIBUTION

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Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed development were based on trip generation rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition:

- Land-Use Code 850 (Supermarket) was utilized for Enson Mart.
- Land-Use Code 435 (Multipurpose Recreational Facility) was utilized for the family entertainment center and claw machine arcade.
- Land-Use Code 822 (Strip Retail Center <40k Square Feet) was utilized for the retail space including Daiso Japanese gift shop and the available retail space.
- Land-Use Code 930 (Fast Casual Restaurant) was utilized for Mango Mango.
- Land-Use Code 931 (Fine Dining Restaurant) was utilized for Gyu San Japanese BBQ and Izakaya Nana.
- Land-Use Code 932 (High-Turnover Sit-Down Restaurant) was utilized for Lao Sze Chuan/Te'amo, Kyuramen, and Shanghai Dumplings.

Based on operating hours for other locations and similar uses of the proposed tenants, the operating hours were assumed for the uses. The restaurant uses were assumed to be closed during the weekday morning peak hour.

It is anticipated that some of the trips generated by the development uses will be patrons of the other uses. Based on ITE methodology, the interaction between the land uses was estimated to be approximately 0 percent during the weekday morning peak hour and approximately 15 percent during the weekday evening and Saturday midday peak hours. This reduction does not include interaction with existing uses within the Marketplace shopping center.

It is important to note that surveys conducted by ITE have shown that approximately 25 percent of trips made to supermarket uses during the weekdays are diverted from existing traffic on the roadway system. Approximately 20 percent of trips made to supermarket uses during the weekend and to retail uses during all days are diverted from existing traffic. Further, approximately 45 percent of trips to high-turnover sit-down restaurants and approximately 50 percent of fast casual restaurants are diverted from existing traffic. Such diverted trips are referred to as pass-by traffic. As such, reductions in the trips estimated to be generated by the proposed development was applied to the trips after an interaction reduction was applied.

Table 1 summarizes the trips projected to be generated by the proposed development. A copy of the ITE trip generation sheets is included in the Appendix.

Table 1
ESTIMATED TRIP GENERATION – PACIFICA ON GOLF

ITE Land-Use Code	Suite No.	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Weekday Daily Trips		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
850	1	Enson Mart (42,789 S.F.)	72	50	122	191	192	383	216	216	432	2054	2054	4108
435	2	Family Entertainment Center (33,636 S.F.)	-	-	-	66	54	120	66	54	120	241	241	482
822	3	Daiso (7,995 S.F.)	-	-	-	26	27	53	27	26	53	218	218	436
930	4	Mango Mango (1,138 S.F.)	-	-	-	8	6	14	20	17	37	56	56	112
931	5	Gyu San Japanese BBQ (4,628 S.F.)	-	-	-	24	12	36	29	20	49	194	194	388
932	6	Lao Sze Chuan/Te'amo (5,002 S.F.)	-	-	-	28	17	45	29	27	56	268	268	536
932	7	Kyuramen (3,740 S.F.)	-	-	-	21	13	34	21	21	42	201	201	402
931	8	Izakaya Nana (7,125 S.F.)	-	-	-	37	19	56	45	31	76	299	299	598
932	9	Shanghai Dumplings (3,236 S.F.)	-	-	-	18	11	29	18	18	36	174	174	348
822	10	Retail (3,236 S.F.)	5	3	8	11	10	21	11	10	21	88	88	176
435	11	Claw Machine Arcade (8,081 S.F.)	-	-	-	16	13	29	16	13	29	59	59	118
Development Subtotal			***77***	***53***	***130***	***446***	***374***	***820***	***498***	***453***	***951***	***3852***	***3852***	***7704***
Interaction Reduction (15%)[1]			*-*	*-*	*-*	*-67*	*-56*	*-123*	*-75*	*-68*	*-143*	*-578*	*-578*	*-1156*
Development Total			***77***	***53***	***130***	***379***	***318***	***697***	***423***	***385***	***808***	***3274***	***3274***	***6548***
Pass-By Reduction (25%)[2, 3]			*-15*	*-15*	*-30*	*-41*	*-41*	*-82*	*-*	*-*	*-*	*-436*	*-436*	*-872*
Pass-By Reduction (20%)[2, 4]			*-1*	*-1*	*-2*	*-6*	*-6*	*-12*	*-43*	*-43*	*-86*	*-52*	*-52*	*-104*
Pass-By Reduction (45%)[2, 5]			*-*	*-*	*-*	*-21*	*-21*	*-42*	*-26*	*-26*	*-52*	*-246*	*-246*	*-492*
Pass-By Reduction (50%)[2, 6]			*-*	*-*	*-*	*-3*	*-3*	*-6*	*-8*	*-8*	*-16*	*-24*	*-24*	*-48*
Total New Trips			**61**	**37**	**98**	**308**	**247**	**555**	**346**	**308**	**654**	**2516**	**2516**	**5032**
Total Pass-By Trips			**-16**	**-16**	**-32**	**-71**	**-71**	**-142**	**-77**	**-77**	**-154**	**-758**	**-758**	**-1516**
Total Development Trips			**77**	**53**	**130**	**379**	**318**	**697**	**423**	**385**	**808**	**3274**	**3274**	**6548**

1 – Applied to the development subtotal for the weekday evening, Saturday midday peak hours, and weekday daily only.
2 – Applied to trips estimated to be generated by the proposed uses after interaction reduction was applied.
3 – Applied to LUC 850 during the weekday morning and weekday evening peak hours, and weekday daily only.
4 – Applied to LUC 822 during all peak hours and weekday daily and to LUC 850 during the Saturday midday peak hour.
5 – Applied to LUC 932 during the weekday evening and Saturday midday peak hours and weekday daily.
6 – Applied to LUC 930 during the weekday evening and Saturday midday peak hours and weekday daily.

Trip Generation Comparison

As indicated earlier, the building was previously occupied by Sam's Club which was approximately 126,758 square feet in size. The proposed development will total approximately 4,587 square feet less than the Sam's Club. The proposed development is commercial and consistent with the previous commercial use. As such, a comparison of the trip generation of the former use and proposed development was completed. The vehicle trip generation for the former Sam's Club was calculated utilizing Land-Use Code 857 (Discount Club). **Table 2** summarizes the trips estimated to be generated for the former Sam's Club during the peak hours.

Table 3 shows the comparison between the Sam's Club and the proposed development during the peak hours. As can be seen within the table, the proposed development is not expected to generate significantly more trips during the weekday peak hours and will generate less trips during the Saturday midday peak hour.

Table 2
ESTIMATED TRIP GENERATION – SAM'S CLUB

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Weekday Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
857	Discount Club (126,758 S.F.)	62	39	101	266	265	531	396	411	807	2691	2691	5382

Table 3
ESTIMATED TRIP GENERATION COMPARISON

Development	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Weekday Daily Trips		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Pacifica on Golf *Development Total*	77	53	130	379	318	697	423	385	808	3274	3274	6548
Sam's Club	62	39	101	266	265	531	396	411	807	2691	2691	5382
Difference	**+15**	**+14**	**+29**	**+113**	**+53**	**+166**	**+27**	**-26**	**+1**	**+583**	**+583**	**+1166**

4. Projected Traffic Conditions

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

Development Traffic Assignment

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

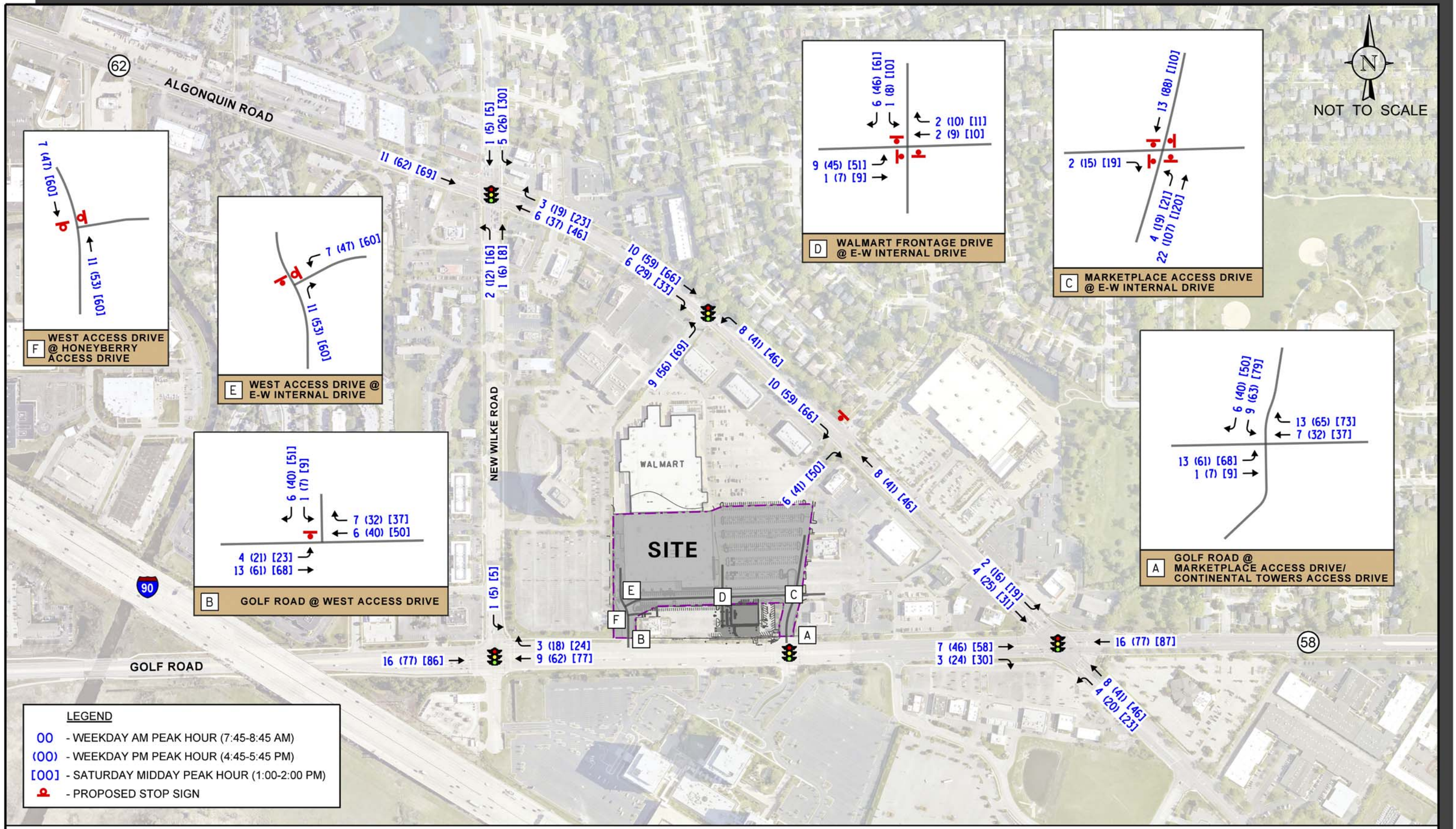
Background (No-Build) Traffic Volumes

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Annual Average Daily Traffic (AADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated October 23, 2023, the existing traffic volumes were increased by an annually compounded growth rate of 0.6 percent for six years (one-year buildout plus five years), totaling four percent to represent Year 2029 traffic volumes. Also included in the Year 2029 no-build traffic volumes are volumes estimated to be generated by a Chipotle restaurant located within the retail strip located immediately south of the Pacifica on Golf building.

The Year 2029 no-build traffic volumes are shown in **Figure 8**. A copy of the CMAP 2050 projections letter is included in the Appendix.

Total Projected Traffic Volumes

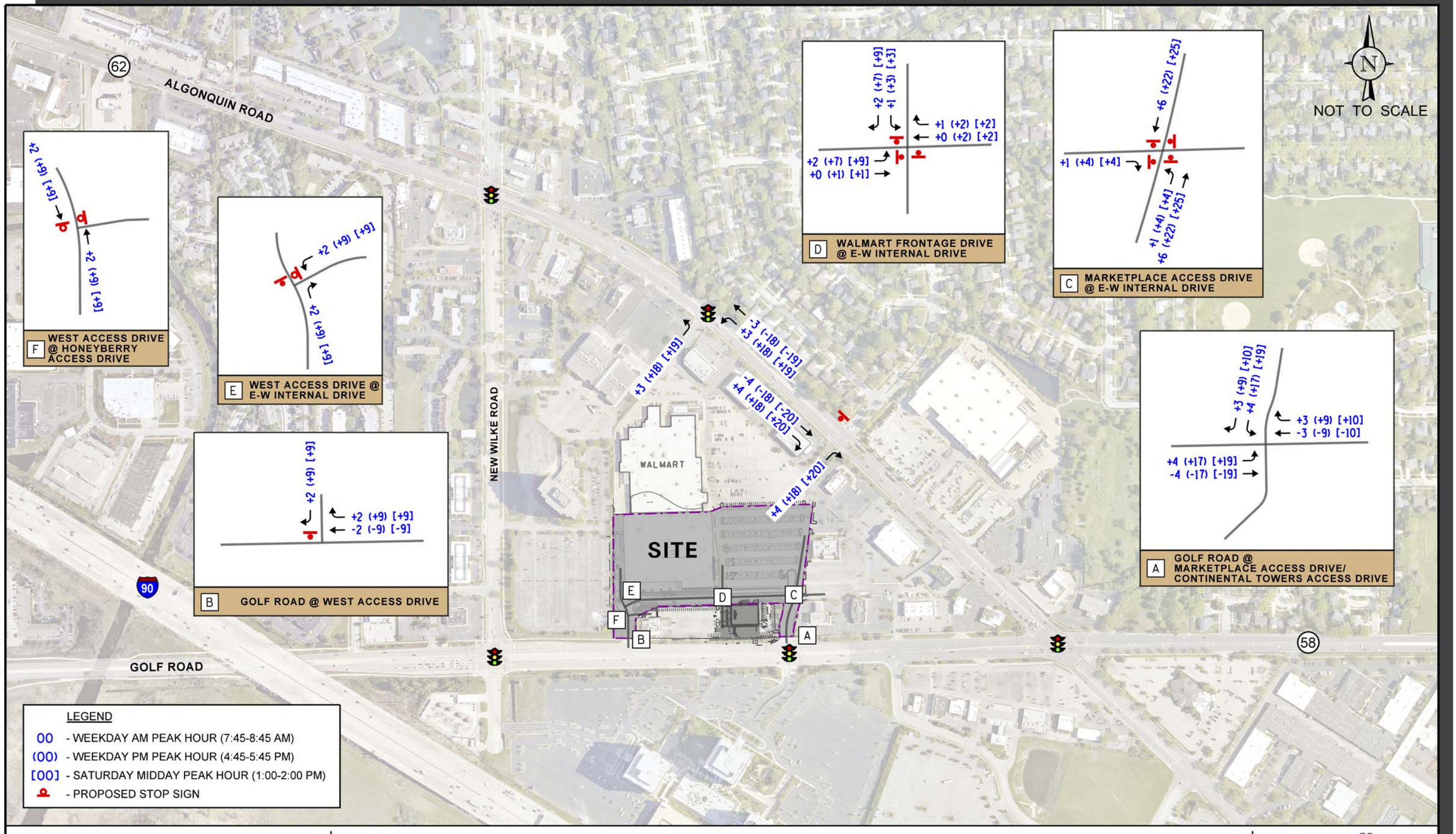
The existing traffic volumes were combined with the traffic from the other developments in the area, the ambient growth in the area, and the new peak hour traffic volumes generated by the subject development to determine the total projected traffic volumes, shown in **Figure 9**.



PACIFICA ON GOLF
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NEW SITE TRAFFIC VOLUMES

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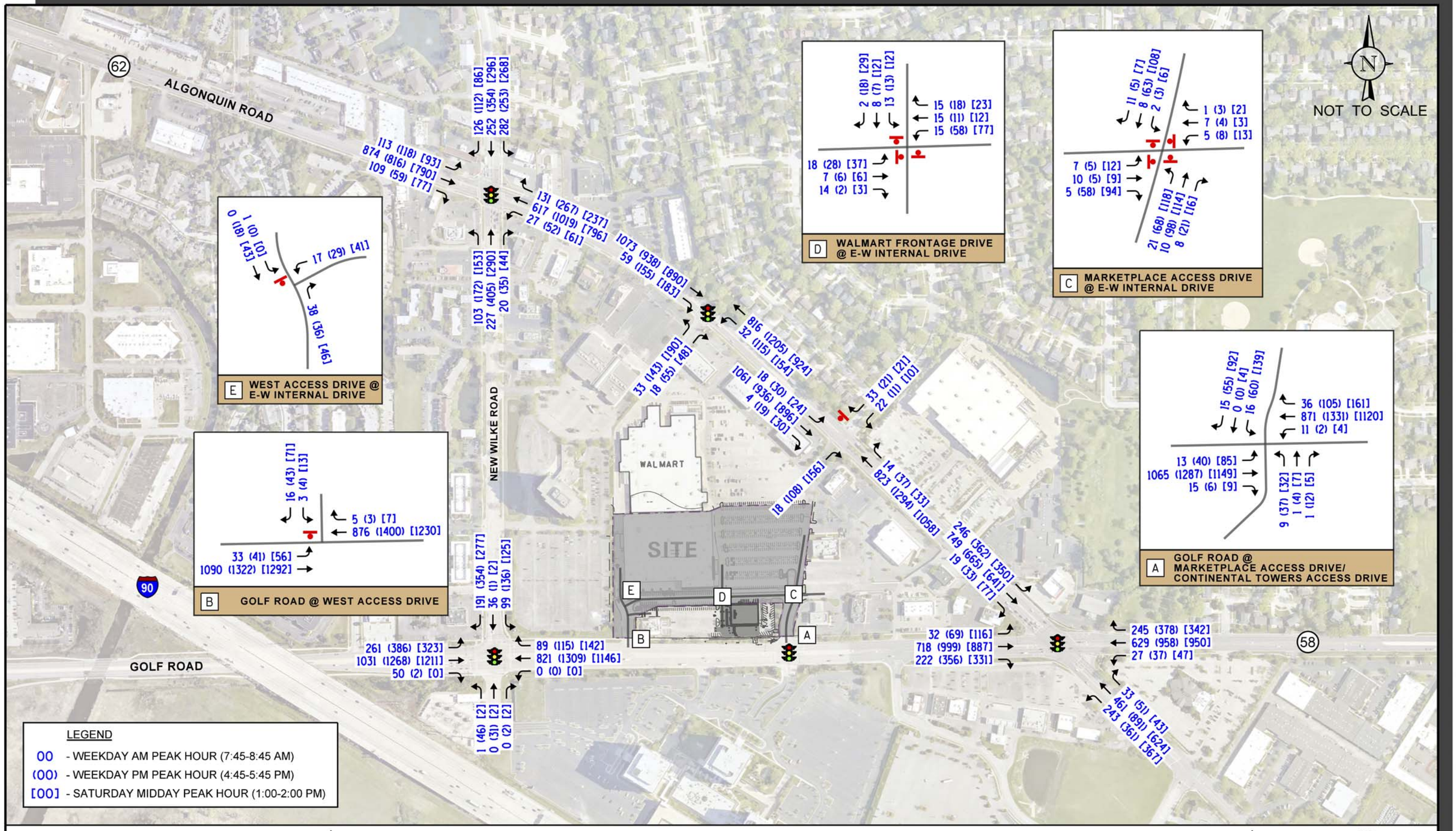


PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

PASS-BY TRAFFIC VOLUMES

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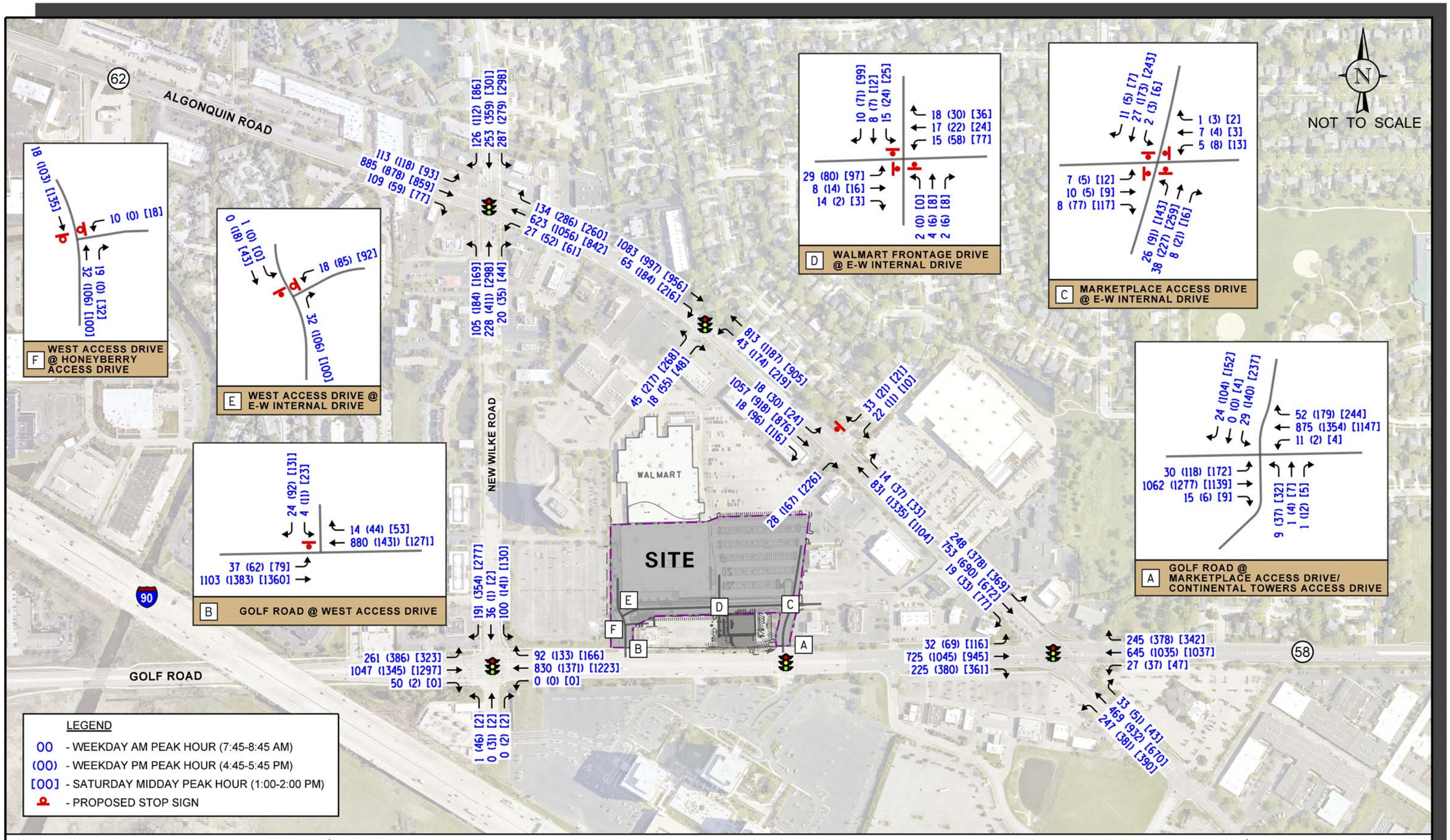
Job No: 23-270 Figure: 7



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

YEAR 2029 NO-BUILD TRAFFIC VOLUMES

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Job No: 23-270 Figure: 8



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES

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Job No: 23-270 Figure: 9

5. Traffic Analysis and Recommendations

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

Traffic Analyses

Intersection analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for the existing, Year 2029 no-build, and Year 2029 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM),* 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the signalized intersections were accomplished utilizing actual cycle lengths, phasings and offsets.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing, Year 2029 no-build, and Year 2029 total projected conditions are presented in **Tables 4** through **11**. The internal drive intersections are also included in the unsignalized capacity analysis tables. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 4
GOLF ROAD WITH ALGONQUIN ROAD – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound		Southbound		Overall
		L	T	R	L	T	R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning	E 78.6	D 36.0	B 17.5	E 77.5	D 37.1	C 23.0	E 72.6	D 43.2	E 72.5	D 50.9	D 43.9
		C – 33.2			C – 34.4			D – 52.9		E – 56.1		
	Weekday Evening	F 97.6	D 41.8	B 18.6	E 78.4	D 39.5	C 22.9	E 70.4	E 60.6	E 71.0	D 50.1	D 48.0
		D – 38.7			D – 36.0			E – 63.3		E – 57.2		
	Saturday Midday	F 86.4	D 35.9	B 16.9	E 64.7	D 40.8	C 23.2	E 57.9	D 41.8	E 57.1	D 43.6	D 41.4
		D – 35.6			D – 37.1			D – 47.4		D – 48.0		
Year 2029 No-Build Conditions	Weekday Morning	E 80.0	D 37.3	B 17.8	E 77.8	D 38.2	C 23.6	E 72.6	D 42.9	E 72.4	D 51.1	D 44.5
		C – 34.3			D – 35.4			D – 52.7		E – 56.3		
	Weekday Evening	F 99.7	D 43.0	B 18.5	E 78.6	D 41.4	C 24.0	E 70.0	E 66.4	E 71.2	D 52.1	D 50.0
		D – 39.6			D – 37.6			E – 67.4		E – 58.6		
	Saturday Midday	F 92.0	D 38.7	B 17.3	E 65.1	D 42.0	C 23.6	E 56.8	D 41.6	E 56.9	D 44.2	D 42.3
		D – 38.1			D – 38.1			D – 47.0		D – 48.4		
Year 2029 Projected Conditions	Weekday Morning	F 80.5	D 37.7	B 18.0	E 77.8	D 38.6	C 23.7	E 72.5	D 42.9	E 72.3	D 51.0	D 44.6
		C – 34.6			D – 35.8			D – 52.7		E – 56.2		
	Weekday Evening	F 97.1	D 45.1	C 20.4	E 78.6	D 42.2	C 23.5	E 69.8	E 78.7	E 71.0	D 54.3	D 53.1
		D – 41.2			D – 38.3			E – 76.2		E – 60.1		
	Saturday Midday	F 89.8	D 42.6	C 20.1	E 65.1	D 44.4	C 23.6	E 56.5	D 42.6	E 56.6	D 45.1	D 43.8
		D – 40.7			D – 40.1			D – 47.5		D – 48.9		

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

Table 5
GOLF ROAD WITH NEW WILKE ROAD – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	E 72.6	A 4.3	A 1.5	--	B 14.2	A 1.0	E 70.0	--	--	E 65.7	E 73.1	E 57.1	C 21.5
		B – 17.5			B – 12.9			E – 70.0			E – 61.5			
	Weekday Evening	D 49.3	A 6.0	A 1.0	--	D 42.4	A 8.7	D 53.0	E 69.4	--	F 84.7	E 66.0	E 61.5	C 33.3
		B – 16.1			D – 39.7			E – 59.8			E – 67.9			
	Saturday Midday	E 60.5	A 3.6	--	--	B 19.1	A 2.6	D 47.0	E 55.2	--	E 65.7	D 52.0	D 49.8	C 21.2
		B – 15.6			B – 17.3			D – 52.5			D – 54.6			
Year 2029 No-Build Conditions	Weekday Morning	E 72.4	A 4.4	A 1.5	--	B 16.5	A 1.1	E 70.0	--	--	E 66.5	E 73.1	E 57.3	C 22.3
		B – 17.5			B – 15.0			E – 70.0			E – 61.8			
	Weekday Evening	D 48.4	A 6.1	A 1.0	--	D 46.3	A 9.7	D 53.0	E 69.4	--	F 87.5	E 66.0	E 60.9	C 34.6
		B – 16.0			D – 43.3			E – 59.8			E – 68.3			
	Saturday Midday	E 60.5	A 3.7	--	--	C 20.0	A 3.0	D 47.0	E 55.2	--	E 69.4	D 52.0	D 50.5	C 21.8
		B – 15.7			B – 18.1			D – 52.5			E – 56.4			
Year 2029 Projected Conditions	Weekday Morning	E 72.4	A 4.4	A 1.5	--	B 16.6	A 1.1	E 70.0	--	--	E 66.7	E 73.1	E 57.3	C 22.2
		B – 17.4			B – 15.1			E – 70.0			E – 61.9			
	Weekday Evening	D 48.5	A 6.3	A 1.0	--	D 44.4	B 11.2	D 53.0	E 69.4	--	F 90.3	E 66.0	E 60.9	C 33.8
		B – 15.7			D – 41.5			E – 59.8			E – 69.3			
	Saturday Midday	E 60.5	A 3.8	--	--	B 19.9	A 3.9	D 47.0	E 55.2	--	E 71.4	D 52.0	D 50.5	C 21.4
		B – 15.1			B – 18.0			D – 52.5			E – 57.1			

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

Table 6
ALGONQUIN ROAD WITH NEW WILKE ROAD – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning	B 12.4	C 20.2	B 11.1	C 20.1	D 38.9	E 57.0	E 60.9	E 58.6	C 32.6
		B – 19.4		B – 19.7		D – 51.7		E – 59.6		
	Weekday Evening	C 32.8	C 27.1	B 14.1	D 35.7	D 35.9	E 59.2	D 43.5	D 52.1	D 38.7
		C – 27.8		C – 34.8		D – 52.7		D – 49.1		
	Saturday Midday	B 16.5	C 24.9	B 11.8	C 28.5	C 29.6	D 52.0	D 35.9	D 44.6	C 31.9
		C – 24.1		C – 27.5		D – 45.0		D – 41.0		
Year 2029 No-Build Conditions	Weekday Morning	B 13.0	C 21.2	B 11.4	C 20.9	D 38.6	D 54.4	E 64.5	E 58.7	C 33.3
		C – 20.3		C – 20.6		D – 49.7		E – 61.2		
	Weekday Evening	D 41.7	C 28.4	B 14.8	D 39.5	D 36.0	E 58.7	D 44.2	D 51.8	D 40.6
		C – 30.0		D – 38.5		D – 52.3		D – 49.1		
	Saturday Midday	B 17.7	C 25.9	B 12.3	C 30.0	C 29.6	D 52.1	D 36.5	D 44.8	C 32.8
		C – 25.1		C – 29.0		D – 45.0		D – 41.4		
Year 2029 Projected Conditions	Weekday Morning	B 13.1	C 21.4	B 11.4	C 21.1	D 38.6	D 54.8	E 66.1	E 58.5	C 33.6
		C – 20.6		C – 20.8		D – 50.0		E – 61.8		
	Weekday Evening	D 41.4	C 30.4	B 14.6	D 44.7	D 35.9	E 58.8	D 46.5	D 50.9	D 42.8
		C – 31.6		D – 43.6		D – 52.1		D – 49.3		
	Saturday Midday	B 19.8	C 27.8	B 13.4	C 32.4	C 29.6	D 52.2	D 38.4	D 44.5	C 34.2
		C – 27.1		C – 31.4		D – 44.7		D – 41.8		

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

Table 7
GOLF ROAD WITH MARKETPLACE ACCESS DRIVE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	F 88.9	A 2.2		E 56.1	A 4.5		E 63.3	E 67.0	E 68.0	E 73.5	--	E 75.3	A 5.0
		A – 2.8			A – 5.1			E – 64.0			E – 74.4			
	Weekday Evening	E 70.8	A 4.0		E 67.5	A 9.2		E 58.2	E 66.5	E 69.3	E 79.4	--	F 80.2	B 11.3
		A – 5.8			A – 9.3			E – 61.3			E – 79.8			
	Saturday Midday	E 68.4	A 4.5		D 56.0	B 12.0		D 45.3	E 55.6	E 55.4	E 66.1	D 53.5	D 49.1	B 14.6
		A – 8.2			B – 12.1			D – 48.0			E – 59.3			
Year 2029 No-Build Conditions	Weekday Morning	F 88.8	A 2.6		E 55.2	A 5.4		E 62.7	E 67.0	E 68.0	E 72.8	--	E 69.9	A 6.0
		A – 3.6			A – 6.0			E – 63.5			E – 71.4			
	Weekday Evening	E 71.8	A 4.2		E 68.0	A 9.4		E 57.8	E 66.5	E 69.3	F 80.7	--	F 80.6	B 11.7
		A – 6.2			A – 9.5			E – 61.0			F – 80.7			
	Saturday Midday	E 67.8	A 4.6		E 57.2	B 12.3		D 45.3	E 55.6	E 55.4	E 71.1	D 53.5	D 48.8	B 15.5
		A – 8.9			B – 12.4			D – 48.0			E – 62.0			
Year 2029 Projected Conditions	Weekday Morning	F 92.2	A 3.0		E 56.1	A 7.4		E 61.7	E 67.0	E 68.0	E 74.7	--	E 66.4	A 8.5
		A – 5.4			A – 8.0			E – 62.6			E – 71.0			
	Weekday Evening	E 78.3	A 4.7		E 69.0	B 12.6		E 56.0	E 66.5	E 69.3	F 121.8	--	E 72.2	B 19.3
		B – 10.9			B – 12.7			E – 59.8			F – 100.7			
	Saturday Midday	E 53.0	A 4.5		D 56.2	B 14.8		D 45.3	E 55.6	E 55.4	F 172.6	D 53.5	D 43.7	C 26.9
		B – 10.8			B – 14.9			D – 48.0			F – 121.5			

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

Table 8
ALGONQUIN ROAD WITH MERIDIAN ACCESS DRIVE – SIGNALIZED

	Peak Hour	Eastbound		Westbound		Northbound		Overall
		T	R	L	T	L	R	
Existing Conditions	Weekday Morning	A 2.8	A 2.7	A 2.1	A 2.4	E 67.7	E 64.8	A 4.3
		A – 2.8		A – 2.4		E – 66.7		
	Weekday Evening	A 7.4	A 6.7	A 5.5	A 6.2	E 70.9	E 57.5	B 11.4
		A – 7.3		A – 6.2		E – 67.2		
	Saturday Midday	A 9.6	A 9.3	A 6.9	A 6.6	E 58.9	D 43.5	B 13.0
		A – 9.6		A – 6.6		E – 55.8		
Year 2029 No-Build Conditions	Weekday Morning	A 3.1	A 2.9	A 2.2	A 2.4	E 67.7	E 64.8	A 4.4
		A – 3.1		A – 2.4		E – 66.7		
	Weekday Evening	A 7.3	A 6.6	A 5.7	A 6.4	E 70.9	E 57.5	B 11.3
		A – 7.2		A – 6.3		E – 67.2		
	Saturday Midday	B 10.0	A 9.6	A 7.2	A 6.7	E 59.0	D 43.4	B 13.1
		A – 9.9		A – 6.8		E – 55.9		
Year 2029 Projected Conditions	Weekday Morning	A 3.7	A 3.2	A 2.5	A 2.6	E 68.9	E 62.9	A 5.2
		A – 3.7		A – 2.6		E – 67.2		
	Weekday Evening	A 9.5	A 8.6	B 10.1	A 8.5	E 72.8	D 51.0	B 14.7
		A – 9.3		A – 8.7		E – 68.4		
	Saturday Midday	B 14.0	B 13.4	B 12.4	A 8.6	E 59.6	D 38.8	B 17.1
		B – 13.9		A – 9.3		E – 56.5		

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

Table 9
UNSIGNALIZED RESULTS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Golf Road with West Access Drive[1]						
• Southbound Approach	B	10.4	B	11.5	B	11.6
• Westbound Left Turn	A	9.4	B	10.0	A	9.8
Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive[1]						
• Northbound Approach	B	12.9	B	13.5	B	14.4
• Southbound Approach	B	13.6	C	15.7	B	14.4
• Eastbound Left Turn	A	8.3	A	9.6	A	8.8
Marketplace Access Drive with Internal E-W Drive[2]						
• Overall	A	7.1	A	8.0	A	8.6
• Eastbound Approach	A	7.1	A	7.4	A	7.9
• Westbound Approach	A	7.1	A	7.7	A	8.1
• Northbound Approach	A	7.2	A	8.4	A	9.1
• Southbound Approach	A	6.8	A	7.7	A	8.3
Walmart Frontage Drive with Internal E-W Drive[2]						
• Overall	A	7.1	A	7.4	A	7.4
• Eastbound Approach	A	7.1	A	7.5	A	7.6
• Westbound Approach	A	7.1	A	7.6	A	7.5
• Northbound Approach	A	7.0	A	7.0	A	7.1
• Southbound Approach	A	7.3	A	7.2	A	7.2
Loading Zone Drive with Internal E-W Drive[2]						
• Overall	A	6.8	A	6.9	A	7.1
• Westbound Approach	A	7.3	A	7.4	A	7.5
• Northbound Approach	A	6.5	A	6.5	A	6.6
• Southbound Approach	A	7.2	A	7.1	A	7.2

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

Table 10
UNSIGNALIZED RESULTS – YEAR 2029 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Golf Road with West Access Drive[1]						
• Southbound Approach	B	10.6	B	11.6	B	11.8
• Westbound Left Turn	A	9.6	B	10.0	A	9.8
Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive[1]						
• Northbound Approach	B	13.2	B	13.8	B	14.7
• Southbound Approach	B	13.8	C	16.2	B	14.6
• Eastbound Left Turn	A	8.3	A	9.8	A	8.8
Marketplace Access Drive with Internal E-W Drive[2]						
• Overall	A	7.1	A	8.5	A	9.1
• Eastbound Approach	A	7.1	A	7.9	A	8.3
• Westbound Approach	A	7.1	A	8.1	A	8.3
• Northbound Approach	A	7.2	A	9.0	A	9.8
• Southbound Approach	A	6.8	A	8.2	A	8.5
Walmart Frontage Drive with Internal E-W Drive[2]						
• Overall	A	7.1	A	7.6	A	7.6
• Eastbound Approach	A	7.1	A	7.5	A	7.6
• Westbound Approach	A	7.1	A	7.7	A	7.8
• Southbound Approach	A	7.3	A	7.3	A	7.3
Loading Zone Drive with Internal E-W Drive[2]						
• Overall	A	6.8	A	6.9	A	7.1
• Westbound Approach	A	7.3	A	7.4	A	7.5
• Northbound Approach	A	6.5	A	6.5	A	6.6
• Southbound Approach	A	7.2	A	7.1	A	7.3

LOS = Level of Service
Delay is measured in seconds.

1 – Two-way stop control
2 – All-way stop control

Table 11
UNSIGNALIZED RESULTS – YEAR 2029 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Golf Road with West Access Drive[1]						
• Southbound Approach	B	10.6	B	12.6	B	12.8
• Westbound Left Turn	A	9.7	B	10.3	B	10.1
Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive[1]						
• Northbound Approach	B	13.4	C	15.2	C	16.8
• Southbound Approach	B	13.9	C	17.2	C	15.8
• Eastbound Left Turn	A	8.3	A	10.0	A	8.9
Marketplace Access Drive with Internal E-W Drive[2]						
• Overall	A	7.3	B	10.3	B	13.0
• Eastbound Approach	A	7.1	A	8.4	A	9.8
• Westbound Approach	A	7.3	A	8.5	A	9.3
• Northbound Approach	A	7.4	B	11.4	C	15.3
• Southbound Approach	A	7.1	A	9.2	B	11.1
Walmart Frontage Drive with Internal E-W Drive[2]						
• Overall	A	7.2	A	8.1	A	8.3
• Eastbound Approach	A	7.2	A	8.3	A	8.5
• Westbound Approach	A	7.1	A	8.2	A	8.4
• Southbound Approach	A	7.2	A	7.9	A	8.1
West Access Drive with Internal E-W Drive[3]						
• ICU	A	13.3%	A	16.6%	A	16.2%
West Access Drive with Honeyberry Access[3]						
• ICU	A	13.3%	A	8.9%	A	17.2%

LOS = Level of Service
Delay is measured in seconds.
ICU = Intersection Capacity Utilization

1 – Two-way stop control
2 – All-way stop control
3 – Analyzed with ICU

Discussion and Recommendations

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

Golf Road with Algonquin Road

The results of the capacity analysis indicate that the intersection currently operates overall at LOS D during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue operating at LOS D during all three peak hours.
- All four approaches are projected to operate at LOS E, LOS D, or LOS C during the peak hours, which is consistent with the no-build and existing conditions.
- Due to Golf Road and Algonquin Road being classified as SRAs, the through movements are allocated the majority of the green time, resulting in lower levels of service for left-turning movements, which operate under a protected phase only.

As such, this intersection has adequate capacity to accommodate the traffic estimated to be generated by the proposed development and no additional roadway or traffic signal modifications are required.

Golf Road with New Wilke Road

The results of the capacity analysis indicate that the intersection currently operates overall at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue operating at LOS C during all three peak hours.
- The eastbound and westbound approaches on the coordinated roadway, Golf Road, are projected to operate at LOS B or LOS D during the peak hours.
- The northbound and southbound approaches are projected to operate at LOS E or LOS D during the peak hours.
- Due to Golf Road being classified an SRA, the through movements are allocated the majority of the green time, resulting in lower levels of service for the northbound and southbound approaches.

As such, this intersection has adequate capacity to accommodate the traffic estimated to be generated by the proposed development and no additional roadway or traffic signal modifications are required.

Algonquin Road with New Wilke Road

The results of the capacity analysis indicate that the intersection currently operates overall at LOS C during the weekday morning and Saturday midday peak hours and at LOS D during the weekday evening peak hour. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue operating at LOS C during the weekday morning and Saturday midday peak hours and at LOS D during the weekday evening peak hours.
- The eastbound and westbound approaches on the coordinated roadway, Algonquin Road, are projected to operate at LOS C or LOS D during the peak hours.
- The northbound and southbound approaches are projected to operate at LOS E or LOS D during the peak hours.
- Due to Algonquin Road being classified an SRA, the through movements are allocated the majority of the green time, resulting in lower levels of service for northbound and southbound approaches.

As such, this intersection has adequate capacity to accommodate the traffic estimated to be generated by the proposed development and no additional roadway or traffic signal modifications are required.

Golf Road with Marketplace Access Drive

The results of the capacity analysis indicate that the intersection currently operates overall at LOS A during the weekday morning peak hour and at LOS B during the weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue operating at LOS A during the weekday morning and at LOS B during the weekday evening peak hour and is projected to operate at LOS C during the Saturday midday peak hour.
- The eastbound and westbound approaches on the coordinated roadway, Golf Road, are projected to operate at LOS A or LOS B during the peak hours.
- The northbound and southbound approaches are projected to operate at LOS F, LOS E, or LOS D during peak hours.
- Due to Golf Road being classified as an SRA, the through movements are allocated the majority of the green time, resulting in lower levels of service for left-turning movements, which operate under a protected phase only.

- 95th percentile queues for the eastbound left-turn movement into the site are projected to be approximately 155 feet or less, which can be accommodated by the existing 235-foot storage of the turn lane.

- On the southbound approach, 95th percentile queues are projected to be approximately 305 feet or less, 175 feet of which can be accommodated between Golf Road and the internal east-west drive to the north. These queues, based on a review of the simulation, will clear the intersection the majority of the time. As the access drive extends through the shopping center as an internal drive, it is recommended that "Do Not Block Intersection" be posted at the first internal intersection to the north.

As such, overall this intersection can accommodate the traffic estimated to be generated by the proposed development and overall is projected to continue operating at acceptable levels of service.

Algonquin Road with Meridian Access Drive

The results of the capacity analysis indicate that the intersection currently operates overall at LOS A during the weekday morning peak hour and at LOS B during the weekday evening and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue operating at LOS A during the weekday morning and at LOS B during the weekday evening and Saturday midday peak hours.

- The eastbound and westbound approaches on the coordinated roadway, Algonquin Road, are projected to operate at LOS A or LOS B during the peak hours.

- The northbound approach from the shopping center is projected to operate at LOS E during all three peak hours.

- Due to Algonquin Road being an SRA, the through movements are allotted a majority of the green time, leading to the expected results of lower levels of service for the northbound approach.

- 95th percentile queues for the northbound approach from the shopping center are projected to be approximately 295 feet or less, which can be accommodated by the existing access drive without blocking access to internal drive aisles.

As such, overall, this intersection can accommodate the traffic estimated to be generated by the proposed development and overall is projected to continue operating at acceptable levels of service.

Golf Road with West Access Drive

The results of the capacity analysis indicate that all critical movements currently operate at LOS B or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The southbound approach from the site is projected to operate at LOS B during all three peak hours, with 95th percentile queues of one to two vehicles and minimal delay.

- The westbound left-turn movement from Golf Road into the site is projected to operate at LOS B or better during the peak hours.

As such, with the addition of marked lanes, this access drive is projected to continue to provide flexible and efficient access to the site.

Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive

The results of the capacity analysis indicate that all critical movements currently operate at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The northbound approach from the site is projected to operate at LOS C or better during all three peak hours.

- The southbound approach from Kennicott Avenue is projected to operate at LOS C or better during the peak hours.

- The eastbound left-turn movement from Algonquin Road to Kennicott Avenue is projected to operate at LOS A during all three peak hours.

As such, this access drive is projected to continue to provide flexible and efficient access to the site and no roadway or traffic control modifications are required in conjunction with the proposed development.

Marketplace Access Drive with Internal East-West Drive

The results of the capacity analysis indicate that overall the intersection and all approaches currently operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to operate overall at LOS B or better during all three peak hours.

- The 95th percentile queue for the northbound approach is projected to be approximately four vehicles or less during the peak hours, which can be accommodated by the existing access drive without extending queues to Golf Road.

As such, this internal intersection is projected to continue to operate well with minimal delays and no additional roadway or traffic control modifications are required in conjunction with the proposed development.

Walmart Frontage Drive with Internal East-West Drive

The results of the capacity analysis indicate that overall, the intersection and all approaches currently operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection is projected to operate as follows:

- The intersection is projected to continue to operate at LOS A during all three peak hours.
- The approaches under total projected conditions are projected to operate at LOS A during all three peak hours.
- 95th percentile queues are projected to be approximately one to two vehicles on all approaches during all three peak hours.
- As queues on the eastbound approach are only projected to be approximately one to two vehicles during the peak hours, only minimal parking spaces along the two-way drive aisle will be impacted minimally by the queues.

As such, this internal intersection is projected to continue to operate well with minimal delays and no additional roadway or traffic control modifications are required in conjunction with the proposed development.

West Access Drive with Internal East-West Drive

The results of the capacity analysis indicate that overall, the intersection and all approaches currently operate at LOS A during the weekday morning, weekday evening, and Saturday midday peak hours. Under Year 2029 total projected conditions, the intersection will be atypical with two adjacent stop sign controlled approaches. As such, the intersection was evaluated during projected conditions using the Intersection Capacity Utilization (ICU) method and is projected to operate as follows:

- The intersection is projected to operate at ICU A during all three peak hours.

With the intersection projected to operate under ICU A, minimal queues are expected at the signalized approaches and can be estimated to be approximately one to two vehicles during the peak hours based on a review of the simulation. 95th percentile queues for the westbound approach are projected to be one to two vehicles during the peak hours, which will extend to the two-way drive aisle, impacting the adjacent parking spaces minimally. As such, this internal intersection is projected to continue to operate well, with minimal delays and no additional roadway or traffic control modifications are required in conjunction with the proposed development.

West Access Drive with Honeyberry Pancakes and Café Access Drive

Under the Year 2029 total projected conditions, the intersection for the Honeyberry access drive will be more clearly defined from the east-west internal drive but continue to provide two-way access to the Honeyberry parking lot. As the intersection will be atypical with the southbound and westbound approaches under stop sign control, the ICU method was used for the evaluation, and the intersection is projected to operate as follows:

- The intersection is projected to operate at ICU A during all three peak hours.

With the intersection projected to operate under ICU A, minimal queues are expected at the signalized approaches and can be estimated to be approximately one to two vehicles during the peak hours based on a review of the simulation. As such, this internal intersection is projected to operate well, with minimal delays and no additional roadway or traffic control modifications are required in conjunction with the proposed development. Furthermore, the maintenance of two-way access to the Honeyberry parking lot will allow for reduced traffic along the east-west interior drive adjoining the south side of the Pacifica on Golf development and allow for reduced conflicts between pedestrians and traffic.

Internal Site Circulation Evaluation

A review of the internal circulation of the Marketplace shopping center was completed based on the proposed modifications and the conclusions are as follows:

- The internal intersections will be adequate in accommodating the projected future traffic traversing the shopping center.

- The addition of parking along the east-west internal drive aisle along the south side of the building will not create congestion with the two-way drive aisle maintaining the traffic flow.

- The maintenance of two-way Honeybear Pancakes and Café restaurant access from the west access drive will minimize traffic conflicts as traffic going to/from the restaurant will not have to utilize the two-way drive aisle immediately to the south of the Pacifica on Golf building.

- The addition of the raised crosswalk across the two-way drive aisle along the south frontage of the building will calm traffic as vehicles will slow to approach and pass the crosswalk and pedestrians will have increased visibility, therefore making the area safer for pedestrians.

- Additional analysis was conducted to evaluate the operations of the signalized intersection of Golf Road with the Marketplace access drive should traffic utilizing the two-way drive aisle along the south frontage of the building be diverted to the intersection.

    - It was assumed that approximately 50 percent of the traffic utilizing the Golf Road west access drive unsignalized intersection will utilize the signalized Marketplace access drive intersection.

    - The results of the analysis showed that the signalized intersection is projected to operate overall at LOS C during the weekday evening and Saturday midday peak hours.

    - The southbound left-turn is projected to operate at the same LOS as previously analyzed and the queues will increase by approximately 15 feet.

    - The southbound right-turn is projected to operate at the same LOS during the peak hours as previously analyzed and the queues are projected to increase by approximately 30 feet during both peak hours.

    - The eastbound left-turn is projected to operate at the same LOS as previously analyzed and the queues will increase by approximately ten feet or less.

    - As such, the intersection can accommodate the additional traffic that may divert for utilizing the two-way drive aisle along the south frontage of the building.

- The addition of the landscaped island will result in better north/south and east/west circulation at the intersection of the east-west and north-south internal drives and will reduce traffic conflicts.

6. Parking Evaluation

The following describes the results of a parking evaluation conducted for the parking lot serving the existing Walmart store and the proposed Pacifica on Golf development that takes into consideration the existing parking demand and parking demand generated by the proposed uses.

Existing Parking Demand

Parking inventory and occupancy surveys were conducted at the parking lots serving Walmart and the former Sam's Club. The parking lots have a combined inventory of approximately 930 parking spaces. The occupancy surveys were performed hourly from 9:00 A.M. to 8:00 P.M. on Friday, September 29, 2023 and Saturday, September 30, 2023. The surveys were conducted by zones throughout the parking lots. The results of the parking inventory and occupancy surveys are included in **Tables 12A** and **12B**.

The parking lots had a peak parking demand of 240 vehicles on Friday occurring at 2:00 P.M. and 265 vehicles on Saturday occurring at 2:00 P.M. These translate into an occupancy of approximately 26 percent on Friday and approximately 28 percent on Saturday during the peak hours of demand.

Table 12A
EXISTING PARKING SURVEYS – FRIDAY, SEPTEMBER 29, 2023

Time	Zones		Total	Percent Occupied
	1	2		
9:00 AM	127	9	136	15%
10:00 AM	146	12	158	17%
11:00 AM	169	11	180	19%
12:00 PM	197	10	207	22%
1:00 PM	217	15	232	25%
2:00 PM	**227**	**13**	**240**	**26%**
3:00 PM	190	12	202	22%
4:00 PM	193	12	205	22%
5:00 PM	192	13	205	22%
6:00 PM	210	4	214	23%
7:00 PM	202	2	204	22%
8:00 PM	144	1	145	16%
Inventory	**873**	**57**	**930**	

Table 12B
EXISTING PARKING SURVEYS – SATURDAY, SEPTEMBER 30, 2023

Time	Zones		Total	Percent Occupied
	1	2		
9:00 AM	132	4	136	15%
10:00 AM	165	9	174	19%
11:00 AM	203	17	220	24%
12:00 PM	235	15	250	27%
1:00 PM	238	15	253	27%
2:00 PM	**251**	**14**	**265**	**28%**
3:00 PM	223	10	233	25%
4:00 PM	226	9	235	25%
5:00 PM	210	8	218	23%
6:00 PM	194	7	201	22%
7:00 PM	180	1	181	19%
8:00 PM	139	1	140	15%
Inventory	**873**	**57**	**930**	

Pacifica on Golf Required Parking

Based on the City of Rolling Meadows, the Pacifica on Golf development is required to provide approximately 647 parking spaces. The proposed parking supply for the development is proposed to provide approximately 481 parking spaces, which results in a deficit of approximately 166 parking spaces.

Based on parking ratios published by ITE in its 6th edition of the *Parking Generation Manual*, the Pacifica on Golf development is required to provide approximately 520 parking spaces on the weekdays and approximately 621 parking spaces on the weekend. The parking ratios and resulting number of spaces for each use were based on the total square footage of each use and are summarized in **Table 13**. Given that the proposed parking supply for the development will be approximately 481 parking spaces, the calculated demand will exceed the proposed supply by approximately 39 parking spaces on weekdays and will exceed the proposed supply by approximately 140 parking spaces on weekends.

Table 13
REQUIRED PARKING SPACES

LUC	Use Description	Square Feet	Weekday Parking Ratio[1]	Weekday Required Spaces	Weekend Parking Ratio[1]	Weekend Required Spaces
435	Multipurpose Recreational Facility	41,717	1.8	75	2.5	104
822	Strip Retail Plaza (<40k)	11,231	2.79	31	2.77	31
850	Supermarket	42,789	2.47	106	2.93	125
930	Fast Casual Restaurant	1,138	9.77	11	7.97	9
931	Fine Dining Restaurant	11,753	16.18	190	18.23	214
932	High-Turnover (Sit-Down) Restaurant	11,978	8.97	107	11.53	138
	Total			**520**		**621**

1 – Per 1,000 square feet

Pacifica on Golf Hourly Parking Distribution

The Institute of Transportation Engineers (ITE) *Parking Generation Manual*, 6th Edition includes hourly distribution for parking demands. Each use (sit-down restaurant, supermarket, etc.) has a corresponding percentage occupancy table published within the manual. These percentages are then applied to the required parking spaces for each use. The hourly distribution for the Pacifica on Golf development is based on the calculated ITE required parking spaces for the weekday and weekend, respectively. **Tables 14A** and **14B** summarize the hourly distribution of parking demand for the proposed development.

Table 14A
ESTIMATED PACIFICA ON GOLF HOURLY PARKING OCCUPANCY – WEEKDAY

Time Period	Proposed Uses						Total
	Multipurpose Recreational Facility	Strip Retail Plaza	Supermarket	Fast Casual Restaurant	Fine Dining Restaurant	High-Turnover (Sit Down) Restaurant	
9:00 AM	0	10	30	1	8	7	56
10:00 AM	34	15	59	2	17	15	142
11:00 AM	49	17	71	2	32	30	201
12:00 PM	64	28	91	11	74	103	371
1:00 PM	71	31	92	9	101	107	411
2:00 PM	75	23	99	4	89	55	345
3:00 PM	71	23	101	4	67	40	306
4:00 PM	68	20	98	3	78	36	303
5:00 PM	53	22	101	5	95	60	336
6:00 PM	45	23	106	8	133	93	408
7:00 PM	34	22	83	7	179	97	422
8:00 PM	0	17	41	4	190	78	330

Table 14B
ESTIMATED PACIFICA ON GOLF HOURLY PARKING OCCUPANCY – WEEKEND

Time Period	Proposed Uses						Total
	Multipurpose Recreational Facility	Strip Retail Plaza	Supermarket	Fast Casual Restaurant	Fine Dining Restaurant	High-Turnover (Sit Down) Restaurant	
9:00 AM	0	12	51	1	11	11	86
10:00 AM	26	17	101	1	21	23	189
11:00 AM	68	20	115	2	43	46	294
12:00 PM	88	26	123	6	86	77	406
1:00 PM	94	31	125	7	133	95	485
2:00 PM	99	30	123	9	148	80	489
3:00 PM	99	24	125	5	105	68	426
4:00 PM	94	20	116	4	141	87	462
5:00 PM	99	20	120	5	169	106	519
6:00 PM	104	21	60	8	182	138	413
7:00 PM	99	22	30	5	212	138	506
8:00 PM	94	22	15	4	212	117	464

Projected Shared Parking Demand Results

Tables 15A and **15B** show the total projected parking demand for the parking lots serving Walmart and the Pacifica on Golf development based on the following:

- The existing hourly parking demand surveyed within the parking lots serving Walmart and the former Sam's Club building.
- The hourly parking demand estimated to be generated by the proposed Pacifica on Golf development.

It should be noted that the number of total parking spaces will be increased by approximately 21 parking spaces with the modifications to the parking lot in conjunction with Pacifica on Golf which will increase the overall supply to 951 parking spaces provided by the parking lots.

The following summarizes the results of the projected parking demand:

- *Weekday Peak Parking Demand*: The parking supply serving Walmart and Pacifica on Golf is estimated to have a peak parking demand of approximately 643 vehicles (68 percent) on a weekday at 1:00 P.M.
- *Weekend Peak Parking Demand*: The parking supply serving Walmart and Pacifica on Golf is estimated to have a peak parking demand of approximately 754 vehicles (79 percent) on a Saturday at 2:00 P.M.

Based on the projected parking demand, it can be seen that the modified parking supply will be sufficient in accommodating the future parking demand of the parking lots serving Walmart and Pacifica on Golf.

Table 15A
PROJECTED HOURLY PARKING OCCUPANCY – WEEKDAY

Time	Existing Demand	Pacifica on Golf Demand	Total	Percent Occupied
9:00 AM	136	56	192	20%
10:00 AM	158	142	300	32%
11:00 AM	180	201	381	40%
12:00 PM	207	371	578	61%
1:00 PM	**232**	**411**	**643**	**68%**
2:00 PM	240	345	585	62%
3:00 PM	202	306	508	53%
4:00 PM	205	303	508	53%
5:00 PM	205	336	541	57%
6:00 PM	214	408	622	65%
7:00 PM	204	422	626	66%
8:00 PM	145	330	475	50%

Table 15B
PROJECTED HOURLY PARKING OCCUPANCY – WEEKEND

Time	Existing Demand	Pacifica on Golf Demand	Total	Percent Occupied
9:00 AM	136	86	222	23%
10:00 AM	174	189	363	38%
11:00 AM	220	294	514	54%
12:00 PM	250	406	656	69%
1:00 PM	253	485	738	78%
2:00 PM	**265**	**489**	**754**	**79%**
3:00 PM	233	426	659	69%
4:00 PM	235	462	697	73%
5:00 PM	218	519	737	77%
6:00 PM	201	513	714	75%
7:00 PM	181	506	687	72%
8:00 PM	140	464	604	64%

7. Conclusion

Based on the analyses and recommendations within the study, the following conclusions were made:

- The total volume of traffic estimated to be generated by the proposed Pacifica on Golf development will be reduced due to pass-by trips and internal capture.

- The results of the capacity analysis indicate that the traffic that will be generated by the proposed development will not have a significant impact on the area roadways.

- The access system serving the Marketplace shopping center will continue to provide flexible and efficient access to accommodate the traffic estimated to be generated by the development.

- The outbound unmarked lane at the west access drive should be striped to provide a left-turn lane and a right-turn lane in conjunction with the proposed development.

- The site plan provides for efficient circulation throughout the site and the addition of stop signs and stop bars will further enhance circulation along the south site frontage.

- Traffic conflicts throughout the site will be reduced due to parking lot modifications and maintaining two-way drive aisles throughout the site.

- The proposed parking supply will be adequate in serving the proposed parking demand of the Pacifica on Golf development and the existing Walmart store, taking into account the shared parking concept.

- The addition of parking on the south side of the building will not have a negative impact on traffic circulation and will ensure that adequate parking is provided within close proximity of the proposed uses that face south.

- The addition of a raised crosswalk on the south side of the building will increase pedestrian safety and will calm traffic.

Appendix

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

Traffic Count Summary Sheets

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

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

Count Name: Algonquin Road and Golf Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	4	148	40	0	193	0	3	115	33	0	151	0	25	79	3	0	107	0	38	150	5	0	193	644
7:15 AM	0	4	198	55	0	257	0	3	133	32	0	168	0	37	104	3	0	144	0	68	181	4	0	253	822
7:30 AM	3	2	211	57	0	273	0	4	158	70	0	232	0	50	105	4	0	159	0	59	176	2	0	237	901
7:45 AM	0	8	231	74	0	313	0	10	144	56	0	210	0	61	126	9	0	196	0	71	211	6	0	288	1007
Hourly Total	4	18	788	226	0	1036	0	20	550	191	0	761	0	173	414	19	0	606	0	236	718	17	0	971	3374
8:00 AM	1	9	162	48	0	220	0	2	157	76	0	235	0	45	112	6	0	163	0	49	171	4	0	224	842
8:15 AM	0	5	154	53	0	212	0	4	156	55	0	215	0	55	109	7	0	171	0	58	161	5	0	224	822
8:30 AM	0	8	143	38	0	189	0	10	148	49	0	207	0	73	96	10	0	179	0	59	177	3	0	239	814
8:45 AM	1	14	147	45	0	207	0	8	152	54	0	214	0	64	126	10	0	200	0	66	160	5	0	231	852
Hourly Total	2	36	606	184	0	828	0	24	613	234	0	871	0	237	443	33	0	713	0	232	669	17	0	918	3330
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	19	195	90	0	304	0	9	212	108	0	329	0	76	191	4	0	271	0	94	166	7	0	267	1171
4:15 PM	0	22	247	90	0	359	0	13	189	91	2	293	0	87	228	17	0	332	1	77	178	7	0	263	1247
4:30 PM	0	27	224	75	0	326	0	13	209	85	0	307	0	84	169	19	0	272	0	87	177	5	0	269	1174
4:45 PM	1	14	213	67	0	295	0	10	212	83	0	305	0	83	202	14	0	299	0	75	170	9	0	254	1153
Hourly Total	1	82	879	322	0	1284	0	45	822	367	2	1234	0	330	790	54	0	1174	1	333	691	28	0	1053	4745
5:00 PM	1	14	239	101	0	355	0	9	262	97	0	368	0	92	216	15	0	323	0	61	134	9	0	204	1250
5:15 PM	0	17	269	83	0	369	0	6	227	84	0	317	0	85	209	7	0	301	0	122	175	7	0	304	1291
5:30 PM	1	18	238	90	0	347	0	11	218	99	0	328	0	86	230	13	0	329	0	90	160	7	0	257	1261
5:45 PM	0	21	232	99	0	352	1	17	237	94	0	349	0	81	213	12	0	306	0	94	154	10	0	258	1265
Hourly Total	2	70	978	373	0	1423	1	43	944	374	0	1362	0	344	868	47	0	1259	0	367	623	33	0	1023	5067
Grand Total	9	206	3251	1105	0	4571	1	132	2929	1166	2	4228	0	1084	2515	153	0	3752	1	1168	2701	95	0	3965	16516
Approach %	0.2	4.5	71.1	24.2	-	-	0.0	3.1	69.3	27.6	-	-	0.0	28.9	67.0	4.1	-	-	0.0	29.5	68.1	2.4	-	-	-
Total %	0.1	1.2	19.7	6.7	-	27.7	0.0	0.8	17.7	7.1	-	25.6	0.0	6.6	15.2	0.9	-	22.7	0.0	7.1	16.4	0.6	-	24.0	-
Lights	9	203	3200	1063	-	4475	1	126	2884	1153	-	4164	0	1035	2439	145	-	3619	1	1155	2606	95	-	3857	16115
% Lights	100.0	98.5	98.4	96.2	-	97.9	100.0	95.5	98.5	98.9	-	98.5	-	95.5	97.0	94.8	-	96.5	100.0	98.9	96.5	100.0	-	97.3	97.6
Buses	0	1	10	13	-	24	0	1	10	2	-	13	0	18	20	1	-	39	0	4	20	0	-	24	100
% Buses	0.0	0.5	0.3	1.2	-	0.5	0.0	0.8	0.3	0.2	-	0.3	-	1.7	0.8	0.7	-	1.0	0.0	0.3	0.7	0.0	-	0.6	0.6
Single-Unit Trucks	0	0	34	24	-	58	0	4	27	9	-	40	0	23	33	7	-	63	0	8	49	0	-	57	218
% Single-Unit Trucks	0.0	0.0	1.0	2.2	-	1.3	0.0	3.0	0.9	0.8	-	0.9	-	2.1	1.3	4.6	-	1.7	0.0	0.7	1.8	0.0	-	1.4	1.3
Articulated Trucks	0	2	7	5	-	14	0	1	7	2	-	10	0	8	23	0	-	31	0	1	26	0	-	27	82
% Articulated Trucks	0.0	1.0	0.2	0.5	-	0.3	0.0	0.8	0.2	0.2	-	0.2	-	0.7	0.9	0.0	-	0.8	0.0	0.1	1.0	0.0	-	0.7	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1

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

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Count Name: Algonquin Road and Golf Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	8	231	74	0	313	0	10	144	56	0	210	0	61	126	9	0	196	0	71	211	6	0	288	1007
8:00 AM	1	9	162	48	0	220	0	2	157	76	0	235	0	45	112	6	0	163	0	49	171	4	0	224	842
8:15 AM	0	5	154	53	0	212	0	4	156	55	0	215	0	55	109	7	0	171	0	58	161	5	0	224	822
8:30 AM	0	8	143	38	0	189	0	10	148	49	0	207	0	73	96	10	0	179	0	59	177	3	0	239	814
Total	1	30	690	213	0	934	0	26	605	236	0	867	0	234	443	32	0	709	0	237	720	18	0	975	3485
Approach %	0.1	3.2	73.9	22.8	-	-	0.0	3.0	69.8	27.2	-	-	0.0	33.0	62.5	4.5	-	-	0.0	24.3	73.8	1.8	-	-	-
Total %	0.0	0.9	19.8	6.1	-	26.8	0.0	0.7	17.4	6.8	-	24.9	0.0	6.7	12.7	0.9	-	20.3	0.0	6.8	20.7	0.5	-	28.0	-
PHF	0.250	0.833	0.747	0.720	-	0.746	0.000	0.650	0.963	0.776	-	0.922	0.000	0.801	0.879	0.800	-	0.904	0.000	0.835	0.853	0.750	-	0.846	0.865
Lights	1	28	671	207	-	907	0	25	591	229	-	845	0	222	414	29	-	665	0	230	700	18	-	948	3365
% Lights	100.0	93.3	97.2	97.2	-	97.1	-	96.2	97.7	97.0	-	97.5	-	94.9	93.5	90.6	-	93.8	-	97.0	97.2	100.0	-	97.2	96.6
Buses	0	0	3	2	-	5	0	0	2	2	-	4	0	5	9	1	-	15	0	3	10	0	-	13	37
% Buses	0.0	0.0	0.4	0.9	-	0.5	-	0.0	0.3	0.8	-	0.5	-	2.1	2.0	3.1	-	2.1	-	1.3	1.4	0.0	-	1.3	1.1
Single-Unit Trucks	0	0	14	1	-	15	0	1	12	4	-	17	0	6	15	2	-	23	0	4	6	0	-	10	65
% Single-Unit Trucks	0.0	0.0	2.0	0.5	-	1.6	-	3.8	2.0	1.7	-	2.0	-	2.6	3.4	6.3	-	3.2	-	1.7	0.8	0.0	-	1.0	1.9
Articulated Trucks	0	2	2	3	-	7	0	0	0	1	-	1	0	1	5	0	-	6	0	0	4	0	-	4	18
% Articulated Trucks	0.0	6.7	0.3	1.4	-	0.7	-	0.0	0.0	0.4	-	0.1	-	0.4	1.1	0.0	-	0.8	-	0.0	0.6	0.0	-	0.4	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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(847)518-9990 kpachowicz@kloainc.com

Count Name: Algonquin Road and Golf Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	1	14	213	67	0	295	0	10	212	83	0	305	0	83	202	14	0	299	0	75	170	9	0	254	1153
5:00 PM	1	14	239	101	0	355	0	9	262	97	0	368	0	92	216	15	0	323	0	61	134	9	0	204	1250
5:15 PM	0	17	269	83	0	369	0	6	227	84	0	317	0	85	209	7	0	301	0	122	175	7	0	304	1291
5:30 PM	1	18	238	90	0	347	0	11	218	99	0	328	0	86	230	13	0	329	0	90	160	7	0	257	1261
Total	3	63	959	341	0	1366	0	36	919	363	0	1318	0	346	857	49	0	1252	0	348	639	32	0	1019	4955
Approach %	0.2	4.6	70.2	25.0	-	-	0.0	2.7	69.7	27.5	-	-	0.0	27.6	68.5	3.9	-	-	0.0	34.2	62.7	3.1	-	-	-
Total %	0.1	1.3	19.4	6.9	-	27.6	0.0	0.7	18.5	7.3	-	26.6	0.0	7.0	17.3	1.0	-	25.3	0.0	7.0	12.9	0.6	-	20.6	-
PHF	0.750	0.875	0.891	0.844	-	0.925	0.000	0.818	0.877	0.917	-	0.895	0.000	0.940	0.932	0.817	-	0.951	0.000	0.713	0.913	0.889	-	0.838	0.960
Lights	3	63	950	334	-	1350	0	33	916	360	-	1309	0	339	841	48	-	1228	0	346	620	32	-	998	4885
% Lights	100.0	100.0	99.1	97.9	-	98.8	-	91.7	99.7	99.2	-	99.3	-	98.0	98.1	98.0	-	98.1	-	99.4	97.0	100.0	-	97.9	98.6
Buses	0	0	3	4	-	7	0	1	1	0	-	2	0	3	1	0	-	4	0	1	0	0	-	1	14
% Buses	0.0	0.0	0.3	1.2	-	0.5	-	2.8	0.1	0.0	-	0.2	-	0.9	0.1	0.0	-	0.3	-	0.3	0.0	0.0	-	0.1	0.3
Single-Unit Trucks	0	0	5	3	-	8	0	2	1	2	-	5	0	4	8	1	-	13	0	1	12	0	-	13	39
% Single-Unit Trucks	0.0	0.0	0.5	0.9	-	0.6	-	5.6	0.1	0.6	-	0.4	-	1.2	0.9	2.0	-	1.0	-	0.3	1.9	0.0	-	1.3	0.8
Articulated Trucks	0	0	1	0	-	1	0	0	1	1	-	2	0	0	7	0	-	7	0	0	7	0	-	7	17
% Articulated Trucks	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.3	-	0.2	-	0.0	0.8	0.0	-	0.6	-	0.0	1.1	0.0	-	0.7	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin+and+Golf - SATURDAY
TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	1	30	167	83	1	281	0	15	218	77	0	310	0	81	107	18	0	206	0	79	140	15	0	234	1031
12:15 PM	0	32	182	72	0	286	0	13	250	88	0	351	0	98	146	19	0	263	0	81	160	23	0	264	1164
12:30 PM	0	35	194	78	1	307	0	21	219	92	0	332	0	90	153	12	0	255	1	82	179	20	0	282	1176
12:45 PM	1	26	227	63	0	317	0	12	228	75	0	315	0	89	149	15	0	253	0	83	154	13	1	250	1135
Hourly Total	2	123	770	296	2	1191	0	61	915	332	0	1308	0	358	555	64	0	977	1	325	633	71	1	1030	4506
1:00 PM	1	37	214	73	1	325	0	10	262	74	0	346	0	88	144	6	0	238	2	85	144	22	1	253	1162
1:15 PM	1	17	218	74	1	310	0	14	238	83	0	335	0	77	153	13	0	243	1	99	159	12	1	271	1159
1:30 PM	3	25	199	77	0	304	0	10	207	94	2	311	0	100	152	12	0	264	0	68	127	20	1	215	1094
1:45 PM	4	24	219	92	0	339	0	11	202	78	0	291	0	84	151	10	0	245	1	81	186	20	0	288	1163
Hourly Total	9	103	850	316	2	1278	0	45	909	329	2	1283	0	349	600	41	0	990	4	333	616	74	3	1027	4578
Grand Total	11	226	1620	612	4	2469	0	106	1824	661	2	2591	0	707	1155	105	0	1967	5	658	1249	145	4	2057	9084
Approach %	0.4	9.2	65.6	24.8	-	-	0.0	4.1	70.4	25.5	-	-	0.0	35.9	58.7	5.3	-	-	0.2	32.0	60.7	7.0	-	-	-
Total %	0.1	2.5	17.8	6.7	-	27.2	0.0	1.2	20.1	7.3	-	28.5	0.0	7.8	12.7	1.2	-	21.7	0.1	7.2	13.7	1.6	-	22.6	-
Lights	11	225	1603	594	-	2433	0	102	1811	657	-	2570	0	696	1147	104	-	1947	5	656	1235	144	-	2040	8990
% Lights	100.0	99.6	99.0	97.1	-	98.5	-	96.2	99.3	99.4	-	99.2	-	98.4	99.3	99.0	-	99.0	100.0	99.7	98.9	99.3	-	99.2	99.0
Buses	0	0	9	4	-	13	0	0	5	1	-	6	0	5	0	0	-	5	0	1	1	0	-	2	26
% Buses	0.0	0.0	0.6	0.7	-	0.5	-	0.0	0.3	0.2	-	0.2	-	0.7	0.0	0.0	-	0.3	0.0	0.2	0.1	0.0	-	0.1	0.3
Single-Unit Trucks	0	1	5	5	-	11	0	4	5	2	-	11	0	1	6	1	-	8	0	0	7	1	-	8	38
% Single-Unit Trucks	0.0	0.4	0.3	0.8	-	0.4	-	3.8	0.3	0.3	-	0.4	-	0.1	0.5	1.0	-	0.4	0.0	0.0	0.6	0.7	-	0.4	0.4
Articulated Trucks	0	0	3	9	-	12	0	0	3	1	-	4	0	5	2	0	-	7	0	1	6	0	-	7	30
% Articulated Trucks	0.0	0.0	0.2	1.5	-	0.5	-	0.0	0.2	0.2	-	0.2	-	0.7	0.2	0.0	-	0.4	0.0	0.2	0.5	0.0	-	0.3	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

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

Count Name: Algonquin+and+Golf - SATURDAY
TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	1	37	214	73	1	325	0	10	262	74	0	346	0	88	144	6	0	238	2	85	144	22	1	253	1162
1:15 PM	1	17	218	74	1	310	0	14	238	83	0	335	0	77	153	13	0	243	1	99	159	12	1	271	1159
1:30 PM	3	25	199	77	0	304	0	10	207	94	2	311	0	100	152	12	0	264	0	68	127	20	1	215	1094
1:45 PM	4	24	219	92	0	339	0	11	202	78	0	291	0	84	151	10	0	245	1	81	186	20	0	288	1163
Total	9	103	850	316	2	1278	0	45	909	329	2	1283	0	349	600	41	0	990	4	333	616	74	3	1027	4578
Approach %	0.7	8.1	66.5	24.7	-	-	0.0	3.5	70.8	25.6	-	-	0.0	35.3	60.6	4.1	-	-	0.4	32.4	60.0	7.2	-	-	-
Total %	0.2	2.2	18.6	6.9	-	27.9	0.0	1.0	19.9	7.2	-	28.0	0.0	7.6	13.1	0.9	-	21.6	0.1	7.3	13.5	1.6	-	22.4	-
PHF	0.563	0.696	0.970	0.859	-	0.942	0.000	0.804	0.867	0.875	-	0.927	0.000	0.873	0.980	0.788	-	0.938	0.500	0.841	0.828	0.841	-	0.891	0.984
Lights	9	102	842	311	-	1264	0	43	901	328	-	1272	0	344	596	40	-	980	4	332	608	73	-	1017	4533
% Lights	100.0	99.0	99.1	98.4	-	98.9	-	95.6	99.1	99.7	-	99.1	-	98.6	99.3	97.6	-	99.0	100.0	99.7	98.7	98.6	-	99.0	99.0
Buses	0	0	3	2	-	5	0	0	2	0	-	2	0	3	0	0	-	3	0	1	1	0	-	2	12
% Buses	0.0	0.0	0.4	0.6	-	0.4	-	0.0	0.2	0.0	-	0.2	-	0.9	0.0	0.0	-	0.3	0.0	0.3	0.2	0.0	-	0.2	0.3
Single-Unit Trucks	0	1	4	3	-	8	0	2	5	1	-	8	0	1	4	1	-	6	0	0	6	1	-	7	29
% Single-Unit Trucks	0.0	1.0	0.5	0.9	-	0.6	-	4.4	0.6	0.3	-	0.6	-	0.3	0.7	2.4	-	0.6	0.0	0.0	1.0	1.4	-	0.7	0.6
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	1	0	0	-	1	0	0	1	0	-	1	4
% Articulated Trucks	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.3	0.0	0.0	-	0.1	0.0	0.0	0.2	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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

Count Name: Golf Road with New Wilke Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	43	168	4	0	216	0	0	138	14	2	152	0	0	0	0	0	0	0	20	4	32	0	56	424
7:15 AM	3	43	217	7	0	270	0	1	149	11	0	161	0	1	0	0	0	1	0	20	5	34	0	59	491
7:30 AM	2	47	238	14	0	301	0	1	160	8	0	169	0	0	0	0	0	0	0	25	6	47	1	78	548
7:45 AM	1	71	315	15	0	402	0	0	213	21	0	234	0	0	0	0	0	0	0	18	12	45	0	75	711
Hourly Total	7	204	938	40	0	1189	0	2	660	54	2	716	0	1	0	0	0	1	0	83	27	158	1	268	2174
8:00 AM	0	58	237	13	0	308	0	0	189	21	0	210	0	0	0	0	0	0	0	37	8	45	0	90	608
8:15 AM	1	75	228	11	0	315	0	0	189	18	0	207	0	0	0	0	0	0	0	24	11	50	0	85	607
8:30 AM	0	45	211	11	0	267	0	0	198	26	0	224	0	1	0	0	0	1	0	16	5	44	0	65	557
8:45 AM	0	41	203	11	0	255	0	0	198	23	0	221	0	1	0	0	0	1	0	24	11	54	0	89	566
Hourly Total	1	219	879	46	0	1145	0	0	774	88	0	862	0	2	0	0	0	2	0	101	35	193	0	329	2338
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	62	293	1	0	356	0	0	247	22	1	269	0	11	5	0	0	16	0	40	0	67	0	107	748
4:15 PM	0	71	360	2	0	433	0	0	279	28	1	307	0	3	5	2	0	10	0	24	3	93	1	120	870
4:30 PM	1	78	286	1	0	366	0	0	274	24	3	298	0	8	10	1	0	19	0	37	1	115	0	153	836
4:45 PM	0	78	272	1	0	351	0	0	290	36	1	326	0	8	5	0	0	13	0	25	0	95	0	120	810
Hourly Total	1	289	1211	5	0	1506	0	0	1090	110	6	1200	0	30	25	3	0	58	0	126	4	370	1	500	3264
5:00 PM	0	94	326	1	1	421	0	0	346	29	1	375	0	17	8	2	1	27	0	42	1	73	0	116	939
5:15 PM	1	108	306	0	0	415	0	0	332	24	2	356	0	11	12	0	0	23	0	30	0	84	0	114	908
5:30 PM	1	89	313	0	0	403	0	0	290	21	1	311	0	10	6	0	0	16	0	33	0	88	0	121	851
5:45 PM	0	79	320	2	0	401	0	0	266	31	1	297	0	11	2	2	1	15	0	32	0	66	0	98	811
Hourly Total	2	370	1265	3	1	1640	0	0	1234	105	5	1339	0	49	28	4	2	81	0	137	1	311	0	449	3509
Grand Total	11	1082	4293	94	1	5480	0	2	3758	357	13	4117	0	82	53	7	2	142	0	447	67	1032	2	1546	11285
Approach %	0.2	19.7	78.3	1.7	-	-	0.0	0.0	91.3	8.7	-	-	0.0	57.7	37.3	4.9	-	-	0.0	28.9	4.3	66.8	-	-	-
Total %	0.1	9.6	38.0	0.8	-	48.6	0.0	0.0	33.3	3.2	-	36.5	0.0	0.7	0.5	0.1	-	1.3	0.0	4.0	0.6	9.1	-	13.7	-
Lights	11	1066	4223	94	-	5394	0	2	3675	347	-	4024	0	82	53	7	-	142	0	425	66	1025	-	1516	11076
% Lights	100.0	98.5	98.4	100.0	-	98.4	-	100.0	97.8	97.2	-	97.7	-	100.0	100.0	100.0	-	100.0	-	95.1	98.5	99.3	-	98.1	98.1
Buses	0	5	23	0	-	28	0	0	32	3	-	35	0	0	0	0	-	0	0	2	1	1	-	4	67
% Buses	0.0	0.5	0.5	0.0	-	0.5	-	0.0	0.9	0.8	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.4	1.5	0.1	-	0.3	0.6
Single-Unit Trucks	0	10	35	0	-	45	0	0	35	6	-	41	0	0	0	0	-	0	0	15	0	5	-	20	106
% Single-Unit Trucks	0.0	0.9	0.8	0.0	-	0.8	-	0.0	0.9	1.7	-	1.0	-	0.0	0.0	0.0	-	0.0	-	3.4	0.0	0.5	-	1.3	0.9
Articulated Trucks	0	0	12	0	-	12	0	0	16	1	-	17	0	0	0	0	-	0	0	5	0	1	-	6	35
% Articulated Trucks	0.0	0.0	0.3	0.0	-	0.2	-	0.0	0.4	0.3	-	0.4	-	0.0	0.0	0.0	-	0.0	-	1.1	0.0	0.1	-	0.4	0.3
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1

% Bicycles on Road	0.0	0.1	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	13	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Golf Road with New Wilke Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	1	71	315	15	0	402	0	0	213	21	0	234	0	0	0	0	0	0	0	18	12	45	0	75	711
8:00 AM	0	58	237	13	0	308	0	0	189	21	0	210	0	0	0	0	0	0	0	37	8	45	0	90	608
8:15 AM	1	75	228	11	0	315	0	0	189	18	0	207	0	0	0	0	0	0	0	24	11	50	0	85	607
8:30 AM	0	45	211	11	0	267	0	0	198	26	0	224	0	1	0	0	0	1	0	16	5	44	0	65	557
Total	2	249	991	50	0	1292	0	0	789	86	0	875	0	1	0	0	0	1	0	95	36	184	0	315	2483
Approach %	0.2	19.3	76.7	3.9	-	-	0.0	0.0	90.2	9.8	-	-	0.0	100.0	0.0	0.0	-	-	0.0	30.2	11.4	58.4	-	-	-
Total %	0.1	10.0	39.9	2.0	-	52.0	0.0	0.0	31.8	3.5	-	35.2	0.0	0.0	0.0	0.0	-	0.0	0.0	3.8	1.4	7.4	-	12.7	-
PHF	0.500	0.830	0.787	0.833	-	0.803	0.000	0.000	0.926	0.827	-	0.935	0.000	0.250	0.000	0.000	-	0.250	0.000	0.642	0.750	0.920	-	0.875	0.873
Lights	2	238	974	50	-	1264	0	0	763	82	-	845	0	1	0	0	-	1	0	90	35	181	-	306	2416
% Lights	100.0	95.6	98.3	100.0	-	97.8	-	-	96.7	95.3	-	96.6	-	100.0	-	-	-	100.0	-	94.7	97.2	98.4	-	97.1	97.3
Buses	0	4	3	0	-	7	0	0	8	0	-	8	0	0	0	0	-	0	0	0	1	1	-	2	17
% Buses	0.0	1.6	0.3	0.0	-	0.5	-	-	1.0	0.0	-	0.9	-	0.0	-	-	-	0.0	-	0.0	2.8	0.5	-	0.6	0.7
Single-Unit Trucks	0	7	9	0	-	16	0	0	10	4	-	14	0	0	0	0	-	0	0	3	0	2	-	5	35
% Single-Unit Trucks	0.0	2.8	0.9	0.0	-	1.2	-	-	1.3	4.7	-	1.6	-	0.0	-	-	-	0.0	-	3.2	0.0	1.1	-	1.6	1.4
Articulated Trucks	0	0	5	0	-	5	0	0	8	0	-	8	0	0	0	0	-	0	0	2	0	0	-	2	15
% Articulated Trucks	0.0	0.0	0.5	0.0	-	0.4	-	-	1.0	0.0	-	0.9	-	0.0	-	-	-	0.0	-	2.1	0.0	0.0	-	0.6	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Golf Road with New Wilke Road
TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	78	272	1	0	351	0	0	290	36	1	326	0	8	5	0	0	13	0	25	0	95	0	120	810
5:00 PM	0	94	326	1	1	421	0	0	346	29	1	375	0	17	8	2	1	27	0	42	1	73	0	116	939
5:15 PM	1	108	306	0	0	415	0	0	332	24	2	356	0	11	12	0	0	23	0	30	0	84	0	114	908
5:30 PM	1	89	313	0	0	403	0	0	290	21	1	311	0	10	6	0	0	16	0	33	0	88	0	121	851
Total	2	369	1217	2	1	1590	0	0	1258	110	5	1368	0	46	31	2	1	79	0	130	1	340	0	471	3508
Approach %	0.1	23.2	76.5	0.1	-	-	0.0	0.0	92.0	8.0	-	-	0.0	58.2	39.2	2.5	-	-	0.0	27.6	0.2	72.2	-	-	-
Total %	0.1	10.5	34.7	0.1	-	45.3	0.0	0.0	35.9	3.1	-	39.0	0.0	1.3	0.9	0.1	-	2.3	0.0	3.7	0.0	9.7	-	13.4	-
PHF	0.500	0.854	0.933	0.500	-	0.944	0.000	0.000	0.909	0.764	-	0.912	0.000	0.676	0.646	0.250	-	0.731	0.000	0.774	0.250	0.895	-	0.973	0.934
Lights	2	368	1203	2	-	1575	0	0	1245	110	-	1355	0	46	31	2	-	79	0	130	1	340	-	471	3480
% Lights	100.0	99.7	98.8	100.0	-	99.1	-	-	99.0	100.0	-	99.0	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	99.2
Buses	0	0	8	0	-	8	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	0.0	0.0	0.7	0.0	-	0.5	-	-	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	4	0	-	4	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	9
% Single-Unit Trucks	0.0	0.0	0.3	0.0	-	0.3	-	-	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Articulated Trucks	0	0	2	0	-	2	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.1	-	-	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.3	0.0	0.0	-	0.1	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Golf+Road+with+New+Wilke+Road - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	81	238	0	0	319	0	0	239	26	2	265	0	0	2	0	1	2	0	46	0	62	0	108	694
12:15 PM	1	69	255	0	0	325	0	0	306	47	0	353	0	0	0	0	2	0	0	42	0	31	0	73	751
12:30 PM	1	69	258	1	0	329	0	0	297	37	1	334	0	0	3	0	0	3	0	35	0	60	1	95	761
12:45 PM	2	64	247	3	0	316	0	0	317	39	0	356	0	0	3	1	1	4	0	36	0	55	1	91	767
Hourly Total	4	283	998	4	0	1289	0	0	1159	149	3	1308	0	0	8	1	4	9	0	159	0	208	2	367	2973
1:00 PM	1	63	274	0	0	338	0	0	285	40	1	325	0	1	1	1	0	3	0	31	2	66	0	99	765
1:15 PM	1	69	301	0	0	371	0	0	279	26	0	305	0	0	0	0	0	0	0	27	0	76	0	103	779
1:30 PM	0	87	276	0	1	363	0	0	258	30	0	288	0	1	0	1	0	2	0	24	0	63	1	87	740
1:45 PM	0	90	310	0	0	400	0	0	277	39	1	316	0	0	1	0	1	1	0	33	0	61	0	94	811
Hourly Total	2	309	1161	0	1	1472	0	0	1099	135	2	1234	0	2	2	2	1	6	0	115	2	266	1	383	3095
Grand Total	6	592	2159	4	1	2761	0	0	2258	284	5	2542	0	2	10	3	5	15	0	274	2	474	3	750	6068
Approach %	0.2	21.4	78.2	0.1	-	-	0.0	0.0	88.8	11.2	-	-	0.0	13.3	66.7	20.0	-	-	0.0	36.5	0.3	63.2	-	-	-
Total %	0.1	9.8	35.6	0.1	-	45.5	0.0	0.0	37.2	4.7	-	41.9	0.0	0.0	0.2	0.0	-	0.2	0.0	4.5	0.0	7.8	-	12.4	-
Lights	6	590	2124	4	-	2724	0	0	2237	283	-	2520	0	2	10	3	-	15	0	270	2	472	-	744	6003
% Lights	100.0	99.7	98.4	100.0	-	98.7	-	-	99.1	99.6	-	99.1	-	100.0	100.0	100.0	-	100.0	-	98.5	100.0	99.6	-	99.2	98.9
Buses	0	1	9	0	-	10	0	0	5	0	-	5	0	0	0	0	-	0	0	1	0	0	-	1	16
% Buses	0.0	0.2	0.4	0.0	-	0.4	-	-	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.4	0.0	0.0	-	0.1	0.3
Single-Unit Trucks	0	1	16	0	-	17	0	0	8	0	-	8	0	0	0	0	-	0	0	2	0	2	-	4	29
% Single-Unit Trucks	0.0	0.2	0.7	0.0	-	0.6	-	-	0.4	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.4	-	0.5	0.5
Articulated Trucks	0	0	10	0	-	10	0	0	8	0	-	8	0	0	0	0	-	0	0	1	0	0	-	1	19
% Articulated Trucks	0.0	0.0	0.5	0.0	-	0.4	-	-	0.4	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.4	0.0	0.0	-	0.1	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	-	0.0	0.4	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Golf+Road+with+New+Wilke+Road - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
1:00 PM	1	63	274	0	0	338	0	0	285	40	1	325	0	1	1	1	0	3	0	31	2	66	0	99	765
1:15 PM	1	69	301	0	0	371	0	0	279	26	0	305	0	0	0	0	0	0	0	27	0	76	0	103	779
1:30 PM	0	87	276	0	1	363	0	0	258	30	0	288	0	1	0	1	0	2	0	24	0	63	1	87	740
1:45 PM	0	90	310	0	0	400	0	0	277	39	1	316	0	0	1	0	1	1	0	33	0	61	0	94	811
Total	2	309	1161	0	1	1472	0	0	1099	135	2	1234	0	2	2	2	1	6	0	115	2	266	1	383	3095
Approach %	0.1	21.0	78.9	0.0	-	-	0.0	0.0	89.1	10.9	-	-	0.0	33.3	33.3	33.3	-	-	0.0	30.0	0.5	69.5	-	-	-
Total %	0.1	10.0	37.5	0.0	-	47.6	0.0	0.0	35.5	4.4	-	39.9	0.0	0.1	0.1	0.1	-	0.2	0.0	3.7	0.1	8.6	-	12.4	-
PHF	0.500	0.858	0.936	0.000	-	0.920	0.000	0.000	0.964	0.844	-	0.949	0.000	0.500	0.500	0.500	-	0.500	0.000	0.871	0.250	0.875	-	0.930	0.954
Lights	2	309	1149	0	-	1460	0	0	1086	135	-	1221	0	2	2	2	-	6	0	113	2	264	-	379	3066
% Lights	100.0	100.0	99.0	-	-	99.2	-	-	98.8	100.0	-	98.9	-	100.0	100.0	100.0	-	100.0	-	98.3	100.0	99.2	-	99.0	99.1
Buses	0	0	4	0	-	4	0	0	2	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	7
% Buses	0.0	0.0	0.3	-	-	0.3	-	-	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.9	0.0	0.0	-	0.3	0.2
Single-Unit Trucks	0	0	7	0	-	7	0	0	6	0	-	6	0	0	0	0	-	0	0	1	0	2	-	3	16
% Single-Unit Trucks	0.0	0.0	0.6	-	-	0.5	-	-	0.5	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.9	0.0	0.8	-	0.8	0.5
Articulated Trucks	0	0	1	0	-	1	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.0	0.1	-	-	0.1	-	-	0.5	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: New Wilke Road and Algonquin Road TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	27	158	12	0	197	0	5	87	20	0	112	0	19	37	4	1	60	0	43	36	28	0	107	476
7:15 AM	0	43	204	5	0	252	0	9	107	22	0	138	0	20	36	2	0	58	0	56	35	21	0	112	560
7:30 AM	0	33	191	13	0	237	0	4	116	24	0	144	0	22	37	2	1	61	0	62	49	31	0	142	584
7:45 AM	0	34	235	24	0	293	0	6	161	38	0	205	0	16	63	4	1	83	0	57	61	37	0	155	736
Hourly Total	0	137	788	54	0	979	0	24	471	104	0	599	0	77	173	12	3	262	0	218	181	117	0	516	2356
8:00 AM	0	14	183	26	0	223	0	7	137	37	1	181	0	33	51	5	1	89	0	63	60	36	0	159	652
8:15 AM	0	38	216	36	0	290	0	9	162	24	1	195	0	26	59	3	0	88	0	75	63	23	0	161	734
8:30 AM	2	21	206	19	1	248	1	3	133	27	0	164	0	24	45	7	0	76	0	76	58	25	1	159	647
8:45 AM	0	28	213	31	0	272	0	5	126	24	1	155	0	24	61	7	0	92	0	54	63	34	0	151	670
Hourly Total	2	101	818	112	1	1033	1	24	558	112	3	695	0	107	216	22	1	345	0	268	244	118	1	630	2703
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	26	214	15	2	255	1	12	238	48	0	299	0	34	63	5	3	102	0	53	78	38	0	169	825
4:15 PM	0	16	191	15	3	222	2	7	265	60	0	334	0	36	71	11	1	118	0	71	98	35	0	204	878
4:30 PM	0	36	205	26	1	267	1	7	221	71	0	300	0	46	80	11	0	137	0	61	94	26	5	181	885
4:45 PM	0	32	179	5	0	216	1	16	218	60	1	295	0	40	90	4	1	134	0	57	92	28	0	177	822
Hourly Total	0	110	789	61	6	960	5	42	942	239	1	1228	0	156	304	31	5	491	0	242	362	127	5	731	3410
5:00 PM	0	22	183	15	1	220	0	14	265	66	0	345	0	57	95	6	1	158	0	48	70	20	1	138	861
5:15 PM	0	24	229	19	0	272	0	10	216	71	1	297	0	35	100	11	4	146	0	65	84	35	0	184	899
5:30 PM	0	35	194	17	0	246	1	8	281	60	0	350	0	32	104	13	1	149	0	73	94	25	0	192	937
5:45 PM	0	27	191	18	0	236	2	11	232	68	0	313	0	42	89	8	0	139	0	59	67	22	2	148	836
Hourly Total	0	108	797	69	1	974	3	43	994	265	1	1305	0	166	388	38	6	592	0	245	315	102	3	662	3533
Grand Total	2	456	3192	296	8	3946	9	133	2965	720	5	3827	0	506	1081	103	15	1690	0	973	1102	464	9	2539	12002
Approach %	0.1	11.6	80.9	7.5	-	-	0.2	3.5	77.5	18.8	-	-	0.0	29.9	64.0	6.1	-	-	0.0	38.3	43.4	18.3	-	-	-
Total %	0.0	3.8	26.6	2.5	-	32.9	0.1	1.1	24.7	6.0	-	31.9	0.0	4.2	9.0	0.9	-	14.1	0.0	8.1	9.2	3.9	-	21.2	-
Lights	2	446	3113	290	-	3851	9	130	2885	703	-	3727	0	481	1066	100	-	1647	0	952	1092	451	-	2495	11720
% Lights	100.0	97.8	97.5	98.0	-	97.6	100.0	97.7	97.3	97.6	-	97.4	-	95.1	98.6	97.1	-	97.5	-	97.8	99.1	97.2	-	98.3	97.7
Buses	0	2	19	3	-	24	0	0	16	4	-	20	0	5	9	1	-	15	0	5	4	6	-	15	74
% Buses	0.0	0.4	0.6	1.0	-	0.6	0.0	0.0	0.5	0.6	-	0.5	-	1.0	0.8	1.0	-	0.9	-	0.5	0.4	1.3	-	0.6	0.6
Single-Unit Trucks	0	7	37	3	-	47	0	1	27	11	-	39	0	18	5	2	-	25	0	14	5	7	-	26	137
% Single-Unit Trucks	0.0	1.5	1.2	1.0	-	1.2	0.0	0.8	0.9	1.5	-	1.0	-	3.6	0.5	1.9	-	1.5	-	1.4	0.5	1.5	-	1.0	1.1
Articulated Trucks	0	1	23	0	-	24	0	2	37	2	-	41	0	2	0	0	-	2	0	2	0	0	-	2	69
% Articulated Trucks	0.0	0.2	0.7	0.0	-	0.6	0.0	1.5	1.2	0.3	-	1.1	-	0.4	0.0	0.0	-	0.1	-	0.2	0.0	0.0	-	0.1	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	8	-	-	-	-	-	5	-	-	-	-	-	15	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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(847)518-9990 kpachowicz@kloainc.com

Count Name: New Wilke Road and Algonquin Road TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	34	235	24	0	293	0	6	161	38	0	205	0	16	63	4	1	83	0	57	61	37	0	155	736
8:00 AM	0	14	183	26	0	223	0	7	137	37	1	181	0	33	51	5	1	89	0	63	60	36	0	159	652
8:15 AM	0	38	216	36	0	290	0	9	162	24	1	195	0	26	59	3	0	88	0	75	63	23	0	161	734
8:30 AM	2	21	206	19	1	248	1	3	133	27	0	164	0	24	45	7	0	76	0	76	58	25	1	159	647
Total	2	107	840	105	1	1054	1	25	593	126	2	745	0	99	218	19	2	336	0	271	242	121	1	634	2769
Approach %	0.2	10.2	79.7	10.0	-	-	0.1	3.4	79.6	16.9	-	-	0.0	29.5	64.9	5.7	-	-	0.0	42.7	38.2	19.1	-	-	-
Total %	0.1	3.9	30.3	3.8	-	38.1	0.0	0.9	21.4	4.6	-	26.9	0.0	3.6	7.9	0.7	-	12.1	0.0	9.8	8.7	4.4	-	22.9	-
PHF	0.250	0.704	0.894	0.729	-	0.899	0.250	0.694	0.915	0.829	-	0.909	0.000	0.750	0.865	0.679	-	0.944	0.000	0.891	0.960	0.818	-	0.984	0.941
Lights	2	105	820	102	-	1029	1	24	557	121	-	703	0	94	212	18	-	324	0	268	236	116	-	620	2676
% Lights	100.0	98.1	97.6	97.1	-	97.6	100.0	96.0	93.9	96.0	-	94.4	-	94.9	97.2	94.7	-	96.4	-	98.9	97.5	95.9	-	97.8	96.6
Buses	0	1	11	2	-	14	0	0	10	0	-	10	0	2	2	0	-	4	0	2	3	3	-	8	36
% Buses	0.0	0.9	1.3	1.9	-	1.3	0.0	0.0	1.7	0.0	-	1.3	-	2.0	0.9	0.0	-	1.2	-	0.7	1.2	2.5	-	1.3	1.3
Single-Unit Trucks	0	1	6	1	-	8	0	0	11	3	-	14	0	2	4	1	-	7	0	1	2	2	-	5	34
% Single-Unit Trucks	0.0	0.9	0.7	1.0	-	0.8	0.0	0.0	1.9	2.4	-	1.9	-	2.0	1.8	5.3	-	2.1	-	0.4	0.8	1.7	-	0.8	1.2
Articulated Trucks	0	0	3	0	-	3	0	1	15	2	-	18	0	1	0	0	-	1	0	0	0	0	-	0	22
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.3	0.0	4.0	2.5	1.6	-	2.4	-	1.0	0.0	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.2	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: New Wilke Road and Algonquin Road TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	0	32	179	5	0	216	1	16	218	60	1	295	0	40	90	4	1	134	0	57	92	28	0	177	822
5:00 PM	0	22	183	15	1	220	0	14	265	66	0	345	0	57	95	6	1	158	0	48	70	20	1	138	861
5:15 PM	0	24	229	19	0	272	0	10	216	71	1	297	0	35	100	11	4	146	0	65	84	35	0	184	899
5:30 PM	0	35	194	17	0	246	1	8	281	60	0	350	0	32	104	13	1	149	0	73	94	25	0	192	937
Total	0	113	785	56	1	954	2	48	980	257	2	1287	0	164	389	34	7	587	0	243	340	108	1	691	3519
Approach %	0.0	11.8	82.3	5.9	-	-	0.2	3.7	76.1	20.0	-	-	0.0	27.9	66.3	5.8	-	-	0.0	35.2	49.2	15.6	-	-	-
Total %	0.0	3.2	22.3	1.6	-	27.1	0.1	1.4	27.8	7.3	-	36.6	0.0	4.7	11.1	1.0	-	16.7	0.0	6.9	9.7	3.1	-	19.6	-
PHF	0.000	0.807	0.857	0.737	-	0.877	0.500	0.750	0.872	0.905	-	0.919	0.000	0.719	0.935	0.654	-	0.929	0.000	0.832	0.904	0.771	-	0.900	0.939
Lights	0	112	770	56	-	938	2	48	969	254	-	1273	0	164	388	34	-	586	0	239	339	107	-	685	3482
% Lights	-	99.1	98.1	100.0	-	98.3	100.0	100.0	98.9	98.8	-	98.9	-	100.0	99.7	100.0	-	99.8	-	98.4	99.7	99.1	-	99.1	98.9
Buses	0	0	0	0	-	0	0	0	1	1	-	2	0	0	0	0	-	0	0	1	0	0	-	1	3
% Buses	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.4	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.4	0.0	0.0	-	0.1	0.1
Single-Unit Trucks	0	1	10	0	-	11	0	0	3	2	-	5	0	0	0	0	-	0	0	3	1	1	-	5	21
% Single-Unit Trucks	-	0.9	1.3	0.0	-	1.2	0.0	0.0	0.3	0.8	-	0.4	-	0.0	0.0	0.0	-	0.0	-	1.2	0.3	0.9	-	0.7	0.6
Articulated Trucks	0	0	5	0	-	5	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	12
% Articulated Trucks	-	0.0	0.6	0.0	-	0.5	0.0	0.0	0.7	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

Count Name: New+Wilke+and+Algonquin - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	1	30	173	19	1	223	2	13	145	49	4	209	0	39	72	11	3	122	0	79	100	31	1	210	764
12:15 PM	0	20	208	25	2	253	0	11	200	62	1	273	0	29	67	9	2	105	0	69	64	20	1	153	784
12:30 PM	0	24	186	19	1	229	0	17	174	61	1	252	0	32	91	7	6	130	0	67	74	23	0	164	775
12:45 PM	0	23	186	24	0	233	0	18	204	59	0	281	0	30	62	20	3	112	0	56	58	27	2	141	767
Hourly Total	1	97	753	87	4	938	2	59	723	231	6	1015	0	130	292	47	14	469	0	271	296	101	4	668	3090
1:00 PM	0	24	168	17	0	209	0	15	183	50	2	248	0	34	85	13	0	132	0	74	68	25	3	167	756
1:15 PM	0	28	206	24	3	258	0	13	206	60	2	279	0	33	59	7	5	99	0	51	83	12	1	146	782
1:30 PM	0	18	168	13	2	199	0	20	180	49	0	249	0	39	67	12	1	118	0	65	61	20	2	146	712
1:45 PM	0	19	217	18	0	254	0	11	195	69	0	275	0	40	67	10	3	117	0	68	71	26	2	165	811
Hourly Total	0	89	759	72	5	920	0	59	764	228	4	1051	0	146	278	42	9	466	0	258	283	83	8	624	3061
Grand Total	1	186	1512	159	9	1858	2	118	1487	459	10	2066	0	276	570	89	23	935	0	529	579	184	12	1292	6151
Approach %	0.1	10.0	81.4	8.6	-	-	0.1	5.7	72.0	22.2	-	-	0.0	29.5	61.0	9.5	-	-	0.0	40.9	44.8	14.2	-	-	-
Total %	0.0	3.0	24.6	2.6	-	30.2	0.0	1.9	24.2	7.5	-	33.6	0.0	4.5	9.3	1.4	-	15.2	0.0	8.6	9.4	3.0	-	21.0	-
Lights	1	185	1495	157	-	1838	2	118	1478	457	-	2055	0	276	569	88	-	933	0	527	577	183	-	1287	6113
% Lights	100.0	99.5	98.9	98.7	-	98.9	100.0	100.0	99.4	99.6	-	99.5	-	100.0	99.8	98.9	-	99.8	-	99.6	99.7	99.5	-	99.6	99.4
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	10	2	-	13	0	0	7	1	-	8	0	0	0	0	-	0	0	0	1	1	-	2	23
% Single-Unit Trucks	0.0	0.5	0.7	1.3	-	0.7	0.0	0.0	0.5	0.2	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.5	-	0.2	0.4
Articulated Trucks	0	0	6	0	-	6	0	0	2	0	-	2	0	0	0	0	-	0	0	2	1	0	-	3	11
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.4	0.2	0.0	-	0.2	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	0	0	1	1	-	2	0	0	0	0	-	0	3
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.2	-	0.0	-	0.0	0.2	1.1	-	0.2	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	9	-	-	-	-	-	10	-	-	-	-	-	23	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

Count Name: New+Wilke+and+Algonquin - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						New Wilke Road Northbound						New Wilke Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	24	168	17	0	209	0	15	183	50	2	248	0	34	85	13	0	132	0	74	68	25	3	167	756
1:15 PM	0	28	206	24	3	258	0	13	206	60	2	279	0	33	59	7	5	99	0	51	83	12	1	146	782
1:30 PM	0	18	168	13	2	199	0	20	180	49	0	249	0	39	67	12	1	118	0	65	61	20	2	146	712
1:45 PM	0	19	217	18	0	254	0	11	195	69	0	275	0	40	67	10	3	117	0	68	71	26	2	165	811
Total	0	89	759	72	5	920	0	59	764	228	4	1051	0	146	278	42	9	466	0	258	283	83	8	624	3061
Approach %	0.0	9.7	82.5	7.8	-	-	0.0	5.6	72.7	21.7	-	-	0.0	31.3	59.7	9.0	-	-	0.0	41.3	45.4	13.3	-	-	-
Total %	0.0	2.9	24.8	2.4	-	30.1	0.0	1.9	25.0	7.4	-	34.3	0.0	4.8	9.1	1.4	-	15.2	0.0	8.4	9.2	2.7	-	20.4	-
PHF	0.000	0.795	0.874	0.750	-	0.891	0.000	0.738	0.927	0.826	-	0.942	0.000	0.913	0.818	0.808	-	0.883	0.000	0.872	0.852	0.798	-	0.934	0.944
Lights	0	89	748	71	-	908	0	59	760	227	-	1046	0	146	277	42	-	465	0	258	282	83	-	623	3042
% Lights	-	100.0	98.6	98.6	-	98.7	-	100.0	99.5	99.6	-	99.5	-	100.0	99.6	100.0	-	99.8	-	100.0	99.6	100.0	-	99.8	99.4
Buses	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	7	1	-	8	0	0	4	1	-	5	0	0	0	0	-	0	0	0	1	0	-	1	14
% Single-Unit Trucks	-	0.0	0.9	1.4	-	0.9	-	0.0	0.5	0.4	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.2	0.5
Articulated Trucks	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.4	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	5	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

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

Count Name: Golf Road with Signalized Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Continental Towers Access Drive Northbound						Marketplace Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	186	2	2	188	0	1	151	4	0	156	0	2	0	1	2	3	0	1	0	0	0	1	348
7:15 AM	0	1	216	1	0	218	0	3	156	7	0	166	0	2	0	0	0	2	0	4	0	1	0	5	391
7:30 AM	0	1	271	3	1	275	0	4	179	4	0	187	0	2	0	0	0	2	0	4	0	0	0	4	468
7:45 AM	0	2	311	5	0	318	0	4	226	6	0	236	0	3	0	0	0	3	0	3	0	2	0	5	562
Hourly Total	0	4	984	11	3	999	0	12	712	21	0	745	0	9	0	1	2	10	0	12	0	3	0	15	1769
8:00 AM	0	2	260	3	0	265	0	1	190	9	0	200	0	1	1	0	0	2	0	3	0	1	0	4	471
8:15 AM	0	2	243	4	1	249	0	2	209	7	0	218	0	2	0	0	1	2	0	1	0	5	0	6	475
8:30 AM	0	2	215	3	2	220	0	4	218	8	0	230	0	3	0	1	1	4	0	4	0	3	0	7	461
8:45 AM	0	11	220	1	0	232	1	3	217	13	0	234	0	2	1	1	0	4	0	3	0	3	0	6	476
Hourly Total	0	17	938	11	3	966	1	10	834	37	0	882	0	8	2	2	2	12	0	11	0	12	0	23	1883
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	10	308	1	0	319	0	0	289	15	0	304	0	8	0	1	2	9	0	16	0	14	0	30	662
4:15 PM	0	11	364	0	0	375	1	1	274	16	0	292	1	14	1	1	0	17	0	13	1	17	0	31	715
4:30 PM	0	11	310	0	0	321	1	1	302	22	0	326	0	16	0	2	0	18	0	20	0	11	0	31	696
4:45 PM	0	8	276	0	0	284	0	1	354	23	0	378	0	15	1	2	0	18	0	8	0	17	1	25	705
Hourly Total	0	40	1258	1	0	1299	2	3	1219	76	0	1300	1	53	2	6	2	62	0	57	1	59	1	117	2778
5:00 PM	0	11	325	2	0	338	0	0	315	19	0	334	0	10	2	8	0	20	0	15	0	16	0	31	723
5:15 PM	0	9	319	1	0	329	0	1	330	31	0	362	0	5	1	1	1	7	0	14	0	9	0	23	721
5:30 PM	1	5	321	3	2	330	0	0	285	25	0	310	0	7	0	1	1	8	0	16	0	9	1	25	673
5:45 PM	0	6	319	1	1	326	1	1	270	32	0	304	0	13	1	2	0	16	0	21	0	14	0	35	681
Hourly Total	1	31	1284	7	3	1323	1	2	1200	107	0	1310	0	35	4	12	2	51	0	66	0	48	1	114	2798
Grand Total	1	92	4464	30	9	4587	4	27	3965	241	0	4237	1	105	8	21	8	135	0	146	1	122	2	269	9228
Approach %	0.0	2.0	97.3	0.7	-	-	0.1	0.6	93.6	5.7	-	-	0.7	77.8	5.9	15.6	-	-	0.0	54.3	0.4	45.4	-	-	-
Total %	0.0	1.0	48.4	0.3	-	49.7	0.0	0.3	43.0	2.6	-	45.9	0.0	1.1	0.1	0.2	-	1.5	0.0	1.6	0.0	1.3	-	2.9	-
Lights	1	88	4360	30	-	4479	4	27	3876	239	-	4146	1	103	8	21	-	133	0	140	1	118	-	259	9017
% Lights	100.0	95.7	97.7	100.0	-	97.6	100.0	100.0	97.8	99.2	-	97.9	100.0	98.1	100.0	100.0	-	98.5	-	95.9	100.0	96.7	-	96.3	97.7
Buses	0	0	22	0	-	22	0	0	29	1	-	30	0	0	0	0	-	0	0	0	0	1	-	1	53
% Buses	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.7	0.4	-	0.7	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.8	-	0.4	0.6
Single-Unit Trucks	0	4	61	0	-	65	0	0	45	0	-	45	0	2	0	0	-	2	0	5	0	3	-	8	120
% Single-Unit Trucks	0.0	4.3	1.4	0.0	-	1.4	0.0	0.0	1.1	0.0	-	1.1	0.0	1.9	0.0	0.0	-	1.5	-	3.4	0.0	2.5	-	3.0	1.3
Articulated Trucks	0	0	21	0	-	21	0	0	14	1	-	15	0	0	0	0	-	0	0	1	0	0	-	1	37
% Articulated Trucks	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.4	0.4	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.0	-	0.4	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Golf Road with Signalized Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Continental Towers Access Drive Northbound						Marketplace Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	2	311	5	0	318	0	4	226	6	0	236	0	3	0	0	0	3	0	3	0	2	0	5	562
8:00 AM	0	2	260	3	0	265	0	1	190	9	0	200	0	1	1	0	0	2	0	3	0	1	0	4	471
8:15 AM	0	2	243	4	1	249	0	2	209	7	0	218	0	2	0	0	1	2	0	1	0	5	0	6	475
8:30 AM	0	2	215	3	2	220	0	4	218	8	0	230	0	3	0	1	1	4	0	4	0	3	0	7	461
Total	0	8	1029	15	3	1052	0	11	843	30	0	884	0	9	1	1	2	11	0	11	0	11	0	22	1969
Approach %	0.0	0.8	97.8	1.4	-	-	0.0	1.2	95.4	3.4	-	-	0.0	81.8	9.1	9.1	-	-	0.0	50.0	0.0	50.0	-	-	-
Total %	0.0	0.4	52.3	0.8	-	53.4	0.0	0.6	42.8	1.5	-	44.9	0.0	0.5	0.1	0.1	-	0.6	0.0	0.6	0.0	0.6	-	1.1	-
PHF	0.000	1.000	0.827	0.750	-	0.827	0.000	0.688	0.933	0.833	-	0.936	0.000	0.750	0.250	0.250	-	0.688	0.000	0.688	0.000	0.550	-	0.786	0.876
Lights	0	6	997	15	-	1018	0	11	816	30	-	857	0	9	1	1	-	11	0	10	0	9	-	19	1905
% Lights	-	75.0	96.9	100.0	-	96.8	-	100.0	96.8	100.0	-	96.9	-	100.0	100.0	100.0	-	100.0	-	90.9	-	81.8	-	86.4	96.7
Buses	0	0	5	0	-	5	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	-	0.0	0.5	0.0	-	0.5	-	0.0	0.8	0.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.6
Single-Unit Trucks	0	2	16	0	-	18	0	0	13	0	-	13	0	0	0	0	-	0	0	1	0	2	-	3	34
% Single-Unit Trucks	-	25.0	1.6	0.0	-	1.7	-	0.0	1.5	0.0	-	1.5	-	0.0	0.0	0.0	-	0.0	-	9.1	-	18.2	-	13.6	1.7
Articulated Trucks	0	0	11	0	-	11	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	18
% Articulated Trucks	-	0.0	1.1	0.0	-	1.0	-	0.0	0.8	0.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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(847)518-9990 kpachowicz@kloainc.com

Count Name: Golf Road with Signalized Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Continental Towers Access Drive Northbound						Marketplace Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:45 PM	0	8	276	0	0	284	0	1	354	23	0	378	0	15	1	2	0	18	0	8	0	17	1	25	705
5:00 PM	0	11	325	2	0	338	0	0	315	19	0	334	0	10	2	8	0	20	0	15	0	16	0	31	723
5:15 PM	0	9	319	1	0	329	0	1	330	31	0	362	0	5	1	1	1	7	0	14	0	9	0	23	721
5:30 PM	1	5	321	3	2	330	0	0	285	25	0	310	0	7	0	1	1	8	0	16	0	9	1	25	673
Total	1	33	1241	6	2	1281	0	2	1284	98	0	1384	0	37	4	12	2	53	0	53	0	51	2	104	2822
Approach %	0.1	2.6	96.9	0.5	-	-	0.0	0.1	92.8	7.1	-	-	0.0	69.8	7.5	22.6	-	-	0.0	51.0	0.0	49.0	-	-	-
Total %	0.0	1.2	44.0	0.2	-	45.4	0.0	0.1	45.5	3.5	-	49.0	0.0	1.3	0.1	0.4	-	1.9	0.0	1.9	0.0	1.8	-	3.7	-
PHF	0.250	0.750	0.955	0.500	-	0.947	0.000	0.500	0.907	0.790	-	0.915	0.000	0.617	0.500	0.375	-	0.663	0.000	0.828	0.000	0.750	-	0.839	0.976
Lights	1	33	1224	6	-	1264	0	2	1271	97	-	1370	0	37	4	12	-	53	0	52	0	51	-	103	2790
% Lights	100.0	100.0	98.6	100.0	-	98.7	-	100.0	99.0	99.0	-	99.0	-	100.0	100.0	100.0	-	100.0	-	98.1	-	100.0	-	99.0	98.9
Buses	0	0	7	0	-	7	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	11
% Buses	0.0	0.0	0.6	0.0	-	0.5	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	8	0	-	8	0	0	6	0	-	6	0	0	0	0	-	0	0	1	0	0	-	1	15
% Single-Unit Trucks	0.0	0.0	0.6	0.0	-	0.6	-	0.0	0.5	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	1.9	-	0.0	-	1.0	0.5
Articulated Trucks	0	0	2	0	-	2	0	0	3	1	-	4	0	0	0	0	-	0	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.2	1.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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

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

Count Name: Golf Road with Signalized Access Drive - Saturday
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Access Drive Northbound						Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	20	253	2	0	275	1	1	246	35	0	283	0	6	0	3	0	9	0	25	0	16	0	41	608
12:15 PM	0	19	258	2	1	279	1	0	294	44	0	339	0	11	4	2	0	17	0	29	0	27	0	56	691
12:30 PM	0	15	266	2	0	283	3	0	267	38	0	308	0	5	2	1	0	8	0	29	0	27	0	56	655
12:45 PM	0	18	265	1	1	284	0	1	301	25	0	327	0	10	1	2	0	13	0	24	0	26	0	50	674
Hourly Total	0	72	1042	7	2	1121	5	2	1108	142	0	1257	0	32	7	8	0	47	0	107	0	96	0	203	2628
1:00 PM	0	18	271	2	1	291	0	0	309	35	0	344	1	6	4	0	1	11	0	33	0	24	0	57	703
1:15 PM	0	22	288	3	0	313	1	1	269	35	0	306	0	7	2	1	0	10	0	29	2	14	0	45	674
1:30 PM	0	16	258	1	0	275	0	0	235	41	0	276	0	9	0	2	1	11	0	28	2	21	0	51	613
1:45 PM	0	12	296	3	0	311	2	0	273	32	0	307	0	9	1	2	0	12	0	35	0	22	0	57	687
Hourly Total	0	68	1113	9	1	1190	3	1	1086	143	0	1233	1	31	7	5	2	44	0	125	4	81	0	210	2677
Grand Total	0	140	2155	16	3	2311	8	3	2194	285	0	2490	1	63	14	13	2	91	0	232	4	177	0	413	5305
Approach %	0.0	6.1	93.2	0.7	-	-	0.3	0.1	88.1	11.4	-	-	1.1	69.2	15.4	14.3	-	-	0.0	56.2	1.0	42.9	-	-	-
Total %	0.0	2.6	40.6	0.3	-	43.6	0.2	0.1	41.4	5.4	-	46.9	0.0	1.2	0.3	0.2	-	1.7	0.0	4.4	0.1	3.3	-	7.8	-
Lights	0	140	2112	16	-	2268	8	3	2170	285	-	2466	1	63	14	13	-	91	0	232	4	177	-	413	5238
% Lights	-	100.0	98.0	100.0	-	98.1	100.0	100.0	98.9	100.0	-	99.0	100.0	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.7
Buses	0	0	10	0	-	10	0	0	10	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	20
% Buses	-	0.0	0.5	0.0	-	0.4	0.0	0.0	0.5	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	25	0	-	25	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	32
% Single-Unit Trucks	-	0.0	1.2	0.0	-	1.1	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	8	0	-	8	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	15
% Articulated Trucks	-	0.0	0.4	0.0	-	0.3	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

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

Count Name: Golf Road with Signalized Access Drive - Saturday
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Access Drive Northbound						Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
1:00 PM	0	18	271	2	1	291	0	0	309	35	0	344	1	6	4	0	1	11	0	33	0	24	0	57	703
1:15 PM	0	22	288	3	0	313	1	1	269	35	0	306	0	7	2	1	0	10	0	29	2	14	0	45	674
1:30 PM	0	16	258	1	0	275	0	0	235	41	0	276	0	9	0	2	1	11	0	28	2	21	0	51	613
1:45 PM	0	12	296	3	0	311	2	0	273	32	0	307	0	9	1	2	0	12	0	35	0	22	0	57	687
Total	0	68	1113	9	1	1190	3	1	1086	143	0	1233	1	31	7	5	2	44	0	125	4	81	0	210	2677
Approach %	0.0	5.7	93.5	0.8	-	-	0.2	0.1	88.1	11.6	-	-	2.3	70.5	15.9	11.4	-	-	0.0	59.5	1.9	38.6	-	-	-
Total %	0.0	2.5	41.6	0.3	-	44.5	0.1	0.0	40.6	5.3	-	46.1	0.0	1.2	0.3	0.2	-	1.6	0.0	4.7	0.1	3.0	-	7.8	-
PHF	0.000	0.773	0.940	0.750	-	0.950	0.375	0.250	0.879	0.872	-	0.896	0.250	0.861	0.438	0.625	-	0.917	0.000	0.893	0.500	0.844	-	0.921	0.952
Lights	0	68	1099	9	-	1176	3	1	1072	143	-	1219	1	31	7	5	-	44	0	125	4	81	-	210	2649
% Lights	-	100.0	98.7	100.0	-	98.8	100.0	100.0	98.7	100.0	-	98.9	100.0	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	99.0
Buses	0	0	7	0	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	-	0.0	0.6	0.0	-	0.6	0.0	0.0	0.5	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	6	0	-	6	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	13
% Single-Unit Trucks	-	0.0	0.5	0.0	-	0.5	0.0	0.0	0.6	0.0	-	0.6	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.1	0.0	-	0.1	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Meridian Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Meridian Access Drive Eastbound					Algonquin Road Northbound					Algonquin Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	0	10	0	0	10	0	3	118	0	121	0	187	13	0	200	331
7:15 AM	0	3	0	1	3	1	4	132	0	137	0	251	8	0	259	399
7:30 AM	0	7	1	0	8	0	6	167	0	173	0	249	6	0	255	436
7:45 AM	0	7	3	0	10	0	9	196	0	205	0	276	12	0	288	503
Hourly Total	0	27	4	1	31	1	22	613	0	636	0	963	39	0	1002	1669
8:00 AM	0	7	4	0	11	0	5	219	0	224	0	233	12	0	245	480
8:15 AM	0	8	4	1	12	0	11	214	0	225	0	271	15	0	286	523
8:30 AM	0	11	7	0	18	0	7	156	0	163	0	252	20	0	272	453
8:45 AM	0	6	5	1	11	1	25	175	0	201	0	246	22	0	268	480
Hourly Total	0	32	20	2	52	1	48	764	0	813	0	1002	69	0	1071	1936
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	39	7	1	46	1	28	279	0	308	0	229	33	0	262	616
4:15 PM	0	38	7	1	45	1	35	311	0	347	0	254	28	0	282	674
4:30 PM	0	40	14	0	54	1	24	276	0	301	0	232	41	0	273	628
4:45 PM	0	42	7	0	49	1	24	274	0	299	0	208	32	0	240	588
Hourly Total	0	159	35	2	194	4	111	1140	0	1255	0	923	134	0	1057	2506
5:00 PM	0	28	12	1	40	1	27	293	0	321	0	200	36	0	236	597
5:15 PM	0	36	20	3	56	1	29	269	2	299	0	247	48	0	295	650
5:30 PM	0	37	16	1	53	1	31	323	0	355	0	247	39	0	286	694
5:45 PM	0	41	6	0	47	1	25	282	0	308	0	191	43	0	234	589
Hourly Total	0	142	54	5	196	4	112	1167	2	1283	0	885	166	0	1051	2530
Grand Total	0	360	113	10	473	10	293	3684	2	3987	0	3773	408	0	4181	8641
Approach %	0.0	76.1	23.9	-	-	0.3	7.3	92.4	-	-	0.0	90.2	9.8	-	-	-
Total %	0.0	4.2	1.3	-	5.5	0.1	3.4	42.6	-	46.1	0.0	43.7	4.7	-	48.4	-
Lights	0	355	108	-	463	10	288	3585	-	3883	0	3675	401	-	4076	8422
% Lights	-	98.6	95.6	-	97.9	100.0	98.3	97.3	-	97.4	-	97.4	98.3	-	97.5	97.5
Buses	0	0	0	-	0	0	0	25	-	25	0	23	2	-	25	50
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.7	-	0.6	-	0.6	0.5	-	0.6	0.6
Single-Unit Trucks	0	4	5	-	9	0	5	34	-	39	0	47	5	-	52	100
% Single-Unit Trucks	-	1.1	4.4	-	1.9	0.0	1.7	0.9	-	1.0	-	1.2	1.2	-	1.2	1.2
Articulated Trucks	0	1	0	-	1	0	0	40	-	40	0	28	0	-	28	69
% Articulated Trucks	-	0.3	0.0	-	0.2	0.0	0.0	1.1	-	1.0	-	0.7	0.0	-	0.7	0.8
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	10	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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

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

Count Name: Algonquin Road with Meridian Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Meridian Access Drive Eastbound					Algonquin Road Northbound					Algonquin Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	7	3	0	10	0	9	196	0	205	0	276	12	0	288	503
8:00 AM	0	7	4	0	11	0	5	219	0	224	0	233	12	0	245	480
8:15 AM	0	8	4	1	12	0	11	214	0	225	0	271	15	0	286	523
8:30 AM	0	11	7	0	18	0	7	156	0	163	0	252	20	0	272	453
Total	0	33	18	1	51	0	32	785	0	817	0	1032	59	0	1091	1959
Approach %	0.0	64.7	35.3	-	-	0.0	3.9	96.1	-	-	0.0	94.6	5.4	-	-	-
Total %	0.0	1.7	0.9	-	2.6	0.0	1.6	40.1	-	41.7	0.0	52.7	3.0	-	55.7	-
PHF	0.000	0.750	0.643	-	0.708	0.000	0.727	0.896	-	0.908	0.000	0.935	0.738	-	0.947	0.936
Lights	0	32	17	-	49	0	30	740	-	770	0	1006	58	-	1064	1883
% Lights	-	97.0	94.4	-	96.1	-	93.8	94.3	-	94.2	-	97.5	98.3	-	97.5	96.1
Buses	0	0	0	-	0	0	0	11	-	11	0	12	1	-	13	24
% Buses	-	0.0	0.0	-	0.0	-	0.0	1.4	-	1.3	-	1.2	1.7	-	1.2	1.2
Single-Unit Trucks	0	1	1	-	2	0	2	18	-	20	0	10	0	-	10	32
% Single-Unit Trucks	-	3.0	5.6	-	3.9	-	6.3	2.3	-	2.4	-	1.0	0.0	-	0.9	1.6
Articulated Trucks	0	0	0	-	0	0	0	16	-	16	0	4	0	-	4	20
% Articulated Trucks	-	0.0	0.0	-	0.0	-	0.0	2.0	-	2.0	-	0.4	0.0	-	0.4	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Meridian Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Meridian Access Drive Eastbound					Algonquin Road Northbound					Algonquin Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	0	42	7	0	49	1	24	274	0	299	0	208	32	0	240	588
5:00 PM	0	28	12	1	40	1	27	293	0	321	0	200	36	0	236	597
5:15 PM	0	36	20	3	56	1	29	269	2	299	0	247	48	0	295	650
5:30 PM	0	37	16	1	53	1	31	323	0	355	0	247	39	0	286	694
Total	0	143	55	5	198	4	111	1159	2	1274	0	902	155	0	1057	2529
Approach %	0.0	72.2	27.8	-	-	0.3	8.7	91.0	-	-	0.0	85.3	14.7	-	-	-
Total %	0.0	5.7	2.2	-	7.8	0.2	4.4	45.8	-	50.4	0.0	35.7	6.1	-	41.8	-
PHF	0.000	0.851	0.688	-	0.884	1.000	0.895	0.897	-	0.897	0.000	0.913	0.807	-	0.896	0.911
Lights	0	143	51	-	194	4	110	1144	-	1258	0	884	152	-	1036	2488
% Lights	-	100.0	92.7	-	98.0	100.0	99.1	98.7	-	98.7	-	98.0	98.1	-	98.0	98.4
Buses	0	0	0	-	0	0	0	2	-	2	0	1	1	-	2	4
% Buses	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.2	-	0.1	0.6	-	0.2	0.2
Single-Unit Trucks	0	0	4	-	4	0	1	4	-	5	0	11	2	-	13	22
% Single-Unit Trucks	-	0.0	7.3	-	2.0	0.0	0.9	0.3	-	0.4	-	1.2	1.3	-	1.2	0.9
Articulated Trucks	0	0	0	-	0	0	0	9	-	9	0	6	0	-	6	15
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.8	-	0.7	-	0.7	0.0	-	0.6	0.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	5	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Meridian Access Drive - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Meridian Access Dive Eastbound					Algonquin Road Northbound					Algonquin Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
12:00 PM	0	42	11	0	53	1	29	194	0	224	0	220	58	0	278	555
12:15 PM	0	46	10	1	56	1	25	227	0	253	0	208	54	0	262	571
12:30 PM	0	41	14	0	55	2	37	225	0	264	0	222	47	0	269	588
12:45 PM	0	53	8	0	61	0	29	203	0	232	0	194	46	0	240	533
Hourly Total	0	182	43	1	225	4	120	849	0	973	0	844	205	0	1049	2247
1:00 PM	0	51	11	0	62	4	31	233	0	268	0	216	42	0	258	588
1:15 PM	0	45	12	0	57	0	45	205	0	250	0	218	40	0	258	565
1:30 PM	0	54	13	0	67	4	33	228	0	265	0	188	41	0	229	561
1:45 PM	0	39	12	0	51	1	36	222	0	259	0	233	60	0	293	603
Hourly Total	0	189	48	0	237	9	145	888	0	1042	0	855	183	0	1038	2317
Grand Total	0	371	91	1	462	13	265	1737	0	2015	0	1699	388	0	2087	4564
Approach %	0.0	80.3	19.7	-	-	0.6	13.2	86.2	-	-	0.0	81.4	18.6	-	-	-
Total %	0.0	8.1	2.0	-	10.1	0.3	5.8	38.1	-	44.1	0.0	37.2	8.5	-	45.7	-
Lights	0	370	90	-	460	13	261	1726	-	2000	0	1682	388	-	2070	4530
% Lights	-	99.7	98.9	-	99.6	100.0	98.5	99.4	-	99.3	-	99.0	100.0	-	99.2	99.3
Buses	0	0	1	-	1	0	1	0	-	1	0	1	0	-	1	3
% Buses	-	0.0	1.1	-	0.2	0.0	0.4	0.0	-	0.0	-	0.1	0.0	-	0.0	0.1
Single-Unit Trucks	0	1	0	-	1	0	3	8	-	11	0	9	0	-	9	21
% Single-Unit Trucks	-	0.3	0.0	-	0.2	0.0	1.1	0.5	-	0.5	-	0.5	0.0	-	0.4	0.5
Articulated Trucks	0	0	0	-	0	0	0	3	-	3	0	7	0	-	7	10
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.2	-	0.1	-	0.4	0.0	-	0.3	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Meridian Access Drive - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Meridian Access Dive Eastbound					Algonquin Road Northbound					Algonquin Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	Int. Total
1:00 PM	0	51	11	0	62	4	31	233	0	268	0	216	42	0	258	588
1:15 PM	0	45	12	0	57	0	45	205	0	250	0	218	40	0	258	565
1:30 PM	0	54	13	0	67	4	33	228	0	265	0	188	41	0	229	561
1:45 PM	0	39	12	0	51	1	36	222	0	259	0	233	60	0	293	603
Total	0	189	48	0	237	9	145	888	0	1042	0	855	183	0	1038	2317
Approach %	0.0	79.7	20.3	-	-	0.9	13.9	85.2	-	-	0.0	82.4	17.6	-	-	-
Total %	0.0	8.2	2.1	-	10.2	0.4	6.3	38.3	-	45.0	0.0	36.9	7.9	-	44.8	-
PHF	0.000	0.875	0.923	-	0.884	0.563	0.806	0.953	-	0.972	0.000	0.917	0.763	-	0.886	0.961
Lights	0	189	47	-	236	9	142	883	-	1034	0	845	183	-	1028	2298
% Lights	-	100.0	97.9	-	99.6	100.0	97.9	99.4	-	99.2	-	98.8	100.0	-	99.0	99.2
Buses	0	0	1	-	1	0	0	0	-	0	0	1	0	-	1	2
% Buses	-	0.0	2.1	-	0.4	0.0	0.0	0.0	-	0.0	-	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	0	0	-	0	0	3	5	-	8	0	7	0	-	7	15
% Single-Unit Trucks	-	0.0	0.0	-	0.0	0.0	2.1	0.6	-	0.8	-	0.8	0.0	-	0.7	0.6
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	2	0	-	2	2
% Articulated Trucks	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.2	0.0	-	0.2	0.1
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Golf Road with Unsignalized West Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	Golf Road Eastbound					Golf Road Westbound					Bulldog Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	7	183	0	190	0	151	0	1	151	0	0	2	0	2	343
7:15 AM	0	4	239	0	243	0	160	1	0	161	0	0	2	0	2	406
7:30 AM	0	7	250	0	257	0	193	1	0	194	0	0	2	1	2	453
7:45 AM	1	6	336	0	343	0	221	1	0	222	0	0	2	0	2	567
Hourly Total	1	24	1008	0	1033	0	725	3	1	728	0	0	8	1	8	1769
8:00 AM	1	8	257	0	266	0	192	0	0	192	0	0	4	0	4	462
8:15 AM	0	7	239	0	246	0	219	1	0	220	0	0	3	0	3	469
8:30 AM	2	8	216	0	226	0	212	3	0	215	0	1	7	0	8	449
8:45 AM	0	9	230	0	239	0	219	4	0	223	0	0	4	1	4	466
Hourly Total	3	32	942	0	977	0	842	8	0	850	0	1	18	1	19	1846
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	5	316	0	321	0	319	2	0	321	0	1	9	0	10	652
4:15 PM	0	11	369	0	380	0	317	1	0	318	0	1	11	0	12	710
4:30 PM	0	5	310	0	315	0	329	1	0	330	0	0	7	0	7	652
4:45 PM	1	10	281	0	292	0	367	1	0	368	0	0	11	0	11	671
Hourly Total	1	31	1276	0	1308	0	1332	5	0	1337	0	2	38	0	40	2685
5:00 PM	0	12	337	0	349	0	355	0	0	355	0	1	12	0	13	717
5:15 PM	0	7	323	0	330	0	333	0	0	333	0	0	11	0	11	674
5:30 PM	0	10	328	0	338	0	291	2	0	293	0	2	8	0	10	641
5:45 PM	0	7	323	0	330	0	294	0	0	294	0	0	9	0	9	633
Hourly Total	0	36	1311	0	1347	0	1273	2	0	1275	0	3	40	0	43	2665
Grand Total	5	123	4537	0	4665	0	4172	18	1	4190	0	6	104	2	110	8965
Approach %	0.1	2.6	97.3	-	-	0.0	99.6	0.4	-	-	0.0	5.5	94.5	-	-	-
Total %	0.1	1.4	50.6	-	52.0	0.0	46.5	0.2	-	46.7	0.0	0.1	1.2	-	1.2	-
Lights	5	122	4444	-	4571	0	4082	16	-	4098	0	6	101	-	107	8776
% Lights	100.0	99.2	98.0	-	98.0	-	97.8	88.9	-	97.8	-	100.0	97.1	-	97.3	97.9
Buses	0	0	24	-	24	0	30	0	-	30	0	0	1	-	1	55
% Buses	0.0	0.0	0.5	-	0.5	-	0.7	0.0	-	0.7	-	0.0	1.0	-	0.9	0.6
Single-Unit Trucks	0	1	52	-	53	0	39	1	-	40	0	0	2	-	2	95
% Single-Unit Trucks	0.0	0.8	1.1	-	1.1	-	0.9	5.6	-	1.0	-	0.0	1.9	-	1.8	1.1
Articulated Trucks	0	0	17	-	17	0	21	0	-	21	0	0	0	-	0	38
% Articulated Trucks	0.0	0.0	0.4	-	0.4	-	0.5	0.0	-	0.5	-	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	5.6	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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Count Name: Golf Road with Unsignalized West Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Golf Road Eastbound					Golf Road Westbound					Bulldog Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	1	6	336	0	343	0	221	1	0	222	0	0	2	0	2	567
8:00 AM	1	8	257	0	266	0	192	0	0	192	0	0	4	0	4	462
8:15 AM	0	7	239	0	246	0	219	1	0	220	0	0	3	0	3	469
8:30 AM	2	8	216	0	226	0	212	3	0	215	0	1	7	0	8	449
Total	4	29	1048	0	1081	0	844	5	0	849	0	1	16	0	17	1947
Approach %	0.4	2.7	96.9	-	-	0.0	99.4	0.6	-	-	0.0	5.9	94.1	-	-	-
Total %	0.2	1.5	53.8	-	55.5	0.0	43.3	0.3	-	43.6	0.0	0.1	0.8	-	0.9	-
PHF	0.500	0.906	0.780	-	0.788	0.000	0.955	0.417	-	0.956	0.000	0.250	0.571	-	0.531	0.858
Lights	4	28	1024	-	1056	0	818	5	-	823	0	1	14	-	15	1894
% Lights	100.0	96.6	97.7	-	97.7	-	96.9	100.0	-	96.9	-	100.0	87.5	-	88.2	97.3
Buses	0	0	5	-	5	0	6	0	-	6	0	0	0	-	0	11
% Buses	0.0	0.0	0.5	-	0.5	-	0.7	0.0	-	0.7	-	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	1	12	-	13	0	10	0	-	10	0	0	2	-	2	25
% Single-Unit Trucks	0.0	3.4	1.1	-	1.2	-	1.2	0.0	-	1.2	-	0.0	12.5	-	11.8	1.3
Articulated Trucks	0	0	7	-	7	0	10	0	-	10	0	0	0	-	0	17
% Articulated Trucks	0.0	0.0	0.7	-	0.6	-	1.2	0.0	-	1.2	-	0.0	0.0	-	0.0	0.9
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Golf Road with Unsignalized West Access Drive TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Golf Road Eastbound					Golf Road Westbound					Bulldog Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:45 PM	1	10	281	0	292	0	367	1	0	368	0	0	11	0	11	671
5:00 PM	0	12	337	0	349	0	355	0	0	355	0	1	12	0	13	717
5:15 PM	0	7	323	0	330	0	333	0	0	333	0	0	11	0	11	674
5:30 PM	0	10	328	0	338	0	291	2	0	293	0	2	8	0	10	641
Total	1	39	1269	0	1309	0	1346	3	0	1349	0	3	42	0	45	2703
Approach %	0.1	3.0	96.9	-	-	0.0	99.8	0.2	-	-	0.0	6.7	93.3	-	-	-
Total %	0.0	1.4	46.9	-	48.4	0.0	49.8	0.1	-	49.9	0.0	0.1	1.6	-	1.7	-
PHF	0.250	0.813	0.941	-	0.938	0.000	0.917	0.375	-	0.916	0.000	0.375	0.875	-	0.865	0.942
Lights	1	39	1254	-	1294	0	1338	2	-	1340	0	3	42	-	45	2679
% Lights	100.0	100.0	98.8	-	98.9	-	99.4	66.7	-	99.3	-	100.0	100.0	-	100.0	99.1
Buses	0	0	7	-	7	0	4	0	-	4	0	0	0	-	0	11
% Buses	0.0	0.0	0.6	-	0.5	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	7	-	7	0	3	0	-	3	0	0	0	-	0	10
% Single-Unit Trucks	0.0	0.0	0.6	-	0.5	-	0.2	0.0	-	0.2	-	0.0	0.0	-	0.0	0.4
Articulated Trucks	0	0	1	-	1	0	1	0	-	1	0	0	0	-	0	2
% Articulated Trucks	0.0	0.0	0.1	-	0.1	-	0.1	0.0	-	0.1	-	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	33.3	-	0.1	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Golf+Road+with+Unsignalized+Access - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	Golf Road Eastbound					Golf Road Westbound					Bulldog Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
12:00 PM	0	19	292	0	311	0	266	7	0	273	0	2	16	0	18	602
12:15 PM	0	22	272	0	294	0	324	6	0	330	0	2	7	0	9	633
12:30 PM	0	16	290	0	306	0	299	2	0	301	0	1	40	1	41	648
12:45 PM	0	19	270	0	289	0	339	3	0	342	0	2	20	1	22	653
Hourly Total	0	76	1124	0	1200	0	1228	18	0	1246	0	7	83	2	90	2536
1:00 PM	0	10	299	0	309	0	325	1	0	326	0	4	13	0	17	652
1:15 PM	0	15	313	0	328	0	282	1	0	283	0	3	22	0	25	636
1:30 PM	0	14	292	0	306	0	269	3	0	272	0	1	18	0	19	597
1:45 PM	0	15	332	0	347	0	306	1	0	307	0	1	17	0	18	672
Hourly Total	0	54	1236	0	1290	0	1182	6	0	1188	0	9	70	0	79	2557
Grand Total	0	130	2360	0	2490	0	2410	24	0	2434	0	16	153	2	169	5093
Approach %	0.0	5.2	94.8	-	-	0.0	99.0	1.0	-	-	0.0	9.5	90.5	-	-	-
Total %	0.0	2.6	46.3	-	48.9	0.0	47.3	0.5	-	47.8	0.0	0.3	3.0	-	3.3	-
Lights	0	128	2325	-	2453	0	2387	24	-	2411	0	16	152	-	168	5032
% Lights	-	98.5	98.5	-	98.5	-	99.0	100.0	-	99.1	-	100.0	99.3	-	99.4	98.8
Buses	0	0	14	-	14	0	10	0	-	10	0	0	0	-	0	24
% Buses	-	0.0	0.6	-	0.6	-	0.4	0.0	-	0.4	-	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	18	-	18	0	5	0	-	5	0	0	0	-	0	23
% Single-Unit Trucks	-	0.0	0.8	-	0.7	-	0.2	0.0	-	0.2	-	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	1	3	-	4	0	8	0	-	8	0	0	1	-	1	13
% Articulated Trucks	-	0.8	0.1	-	0.2	-	0.3	0.0	-	0.3	-	0.0	0.7	-	0.6	0.3
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	0.8	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Count Name: Golf+Road+with+Unsignalized+Access - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	Golf Road Eastbound					Golf Road Westbound					Bulldog Access Drive Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
1:00 PM	0	10	299	0	309	0	325	1	0	326	0	4	13	0	17	652
1:15 PM	0	15	313	0	328	0	282	1	0	283	0	3	22	0	25	636
1:30 PM	0	14	292	0	306	0	269	3	0	272	0	1	18	0	19	597
1:45 PM	0	15	332	0	347	0	306	1	0	307	0	1	17	0	18	672
Total	0	54	1236	0	1290	0	1182	6	0	1188	0	9	70	0	79	2557
Approach %	0.0	4.2	95.8	-	-	0.0	99.5	0.5	-	-	0.0	11.4	88.6	-	-	-
Total %	0.0	2.1	48.3	-	50.4	0.0	46.2	0.2	-	46.5	0.0	0.4	2.7	-	3.1	-
PHF	0.000	0.900	0.931	-	0.929	0.000	0.909	0.500	-	0.911	0.000	0.563	0.795	-	0.790	0.951
Lights	0	54	1222	-	1276	0	1169	6	-	1175	0	9	70	-	79	2530
% Lights	-	100.0	98.9	-	98.9	-	98.9	100.0	-	98.9	-	100.0	100.0	-	100.0	98.9
Buses	0	0	6	-	6	0	5	0	-	5	0	0	0	-	0	11
% Buses	-	0.0	0.5	-	0.5	-	0.4	0.0	-	0.4	-	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	7	-	7	0	5	0	-	5	0	0	0	-	0	12
% Single-Unit Trucks	-	0.0	0.6	-	0.5	-	0.4	0.0	-	0.4	-	0.0	0.0	-	0.0	0.5
Articulated Trucks	0	0	1	-	1	0	3	0	-	3	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.1	-	0.1	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Kennicott Avenue TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Data

Start Time	AT&T Access Drive Eastbound						Kennicott Avenue Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	0	0	6	0	7	0	6	0	8	2	14	0	0	105	1	0	106	1	3	181	0	0	185	312
7:15 AM	0	0	0	7	0	7	0	4	0	4	0	8	0	0	139	2	0	141	0	3	244	2	0	249	405
7:30 AM	0	0	0	7	0	7	0	4	0	8	0	12	0	0	154	3	0	157	0	0	259	0	0	259	435
7:45 AM	0	0	0	6	0	6	0	12	0	9	0	21	0	0	191	4	0	195	0	3	254	1	0	258	480
Hourly Total	1	0	0	26	0	27	0	26	0	29	2	55	0	0	589	10	0	599	1	9	938	3	0	951	1632
8:00 AM	0	0	0	5	1	5	0	3	0	9	1	12	0	1	211	4	1	216	0	4	242	0	0	246	479
8:15 AM	0	0	0	3	0	3	0	5	0	12	1	17	0	0	222	2	1	224	0	8	259	1	0	268	512
8:30 AM	0	0	0	4	0	4	0	2	0	3	0	5	0	0	166	4	0	170	0	3	265	2	0	270	449
8:45 AM	0	0	0	11	0	11	0	4	0	5	0	9	0	0	181	6	0	187	0	6	245	1	0	252	459
Hourly Total	0	0	0	23	1	23	0	14	0	29	2	43	0	1	780	16	2	797	0	21	1011	4	0	1036	1899
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	27	1	27	0	4	0	3	1	7	0	0	316	13	0	329	0	6	219	6	0	231	594
4:15 PM	0	0	0	22	0	22	0	4	0	5	3	9	0	0	348	12	0	360	0	9	238	5	0	252	643
4:30 PM	0	0	0	24	0	24	0	3	1	5	0	9	0	1	307	8	0	316	1	11	219	7	0	238	587
4:45 PM	0	0	0	27	0	27	0	3	0	7	1	10	0	0	294	10	0	304	0	10	211	3	0	224	565
Hourly Total	0	0	0	100	1	100	0	14	1	20	5	35	0	1	1265	43	0	1309	1	36	887	21	0	945	2389
5:00 PM	0	0	0	22	0	22	0	4	0	5	0	9	0	0	320	7	0	327	0	7	189	6	0	202	560
5:15 PM	0	0	0	28	3	28	0	2	0	5	0	7	0	0	300	7	0	307	0	6	259	4	0	269	611
5:30 PM	0	0	0	31	0	31	0	2	0	4	0	6	0	0	330	13	0	343	0	7	241	6	0	254	634
5:45 PM	0	0	0	21	0	21	0	3	0	2	3	5	0	0	311	7	0	318	1	1	204	3	0	209	553
Hourly Total	0	0	0	102	3	102	0	11	0	16	3	27	0	0	1261	34	0	1295	1	21	893	19	0	934	2358
Grand Total	1	0	0	251	5	252	0	65	1	94	12	160	0	2	3895	103	2	4000	3	87	3729	47	0	3866	8278
Approach %	0.4	0.0	0.0	99.6	-	-	0.0	40.6	0.6	58.8	-	-	0.0	0.1	97.4	2.6	-	-	0.1	2.3	96.5	1.2	-	-	-
Total %	0.0	0.0	0.0	3.0	-	3.0	0.0	0.8	0.0	1.1	-	1.9	0.0	0.0	47.1	1.2	-	48.3	0.0	1.1	45.0	0.6	-	46.7	-
Lights	1	0	0	249	-	250	0	65	0	90	-	155	0	1	3791	102	-	3894	3	85	3627	47	-	3762	8061
% Lights	100.0	-	-	99.2	-	99.2	-	100.0	0.0	95.7	-	96.9	-	50.0	97.3	99.0	-	97.4	100.0	97.7	97.3	100.0	-	97.3	97.4
Buses	0	0	0	1	-	1	0	0	0	0	-	0	0	0	23	1	-	24	0	0	22	0	-	22	47
% Buses	0.0	-	-	0.4	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	1.0	-	0.6	0.0	0.0	0.6	0.0	-	0.6	0.6
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	4	-	4	0	0	45	0	-	45	0	2	57	0	-	59	109
% Single-Unit Trucks	0.0	-	-	0.4	-	0.4	-	0.0	0.0	4.3	-	2.5	-	0.0	1.2	0.0	-	1.1	0.0	2.3	1.5	0.0	-	1.5	1.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	36	0	-	36	0	0	23	0	-	23	59
% Articulated Trucks	0.0	-	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.9	0.0	-	0.9	0.0	0.0	0.6	0.0	-	0.6	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	2

% Bicycles on Road	0.0	-	-	0.0	-	0.0	-	0.0	100.0	0.0	-	0.6	-	50.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	5	-	-	-	-	-	12	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

Count Name: Algonquin Road with Kennicott Avenue TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (7:45 AM)

Start Time	AT&T Access Drive Eastbound						Kennicott Avenue Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:45 AM	0	0	0	6	0	6	0	12	0	9	0	21	0	0	191	4	0	195	0	3	254	1	0	258	480
8:00 AM	0	0	0	5	1	5	0	3	0	9	1	12	0	1	211	4	1	216	0	4	242	0	0	246	479
8:15 AM	0	0	0	3	0	3	0	5	0	12	1	17	0	0	222	2	1	224	0	8	259	1	0	268	512
8:30 AM	0	0	0	4	0	4	0	2	0	3	0	5	0	0	166	4	0	170	0	3	265	2	0	270	449
Total	0	0	0	18	1	18	0	22	0	33	2	55	0	1	790	14	2	805	0	18	1020	4	0	1042	1920
Approach %	0.0	0.0	0.0	100.0	-	-	0.0	40.0	0.0	60.0	-	-	0.0	0.1	98.1	1.7	-	-	0.0	1.7	97.9	0.4	-	-	-
Total %	0.0	0.0	0.0	0.9	-	0.9	0.0	1.1	0.0	1.7	-	2.9	0.0	0.1	41.1	0.7	-	41.9	0.0	0.9	53.1	0.2	-	54.3	-
PHF	0.000	0.000	0.000	0.750	-	0.750	0.000	0.458	0.000	0.688	-	0.655	0.000	0.250	0.890	0.875	-	0.898	0.000	0.563	0.962	0.500	-	0.965	0.938
Lights	0	0	0	17	-	17	0	22	0	30	-	52	0	1	744	14	-	759	0	18	995	4	-	1017	1845
% Lights	-	-	-	94.4	-	94.4	-	100.0	-	90.9	-	94.5	-	100.0	94.2	100.0	-	94.3	-	100.0	97.5	100.0	-	97.6	96.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	11	0	-	11	0	0	12	0	-	12	23
% Buses	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.4	0.0	-	1.4	-	0.0	1.2	0.0	-	1.2	1.2
Single-Unit Trucks	0	0	0	1	-	1	0	0	0	3	-	3	0	0	20	0	-	20	0	0	8	0	-	8	32
% Single-Unit Trucks	-	-	-	5.6	-	5.6	-	0.0	-	9.1	-	5.5	-	0.0	2.5	0.0	-	2.5	-	0.0	0.8	0.0	-	0.8	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	15	0	-	15	0	0	5	0	-	5	20
% Articulated Trucks	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.9	0.0	-	1.9	-	0.0	0.5	0.0	-	0.5	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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Count Name: Algonquin Road with Kennicott Avenue TMC
Site Code:
Start Date: 10/26/2023

Turning Movement Peak Hour Data (4:45 PM)

Start Time	AT&T Access Drive Eastbound						Kennicott Avenue Westbound						Algonquin Road Northbound						Algonquin Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:45 PM	0	0	0	27	0	27	0	3	0	7	1	10	0	0	294	10	0	304	0	10	211	3	0	224	565
5:00 PM	0	0	0	22	0	22	0	4	0	5	0	9	0	0	320	7	0	327	0	7	189	6	0	202	560
5:15 PM	0	0	0	28	3	28	0	2	0	5	0	7	0	0	300	7	0	307	0	6	259	4	0	269	611
5:30 PM	0	0	0	31	0	31	0	2	0	4	0	6	0	0	330	13	0	343	0	7	241	6	0	254	634
Total	0	0	0	108	3	108	0	11	0	21	1	32	0	0	1244	37	0	1281	0	30	900	19	0	949	2370
Approach %	0.0	0.0	0.0	100.0	-	-	0.0	34.4	0.0	65.6	-	-	0.0	0.0	97.1	2.9	-	-	0.0	3.2	94.8	2.0	-	-	-
Total %	0.0	0.0	0.0	4.6	-	4.6	0.0	0.5	0.0	0.9	-	1.4	0.0	0.0	52.5	1.6	-	54.1	0.0	1.3	38.0	0.8	-	40.0	-
PHF	0.000	0.000	0.000	0.871	-	0.871	0.000	0.688	0.000	0.750	-	0.800	0.000	0.000	0.942	0.712	-	0.934	0.000	0.750	0.869	0.792	-	0.882	0.935
Lights	0	0	0	108	-	108	0	11	0	20	-	31	0	0	1232	37	-	1269	0	28	879	19	-	926	2334
% Lights	-	-	-	100.0	-	100.0	-	100.0	-	95.2	-	96.9	-	-	99.0	100.0	-	99.1	-	93.3	97.7	100.0	-	97.6	98.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Buses	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	5	0	-	5	0	2	16	0	-	18	24
% Single-Unit Trucks	-	-	-	0.0	-	0.0	-	0.0	-	4.8	-	3.1	-	-	0.4	0.0	-	0.4	-	6.7	1.8	0.0	-	1.9	1.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	7	0	-	7	0	0	4	0	-	4	11
% Articulated Trucks	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.6	0.0	-	0.5	-	0.0	0.4	0.0	-	0.4	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Count Name: Algonquin+Road+with+Kennicott+Avenue - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Data

Start Time	AT&T Access Drive Eastbound						Kennicott Avenue Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:00 PM	0	0	1	35	0	36	0	3	0	8	1	11	0	0	213	13	0	226	0	9	201	2	0	212	485
12:15 PM	0	2	1	37	1	40	0	2	1	4	0	7	0	0	253	16	0	269	0	7	227	8	0	242	558
12:30 PM	0	0	0	44	0	44	0	2	1	4	0	7	0	0	263	7	0	270	0	5	214	5	0	224	545
12:45 PM	0	0	0	33	0	33	0	3	0	3	1	6	0	1	228	8	0	237	0	9	202	5	0	216	492
Hourly Total	0	2	2	149	1	153	0	10	2	19	2	31	0	1	957	44	0	1002	0	30	844	20	0	894	2080
1:00 PM	0	1	0	44	0	45	0	1	0	13	0	14	0	0	254	9	0	263	0	9	201	6	0	216	538
1:15 PM	0	0	0	36	0	36	0	3	0	1	1	4	0	0	247	6	2	253	0	4	234	7	0	245	538
1:30 PM	0	0	0	30	0	30	0	3	1	3	0	7	0	0	261	5	0	266	0	4	183	8	0	195	498
1:45 PM	0	0	0	45	0	45	0	2	0	4	1	6	0	0	255	13	3	268	0	7	244	9	0	260	579
Hourly Total	0	1	0	155	0	156	0	9	1	21	2	31	0	0	1017	33	5	1050	0	24	862	30	0	916	2153
Grand Total	0	3	2	304	1	309	0	19	3	40	4	62	0	1	1974	77	5	2052	0	54	1706	50	0	1810	4233
Approach %	0.0	1.0	0.6	98.4	-	-	0.0	30.6	4.8	64.5	-	-	0.0	0.0	96.2	3.8	-	-	0.0	3.0	94.3	2.8	-	-	-
Total %	0.0	0.1	0.0	7.2	-	7.3	0.0	0.4	0.1	0.9	-	1.5	0.0	0.0	46.6	1.8	-	48.5	0.0	1.3	40.3	1.2	-	42.8	-
Lights	0	3	1	304	-	308	0	19	0	40	-	59	0	1	1958	77	-	2036	0	54	1687	50	-	1791	4194
% Lights	-	100.0	50.0	100.0	-	99.7	-	100.0	0.0	100.0	-	95.2	-	100.0	99.2	100.0	-	99.2	-	100.0	98.9	100.0	-	99.0	99.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	3
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.1
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	10	0	-	10	0	0	9	0	-	9	19
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.5	0.0	-	0.5	-	0.0	0.5	0.0	-	0.5	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	5	0	-	5	0	0	8	0	-	8	13
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.2	-	0.0	0.5	0.0	-	0.4	0.3
Bicycles on Road	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	-	0.0	50.0	0.0	-	0.3	-	0.0	100.0	0.0	-	4.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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

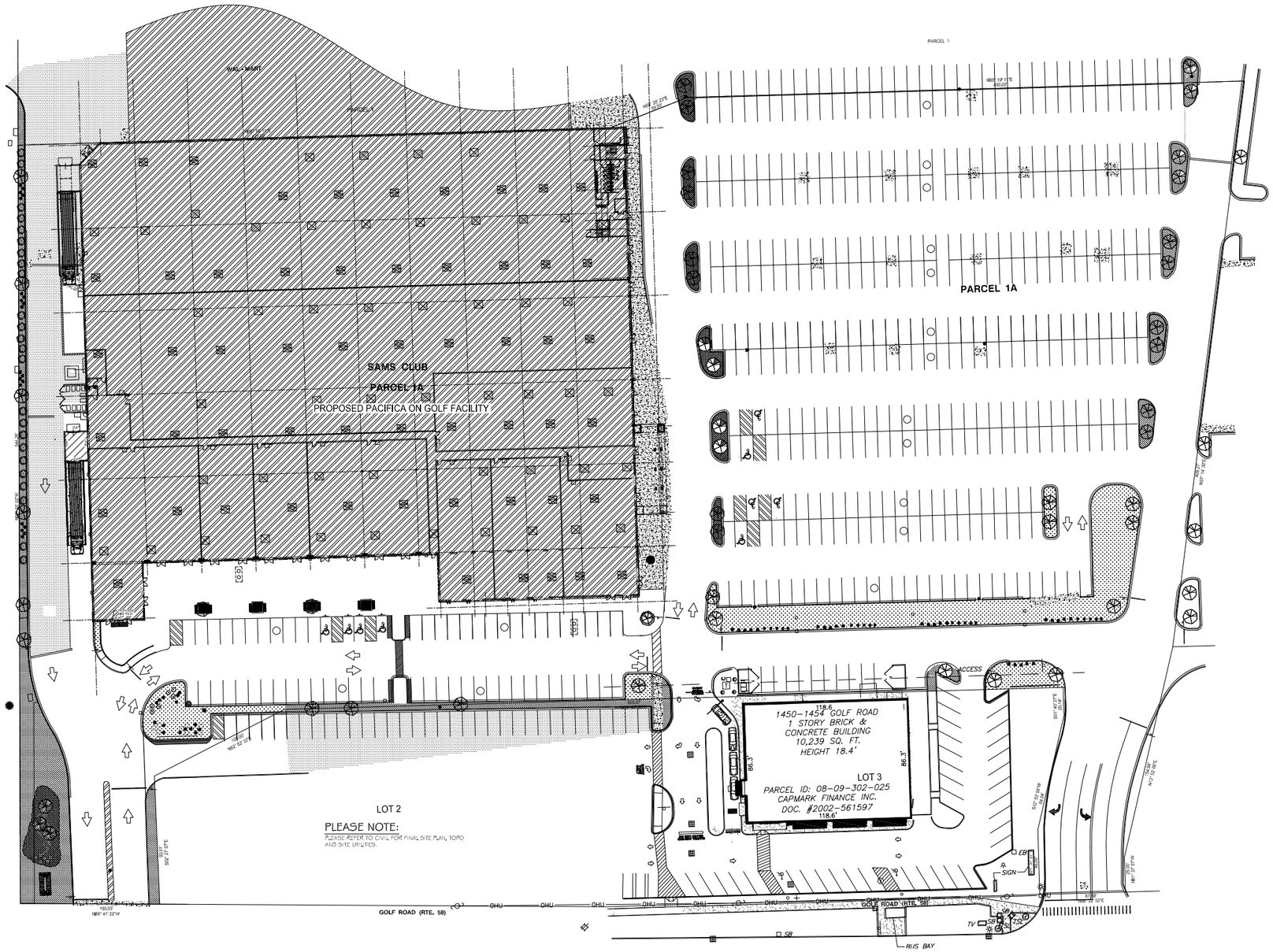
Rosemont, Illinois, United States 60018
(847)518-9990 kpachowicz@kloainc.com

Count Name: Algonquin+Road+with+Kennicott+Avenue - SATURDAY TMC
Site Code:
Start Date: 10/28/2023

Turning Movement Peak Hour Data (1:00 PM)

Start Time	AT&T Access Drive Eastbound						Kennicott Avenue Westbound						Algonquin Road Northbound						Algonquin Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
1:00 PM	0	1	0	44	0	45	0	1	0	13	0	14	0	0	254	9	0	263	0	9	201	6	0	216	538
1:15 PM	0	0	0	36	0	36	0	3	0	1	1	4	0	0	247	6	2	253	0	4	234	7	0	245	538
1:30 PM	0	0	0	30	0	30	0	3	1	3	0	7	0	0	261	5	0	266	0	4	183	8	0	195	498
1:45 PM	0	0	0	45	0	45	0	2	0	4	1	6	0	0	255	13	3	268	0	7	244	9	0	260	579
Total	0	1	0	155	0	156	0	9	1	21	2	31	0	0	1017	33	5	1050	0	24	862	30	0	916	2153
Approach %	0.0	0.6	0.0	99.4	-	-	0.0	29.0	3.2	67.7	-	-	0.0	0.0	96.9	3.1	-	-	0.0	2.6	94.1	3.3	-	-	-
Total %	0.0	0.0	0.0	7.2	-	7.2	0.0	0.4	0.0	1.0	-	1.4	0.0	0.0	47.2	1.5	-	48.8	0.0	1.1	40.0	1.4	-	42.5	-
PHF	0.000	0.250	0.000	0.861	-	0.867	0.000	0.750	0.250	0.404	-	0.554	0.000	0.000	0.974	0.635	-	0.979	0.000	0.667	0.883	0.833	-	0.881	0.930
Lights	0	1	0	155	-	156	0	9	0	21	-	30	0	0	1008	33	-	1041	0	24	850	30	-	904	2131
% Lights	-	100.0	-	100.0	-	100.0	-	100.0	0.0	100.0	-	96.8	-	-	99.1	100.0	-	99.1	-	100.0	98.6	100.0	-	98.7	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	2
% Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	0.1
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	7	0	-	7	0	0	7	0	-	7	14
% Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.7	0.0	-	0.7	-	0.0	0.8	0.0	-	0.8	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	3	0	-	3	5
% Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	0.2	0.0	-	0.2	-	0.0	0.3	0.0	-	0.3	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	100.0	0.0	-	3.2	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

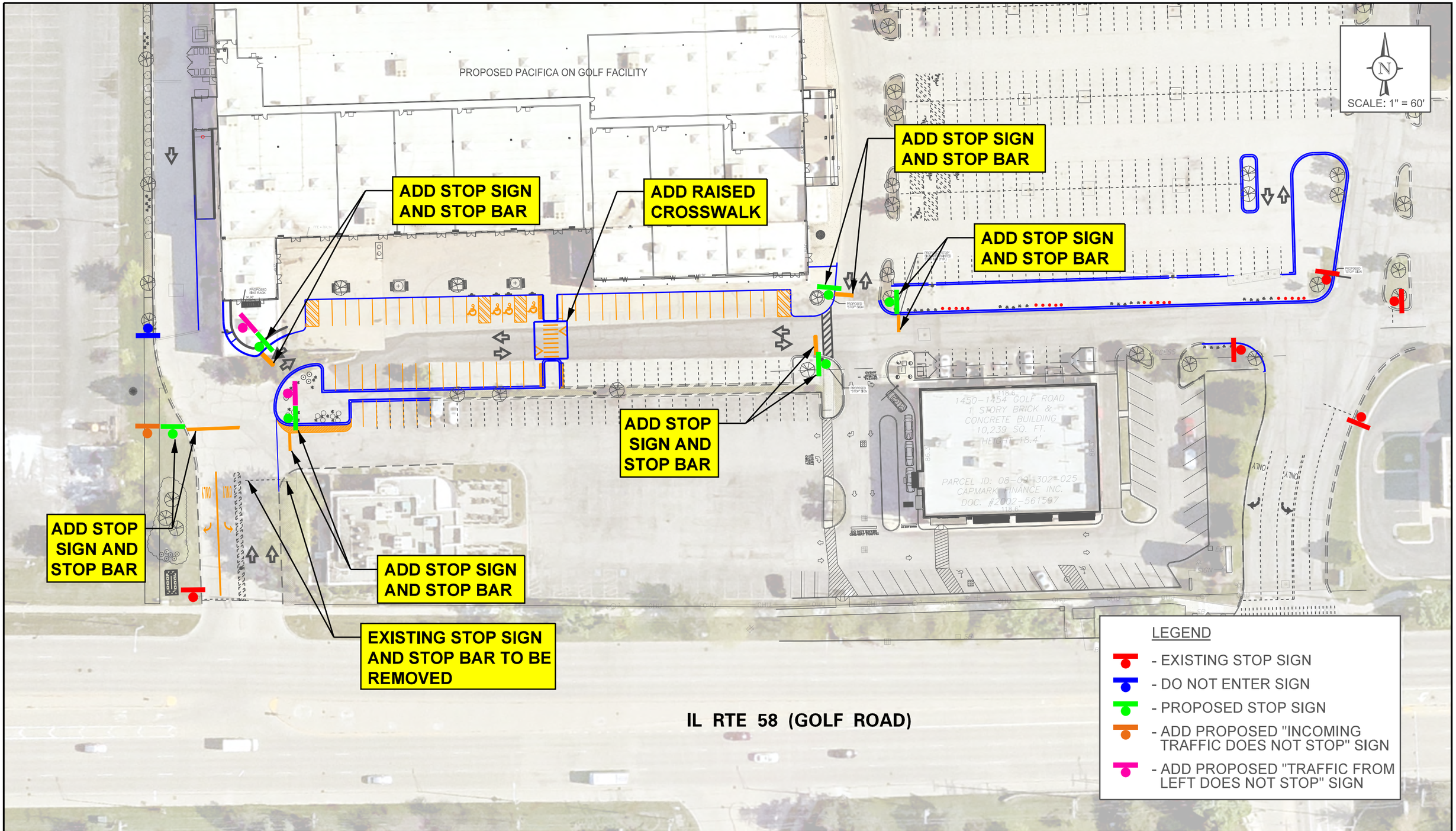
Site Plan



SITE PLAN
1"=30'-0"

TENANT AREA SUMMARY					
SUITE NO.	TENANT NAME	STORE AREA	COMMON AREA	LEASING AREA	REMARKS
1	ENSON MART	42,789	292	43217	FIRE SPRINKLER ROOM AS COMMON AREA FOR ALL UNITS
	LOADING DOCK	328			
SUMMARY OF STORE 1		43117			
2	FAMILY ENTERTAINMENT	33,636	4374	35572	
3	DAISO	7,995		8455	
4	MANGO MANGO	1,138		1204	
5	GYU SAN JAPANESE BBQ	4,628		4894	
6	LAO SZE CHUAN / TEMMO	5,002		5290	
7	KYURAMEN	3,740		3955	
8	IZAKAYA NANA	7,125		7535	
9	SHANGHAI DUMPLINGS	3,236		3422	
10	VACANT	3,236		3422	
11	CLAW MACHINE ARCADE	6,061		6546	
SUMMARY OF STORE 2-11		77817			
14, 15	COMMON CORRIDOR & LOADING DOCK	4,374	0.055241	-	STORE 2-11
16	FIRE SPRINKLER ROOM	292	0.002325	-	STORE 1 THRU 11
TOTAL PLAZA AREA		125600			

Preliminary Geometric Plan



PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

PRELIMINARY GEOMETRIC PLAN

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
EXHIBIT: A1

CHECKED: LA
REV: 04-15-24

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

ITE Trip Generation Sheets

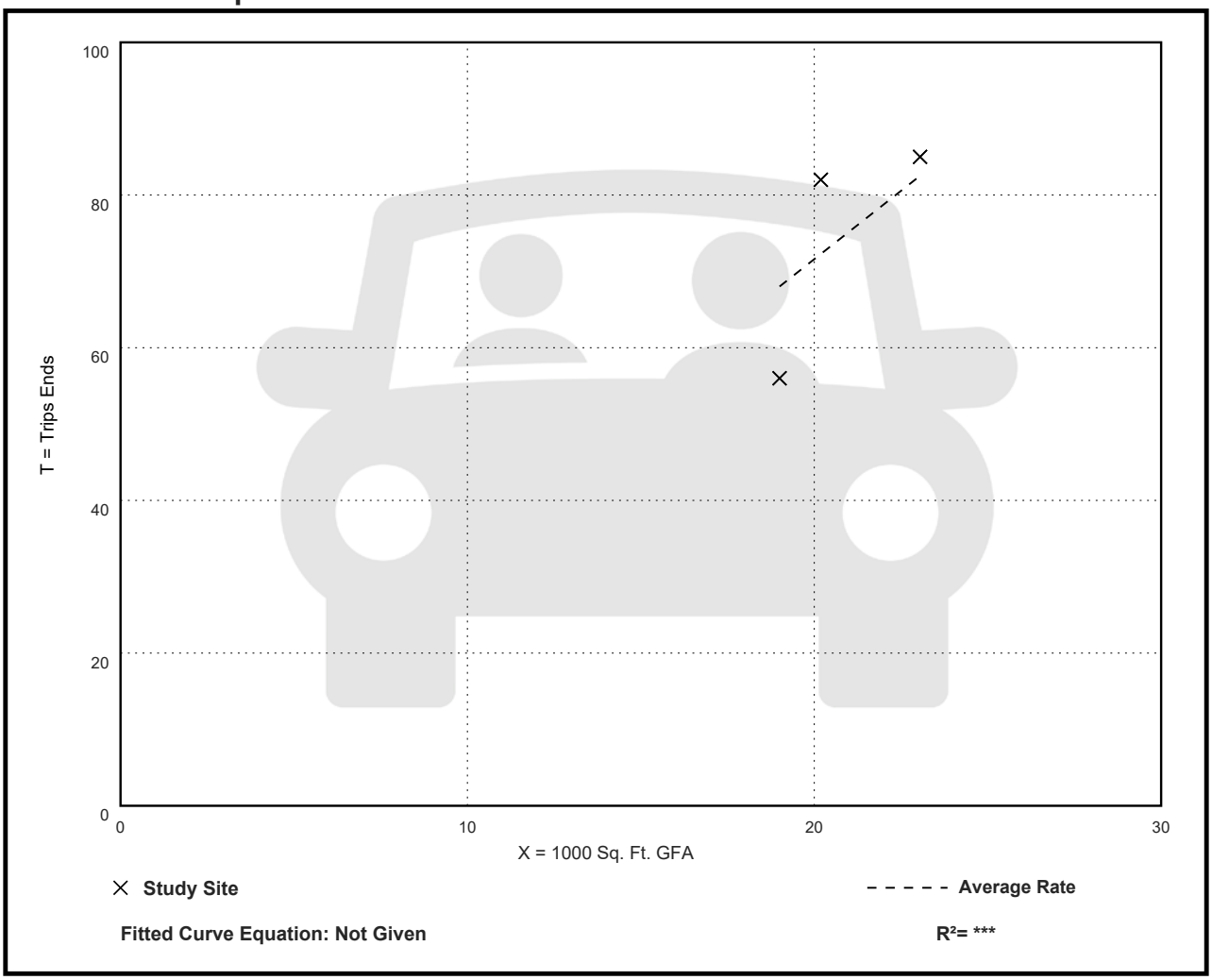
Multipurpose Recreational Facility
(435)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 21
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.58	2.95 - 4.06	0.55

Data Plot and Equation



Strip Retail Plaza (<40k)
(822)

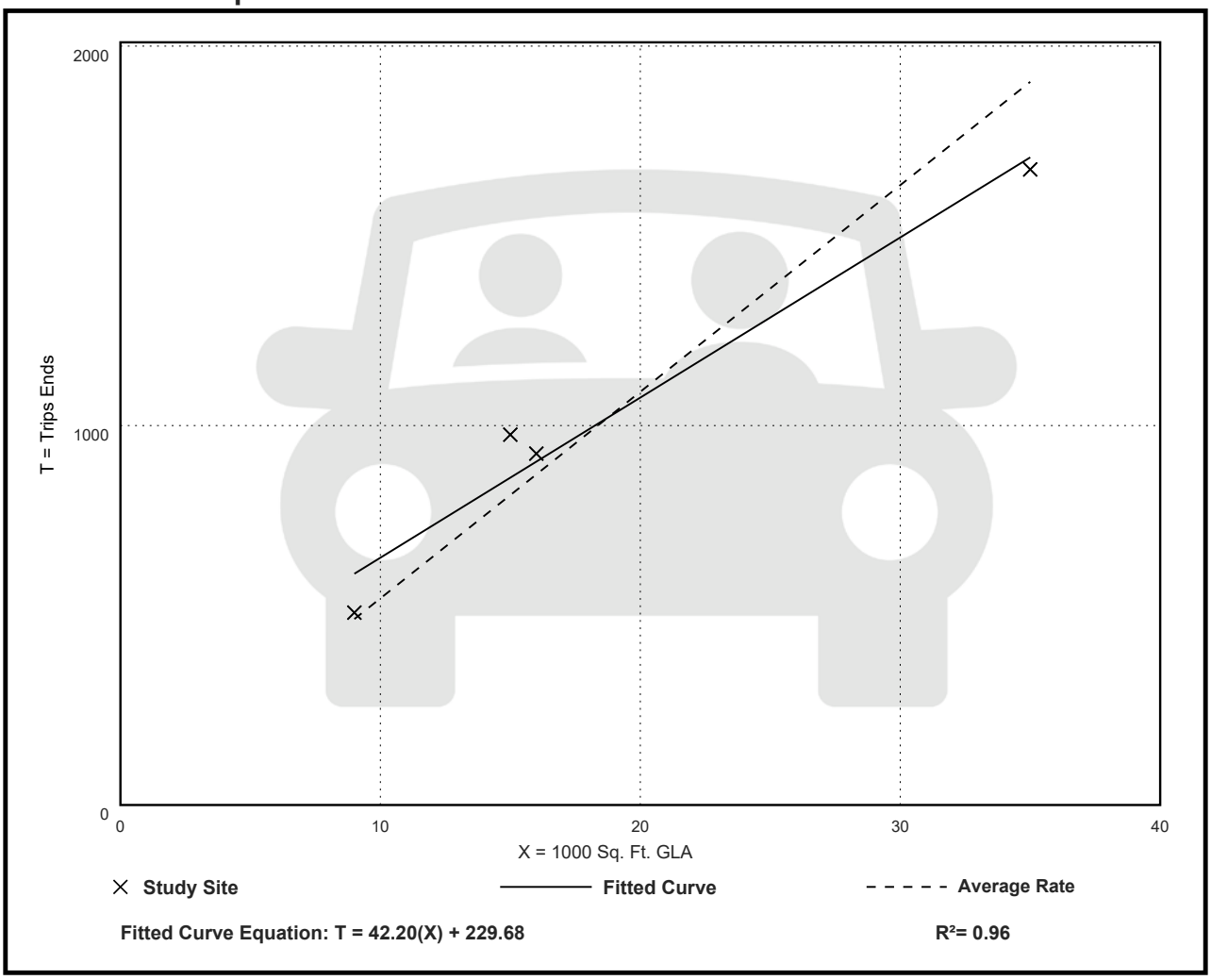
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation



Fitted Curve Equation: T = 42.20(X) + 229.68

R^2= 0.96

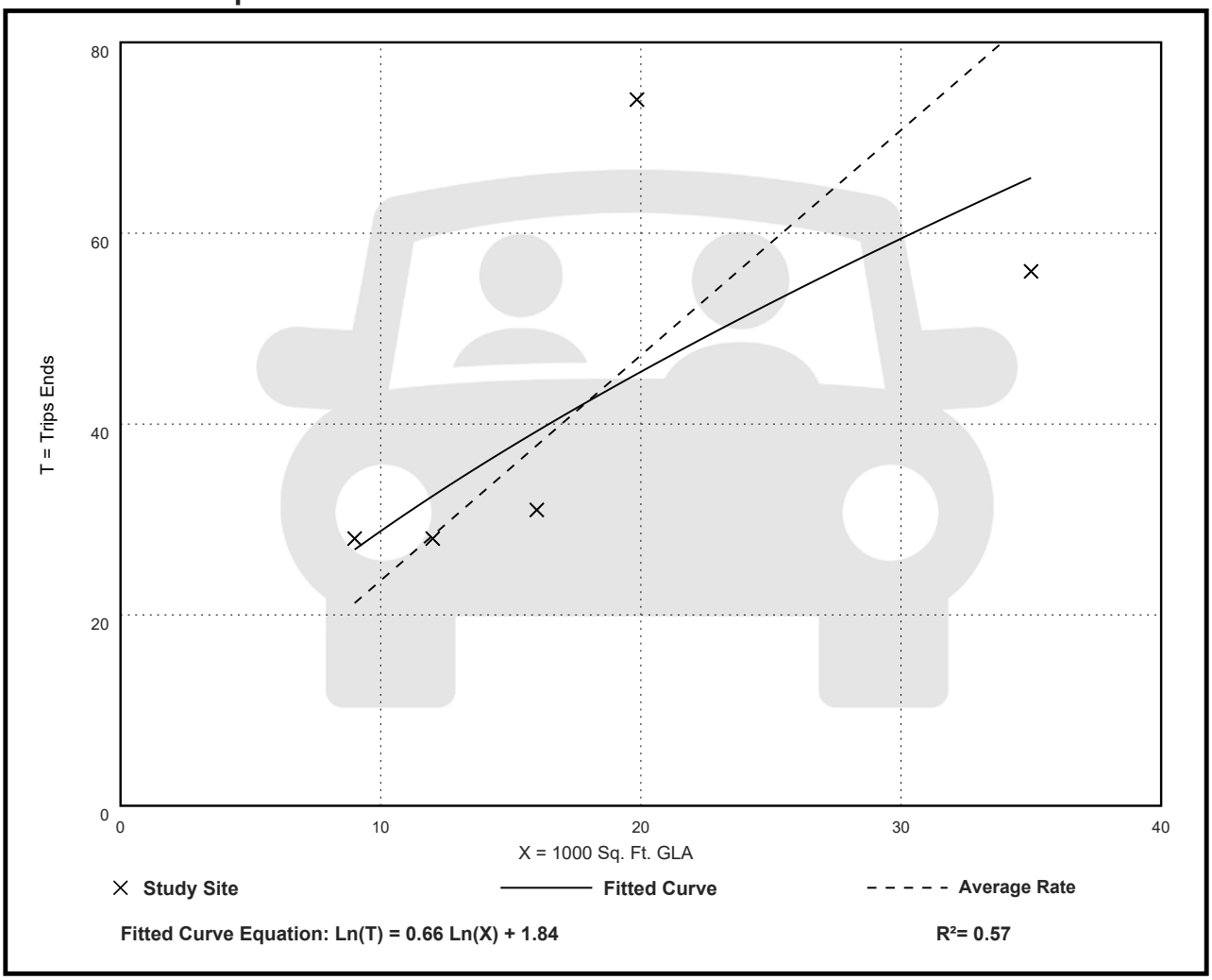
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.66 Ln(X) + 1.84

R^2= 0.57

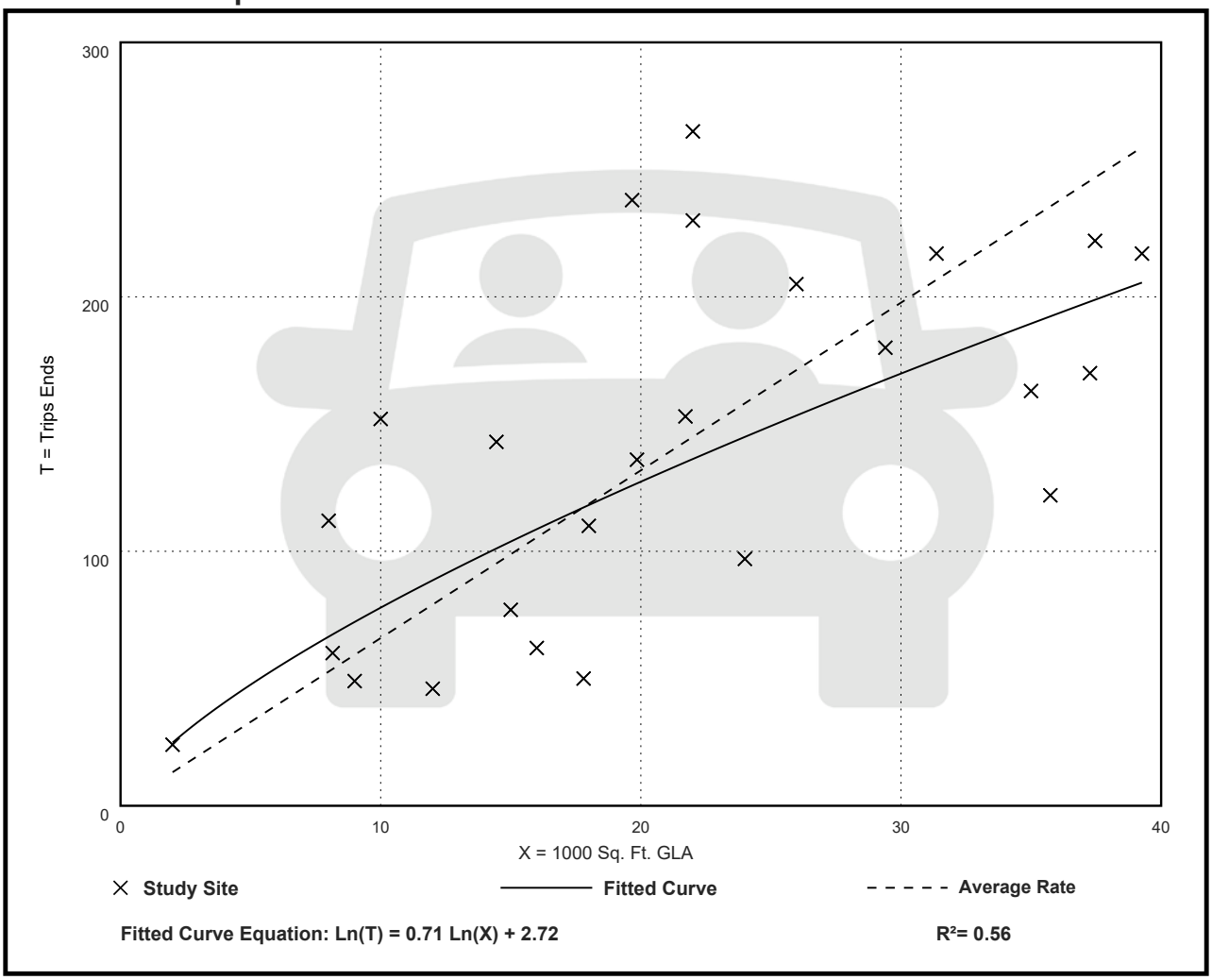
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.71 Ln(X) + 2.72

R^2= 0.56

Strip Retail Plaza (<40k)
(822)

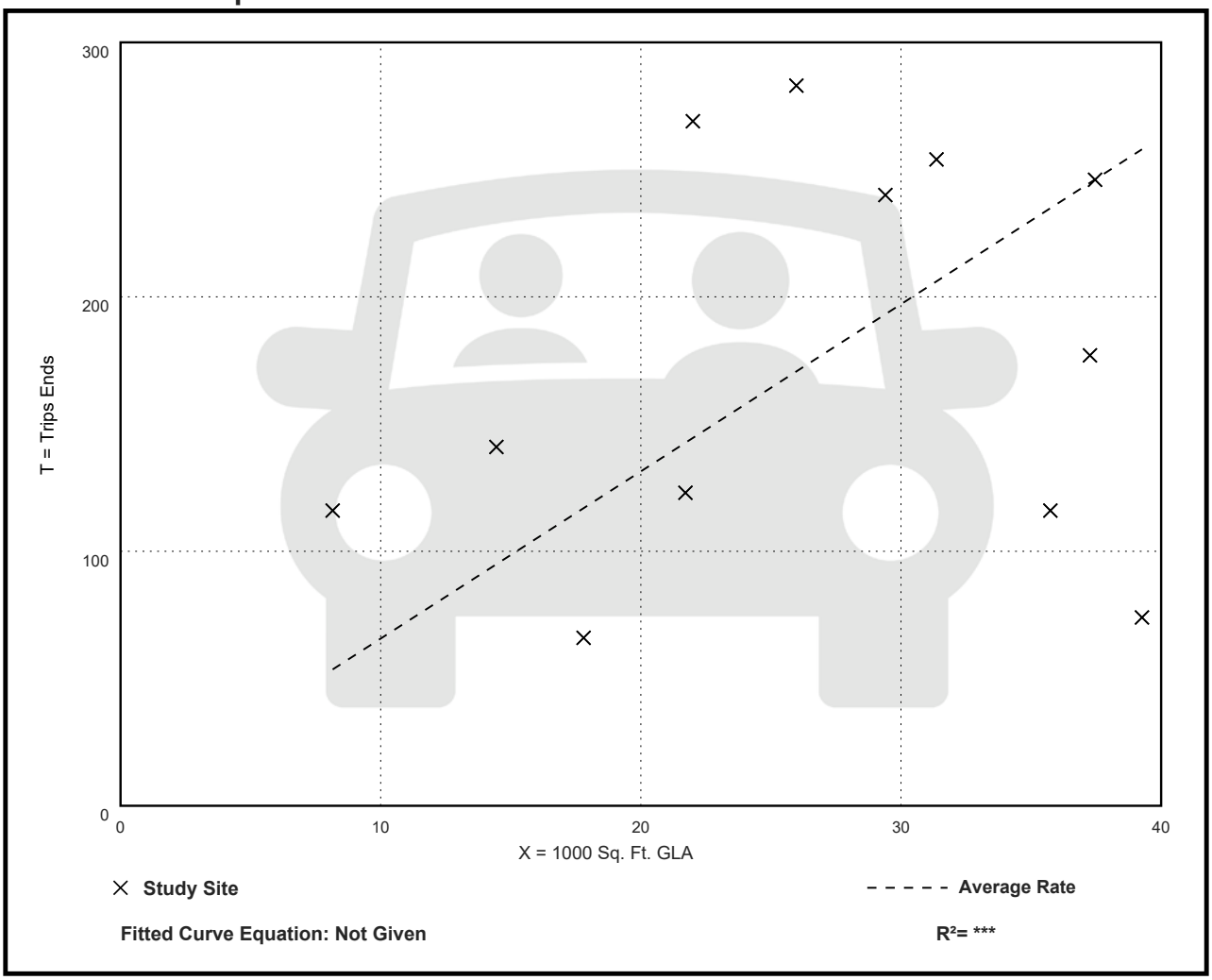
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GLA: 27
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.57	1.88 - 14.23	3.45

Data Plot and Equation



Supermarket
(850)

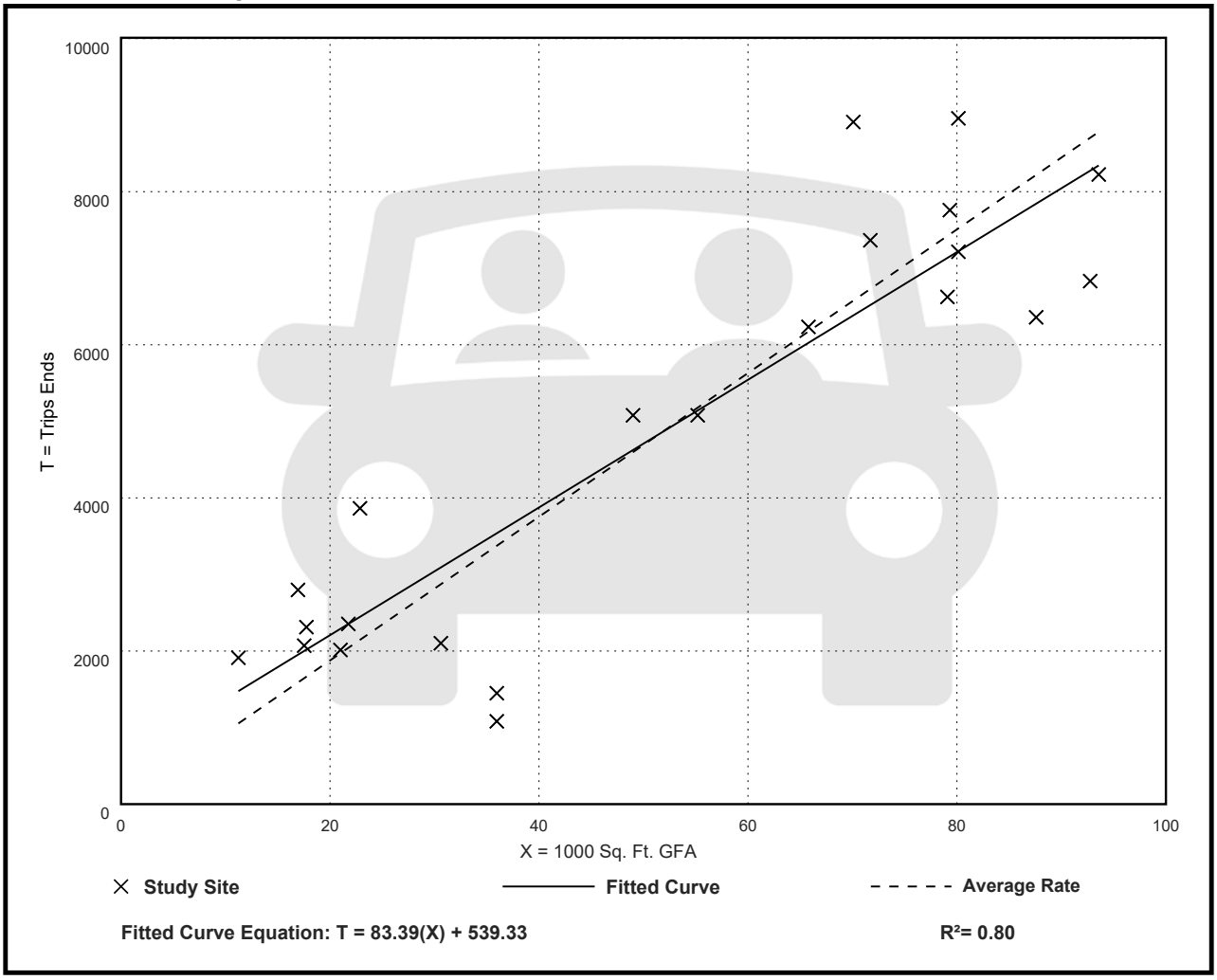
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 52
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
93.84	30.09 - 170.24	27.05

Data Plot and Equation



Fitted Curve Equation: T = 83.39(X) + 539.33

R^2= 0.80

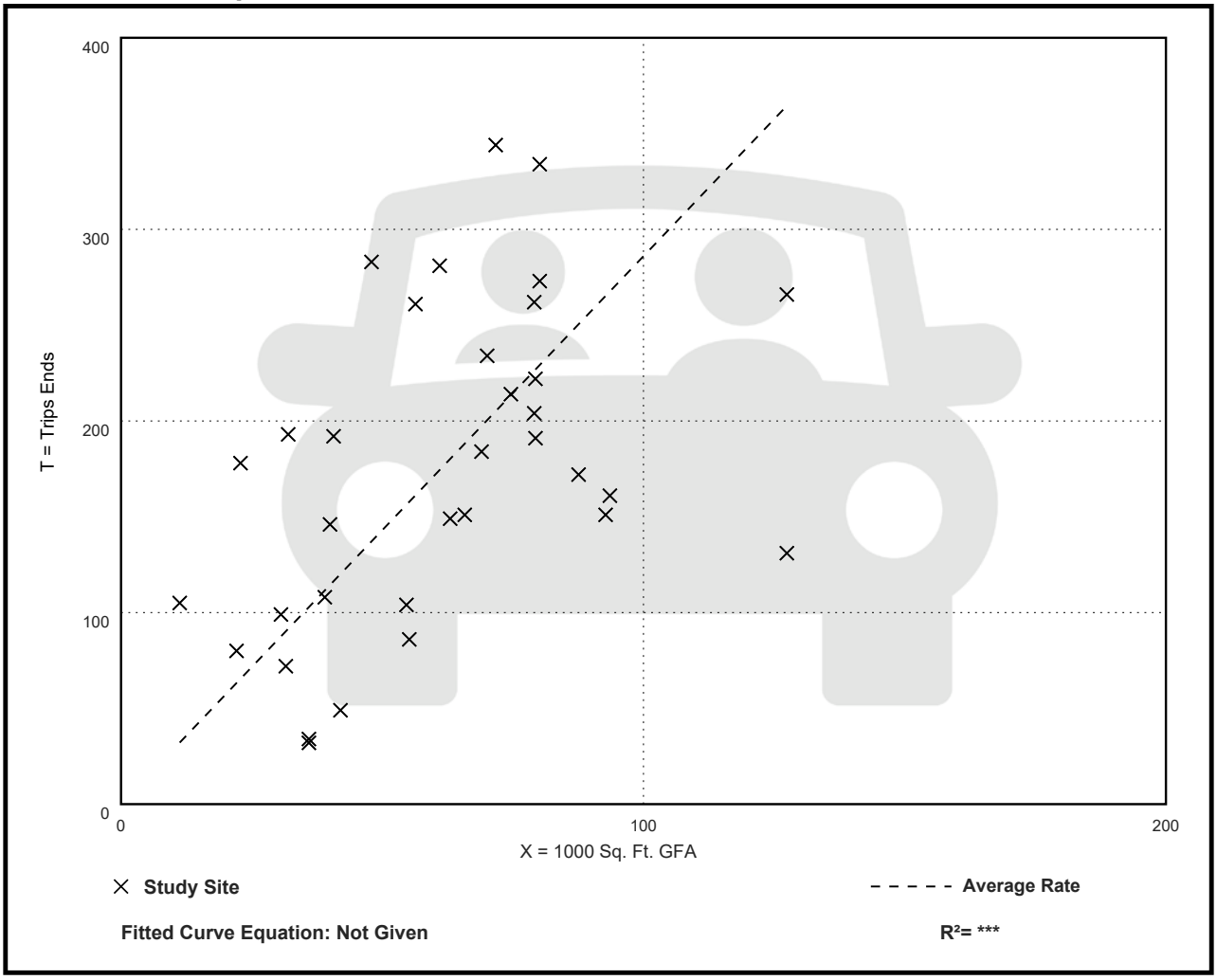
Supermarket
(850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 61
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.86	0.89 - 9.35	1.45

Data Plot and Equation



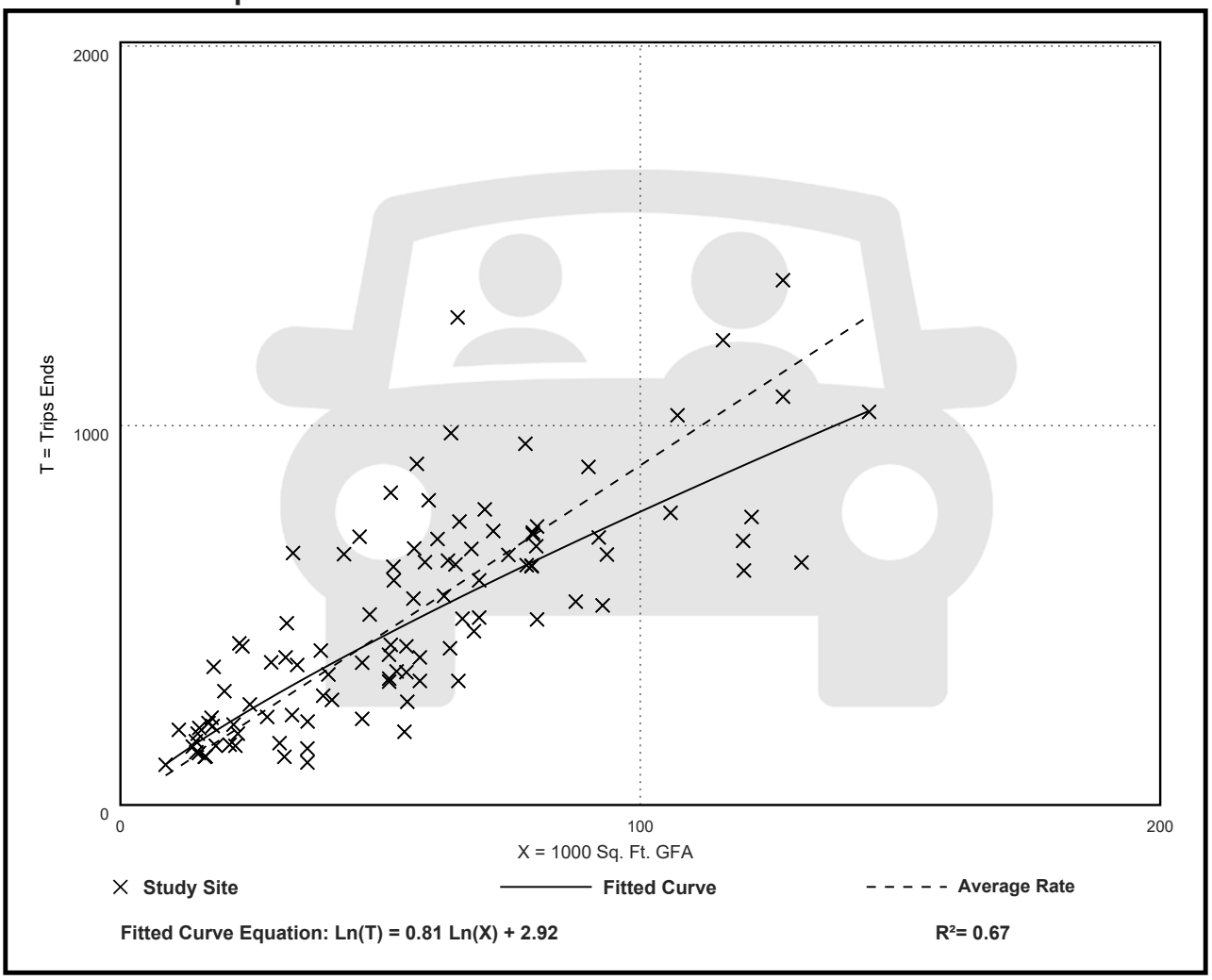
Supermarket
(850)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.95	3.11 - 20.30	3.32

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.81 Ln(X) + 2.92

R^2= 0.67

Supermarket
(850)

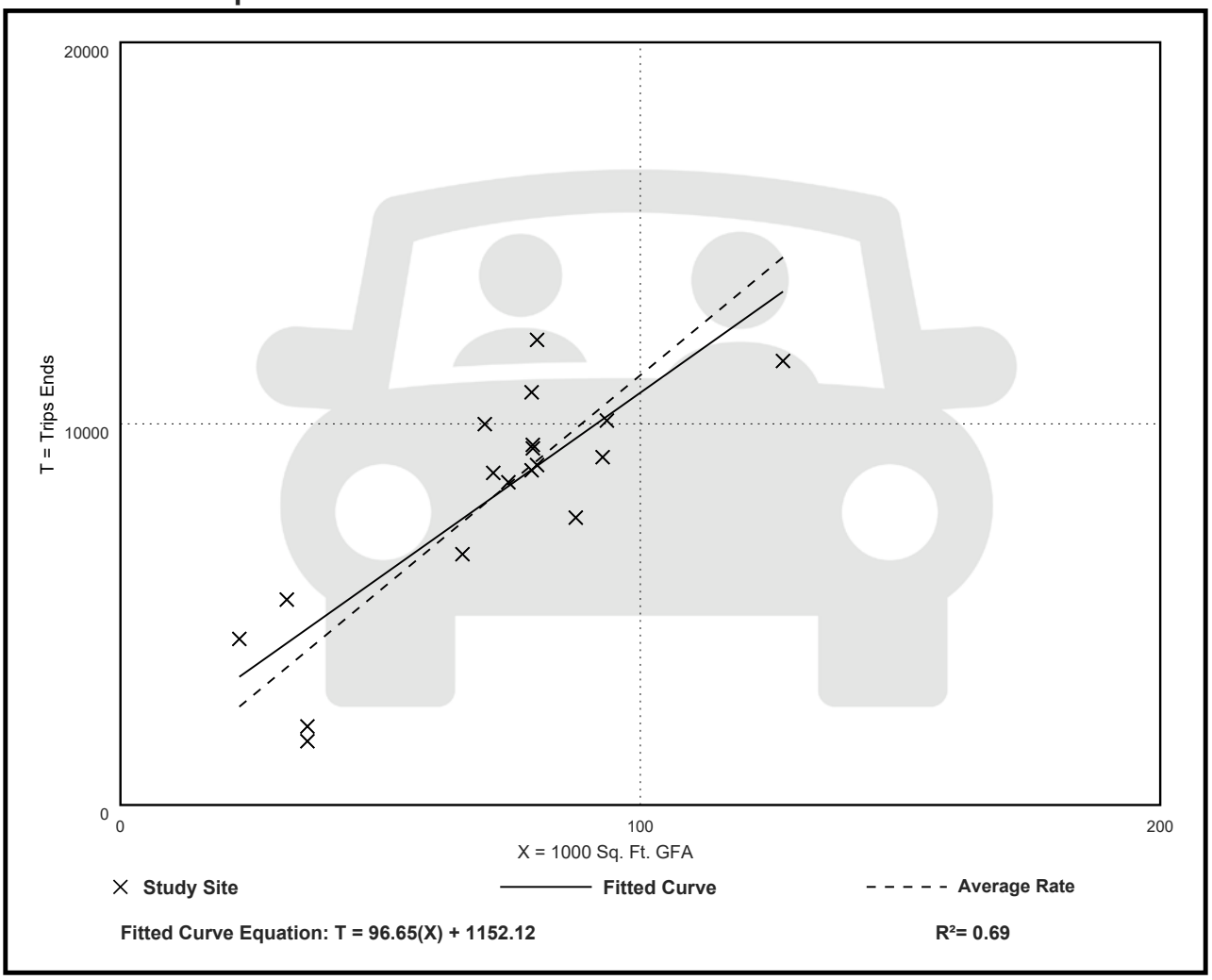
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 18
Avg. 1000 Sq. Ft. GFA: 72
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
112.76	46.55 - 190.51	27.25

Data Plot and Equation



Fitted Curve Equation: T = 96.65(X) + 1152.12

R^2= 0.69

Supermarket
(850)

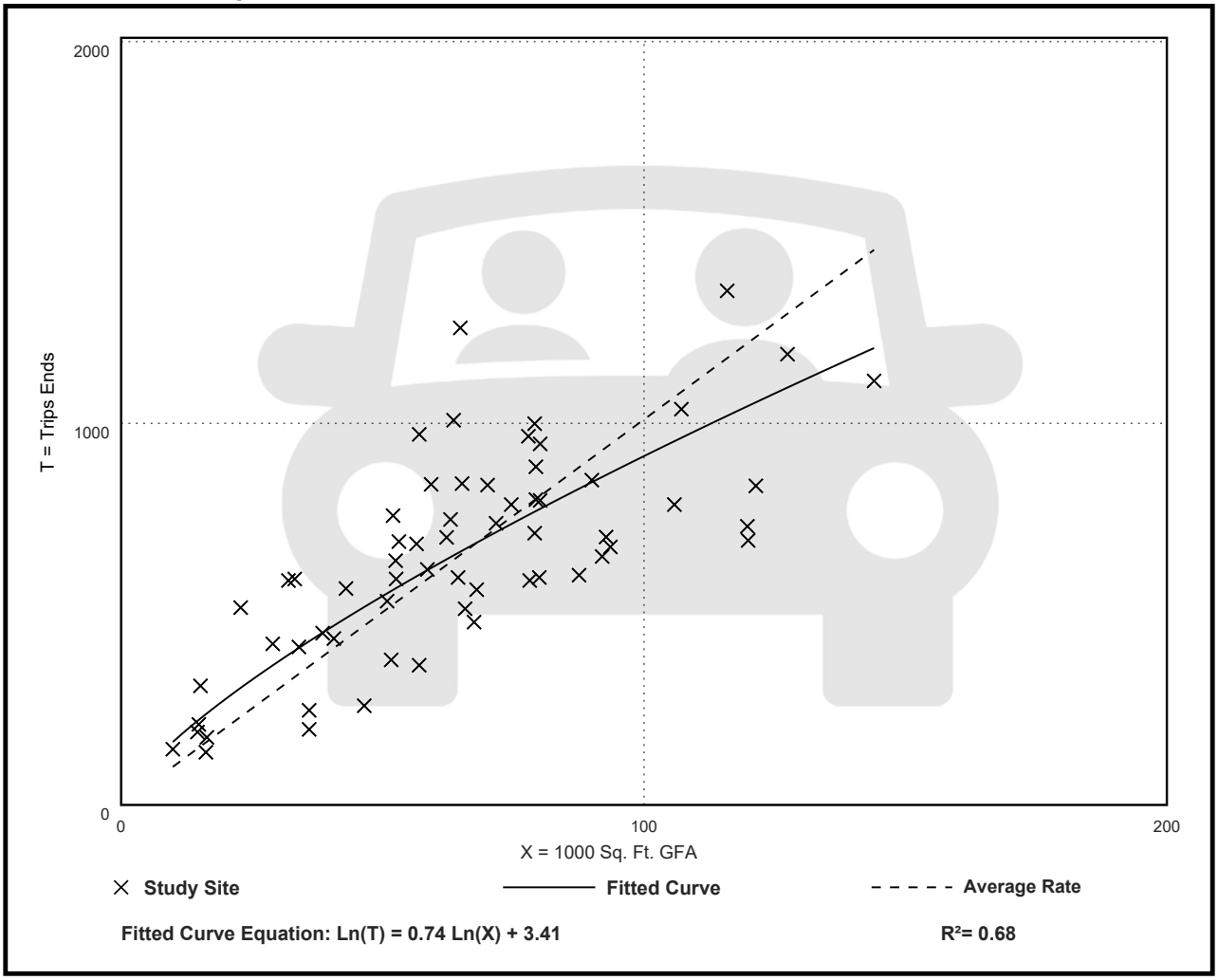
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 62
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.10	5.51 - 22.61	3.30

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.74 Ln(X) + 3.41

R^2= 0.68

Fast Casual Restaurant
(930)

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

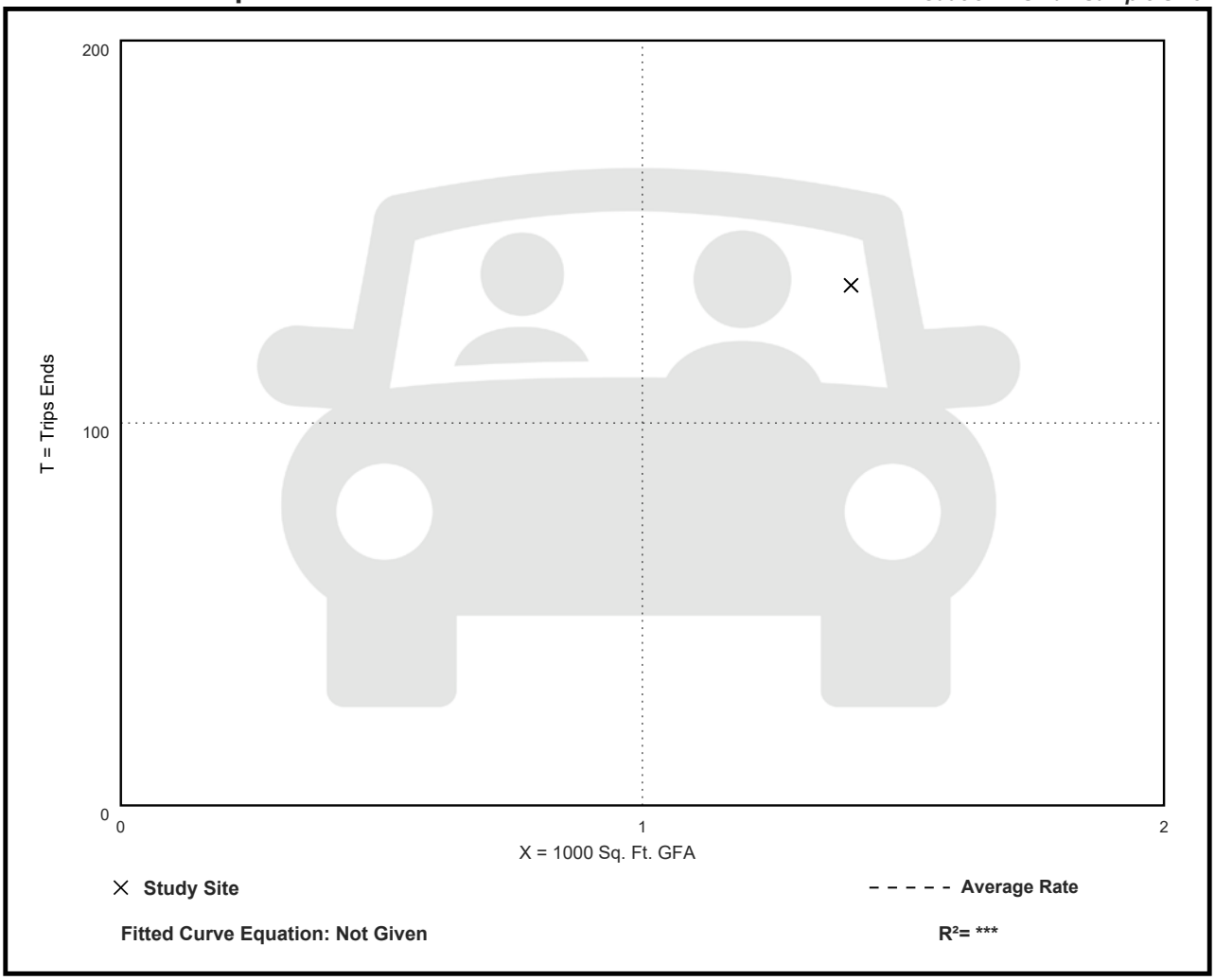
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
97.14	97.14 - 97.14	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

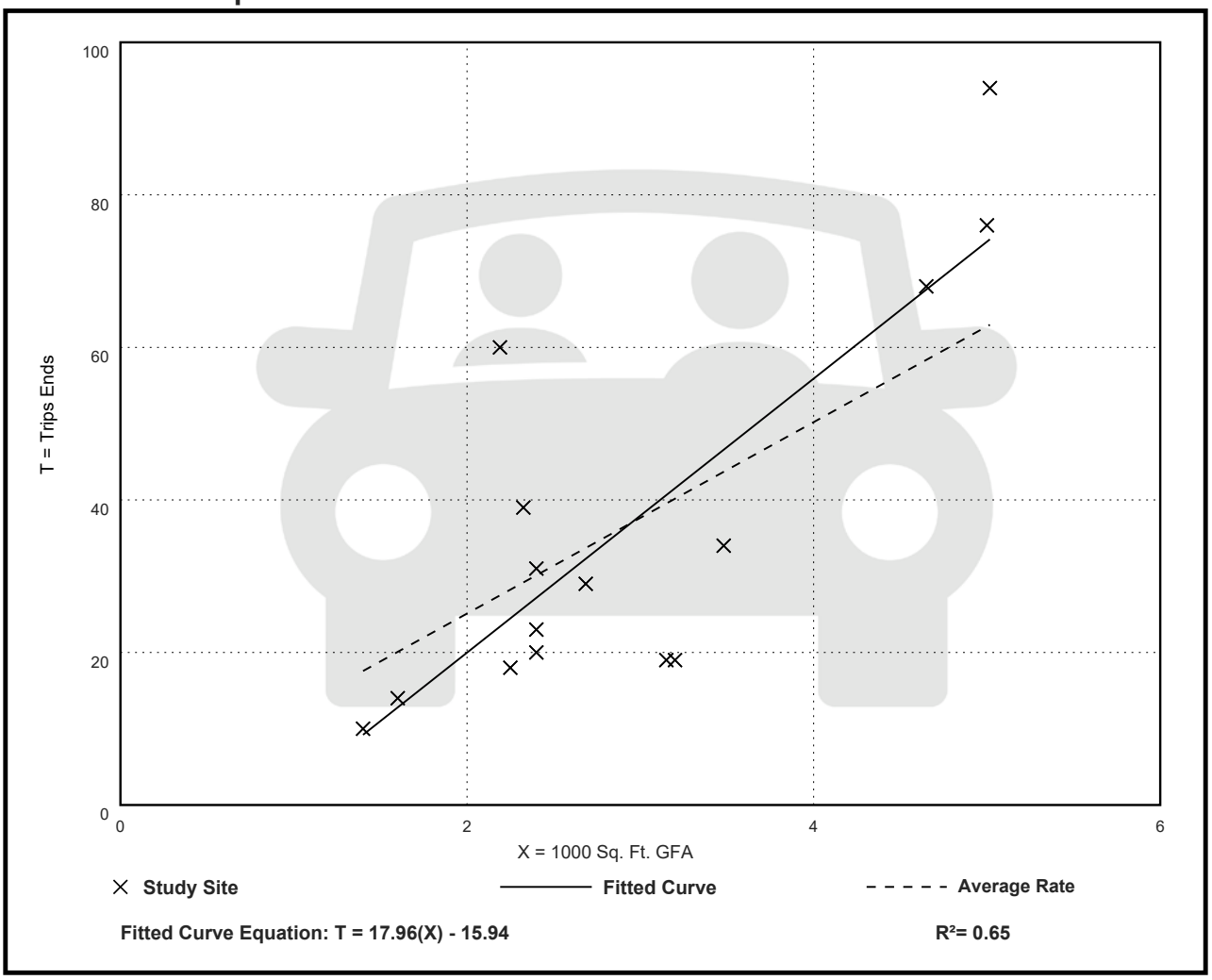
Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.55	5.94 - 27.40	5.52

Data Plot and Equation



Fitted Curve Equation: T = 17.96(X) - 15.94

R^2= 0.65

Fast Casual Restaurant
(930)

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

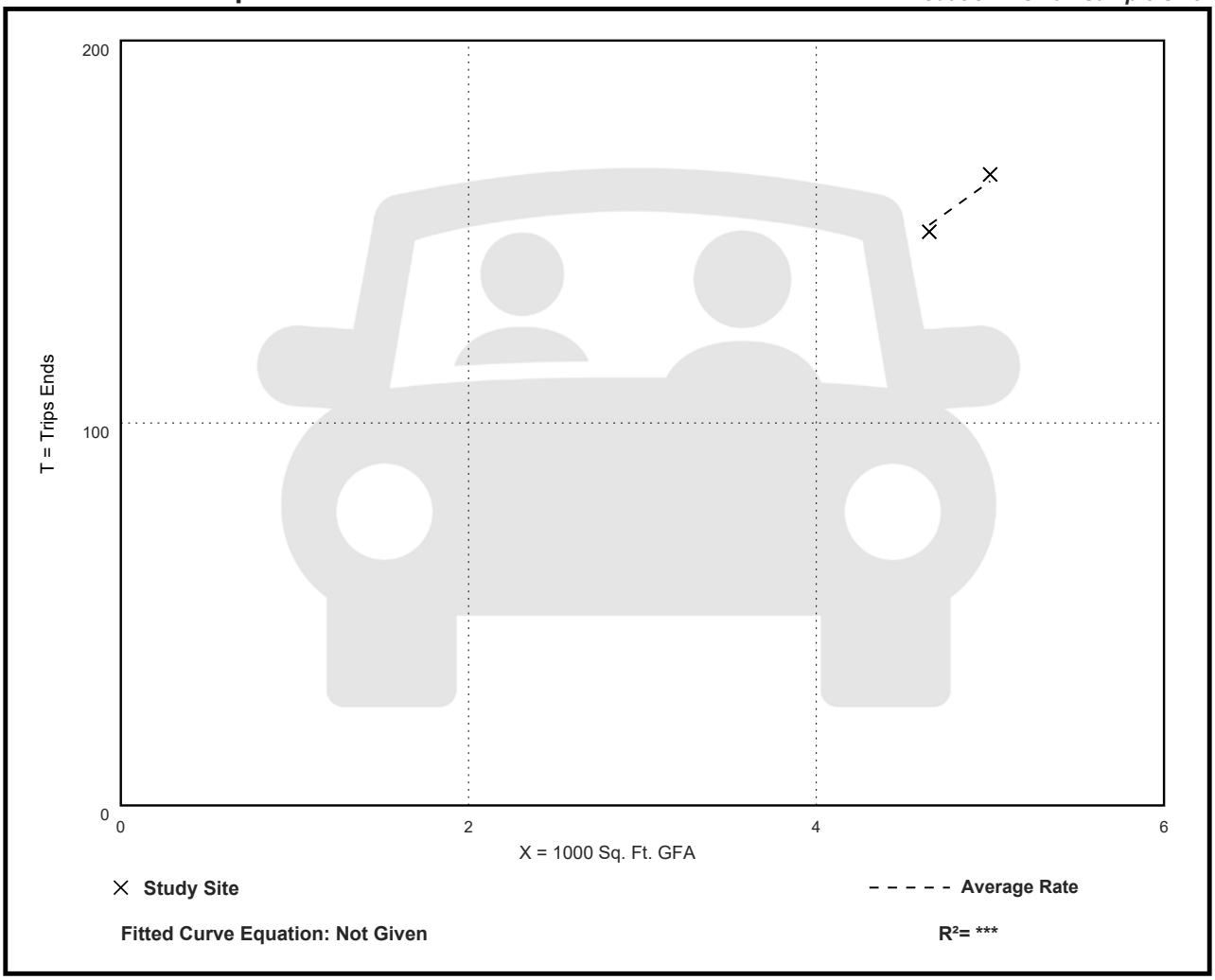
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.64	32.26 - 33.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Fine Dining Restaurant
(931)

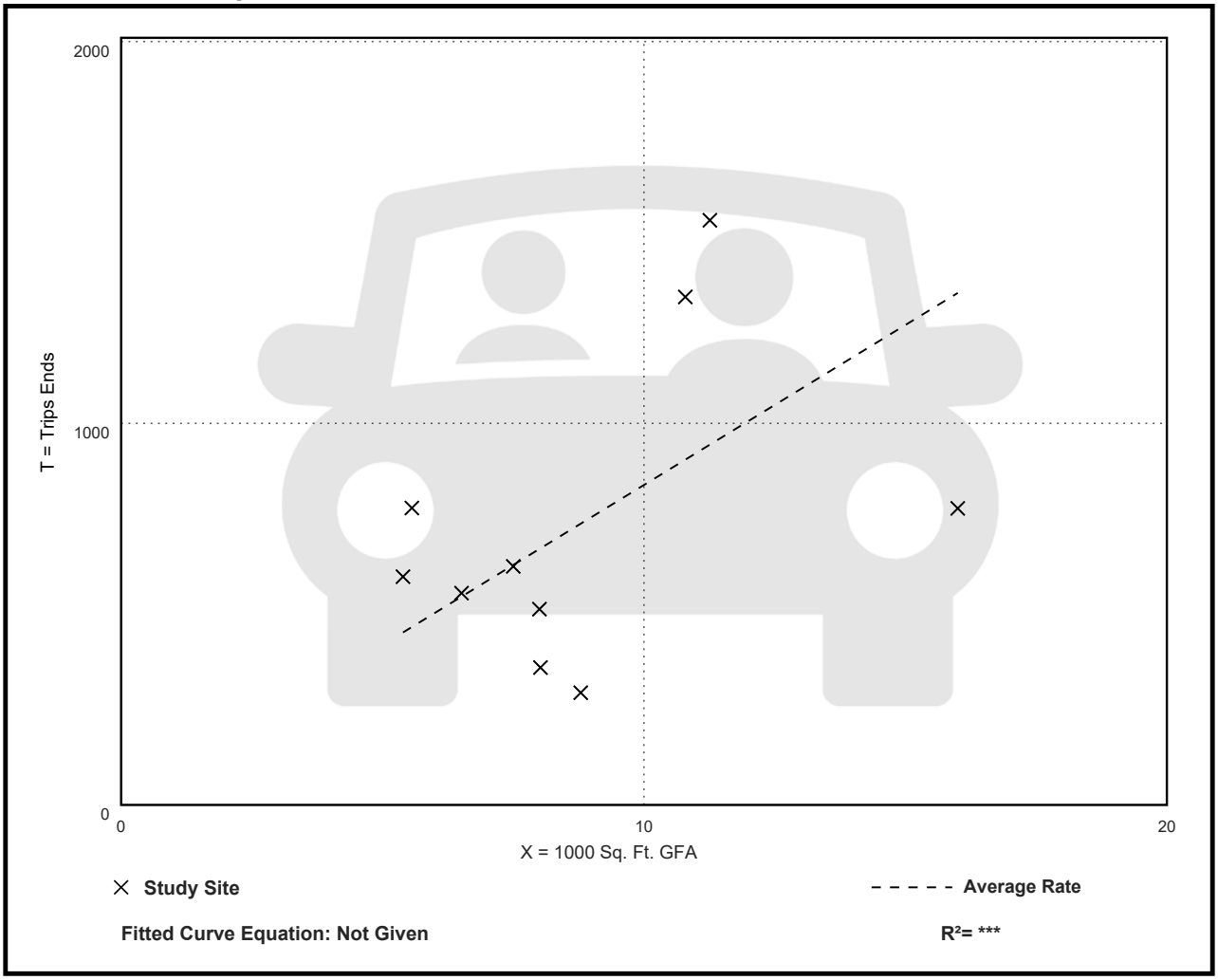
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
83.84	33.45 - 139.93	40.01

Data Plot and Equation



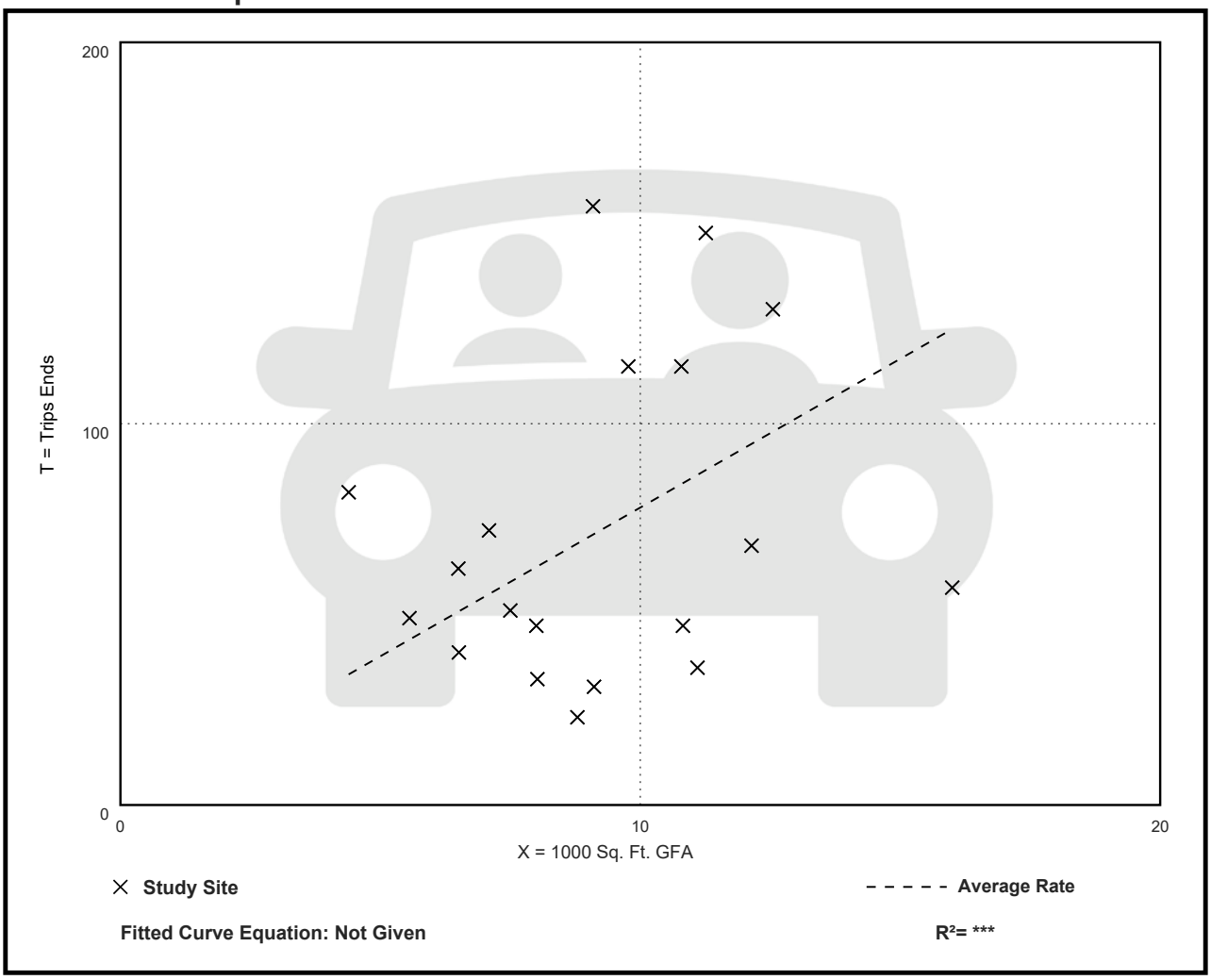
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Fine Dining Restaurant
(931)

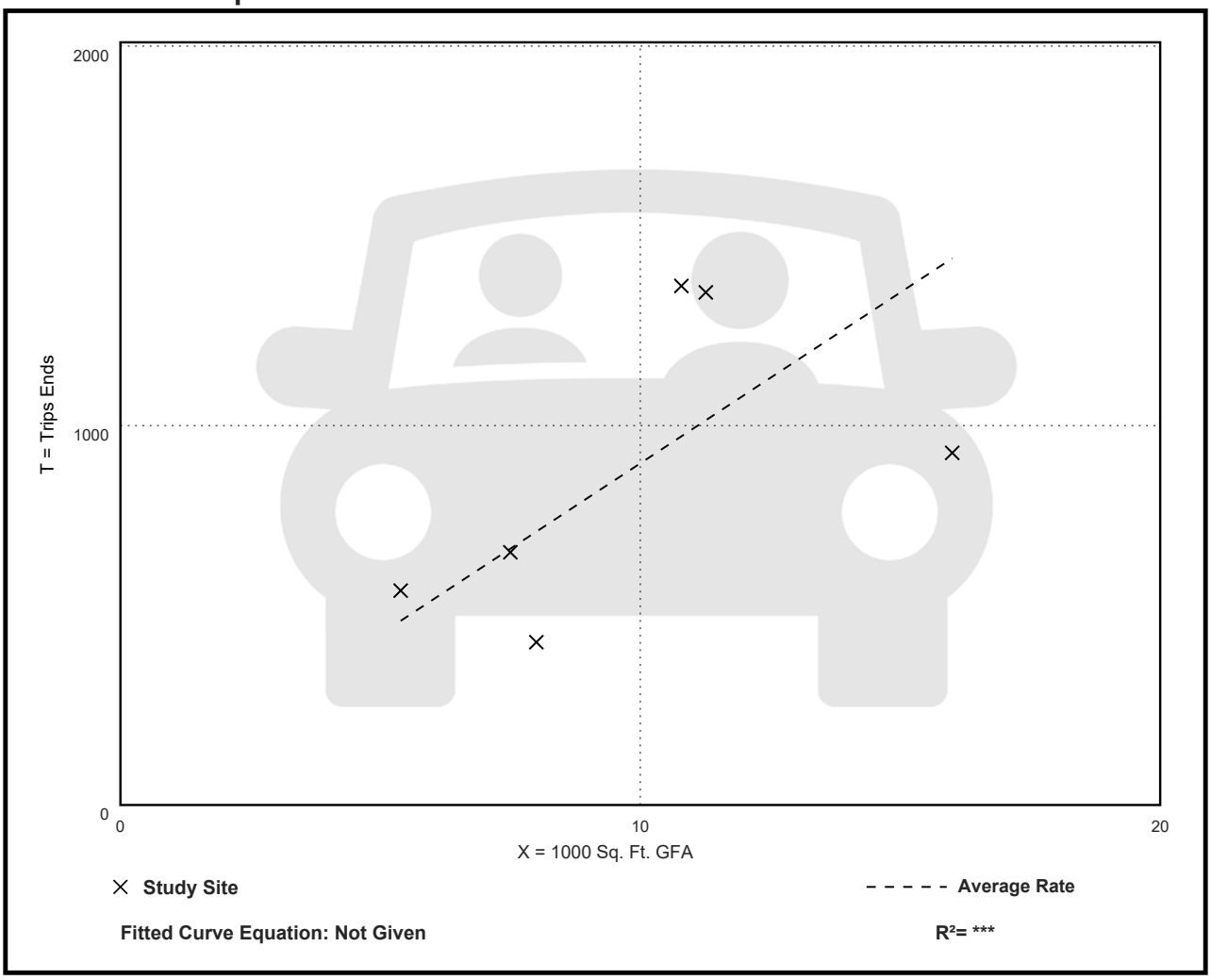
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
90.04	53.63 - 126.78	32.81

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Fine Dining Restaurant
(931)

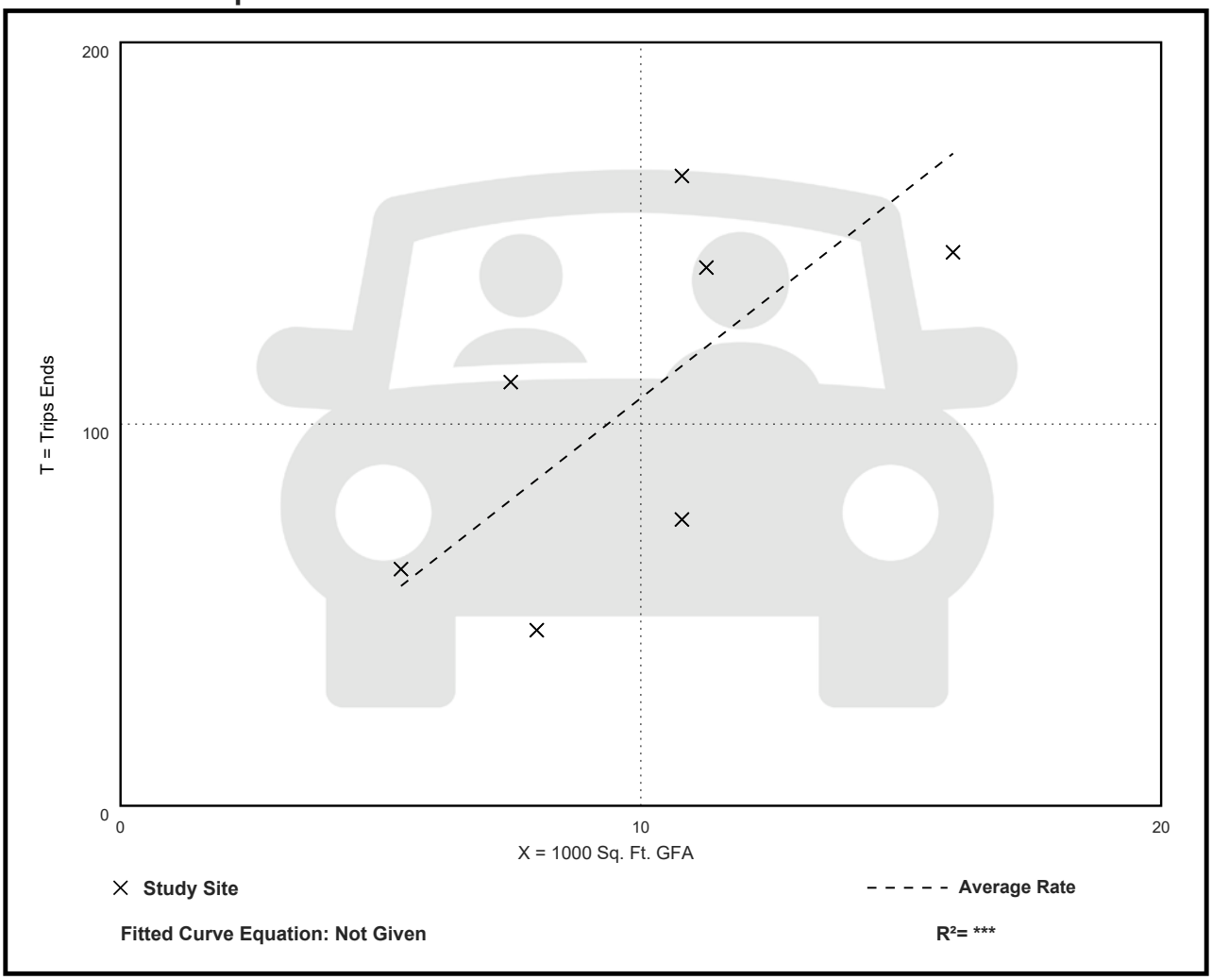
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.68	5.75 - 15.29	3.62

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

High-Turnover (Sit-Down) Restaurant (932)

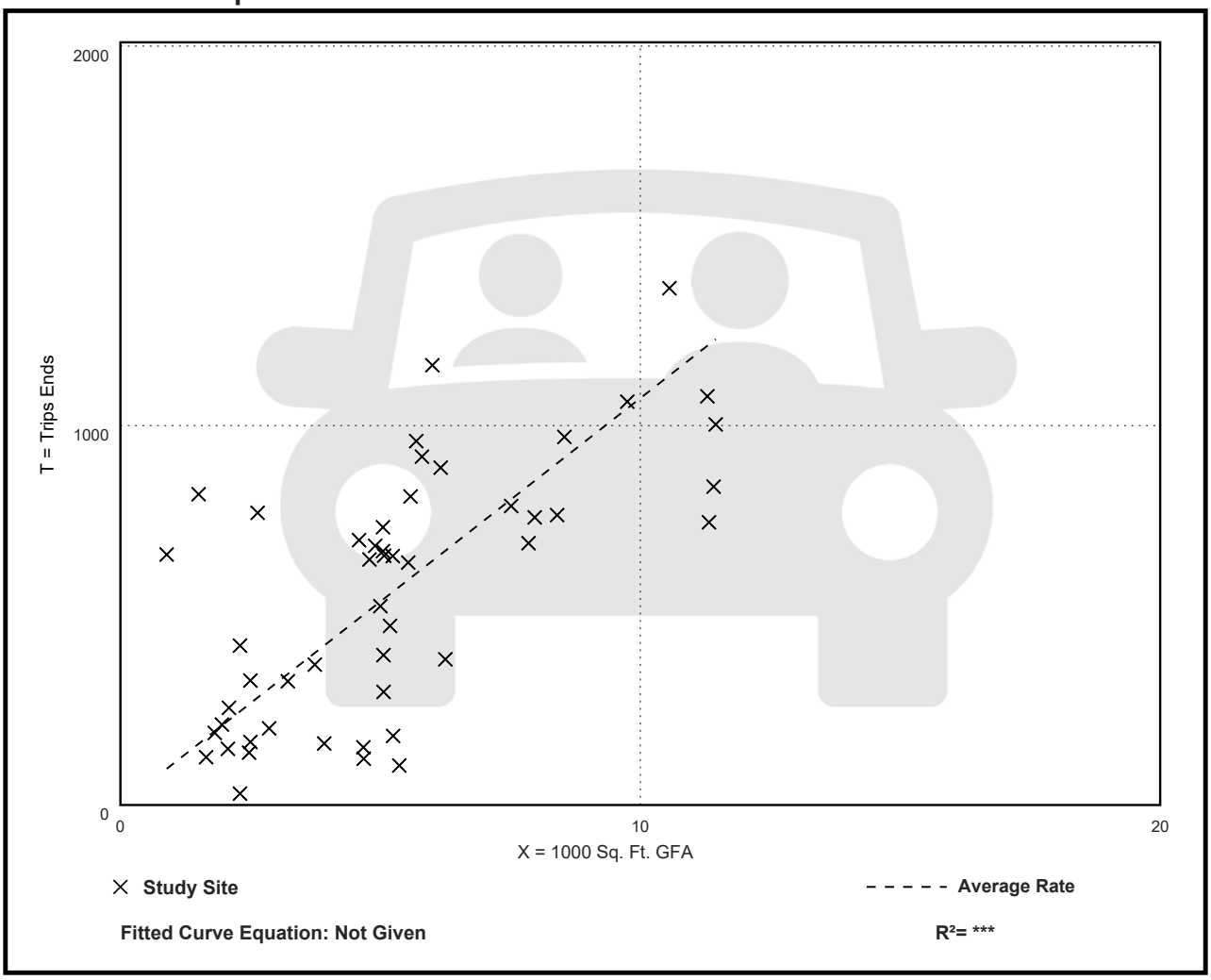
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72

Data Plot and Equation



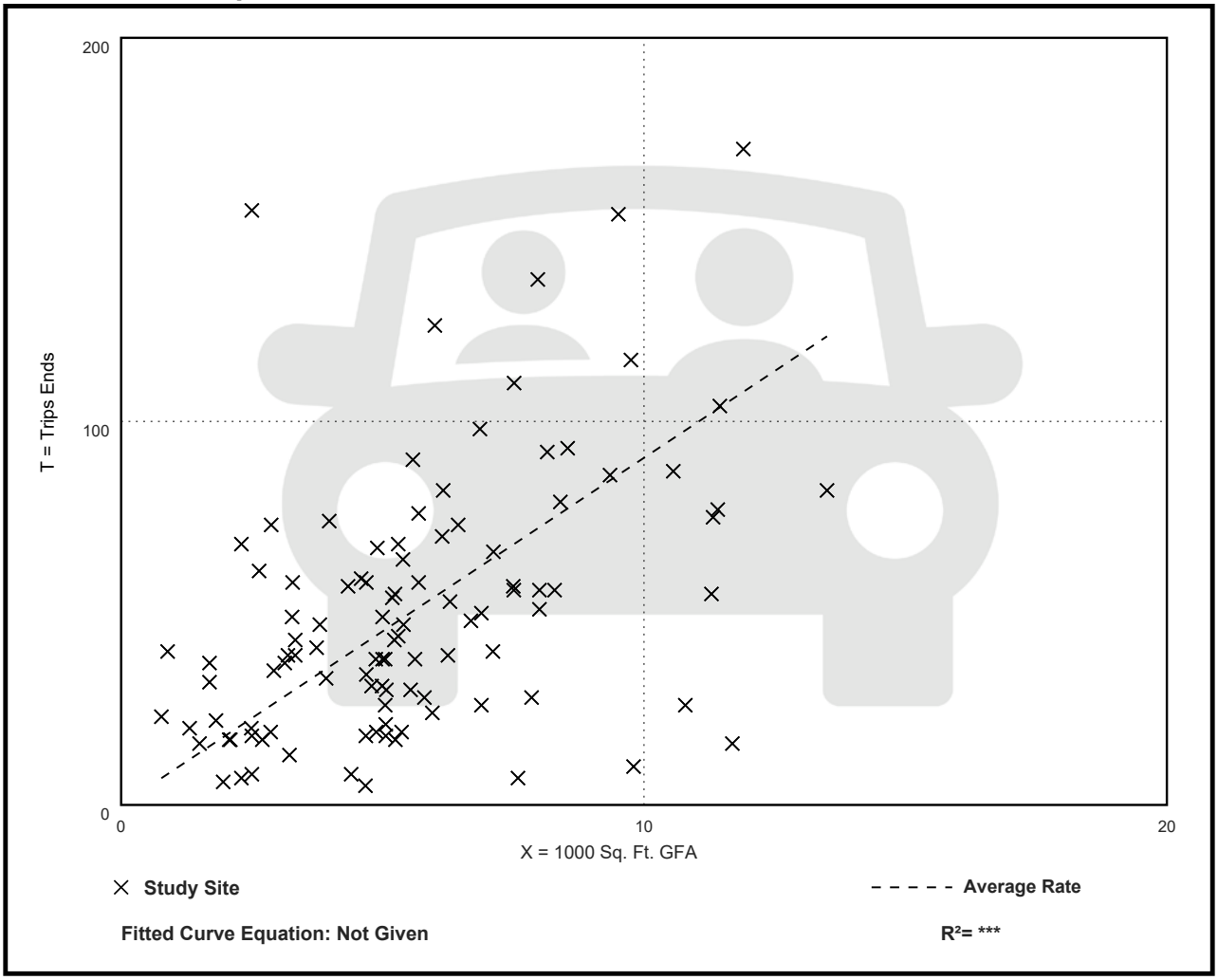
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



High-Turnover (Sit-Down) Restaurant
(932)

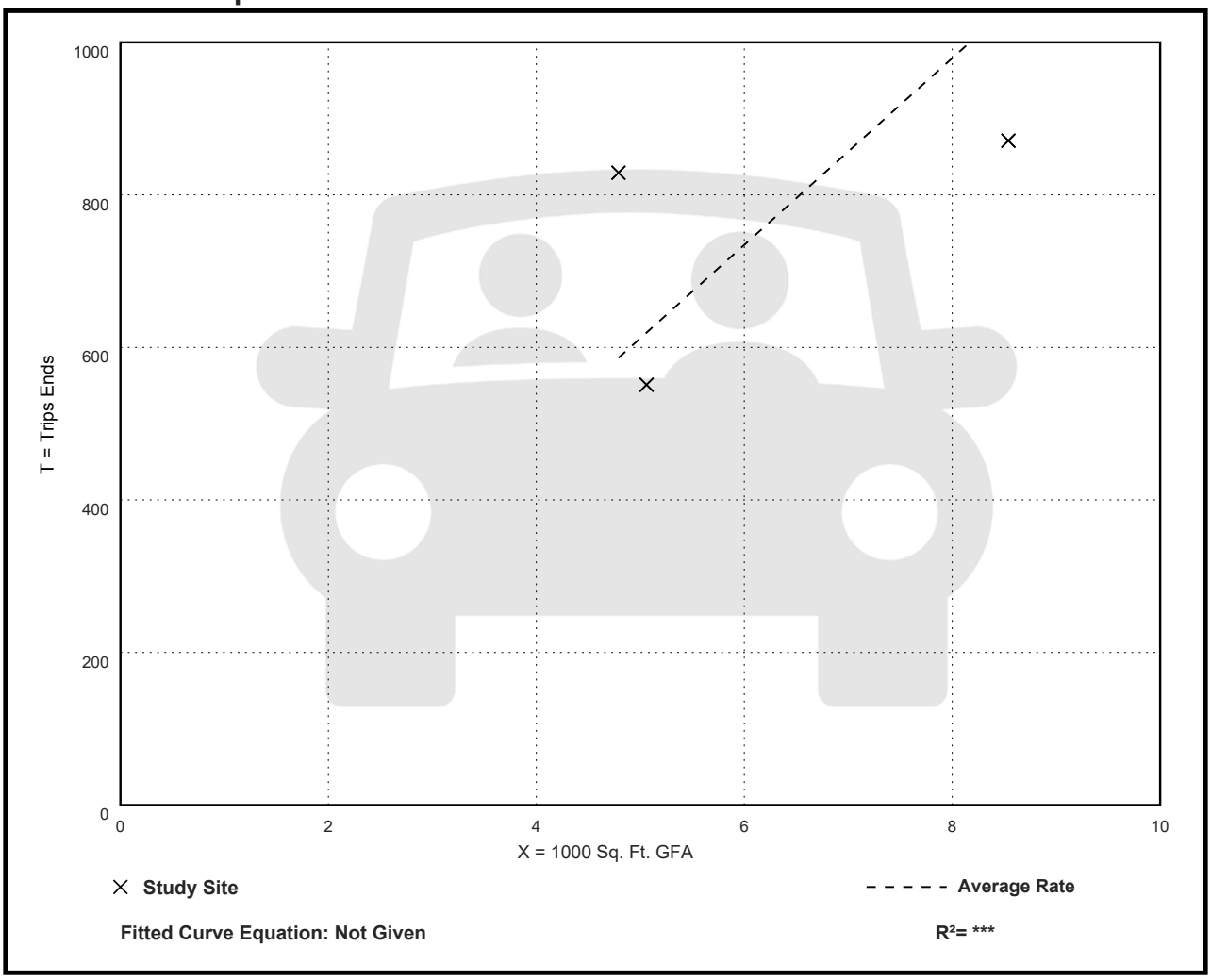
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
122.40	101.99 - 173.07	36.99

Data Plot and Equation



High-Turnover (Sit-Down) Restaurant (932)

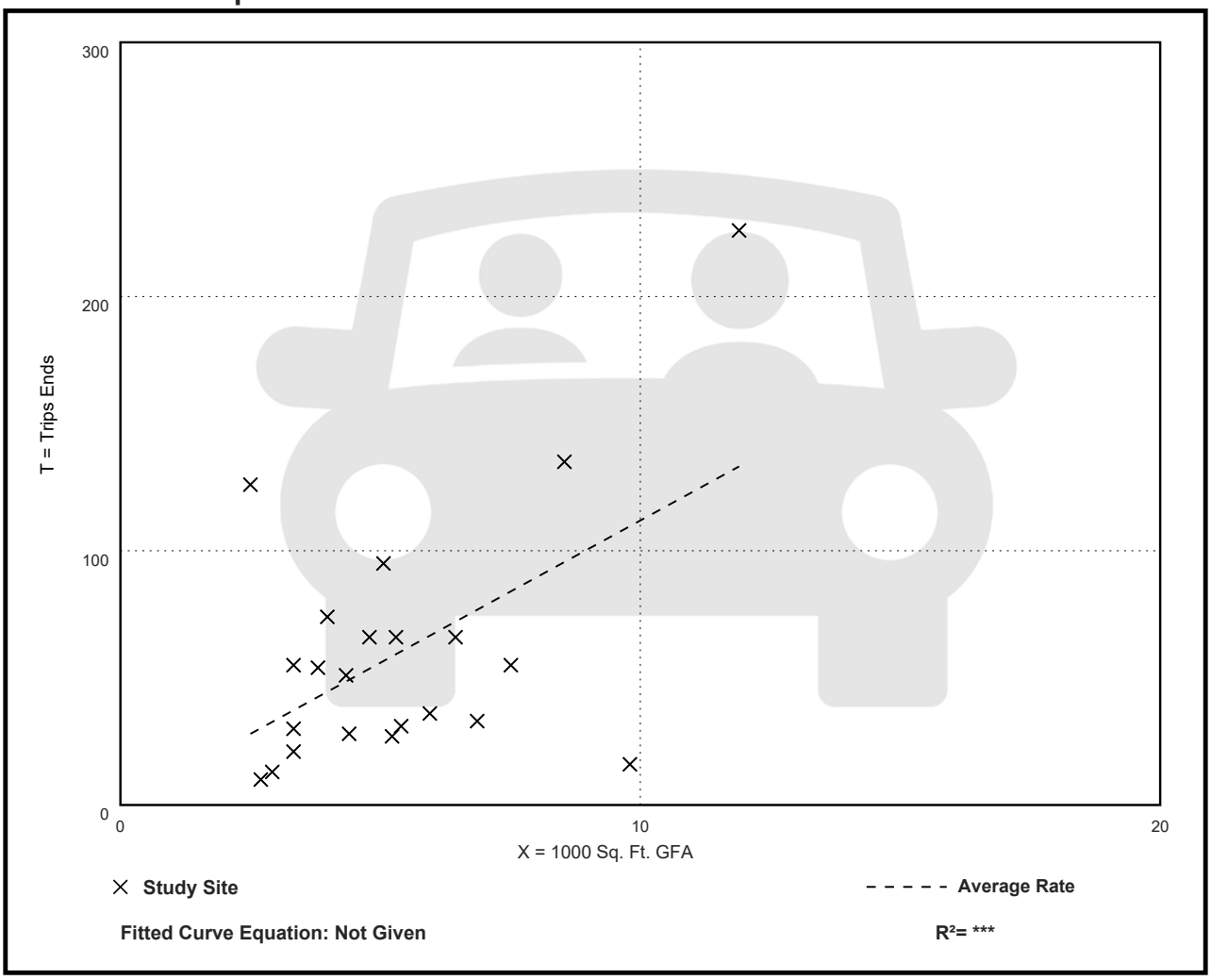
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.19	1.63 - 50.40	8.30

Data Plot and Equation



CMAP 2050 Projections Letter

Chicago Metropolitan Agency for Planning

433 West Van Buren Street, Suite 450
Chicago, IL 60607

cmap.illinois.gov | 312-454-0400

October 23, 2023

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

Subject: Golf Road @ Algonquin Road
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated October 20, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT (2021)	Year 2050 ADT
Algonquin Rd east of New Wilke Rd	23,000	28,900
Algonquin Rd west of New Wilke Rd	24,400	28,800
New Wilke Rd, at Algonquin Rd	14,500	19,200
Algonquin Rd south of Golf Rd	24,000	29,700
Golf Rd east of Algonquin Rd	26,000	27,700
Golf Rd west of Algonquin Rd	26,300	27,800
Golf Rd, at New Wilke Rd	26,300	30,600

Traffic projections are developed using existing ADT data provided in the request letter and the results from the June 2023 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at jrodriguez@cmap.illinois.gov

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

cc: Rios (IDOT)
2023_TrafficForecasts\RollingMeadows\ck-143-23\ck-143-23.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

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

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

Source: *Highway Capacity Manual*, 6th Edition.

Capacity Analysis Summary Sheets

Existing Weekday Morning Peak Hour

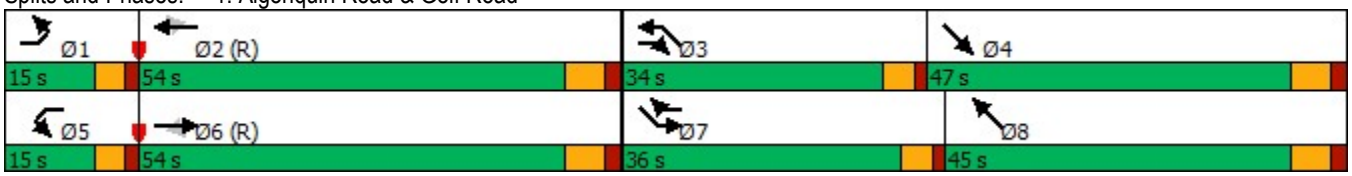
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	31	690	213	26	605	236	237	720	18	234	443	32
Future Volume (vph)	31	690	213	26	605	236	237	720	18	234	443	32
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	3%	3%	4%	2%	3%	3%	3%	0%	5%	7%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	802	248	30	703	274	276	858	0	272	552	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	54.0	34.0	15.0	54.0	36.0	36.0	47.0		34.0	45.0	
Total Split (%)	10.0%	36.0%	22.7%	10.0%	36.0%	24.0%	24.0%	31.3%		22.7%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	8.3	57.5	81.7	7.9	54.8	79.0	17.7	48.3		17.7	48.4	
Actuated g/C Ratio	0.06	0.38	0.54	0.05	0.37	0.53	0.12	0.32		0.12	0.32	

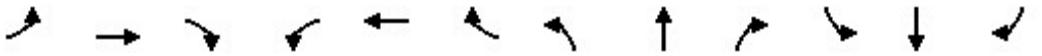
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.39	0.57	0.29	0.33	0.36	0.33	0.69	0.76		0.69	0.51	
Control Delay	78.6	36.0	17.5	77.5	37.1	23.0	72.5	50.9		72.6	43.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.6	36.0	17.5	77.5	37.1	23.0	72.5	50.9		72.6	43.2	
LOS	E	D	B	E	D	C	E	D		E	D	
Approach Delay		33.2			34.4			56.1			52.9	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	30	366	158	29	196	165	136	381		134	221	
Queue Length 95th (ft)	56	422	207	62	227	210	170	458		168	280	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	113	1414	972	115	1955	964	702	1125		644	1076	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.32	0.57	0.26	0.26	0.36	0.28	0.39	0.76		0.42	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 43.9 Intersection LOS: D
Intersection Capacity Utilization 67.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Algonquin Road & Golf Road



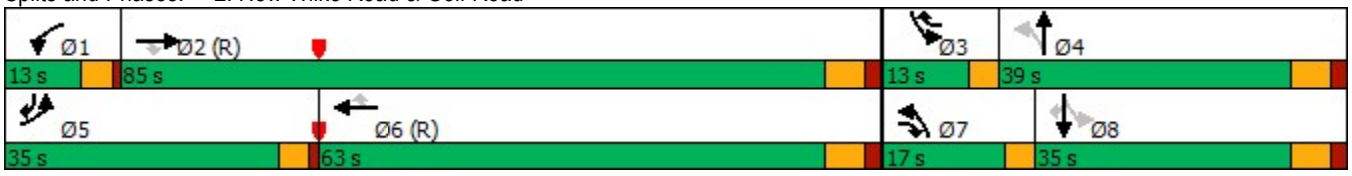


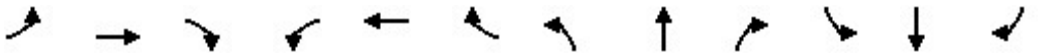
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	991	50	0	789	86	1	0	0	95	36	184
Future Volume (vph)	251	991	50	0	789	86	1	0	0	95	36	184
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850						0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3367	5353	1615	1900	5301	1538	1805	3610	0	1719	1942	1583
Flt Permitted	0.950						0.000			0.950		
Satd. Flow (perm)	3367	5353	1615	1900	5301	1538	0	3610	0	1719	1942	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	3%	5%	0%	0%	0%	5%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	1139	57	0	907	99	1	0	0	109	41	211
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt			pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	13.0	17.0	39.0		13.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	8.7%	11.3%	26.0%		8.7%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	18.3	119.8	132.0		97.0	123.7	5.7			20.2	9.8	34.6
Actuated g/C Ratio	0.12	0.80	0.88		0.65	0.82	0.04			0.13	0.07	0.23

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.27	0.04		0.26	0.08	0.01			0.47	0.32	0.58
Control Delay	72.6	4.3	1.5		14.2	1.0	70.0			65.7	73.1	57.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0	0.0
Total Delay	72.6	4.3	1.5		14.2	1.0	70.0			65.7	73.1	57.1
LOS	E	A	A		B	A	E			E	E	E
Approach Delay		17.5			12.9			70.0			61.5	
Approach LOS		B			B			E			E	
Queue Length 50th (ft)	142	94	6		182	5	1			99	39	186
Queue Length 95th (ft)	179	118	13		140	4	8			154	77	244
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	684	4274	1505		3428	1268	162			231	368	494
Starvation Cap Reductn	0	0	0		0	0	0			0	0	0
Spillback Cap Reductn	0	0	0		0	0	0			0	0	0
Storage Cap Reductn	0	0	0		0	0	0			0	0	0
Reduced v/c Ratio	0.42	0.27	0.04		0.26	0.08	0.01			0.47	0.11	0.43

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 48.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	840	105	26	593	126	99	218	19	271	242	121
Future Volume (vph)	109	840	105	26	593	126	99	218	19	271	242	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.983			0.974			0.988			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3475	0	1736	3328	0	1719	3457	0	1787	3340	0
Flt Permitted	0.286			0.232			0.414			0.424		
Satd. Flow (perm)	533	3475	0	424	3328	0	749	3457	0	798	3340	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	4%	6%	4%	5%	3%	5%	1%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	1006	0	28	765	0	105	252	0	288	386	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	24.0	71.0		13.0	60.0		22.0	41.0		15.0	34.0	
Total Split (%)	17.1%	50.7%		9.3%	42.9%		15.7%	29.3%		10.7%	24.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	89.8	81.3		83.7	74.8		34.8	20.7		41.2	25.0	
Actuated g/C Ratio	0.64	0.58		0.60	0.53		0.25	0.15		0.29	0.18	

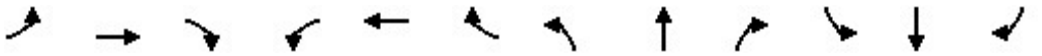
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.50		0.09	0.43		0.39	0.49		0.82	0.65	
Control Delay	12.4	20.2		11.1	20.1		38.9	57.0		60.9	58.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.4	20.2		11.1	20.1		38.9	57.0		60.9	58.6	
LOS	B	C		B	C		D	E		E	E	
Approach Delay		19.4			19.7			51.7			59.6	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	37	283		8	177		72	115		220	175	
Queue Length 95th (ft)	77	418		23	330		108	138		#345	221	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	523	2017		351	1778		347	864		350	676	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.50		0.08	0.43		0.30	0.29		0.82	0.57	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 57 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 32.6 Intersection LOS: C
Intersection Capacity Utilization 68.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Algonquin Road





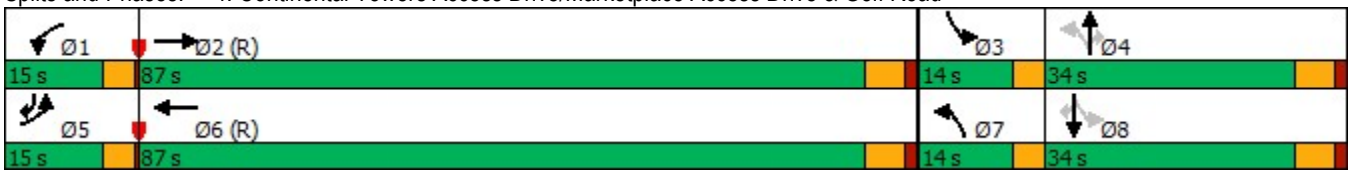
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	1029	15	11	843	30	9	1	1	11	0	11
Future Volume (vph)	8	1029	15	11	843	30	9	1	1	11	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1444	5028	0	1805	5016	0	1805	1900	1615	1656	1900	1369
Flt Permitted	0.950			0.950			0.950			0.000		
Satd. Flow (perm)	1444	5028	0	1805	5016	0	1805	1900	1615	0	1900	1369
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	3%	0%	0%	3%	0%	0%	0%	0%	9%	0%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	1186	0	13	992	0	10	1	1	13	0	13
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	15.0	87.0		15.0	87.0		14.0	34.0	34.0	14.0	34.0	15.0
Total Split (%)	10.0%	58.0%		10.0%	58.0%		9.3%	22.7%	22.7%	9.3%	22.7%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	7.1	135.4		6.7	131.8		9.5	8.0	8.0	6.8		7.1
Actuated g/C Ratio	0.05	0.90		0.04	0.88		0.06	0.05	0.05	0.05		0.05

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.13	0.26		0.16	0.23		0.09	0.01	0.01	0.17		0.20
Control Delay	88.9	2.2		56.1	4.5		63.3	67.0	68.0	73.5		75.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	88.9	2.2		56.1	4.5		63.3	67.0	68.0	73.5		75.3
LOS	F	A		E	A		E	E	E	E		E
Approach Delay		2.8			5.1			64.0			74.4	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	9	0		11	100		10	1	1	13		13
Queue Length 95th (ft)	m29	206		m34	117		27	8	8	36		36
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	105	4540		132	4407		156	354	301	115		100
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.09	0.26		0.10	0.23		0.06	0.00	0.00	0.11		0.13

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 140 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 5.0 Intersection LOS: A
Intersection Capacity Utilization 43.5% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



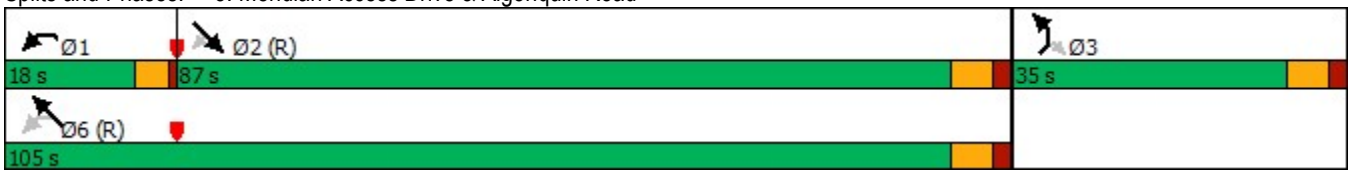
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1032	59	32	785	33	18
Future Volume (vph)	1032	59	32	785	33	18
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3689	1583	1703	3585	1752	1524
Flt Permitted			0.233		0.950	
Satd. Flow (perm)	3689	1583	418	3585	1752	1524
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	6%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1098	63	34	835	35	19
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	115.2	115.2	122.3	121.6	9.6	9.6
Actuated g/C Ratio	0.82	0.82	0.87	0.87	0.07	0.07

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.36	0.05	0.08	0.27	0.29	0.18
Control Delay	2.8	2.7	2.1	2.4	67.7	64.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	2.7	2.1	2.4	67.7	64.8
LOS	A	A	A	A	E	E
Approach Delay	2.8			2.4	66.7	
Approach LOS	A			A	E	
Queue Length 50th (ft)	70	7	3	64	31	17
Queue Length 95th (ft)	102	m14	9	93	67	44
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	3036	1303	489	3114	356	310
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.05	0.07	0.27	0.10	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 64 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 4.3		Intersection LOS: A	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	10	5	5	7	1	21	10	8	2	8	11
Future Vol, veh/h	7	10	5	5	7	1	21	10	8	2	8	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	11	5	5	7	1	22	11	8	2	8	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7.2	6.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	54%	32%	38%	10%
Vol Thru, %	26%	45%	54%	38%
Vol Right, %	21%	23%	8%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	22	13	21
LT Vol	21	7	5	2
Through Vol	10	10	7	8
RT Vol	8	5	1	11
Lane Flow Rate	41	23	14	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.025	0.015	0.023
Departure Headway (Hd)	3.966	3.947	4.058	3.699
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	905	906	882	968
Service Time	1.982	1.973	2.085	1.721
HCM Lane V/C Ratio	0.045	0.025	0.016	0.023
HCM Control Delay	7.2	7.1	7.1	6.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	7	14	15	13	11	2	4	2	13	8	2
Future Vol, veh/h	18	7	14	15	13	11	2	4	2	13	8	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	7	15	16	14	12	2	4	2	14	8	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	46%	38%	57%
Vol Thru, %	50%	18%	33%	35%
Vol Right, %	25%	36%	28%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	39	39	23
LT Vol	2	18	15	13
Through Vol	4	7	13	8
RT Vol	2	14	11	2
Lane Flow Rate	8	41	41	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.009	0.044	0.044	0.028
Departure Headway (Hd)	3.959	3.864	3.895	4.107
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	901	927	920	870
Service Time	1.995	1.886	1.917	2.14
HCM Lane V/C Ratio	0.009	0.044	0.045	0.028
HCM Control Delay	7	7.1	7.1	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.1

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	0	0	38	1	0
Future Vol, veh/h	17	0	0	38	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	0	0	40	1	0
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.3	6.5	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	38	17	1
LT Vol	0	17	1
Through Vol	0	0	0
RT Vol	38	0	0
Lane Flow Rate	40	18	1
Geometry Grp	1	1	1
Degree of Util (X)	0.037	0.021	0.001
Departure Headway (Hd)	3.332	4.172	4.162
Convergence, Y/N	Yes	Yes	Yes
Cap	1078	863	863
Service Time	1.342	2.174	2.173
HCM Lane V/C Ratio	0.037	0.021	0.001
HCM Control Delay	6.5	7.3	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	1048	844	5	1	16
Future Vol, veh/h	33	1048	844	5	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	2	3	0	0	13
Mvmt Flow	38	1219	981	6	1	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	987	0	-	0	1548	494
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	564	-
Critical Hdwy	5.36	-	-	-	5.7	7.36
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.13	-	-	-	3.8	4.03
Pot Cap-1 Maneuver	864	-	-	-	*534	*703
Stage 1	-	-	-	-	*707	-
Stage 2	-	-	-	-	*693	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	864	-	-	-	*510	*703
Mov Cap-2 Maneuver	-	-	-	-	*545	-
Stage 1	-	-	-	-	*676	-
Stage 2	-	-	-	-	*693	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	864	-	-	-	545	703
HCM Lane V/C Ratio	0.044	-	-	-	0.002	0.026
HCM Control Delay (s)	9.4	-	-	-	11.6	10.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1

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

Intersection	
Int Delay, s/veh	0.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	18	1020	4	0	791	14	0	0	18	22	0	33
Future Vol, veh/h	18	1020	4	0	791	14	0	0	18	22	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	6	0	0	0	6	0	0	9
Mvmt Flow	19	1085	4	0	841	15	0	0	19	23	0	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	-	-	-	0	-	-	543	1430	-	428
Stage 1	-	-	-	-	-	-	-	-	-	849	-	-
Stage 2	-	-	-	-	-	-	-	-	-	581	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	7.02	7.5	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.36	3.5	-	3.39
Pot Cap-1 Maneuver	*1122	-	0	0	-	-	0	0	474	*97	0	*728
Stage 1	-	-	0	0	-	-	0	0	-	*705	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*472	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*1122	-	-	-	-	-	-	-	474	*92	-	*728
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*287	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*693	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*445	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.1	0	12.9	13.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	474	-	-	* 1122	-	287	728
HCM Lane V/C Ratio	0.04	-	-	0.017	-	0.082	0.048
HCM Control Delay (s)	12.9	-	-	8.3	-	18.7	10.2
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	0.3	0.2

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

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour

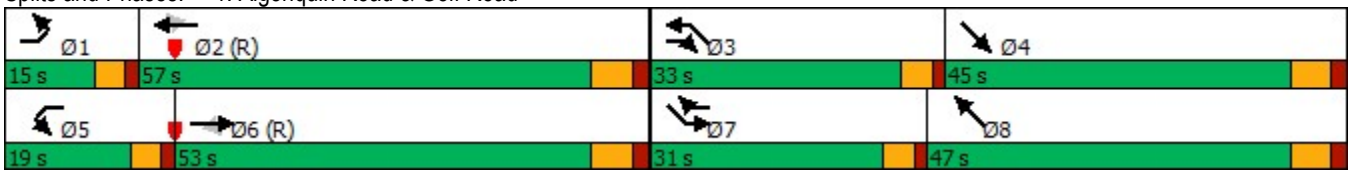
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	66	959	341	36	919	363	348	639	32	346	857	49
Future Volume (vph)	66	959	341	36	919	363	348	639	32	346	857	49
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.993			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	8%	0%	1%	1%	3%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	999	355	38	957	378	363	699	0	360	944	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	53.0	33.0	19.0	57.0	31.0	31.0	45.0		33.0	47.0	
Total Split (%)	10.0%	35.3%	22.0%	12.7%	38.0%	20.7%	20.7%	30.0%		22.0%	31.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	9.3	53.4	81.3	8.8	53.2	80.9	21.2	45.4		21.5	45.7	
Actuated g/C Ratio	0.06	0.36	0.54	0.06	0.35	0.54	0.14	0.30		0.14	0.30	

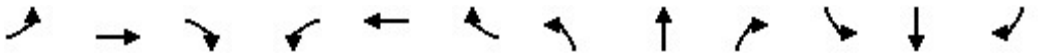
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.62	0.75	0.41	0.39	0.49	0.44	0.74	0.66		0.73	0.88	
Control Delay	97.6	41.8	18.6	78.4	39.5	22.9	71.0	50.1		70.4	60.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	97.6	41.8	18.6	78.4	39.5	22.9	71.0	50.1		70.4	60.6	
LOS	F	D	B	E	D	C	E	D		E	E	
Approach Delay		38.7			36.0			57.2			63.3	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	60	473	229	37	275	224	177	317		175	468	
Queue Length 95th (ft)	#126	573	310	76	321	292	226	410		223	#639	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	120	1338	927	155	1936	913	600	1055		640	1069	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.57	0.75	0.38	0.25	0.49	0.41	0.60	0.66		0.56	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 127 (85%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 48.0 Intersection LOS: D
Intersection Capacity Utilization 82.9% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Algonquin Road & Golf Road



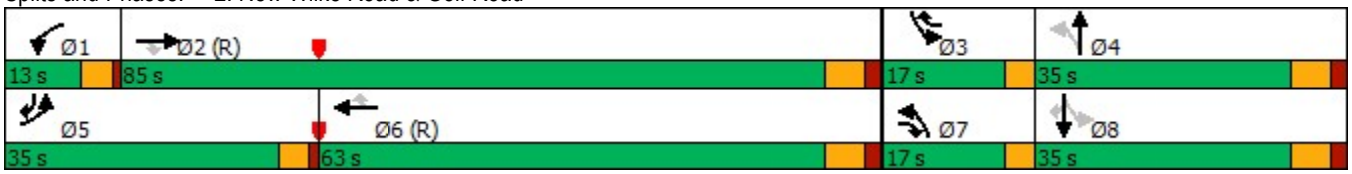


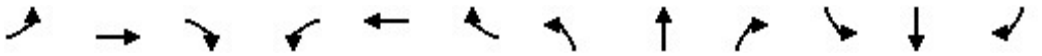
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	371	1217	2	0	1258	110	46	31	2	130	1	340
Future Volume (vph)	371	1217	2	0	1258	110	46	31	2	130	1	340
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1615	1900	5406	1615	1805	3578	0	1805	2000	1615
Flt Permitted	0.950						0.548					
Satd. Flow (perm)	3502	5406	1615	1900	5406	1615	1041	3578	0	1900	2000	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	399	1309	2	0	1353	118	49	35	0	140	1	366
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	17.0	17.0	35.0		17.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	11.3%	11.3%	23.3%		11.3%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	36.5	115.0	144.1		74.0	93.5	23.0	8.4		15.8	8.6	42.9
Actuated g/C Ratio	0.24	0.77	0.96		0.49	0.62	0.15	0.06		0.11	0.06	0.29

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.32	0.00		0.51	0.12	0.19	0.18		0.73	0.01	0.79
Control Delay	49.3	6.0	1.0		42.4	8.7	53.0	69.4		84.7	66.0	61.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	49.3	6.0	1.0		42.4	8.7	53.0	69.4		84.7	66.0	61.5
LOS	D	A	A		D	A	D	E		F	E	E
Approach Delay		16.1			39.7			59.8			67.9	
Approach LOS		B			D			E			E	
Queue Length 50th (ft)	160	140	0		451	29	41	17		138	1	328
Queue Length 95th (ft)	222	167	1		352	40	80	37		190	7	404
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	918	4145	1571		2667	1012	285	679		199	380	492
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.43	0.32	0.00		0.51	0.12	0.17	0.05		0.70	0.00	0.74

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 114 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 33.3		Intersection LOS: C	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





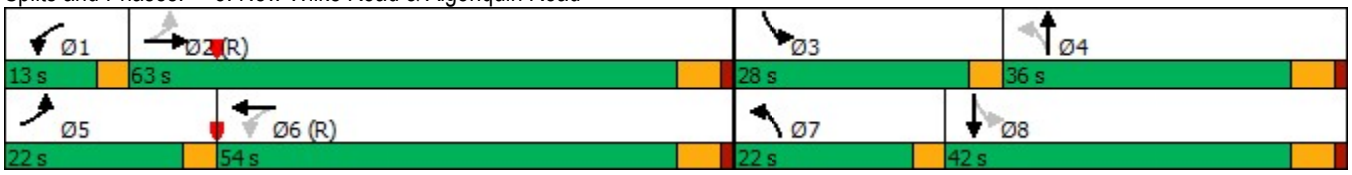
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	785	56	50	980	257	164	389	34	243	340	108
Future Volume (vph)	113	785	56	50	980	257	164	389	34	243	340	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.990			0.969			0.988			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3508	0	1805	3463	0	1805	3567	0	1770	3472	0
Flt Permitted	0.072			0.244			0.370			0.240		
Satd. Flow (perm)	135	3508	0	464	3463	0	703	3567	0	447	3472	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	895	0	53	1316	0	174	450	0	259	477	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	22.0	63.0		13.0	54.0		22.0	36.0		28.0	42.0	
Total Split (%)	15.7%	45.0%		9.3%	38.6%		15.7%	25.7%		20.0%	30.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	80.6	69.6		74.6	64.8		42.6	25.5		51.9	31.3	
Actuated g/C Ratio	0.58	0.50		0.53	0.46		0.30	0.18		0.37	0.22	

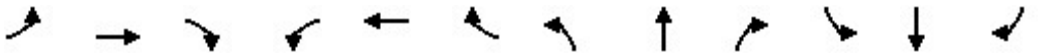
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.60	0.51		0.17	0.82		0.53	0.69		0.72	0.62	
Control Delay	32.8	27.1		14.1	35.7		35.9	59.2		43.5	52.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.8	27.1		14.1	35.7		35.9	59.2		43.5	52.1	
LOS	C	C		B	D		D	E		D	D	
Approach Delay		27.8			34.8			52.7			49.1	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	48	295		18	563		108	202		171	205	
Queue Length 95th (ft)	115	410		35	#823		152	254		226	256	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	296	1743		345	1601		379	764		397	892	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.41	0.51		0.15	0.82		0.46	0.59		0.65	0.53	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 69 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 38.7 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Algonquin Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1241	6	2	1284	98	37	4	12	53	0	51
Future Volume (vph)	34	1241	6	2	1284	98	37	4	12	53	0	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5079	0	1805	1900	1615	1770	1900	1615
Flt Permitted	0.950			0.950			0.950			0.000		
Satd. Flow (perm)	1805	5131	0	1805	5079	0	1805	1900	1615	0	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	1272	0	2	1410	0	38	4	12	54	0	52
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	87.0		13.0	83.0		17.0	33.0	33.0	17.0	33.0	17.0
Total Split (%)	11.3%	58.0%		8.7%	55.3%		11.3%	22.0%	22.0%	11.3%	22.0%	11.3%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	10.3	125.3		5.8	115.1		16.2	8.9	8.9	9.9		10.3
Actuated g/C Ratio	0.07	0.84		0.04	0.77		0.11	0.06	0.06	0.07		0.07

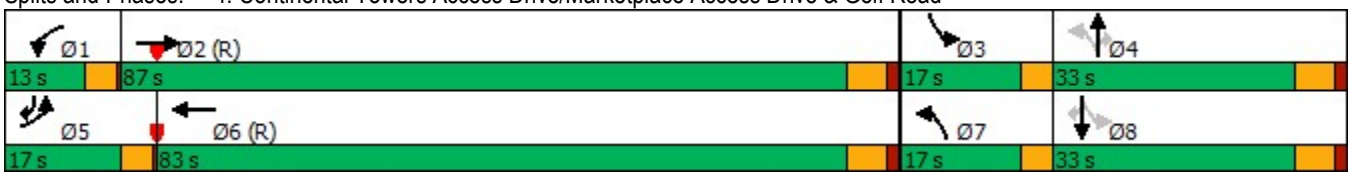
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	0.30		0.03	0.36		0.20	0.04	0.13	0.46		0.47
Control Delay	70.8	4.0		67.5	9.2		58.2	66.5	69.3	79.4		80.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	70.8	4.0		67.5	9.2		58.2	66.5	69.3	79.4		80.2
LOS	E	A		E	A		E	E	E	E		F
Approach Delay		5.8			9.3			61.3			79.8	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	37	46		2	146		36	4	11	52		50
Queue Length 95th (ft)	m52	270		m5	172		65	17	34	98		95
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	160	4285		108	3897		234	342	290	159		142
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.22	0.30		0.02	0.36		0.16	0.01	0.04	0.34		0.37

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 119 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 47.9% ICU Level of Service A
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road

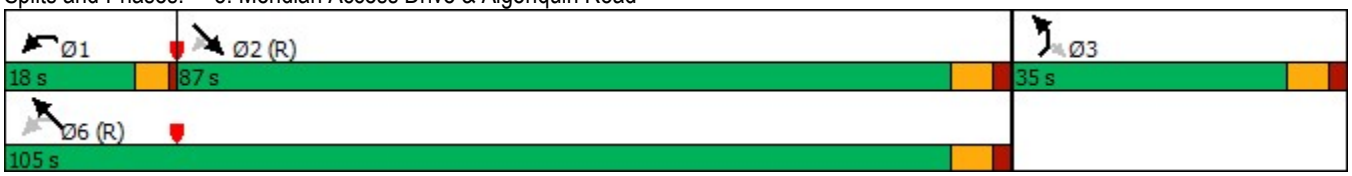


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	902	155	115	1159	143	55
Future Volume (vph)	902	155	115	1159	143	55
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3725	1583	1787	3762	1805	1509
Flt Permitted			0.244		0.950	
Satd. Flow (perm)	3725	1583	459	3762	1805	1509
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	991	170	126	1274	157	60
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	96.3	96.3	110.6	108.6	18.4	18.4
Actuated g/C Ratio	0.69	0.69	0.79	0.78	0.13	0.13

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.39	0.16	0.29	0.44	0.67	0.30
Control Delay	7.4	6.7	5.5	6.2	70.9	57.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	6.7	5.5	6.2	70.9	57.5
LOS	A	A	A	A	E	E
Approach Delay	7.3			6.2	67.2	
Approach LOS	A			A	E	
Queue Length 50th (ft)	124	37	22	178	138	50
Queue Length 95th (ft)	145	58	46	261	206	93
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2561	1088	490	2918	367	307
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.16	0.26	0.44	0.43	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 56 (40%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	5	47	8	4	3	53	98	21	3	63	5
Future Vol, veh/h	5	5	47	8	4	3	53	98	21	3	63	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	2	1	0	0	0	0
Mvmt Flow	6	6	53	9	4	3	60	110	24	3	71	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.7	8.4	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	9%	53%	4%
Vol Thru, %	57%	9%	27%	89%
Vol Right, %	12%	82%	20%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	172	57	15	71
LT Vol	53	5	8	3
Through Vol	98	5	4	63
RT Vol	21	47	3	5
Lane Flow Rate	193	64	17	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.221	0.072	0.021	0.092
Departure Headway (Hd)	4.124	4.04	4.554	4.155
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	864	892	790	850
Service Time	2.184	2.04	2.557	2.241
HCM Lane V/C Ratio	0.223	0.072	0.022	0.094
HCM Control Delay	8.4	7.4	7.7	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.2	0.1	0.3

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	6	1	43	9	12	0	6	6	13	7	18
Future Vol, veh/h	28	6	1	43	9	12	0	6	6	13	7	18
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	5	11	0	0	0	0	0	0	0
Mvmt Flow	35	8	1	54	11	15	0	8	8	16	9	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	80%	67%	34%
Vol Thru, %	50%	17%	14%	18%
Vol Right, %	50%	3%	19%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	35	64	38
LT Vol	0	28	43	13
Through Vol	6	6	9	7
RT Vol	6	1	12	18
Lane Flow Rate	15	44	81	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.052	0.093	0.052
Departure Headway (Hd)	3.853	4.216	4.152	3.912
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	917	847	861	905
Service Time	1.927	2.256	2.185	1.979
HCM Lane V/C Ratio	0.016	0.052	0.094	0.053
HCM Control Delay	7	7.5	7.6	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.2	0.3	0.2

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	0	0	35	0	18
Future Vol, veh/h	27	0	0	35	0	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	28	0	0	37	0	19
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	6.5	7.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	35	27	18
LT Vol	0	27	0
Through Vol	0	0	18
RT Vol	35	0	0
Lane Flow Rate	37	28	19
Geometry Grp	1	1	1
Degree of Util (X)	0.034	0.033	0.021
Departure Headway (Hd)	3.363	4.197	3.977
Convergence, Y/N	Yes	Yes	Yes
Cap	1065	856	902
Service Time	1.382	2.207	1.994
HCM Lane V/C Ratio	0.035	0.033	0.021
HCM Control Delay	6.5	7.4	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	1269	1346	3	3	42
Future Vol, veh/h	40	1269	1346	3	3	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	43	1350	1432	3	3	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1435	0	-	0	2060	718
Stage 1	-	-	-	-	1434	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*762	-	-	-	*346	*606
Stage 1	-	-	-	-	*621	-
Stage 2	-	-	-	-	*639	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*762	-	-	-	*326	*606
Mov Cap-2 Maneuver	-	-	-	-	*427	-
Stage 1	-	-	-	-	*587	-
Stage 2	-	-	-	-	*639	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 762	-	-	-	427	606
HCM Lane V/C Ratio	0.056	-	-	-	0.007	0.074
HCM Control Delay (s)	10	-	-	-	13.5	11.4
HCM Lane LOS	B	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0.2

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

Intersection	
Int Delay, s/veh	1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	30	900	19	0	1244	37	0	0	108	11	0	21
Future Vol, veh/h	30	900	19	0	1244	37	0	0	108	11	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	7	2	0	0	1	0	0	0	0	0	0	5
Mvmt Flow	32	957	20	0	1323	39	0	0	115	12	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1362	0	-	-	-	0	-	-	479	1886	-	681
Stage 1	-	-	-	-	-	-	-	-	-	1343	-	-
Stage 2	-	-	-	-	-	-	-	-	-	543	-	-
Critical Hdwy	4.24	-	-	-	-	-	-	-	6.9	7.5	-	7
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.27	-	-	-	-	-	-	-	3.3	3.5	-	3.35
Pot Cap-1 Maneuver	*814	-	0	0	-	-	0	0	538	*44	0	*551
Stage 1	-	-	0	0	-	-	0	0	-	*527	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*497	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*814	-	-	-	-	-	-	-	538	*34	-	*551
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*212	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*507	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*375	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.3	0	13.5	15.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	538	-	-	* 814	-	212	551
HCM Lane V/C Ratio	0.214	-	-	0.039	-	0.055	0.041
HCM Control Delay (s)	13.5	-	-	9.6	-	23	11.8
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-	0.2	0.1

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

Capacity Analysis Summary Sheets

Existing Saturday Midday Peak Hour

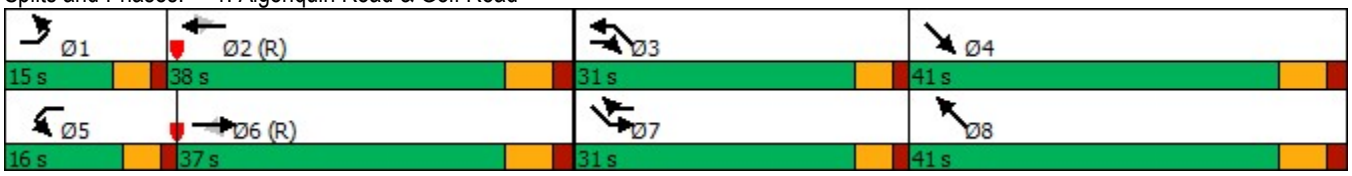
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	112	850	316	45	909	329	337	616	74	349	600	41
Future Volume (vph)	112	850	316	45	909	329	337	616	74	349	600	41
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.984			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1736	5406	1615	3502	3517	0	3467	3536	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1736	5406	1615	3502	3517	0	3467	3536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	4%	1%	0%	0%	1%	1%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	867	322	46	928	336	344	705	0	356	654	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	37.0	31.0	16.0	38.0	31.0	31.0	41.0		31.0	41.0	
Total Split (%)	12.0%	29.6%	24.8%	12.8%	30.4%	24.8%	24.8%	32.8%		24.8%	32.8%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	11.1	41.3	66.2	8.5	36.6	61.3	18.2	35.9		18.4	36.1	
Actuated g/C Ratio	0.09	0.33	0.53	0.07	0.29	0.49	0.15	0.29		0.15	0.29	

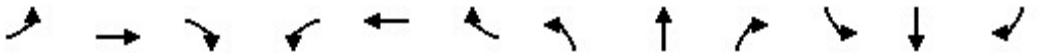
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.72	0.70	0.38	0.39	0.59	0.42	0.68	0.70		0.70	0.64	
Control Delay	86.4	35.9	16.9	64.7	40.8	23.2	57.1	43.6		57.9	41.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	86.4	35.9	16.9	64.7	40.8	23.2	57.1	43.6		57.9	41.8	
LOS	F	D	B	E	D	C	E	D		E	D	
Approach Delay		35.6			37.1			48.0			47.4	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	79	351	187	36	249	184	137	260		143	237	
Queue Length 95th (ft)	m#199	#496	192	75	299	247	179	333		186	306	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	160	1242	934	152	1581	892	728	1037		721	1045	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.71	0.70	0.34	0.30	0.59	0.38	0.47	0.68		0.49	0.63	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 19 (15%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 41.4 Intersection LOS: D
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Algonquin Road & Golf Road





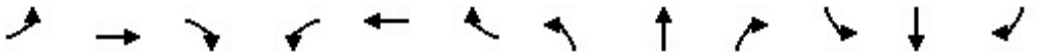
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	1161	0	0	1099	135	2	2	2	115	2	266
Future Volume (vph)	311	1161	0	0	1099	135	2	2	2	115	2	266
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850		0.925				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1900	1900	5406	1615	1805	3339	0	1770	2000	1599
Flt Permitted	0.950									0.784		
Satd. Flow (perm)	3502	5406	1900	1900	5406	1615	1900	3339	0	1460	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	327	1222	0	0	1157	142	2	4	0	121	2	280
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	26.0	64.0	18.0	13.0	51.0	15.0	18.0	33.0		15.0	30.0	26.0
Total Split (%)	20.8%	51.2%	14.4%	10.4%	40.8%	12.0%	14.4%	26.4%		12.0%	24.0%	20.8%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	16.5	100.7			79.7	97.6	7.9	8.0		14.3	9.4	32.3
Actuated g/C Ratio	0.13	0.81			0.64	0.78	0.06	0.06		0.11	0.08	0.26

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.28			0.34	0.11	0.02	0.02		0.62	0.01	0.68
Control Delay	60.5	3.6			19.1	2.6	47.0	55.2		65.7	52.0	49.8
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	3.6			19.1	2.6	47.0	55.2		65.7	52.0	49.8
LOS	E	A			B	A	D	E		E	D	D
Approach Delay		15.6			17.3			52.5			54.6	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	132	62			194	7	2	1		97	2	208
Queue Length 95th (ft)	174	141			256	33	8	8		142	10	273
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385									380		
Base Capacity (vph)	602	4355			3448	1262	242	707		196	376	477
Starvation Cap Reductn	0	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0	0			0	0	0	0		0	0	0
Storage Cap Reductn	0	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.54	0.28			0.34	0.11	0.01	0.01		0.62	0.01	0.59

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 20 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





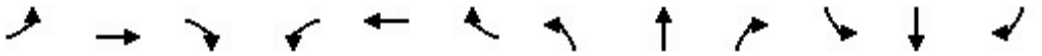
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	759	72	59	764	228	146	278	42	258	283	83
Future Volume (vph)	89	759	72	59	764	228	146	278	42	258	283	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.987			0.965			0.980			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3528	0	1805	3457	0	1805	3538	0	1805	3487	0
Flt Permitted	0.151			0.241			0.522			0.333		
Satd. Flow (perm)	287	3528	0	458	3457	0	992	3538	0	633	3487	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	884	0	63	1056	0	155	341	0	274	389	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	16.0	53.0		13.0	50.0		26.0	28.0		26.0	28.0	
Total Split (%)	13.3%	44.2%		10.8%	41.7%		21.7%	23.3%		21.7%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	67.5	57.8		64.8	54.9		33.8	18.8		43.6	25.1	
Actuated g/C Ratio	0.56	0.48		0.54	0.46		0.28	0.16		0.36	0.21	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.35	0.52		0.19	0.67		0.43	0.62		0.66	0.53	
Control Delay	16.5	24.9		11.8	28.5		29.6	52.0		35.9	44.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.5	24.9		11.8	28.5		29.6	52.0		35.9	44.6	
LOS	B	C		B	C		C	D		D	D	
Approach Delay		24.1			27.5			45.0			41.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	32	254		17	364		82	130		155	140	
Queue Length 95th (ft)	65	359		33	486		122	175		213	187	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	323	1698		361	1581		503	648		450	744	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.52		0.17	0.67		0.31	0.53		0.61	0.52	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 68 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: New Wilke Road & Algonquin Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	1113	9	4	1086	143	32	7	5	125	4	81
Future Volume (vph)	68	1113	9	4	1086	143	32	7	5	125	4	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.982				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5049	0	1805	1900	1615	1805	1900	1615
Flt Permitted	0.950			0.950						0.678		
Satd. Flow (perm)	1805	5131	0	1805	5049	0	1900	1900	1615	1288	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	1181	0	4	1294	0	34	7	5	132	4	85
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	68.0		13.0	64.0		16.0	28.0	28.0	16.0	28.0	17.0
Total Split (%)	13.6%	54.4%		10.4%	51.2%		12.8%	22.4%	22.4%	12.8%	22.4%	13.6%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	11.0	95.5		5.9	82.6		14.5	8.3	8.3	14.9	9.1	20.6
Actuated g/C Ratio	0.09	0.76		0.05	0.66		0.12	0.07	0.07	0.12	0.07	0.16

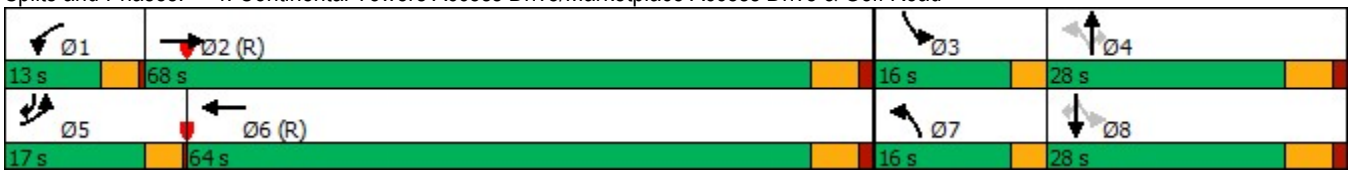
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.45	0.30		0.05	0.39		0.16	0.06	0.05	0.65	0.03	0.32
Control Delay	68.4	4.5		56.0	12.0		45.3	55.6	55.4	66.1	53.5	49.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	4.5		56.0	12.0		45.3	55.6	55.4	66.1	53.5	49.1
LOS	E	A		E	B		D	E	E	E	D	D
Approach Delay		8.2			12.1			48.0			59.3	
Approach LOS		A			B			D			E	
Queue Length 50th (ft)	55	35		3	124		26	5	4	105	3	67
Queue Length 95th (ft)	m99	130		m6	145		51	21	18	151	15	99
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	194	3918		129	3334		258	334	284	210	334	296
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.30		0.03	0.39		0.13	0.02	0.02	0.63	0.01	0.29

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 18 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 14.6 Intersection LOS: B
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road

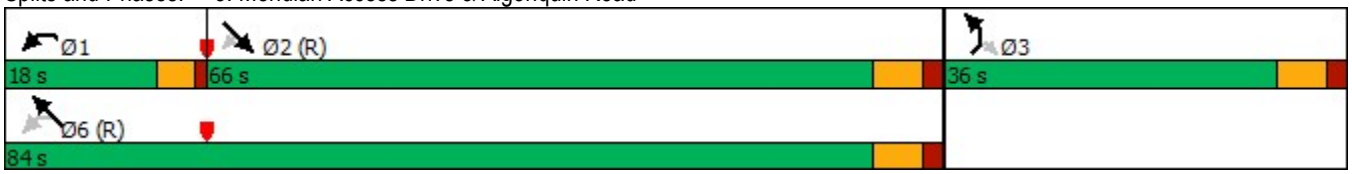


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	855	183	154	888	189	48
Future Volume (vph)	855	183	154	888	189	48
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3762	1615	1770	3762	1805	1583
Flt Permitted			0.263		0.950	
Satd. Flow (perm)	3762	1615	490	3762	1805	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	2%	1%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	891	191	160	925	197	50
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	66.0	66.0	18.0	84.0	36.0	36.0
Total Split (%)	55.0%	55.0%	15.0%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	74.6	74.6	89.7	87.7	19.3	19.3
Actuated g/C Ratio	0.62	0.62	0.75	0.73	0.16	0.16

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.38	0.19	0.35	0.34	0.68	0.20
Control Delay	9.6	9.3	6.9	6.6	58.9	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	9.3	6.9	6.6	58.9	43.5
LOS	A	A	A	A	E	D
Approach Delay	9.6			6.6	55.8	
Approach LOS	A			A	E	
Queue Length 50th (ft)	123	48	30	118	146	34
Queue Length 95th (ft)	189	92	61	180	213	68
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2337	1003	510	2750	443	389
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.19	0.31	0.34	0.44	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 55 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	9	69	13	3	2	83	114	16	6	108	6
Future Vol, veh/h	11	9	69	13	3	2	83	114	16	6	108	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	3	0	0	0	0	0	0	0	1	0
Mvmt Flow	12	10	78	15	3	2	93	128	18	7	121	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.1	9.1	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	39%	12%	72%	5%
Vol Thru, %	54%	10%	17%	90%
Vol Right, %	8%	78%	11%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	213	89	18	120
LT Vol	83	11	13	6
Through Vol	114	9	3	108
RT Vol	16	69	2	6
Lane Flow Rate	239	100	20	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.289	0.12	0.028	0.165
Departure Headway (Hd)	4.349	4.319	4.935	4.405
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	830	725	814
Service Time	2.369	2.343	2.965	2.428
HCM Lane V/C Ratio	0.289	0.12	0.028	0.166
HCM Control Delay	9.1	7.9	8.1	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.4	0.1	0.6

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	6	0	41	7	15	0	8	8	12	12	29
Future Vol, veh/h	37	6	0	41	7	15	0	8	8	12	12	29
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	33	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	47	8	0	52	9	19	0	10	10	15	15	37
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.1	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	86%	65%	23%
Vol Thru, %	50%	14%	11%	23%
Vol Right, %	50%	0%	24%	55%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	43	63	53
LT Vol	0	37	41	12
Through Vol	8	6	7	12
RT Vol	8	0	15	29
Lane Flow Rate	20	54	80	67
Geometry Grp	1	1	1	1
Degree of Util (X)	0.022	0.065	0.09	0.072
Departure Headway (Hd)	3.883	4.286	4.081	3.863
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	909	832	873	916
Service Time	1.964	2.334	2.127	1.936
HCM Lane V/C Ratio	0.022	0.065	0.092	0.073
HCM Control Delay	7.1	7.6	7.5	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.2

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	0	0	43	0	43
Future Vol, veh/h	36	0	0	43	0	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	38	0	0	45	0	45
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.5	6.6	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	43	36	43
LT Vol	0	36	0
Through Vol	0	0	43
RT Vol	43	0	0
Lane Flow Rate	45	38	45
Geometry Grp	1	1	1
Degree of Util (X)	0.043	0.045	0.05
Departure Headway (Hd)	3.4	4.255	4.001
Convergence, Y/N	Yes	Yes	Yes
Cap	1050	842	895
Service Time	1.431	2.28	2.025
HCM Lane V/C Ratio	0.043	0.045	0.05
HCM Control Delay	6.6	7.5	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	1236	1182	6	9	70
Future Vol, veh/h	54	1236	1182	6	9	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	57	1301	1244	6	9	74

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1250	0	-	0	1881	625
Stage 1	-	-	-	-	1247	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*813	-	-	-	*296	*647
Stage 1	-	-	-	-	*663	-
Stage 2	-	-	-	-	*663	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*813	-	-	-	*275	*647
Mov Cap-2 Maneuver	-	-	-	-	*417	-
Stage 1	-	-	-	-	*617	-
Stage 2	-	-	-	-	*663	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 813	-	-	-	417	647
HCM Lane V/C Ratio	0.07	-	-	-	0.023	0.114
HCM Control Delay (s)	9.8	-	-	-	13.8	11.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.4

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

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	24	862	30	0	1017	33	0	0	156	10	0	21
Future Vol, veh/h	24	862	30	0	1017	33	0	0	156	10	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	26	927	32	0	1094	35	0	0	168	11	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1129	0	-	-	-	0	-	-	464	1628	-	565
Stage 1	-	-	-	-	-	-	-	-	-	1112	-	-
Stage 2	-	-	-	-	-	-	-	-	-	516	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	-	3.3
Pot Cap-1 Maneuver	*982	-	0	0	-	-	0	0	550	*69	0	*654
Stage 1	-	-	0	0	-	-	0	0	-	*617	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*515	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*982	-	-	-	-	-	-	-	550	*47	-	*654
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*221	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*601	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*348	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0	14.4	14.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	550	-	-	* 982	-	221	654
HCM Lane V/C Ratio	0.305	-	-	0.026	-	0.049	0.035
HCM Control Delay (s)	14.4	-	-	8.8	-	22.1	10.7
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-	0.2	0.1

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

Capacity Analysis Summary Sheets

Year 2029 No-Build Weekday Morning Peak Hour

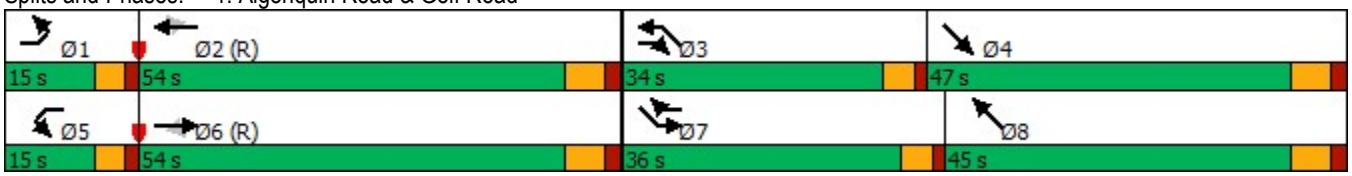
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	32	718	222	27	629	245	246	749	19	243	461	33
Future Volume (vph)	32	718	222	27	629	245	246	749	19	243	461	33
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	3%	3%	4%	2%	3%	3%	3%	0%	5%	7%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	835	258	31	731	285	286	893	0	283	574	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	54.0	34.0	15.0	54.0	36.0	36.0	47.0		34.0	45.0	
Total Split (%)	10.0%	36.0%	22.7%	10.0%	36.0%	24.0%	24.0%	31.3%		22.7%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	8.3	56.0	80.7	8.0	53.3	77.9	18.1	49.3		18.2	49.4	
Actuated g/C Ratio	0.06	0.37	0.54	0.05	0.36	0.52	0.12	0.33		0.12	0.33	

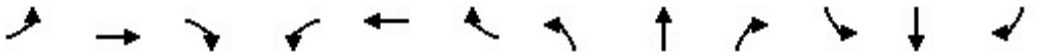
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.40	0.61	0.31	0.34	0.38	0.35	0.70	0.78		0.70	0.52	
Control Delay	80.0	37.3	17.8	77.8	38.2	23.6	72.4	51.1		72.6	42.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.0	37.3	17.8	77.8	38.2	23.6	72.4	51.1		72.6	42.9	
LOS	E	D	B	E	D	C	E	D		E	D	
Approach Delay		34.3			35.4			56.3			52.7	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	31	384	164	30	204	171	141	405		139	234	
Queue Length 95th (ft)	60	441	214	63	236	218	175	485		173	294	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	113	1377	956	115	1902	949	702	1149		644	1099	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.33	0.61	0.27	0.27	0.38	0.30	0.41	0.78		0.44	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 44.5 Intersection LOS: D
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Algonquin Road & Golf Road



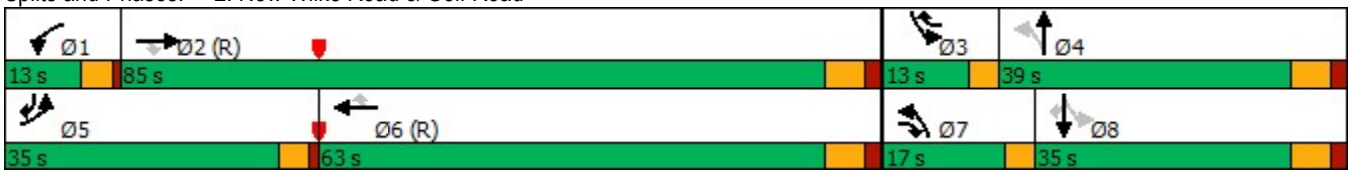


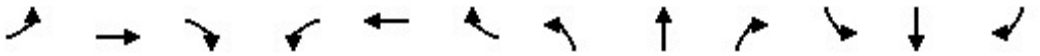
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	1031	50	0	821	89	1	0	0	99	36	191
Future Volume (vph)	261	1031	50	0	821	89	1	0	0	99	36	191
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850						0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3367	5353	1615	1900	5301	1538	1805	3610	0	1719	1942	1583
Flt Permitted	0.950						0.000			0.950		
Satd. Flow (perm)	3367	5353	1615	1900	5301	1538	0	3610	0	1719	1942	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	3%	5%	0%	0%	0%	5%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	1185	57	0	944	102	1	0	0	114	41	220
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt			pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	13.0	17.0	39.0		13.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	8.7%	11.3%	26.0%		8.7%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	18.8	119.8	132.0		96.5	123.2	5.7			20.2	9.8	35.1
Actuated g/C Ratio	0.13	0.80	0.88		0.64	0.82	0.04			0.13	0.07	0.23

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.28	0.04		0.28	0.08	0.01			0.49	0.32	0.59
Control Delay	72.4	4.4	1.5		16.5	1.1	70.0			66.5	73.1	57.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0	0.0
Total Delay	72.4	4.4	1.5		16.5	1.1	70.0			66.5	73.1	57.3
LOS	E	A	A		B	A	E			E	E	E
Approach Delay		17.5			15.0			70.0			61.8	
Approach LOS		B			B			E			E	
Queue Length 50th (ft)	147	98	6		103	6	1			104	39	194
Queue Length 95th (ft)	185	123	13		149	4	8			160	77	254
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	684	4274	1505		3411	1263	162			231	368	494
Starvation Cap Reductn	0	0	0		0	0	0			0	0	0
Spillback Cap Reductn	0	0	0		0	0	0			0	0	0
Storage Cap Reductn	0	0	0		0	0	0			0	0	0
Reduced v/c Ratio	0.44	0.28	0.04		0.28	0.08	0.01			0.49	0.11	0.45

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 49.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





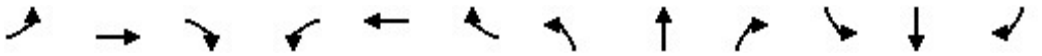
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	874	109	27	617	131	103	227	20	282	252	126
Future Volume (vph)	113	874	109	27	617	131	103	227	20	282	252	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.983			0.974			0.988			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3475	0	1736	3328	0	1719	3457	0	1787	3340	0
Flt Permitted	0.271			0.215			0.366			0.444		
Satd. Flow (perm)	505	3475	0	393	3328	0	662	3457	0	835	3340	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	4%	6%	4%	5%	3%	5%	1%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	1046	0	29	795	0	110	262	0	300	402	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	24.0	71.0		13.0	60.0		22.0	41.0		15.0	34.0	
Total Split (%)	17.1%	50.7%		9.3%	42.9%		15.7%	29.3%		10.7%	24.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	88.9	80.3		82.6	73.7		37.4	22.9		41.7	25.5	
Actuated g/C Ratio	0.64	0.57		0.59	0.53		0.27	0.16		0.30	0.18	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.30	0.53		0.10	0.45		0.41	0.46		0.85	0.66	
Control Delay	13.0	21.2		11.4	20.9		38.6	54.4		64.5	58.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.0	21.2		11.4	20.9		38.6	54.4		64.5	58.7	
LOS	B	C		B	C		D	D		E	E	
Approach Delay		20.3			20.6			49.7			61.2	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)	39	307		9	179		74	116		228	183	
Queue Length 95th (ft)	79	441		24	345		112	144		#366	231	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	506	1992		331	1751		343	864		351	674	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.53		0.09	0.45		0.32	0.30		0.85	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 57 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 33.3		Intersection LOS: C	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: New Wilke Road & Algonquin Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1065	15	11	871	36	9	1	1	16	0	15
Future Volume (vph)	13	1065	15	11	871	36	9	1	1	16	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.994				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1444	5028	0	1805	5012	0	1805	1900	1615	1656	1900	1369
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1444	5028	0	1805	5012	0	1900	1900	1615	1743	1900	1369
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	3%	0%	0%	3%	0%	0%	0%	0%	9%	0%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	1227	0	13	1031	0	10	1	1	18	0	17
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	15.0	87.0		15.0	87.0		14.0	34.0	34.0	14.0	34.0	15.0
Total Split (%)	10.0%	58.0%		10.0%	58.0%		9.3%	22.7%	22.7%	9.3%	22.7%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	7.4	131.2		6.7	128.4		9.8	8.0	8.0	7.9		10.2
Actuated g/C Ratio	0.05	0.87		0.04	0.86		0.07	0.05	0.05	0.05		0.07

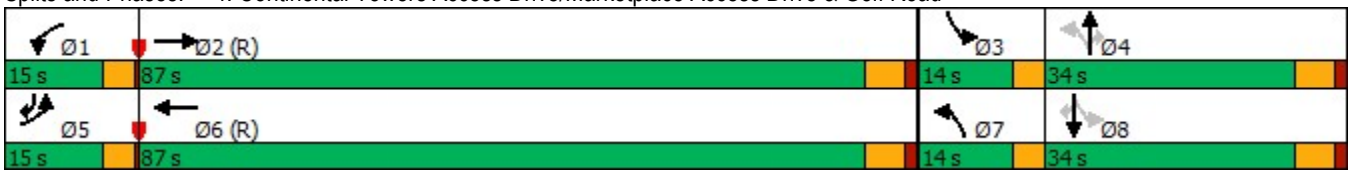
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.21	0.28		0.16	0.24		0.08	0.01	0.01	0.20		0.18
Control Delay	88.8	2.6		55.2	5.4		62.7	67.0	68.0	72.8		69.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	88.8	2.6		55.2	5.4		62.7	67.0	68.0	72.8		69.9
LOS	F	A		E	A		E	E	E	E		E
Approach Delay		3.6			6.0			63.5			71.4	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	15	31		12	108		10	1	1	17		15
Queue Length 95th (ft)	m40	219		m33	121		26	8	8	44		42
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	105	4396		132	4289		159	354	301	116		126
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.14	0.28		0.10	0.24		0.06	0.00	0.00	0.16		0.13

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 140 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.28
Intersection Signal Delay: 6.0 Intersection LOS: A
Intersection Capacity Utilization 44.2% ICU Level of Service A
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



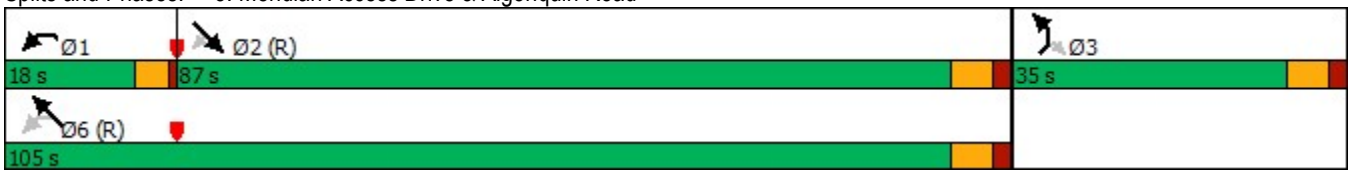
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1073	59	32	816	33	18
Future Volume (vph)	1073	59	32	816	33	18
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3689	1583	1703	3585	1752	1524
Flt Permitted			0.222		0.950	
Satd. Flow (perm)	3689	1583	398	3585	1752	1524
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	6%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1141	63	34	868	35	19
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	115.2	115.2	122.3	121.6	9.6	9.6
Actuated g/C Ratio	0.82	0.82	0.87	0.87	0.07	0.07

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.38	0.05	0.08	0.28	0.29	0.18
Control Delay	3.1	2.9	2.2	2.4	67.7	64.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.1	2.9	2.2	2.4	67.7	64.8
LOS	A	A	A	A	E	E
Approach Delay	3.1			2.4	66.7	
Approach LOS	A			A	E	
Queue Length 50th (ft)	87	9	3	67	31	17
Queue Length 95th (ft)	107	m14	9	97	67	44
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	3036	1303	473	3114	356	310
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.05	0.07	0.28	0.10	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 64 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 4.4		Intersection LOS: A	
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	10	5	5	7	1	21	10	8	2	8	11
Future Vol, veh/h	7	10	5	5	7	1	21	10	8	2	8	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	11	5	5	7	1	22	11	8	2	8	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7.2	6.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	54%	32%	38%	10%
Vol Thru, %	26%	45%	54%	38%
Vol Right, %	21%	23%	8%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	22	13	21
LT Vol	21	7	5	2
Through Vol	10	10	7	8
RT Vol	8	5	1	11
Lane Flow Rate	41	23	14	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.025	0.015	0.023
Departure Headway (Hd)	3.966	3.947	4.058	3.699
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	905	906	882	968
Service Time	1.982	1.973	2.085	1.721
HCM Lane V/C Ratio	0.045	0.025	0.016	0.023
HCM Control Delay	7.2	7.1	7.1	6.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	7	14	15	15	15	0	0	0	13	8	2
Future Vol, veh/h	18	7	14	15	15	15	0	0	0	13	8	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	7	15	16	16	16	0	0	0	14	8	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	0	7.3
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	33%	57%
Vol Thru, %	100%	18%	33%	35%
Vol Right, %	0%	36%	33%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	39	45	23
LT Vol	0	18	15	13
Through Vol	0	7	15	8
RT Vol	0	14	15	2
Lane Flow Rate	0	41	47	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.044	0.051	0.028
Departure Headway (Hd)	4.071	3.856	3.84	4.112
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	930	934	869
Service Time	2.109	1.875	1.859	2.145
HCM Lane V/C Ratio	0	0.044	0.05	0.028
HCM Control Delay	7.1	7.1	7.1	7.3
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.1	0.2	0.1

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	0	0	38	1	0
Future Vol, veh/h	17	0	0	38	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	0	0	40	1	0
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.3	6.5	7.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	100%
Vol Thru, %	0%	0%	0%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	38	17	1
LT Vol	0	17	1
Through Vol	0	0	0
RT Vol	38	0	0
Lane Flow Rate	40	18	1
Geometry Grp	1	1	1
Degree of Util (X)	0.037	0.021	0.001
Departure Headway (Hd)	3.332	4.172	4.162
Convergence, Y/N	Yes	Yes	Yes
Cap	1078	863	863
Service Time	1.342	2.174	2.173
HCM Lane V/C Ratio	0.037	0.021	0.001
HCM Control Delay	6.5	7.3	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	33	1090	876	5	3	16
Future Vol, veh/h	33	1090	876	5	3	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	2	3	0	0	13
Mvmt Flow	38	1267	1019	6	3	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1025	0	-	0	1605	513
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	583	-
Critical Hdwy	5.36	-	-	-	5.7	7.36
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.13	-	-	-	3.8	4.03
Pot Cap-1 Maneuver	822	-	-	-	*488	*703
Stage 1	-	-	-	-	*664	-
Stage 2	-	-	-	-	*693	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	822	-	-	-	*466	*703
Mov Cap-2 Maneuver	-	-	-	-	*513	-
Stage 1	-	-	-	-	*634	-
Stage 2	-	-	-	-	*693	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	822	-	-	-	513	703
HCM Lane V/C Ratio	0.047	-	-	-	0.007	0.026
HCM Control Delay (s)	9.6	-	-	-	12.1	10.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1

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

Intersection	
Int Delay, s/veh	0.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	18	1061	4	0	823	14	0	0	18	22	0	33
Future Vol, veh/h	18	1061	4	0	823	14	0	0	18	22	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	6	0	0	0	6	0	0	9
Mvmt Flow	19	1129	4	0	876	15	0	0	19	23	0	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	891	0	-	-	-	0	-	-	565	1487	-	446
Stage 1	-	-	-	-	-	-	-	-	-	884	-	-
Stage 2	-	-	-	-	-	-	-	-	-	603	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	7.02	7.5	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.36	3.5	-	3.39
Pot Cap-1 Maneuver	*1122	-	0	0	-	-	0	0	458	*88	0	*728
Stage 1	-	-	0	0	-	-	0	0	-	*705	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*458	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*1122	-	-	-	-	-	-	-	458	*83	-	*728
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*278	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*693	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*431	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.1	0	13.2	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	458	-	-	* 1122	-	278	728
HCM Lane V/C Ratio	0.042	-	-	0.017	-	0.084	0.048
HCM Control Delay (s)	13.2	-	-	8.3	-	19.1	10.2
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	0.3	0.2

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

Capacity Analysis Summary Sheets

Year 2029 No-Build Weekday Evening Peak Hour

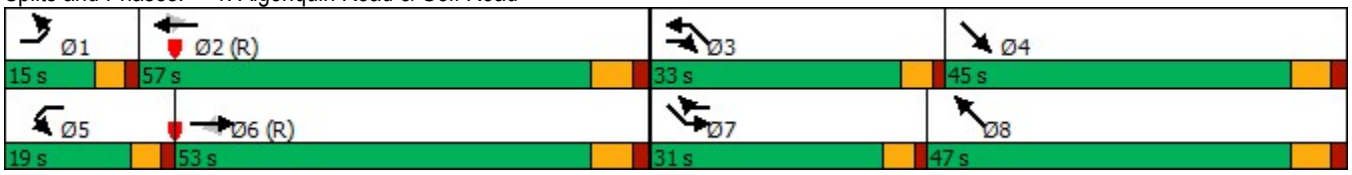
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	69	999	356	37	958	378	362	665	33	361	891	51
Future Volume (vph)	69	999	356	37	958	378	362	665	33	361	891	51
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.993			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	8%	0%	1%	1%	3%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	1041	371	39	998	394	377	727	0	376	981	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	53.0	33.0	19.0	57.0	31.0	31.0	45.0		33.0	47.0	
Total Split (%)	10.0%	35.3%	22.0%	12.7%	38.0%	20.7%	20.7%	30.0%		22.0%	31.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	9.3	53.5	82.2	8.9	50.9	79.2	21.7	44.5		22.2	45.0	
Actuated g/C Ratio	0.06	0.36	0.55	0.06	0.34	0.53	0.14	0.30		0.15	0.30	

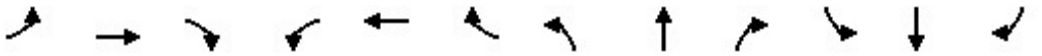
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.64	0.78	0.43	0.39	0.54	0.47	0.75	0.70		0.74	0.93	
Control Delay	99.7	43.0	18.5	78.6	41.4	24.0	71.2	52.1		70.0	66.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	99.7	43.0	18.5	78.6	41.4	24.0	71.2	52.1		70.0	66.4	
LOS	F	D	B	E	D	C	E	D		E	E	
Approach Delay		39.6			37.6			58.6			67.4	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	62	500	241	38	290	235	184	335		183	497	
Queue Length 95th (ft)	#130	603	322	77	338	307	235	433		230	#678	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	120	1341	928	155	1854	889	600	1034		640	1053	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.60	0.78	0.40	0.25	0.54	0.44	0.63	0.70		0.59	0.93	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 127 (85%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 50.0 Intersection LOS: D
Intersection Capacity Utilization 85.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Algonquin Road & Golf Road



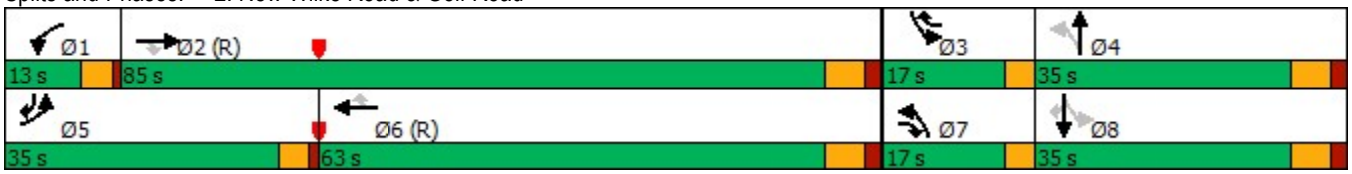


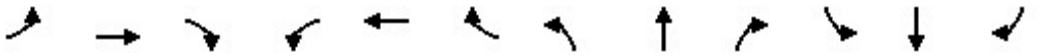
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	1268	2	0	1309	115	46	31	2	136	1	354
Future Volume (vph)	386	1268	2	0	1309	115	46	31	2	136	1	354
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1615	1900	5406	1615	1805	3578	0	1805	2000	1615
Flt Permitted	0.950						0.548					
Satd. Flow (perm)	3502	5406	1615	1900	5406	1615	1041	3578	0	1900	2000	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	415	1363	2	0	1408	124	49	35	0	146	1	381
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	17.0	17.0	35.0		17.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	11.3%	11.3%	23.3%		11.3%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	37.9	115.0	144.1		72.6	92.2	23.0	8.4		15.8	8.6	44.3
Actuated g/C Ratio	0.25	0.77	0.96		0.48	0.61	0.15	0.06		0.11	0.06	0.30

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.33	0.00		0.54	0.12	0.19	0.18		0.76	0.01	0.80
Control Delay	48.4	6.1	1.0		46.3	9.7	53.0	69.4		87.5	66.0	60.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	48.4	6.1	1.0		46.3	9.7	53.0	69.4		87.5	66.0	60.9
LOS	D	A	A		D	A	D	E		F	E	E
Approach Delay		16.0			43.3			59.8			68.3	
Approach LOS		B			D			E			E	
Queue Length 50th (ft)	165	148	0		473	33	41	17		144	1	340
Queue Length 95th (ft)	228	175	1		368	45	80	37		197	7	418
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	946	4144	1571		2617	997	285	679		199	380	505
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.44	0.33	0.00		0.54	0.12	0.17	0.05		0.73	0.00	0.75

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 114 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 34.6		Intersection LOS: C	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





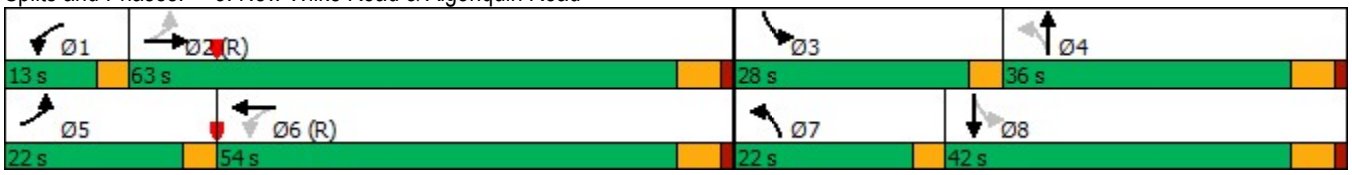
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	816	59	52	1019	267	172	405	35	253	354	112
Future Volume (vph)	118	816	59	52	1019	267	172	405	35	253	354	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.990			0.969			0.988			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3508	0	1805	3463	0	1805	3567	0	1770	3472	0
Flt Permitted	0.060			0.226			0.354			0.232		
Satd. Flow (perm)	113	3508	0	429	3463	0	673	3567	0	432	3472	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	931	0	55	1368	0	183	468	0	269	496	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	22.0	63.0		13.0	54.0		22.0	36.0		28.0	42.0	
Total Split (%)	15.7%	45.0%		9.3%	38.6%		15.7%	25.7%		20.0%	30.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	79.5	68.3		73.2	63.2		43.8	26.3		53.0	32.1	
Actuated g/C Ratio	0.57	0.49		0.52	0.45		0.31	0.19		0.38	0.23	

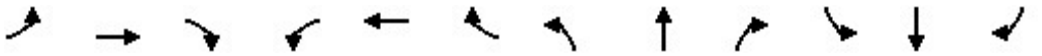
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.66	0.54		0.19	0.88		0.55	0.70		0.75	0.62	
Control Delay	41.7	28.4		14.8	39.5		36.0	58.7		44.2	51.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	41.7	28.4		14.8	39.5		36.0	58.7		44.2	51.8	
LOS	D	C		B	D		D	E		D	D	
Approach Delay		30.0			38.5			52.3			49.1	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	59	317		18	607		113	210		176	213	
Queue Length 95th (ft)	133	431		35	#883		159	264		235	267	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	285	1711		323	1563		377	764		397	894	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.44	0.54		0.17	0.88		0.49	0.61		0.68	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 69 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 40.6 Intersection LOS: D
Intersection Capacity Utilization 86.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Algonquin Road





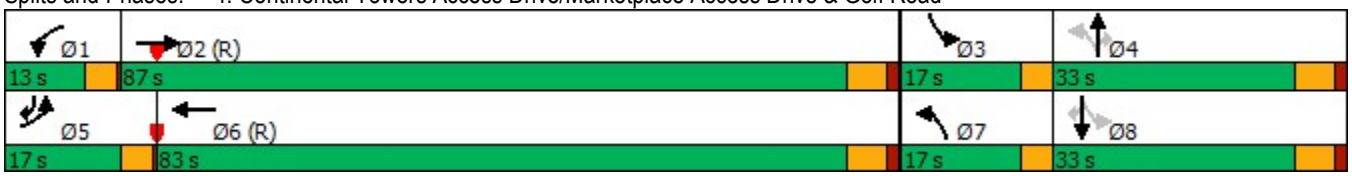
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1287	6	2	1331	105	37	4	12	60	0	55
Future Volume (vph)	40	1287	6	2	1331	105	37	4	12	60	0	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5079	0	1805	1900	1615	1770	1900	1615
Flt Permitted	0.950			0.950			0.950			0.000		
Satd. Flow (perm)	1805	5131	0	1805	5079	0	1805	1900	1615	0	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	1319	0	2	1465	0	38	4	12	61	0	56
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	87.0		13.0	83.0		17.0	33.0	33.0	17.0	33.0	17.0
Total Split (%)	11.3%	58.0%		8.7%	55.3%		11.3%	22.0%	22.0%	11.3%	22.0%	11.3%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	10.6	124.9		5.8	114.4		16.5	8.9	8.9	10.3		10.6
Actuated g/C Ratio	0.07	0.83		0.04	0.76		0.11	0.06	0.06	0.07		0.07

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.32	0.31		0.03	0.38		0.19	0.04	0.13	0.50		0.49
Control Delay	71.8	4.2		68.0	9.4		57.8	66.5	69.3	80.7		80.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	71.8	4.2		68.0	9.4		57.8	66.5	69.3	80.7		80.6
LOS	E	A		E	A		E	E	E	F		F
Approach Delay		6.2			9.5			61.0			80.7	
Approach LOS		A			A			E			F	
Queue Length 50th (ft)	43	49		2	153		36	4	11	59		54
Queue Length 95th (ft)	m59	282		m4	178		65	17	34	108		100
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	161	4273		108	3874		236	342	290	159		143
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.25	0.31		0.02	0.38		0.16	0.01	0.04	0.38		0.39

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 119 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road

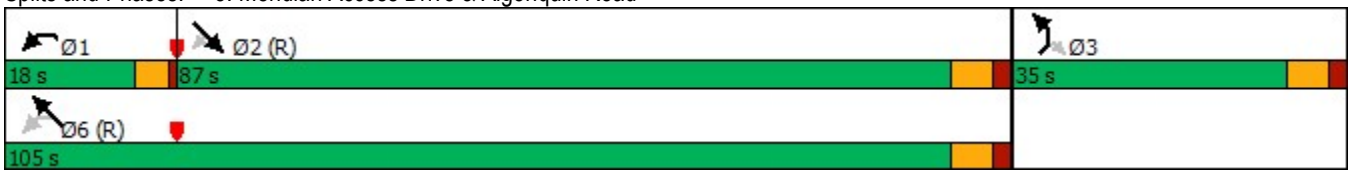


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	938	155	115	1205	143	55
Future Volume (vph)	938	155	115	1205	143	55
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3725	1583	1787	3762	1805	1509
Flt Permitted			0.231		0.950	
Satd. Flow (perm)	3725	1583	435	3762	1805	1509
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1031	170	126	1324	157	60
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	96.3	96.3	110.6	108.6	18.4	18.4
Actuated g/C Ratio	0.69	0.69	0.79	0.78	0.13	0.13

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.40	0.16	0.30	0.45	0.67	0.30
Control Delay	7.3	6.6	5.7	6.4	70.9	57.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	6.6	5.7	6.4	70.9	57.5
LOS	A	A	A	A	E	E
Approach Delay	7.2			6.3	67.2	
Approach LOS	A			A	E	
Queue Length 50th (ft)	126	36	22	190	138	50
Queue Length 95th (ft)	150	57	46	276	206	93
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2561	1088	474	2918	367	307
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.16	0.27	0.45	0.43	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 56 (40%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	10	79	13	7	1	75	109	17	2	104	11
Future Vol, veh/h	7	10	79	13	7	1	75	109	17	2	104	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	2	1	0	0	0	0
Mvmt Flow	8	11	88	14	8	1	83	121	19	2	116	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.1	9	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	7%	62%	2%
Vol Thru, %	54%	10%	33%	89%
Vol Right, %	8%	82%	5%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	201	96	21	117
LT Vol	75	7	13	2
Through Vol	109	10	7	104
RT Vol	17	79	1	11
Lane Flow Rate	223	107	23	130
Geometry Grp	1	1	1	1
Degree of Util (X)	0.272	0.126	0.032	0.158
Departure Headway (Hd)	4.388	4.242	4.916	4.378
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	846	729	820
Service Time	2.408	2.264	2.943	2.4
HCM Lane V/C Ratio	0.272	0.126	0.032	0.159
HCM Control Delay	9	7.9	8.1	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.4	0.1	0.6

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	6	2	58	11	18	0	0	0	13	7	18
Future Vol, veh/h	28	6	2	58	11	18	0	0	0	13	7	18
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	5	11	0	0	0	0	0	0	0
Mvmt Flow	35	8	3	73	14	23	0	0	0	16	9	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.7	0	7.3
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	78%	67%	34%
Vol Thru, %	100%	17%	13%	18%
Vol Right, %	0%	6%	21%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	36	87	38
LT Vol	0	28	58	13
Through Vol	0	6	11	7
RT Vol	0	2	18	18
Lane Flow Rate	0	46	110	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.053	0.126	0.053
Departure Headway (Hd)	4.208	4.191	4.114	3.952
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	851	870	894
Service Time	2.295	2.235	2.144	2.029
HCM Lane V/C Ratio	0	0.054	0.126	0.054
HCM Control Delay	7.3	7.5	7.7	7.3
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.4	0.2

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	0	0	36	0	18
Future Vol, veh/h	29	0	0	36	0	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	31	0	0	38	0	19
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	6.5	7.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	36	29	18
LT Vol	0	29	0
Through Vol	0	0	18
RT Vol	36	0	0
Lane Flow Rate	38	31	19
Geometry Grp	1	1	1
Degree of Util (X)	0.035	0.036	0.021
Departure Headway (Hd)	3.367	4.199	3.982
Convergence, Y/N	Yes	Yes	Yes
Cap	1063	856	900
Service Time	1.388	2.209	2.001
HCM Lane V/C Ratio	0.036	0.036	0.021
HCM Control Delay	6.5	7.4	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	1322	1400	3	4	43
Future Vol, veh/h	41	1322	1400	3	4	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	44	1406	1489	3	4	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1492	0	-	0	2141	746
Stage 1	-	-	-	-	1491	-
Stage 2	-	-	-	-	650	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*762	-	-	-	*298	*606
Stage 1	-	-	-	-	*621	-
Stage 2	-	-	-	-	*639	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*762	-	-	-	*281	*606
Mov Cap-2 Maneuver	-	-	-	-	*407	-
Stage 1	-	-	-	-	*585	-
Stage 2	-	-	-	-	*639	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 762	-	-	-	407	606
HCM Lane V/C Ratio	0.057	-	-	-	0.01	0.075
HCM Control Delay (s)	10	-	-	-	13.9	11.4
HCM Lane LOS	B	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0.2

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

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	30	936	19	0	1294	37	0	0	108	11	0	21
Future Vol, veh/h	30	936	19	0	1294	37	0	0	108	11	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	7	2	0	0	1	0	0	0	0	0	0	5
Mvmt Flow	32	996	20	0	1377	39	0	0	115	12	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1416	0	-	-	-	0	-	-	498	1959	-	708
Stage 1	-	-	-	-	-	-	-	-	-	1397	-	-
Stage 2	-	-	-	-	-	-	-	-	-	562	-	-
Critical Hdwy	4.24	-	-	-	-	-	-	-	6.9	7.5	-	7
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.27	-	-	-	-	-	-	-	3.3	3.5	-	3.35
Pot Cap-1 Maneuver	*783	-	0	0	-	-	0	0	523	*39	0	*530
Stage 1	-	-	0	0	-	-	0	0	-	*507	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*484	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*783	-	-	-	-	-	-	-	523	*29	-	*530
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*202	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*487	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*362	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.3	0	13.8	16.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	523	-	-	* 783	-	202	530
HCM Lane V/C Ratio	0.22	-	-	0.041	-	0.058	0.042
HCM Control Delay (s)	13.8	-	-	9.8	-	23.9	12.1
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-	0.2	0.1

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

Capacity Analysis Summary Sheets

Year 2029 No-Build Saturday Midday Peak Hour

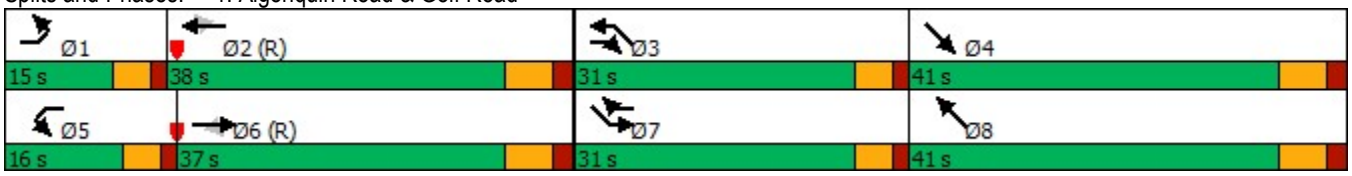
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	116	887	331	47	950	342	350	641	77	367	624	43
Future Volume (vph)	116	887	331	47	950	342	350	641	77	367	624	43
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.984			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1736	5406	1615	3502	3517	0	3467	3536	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1736	5406	1615	3502	3517	0	3467	3536	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	4%	1%	0%	0%	1%	1%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	905	338	48	969	349	357	733	0	374	681	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	37.0	31.0	16.0	38.0	31.0	31.0	41.0		31.0	41.0	
Total Split (%)	12.0%	29.6%	24.8%	12.8%	30.4%	24.8%	24.8%	32.8%		24.8%	32.8%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	10.7	39.9	65.8	8.6	35.7	60.9	18.7	36.3		19.4	37.0	
Actuated g/C Ratio	0.09	0.32	0.53	0.07	0.29	0.49	0.15	0.29		0.16	0.30	

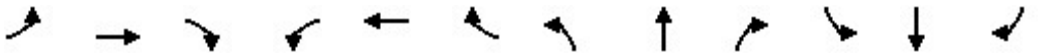
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.78	0.75	0.41	0.40	0.63	0.44	0.68	0.72		0.70	0.65	
Control Delay	92.0	38.7	17.6	65.1	42.0	23.6	56.9	44.2		56.8	41.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	92.0	38.7	17.6	65.1	42.0	23.6	56.9	44.2		56.8	41.6	
LOS	F	D	B	E	D	C	E	D		E	D	
Approach Delay		38.1			38.1			48.4			47.0	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	83	382	203	38	263	192	142	267		149	241	
Queue Length 95th (ft)	m#206	#532	205	78	314	256	185	355		192	322	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	152	1200	916	152	1544	880	728	1042		721	1065	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.78	0.75	0.37	0.32	0.63	0.40	0.49	0.70		0.52	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 19 (15%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 42.3 Intersection LOS: D
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Algonquin Road & Golf Road





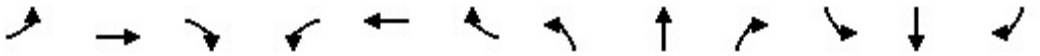
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	1211	0	0	1146	142	2	2	2	125	2	277
Future Volume (vph)	323	1211	0	0	1146	142	2	2	2	125	2	277
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850		0.925				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1900	1900	5406	1615	1805	3339	0	1770	2000	1599
Flt Permitted	0.950									0.784		
Satd. Flow (perm)	3502	5406	1900	1900	5406	1615	1900	3339	0	1460	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	340	1275	0	0	1206	149	2	4	0	132	2	292
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	26.0	64.0	18.0	13.0	51.0	15.0	18.0	33.0		15.0	30.0	26.0
Total Split (%)	20.8%	51.2%	14.4%	10.4%	40.8%	12.0%	14.4%	26.4%		12.0%	24.0%	20.8%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	16.9	100.7			79.3	97.2	7.9	8.0		14.3	9.4	32.7
Actuated g/C Ratio	0.14	0.81			0.63	0.78	0.06	0.06		0.11	0.08	0.26

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.29			0.35	0.12	0.02	0.02		0.68	0.01	0.70
Control Delay	60.5	3.7			20.0	3.0	47.0	55.2		69.4	52.0	50.5
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	3.7			20.0	3.0	47.0	55.2		69.4	52.0	50.5
LOS	E	A			C	A	D	E		E	D	D
Approach Delay		15.7			18.1			52.5			56.4	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	138	65			202	7	2	1		106	2	218
Queue Length 95th (ft)	180	148			268	39	8	8		154	10	285
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385									380		
Base Capacity (vph)	604	4355			3431	1257	242	707		196	376	478
Starvation Cap Reductn	0	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0	0			0	0	0	0		0	0	0
Storage Cap Reductn	0	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.56	0.29			0.35	0.12	0.01	0.01		0.67	0.01	0.61

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 20 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	790	77	61	796	237	153	290	44	268	296	86
Future Volume (vph)	93	790	77	61	796	237	153	290	44	268	296	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.987			0.966			0.980			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3528	0	1805	3461	0	1805	3538	0	1805	3487	0
Flt Permitted	0.132			0.222			0.502			0.320		
Satd. Flow (perm)	251	3528	0	422	3461	0	954	3538	0	608	3487	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	922	0	65	1099	0	163	356	0	285	406	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	16.0	53.0		13.0	50.0		26.0	28.0		26.0	28.0	
Total Split (%)	13.3%	44.2%		10.8%	41.7%		21.7%	23.3%		21.7%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	67.0	57.0		63.9	53.9		34.5	19.2		44.3	25.5	
Actuated g/C Ratio	0.56	0.48		0.53	0.45		0.29	0.16		0.37	0.21	

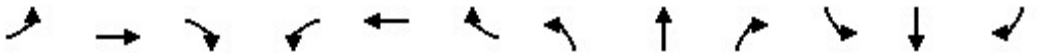
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.39	0.55		0.21	0.71		0.45	0.63		0.69	0.55	
Control Delay	17.7	25.9		12.3	30.0		29.6	52.1		36.5	44.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.7	25.9		12.3	30.0		29.6	52.1		36.5	44.8	
LOS	B	C		B	C		C	D		D	D	
Approach Delay		25.1			29.0			45.0			41.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	34	274		17	390		85	135		161	146	
Queue Length 95th (ft)	67	379		33	515		128	183		222	196	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	305	1676		341	1555		501	648		449	750	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.55		0.19	0.71		0.33	0.55		0.63	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 68 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 32.8 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: New Wilke Road & Algonquin Road





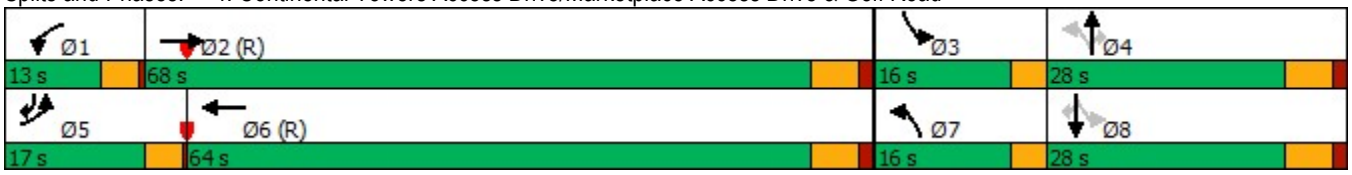
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	1149	9	4	1120	161	32	7	5	139	4	92
Future Volume (vph)	85	1149	9	4	1120	161	32	7	5	139	4	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.981				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5044	0	1805	1900	1615	1805	1900	1615
Flt Permitted	0.950			0.950						0.667		
Satd. Flow (perm)	1805	5131	0	1805	5044	0	1900	1900	1615	1267	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1218	0	4	1348	0	34	7	5	146	4	97
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	68.0		13.0	64.0		16.0	28.0	28.0	16.0	28.0	17.0
Total Split (%)	13.6%	54.4%		10.4%	51.2%		12.8%	22.4%	22.4%	12.8%	22.4%	13.6%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	12.1	95.4		5.9	81.5		14.5	8.3	8.3	15.0	9.2	21.6
Actuated g/C Ratio	0.10	0.76		0.05	0.65		0.12	0.07	0.07	0.12	0.07	0.17

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.51	0.31		0.05	0.41		0.16	0.06	0.05	0.72	0.03	0.35
Control Delay	67.8	4.6		57.2	12.3		45.3	55.6	55.4	71.1	53.5	48.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	4.6		57.2	12.3		45.3	55.6	55.4	71.1	53.5	48.8
LOS	E	A		E	B		D	E	E	E	D	D
Approach Delay		8.9			12.4			48.0			62.0	
Approach LOS		A			B			D			E	
Queue Length 50th (ft)	67	36		3	129		26	5	4	118	3	76
Queue Length 95th (ft)	m112	146		m5	152		51	21	18	166	15	110
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	201	3915		129	3288		258	334	284	209	334	303
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.31		0.03	0.41		0.13	0.02	0.02	0.70	0.01	0.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 18 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 57.6%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road

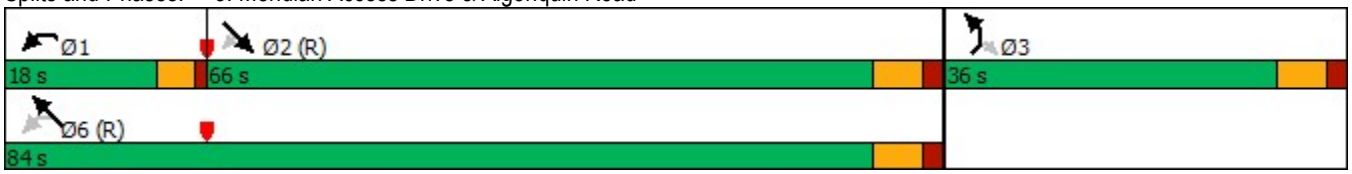


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	890	183	154	924	190	48
Future Volume (vph)	890	183	154	924	190	48
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3762	1615	1770	3762	1805	1583
Flt Permitted			0.250		0.950	
Satd. Flow (perm)	3762	1615	466	3762	1805	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	2%	1%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	927	191	160	963	198	50
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	66.0	66.0	18.0	84.0	36.0	36.0
Total Split (%)	55.0%	55.0%	15.0%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	74.5	74.5	89.7	87.7	19.3	19.3
Actuated g/C Ratio	0.62	0.62	0.75	0.73	0.16	0.16

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.40	0.19	0.36	0.35	0.68	0.20
Control Delay	10.0	9.6	7.2	6.7	59.0	43.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	9.6	7.2	6.7	59.0	43.4
LOS	B	A	A	A	E	D
Approach Delay	9.9			6.8	55.9	
Approach LOS	A			A	E	
Queue Length 50th (ft)	127	48	30	124	146	34
Queue Length 95th (ft)	209	98	61	190	215	68
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2336	1002	495	2749	443	389
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.19	0.32	0.35	0.45	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 55 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 57.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	9	94	13	3	2	118	114	16	6	108	7
Future Vol, veh/h	12	9	94	13	3	2	118	114	16	6	108	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	3	0	0	0	0	0	0	0	1	0
Mvmt Flow	13	10	106	15	3	2	133	128	18	7	121	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.3	9.8	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	10%	72%	5%
Vol Thru, %	46%	8%	17%	89%
Vol Right, %	6%	82%	11%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	115	18	121
LT Vol	118	12	13	6
Through Vol	114	9	3	108
RT Vol	16	94	2	7
Lane Flow Rate	279	129	20	136
Geometry Grp	1	1	1	1
Degree of Util (X)	0.344	0.158	0.029	0.171
Departure Headway (Hd)	4.45	4.398	5.085	4.523
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	815	703	793
Service Time	2.477	2.427	3.123	2.554
HCM Lane V/C Ratio	0.345	0.158	0.028	0.172
HCM Control Delay	9.8	8.3	8.3	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.5	0.6	0.1	0.6

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	6	3	77	12	23	0	0	0	12	12	29
Future Vol, veh/h	37	6	3	77	12	23	0	0	0	12	12	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	33	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	42	7	3	88	14	26	0	0	0	14	14	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.8	0	7.3
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	80%	69%	23%
Vol Thru, %	100%	13%	11%	23%
Vol Right, %	0%	7%	21%	55%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	46	112	53
LT Vol	0	37	77	12
Through Vol	0	6	12	12
RT Vol	0	3	23	29
Lane Flow Rate	0	52	127	60
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.061	0.144	0.066
Departure Headway (Hd)	4.357	4.225	4.06	3.923
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	843	881	899
Service Time	2.357	2.276	2.097	2.01
HCM Lane V/C Ratio	0	0.062	0.144	0.067
HCM Control Delay	7.4	7.6	7.8	7.3
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.5	0.2

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	0	0	46	0	43
Future Vol, veh/h	41	0	0	46	0	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	0	0	48	0	45
Number of Lanes	1	0	0	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.5	6.6	7.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	0%	0%	100%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	46	41	43
LT Vol	0	41	0
Through Vol	0	0	43
RT Vol	46	0	0
Lane Flow Rate	48	43	45
Geometry Grp	1	1	1
Degree of Util (X)	0.046	0.051	0.05
Departure Headway (Hd)	3.408	4.261	4.011
Convergence, Y/N	Yes	Yes	Yes
Cap	1047	841	892
Service Time	1.442	2.286	2.04
HCM Lane V/C Ratio	0.046	0.051	0.05
HCM Control Delay	6.6	7.5	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	1292	1230	7	13	71
Future Vol, veh/h	56	1292	1230	7	13	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	59	1360	1295	7	14	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1302	0	-	0	1961	651
Stage 1	-	-	-	-	1299	-
Stage 2	-	-	-	-	662	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*813	-	-	-	*260	*647
Stage 1	-	-	-	-	*663	-
Stage 2	-	-	-	-	*642	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*813	-	-	-	*241	*647
Mov Cap-2 Maneuver	-	-	-	-	*397	-
Stage 1	-	-	-	-	*615	-
Stage 2	-	-	-	-	*642	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 813	-	-	-	397	647
HCM Lane V/C Ratio	0.073	-	-	-	0.034	0.116
HCM Control Delay (s)	9.8	-	-	-	14.4	11.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.4

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

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	24	896	30	0	1058	33	0	0	156	10	0	21
Future Vol, veh/h	24	896	30	0	1058	33	0	0	156	10	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	26	963	32	0	1138	35	0	0	168	11	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1173	0	-	-	-	0	-	-	482	1690	-	587
Stage 1	-	-	-	-	-	-	-	-	-	1156	-	-
Stage 2	-	-	-	-	-	-	-	-	-	534	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	-	3.3
Pot Cap-1 Maneuver	*982	-	0	0	-	-	0	0	536	*62	0	*654
Stage 1	-	-	0	0	-	-	0	0	-	*617	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*503	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*982	-	-	-	-	-	-	-	536	*42	-	*654
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*214	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*601	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*336	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0	14.7	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	536	-	-	* 982	-	214	654
HCM Lane V/C Ratio	0.313	-	-	0.026	-	0.05	0.035
HCM Control Delay (s)	14.7	-	-	8.8	-	22.7	10.7
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-	0.2	0.1

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

Capacity Analysis Summary Sheets

Year 2029 Total Projected Weekday Morning Peak Hour

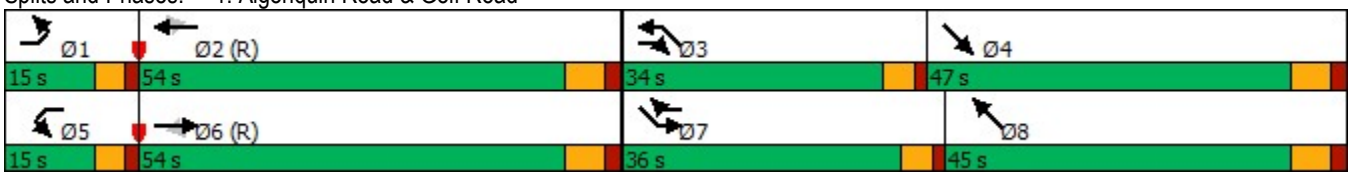
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	32	725	225	27	645	245	248	753	19	247	469	33
Future Volume (vph)	32	725	225	27	645	245	248	753	19	247	469	33
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.996			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1703	3689	1568	1736	5353	1568	3400	3493	0	3335	3336	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	3%	3%	4%	2%	3%	3%	3%	0%	5%	7%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	843	262	31	750	285	288	898	0	287	583	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	54.0	34.0	15.0	54.0	36.0	36.0	47.0		34.0	45.0	
Total Split (%)	10.0%	36.0%	22.7%	10.0%	36.0%	24.0%	24.0%	31.3%		22.7%	30.0%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	8.3	55.5	80.4	8.0	52.8	77.5	18.2	49.6		18.4	49.8	
Actuated g/C Ratio	0.06	0.37	0.54	0.05	0.35	0.52	0.12	0.33		0.12	0.33	

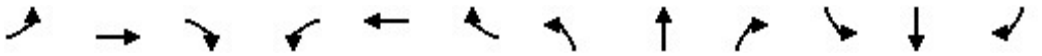
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.40	0.62	0.31	0.34	0.40	0.35	0.70	0.78		0.70	0.53	
Control Delay	80.5	37.7	18.0	77.8	38.6	23.7	72.3	51.0		72.5	42.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.5	37.7	18.0	77.8	38.6	23.7	72.3	51.0		72.5	42.9	
LOS	F	D	B	E	D	C	E	D		E	D	
Approach Delay		34.6			35.8			56.2			52.7	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	31	390	169	30	210	171	142	409		141	238	
Queue Length 95th (ft)	61	446	218	63	242	217	176	489		176	300	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	113	1365	951	115	1885	944	702	1155		644	1107	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.33	0.62	0.28	0.27	0.40	0.30	0.41	0.78		0.45	0.53	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 2 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 44.6 Intersection LOS: D
Intersection Capacity Utilization 70.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Algonquin Road & Golf Road



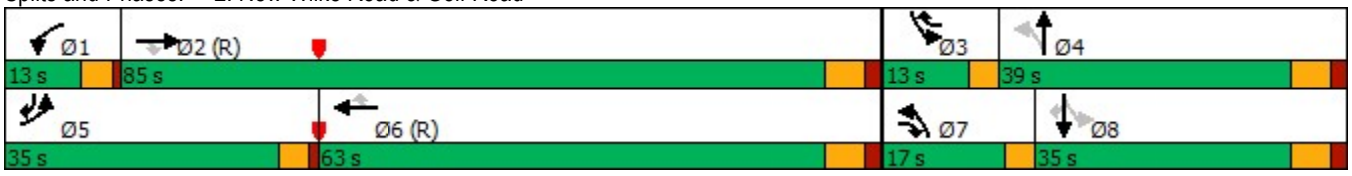


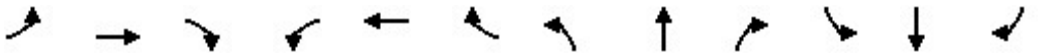
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	1047	50	0	830	92	1	0	0	100	36	191
Future Volume (vph)	261	1047	50	0	830	92	1	0	0	100	36	191
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850						0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3367	5353	1615	1900	5301	1538	1805	3610	0	1719	1942	1583
Flt Permitted	0.950						0.000			0.950		
Satd. Flow (perm)	3367	5353	1615	1900	5301	1538	0	3610	0	1719	1942	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	0%	0%	3%	5%	0%	0%	0%	5%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	1203	57	0	954	106	1	0	0	115	41	220
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt			pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	13.0	17.0	39.0		13.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	8.7%	11.3%	26.0%		8.7%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	18.8	119.8	132.0		96.5	123.2	5.7			20.2	9.8	35.1
Actuated g/C Ratio	0.13	0.80	0.88		0.64	0.82	0.04			0.13	0.07	0.23

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.71	0.28	0.04		0.28	0.08	0.01			0.50	0.32	0.59
Control Delay	72.4	4.4	1.5		16.6	1.1	70.0			66.7	73.1	57.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0	0.0
Total Delay	72.4	4.4	1.5		16.6	1.1	70.0			66.7	73.1	57.3
LOS	E	A	A		B	A	E			E	E	E
Approach Delay		17.4			15.1			70.0			61.9	
Approach LOS		B			B			E			E	
Queue Length 50th (ft)	147	101	6		111	7	1			105	39	194
Queue Length 95th (ft)	185	126	13		153	5	8			161	77	254
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	684	4274	1505		3410	1263	162			231	368	494
Starvation Cap Reductn	0	0	0		0	0	0			0	0	0
Spillback Cap Reductn	0	0	0		0	0	0			0	0	0
Storage Cap Reductn	0	0	0		0	0	0			0	0	0
Reduced v/c Ratio	0.44	0.28	0.04		0.28	0.08	0.01			0.50	0.11	0.45

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 49.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	885	109	27	623	134	105	228	20	287	253	126
Future Volume (vph)	113	885	109	27	623	134	105	228	20	287	253	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.984			0.973			0.988			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3479	0	1736	3325	0	1719	3457	0	1787	3340	0
Flt Permitted	0.266			0.211			0.374			0.430		
Satd. Flow (perm)	495	3479	0	385	3325	0	677	3457	0	809	3340	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	4%	6%	4%	5%	3%	5%	1%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	1057	0	29	806	0	112	264	0	305	403	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	24.0	71.0		13.0	60.0		22.0	41.0		15.0	34.0	
Total Split (%)	17.1%	50.7%		9.3%	42.9%		15.7%	29.3%		10.7%	24.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	88.6	80.0		82.3	73.4		37.1	22.5		41.8	25.7	
Actuated g/C Ratio	0.63	0.57		0.59	0.52		0.26	0.16		0.30	0.18	

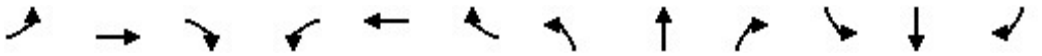
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.30	0.53		0.10	0.46		0.41	0.48		0.87	0.66	
Control Delay	13.1	21.4		11.4	21.1		38.6	54.8		66.1	58.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.1	21.4		11.4	21.1		38.6	54.8		66.1	58.5	
LOS	B	C		B	C		D	D		E	E	
Approach Delay		20.6			20.8			50.0			61.8	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)	39	313		9	187		76	118		232	183	
Queue Length 95th (ft)	79	446		23	354		114	145		#387	232	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	500	1987		326	1742		344	864		351	673	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.53		0.09	0.46		0.33	0.31		0.87	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 57 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 33.6 Intersection LOS: C
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: New Wilke Road & Algonquin Road





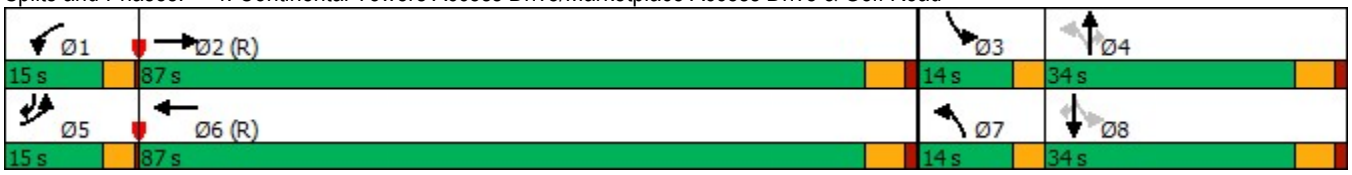
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1062	15	11	875	52	9	1	1	29	0	24
Future Volume (vph)	30	1062	15	11	875	52	9	1	1	29	0	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.992				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1444	5028	0	1805	5004	0	1805	1900	1615	1656	1900	1369
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1444	5028	0	1805	5004	0	1900	1900	1615	1743	1900	1369
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	3%	0%	0%	3%	0%	0%	0%	0%	9%	0%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	1224	0	13	1053	0	10	1	1	33	0	27
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	15.0	87.0		15.0	87.0		14.0	34.0	34.0	14.0	34.0	15.0
Total Split (%)	10.0%	58.0%		10.0%	58.0%		9.3%	22.7%	22.7%	9.3%	22.7%	10.0%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	9.0	126.6		6.7	120.3		10.3	8.0	8.0	9.3		14.6
Actuated g/C Ratio	0.06	0.84		0.04	0.80		0.07	0.05	0.05	0.06		0.10

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.40	0.29		0.16	0.26		0.08	0.01	0.01	0.31		0.20
Control Delay	92.2	3.0		56.1	7.4		61.7	67.0	68.0	74.7		66.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	92.2	3.0		56.1	7.4		61.7	67.0	68.0	74.7		66.4
LOS	F	A		E	A		E	E	E	E		E
Approach Delay		5.4			8.0			62.6			71.0	
Approach LOS		A			A			E			E	
Queue Length 50th (ft)	33	31		13	110		10	1	1	31		23
Queue Length 95th (ft)	m67	220		m32	124		26	8	8	68		58
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	108	4244		132	4012		161	354	301	118		154
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.31	0.29		0.10	0.26		0.06	0.00	0.00	0.28		0.18

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 140 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 44.2%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



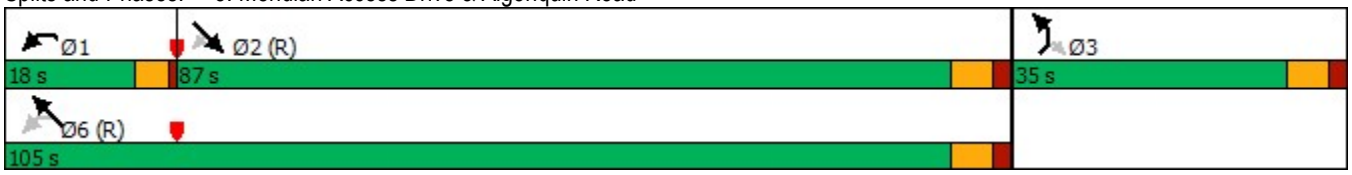
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1083	65	43	813	45	18
Future Volume (vph)	1083	65	43	813	45	18
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3689	1583	1703	3585	1752	1524
Flt Permitted			0.216		0.950	
Satd. Flow (perm)	3689	1583	387	3585	1752	1524
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	2%	6%	6%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1152	69	46	865	48	19
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	112.2	112.2	121.4	120.7	10.5	10.5
Actuated g/C Ratio	0.80	0.80	0.87	0.86	0.08	0.08

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.39	0.05	0.12	0.28	0.37	0.17
Control Delay	3.7	3.2	2.5	2.6	68.9	62.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	3.2	2.5	2.6	68.9	62.9
LOS	A	A	A	A	E	E
Approach Delay	3.7			2.6	67.2	
Approach LOS	A			A	E	
Queue Length 50th (ft)	85	9	5	71	42	17
Queue Length 95th (ft)	115	m16	13	104	84	43
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2955	1268	462	3091	356	310
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.05	0.10	0.28	0.13	0.06

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 64 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 5.2 Intersection LOS: A
Intersection Capacity Utilization 53.0% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	10	8	5	7	1	26	38	8	2	27	11
Future Vol, veh/h	7	10	8	5	7	1	26	38	8	2	27	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	11	8	5	7	1	27	40	8	2	28	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.3	7.4	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	36%	28%	38%	5%
Vol Thru, %	53%	40%	54%	68%
Vol Right, %	11%	32%	8%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	25	13	40
LT Vol	26	7	5	2
Through Vol	38	10	7	27
RT Vol	8	8	1	11
Lane Flow Rate	76	26	14	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.029	0.016	0.045
Departure Headway (Hd)	4.005	3.976	4.153	3.87
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	894	894	856	923
Service Time	2.032	2.028	2.207	1.904
HCM Lane V/C Ratio	0.085	0.029	0.016	0.046
HCM Control Delay	7.4	7.1	7.3	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0	0.1

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	8	14	15	17	18	0	0	0	15	8	10
Future Vol, veh/h	29	8	14	15	17	18	0	0	0	15	8	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	31	8	15	16	18	19	0	0	0	16	8	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.1	0	7.2
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	30%	45%
Vol Thru, %	100%	16%	34%	24%
Vol Right, %	0%	27%	36%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	51	50	33
LT Vol	0	29	15	15
Through Vol	0	8	17	8
RT Vol	0	14	18	10
Lane Flow Rate	0	54	53	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.059	0.056	0.039
Departure Headway (Hd)	4.112	3.95	3.846	3.993
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	907	931	893
Service Time	2.158	1.973	1.871	2.031
HCM Lane V/C Ratio	0	0.06	0.057	0.039
HCM Control Delay	7.2	7.2	7.1	7.2
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.2	0.1



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	18	0	0	32	1	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	18	0	0	32	0	1
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	1.00	0.85	0.95	0.95
Saturated Flow (vph)	1805	0	0	1615	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		2.4		
Adj Reference Time (s)		0.0		8.0		
Permitted Option						
Adj Saturation A (vph)	120		0		0	120
Reference Time A (s)	18.0		0.0		0.0	1.0
Adj Saturation B (vph	NA		0		0	0
Reference Time B (s)	NA		0.0		8.1	8.1
Reference Time (s)			0.0			1.0
Adj Reference Time (s)			8.0			8.0
Split Option						
Ref Time Combined (s)	1.2		0.0		0.0	0.1
Ref Time Seperate (s)	1.2		0.0		0.1	0.0
Reference Time (s)	1.2		0.0		0.1	0.1
Adj Reference Time (s)	8.0		0.0		8.0	8.0

Summary	WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	8.0	
Split Option (s)	8.0	8.0	
Minimum (s)	8.0	8.0	16.0

Right Turns	NBR
Adj Reference Time (s)	8.0
Cross Thru Ref Time (s)	0.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	16.0

Intersection Summary			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	0	32	19	0	18
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	10	0	51	0	0	18
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	0.95
Turning Factor (vph)	0.95	0.85	0.94	0.85	0.95	1.00
Saturated Flow (vph)	1805	0	1794	0	0	3618
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		Yes			Yes
Reference Time (s)		0.0	3.4	0.0	0.0	0.6
Adj Reference Time (s)		0.0	8.0	0.0	0.0	8.0
Permitted Option						
Adj Saturation A (vph)	120		1794		0	1809
Reference Time A (s)	10.0		3.4		0.0	0.6
Adj Saturation B (vph	NA		1794		0	3618
Reference Time B (s)	NA		3.4		0.0	0.6
Reference Time (s)			3.4			0.6
Adj Reference Time (s)			8.0			8.0
Split Option						
Ref Time Combined (s)	0.7		3.4		0.0	0.6
Ref Time Seperate (s)	0.7		2.1		0.0	0.6
Reference Time (s)	0.7		3.4		0.6	0.6
Adj Reference Time (s)	8.0		8.0		8.0	8.0

Summary	WB	NB SB	Combined
Protected Option (s)	NA	8.0	
Permitted Option (s)	Err	8.0	
Split Option (s)	8.0	16.0	
Minimum (s)	8.0	8.0	16.0

Right Turns
Adj Reference Time (s)
Cross Thru Ref Time (s)
Oncoming Left Ref Time (s)
Combined (s)

Intersection Summary			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	37	1103	880	14	4	24
Future Vol, veh/h	37	1103	880	14	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	2	3	0	0	13
Mvmt Flow	43	1283	1023	16	5	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1039	0	-	0	1630	520
Stage 1	-	-	-	-	1031	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	5.36	-	-	-	5.7	7.36
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.13	-	-	-	3.8	4.03
Pot Cap-1 Maneuver	806	-	-	-	*470	*703
Stage 1	-	-	-	-	*654	-
Stage 2	-	-	-	-	*693	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	806	-	-	-	*445	*703
Mov Cap-2 Maneuver	-	-	-	-	*500	-
Stage 1	-	-	-	-	*619	-
Stage 2	-	-	-	-	*693	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	806	-	-	-	500	703
HCM Lane V/C Ratio	0.053	-	-	-	0.009	0.04
HCM Control Delay (s)	9.7	-	-	-	12.3	10.3
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0.1

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

Intersection	
Int Delay, s/veh	0.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	18	1057	18	0	831	14	0	0	28	22	0	33
Future Vol, veh/h	18	1057	18	0	831	14	0	0	28	22	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	6	0	0	0	6	0	0	9
Mvmt Flow	19	1124	19	0	884	15	0	0	30	23	0	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	899	0	-	-	-	0	-	-	562	1492	-	450
Stage 1	-	-	-	-	-	-	-	-	-	892	-	-
Stage 2	-	-	-	-	-	-	-	-	-	600	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	7.02	7.5	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.36	3.5	-	3.39
Pot Cap-1 Maneuver	*1122	-	0	0	-	-	0	0	460	*87	0	*728
Stage 1	-	-	0	0	-	-	0	0	-	*705	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*459	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*1122	-	-	-	-	-	-	-	460	*80	-	*728
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*273	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*693	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*422	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.1	0	13.4	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	460	-	-	* 1122	-	273	728
HCM Lane V/C Ratio	0.065	-	-	0.017	-	0.086	0.048
HCM Control Delay (s)	13.4	-	-	8.3	-	19.4	10.2
HCM Lane LOS	B	-	-	A	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	0.3	0.2

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

Capacity Analysis Summary Sheets

Year 2029 Total Projected Weekday Evening Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	69	1045	380	37	1035	378	378	690	33	381	932	51
Future Volume (vph)	69	1045	380	37	1035	378	378	690	33	381	932	51
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.993			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3762	1583	1671	5460	1599	3467	3485	0	3433	3511	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	8%	0%	1%	1%	3%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	1089	396	39	1078	394	394	753	0	397	1024	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	53.0	33.0	19.0	57.0	31.0	31.0	45.0		33.0	47.0	
Total Split (%)	10.0%	35.3%	22.0%	12.7%	38.0%	20.7%	20.7%	30.0%		22.0%	31.3%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	9.3	53.7	83.3	8.9	51.2	80.1	22.4	43.4		23.1	44.1	
Actuated g/C Ratio	0.06	0.36	0.56	0.06	0.34	0.53	0.15	0.29		0.15	0.29	

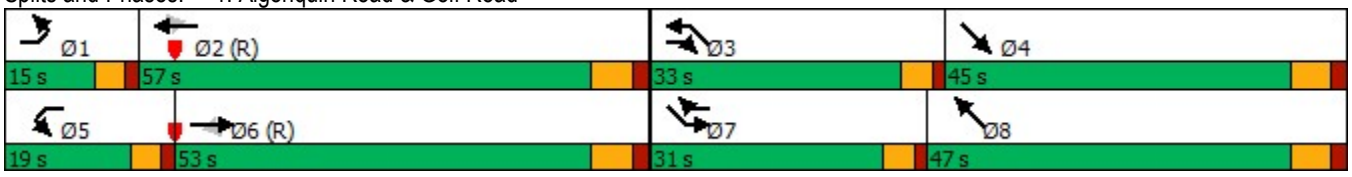
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.64	0.81	0.45	0.39	0.58	0.46	0.76	0.75		0.75	0.99	
Control Delay	97.1	45.1	20.4	78.6	42.2	23.5	71.0	54.3		69.8	78.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	97.1	45.1	20.4	78.6	42.2	23.5	71.0	54.3		69.8	78.7	
LOS	F	D	C	E	D	C	E	D		E	E	
Approach Delay		41.2			38.3			60.1			76.2	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	62	535	268	38	319	232	192	354		193	~537	
Queue Length 95th (ft)	m#123	#650	m355	77	369	307	246	451		244	#725	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	120	1346	930	155	1862	891	600	1008		640	1031	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.60	0.81	0.43	0.25	0.58	0.44	0.66	0.75		0.62	0.99	

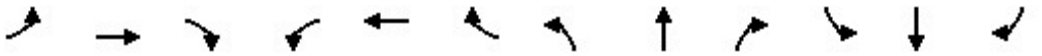
Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 127 (85%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 53.1 Intersection LOS: D
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Algonquin Road & Golf Road



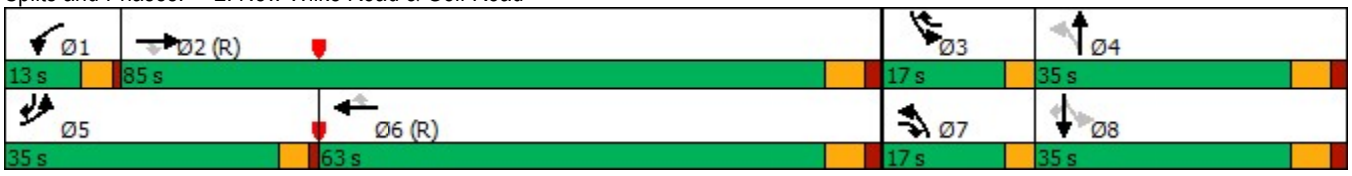


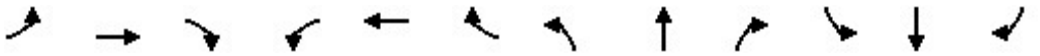
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	1345	2	0	1371	133	46	31	2	141	1	354
Future Volume (vph)	386	1345	2	0	1371	133	46	31	2	141	1	354
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.991				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1615	1900	5406	1615	1805	3578	0	1805	2000	1615
Flt Permitted	0.950						0.541					
Satd. Flow (perm)	3502	5406	1615	1900	5406	1615	1028	3578	0	1900	2000	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	415	1446	2	0	1474	143	49	35	0	152	1	381
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	35.0	85.0	17.0	13.0	63.0	17.0	17.0	35.0		17.0	35.0	35.0
Total Split (%)	23.3%	56.7%	11.3%	8.7%	42.0%	11.3%	11.3%	23.3%		11.3%	23.3%	23.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	37.8	114.9	144.0		72.7	92.3	23.0	8.4		15.9	8.7	44.2
Actuated g/C Ratio	0.25	0.77	0.96		0.48	0.62	0.15	0.06		0.11	0.06	0.29

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.35	0.00		0.56	0.14	0.19	0.18		0.78	0.01	0.80
Control Delay	48.5	6.3	1.0		44.4	11.2	53.0	69.4		90.3	66.0	60.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	48.5	6.3	1.0		44.4	11.2	53.0	69.4		90.3	66.0	60.9
LOS	D	A	A		D	B	D	E		F	E	E
Approach Delay		15.7			41.5			59.8			69.3	
Approach LOS		B			D			E			E	
Queue Length 50th (ft)	165	160	0		500	39	41	17		150	1	340
Queue Length 95th (ft)	228	189	1		398	58	80	37		204	7	418
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385		230							380		
Base Capacity (vph)	946	4141	1570		2618	997	285	679		199	380	505
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.44	0.35	0.00		0.56	0.14	0.17	0.05		0.76	0.00	0.75

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 114 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





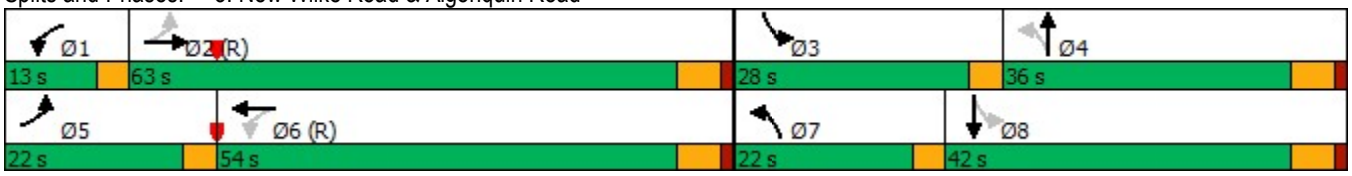
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	878	59	52	1056	286	184	411	35	279	359	112
Future Volume (vph)	118	878	59	52	1056	286	184	411	35	279	359	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.991			0.968			0.988			0.964	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3512	0	1805	3460	0	1805	3567	0	1770	3472	0
Flt Permitted	0.061			0.195			0.365			0.228		
Satd. Flow (perm)	115	3512	0	370	3460	0	694	3567	0	425	3472	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	1%	1%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	997	0	55	1427	0	196	474	0	297	501	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	22.0	63.0		13.0	54.0		22.0	36.0		28.0	42.0	
Total Split (%)	15.7%	45.0%		9.3%	38.6%		15.7%	25.7%		20.0%	30.0%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	78.2	67.0		71.8	61.8		44.4	26.5		54.4	33.0	
Actuated g/C Ratio	0.56	0.48		0.51	0.44		0.32	0.19		0.39	0.24	

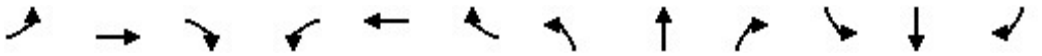
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.65	0.59		0.21	0.93		0.57	0.70		0.79	0.61	
Control Delay	41.4	30.4		14.6	44.7		35.9	58.8		46.5	50.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	41.4	30.4		14.6	44.7		35.9	58.8		46.5	50.9	
LOS	D	C		B	D		D	E		D	D	
Approach Delay		31.6			43.6			52.1			49.3	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	60	357		19	668		119	213		194	213	
Queue Length 95th (ft)	132	471		m34	#945		171	268		261	270	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	285	1679		292	1527		382	764		400	899	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.44	0.59		0.19	0.93		0.51	0.62		0.74	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 69 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 42.8 Intersection LOS: D
Intersection Capacity Utilization 89.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: New Wilke Road & Algonquin Road





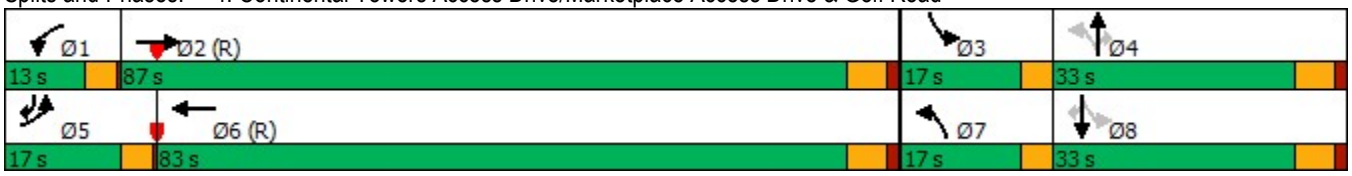
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	1277	6	2	1354	179	37	4	12	140	0	104
Future Volume (vph)	118	1277	6	2	1354	179	37	4	12	140	0	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.982				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5043	0	1805	1900	1615	1770	1900	1615
Flt Permitted	0.950			0.950			0.769					
Satd. Flow (perm)	1805	5131	0	1805	5043	0	1461	1900	1615	1863	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	1309	0	2	1565	0	38	4	12	143	0	106
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	87.0		13.0	83.0		17.0	33.0	33.0	17.0	33.0	17.0
Total Split (%)	11.3%	58.0%		8.7%	55.3%		11.3%	22.0%	22.0%	11.3%	22.0%	11.3%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	15.8	119.1		5.8	101.4		18.3	8.9	8.9	13.0		18.7
Actuated g/C Ratio	0.11	0.79		0.04	0.68		0.12	0.06	0.06	0.09		0.12

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.32		0.03	0.46		0.17	0.04	0.13	0.93		0.53
Control Delay	78.3	4.7		69.0	12.6		56.0	66.5	69.3	121.8		72.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	78.3	4.7		69.0	12.6		56.0	66.5	69.3	121.8		72.2
LOS	E	A		E	B		E	E	E	F		E
Approach Delay		10.9			12.7			59.8			100.7	
Approach LOS		B			B			E			F	
Queue Length 50th (ft)	113	47		2	165		35	4	11	141		101
Queue Length 95th (ft)	m156	279		m3	189		65	17	34	#275		162
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	196	4073		108	3408		239	342	290	160		206
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.61	0.32		0.02	0.46		0.16	0.01	0.04	0.89		0.51

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 119 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 19.3 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



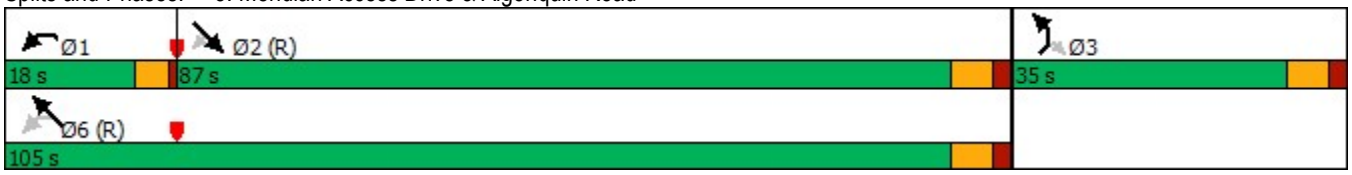
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	997	184	174	1187	217	55
Future Volume (vph)	997	184	174	1187	217	55
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3725	1583	1787	3762	1805	1509
Flt Permitted			0.199		0.950	
Satd. Flow (perm)	3725	1583	374	3762	1805	1509
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1096	202	191	1304	238	60
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	87.0	87.0	18.0	105.0	35.0	35.0
Total Split (%)	62.1%	62.1%	12.9%	75.0%	25.0%	25.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	88.9	88.9	105.2	103.2	23.8	23.8
Actuated g/C Ratio	0.64	0.64	0.75	0.74	0.17	0.17

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.46	0.20	0.50	0.47	0.78	0.23
Control Delay	9.5	8.6	10.1	8.5	72.8	51.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	8.6	10.1	8.5	72.8	51.0
LOS	A	A	B	A	E	D
Approach Delay	9.3			8.7	68.4	
Approach LOS	A			A	E	
Queue Length 50th (ft)	153	50	44	230	208	48
Queue Length 95th (ft)	172	m72	76	304	296	90
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2365	1005	417	2774	367	307
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.20	0.46	0.47	0.65	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 56 (40%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 14.7		Intersection LOS: B	
Intersection Capacity Utilization 62.4%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	77	8	4	3	91	227	21	3	173	5
Future Vol, veh/h	5	5	77	8	4	3	91	227	21	3	173	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	2	1	0	0	0	0
Mvmt Flow	6	6	87	9	4	3	102	255	24	3	194	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.5	11.4	9.2
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	6%	53%	2%
Vol Thru, %	67%	6%	27%	96%
Vol Right, %	6%	89%	20%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	339	87	15	181
LT Vol	91	5	8	3
Through Vol	227	5	4	173
RT Vol	21	77	3	5
Lane Flow Rate	381	98	17	203
Geometry Grp	1	1	1	1
Degree of Util (X)	0.471	0.128	0.025	0.258
Departure Headway (Hd)	4.45	4.705	5.337	4.572
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	760	668	785
Service Time	2.481	2.751	3.394	2.609
HCM Lane V/C Ratio	0.472	0.129	0.025	0.259
HCM Control Delay	11.4	8.4	8.5	9.2
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.5	0.4	0.1	1

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	14	2	58	22	30	0	0	0	24	7	71
Future Vol, veh/h	80	14	2	58	22	30	0	0	0	24	7	71
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	5	11	0	0	0	0	0	0	0
Mvmt Flow	101	18	3	73	28	38	0	0	0	30	9	90
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.2	0	7.9
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	83%	53%	24%
Vol Thru, %	100%	15%	20%	7%
Vol Right, %	0%	2%	27%	70%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	96	110	102
LT Vol	0	80	58	24
Through Vol	0	14	22	7
RT Vol	0	2	30	71
Lane Flow Rate	0	122	139	129
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.152	0.168	0.148
Departure Headway (Hd)	4.636	4.494	4.351	4.12
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	802	828	873
Service Time	2.657	2.497	2.355	2.135
HCM Lane V/C Ratio	0	0.152	0.168	0.148
HCM Control Delay	7.7	8.3	8.2	7.9
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.5	0.6	0.5



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	85	0	0	106	0	18
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	85	0	0	106	0	18
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	1.00	0.85	0.95	1.00
Saturated Flow (vph)	1805	0	0	1615	0	1900
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		7.9		
Adj Reference Time (s)		0.0		11.9		
Permitted Option						
Adj Saturation A (vph)	120		0		0	1900
Reference Time A (s)	84.8		0.0		0.0	1.1
Adj Saturation B (vph	NA		0		0	1900
Reference Time B (s)	NA		0.0		0.0	1.1
Reference Time (s)			0.0			1.1
Adj Reference Time (s)			8.0			8.0
Split Option						
Ref Time Combined (s)	5.7		0.0		0.0	1.1
Ref Time Seperate (s)	5.7		0.0		0.0	1.1
Reference Time (s)	5.7		0.0		1.1	1.1
Adj Reference Time (s)	9.7		0.0		8.0	8.0

Summary	WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	8.0	
Split Option (s)	9.7	8.0	
Minimum (s)	9.7	8.0	17.7

Right Turns	NBR
Adj Reference Time (s)	11.9
Cross Thru Ref Time (s)	0.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	19.9

Intersection Summary			
Intersection Capacity Utilization	16.6%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	106	0	0	103
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	0	106	0	0	103
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	0.95
Turning Factor (vph)	0.95	0.85	1.00	0.85	0.95	1.00
Saturated Flow (vph)	1805	0	1900	0	0	3618
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		Yes			Yes
Reference Time (s)		0.0	6.7	0.0	0.0	3.4
Adj Reference Time (s)		0.0	10.7	0.0	0.0	8.0
Permitted Option						
Adj Saturation A (vph)	120		1900		0	1809
Reference Time A (s)	0.0		6.7		0.0	3.4
Adj Saturation B (vph	NA		1900		0	3618
Reference Time B (s)	NA		6.7		0.0	3.4
Reference Time (s)			6.7			3.4
Adj Reference Time (s)			10.7			8.0
Split Option						
Ref Time Combined (s)	0.0		6.7		0.0	3.4
Ref Time Seperate (s)	0.0		6.7		0.0	3.4
Reference Time (s)	0.0		6.7		3.4	3.4
Adj Reference Time (s)	0.0		10.7		8.0	8.0

Summary	WB	NB SB	Combined
Protected Option (s)	NA	10.7	
Permitted Option (s)	Err	10.7	
Split Option (s)	0.0	18.7	
Minimum (s)	0.0	10.7	10.7

Right Turns
Adj Reference Time (s)
Cross Thru Ref Time (s)
Oncoming Left Ref Time (s)
Combined (s)

Intersection Summary			
Intersection Capacity Utilization	8.9%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	62	1383	1431	44	11	92
Future Vol, veh/h	62	1383	1431	44	11	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	66	1471	1522	47	12	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1569	0	-	0	2266	785
Stage 1	-	-	-	-	1546	-
Stage 2	-	-	-	-	720	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*740	-	-	-	*262	*588
Stage 1	-	-	-	-	*604	-
Stage 2	-	-	-	-	*621	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*740	-	-	-	*238	*588
Mov Cap-2 Maneuver	-	-	-	-	*374	-
Stage 1	-	-	-	-	*550	-
Stage 2	-	-	-	-	*621	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 740	-	-	-	374	588
HCM Lane V/C Ratio	0.089	-	-	-	0.031	0.166
HCM Control Delay (s)	10.3	-	-	-	14.9	12.3
HCM Lane LOS	B	-	-	-	B	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.6

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

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	30	918	96	0	1335	37	0	0	167	11	0	21
Future Vol, veh/h	30	918	96	0	1335	37	0	0	167	11	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	7	2	0	0	1	0	0	0	0	0	0	5
Mvmt Flow	32	977	102	0	1420	39	0	0	178	12	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1459	0	-	-	-	0	-	-	489	1993	-	730
Stage 1	-	-	-	-	-	-	-	-	-	1440	-	-
Stage 2	-	-	-	-	-	-	-	-	-	553	-	-
Critical Hdwy	4.24	-	-	-	-	-	-	-	6.9	7.5	-	7
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.27	-	-	-	-	-	-	-	3.3	3.5	-	3.35
Pot Cap-1 Maneuver	*753	-	0	0	-	-	0	0	530	*37	0	*510
Stage 1	-	-	0	0	-	-	0	0	-	*488	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*490	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*753	-	-	-	-	-	-	-	530	*24	-	*510
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*181	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*467	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*312	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.3	0	15.2	17.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	530	-	-	* 753	-	181	510
HCM Lane V/C Ratio	0.335	-	-	0.042	-	0.065	0.044
HCM Control Delay (s)	15.2	-	-	10	-	26.3	12.4
HCM Lane LOS	C	-	-	A	-	D	B
HCM 95th %tile Q(veh)	1.5	-	-	0.1	-	0.2	0.1

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

Capacity Analysis Summary Sheets

Year 2029 Total Projected Saturday Midday Peak Hour

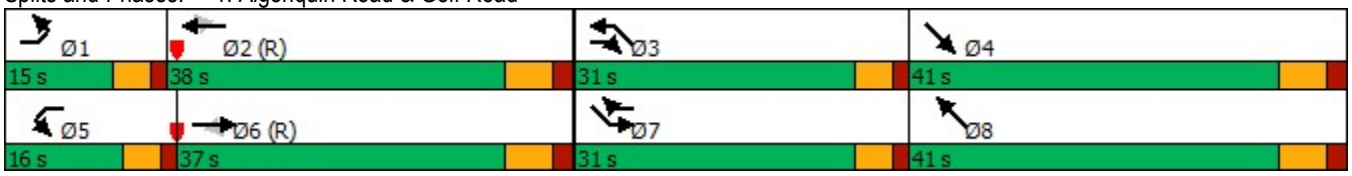
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	116	945	361	47	1037	342	369	672	77	390	670	43
Future Volume (vph)	116	945	361	47	1037	342	369	672	77	390	670	43
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	225		0	270		100	420		0	350		0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (ft)	170			85			270			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.985			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3762	1583	1736	5406	1615	3502	3521	0	3467	3540	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	3762	1583	1736	5406	1615	3502	3521	0	3467	3540	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			35			45	
Link Distance (ft)		1194			961			1320			882	
Travel Time (s)		20.4			16.4			25.7			13.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	2%	4%	1%	0%	0%	1%	1%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	964	368	48	1058	349	377	765	0	398	728	0
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	1	6	3	5	2	7	7	4		3	8	
Permitted Phases			6			2						
Detector Phase	1	6	3	5	2	7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	24.5	9.5	9.5	24.5	9.5	9.5	24.5		9.5	24.5	
Total Split (s)	15.0	37.0	31.0	16.0	38.0	31.0	31.0	41.0		31.0	41.0	
Total Split (%)	12.0%	29.6%	24.8%	12.8%	30.4%	24.8%	24.8%	32.8%		24.8%	32.8%	
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	6.5	5.0	5.0	6.5	5.0	5.0	6.5		5.0	6.5	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	
Act Effct Green (s)	10.5	38.7	65.5	8.6	34.7	60.6	19.4	36.6		20.2	37.4	
Actuated g/C Ratio	0.08	0.31	0.52	0.07	0.28	0.48	0.16	0.29		0.16	0.30	

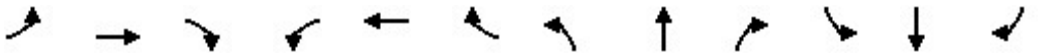
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio	0.79	0.83	0.44	0.40	0.70	0.45	0.69	0.74		0.71	0.69	
Control Delay	89.8	42.6	20.1	65.1	44.4	23.6	56.6	45.1		56.5	42.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	89.8	42.6	20.1	65.1	44.4	23.6	56.6	45.1		56.5	42.6	
LOS	F	D	C	E	D	C	E	D		E	D	
Approach Delay		40.7			40.1			48.9			47.5	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	84	418	234	38	293	190	150	282		158	261	
Queue Length 95th (ft)	m#184	m#539	m291	78	347	253	192	377		202	351	
Internal Link Dist (ft)		1114			881			1240			802	
Turn Bay Length (ft)	225			270		100	420			350		
Base Capacity (vph)	150	1165	901	152	1502	868	728	1042		721	1068	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.79	0.83	0.41	0.32	0.70	0.40	0.52	0.73		0.55	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 19 (15%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 43.8 Intersection LOS: D
Intersection Capacity Utilization 79.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Algonquin Road & Golf Road



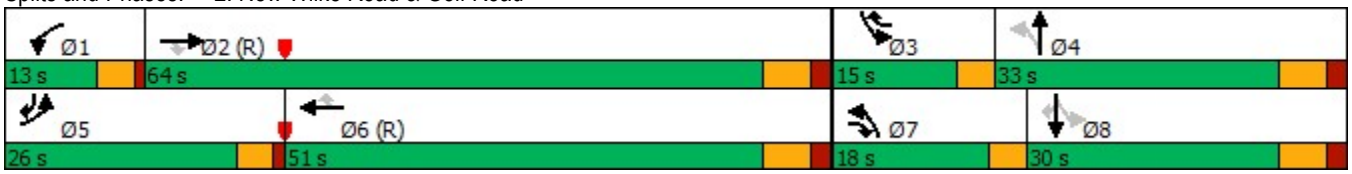


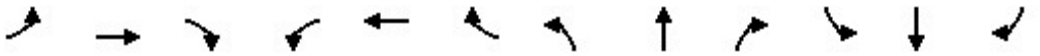
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	323	1297	0	0	1223	166	2	2	2	130	2	277
Future Volume (vph)	323	1297	0	0	1223	166	2	2	2	130	2	277
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	385		230	240		0	0		0	380		0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (ft)	175			95			25			135		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850		0.925				0.850
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	3502	5406	1900	1900	5406	1615	1805	3339	0	1770	2000	1599
Flt Permitted	0.950									0.784		
Satd. Flow (perm)	3502	5406	1900	1900	5406	1615	1900	3339	0	1460	2000	1599
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			40			30			35	
Link Distance (ft)		878			597			372			2015	
Travel Time (s)		13.3			10.2			8.5			39.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	2%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	340	1365	0	0	1287	175	2	4	0	137	2	292
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	5	2	7	1	6	3	7	4		3	8	5
Permitted Phases			2			6	4			8		8
Detector Phase	5	2	7	1	6	3	7	4		3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0		3.0	8.0	3.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5
Total Split (s)	26.0	64.0	18.0	13.0	51.0	15.0	18.0	33.0		15.0	30.0	26.0
Total Split (%)	20.8%	51.2%	14.4%	10.4%	40.8%	12.0%	14.4%	26.4%		12.0%	24.0%	20.8%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5		3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	0.0	1.0	2.0	0.0	0.0	2.0		0.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	3.5	4.5	6.5	3.5	3.5	6.5		3.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	16.9	100.7			79.3	97.2	7.9	8.0		14.3	9.4	32.7
Actuated g/C Ratio	0.14	0.81			0.63	0.78	0.06	0.06		0.11	0.08	0.26

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.72	0.31			0.38	0.14	0.02	0.02		0.70	0.01	0.70
Control Delay	60.5	3.8			19.9	3.9	47.0	55.2		71.4	52.0	50.5
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	3.8			19.9	3.9	47.0	55.2		71.4	52.0	50.5
LOS	E	A			B	A	D	E		E	D	D
Approach Delay		15.1			18.0			52.5			57.1	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	138	72			210	13	2	1		111	2	218
Queue Length 95th (ft)	180	161			292	55	8	8		159	10	285
Internal Link Dist (ft)		798			517			292			1935	
Turn Bay Length (ft)	385									380		
Base Capacity (vph)	604	4355			3431	1257	242	707		196	376	478
Starvation Cap Reductn	0	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0	0			0	0	0	0		0	0	0
Storage Cap Reductn	0	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.56	0.31			0.38	0.14	0.01	0.01		0.70	0.01	0.61

Intersection Summary			
Area Type:	Other		
Cycle Length: 125			
Actuated Cycle Length: 125			
Offset: 20 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 60.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: New Wilke Road & Golf Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	859	77	61	842	260	169	298	44	298	301	86
Future Volume (vph)	93	859	77	61	842	260	169	298	44	298	301	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	200		0	105		0	195		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	155			220			225			205		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.988			0.965			0.981			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3531	0	1805	3457	0	1805	3541	0	1805	3491	0
Flt Permitted	0.103			0.188			0.504			0.312		
Satd. Flow (perm)	196	3531	0	357	3457	0	958	3541	0	593	3491	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		936			1080			2015			539	
Travel Time (s)		18.2			21.0			39.3			10.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	996	0	65	1173	0	180	364	0	317	411	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0		3.0	8.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	16.0	53.0		13.0	50.0		26.0	28.0		26.0	28.0	
Total Split (%)	13.3%	44.2%		10.8%	41.7%		21.7%	23.3%		21.7%	23.3%	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Act Effct Green (s)	65.8	55.8		62.7	52.6		35.4	19.3		45.5	25.9	
Actuated g/C Ratio	0.55	0.46		0.52	0.44		0.30	0.16		0.38	0.22	

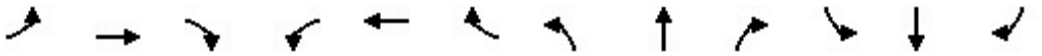
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.44	0.61		0.24	0.77		0.47	0.64		0.74	0.55	
Control Delay	19.8	27.8		13.4	32.4		29.6	52.2		38.4	44.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.8	27.8		13.4	32.4		29.6	52.2		38.4	44.5	
LOS	B	C		B	C		C	D		D	D	
Approach Delay		27.1			31.4			44.7			41.8	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	35	314		20	441		92	138		178	146	
Queue Length 95th (ft)	67	418		m36	#593		141	187		248	202	
Internal Link Dist (ft)		856			1000			1935			459	
Turn Bay Length (ft)	90			200			105			195		
Base Capacity (vph)	277	1640		307	1516		507	649		452	760	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.36	0.61		0.21	0.77		0.36	0.56		0.70	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 68 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 34.2 Intersection LOS: C
Intersection Capacity Utilization 79.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: New Wilke Road & Algonquin Road





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	1139	9	4	1147	244	32	7	5	237	4	152
Future Volume (vph)	172	1139	9	4	1147	244	32	7	5	237	4	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.974				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5011	0	1805	1900	1615	1805	1900	1615
Flt Permitted	0.950			0.950						0.625		
Satd. Flow (perm)	1805	5131	0	1805	5011	0	1900	1900	1615	1188	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	1208	0	4	1464	0	34	7	5	249	4	160
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	68.0		13.0	64.0		16.0	28.0	28.0	16.0	28.0	17.0
Total Split (%)	13.6%	54.4%		10.4%	51.2%		12.8%	22.4%	22.4%	12.8%	22.4%	13.6%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	20.1	95.0		5.9	73.0		14.5	8.3	8.3	15.4	9.6	30.1
Actuated g/C Ratio	0.16	0.76		0.05	0.58		0.12	0.07	0.07	0.12	0.08	0.24

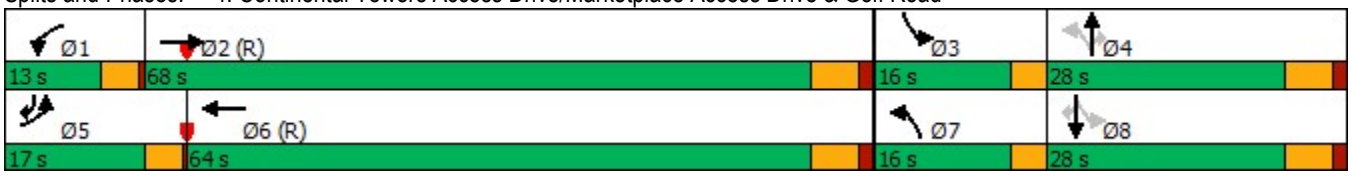
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.62	0.31		0.05	0.50		0.16	0.06	0.05	1.20	0.03	0.41
Control Delay	53.0	4.5		56.2	14.8		45.3	55.6	55.4	172.6	53.5	43.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	4.5		56.2	14.8		45.3	55.6	55.4	172.6	53.5	43.7
LOS	D	A		E	B		D	E	E	F	D	D
Approach Delay		10.8			14.9			48.0			121.5	
Approach LOS		B			B			D			F	
Queue Length 50th (ft)	120	36		3	142		26	5	4	~267	3	122
Queue Length 95th (ft)	m156	118		m5	160		51	21	18	#307	15	155
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	290	3899		129	2926		258	334	284	207	334	389
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.31		0.03	0.50		0.13	0.02	0.02	1.20	0.01	0.41

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 18 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 70.3% ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



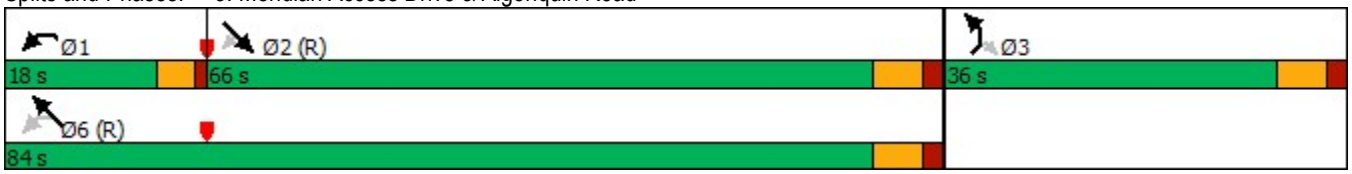
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	956	216	219	905	268	48
Future Volume (vph)	956	216	219	905	268	48
Ideal Flow (vphpl)	2000	1900	1900	2000	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		190	195		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			185		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3762	1615	1770	3762	1805	1583
Flt Permitted			0.210		0.950	
Satd. Flow (perm)	3762	1615	391	3762	1805	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	35			35	30	
Link Distance (ft)	1080			825	365	
Travel Time (s)	21.0			16.1	8.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	2%	1%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	996	225	228	943	279	50
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	3	
Permitted Phases		2	6			3
Detector Phase	2	2	1	6	3	3
Switch Phase						
Minimum Initial (s)	15.0	15.0	3.0	15.0	8.0	8.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	66.0	66.0	18.0	84.0	36.0	36.0
Total Split (%)	55.0%	55.0%	15.0%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	4.5	3.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	4.5	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
Act Effct Green (s)	67.8	67.8	85.0	83.0	24.0	24.0
Actuated g/C Ratio	0.56	0.56	0.71	0.69	0.20	0.20

Lane Group	SET	SER	NWL	NWT	NEL	NER
v/c Ratio	0.47	0.25	0.57	0.36	0.77	0.16
Control Delay	14.0	13.4	12.4	8.6	59.6	38.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	13.4	12.4	8.6	59.6	38.8
LOS	B	B	B	A	E	D
Approach Delay	13.9			9.3	56.5	
Approach LOS	B			A	E	
Queue Length 50th (ft)	155	61	54	145	205	32
Queue Length 95th (ft)	254	m132	96	207	288	65
Internal Link Dist (ft)	1000			745	285	
Turn Bay Length (ft)		190	195			
Base Capacity (vph)	2125	912	432	2600	443	389
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.25	0.53	0.36	0.63	0.13

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 55 (46%), Referenced to phase 2:SET and 6:NWTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 66.7%		ICU Level of Service C	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Meridian Access Drive & Algonquin Road



Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	9	117	13	3	2	143	259	16	6	243	7
Future Vol, veh/h	12	9	117	13	3	2	143	259	16	6	243	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	3	0	0	0	0	0	0	0	1	0
Mvmt Flow	13	10	131	15	3	2	161	291	18	7	273	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.3	15.3	11.1
HCM LOS	A	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	9%	72%	2%
Vol Thru, %	62%	7%	17%	95%
Vol Right, %	4%	85%	11%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	418	138	18	256
LT Vol	143	12	13	6
Through Vol	259	9	3	243
RT Vol	16	117	2	7
Lane Flow Rate	470	155	20	288
Geometry Grp	1	1	1	1
Degree of Util (X)	0.618	0.227	0.034	0.39
Departure Headway (Hd)	4.737	5.261	6.122	4.886
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	751	687	588	728
Service Time	2.824	3.261	4.13	2.984
HCM Lane V/C Ratio	0.626	0.226	0.034	0.396
HCM Control Delay	15.3	9.8	9.3	11.1
HCM Lane LOS	C	A	A	B
HCM 95th-tile Q	4.3	0.9	0.1	1.9

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	97	16	3	77	24	36	0	0	0	25	12	99
Future Vol, veh/h	97	16	3	77	24	36	0	0	0	25	12	99
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	33	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	18	3	88	27	41	0	0	0	28	14	113
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.4	0	8.1
HCM LOS	A	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	84%	56%	18%
Vol Thru, %	100%	14%	18%	9%
Vol Right, %	0%	3%	26%	73%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	116	137	136
LT Vol	0	97	77	25
Through Vol	0	16	24	12
RT Vol	0	3	36	99
Lane Flow Rate	0	132	156	155
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.167	0.188	0.178
Departure Headway (Hd)	4.731	4.555	4.339	4.153
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	790	828	865
Service Time	2.755	2.574	2.357	2.17
HCM Lane V/C Ratio	0	0.167	0.188	0.179
HCM Control Delay	7.8	8.5	8.4	8.1
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.6	0.7	0.6



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	92	0	0	100	0	43
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	92	0	0	100	0	43
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	1.00	0.85	0.95	1.00
Saturated Flow (vph)	1805	0	0	1615	0	1900
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		7.4		
Adj Reference Time (s)		0.0		11.4		
Permitted Option						
Adj Saturation A (vph)	120		0		0	1900
Reference Time A (s)	91.7		0.0		0.0	2.7
Adj Saturation B (vph	NA		0		0	1900
Reference Time B (s)	NA		0.0		0.0	2.7
Reference Time (s)			0.0			2.7
Adj Reference Time (s)			8.0			8.0
Split Option						
Ref Time Combined (s)	6.1		0.0		0.0	2.7
Ref Time Seperate (s)	6.1		0.0		0.0	2.7
Reference Time (s)	6.1		0.0		2.7	2.7
Adj Reference Time (s)	10.1		0.0		8.0	8.0

Summary	WB	NB SB	Combined
Protected Option (s)	NA	NA	
Permitted Option (s)	Err	8.0	
Split Option (s)	10.1	8.0	
Minimum (s)	10.1	8.0	18.1

Right Turns	NBR
Adj Reference Time (s)	11.4
Cross Thru Ref Time (s)	0.0
Oncoming Left Ref Time (s)	8.0
Combined (s)	19.4

Intersection Summary			
Intersection Capacity Utilization	16.2%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	18	0	100	32	0	135
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	18	0	132	0	0	135
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	0.95
Turning Factor (vph)	0.95	0.85	0.96	0.85	0.95	1.00
Saturated Flow (vph)	1805	0	1831	0	0	3618
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		Yes			Yes
Reference Time (s)		0.0	8.7	0.0	0.0	4.5
Adj Reference Time (s)		0.0	12.7	0.0	0.0	8.5
Permitted Option						
Adj Saturation A (vph)	120		1831		0	1809
Reference Time A (s)	18.0		8.7		0.0	4.5
Adj Saturation B (vph	NA		NA		NA	NA
Reference Time B (s)	NA		NA		NA	NA
Reference Time (s)			8.7			4.5
Adj Reference Time (s)			12.7			8.5
Split Option						
Ref Time Combined (s)	1.2		8.7		0.0	4.5
Ref Time Seperate (s)	1.2		6.6		0.0	4.5
Reference Time (s)	1.2		8.7		4.5	4.5
Adj Reference Time (s)	8.0		12.7		8.5	8.5

Summary	WB	NB SB	Combined
Protected Option (s)	NA	12.7	
Permitted Option (s)	Err	12.7	
Split Option (s)	8.0	21.1	
Minimum (s)	8.0	12.7	20.7

Right Turns
Adj Reference Time (s)
Cross Thru Ref Time (s)
Oncoming Left Ref Time (s)
Combined (s)

Intersection Summary			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A

Reference Times and Phasing Options do not represent an optimized timing plan.

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	1360	1271	53	22	131
Future Vol, veh/h	79	1360	1271	53	22	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	180	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	83	1432	1338	56	23	138

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1394	0	-	0	2105	697
Stage 1	-	-	-	-	1366	-
Stage 2	-	-	-	-	739	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	*787	-	-	-	*227	*626
Stage 1	-	-	-	-	*642	-
Stage 2	-	-	-	-	*621	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*787	-	-	-	*203	*626
Mov Cap-2 Maneuver	-	-	-	-	*365	-
Stage 1	-	-	-	-	*575	-
Stage 2	-	-	-	-	*621	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	* 787	-	-	-	365	626
HCM Lane V/C Ratio	0.106	-	-	-	0.063	0.22
HCM Control Delay (s)	10.1	-	-	-	15.5	12.4
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.2	0.8

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

Intersection	
Int Delay, s/veh	1.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	24	876	116	0	1104	33	0	0	226	10	0	21
Future Vol, veh/h	24	876	116	0	1104	33	0	0	226	10	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	95	-	-	-	-	-	-	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	26	942	125	0	1187	35	0	0	243	11	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1222	0	-	-	-	0	-	-	471	1728	-	611
Stage 1	-	-	-	-	-	-	-	-	-	1205	-	-
Stage 2	-	-	-	-	-	-	-	-	-	523	-	-
Critical Hdwy	4.1	-	-	-	-	-	-	-	6.9	7.5	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.5	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.5	-	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	-	3.3	3.5	-	3.3
Pot Cap-1 Maneuver	*944	-	0	0	-	-	0	0	545	*58	0	*629
Stage 1	-	-	0	0	-	-	0	0	-	*593	0	-
Stage 2	-	-	0	0	-	-	0	0	-	*510	0	-
Platoon blocked, %	1	-			-	-						1
Mov Cap-1 Maneuver	*944	-	-	-	-	-	-	-	545	*31	-	*629
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	*182	-	-
Stage 1	-	-	-	-	-	-	-	-	-	*577	-	-
Stage 2	-	-	-	-	-	-	-	-	-	*275	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.2	0	16.8	15.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NELn1	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	545	-	-	* 944	-	182	629
HCM Lane V/C Ratio	0.446	-	-	0.027	-	0.059	0.036
HCM Control Delay (s)	16.8	-	-	8.9	-	26	10.9
HCM Lane LOS	C	-	-	A	-	D	B
HCM 95th %tile Q(veh)	2.3	-	-	0.1	-	0.2	0.1

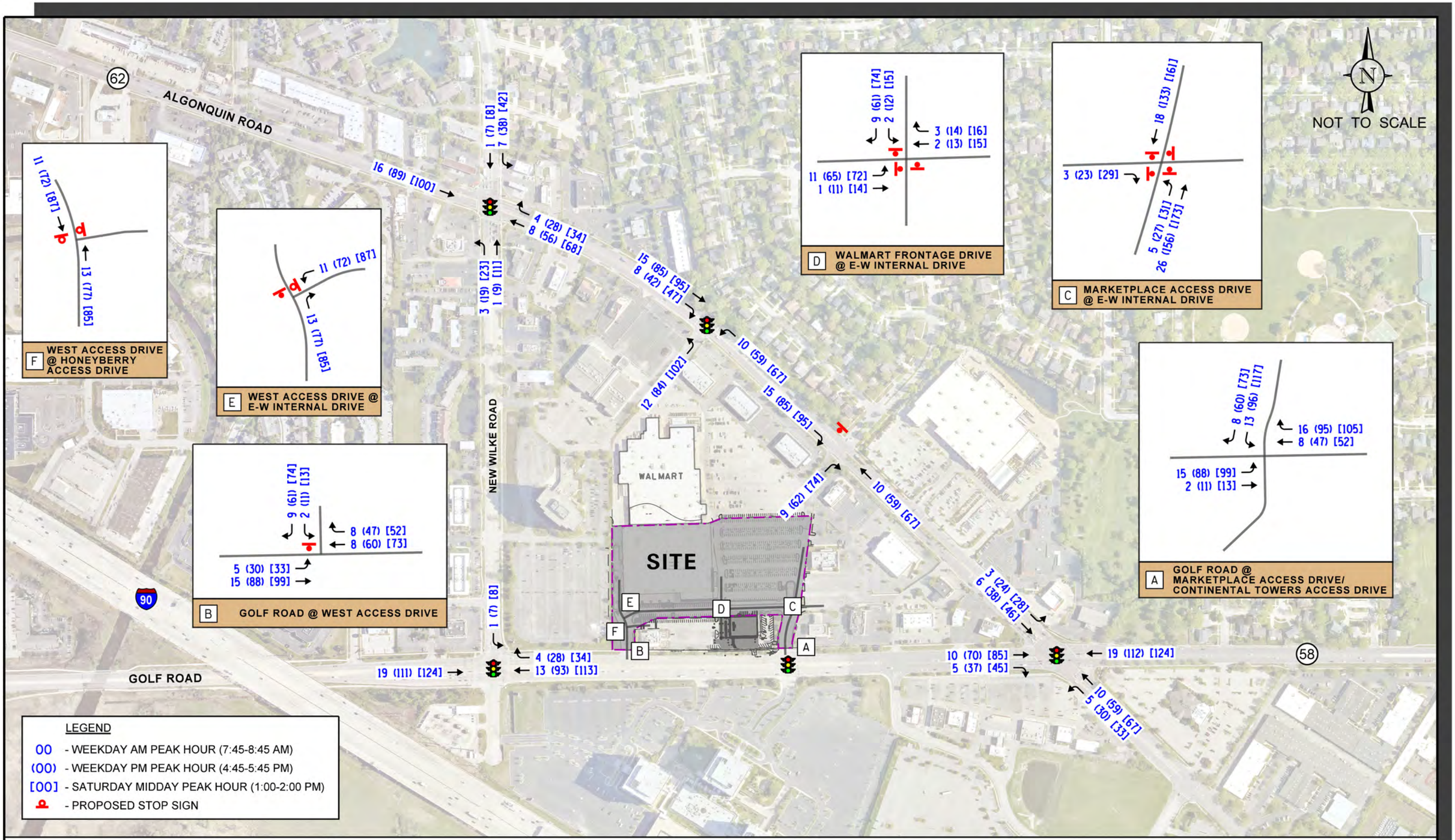
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachments to "Response to Review Comments" Dated April 16, 2024

Appendix

Figures, Tables, and Analysis Summary Sheets
Preliminary Geometric Plan
AutoTurn Exhibits

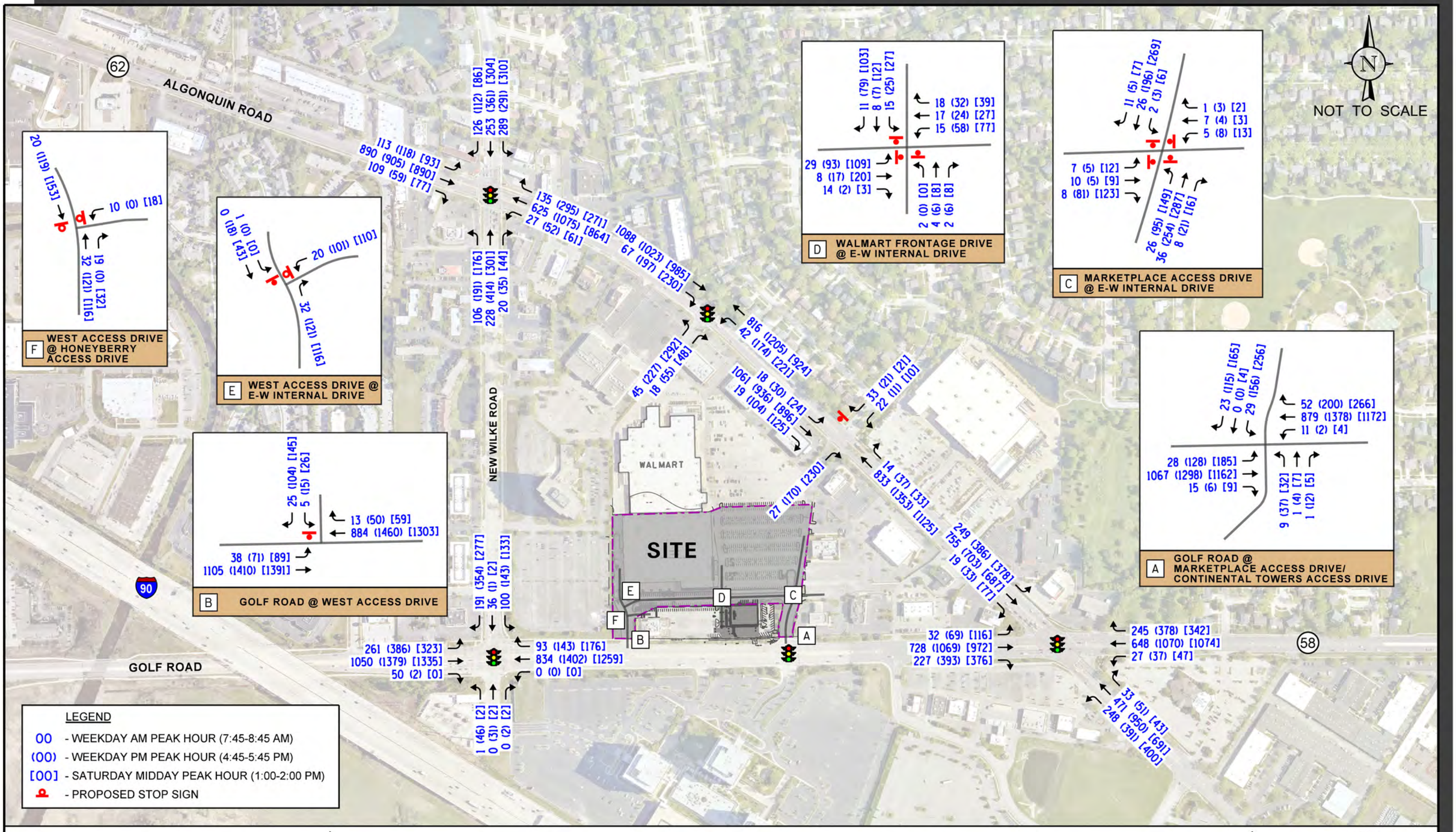
Figures, Tables, and Analysis Summary Sheets



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES
WITHOUT INTERACTION OR PASS-BY REDUCTIONS

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
Job No: 23-270 Figure: A



PACIFICA ON GOLF
ROLLING MEADOWS, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES
WITHOUT INTERACTION OR PASS-BY REDUCTIONS

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

Job No: 23-270 Figure: B

Table 7
GOLF ROAD WITH MARKETPLACE ACCESS DRIVE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2029 Projected Conditions	Weekday Morning	F 92.2	A 3.0		E 56.1	A 7.4		E 61.7	E 67.0	E 68.0	E 74.7	--	E 66.4	A 8.5
		A – 5.4			A – 8.0			E – 62.6			E – 71.0			
	Weekday Evening	E 78.3	A 4.7		E 69.0	B 12.6		E 56.0	E 66.5	E 69.3	F 121.8	--	E 72.2	B 19.3
		B – 10.9			B – 12.7			E – 59.8			F – 100.7			
	Saturday Midday	E 53.0	A 4.5		D 56.2	B 14.8		D 45.3	E 55.6	E 55.4	F 172.6	D 53.5	D 43.7	C 26.9
		B – 10.8			B – 14.9			D – 48.0			F – 121.5			
Year 2029 Proj Conditions with No Reductions	Weekday Morning	F 92.8	A 2.9		E 56.1	A 7.4		E 61.7	E 67.0	E 68.0	E 74.7	--	E 66.5	A 8.4
		A – 5.2			A – 8.0			E – 62.6			E – 71.1			
	Weekday Evening	E 75.0	A 4.7		E 69.0	B 13.0		E 56.0	E 66.5	E 69.3	F 140.7	--	E 70.7	C 20.9
		B – 11.0			B – 13.1			E – 59.8			F – 111.0			
	Saturday Midday	D 49.8	A 4.5		D 51.8	B 15.4		D 45.3	E 55.6	E 55.4	F 206.8	D 53.5	D 42.5	C 30.3
		B – 10.7			B – 15.5			D – 48.0			F – 141.5			

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

Table 11
UNSIGNALIZED RESULTS – YEAR 2029 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Golf Road with West Access Drive[1]						
• Southbound Approach	B	10.6	B	12.6	B	12.8
• Westbound Left Turn	A	9.7	B	10.3	B	10.1
Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive[1]						
• Northbound Approach	B	13.4	C	15.2	C	16.8
• Southbound Approach	B	13.9	C	17.2	C	15.8
• Eastbound Left Turn	A	8.3	A	10.0	A	8.9
Marketplace Access Drive with Internal E-W Drive[2]						
• Overall	A	7.3	B	10.3	B	13.0
• Eastbound Approach	A	7.1	A	8.4	A	9.8
• Westbound Approach	A	7.3	A	8.5	A	9.3
• Northbound Approach	A	7.4	B	11.4	C	15.3
• Southbound Approach	A	7.1	A	9.2	B	11.1
Walmart Frontage Drive with Internal E-W Drive[2]						
• Overall	A	7.2	A	8.1	A	8.3
• Eastbound Approach	A	7.2	A	8.3	A	8.5
• Westbound Approach	A	7.1	A	8.2	A	8.4
• Southbound Approach	A	7.2	A	7.9	A	8.1
West Access Drive with Internal E-W Drive[3]						
• ICU	A	13.3%	A	16.6%	A	16.2%
West Access Drive with Honeyberry Access[3]						
• ICU	A	13.3%	A	8.9%	A	17.2%

LOS = Level of Service
Delay is measured in seconds.
ICU = Intersection Capacity Utilization

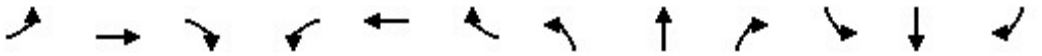
1 – Two-way stop control
2 – All-way stop control
3 – Analyzed with ICU

Table 11
UNSIGNALIZED RESULTS – YEAR 2029 TOTAL CONDITIONS – NO REDUCTIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Golf Road with West Access Drive[1]						
• Southbound Approach	B	10.7	B	12.9	B	13.1
• Westbound Left Turn	A	9.8	B	10.4	B	10.2
Algonquin Road with Kennicott Avenue/Right-In/Right-Out Access Drive[1]						
• Northbound Approach	B	13.4	C	15.5	C	17.3
• Southbound Approach	B	13.9	C	17.4	C	16.0
• Eastbound Left Turn	A	8.3	A	10.0	A	8.9
Marketplace Access Drive with Internal E-W Drive[2]						
• Overall	A	7.3	B	10.9	B	14.9
• Eastbound Approach	A	7.1	A	8.7	B	10.2
• Westbound Approach	A	7.3	A	8.7	A	9.6
• Northbound Approach	A	7.4	B	12.3	C	18.3
• Southbound Approach	A	7.1	A	9.6	B	12.1
Walmart Frontage Drive with Internal E-W Drive[2]						
• Overall	A	7.2	A	8.3	A	8.5
• Eastbound Approach	A	7.2	A	8.5	A	8.7
• Westbound Approach	A	7.1	A	8.3	A	8.5
• Southbound Approach	A	7.2	A	8.0	A	8.2
West Access Drive with Internal E-W Drive[3]						
• ICU	A	13.3%	A	17.5%	A	17.2%
West Access Drive with Honeyberry Access[3]						
• ICU	A	13.3%	A	9.7%	A	18.1%

LOS = Level of Service
Delay is measured in seconds.
ICU = Intersection Capacity Utilization

1 – Two-way stop control
2 – All-way stop control
3 – Analyzed with ICU



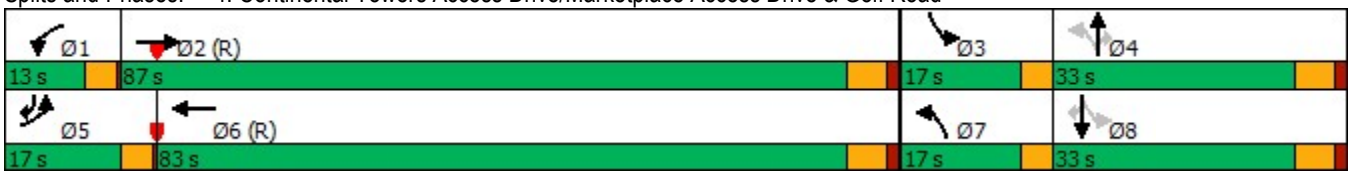
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	1298	6	2	1378	200	37	4	12	156	0	115
Future Volume (vph)	128	1298	6	2	1378	200	37	4	12	156	0	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.981				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5038	0	1805	1900	1615	1770	1900	1615
Flt Permitted	0.950			0.950			0.741					
Satd. Flow (perm)	1805	5131	0	1805	5038	0	1408	1900	1615	1863	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	131	1330	0	2	1610	0	38	4	12	159	0	117
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt		pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	87.0		13.0	83.0		17.0	33.0	33.0	17.0	33.0	17.0
Total Split (%)	11.3%	58.0%		8.7%	55.3%		11.3%	22.0%	22.0%	11.3%	22.0%	11.3%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	17.2	118.9		5.8	99.7		18.3	8.9	8.9	13.2		20.3
Actuated g/C Ratio	0.11	0.79		0.04	0.66		0.12	0.06	0.06	0.09		0.14

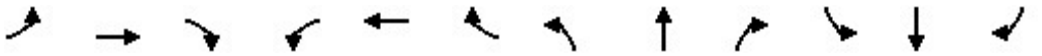
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.64	0.33		0.03	0.48		0.17	0.04	0.13	1.01		0.54
Control Delay	75.0	4.7		69.0	13.0		56.0	66.5	69.3	140.7		70.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0
Total Delay	75.0	4.7		69.0	13.0		56.0	66.5	69.3	140.7		70.7
LOS	E	A		E	B		E	E	E	F		E
Approach Delay		11.0			13.1			59.8			111.0	
Approach LOS		B			B			E			F	
Queue Length 50th (ft)	119	48		2	169		35	4	11	158		111
Queue Length 95th (ft)	m167	283		m3	192		65	17	34	#315		176
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	210	4065		108	3349		239	342	290	160		221
Starvation Cap Reductn	0	0		0	0		0	0	0	0		0
Spillback Cap Reductn	0	0		0	0		0	0	0	0		0
Storage Cap Reductn	0	0		0	0		0	0	0	0		0
Reduced v/c Ratio	0.62	0.33		0.02	0.48		0.16	0.01	0.04	0.99		0.53

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 119 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 20.9 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road





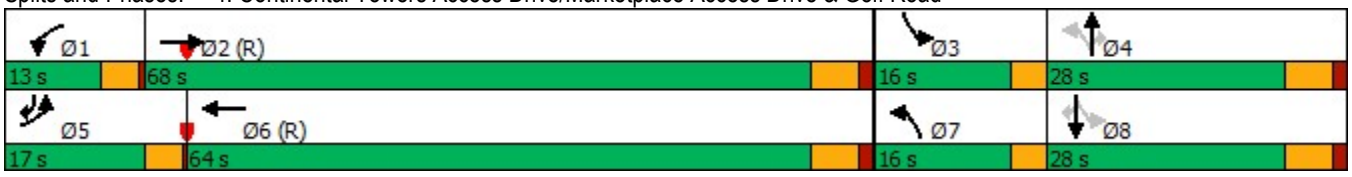
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	1162	9	4	1172	266	32	7	5	256	4	165
Future Volume (vph)	184	1162	9	4	1172	266	32	7	5	256	4	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	235		0	225		0	130		0	0		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	190			75			120			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.972				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5131	0	1805	5001	0	1805	1900	1615	1805	1900	1615
Flt Permitted	0.950			0.950						0.625		
Satd. Flow (perm)	1805	5131	0	1805	5001	0	1900	1900	1615	1188	1900	1615
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		705			1194			297			250	
Travel Time (s)		12.0			20.4			6.8			5.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	194	1232	0	4	1514	0	34	7	5	269	4	174
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	Perm	pm+pt	NA	pm+ov
Protected Phases	5	2		1	6		7	4		3	8	5
Permitted Phases							4		4	8		8
Detector Phase	5	2		1	6		7	4	4	3	8	5
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	15.0		3.0	8.0	8.0	3.0	8.0	3.0
Minimum Split (s)	9.5	46.0		9.5	36.0		9.5	28.0	28.0	9.5	24.0	9.5
Total Split (s)	17.0	68.0		13.0	64.0		16.0	28.0	28.0	16.0	28.0	17.0
Total Split (%)	13.6%	54.4%		10.4%	51.2%		12.8%	22.4%	22.4%	12.8%	22.4%	13.6%
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	3.5
All-Red Time (s)	0.5	1.5		0.5	1.5		0.0	1.5	1.5	0.0	1.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0		4.0	6.0		3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	22.3	95.0		5.9	70.8		14.5	8.3	8.3	15.4	9.6	32.3
Actuated g/C Ratio	0.18	0.76		0.05	0.57		0.12	0.07	0.07	0.12	0.08	0.26

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.60	0.32		0.05	0.53		0.16	0.06	0.05	1.30	0.03	0.42
Control Delay	49.8	4.5		51.8	15.4		45.3	55.6	55.4	206.8	53.5	42.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	4.5		51.8	15.4		45.3	55.6	55.4	206.8	53.5	42.5
LOS	D	A		D	B		D	E	E	F	D	D
Approach Delay		10.7			15.5			48.0			141.5	
Approach LOS		B			B			D			F	
Queue Length 50th (ft)	127	36		4	145		26	5	4	~301	3	132
Queue Length 95th (ft)	m158	121		m5	163		51	21	18	#360	15	165
Internal Link Dist (ft)		625			1114			217			170	
Turn Bay Length (ft)	235			225			130					
Base Capacity (vph)	322	3899		129	2834		258	334	284	207	334	416
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.32		0.03	0.53		0.13	0.02	0.02	1.30	0.01	0.42

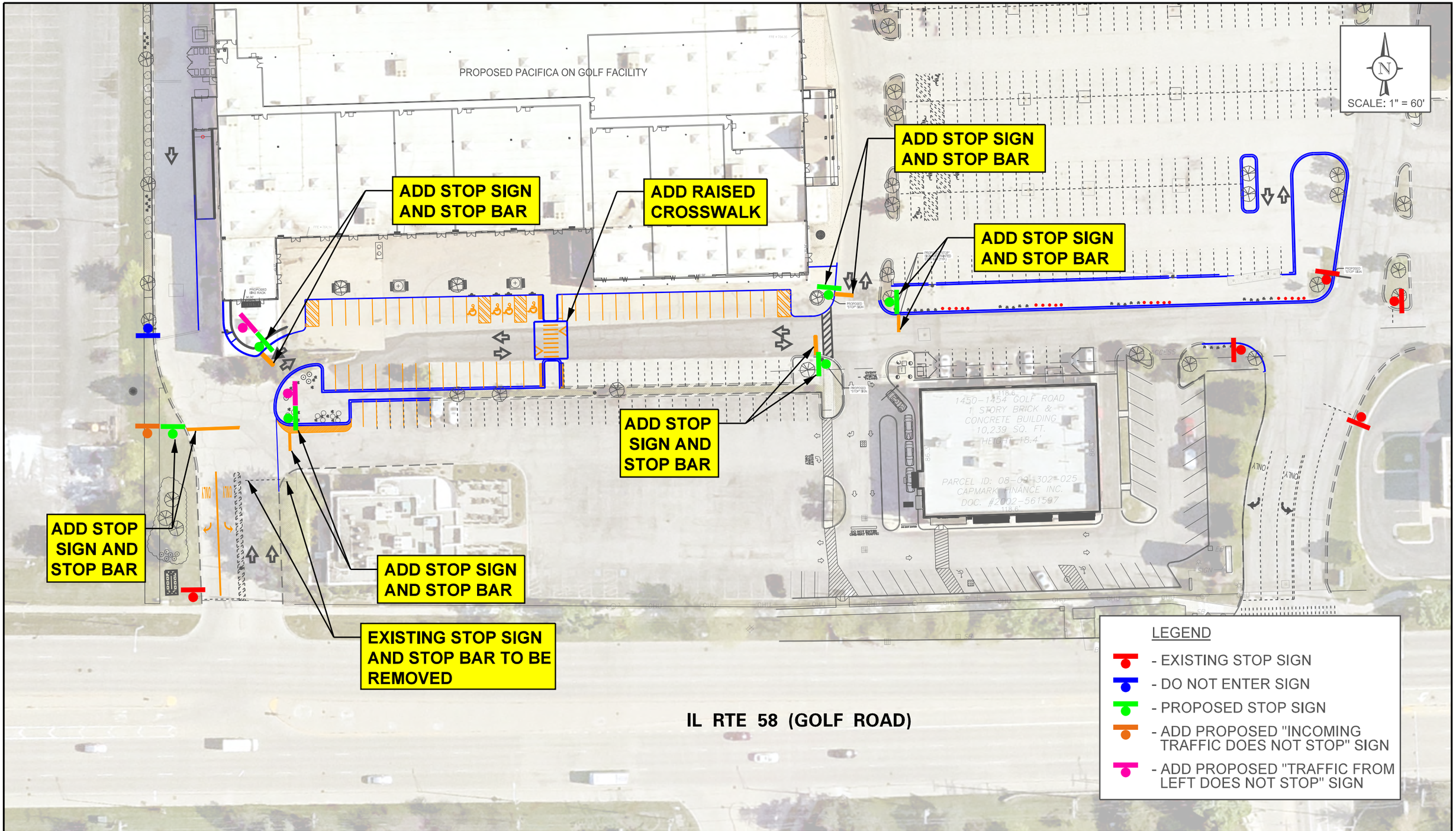
Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Offset: 18 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.30
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Continental Towers Access Drive/Marketplace Access Drive & Golf Road



Preliminary Geometric Plan



PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

PRELIMINARY GEOMETRIC PLAN

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
EXHIBIT: A1

CHECKED: LA
REV: 04-15-24

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

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

26'

9'

18'

24'

4'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

PRELIMINARY GEOMETRIC PLAN

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 04-15-24
EXHIBIT: A2

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

AutoTurn Exhibits

PROPOSED PACIFICA ON GOLF FACILITY

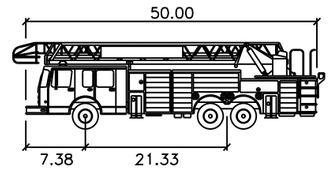
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

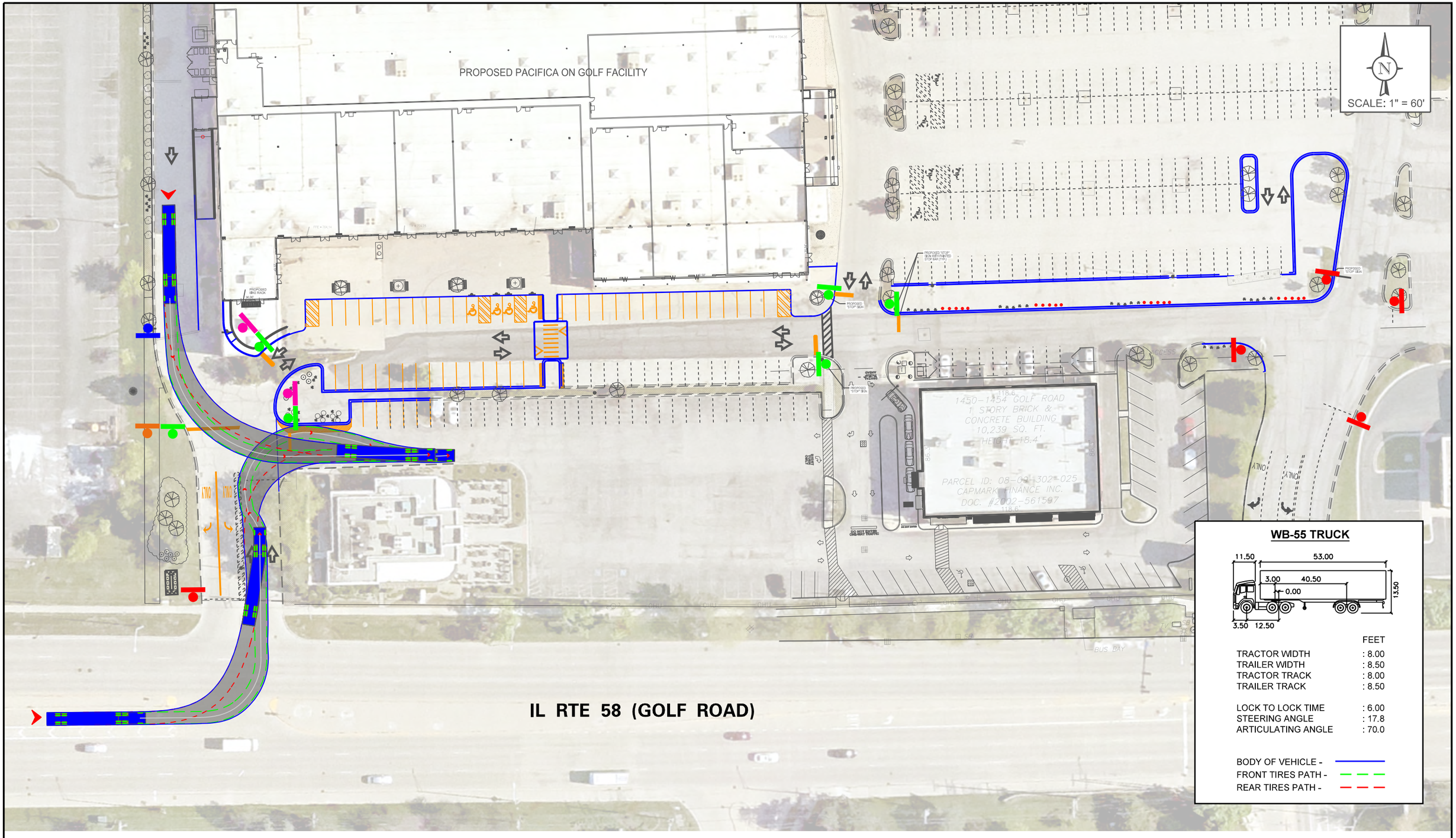
BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 04-15-24
PROJECT #: 23-270
EXHIBIT: B1

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



PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK INBOUND MANEUVERS

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 04-15-24
EXHIBIT: C1

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

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK &
CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

PROPOSED "STOP" SIGN WITH PAINTED STOP BAR (TYP.)

PROPOSED "STOP" SIGN

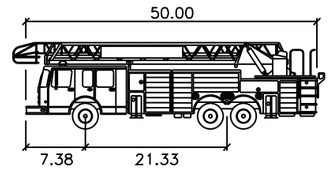
PROPOSED BIKE RACK

ONLY

ONLY

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

BODY OF VEHICLE -

FRONT TIRES PATH -

REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 04-15-24
PROJECT #: 23-270
EXHIBIT: B2

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

PROPOSED PACIFICA ON GOLF FACILITY

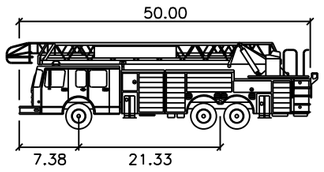
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 04-15-24
PROJECT #: 23-270
EXHIBIT: B2

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

PROPOSED PACIFICA ON GOLF FACILITY

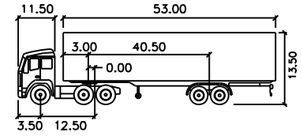
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-02-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
ARTICULATING ANGLE	: 70.0

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

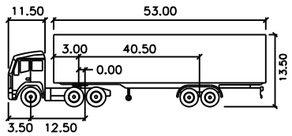
PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK INBOUND MANEUVER

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 04-15-24
EXHIBIT: C2

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

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
ARTICULATING ANGLE	: 70.0

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK OUTBOUND MANEUVERS

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 04-15-24
EXHIBIT: C3

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

MEMORANDUM

To: Jerry Albom, Cristal Hayes and Jan Zheng
From: William S. Bazianos, Esq.
Re: Pacifica Rolling Meadows Property
Dated: November 21, 2023

THE FOLLOWING IS A BRIEF SUMMARY OF THE DECLARATIONS THAT AFFECT THE PACIFICA ROLLING MEADOWS PROPERTY AS THEY RELATE TO PARKING AND UTILITY REPAIRS.

A. Parking, Ingress, and Egress

Section 3.01 of that certain Declaration of Covenants, Restrictions and Easements dated June, 1999 and recorded June 23, 1999 as document no. 99606491 made by Republic Bank of Chicago, as Trustee under Trust Agreement dated July 22, 1997 and known as Trust Number 1391 and as created by the Deed from Republic Bank of Chicago as Trustee under Trust Number 1391 to First American Bank dated July 10, 2000 and recorded July 27, 2000 as document 00568873 and attached hereto as Exhibit A ("Parking Declaration"), grants the Pacifica Rolling Meadows Property with a non-exclusive easement to use the common areas [meaning all areas of the Shopping Center, except for for the purposes for which they are provided and intended, including, but not limited buildings] for (a) ingress, egress, access, loading and unloading, parking and vehicular and pedestrian traffic, including commercial vehicular traffic such as delivery trucks, upon or across, as applicable, the parking areas, entrances, exits, driveways, walks or service drives located within the common areas; (b) installation, operation, maintenance and use of sanitary sewers storm drains, detention basins, whether underground or at grade, water, electric and gas lines, telephone lines, vaults, conduits and transformers and other utility lines and related facilities (which shall be located underground whenever feasible); and (c) use of landscaping, direction signs and other areas intended for common use, over the land as described in Parking Declaration.

B. Maintenance

That certain Declaration recorded July 7, 1976 as document number 23549143 made by J.C. Penney Properties, inc., a Delaware corporation and attached hereto as Exhibit B ("Maintenance Declaration") grants the Pacifica Rolling Meadows Property the right to use, maintain, repair, replace and relocate utilities in the Shopping Center. Section 6 of the Maintenance Declaration further provides as follows with respect to utility repair:

> ". . . Owners of the Parcels shall maintain, repair and replace, if necessary, the Utility or the portions thereof traversing their respective Parcels, and, except for repairs or replacements caused by their negligence of one or more parties, the cost of such maintenance, repair and replacement shall be borne by the Owner of each Parcel served thereby in the proportion which the floor area of the buildings within such Owner's Parcel bears to the total floor area of all buildings within the Parcels served thereby."

EXHIBIT A

Parking Declaration

99606491

5876/0227 67 001 Page 1 of 40
1999-06-23 15:08:46
Cook County Recorder 99.00

DECLARATION

OF

COVENANTS, RESTRICTIONS AND EASEMENTS

for

The MarketPlace of Rolling Meadows

Drafted by and when
recorded return to:

Jeffrey Jahns
Seyfarth, Shaw, Fairweather
& Geraldson
55 East Monroe Street
Suite 4200
Chicago, Illinois 60603
Recorder's Box No. 118

20004261.3

BOX 333-CTI

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EXHIBIT D - Minimum Floor Areas .....

EXHIBIT E - Pylon Sign .....

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DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS

DECLARATION of Covenants, Restrictions and Easements (this "**Declaration**") made as of the ___ day of June, 1999, by Republic Bank of Chicago, not personally, but as trustee under trust agreement dated July 22, 1997, and known as Trust No. 1391 ("**Developer**").

RECITALS:

A. Developer is the owner of a certain parcel of real property containing approximately 30.884 acres located in the City of Rolling Meadows, Cook County, Illinois, which real property is more particularly described on **Exhibit A** attached hereto and incorporated herein by reference (hereinafter referred to as the "**Shopping Center**"); and

B. Developer desires to impose on the Shopping Center and its owners, tenants, occupants and users hereafter from time to time certain obligations, covenants, restrictions and easements for the benefit of Developer, Owners and said future owners, tenants, occupants and to provide for the maintenance and operation of the Common Areas (as hereinafter defined).

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein set forth and to fulfill the foregoing objective, the Shopping Center is hereby subjected to this Declaration and the rights hereunder are reserved as follows:

ARTICLE I

DEFINITIONS

For purposes of this Declaration, the following terms shall, unless otherwise indicated, have the following meanings, and the use of the singular shall include the plural and vice versa:

1.01 Anchor Tenants: Wal-Mart, Sam's Club and such other entity occupying more than 100,000 square feet of Floor Area within a building hereafter located on the Shopping Center for so long as they are occupants of the Shopping Center, and thereafter any assignees or sublessees of their entire respective leaseholds.

1.02 Building Areas: Those areas within the Building Limit Lines depicted on **Exhibit B** hereto.

1.03 Common Areas: All areas of the Shopping Center (other than buildings and related building canopies, support columns, pilasters, overhangs and footings and appurtenant truck loading or delivery docks or areas, occupant trash collection areas, tunnels, ramps and wells), encompassing, without limitation, all public and common facilities erected on the Shopping Center (or on property adjacent to the Shopping Center but which, at least in part, services or benefits the Shopping Center) intended for common use, including but not limited to entrances, exits, driveways, access roads, parking areas, sidewalks, not specifically demised to a

tenant or other occupant of the Shopping Center, service drives, directional signs, lighting facilities, non-dedicated utility lines, drainage and detention basin facilities, perimeter screening walls, landscaped and greenbelt areas (including planters and sprinkler systems , if any, located between sidewalks and buildings or next to exterior building walls), not specifically demised to a tenant or other occupant of the Shopping Center, multi-tenant pylon signs, structures advertising the common name (if any) given to the Shopping Center and other facilities and areas intended for common use, as the same may exist from time to time in the Shopping Center, and also including the portions of any adjoining public rights of way (including sidewalks and parkways) that are not maintained, or the cost of which is not borne, by public authority.

1.04 Developer: Republic Bank of Chicago, not personally, but as trustee under trust dated July 23, 1997, and known as Trust No. 1391, its successors and assigns.

1.05 Floor Area: Floor area measured from the exterior surface of exterior walls and from the center of common walls or interior demising partitions, but excluding mezzanines.

1.06 Fun World Parcel: The area described and depicted as such, respectively, on **Exhibit C-1** and **Exhibit B**, attached hereto and made a part hereof; also, the same as Parcel 7.

1.07 Mortgage: Any mortgage or deed of trust or any leasehold mortgage.

1.08 Mortgagee: The mortgagee under any Mortgage and the beneficiary under any deed of trust.

1.09 Outlots: Outlot A and Outlot B collectively, as each is described and depicted as such, respectively, on **Exhibit C-2** and **Exhibit B**, attached hereto and made a part hereof.

1.10 Owner: Any Person who or which is the record owner of fee simple title to a Parcel or any portion thereof which is part of the Shopping Center, including tenants in common collectively.

1.11 Parcels or Parcel: The Shopping Center, each of the Outlots, each lot created by the Plat of Resubdivision of MarketPlace of Rolling Meadows, being a subdivision in the southwest quarter of Section 9 and the southeast quarter of Section 1 both in Township 41 North, Range 11 East of the Third Principal Meridian in Cook County, Illinois and recorded contemporaneously herewith and all parcels resulting from any further subdivision thereof, or any of such Parcels. "Parcel" with a numeral after it (e.g., Parcel 5) shall mean the Parcel designated with such numeral on **Exhibit B** hereto.

1.12 Person: An individual, partnership, firm, limited liability company, association, corporation, business trust, land trust or other form of entity.

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1.13 Pro Rata Share: Subject to the provisions of Section 4.03 below, with respect to any Parcel, a fractional share determined by the fraction, the numerator of which shall be the Floor Area of all buildings constructed on such Parcel and the denominator of which shall be the total Floor Area of all buildings in the Shopping Center. Notwithstanding the foregoing, (1) in the event a building hereafter constructed on a Parcel shall be destroyed or razed and not rebuilt, the numerator of the fraction used to calculate a Parcel's Pro Rata Share shall be, and the denominator of such fraction shall include, the Floor Area of such building immediately prior to it having been destroyed or razed; (2) until such time as there is a completed building on a Parcel, it shall be deemed that such Parcel is improved with a building having the square feet of Floor Area specified therefor on **Exhibit D** attached hereto and made a part hereof.

1.14 State: The State of Illinois.

ARTICLE II

LAND USE

2.01 Permitted and Prohibited Uses. Except as otherwise provided in this Declaration, the Shopping Center and any portion thereof shall be used, if at all, only for the construction, operation and maintenance thereon of retail stores selling retail merchandise normally carried in other shopping centers, restaurants, entertainment and/or amusement centers, indoor automobile fast service ("while you wait") facilities, financial institutions, retail service establishments common to first-class family-type retail shopping centers (including medical, dental and insurance offices), and related facilities common to first-class family-type retail shopping centers, and for Common Areas relating to and necessary to the operation of the foregoing. The Shopping Center and any portion thereof shall not be used for:

(a) warehousing, industrial or manufacturing purposes (except for the storage and/or manufacture of such goods as are required as a necessary incident to the conduct of a particular retail business);

(b) night club, "disco" or dance hall;

(c) residential purposes;

(d) offices, except if incidental and subordinate to and supporting a use permitted in this Section 2.01;

(e) health club, racquet club, gymnasium or massage parlor;

(f) school, meeting hall, auditorium or like place of assembly;

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(g) establishment selling cars, trucks, trailers, boats or mobile homes from inventory on the Shopping Center;

(h) flea market; off-track betting facility (except for the incidental sale of lottery tickets); sale of pornographic material; library or reading room; funeral parlor; a trailer court; junk yard; animal raising; veterinary hospital with exterior facilities;

(i) commercial laundry or dry cleaning plant; laundromat; and

(j) theater, billiard parlor (except incidental to a restaurant) or bowling alley.

2.02. Exclusions. (a) Except with the written approval of Developer in each instance, no part of the Shopping Center, other than Parcel 2, may be used for a hamburger theme or Mexican theme restaurant offering full table service, alcoholic beverages, a per person check average of Seven Dollars ($7.00) to Fourteen Dollars ($14.00) (based upon calendar year 1998 prices), as such amounts may be adjusted from time to time during the term hereof for changes in the Consumer Price Index for the region in which the Premises are located or such other similar index as may be published for that region if the Consumer Price Index ceases to be published, including, without limitation, Applebee's, Bennigan's, Cheddar's, Houlihan's, Logan's Roadhouse, O'Charley's, Red Robin, Ruby Tuesday's or TGI Friday's.

(b) In addition, no part of the Shopping Center, other than the Fun World Parcel, may have as its primary use a youth-oriented indoor entertainment business that does not have the exhibition of motion pictures or food service as a principal use, provided, however, that this exclusion shall cease to apply six (6) months after an entertainment business is discontinued on the Fun World Parcel.

(c) Except with the written approval of Developer in each instance, no part of the Shopping Center, other than Parcel 10, may be used for the operation of an automobile service facility that provides automobile oil changes or lubrications as a fundamental part of its business. (For the purpose of the foregoing sentence, an automobile service facility shall be deemed to be providing oil changes and lubrications as a fundamental part of its business if more than ten percent (10%) of its annual gross revenues are derived from providing oil change and lubrication services.) This grammatical paragraph shall in no event apply with respect to any tenants and/or Owners (and their successors and assigns) that (i) now or hereafter occupy more than twenty thousand (20,000) square feet of Floor Area, or (ii) have executed leases or any other documents that provide them with an ownership or possessory interest in any land or floor area within the Shopping Center prior to or as of the date of this Declaration, or (iii) have executed leases or any other documents that provide them with an ownership or possessory interest in any land or floor area within the land adjoining the Shopping Center prior to or as of the date on which the Developer acquires title to such land; provided, however, that with respect to those tenants and Owners that are excluded from the effect of this grammatical paragraph by virtue of clause (ii) or clause (iii) above, then, if any such tenant or Owner desires to change the use of its land or floor

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area within the Shopping Center to one which would otherwise be subject to the restrictions set forth in this grammatical paragraph, Developer may exercise whatever control it may legally possess.

(d) Except with the written approval of Developer in each instance, no part of the Shopping Center, other than Parcel 6, may be leased, subleased, operated or otherwise used for the operation of a buffet-style restaurant, or a cafeteria or cafeteria-style restaurant; provided, that the foregoing will not apply to or restrict any of the following: (i) the Fun World Parcel; (ii) any department store having an undivided Floor Area greater than 25,000 square feet where such restaurant use is incidental to a primary retail use; (iii) Parcels 2 and 10.

(e) Sales of alcohol on Parcel 4 that are intended for on premises consumption shall be permitted only as long as such sales are incidental to some other use conducted on Parcel 4. This provision shall terminate once OCB Realty Co. ceases to operate a restaurant on Parcel 6.

2.03 No Interference with Common Areas. No use of the Shopping Center shall be made which shall interfere with the use of the Common Areas within the Shopping Center for the purposes for which they were intended as provided in this Declaration or impede the free flow of vehicular or pedestrian traffic thereon, except for an outdoor selling area and trash enclosures as shown on **Exhibit B** hereto, for the exclusive use of the Owner of such Parcel and its tenants and their agents, contractors and customers.

2.04 Conformity to Site Plan. The Owners agree to the extent they develop their respective Parcels, such development shall be in accordance with the site plan attached hereto as **Exhibit B**. Any changes to Common Areas and Building Areas as shown on said **Exhibit B** may be made only with the prior written consent of the Developer, which consent shall not be unreasonably withheld, conditioned or delayed, but which consent shall not be given where to do so would permit a condition that violates any instrument binding on any Owner; provided, however, that minor modifications of an immaterial nature to the Common Areas may be made by an Owner on such Owner's Parcel without such consent if such changes do not alter the visibility of signs within the Common Areas and do not materially alter traffic flow, visibility, or parking arrangements (except as otherwise provided in Section 3.02) upon or access with respect to the Shopping Center.

2.05 Hazardous Substances. (a) The term **"Hazardous Substances"** shall mean: (a) polychlorinated biphenyls (**"PCBs"or "PCB items"** (as defined in 40 C.F.R. Sec. 761.3)) or any equipment which contains PCBs; (b) any asbestos or asbestos-containing materials; (c) stored, leaked or spilled petroleum products; or (d) any other chemical, material or substance (i) which is regulated as a **"toxic substance"** (as defined by the Toxic Substance Control Act, 15 U.S.C. Sec. 2601 et seq., as amended), (ii) which is a **"hazardous waste"** (as defined by the Resource Conservation and Recovery Act, 42 U.S.C. Sec. 6901 et seq., as amended), (iii) which is a **"hazardous substance"** (as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. Sec. 9601 et seq., as

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amended), or (iv) exposure to which is prohibited, limited or regulated by any federal, state, county, regional, local or other governmental statute, regulation, ordinance or authority, which, even if not so regulated, may or could pose a hazard to the health and safety of the occupants of or invitees to the Shopping Center or the property adjacent to the Shopping Center.

(b) No Owner shall install, use, generate or dispose of or allow any of its tenants or any third party to install, use, generate or dispose of on or about the Shopping Center any Hazardous Substances, except for immaterial quantities of Hazardous Substances customarily used in the construction, maintenance or operation of like properties which have been and should be used in accordance with applicable laws, statutes, regulations and ordinances then in effect.

ARTICLE III

RECIPROCAL EASEMENTS; COMMON AREAS

3.01 Grant and Declaration of Reciprocal Easements. Developer hereby reserves to itself and grants to the other Owners from time to time for the benefit of Developer, the other Owners and the other Owners' respective Mortgagees, lessees, sub-lessees, employees, agents, customers, licensees and invitees, and for the benefit of each of the Parcels within the Shopping Center, permanent, mutual, reciprocal and non-exclusive easements and rights to use the Common Areas for the purposes for which they are provided and intended, including, but not limited to, (a) ingress, egress, access, loading and unloading, parking and vehicular and pedestrian traffic, including commercial vehicular traffic such as delivery trucks, upon or across, as applicable, the parking areas, entrances, exists, driveways, walks or service drives located within the Common Areas; (b) installation, operation, maintenance and use of sanitary sewers, storm drains, detention basins, whether underground or at grade, water, electric and gas lines, telephone lines, vaults, conduits and transformers and other utility lines and related facilities (which shall be located underground whenever feasible); and (c) the use of landscaping, direction signs and other areas intended for common use. Notwithstanding the foregoing reservation and grant to the contrary, an Anchor Tenant on Parcel 1 shall have the exclusive right, so long as its lease for such Parcel is in effect, and except as may be approved by Developer in writing, to use that portion of such Parcel designated "Outdoor Sales Area" on **Exhibit B** hereto and such other portion of Parcel 1 as Developer may permit from time to time.

3.02 Parking Areas. There shall be constructed and at all times be maintained on the Shopping Center parking spaces for at least four (4) automobiles for each 1,000 square feet of gross square footage of Floor Area of all buildings constructed on the Shopping Center. There shall be no change in parking layout or pattern of traffic flow within the Shopping Center from that depicted on **Exhibit B** without the prior written consent of the Developer, which consent shall not be unreasonably withheld, conditioned or delayed; minor modifications of an immaterial nature may be made to the parking layout by an Owner on such Owner's Parcel without such consent if such changes do not materially alter traffic flow. No Owner or occupant

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of any Parcel may designate parking spaces on any Parcel as reserved parking, other than for handicapped.

3.03 Unimproved Building Areas as Common Area. Any portion of the Building Areas from time to time not occupied by a building or buildings, loading dock or docks, customer pick-up or trash compactor area or otherwise exclusively appropriated to the use of the Owner of a particular Parcel (or to the use of a tenant(s) of such Owner), shall, until such time as construction is commenced thereon, be deemed "**Common Areas.**" Nothing contained in this Section 3.03 shall be deemed to prohibit any Owner from building on any Building Area, even though such Building Area may have previously been included within the Common Areas.

3.04 Temporary Use of Common Areas during Construction and for Maintenance and Repair. In connection with work performed at the Shopping Center, incidental encroachments upon the Common Areas as a result of the use of construction equipment such as contractor sheds, ladders, scaffolding, storefront barricades, and similar facilities resulting in temporary obstruction of portions of the Common Areas shall be permitted hereunder so long as they are kept within reasonable requirements of construction or maintenance repair work expeditiously pursued.

3.05 Barriers and Traffic Control. Except as provided in Section 3.04 above, no walls, fences, or barriers of any sort or kind shall be constructed or maintained in the Common Areas of the Shopping Center, or any portion thereof, which shall prevent or impair the use or exercise of any of the easements granted herein, or the free access and movement, including without limitation, pedestrian and vehicular traffic, between the various Parcels; provided, however, reasonable traffic controls as may be necessary to guide and control the orderly flow of traffic may be installed so long as access driveways to the parking areas in the Shopping Center are not closed or blocked and the traffic circulation pattern of the Common Areas, as depicted on **Exhibit B** hereto, is not changed or affected in any way, unless the prior written approval of the Developer is first obtained.

3.06 Easement for Minor Encroachments. Developer hereby reserves to itself and grants to other Owners from time to time the non-exclusive right (a) to install, maintain and repair footings and underground supports which extend not more than three (3) feet beyond the boundaries of the respective Building Areas and (b) to maintain such other minor encroachments as do not interfere with ingress, egress, circulation or parking.

3.07 No Easements beyond Shopping Center. No Owner shall grant an easement or easements of the type set forth in this Article III for the benefit of any property not within the Shopping Center without the prior written consent of the Developer.

3.08 Rules and Regulations. The Developer may from time to time promulgate, maintain, delete and amend such rules and regulations as shall be useful in preserving the objectives of the Shopping Center and promoting the common good of the Owners. Each Owner

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agrees to abide by such rules and regulations and to enforce same against its tenants and occupants, and the Developer may enforce such rules and regulations, the expense of which shall be a CAM Expense (as hereinafter defined).

ARTICLE IV

OPERATION AND MAINTENANCE OF COMMON AREAS

4.01 Responsibility for Maintenance. Upon completion of construction of the improvements on the Common Areas or any portion thereof, the Developer shall, during the term of this Declaration, operate, maintain, repair and, as necessary, replace, or cause to be operated, maintained, repaired and replaced all Common Areas and shall keep the same, or cause the same to be continuously kept presentable, in good condition and repair (consistent with standards of maintenance for the operation of a first class shopping center in the Chicago metropolitan area), in a neat, orderly, sanitary, safe and sound condition, clean and free of rubbish, debris, and other hazards to Persons using the same, and in compliance with all applicable governmental laws, codes, ordinances, rules and regulations. Such maintenance, operation, repair and replacement shall include, but not be limited to, the following:

(a) The care and replacement of all shrubbery, plantings, and other landscaping;

(b) Maintenance, repair and replacement of concrete and asphalt paving and other surface materials used on drives, parking areas and walkways using, to the extent reasonably possible, the same type of material originally installed, to the end that drives, parking areas and walkways are at all times kept in a level, smooth and substantially uniform condition;

(c) Marking, striping and directional signing of all parking areas;

(d) Maintenance, repair and replacement of common electrical and other common utility equipment, fixtures, and facilities, including lighting in the Common Areas, and electric light replacements;

(e) Payment of all electrical, water and other utility charges or fees for services furnished to Common Areas and provision of adequate security service if determined to be necessary or desirable;

(f) Snow removal, when and if necessary, and sweeping and removal of rubbish and debris;

(g) Maintenance, repair and replacement of all detention areas;

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(h) Common Area casualty insurance with respect to the improvements constituting the Common Areas and Common Area liability insurance as provided in Section 4.05; and

(i) Maintenance and repair of the Shopping Center pylon and monument signs, if any, including lighting Shopping Center identification signs erected thereon (which shall not include individual occupant or tenant identification signs, if any, erected thereon, which shall be maintained by such occupants or tenants at their sole cost and expense).

4.02 Reimbursement of Common Area Expenses. (a) The Owner of each Parcel in the Shopping Center shall reimburse the Developer for its Pro Rata Share of the costs for the maintenance, operation, repair and replacement of, and the insurance for, the Common Areas (the "CAM Expenses"). CAM Expenses shall include the following: (1) all amounts paid for cleaning and sweeping (which shall be performed as often as necessary), restriping (which shall be done not less than once every two years), resurfacing, repairing of the parking areas, sidewalks and driveways, including snow and ice removal, which shall be performed as often as necessary; (2) maintenance, repair and replacement of planted or landscaped areas; (3) maintenance, repair and replacement of detention areas; (4) maintenance, repair and replacement of bulbs and light standards with respect to the Common Area parking lot lighting and electrical cost of such lighting to the extent same is not metered directly into an Owner's meter; (5) wages and salaries of persons directly and actually performing services described herein; (6) administrative expenses not to exceed fifteen percent (15%) of an Owner's Pro Rata Share of CAM expenses (excluding this item 6) in the event Developer elects to undertake direct management of the Shopping Center or the cost of an outside management company; (7) the amortized portion of capital expenditures, provided, that such amortization is made over the estimated useful life of the item for which such expenditure is made, including all financing costs associated therewith; (8) maintenance, repair and replacement of non-dedicated utility lines; (9) permit fees relating to maintenance of the Common Areas; (10) liability and property insurance coverage for the Common Areas; (11) professional fees; and (12) costs in enforcing or seeking to enforce the terms of this Declaration.

(b) Anything to the contrary notwithstanding contained herein, CAM Expenses shall not include the following:

(i) Any expenses in connection with the original construction and installation of the Common Areas or in connection with the construction and installation of any additions to the land area of the Shopping Center;

(ii) Rubbish removal or any other service for some but not all of the Shopping Center occupants, which costs shall be billed solely to the Owner or occupant for whom such removal or service is performed pursuant to the request of the Owner or occupant of the affected Parcel;

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(iii) Any cost for which Developer has been reimbursed from insurance or condemnation proceeds or under any contractor warranty;

(iv) Rent, if leased, or amortization, if purchased, for machinery and equipment used by the Developer in performance of its obligations hereunder, except to the extent such machinery and equipment is used exclusively at the Shopping Center, or, if not exclusively used at the Shopping Center, only to the extent actually used at the Shopping Center;

(v) Any real estate taxes;

(vi) Utility charges for the Common Areas where such utility is separately metered and billed to any building in the Shopping Center; and

(vii) Any impact fees levied in connection with the initial construction on the Shopping Center.

Notwithstanding the foregoing provisions, CAM Expenses shall include all emergency expenditures which shall mean all reasonable expenditures made by the Developer in connection with the Common Areas in order to rectify or mitigate any condition that imposes a real and immediate risk of injury to person or serious and irreparable damage to property.

(c) The Developer may cause any or all of the above-mentioned services to be provided by an independent contractor or contractors.

(d) Each Owner shall be responsible to reimburse the Developer for the Pro Rata Share of CAM Expenses as follows: The Owner of each Parcel shall be invoiced not more often than monthly for its Pro Rata Share of CAM Expenses incurred or reasonably estimated to be incurred by Developer during the applicable billing period. Such invoices shall be due and payable within twenty (20) days after billing. To the extent that Developer's annual cumulative receipts under this provision shall exceed annual cumulative CAM Expenses, such excess shall be held in trust for application to future CAM Expenses or refund to the Owners. Developer shall account to the Owners, not less often than annually concerning CAM Expenses and payments in request thereof. In the event an Owner shall not timely pay its Pro Rata Share, (i) such defaulting Owner shall pay to Developer, in addition to such Pro Rata Share, an amount equal to the sum of (A) one percent (1%) of such unpaid amount for each month or portion thereof such Pro Rata Share is not timely paid, (B) an administrative fee of the greater of $500 or five percent (5%) of such unpaid amount not timely paid, and (C) attorneys' fees and court costs in collecting said sums, and (ii) Developer may include in CAM Expenses for the non-defaulting Owners on a proportionate basis in accordance with their respective Pro Rata Shares, such amount as is necessary to compensate for the defaulting Owner's failure to pay its Pro Rata Share, and if it does so, it shall credit to such non-defaulting Owners paying such additional

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CAM Expenses the excess of its receipts from the defaulting Owner pursuant to clause (i) above over its actual, including administrative and interest, costs incurred due to such delinquency.

(e) Any Owner may, upon thirty (30) days notice, have the Developer's records of CAM Expenses for the previous twelve (12) month period audited by its accountant. Should such audit disclose any overpayment by any Owner, the Developer shall remit said overpayment upon demand.

4.03 Right to Self-Maintain. Owners of any Outlot or any Parcel occupied by one or more of the Anchor Tenants, shall be entitled to elect to undertake all of the obligations of Developer pursuant to this Article IV on or pertaining to the Parcel of such Owner by notice to Developer to such effect, provided, however, that such election shall not extend to any shopping center pylon or monument sign, without Developer's written approval. Upon such election anything in this Article IV or Section 1.13 notwithstanding:

(a) such Owner shall be so obligated for the benefit of the other Owners and Developer, and shall perform such obligations relating to the appearance of the Shopping Center, including hours of lighting, so as not to be disharmonious with the rest of the Shopping Center,

(b) the Developer shall be relieved of any liability therefor,

(c) such Owner, provided it fully performs such obligations, shall not be liable for CAM Expenses, except as set forth below,

(d) other Owners shall not be obligated to reimburse or otherwise pay for or contribute to such Owner's work,

(e) the Floor Area located within such electing Owner's Parcel shall be excluded from the Floor Area of the Shopping Center for purposes of computing the other Owners' Pro Rata Share of CAM Expenses.

The foregoing shall be equitably adjusted to account for the situation where some but not all of the Developer's obligations are performed by such Owner.

4.04 Common Area Liability Insurance. The Developer shall maintain or cause to be maintained conventional insurance against statutory and common law liabilities for damage to property or injuries, including loss of life, sustained by any person or persons within or arising out of the use of Common Areas, whether caused by any Owner's or tenant's or their respective agents', guests', invitees' or customers' negligence or otherwise. Such policy shall provide comprehensive general liability coverage on an occurrence basis with personal injury, broad form property damage, personal liability, contractual liability and employer liability coverages. Such policy shall be endorsed to remove the XCU Exclusion relating to explosion collapse and

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underground property damage, have coverage limits in at least the amount of $5,000,000.00 for each occurrence.

The policy shall provide that it shall not be cancelled or amended without at least thirty (30) days prior written notice to the Owners and any Owner's Mortgagees or tenants of which the Developer has been given notice and for which an address has been furnished as additional insured(s). Such policy shall name the Owners and any Owner's mortgagees and tenants of which the Developer has been given notice and for which an address has been furnished as additional insured(s). Certificates of such insurance shall be delivered to the Owners not less than fifteen (15) days prior to the expiration date of the expiring policy.

4.05 Common Area Hazard Insurance. The Developer shall maintain or cause to be maintained property insurance against loss by fire and other hazards covered by the so-called "all risk" casualty policy covering the Common Areas on a full replacement cost basis and in an amount sufficient to avoid application of any co-insurance clause.

4.06 General Insurance Provisions. All policies of insurance required by this Declaration shall be carried with reputable and financially responsible companies licensed to do business in the State and may be carried by blanket or umbrella policies otherwise meeting the requirements of this Declaration that allocate, to the property and liabilities required to be insured by this Declaration, amounts not less than insurance amounts required under this Declaration. Anchor Tenants having a net worth in excess of One Hundred Million Dollars ($100,000,000.00) may self-insure. In the event any coverage provided for in this Declaration is not available or is available but on terms so unacceptable that prudent landlords or tenants generally do not carry such insurance, then in lieu of such insurance the pertinent party may carry the most comparable insurance that is available and generally carried by prudent parties.

4.07. Limitation on Developer Responsibility. It is a condition of Developer's acceptance of its obligations hereunder that Developer has and shall have no obligation whatsoever to expend its own funds in the performance of any of its obligations hereunder, including without limitation, Common Area maintenance and insurance procurement, and that such obligations exist only to the extent of funds received from Owners for such purposes.

4.08 Indemnification. Each Owner agrees to indemnify and hold harmless Developer from any cost or expense (including reasonable attorneys' fees, court costs and litigation expenses), judgment, claim or award incurred by or charged against Developer (in its capacity as such) arising out of any personal injury, death or damage to property on or about the Shopping Center in excess of the amount thereof covered and paid for by any insurance included in CAM Expenses.

4.09 Real Estate Taxes. Each Owner shall be responsible for and pay timely any and all real estate taxes and special assessments now or hereafter levied or assessed against such Owner's Parcel, including all common area improvements thereon.

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ARTICLE V

UTILITIES

5.01 Location of Utility Lines. There is hereby reserved to Developer and granted to each Owner easements for utility purposes as depicted on Exhibit B hereto. Except as specified in **Exhibit B** hereto, the location of all utility lines and related facilities in the Common Areas shall be subject to the prior written approval of the Owner over or under whose Parcel or leased premises the same is to be located, which consent shall not be unreasonably withheld or delayed. If requested by any utility company or an Owner upon completion of construction of such utility facilities, the Owners of Parcels affected thereby shall join in the execution of an easement agreement, in recordable form, appropriately identifying the type and location of such respective utility facility.

5.02 Relocation. The Owner of any Parcel shall have the right from time to time to relocate on its Parcel any such utility lines, easements and related facilities then located on its Parcel, provided that such relocation shall be performed only after thirty (30) days notice of such Owner's intention to so relocate shall be given to the Owners of the Parcels benefitting from such utility line, and such relocation: (a) shall not interfere with or diminish the utility services to the benefitted Parcels; (b) shall not reduce or unreasonably impair the usefulness or function of such utility; and (c) shall be performed without cost or expense to the Owners of the benefitted Parcels.

ARTICLE VI

BUILDING DESIGN AND CONSTRUCTION

6.01 Building Design and Construction. The initial construction of each building or other improvement (including signs) from time to time constructed in the Shopping Center shall be in accordance with exterior elevation plans approved by the City of Rolling Meadows. Any modifications to such initial construction shall be subject to the prior written approval of the Developer, which approval shall not be unreasonably withheld, conditioned or delayed. No such modifications to the elevation and exterior appearances, including changes of materials and colors, for buildings in the Shopping Center shall take place prior to such Developer's approval; provided, however, the Developer shall not withhold its consent to requested modifications to the elevation and exterior appearance of a building within the Shopping Center if such requested modification is consistent with the elevation and exterior appearances of the then national prototype building of the particular Owner or tenant seeking the modification to its building and is consistent with a first-class shopping center. All construction, alteration, and repair work shall be accomplished in an expeditious manner, in compliance with all laws, rules, regulations, orders, permits, approvals and licenses of governmental authorities having jurisdiction and, after the initial construction of the Shopping Center and except in the case of an emergency, to the

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extent exterior work or equipment is involved shall not take place during the time period between November 15 and January 15. The Owner undertaking such work shall take all necessary measures to minimize any disruption or inconvenience caused by such work. Such work shall be accomplished in such a manner as to minimize any damage or adverse effect which might be caused by such work to any other Person or to the Parcel on which the work is being done or any other Parcel in the Shopping Center. The Owner undertaking such work shall repair at its own cost and expense any and all damage caused by such work and shall restore the affected portion of any affected Parcel to a condition which is equal to or better than the condition which existed prior to the beginning of such work. In addition, the Owner undertaking such work shall promptly pay all costs and expenses associated therewith and shall indemnify and hold all Owners harmless from all damages, losses, or claims, including reasonable attorneys fees, attributable to the performance of such work. After initial construction on a Parcel and except in cases of emergency or the prior consent of all Owners, all such work shall be undertaken only after giving all Owners thirty (30) days' prior written notice of the work to be undertaken, the scope and nature of the work, the duration of the work, and the area in which the work is to be performed.

6.02 Building Height. No building or other improvement located in the Shopping Center shall exceed a height of one story, plus mezzanine.

6.03 Location of Buildings. Subject to the restrictions set forth in this Declaration, including, without limitation, the provisions of Sections 2.03 and 3.02, all buildings and structures on any Parcel shall be constructed only in the Building Areas. No buildings or structures shall be constructed in the Shopping Center within the Common Areas, except pylon signs, monument signs, directional signs, bumper guards or curbs, landscape planters, lighting standards, and any other landscaping or other improvements as may be required under applicable controls and regulations of the City in which the Shopping Center is located or as shown on **Exhibit B** hereto. In addition, subject to governmental requirements and the provisions of Section 6.01, any Owner may construct, install, repair, remove, replace and maintain canopies and marquees (with signs which may be affixed thereto, subject to Article VII hereof) which may encroach a reasonable distance (not to exceed fifteen (15) feet) over or upon, as the case may be, the sidewalks and walkways contiguous to the Building Area and within such Owner's Parcel.

6.04 Maintenance of Buildings. The Owner of each Parcel in the Shopping Center shall maintain, or cause to be maintained, in a safe, clean and tenantable condition and in good order and repair, consistent in manner and appearance with a first-class shopping center, all buildings (including, but not limited to, all loading docks, truck facilities, truck storage and compactor areas) located on its respective Parcel. If a building or other structure on any Parcel shall be damaged or destroyed, the Owner thereof shall promptly repair, restore or rebuild in accordance with this Declaration, or promptly demolish such building or structure and landscape the surface thereof, which shall not be the same as the surrounding Common Areas, with grass or other plantings.

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6.05 Maintenance of Vacant Building Areas. Until such time as buildings or improvements are constructed on any Building Area in the Shopping Center, each Owner shall take or cause to be taken such measures as may be necessary to control weeds, blowing dirt and sand, and similar matters, with respect to the undeveloped Building Area located on its Parcel. On or before the expiration of one (1) year following the commencement of construction on any of the Parcels, each Owner having unimproved Building Area on its Parcel shall at its expense either (a) fence off such area so as to prohibit access thereto and visibility thereof, or (b) grade and pave or sod such area so that such area shall be visually harmonious with the remainder of the Shopping Center. If an Owner shall fail to take or cause to be taken such measures upon thirty (30) days prior written notice, the other Owners, or any of them, may take such measures and shall be entitled to reimbursement from the Owner of said undeveloped Building Area for their expenses in connection therewith.

6.06 Mechanic's Liens. If because of any act or omission (or alleged act or omission) of an Owner, its employees, agents, contractors or subcontractors, any mechanic's or other lien, charge or order for the payment of money or other encumbrance shall be filed against the Parcel of another Owner, the first Owner shall, at its own cost and expense, cause the same to be discharged of record or insured over to the reasonable satisfaction of the Owner of the Parcel encumbered by the particular lien or encumbrance within thirty (30) days after notice to said Owner of the filing thereof. In any event, said Owner shall indemnify, defend and save harmless the other Owner from and against all costs, liabilities, expenses, damages, suits, penalties, claims and demands (including actual attorneys' fees and costs incurred) resulting therefrom. If the first Owner fails to comply with the foregoing provisions, the other Owner shall have the option of discharging or bonding any such lien, charge, order or encumbrance, and the first Owner agrees to reimburse the other Owner for all costs, expenses (including actual attorneys' fees) and other sums of money expended in connection therewith, including interest on the amounts expended from the date of the expenditure until the day of payment at an annual rate of interest equal to the prime rate as published from time to time by The Wall Street Journal, plus two percent (2% or 200 basis points). An Owner must immediately upon demand remove of record, or immediately upon demand cause to be removed of record, any lien encumbering a Parcel not owned by it if such removal is required in connection with a financing or disposition of the Parcel encumbered by such lien. In all events, an Owner must remove of record, or cause to be removed of record, any such lien encumbering a Parcel not owned by it within two (2) years of the date such lien was filed of record.

6.07 Building Insurance. Owners shall maintain or cause to be maintained property insurance against loss by fire and other hazards covered by the so-called "all risk" casualty policy covering each building on its Parcel on a full replacement cost basis in an amount sufficient to avoid application of a co-insurance clause.

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ARTICLE VII

SIGNS

7.01 Permitted Signs. The following signs only shall be permitted in the Shopping Center: (a) directional signs for guidance upon the parking and driveway areas, (b) exterior building identification signs of any occupant of the Building Areas of the Shopping Center, so long as (i) such signs are similar to the standard identification signs from time to time being used by any such occupant in its other stores or restaurants, or are substantially identical in quality, format and design to other signs currently in the Shopping Center, or (ii) the Developer approves in writing such sign, provided that such approval shall not be unreasonably withheld or conditioned, (c) a temporary sign on the Shopping Center identifying the lender(s) providing construction and/or permanent financing for any improvement to be located on the Shopping Center, (d) a sign or signs identifying an automated teller machine(s) or similar financial equipment operated on any of the Building Areas, so long as similar to other such signs in first-class shopping centers in the State, (e) exterior building signage heretofore approved by the City for a Parcel, and (f) signs at the approximate locations depicted on **Exhibit B** hereto. Each building identification sign located in the Shopping Center and which identifies a single Shopping Center occupant shall be maintained in good condition and repair by the occupant identified on such building identification sign.

7.02 Shopping Center Monument or Pylon Sign. (a) The maintenance and operation cost for the Shopping Center monument or pylon signs and electrical service to such signs, if any, shall be the responsibility of Developer who shall, upon demand, be entitled to reimbursement for the reasonable costs thereof from the Owners, as part of CAM Expenses, on the basis of the relative sign area applicable to each Owner (or the occupants of its Parcel). Notwithstanding the provisions of Section 7.01 above to the contrary, but, in all events, subject to all applicable governmental or quasi-governmental laws, statutes, ordinances, codes, rules and regulations, and to the unanimous written consent of the Owners and Anchor Tenants, each Anchor Tenant and the Owner of the Fun World Parcel shall be permitted identification signage on the Shopping Center Monument or Pylon signs for the occupants of its Parcel, the initial construction of which signs shall be substantially in accordance with those depicted in Exhibit E attached hereto; provided, however, that the Anchor Tenants' identification signage shall be in the two highest positions and the identification signage for the occupant of the Fun World Parcel shall be in the bottom position. All other Shopping Center Monument or Pylon sign usage shall be subject to the written consent of Developer. The foregoing notwithstanding, the installation, maintenance, cleaning, repair, replacement and removal of sign panels on any Shopping Center pylon sign shall be the obligation of the Owner to whom such panel pertains (including its tenants and other occupants).

(b) Developer hereby reserves to itself and grants, gives and conveys to the other Owners a perpetual exclusive easement over, across, and under those portions of the Shopping Center shown on **Exhibit B** hereto as occupied by pylon signs and a perpetual non-exclusive

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easement over, across and under those portions of the Shopping Center reasonably necessary for access thereto for utilities and service vehicles and personnel for the limited purposes of the first and last sentences of subparagraph (a) preceding.

7.03 Shopping Center Name. The name of the Shopping Center shall be "The MarketPlace of Rolling Meadows," which name shall be the only name by which the Shopping Center shall be identified by any Owner or any tenant of any Owner, except as may be changed from time to time by Developer.

7.04 Compliance. Notwithstanding any provision of this Article VII to the contrary, all signage at the Shopping Center must comply with all applicable governmental laws, codes, ordinances, rules and regulations.

ARTICLE VIII

DECLARATION SUBORDINATE TO EXISTING LEASES

This Declaration is and shall at all times hereafter shall be subordinate to the following leases, as now or hereafter amended or novated from time to time: Lease Agreement between Developer and Wal-Mart Real Estate Business Trust, Lease Agreement between Developer and Sam's Real Estate Business Trust, Lease Agreement between Developer and Brinker Restaurant Corporation, Standard Ground Lease between Developer and OCB Realty Co. and Lease between Developer and John Henry Corporation (collectively, the **"Existing Leases"**), and in the event of any conflict between any of the Existing Leases and this Declaration, the terms of such Existing Lease shall control but only as and to the following limited extent: Landlord under any of the Existing Leases shall not have any superior rights vis-a-vis any tenant under any of the Existing Leases by reason of the existence of this Declaration and Landlord under any of the Existing Leases shall not be in violation of this Declaration due to the performance or non-performance of any act to the extent, respectively, such performance or non-performance would be in violation of such Existing Leases. Nothing in this Article VIII shall limit any Person's liability for CAM Expenses.

ARTICLE IX

MORTGAGE SUBORDINATE TO DECLARATION

Any Mortgage affecting any portion of the Shopping Center shall at all times be subject and subordinate to the terms of this Declaration, and any Person foreclosing any such Mortgage or acquiring title by reason of a deed in lieu of foreclosure shall acquire title to the premises affected thereby subject to all of the terms of this Declaration.

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ARTICLE X

DEVELOPER RESIGNATION

The Person serving from time to time as Developer shall have the right to resign as Developer at any time. No such resignation shall affect the Developer's rights and responsibilities pertaining to, or events occurring in, the period prior to such resignation. Upon such resignation, the Owners shall elect a new Developer, who, upon acceptance, shall be the Developer hereunder thenceforth. No such elected Developer shall have any responsibility pertaining to, or events occurring in, the period prior to such appointment and acceptance, except for cash, contracts and other matters accepted and assumed from the prior Developer. In the election of a new Developer, the outgoing Developer or any Owner may call for a meeting of the Owners for such purpose, by notice not less than 10 days in advance to all Owners, such meeting to occur either in Chicago or the City of Rolling Meadows. Owners may vote in person, by signed proxy or by absentee ballot. Each Owner shall have one vote for each acre of land area within the Parcel it owns, with partial votes being rounded to the nearest tenth of an acre. The person receiving the most votes, whether or not a majority of all votes cast, shall become Developer subject to that Person's acceptance.

ARTICLE XI

REMEDIES

11.01 Default of Owner. An Owner shall be deemed to be in default upon the expiration of fifteen (15) days from receipt of written notice from the Developer or any other Owner (with a copy to all other Owners) specifying the particulars in which such Owner has failed to perform the obligations of this Declaration unless that Owner, prior to the expiration of said fifteen (15) days, has rectified the particulars specified in said notice. However, such Owner shall not be deemed to be in default if such failure (except the failure to pay any monetary obligation) cannot reasonably be rectified within said fifteen (15) day period and such Owner shall have commenced to cure the default within said fifteen (15) days and thereafter diligently pursues such cure until completed.

11.02 Right to Cure Defaults. In the event that any Owner other than Developer (an Owner other than the Developer is referred to in this Section 11.02 as the "**Responsible Party**") undertakes, pursuant to Section 4.03 hereof, the responsibility of Common Area maintenance and performance of other obligations therein provided and such party fails to maintain the Common Areas and otherwise perform in accordance with Section 4.01 hereof, or any portion thereof for which it is responsible, the Developer (in the case of default by a Responsible Party) or the Owner of any Parcel or Developer in all other instances shall have the right, upon ten (10) days prior written notice to the Developer or the Responsible Party (with a copy to all other Owners), to perform any such maintenance with respect to its Parcel or any easement appurtenant thereto if the Responsible Party fails to cure the default identified in the written notice to it within such

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ten-day period. Any costs incurred by the curing Owner or Developer shall be reimbursed by the Responsible Party within thirty (30) days of presentation of the appropriate statement therefor.

11.03 Developer Liability. In no event shall Developer be liable, whether as a result of contract, tort, negligence or otherwise for (i) consequential damages, for loss of profits, loss of revenue or loss of anticipated business, (ii) exemplary or punitive damages, (iii) the actions of any vendor or contractor or agent performing any common area maintenance or other obligation of Developer hereunder, (iv) any liability, loss or claim whatsoever to the extent of insurance proceeds available to the claimant or (v) any failure of Developer to perform any maintenance, repair or replacement of the Common Areas provided for in this Declaration. Each Owner, tenant and other person having or accepting title to any part of the Shopping Center, upon and as a consequence of such acceptance and actual or constructive knowledge of this Declaration hereby releases Developer and waives all such liability, provided, however, that the foregoing shall not apply in respect of any wilful or intentional misconduct or gross negligence of Developer.

11.04 Other Remedies. In addition to the foregoing, if Developer or any Owner defaults in the performance of any other material provision of this Declaration, which default continues after the period of grace, if any, with respect thereto, any other Owner may institute legal action against the defaulting Developer or Owner for specific performance, declaratory relief, damages or other suitable legal or equitable remedy. The remedies and liens provided in this Article XI and the enforcement thereof as herein provided shall, except as expressly provided for herein, be in addition to and not in substitution for or exclusion of any other rights and remedies which the parties may have under this Declaration or at law or in equity.

11.05 Attorneys' Fees. In addition to the recovery of damages and of any sums expended on behalf of the defaulting Owner, together with interest thereon, as hereinabove provided, the prevailing party in any action to enforce any provision of this Declaration shall be entitled to receive from the other party its costs and expenses incurred in connection with such action, including actual attorneys' fees and costs for services rendered to the prevailing party in any such action (including any appeal thereof).

ARTICLE XII

MISCELLANEOUS

12.01 Obligations of Declaration. Except as otherwise herein provided, each and every covenant, undertaking, condition, easement, right, privilege, and restriction (herein referred to as **"Obligations of this Declaration"**) made, granted or assumed, as the case may be, by this Declaration, is made for the personal benefit of the Developer and each of the Owners, and also as Owner of a portion of the Shopping Center, and shall be an equitable servitude on the portion of the Shopping Center owned by such party appurtenant to or for the benefit of the other portions of the Shopping Center. Every Obligation of this Declaration shall run with the land,

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and shall be binding upon the party making or assuming the several Obligations of this Declaration, and such party's successors, assigns having the assignor's real property interest in the Shopping Center, Mortgagees, tenants, customers and invitees and shall inure to the benefit of all other parties to this Declaration and to their respective successors, assigns having the assignor's real property interest in the Shopping Center, Mortgagees, tenants, customers and invitees. Any transferee of fee title to any part of the Shopping Center shall automatically be deemed, by acceptance of title, to have assumed all the Obligations of this Declaration relating thereto, but only to the extent such Obligations of this Declaration accrue on or after the effective date of such transfer of title, and to have agreed with the Owner or Owners of all other portions of the Shopping Center to execute any and all instruments and do any and all things reasonably required to carry out the intention of this Declaration. Any transferor shall upon the consummation of such transfer, if bona fide and not primarily intended as an avoidance of the Obligations of this Declaration, be relieved of all further liability under this Declaration except such liability as may have arisen during its period of ownership of the portions of the Shopping Center so conveyed and which remains unsatisfied. The foregoing notwithstanding, any transferee shall be liable for monetary Obligations that accrued on or prior to the effective date of such transfer of title to the extent such Obligations are quantified and stated in a Claim of Lien or similar instrument recorded in the land records of Cook County against the Parcel (or part thereof) so transferred.

12.02 No Waiver. No delay or omission of the Developer or any Owner in the exercise of any right accruing upon any default of any other Owner shall impair any such right or be construed to be a waiver thereof, and every such right may be exercised at any time during the continuance of such default. A waiver by the Developer or any Owner of a breach or a default of any of the terms and conditions of this Declaration by any other Owner shall not be construed to be a waiver of any subsequent breach or default of the same or any other provision of this Declaration or a waiver by any other Owner. Except as otherwise specifically provided in this Declaration, no remedy provided in this Declaration shall be exclusive, but each shall be cumulative with all other remedies provided in this Declaration and at law or in equity.

12.03 No Termination for Breach. Notwithstanding any other provision of this Declaration to the contrary, it is expressly agreed that no breach, whether or not material, of the provisions of this Declaration shall entitle any Owner to cancel, rescind or otherwise terminate this Declaration, but such limitation shall not affect, in any manner, any other rights or remedies which any Owner may have hereunder by reason of any breach of the provisions of this Declaration.

12.04 No Dedication to Public. Nothing contained in this Declaration shall be deemed to be a gift or dedication of any portion of the Shopping Center to the general public or for any public use or purpose whatsoever, it being the intention of the parties hereto that this Declaration is for the exclusive benefit of the Developer and all Owners of any portion of the Shopping Center and their successors, assigns having the assignor's real property interest in the Shopping Center, Mortgagees, tenants, customers and invitees, and that nothing in this Declaration, express

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or implied, shall confer upon any Person, other than the Developer and such Owners, and their successors, assigns having the assignor's real property interest in the Shopping Center, Mortgagees, tenants, customers and invitees any rights or remedies under of by reason of this Declaration. Any Owner of a Parcel shall have the right from time to time to close all or any portion of the Common Areas on such Parcel to the minimum extent necessary to prevent a dedication thereof to the public or the accrual of any rights in any Person, not expressly granted rights hereunder, but such closing shall not unreasonably interfere with the use and enjoyment by the other Owners and their successors, assigns, Mortgagees, tenants, customers and invitees of the easements hereby created.

12.05 Amendment, Modification or Termination. This Declaration may be amended or modified at any time by a declaration in writing mutually agreed to, executed and acknowledged by all of the Owners and thereafter duly recorded in the Office of the County Recorder of the County in which the Shopping Center is located, provided this Declaration shall not be terminated during the term hereof or amended or modified without the prior written consent of all Owners. This Declaration shall not be terminated, amended, altered or modified in any way without the prior written consent of each first Mortgagee then encumbering the Shopping Center, or any Parcel thereof. The foregoing notwithstanding, any instrument signed by less than all the Owners recorded as aforesaid and purporting to amend this Declaration shall be binding as between the parties so agreeing, but shall not be binding on the Developer or any Owner not so agreeing.

12.06 Term of Declaration. This Declaration shall be effective as of the date of recording hereof in the Office of the County Recorder of the County in which the Shopping Center is located and shall continue in full force and effect until 11:59 p.m. on May 31, 2079; provided, however, that the easements granted pursuant to Section 3.01 or enumerated as perpetual shall survive such termination and be perpetual unless no portion of the Shopping Center is utilized for any retail purpose for a continuous period of two (2) years (excluding any period during which an Owner is prevented from engaging in such use by reason of strikes, lockouts or other labor difficulties, adverse weather, acts of God, the requirements of any governmental act, law, rule or regulation, fire or other casualty, condemnation, war, riot, or insurrection), in which event, this Declaration and the rights, restrictions and easements contained in this Declaration except for (a) easements for ingress and egress to and from any Parcel to and from a dedicated right-of-way and (b) those easements and rights of use granted in Article 3.01(b) of this Declaration, shall terminate and be of no further force or effect. It is agreed and acknowledged that those rights and easements referred to in (a) and (b) of the preceding sentence shall be perpetual in duration notwithstanding the termination of this Declaration or any other provision of this Declaration to the contrary.

12.07 Integration; Severability. In case any one or more of the Obligations of this Declaration shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining obligations shall not in any way be affected or impaired thereby.

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12.08 Estoppel Certificate. At any time, and from time to time, within thirty (30) days after notice or request by the holder of any actual or proposed first Mortgage or ground lease affecting or intended to affect any portion of the Shopping Center, or any actual or proposed purchaser of any portion of the Shopping Center, the then Developer and Owners of all Parcels comprising the Shopping Center shall execute and deliver to such Mortgagee, ground lessee or purchaser a statement certifying that this Declaration is unmodified and in full force and effect or if there have been modifications, that it is in full force and effect as modified in the manner specified in the statement, and that to the knowledge of such Owner there exists no default under this Declaration, other than as specified therein, and in the case of Developer providing a statement of paid and outstanding Pro Rata Shares of CAM Expenses.

12.09 Governing Law. This Declaration shall be construed in accordance with the laws of the State of Illinois.

12.10 Headings. The section headings in this Declaration are for the convenience only, shall in no way define or limit the scope or content of this Declaration and shall not be considered in any construction or interpretation of this Declaration or any part thereof.

12.11 No Partnership. Nothing in this Declaration shall be construed (a) to make the Owners partners or joint ventures, or (b) to render any of said Owners liable for the debts or obligations of the others (except, in the case of this clause (b), to the extent otherwise expressly provided in this Declaration).

12.12 Force Majeure. Developer and each other Owner shall be excused from performing any obligation or undertaking provided in this Declaration (except for any obligation to pay sums of money) in the event, but only so long as, the performance of such obligation is prevented or delayed by strikes, lockouts, inability to produce materials or permits, power failure, acts of God, governmental restrictions, civil commotion, fire, unavoidable casualty or other causes beyond the control of such Owner, provided that lack of funds shall not be deemed to be a cause beyond the control of such Owner.

12.13 Notices. Any notice, demand, request, consent, approval, designation, or other communication made pursuant to this Declaration by one Owner to any other Owner shall be in writing and shall be given or made or communicated by personal delivery; by United States registered or certified mail, return receipt requested; or by prepaid Federal Express or other nationally recognized overnight delivery service addressed, in the case of Developer to:

Inter-Continental Real Estate and Development Corporation
Suite 28
15750 S. Harlem Avenue
Orland Park, Illinois 60462

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with a copy to:

Seyfarth, Shaw, Fairweather & Geraldson
Suite 4200
55 E. Monroe Street
Chicago, Illinois 60603
Attention: Jeffrey Jahns

and to any other Owner at an address for real estate tax bills for such Owner's Parcel as shown on the records of the Cook County Collector, subject to the rights of any Owner or Mortgagee to designate a different address by notice similarly given.

Any notice, demand, request, consent, approval, designation or other communication so sent shall be deemed to have been given, made or communicated, as the case may be, on the date the same was personally delivered or delivered by the United States mail as registered or certified matter, with postage thereon fully prepaid, or delivered by Federal Express or other nationally recognized overnight delivery service.

12.14 Interpretation. Where the context permits and including but not limited to defined terms, the masculine and the neuter shall, respectively, include the neuter and the masculine and in both cases the feminine, and the plural shall include the singular. Examples and words of inclusion (e.g., "including") shall not be construed as a limitation on the breadth of meaning of the phrase or word referenced.

12.15 Trustee Clause. It is expressly understood and agreed by and between the parties hereto, anything herein to the contrary notwithstanding, that each and all of the warranties, indemnities, representations, covenants, undertakings and agreements herein made on the part of Developer hereunder, while in form purporting to be the warranties, indemnities, representations, covenants, undertakings and agreements of Developer are nevertheless each and every one of them, made and intended not as personal warranties, indemnities, representations, covenants, undertakings and agreements by Developer or for the purpose or with the intention of binding Developer personally, and this instrument is executed and delivered by Developer not in its own right, but solely in the exercise of the powers conferred upon it as Developer; and that no personal liabilities or personal responsibility is assumed by nor shall at any time be asserted or enforceable against Developer or the corporation or entity that is acting as Developer on account of this instrument or on account of any warranty, indemnity, representation, covenant, undertaking or agreement of Developer in this instrument contained, either expressed or implied, all such personal liability, if any, being expressly waived and released. Nothing contained in this Section shall relieve Developer from any liability or obligation to the extent of Developer's trust assets.

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IN WITNESS WHEREOF, the Developer has hereunto set its authorized signature as of the day and year first above written.

REPUBLIC BANK OF CHICAGO,
not personally, but as trustee under
trust agreement dated July 22, 1997
and known as Trust No. 1391

By: _____

This instrument is executed by Republic Bank of Chicago, not personally or individually, but solely as trustee as aforesaid in the exercise of the power and authority conferred upon and vested in it as such trustee. All of the statements, warranties and representations set forth herein are made solely on information and belief without any independent inquiry or investigation by Republic Bank of Chicago and should be construed accordingly. Notwithstanding any provision to the contrary set forth in this instrument, any recourse against Republic Bank of Chicago shall be limited to the assets comprising the trust estate and no personal liability shall be asserted or be enforceable against Republic Bank of Chicago by reason of the terms, promises, agreements, covenants, warranties, representations, indemnifications, or other matters herein set forth, all such personal liability of Republic Bank of Chicago being expressly waived.

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99606491

ACKNOWLEDGMENT

STATE OF ILLINOIS)
) SS
COUNTY OF Cook)

On 6-17, 1999, before me, the undersigned, a Notary Public in and for said County and State, personally appeared THOMAS J. PACOCHA, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the foregoing instrument as EVP+T.O of Republic Bank of Chicago, as trustee under trust agreement dated July 22, 1997 and known as trust no. 1391 and acknowledged to me that by his/her signature on the foregoing instrument such trustee executed it.

WITNESS my hand and official seal.

Susanne Renik
Notary Public in and for
said County and State

My commission expires: 10-30-00

OFFICIAL SEAL
SUSANNE RENIK
NOTARY PUBLIC STATE OF ILLINOIS
MY COMMISSION EXP. OCT. 30,2000

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EXHIBIT A

Legal Description of the Shopping Center

Lots 1, 2, 4 & 5 in JCP Meadows P.U.D., being a resubdivision of Lot 1 in JCP Meadows Subdivision, in the South West quarter (1/4) of Section 9 and the South East quarter (1/4) of Section 8 both in Township 41 North, Range 11, East of the Third Principal Meridian, in Cook County, Illinois, according to that plat thereof recorded in the Cook County Recorder's Office on December 18, 1985 as Document Number 85329240 and corrected by Certificate of Correction recorded in the Cook County Recorder's Office on August 11, 1988 as Document Number 88364191 in Cook County, Illinois, and also Lot 1 and Outlot A in MTM Resubdivision being a resubdivision of Lot 3 and Outlot A in JCP Meadows P.U.D. in the Southwest quarter (1/4) of Section 9 and Southeast quarter (1/4) of Section 8, both in Township 41 North, Range 11 East of the Third Principal Meridian according to that plat thereof recorded in the Cook County Recorder's Office on September 16, 1993 as Document Number 93742116, all in Cook County, Illinois, also described as follows: Lots 1, 2, 4 & 5 in JCP Meadows P.U.D., being a resubdivision of Lot 1 in JCP Meadows Subdivision, in the Southwest quarter (1/4) of Section 9 and the Southeast Quarter (1/4) of Section 8, both in Township 41 North, Range 11 East of the Third Principal Meridian, according to that plat thereof recorded in Cook County Recorder's Office on December 18, 1985, as Document Number 85329240, and corrected by a Certificate of Correction recorded in the Cook County Recorder's Office on August 11, 1988, as Document Number 88364191, all in Cook County, Illinois, and also Lot 1 and Outlot "A" in MTM Resubdivision, being a resubdivision of Lot 3 and Outlot "A" in JCP Meadows P.U.D., in the Southwest quarter (1/4) of Section 9 and the Southeast quarter (1/4) of Section 8, both in Township 41 North, Range 11 East of the Third Principal Meridian, according to that plat thereof recorded in the Cook County Recorder's Office on September 16, 1993, as Document Number 93742116, all in Cook County, Illinois, also described as beginning at the Southwest corner of said Outlot "A" in MTM Resubdivision; thence along the boundary of said Outlot "A" North 01 27' 05" East a distance of 929.33 feet, thence continuing along said boundary of Outlot "A" North 41 09' 16" East a distance of 608.81 feet, thence continuing along said boundary of Outlot "A" Southeasterly on a curve to the right having a radius of 2814.79 feet for an arc length of 203.31 feet; thence continuing along said boundary of Outlot "A" South 44 46' 50" East a distance of 896.30 feet; thence continuing along said boundary of Outlot "A" South 44 45' 05" East a distance of 398.80 feet thence continuing along said boundary of Outlot "A" South 57 20' 41.9" West a distance of 248.467 feet; thence continuing along said boundary of Outlot "A" South 30 00' 00" West a distance of 50.00 feet; thence continuing along said boundary of Outlot "A" South 00 00' 00" West a distance of 165.00 feet; thence continuing along said boundary of Outlot "A" South 90 00' 00" West a distance of 829.99 feet; thence continuing along said boundary of Outlot "A" North 88 04' 15" West a distance of 420.41 feet to the point of beginning.

Street Address: 1400 East Golf Road, Rolling Meadows, Illinois

P.I.N.s: 08-08-403-023-0000
08-08-403-025-0000
08-08-403-030-0000
08-08-403-031-0000

08-09-302-016-0000
08-09-302-017-0000
08-09-302-018-0000
08-09-302-020-0000
08-09-302-021-0000
08-09-302-022-0000

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99606491

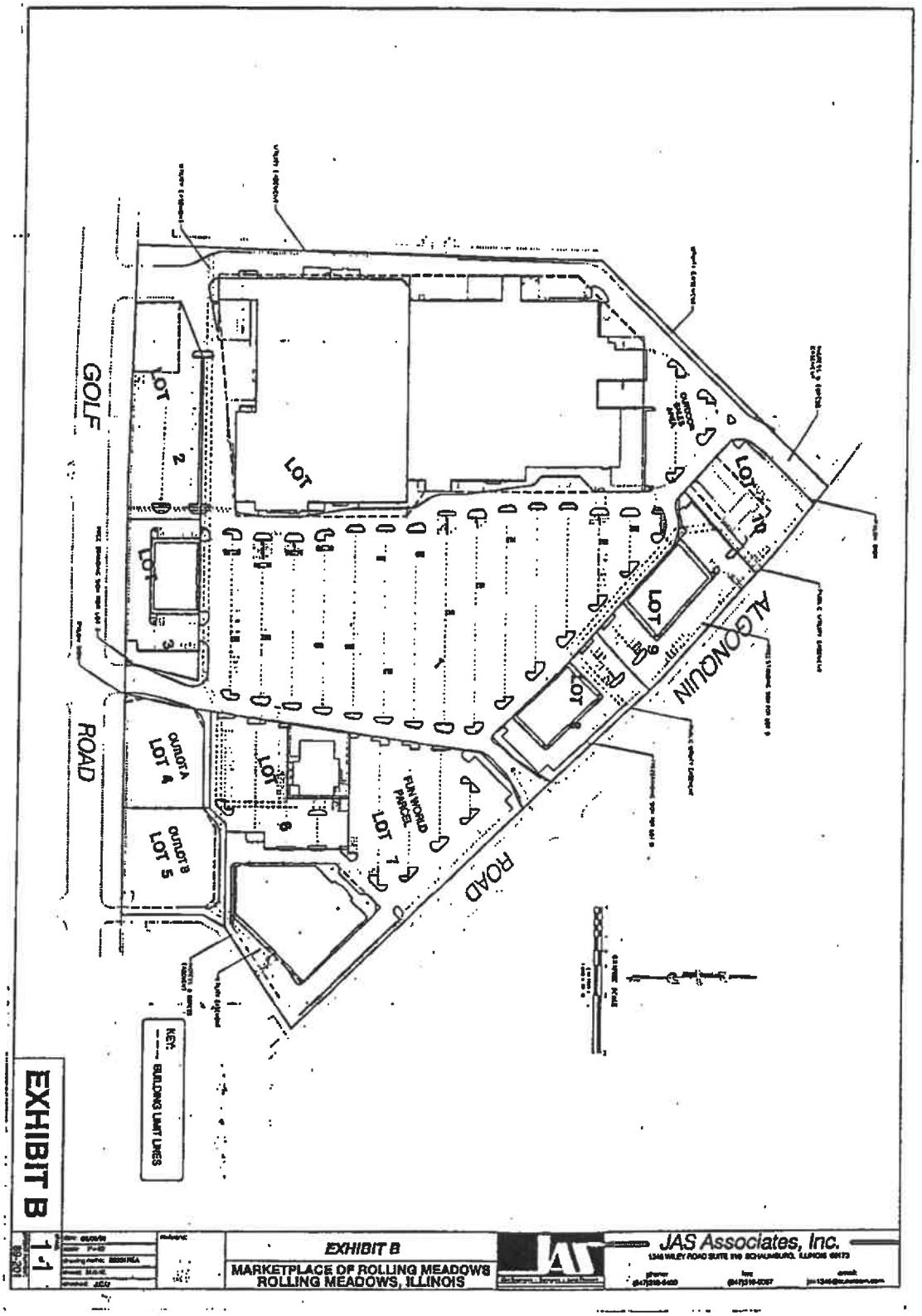

GOLF
ROAD
ALGONQUIN
ROAD
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
OUTLOT A
OUTLOT B
FUN WORLD PARCEL
KEY
BUILDING LIMIT LINES
EXHIBIT B
1-1
EXHIBIT B
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS
JAS Associates, Inc.

EXHIBIT C-1

Legal Description of Fun World Parcel

LOT 7

THAT PART OF LOTS 1, 2, 4, & 5 IN JCP MEADOWS P.U.D. BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUBDIVSION, IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER OF (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON DECEMBER 18, 1985 AS DOCUMENT NUMBER 85329240 AND CORRECTED BY CERTIFICATE OF CORRECTION RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON AUGUST 11, 1988 AS DOCUMENT NUMBER 88364191 IN COOK COUNTY, ILLINOIS AND ALSO PART OF OUTLOT "A" IN MTM RESUBDIVISION BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D. IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON SEPTEMBER 16, 1993 AS DOCUMENT NUMBER 93742116, ALL IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID OUTLOT "A" IN MTM RESUBDIVISION; THENCE NORTH 00 DEGREES, 00 MINUTES, 00 SECONDS EAST, ALONG THE EASTERLY LINE OF SAID OUTLOT "A", A DISTANCE OF 165.00 FEET; THENCE CONUTINING ALONG SAID EASTERLY LINE, NORTH 30 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 50.00 FEET TO A POINT OF BEGINNING: THENCE NORTH 90 DEGREES, 00 MINUTES, 00 SECONDS WEST, A DISTANCE OF 195.98 FEET; THENCE NORTH 00 DEGREES, 00 MINUTES, 00 SECONDS WEST, A DISTANCE OF 76.50 FEET; THENCE NORTH 90 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 34.00 FEET; THENCE NORTH 00 DEGREES, 00 MINUTES, 00 SECONDS WEST, A DISTANCE OF 166.11 FEET; THENCE NORTH 90 DEGREES, 00 MINUTES, 00 SECONDS WEST, A DISTANCE OF 240.00 FEET; THENCE NORTH 08 DEGREES, 51 MINUTES, 37 SECONDS EAST, A DISTANCE OF 266.71 FEET; THENCE NORTH 45 DEGREES, 00 MINUTES, 00 SECONDS EAST A DISTANCE OF 85.88 FEET; THENCE NORTH 65 DEGREES, 00 MINUTES, 00 SECONDS EAST A DISTANCE OF 60.97 FEET, TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF ALGONQUIN ROAD; THENCE SOUTH 44 DEGREES, 46 MINUTES, 50 SECONDS EAST, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 246.19 FEET; THENCE SOUTH 07 DEGREES, 01 MINUTES, 05 SECONDS WEST, ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 0.61 FEET; THENCE SOUTH 44 DEGREES, 45 MINUTES, 05 SECONDS EAST, ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 398.80 FEET TO THE EASTERLY LINE OF SAID OUTLOT "A"; THENCE SOUTH 57 DEGREES, 20 MINUTES, 42 SECONDS WEST, ALONG SAID EASTERLY LINE OF OUTLOT "A", A DISTANCE OF 248.467 TO THE POINT OF BEGINNING, IN THE CITY OF ROLLING MEADOWS, COOK COUNTY, ILLINOIS.

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EXHIBIT C-2

Legal Description of Outlots A and B

Outlot A

LOT 4

THAT PART OF LOTS 1, 2, 4, & 5 IN JCP MEADOWS P.U.D. BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUBDIVSION, IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER OF (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON DECEMBER 18, 1985 AS DOCUMENT NUMBER 85329240 AND CORRECTED BY CERTIFICATE OF CORRECTION RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON AUGUST 11, 1988 AS DOCUMENT NUMBER 88364191 IN COOK COUNTY, ILLINOIS AND ALSO PART OF OUTLOT "A" IN MTM RESUBDIVISION BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D. IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON SEPTEMBER 16, 1993 AS DOCUMENT NUMBER 93742116, ALL IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID OUTLOT "A" IN MTM RESUBDIVISION; THENCE SOUTH 90 DEGREES, 00 MINUTES, 00 SECONDS WEST, ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF GOLF ROAD, A DISTANCE OF 219.99 FEET TO A POINT OF BEGINNING; THENCE CONTUINUING ALONG SAID NORTHERLY RIGHT-OF-WAY LINE, A DISTANCE OF 237.28 FEET; THENCE NORTH 13 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 136.94 FEET; THENCE NORTH 08 DEGREES, 51 MINUTES, 37 SECONDS EAST, A DISTANCE OF 42.07 FEET; THENCE NORTH 90 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 200.00 FEET; THENCE SOUTH 00 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 175.00 FEET TO THE POINT OF BEGINNING, IN THE CITY OF ROLLING MEADOWS, COOK COUNTY, ILLINOIS.

Outlot B

LOT 5

THAT PART OF LOTS 1, 2, 4, & 5 IN JCP MEADOWS P.U.D. BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUBDIVSION, IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER OF (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON DECEMBER 18, 1985 AS DOCUMENT NUMBER 85329240 AND CORRECTED BY CERTIFICATE OF CORRECTION RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON AUGUST 11, 1988 AS DOCUMENT NUMBER 88364191 IN COOK COUNTY, ILLINOIS AND ALSO PART OF OUTLOT "A" IN MTM RESUBDIVISION BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D. IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE

SOUTHEAST QUARTER (1/4) OF SECTION 8 BOTH, IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON SEPTEMBER 16, 1993 AS DOCUMENT NUMBER 93742116, ALL IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID OUTLOT "A" IN MTM RESUBDIVISION AS A POINT OF BEGINNING; THENCE SOUTH 90 DEGREES, 00 MINUTES, 00 SECONDS WEST, ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF GOLF ROAD, A DISTANCE OF 219.99 FEET; THENCE NORTH 00 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 175.00 FEET; THENCE NORTH 45 DEGREES, 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 47.10 FEET; THENCE NORTH 90 DEGREES 00 MINUTES, 00 SECONDS EAST, A DISTANCE OF 211.69 FEET TO A POINT ON THE EASTERLY LINE OF SAID OUTLOT "A"; THENCE SOUTH 30 DEGREES, 00 MINUTES, 00 SECONDS WEST, ALONG SAID EASTERLY LINE, A DISTANCE OF 50.00 FEET; THENCE SOUTH 00 DEGREES, 00 MINUTES, 00 SECONDS WEST, ALONG SAID EASTERLY LINE, A DISTANCE OF 165.00 FEET TO THE POINT OF BEGINNING, IN THE CITY OF ROLLING MEADOWS, COOK COUNTY, ILLINOIS.

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EXHIBIT D

Minimum Floor Areas

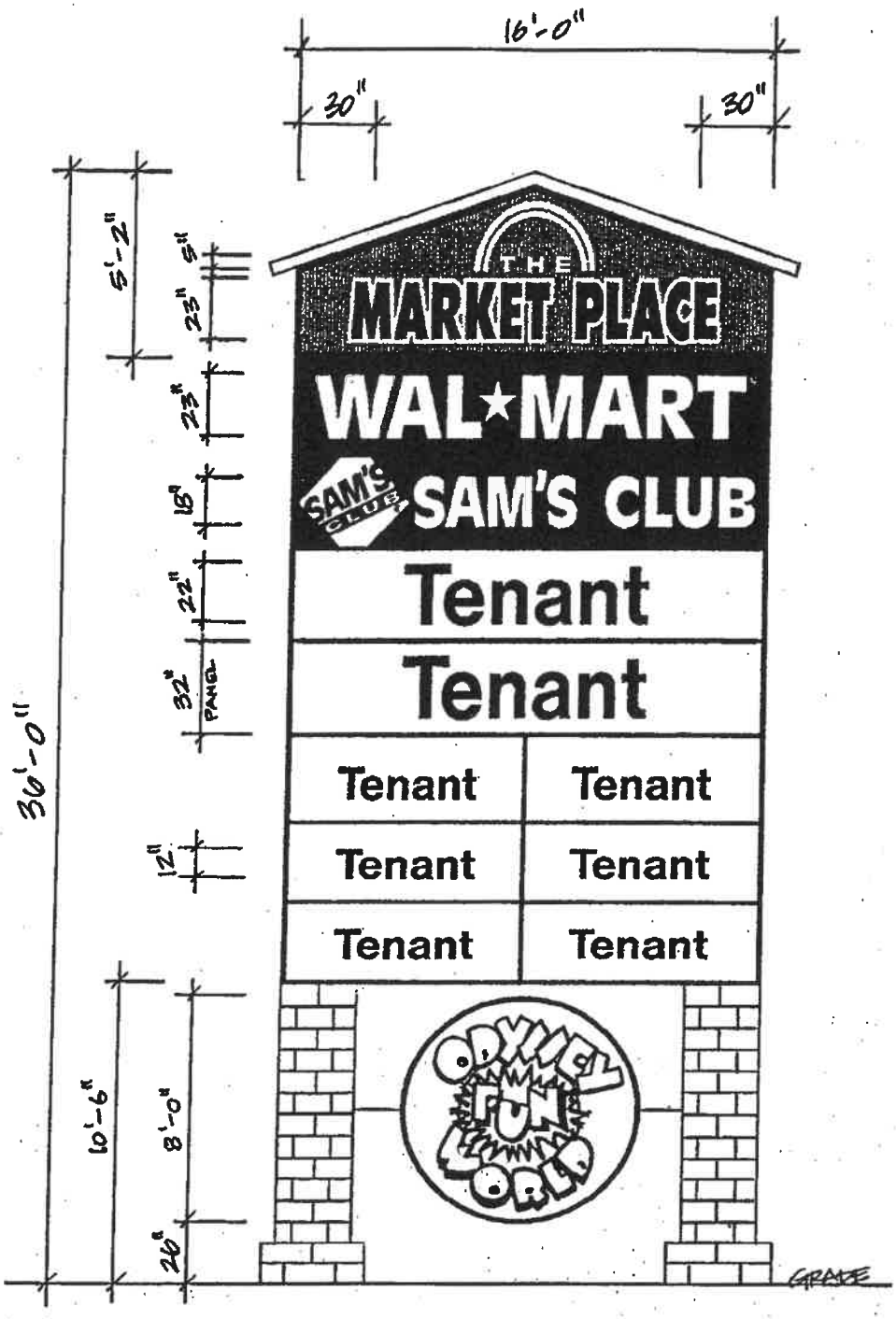
Parcels as Depicted on Exhibit B hereto	Deemed Floor Area
1	259,000 s.f.
2	0
3	10,000 s.f.
4 (Outlot A)	0
5 (Outlot B)	0
6	0
7 (Fun World Parcel)	39,000 s.f.
8	12,000 s.f.
9	12,000 s.f.
10	0

EXHIBIT E

Pylon Sign

EXHIBIT E

99606491



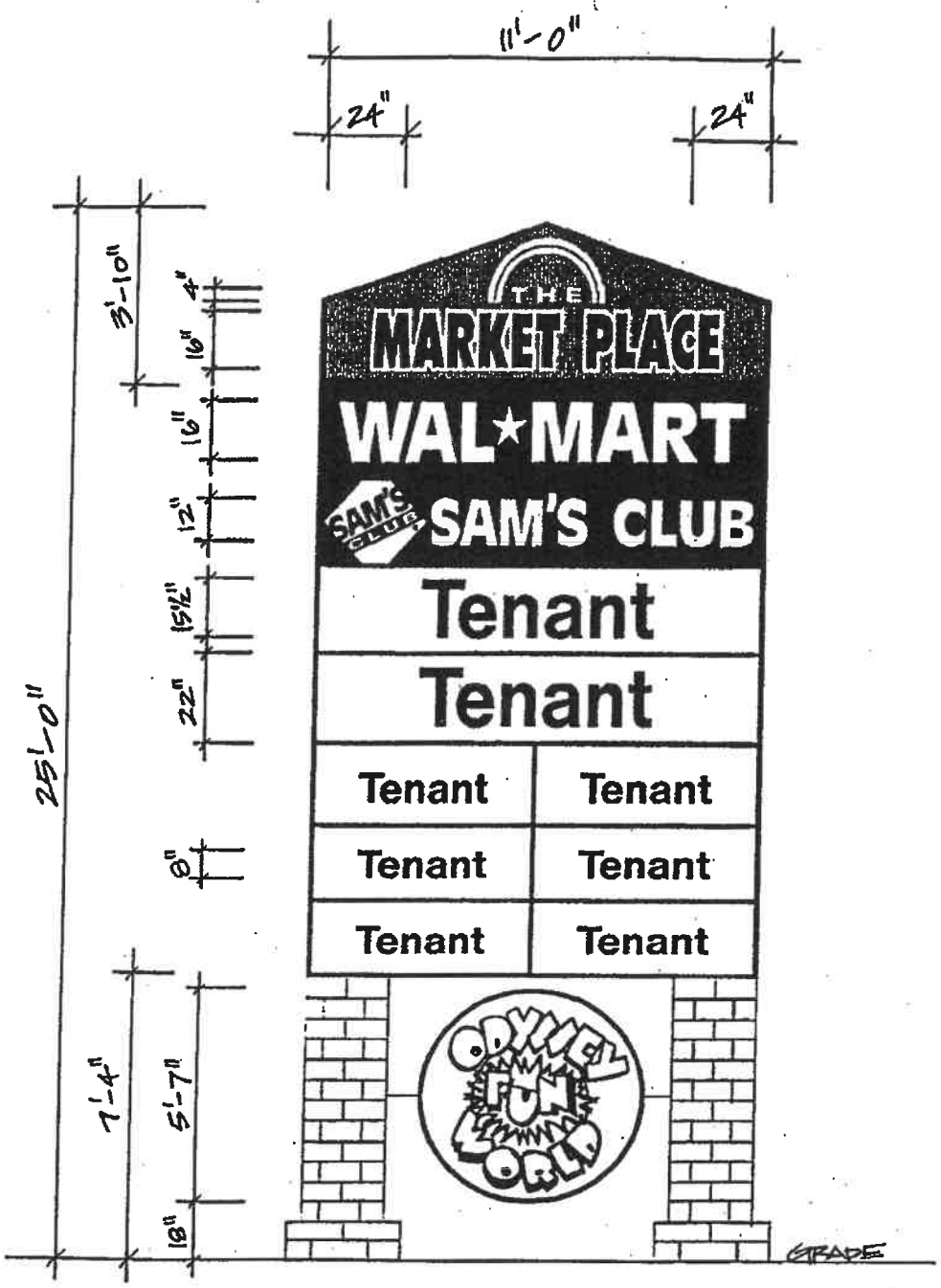
(1) D/F INT. ILLUM. PYLON SIGN = GOLF ROAD
36' x 16' x 30" WIDE

vincent SIGNS
DIVISION OF SignCorp.
307 LINCOLN
BENSENVILLE, IL 60106
PH. 630-766-8555
FAX 630-766-9531

CUSTOMER APPROVAL _____ DATE _____

JOB NAME THE MARKET PLACE
ADDRESS ROLLING MEADOWS
DATE 3-11-99 DRAWN BY
DRAWING NO. 11416 SCALE 3/16"=1'-0"

99606491



(1) D/F INT. ILLUM. PYLON SIGN = ALGONQUIN ROAD
25' X 11' X 30" WIDE

Vincent SIGNS
DIVISION OF SignCorp.
307 LINCOLN
BENSENVILLE, IL 60106
PH. 630-766-9855
FAX 630-766-9521

CUSTOMER APPROVAL _____ DATE _____

JOB NAME THE MARKET PLACE
ADDRESS PALATINE MEADOWS
DATE 3-11-99 DRAWN BY
DRAWING NO. 11417 SCALE 1/4"=1'-0"

EXHIBIT B

Maintenance Declaration

JUL

23 549 143

Store No. 5074
Rolling Meadows,

64533688R

08693023 043

DECLARATION

DECLARATION, made as of June 1, 1976, by J. C. PENNE PROPERTIES, INC., a Delaware corporation, having an addre at 1301 Avenue of the Americas, New York, New York 10019 (Properties).

W I T N E S S E T H :

WHEREAS, Properties is the owner in fee simple of th four parcels of land, situate, lying and being in the Cit of Rolling Meadows, Cook County, Illinois described in Schedule A attached hereto as "Parcel 1", "Parcel 2", "Par 3", and "Parcel 4" respectively (collectively the Parcels each generically a Parcel); and

WHEREAS, Properties has leased Parcels 1 and 2 under Ground Lease, dated as of April 1, 1974, between Propertie as lessor, and Pennmeadows Associates (Associates), as les a memorandum of which was recorded in the County Clerk's O Cook County, as Document No. 22680918 on April 10, 1974; a

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WHEREAS, Associates has subleased Parcels 1 and 2 under a Lease and Agreement, dated as of April 1, 1974, between Associates, as lessor, and Properties, as lessee, a memorandum of which was recorded in the said County Clerk's Office as Document No. 22680920 on April 10, 1974, which Lease and Agreement was subsequently assigned by Properties to J. C. Penney Company, Inc. by Assignment, dated as of April 1, 1974, and recorded in the said County Clerk's Office as Document No. 22680923 on April 10, 1974; and

WHEREAS, Associates has mortgaged its interest in Parcels 1 and 2 to Harris Trust and Savings Bank by Mortgage, dated as of April 1, 1974, which was recorded in the said County Clerk's Office as Document No. 22680921 and assigned its interest in the Lease and Agreement as additional security to Harris Trust and Savings Bank by Assignment dated as of April 1, 1974, which was recorded in the said County Clerk's Office as Document No. 22680922, which Mortgage together with the lessor's interest in the Lease and Agreement were both further assigned by Harris Trust and Savings Bank to United California Bank by an Assignment of Mortgage and an Assignment of Lease, Assignment and Guaranty, both dated as of April 5, 1974 and recorded in the said County Clerk's Office

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as Documents No. 22682436 and 22682434 respectively, both on April 11, 1974, which Mortgage together with lessor's interest in the Lease and Agreement were further assigned by United California Bank to State of California - Teachers' Retirement System by Assignment of Mortgage and Assignment of Lease, Assignment and Guaranty, both dated as of April 5, 1974 and recorded in the said County Clerk's Office as Documents No. 22682437 and 22682435 respectively, both on April 11, 1974; and

WHEREAS, Properties has retained Parcels 3 and 4 for future lease, sale or development; and

WHEREAS, Properties desires to and does hereby rescind in its entirety that Declaration made by it as of April 1, 1974 and recorded in the County Clerk's Office of Cook County on April 10, 1974 as Document No. 22580917 and said Declaration is to have no further force and effect from this day forward; and

WHEREAS, Properties desires to create, establish, grant and reserve certain rights, easements, privileges and obligations for the benefit of and binding upon the owner or owners, from time to time, of the Parcels (collectively the Owners and each generically an Owner).

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NOW, THEREFORE, Properties does hereby declare, create, establish, grant and reserve on behalf of itself and its successors and assigns, and for and on behalf of the Owners, the rights, easements, privileges and obligations hereinafter set forth:

1. The Owners of Parcels 1 and 2 shall have an easement and privilege over Parcels 3 and 4, and in the case of Parcel 1 over Parcel 2, and in the case of Parcel 2 over Parcel 1, (i) to use, maintain, repair, replace and relocate the Utilities (the sanitary and storm sewers, gas, water, telephone, electric services and other utilities, or connections therewith, essential to or appropriate for the operations or businesses conducted on the Parcels are herein collectively the Utilities and each generically a Utility), if any, existing on the Parcels as of the date hereof, and (ii) to install, use, maintain, repair, replace and relocate such Utilities as are reasonably necessary to Parcels 1, 2, 3 and 4 without unreasonably interfering with use, at the time of installation or relocation, of the subservient Parcels.

2. The Owners of Parcels 3 and 4 shall have an easement and privilege over Parcels 1 and 2, and in the case of

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Parcel 3 over Parcel 4, and in the case of Parcel 4 over Parcel 3, (i) to connect to and use the Utilities, if any, existing on the Parcels at the time of such connections; provided, however, that such Utilities, under their current or projected demands, are sufficient to accomodate the increased load which would result from the proposed connection and use; and (ii) to install, use, maintain, repair, relocate and replace such Utilities as are reasonably necessary to Parcels 3 and 4, to provide access to the nearest public Utilities, without unreasonably interfering with the use at the time of installation or relocation of subservient Parcels.

3. Notwithstanding anything contained herein to the contrary, the Owners of Parcels 3 and 4, when undertaking Utility connections, shall make all reasonable efforts to make such Utility connections from Parcels 3 and 4 to Utility lines in the bed of streets abutting Parcels 3 and 4 before making use of the easements herein granted to make such Utility connections through Parcels 1 and 2.

4. The easements and privileges referred to in paragraphs 3 and 4 shall include the right, easement and privilege to construct, repair, replace and relocate any Utility to the extent necessary to enjoy fully the benefits of the easements and privileges created in said paragraphs.

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The party exercising any right, easement or privilege to connect to an existing Utility or to construct, repair, replace or relocate any Utility shall (i) in the case of connecting to an existing Utility, obtain the prior written consent of the Owner of the Parcel upon which connection is to be located and of the Owners of the Parcels served by such Utilities; (ii) in the case of construction or relocation, obtain the prior written consent of the Owner of the Parcel upon which such Utility is to be located to the nature and location of the proposed Utility; (iii) in the case of repair or replacement, except for repairs required in an emergency, give twenty (20) days' prior written notice to the Owner of the Parcel upon which such Utility is located of any proposed repair or replacement; and (iv) repair any damage to the parking or landscaped areas or to buildings, structures or other improvements caused in connection with such construction, repair, replacement or relocation.

5. The Owners of the Parcels shall have the right and privilege, without obtaining the consent of any party, to change the location of the Utilities on their respective Parcels; provided, however, that (i) the easement and privilege

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in favor of the Owners of other Parcels to use and maintain any of such Utilities shall not be unreasonably restricted or interfered with, (ii) the Owner of the Parcel on which any of such Utilities is located shall construct, at its expense, adequate replacement facilities and provide adequate temporary service during such construction, and (iii) the Owner of the Parcel on which any of such Utilities is located shall give at least twenty (20) days' prior written notice to the Owners of the Parcels served thereby of the proposed relocation and of the nature and location of any proposed replacement and/or temporary facilities.

6. (a) In the case of any of the Utilities which serve more than one Parcel, the Owners of the Parcels shall maintain, repair and replace, if necessary, the Utility or the portions thereof traversing their respective Parcels, and, except for repairs or replacements caused by the negligence of one or more parties, the cost of such maintenance, repair and replacement shall be borne by the Owner of each Parcel served thereby in the proportion which the floor area of the buildings within such Owner's Parcel bears to the total floor area of all buildings within the Parcels served thereby; and the cost of repairs and replacements caused by the negligence

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of one or more Owners (and an Owner shall be responsible f the negligence of his tenants, licensees, agents and emplo shall be borne by the Owner or Owners responsible.

(b) In the case of any of the Utilities which se only one Parcel, the Owner of the Parcel served by a Utili shall maintain, repair and replace, if necessary, the Util

7. The rights, easements, privileges and obligations contained in this Declaration shall be deemed to be coven: running with the land and shall inure to the benefit of ar be binding upon the Owners and their respective successors assigns, tenants, licensees, customers, contractors, agent and employees.

IN WITNESS WHEREOF, J. C. Penney Properties, Inc. has executed this Declaration pursuant to authority granted by Board of Directors as of the date first above written.

J. C. PENNEY PROPERTIES

(Corporate Seal)

Attest:

By
G. S. Stewart
Vice-President

Elting H. Smith
Assistant Secretary

APPROVED
ATTORNEY

Prepared by JOHN J. CARR, ESQ.

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JUL

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

I, DONNA M. HIRSCH , a Notary Public in and for said County, in the State aforesaid, do hereby certify that G. S. STEWART, personally known to me to be a Vice-Presider of J. C. PENNEY PROPERTIES, INC., a Delaware corporation, duly licensed to transact business in the State of Illinois and ELTING H. SMITH, personally known to me to be an Assist Secretary of said corporation and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they signed and delivered the said instrument as Vice-President and Assistant Secretary c said corporation, and caused the Corporate Seal of said cor poration to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation, as their fre and voluntary act and as the free and voluntary act and dee of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 23rd day of June, 1976.

Donna M. Hirsch
Notary Public

DONNA M. HIRSCH
NOTARY PUBLIC, State of New York
No. 41-4525718
Qualified in Queens County
Certificate filed in New York County
Commission Expires March 30, 1978

(Notarial Seal)

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JULY

The undersigned hereby consent to the foregoing Declaration.

PENNMEADOWS ASSOCIATES,
a Limited Partnership

By IR-PINE CORP.
The General Partner

By _____
ELLIOT ROTH
Vice President

STATE OF CALIFORNIA - ST
TEACHERS' RETIREMENT SYS

By _____
Mortgage Loan Offic

J. C. PENNEY COMPANY, IN

(Corporate Seal)

Attest:

By _____
G. S. Stewart
Vice President

_____
Elting H. Smith
Assistant Secretary

APPROVED
ATTORNEY

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STATE OF NEW YORK)
)
) ss.:
COUNTY OF NEW YORK)

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared ELLIOT ROTH, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of said IR-PINE CORP. as General Partner of PENNMEADOWS ASSOCIATES, a Connecticut limited partnership, and that he executed the same as the act of said corporation, acting as General Partner, for the purposes and considerations therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 29th day of June, 1976.

Phyllis S. Rable
Notary Public

(Notarial Seal)

PHYLLIS S. RABLE
Notary Public, State of New York
No. 41-4516189
Qualified in Queens County
Commission Expires March 30, 19 77

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STATE OF CALIFORNIA)
) ss.:
COUNTY OF SACRAMENTO)

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared W. J. Smith , known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of said STATE OF CALIFORNIA - STATE TEACHERS' RETIREMENT SYSTEM, a corporation for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 1st day of July , 1976.

DEBRA S. NICOLLS
NOTARY PUBLIC
County of Sacramento
State of California
My Commission expires 11-6-79

Debra S. Nicolls
Notary Public

(Notarial Seal)

23 549 143

Order: 1048739
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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

JULY-7-1976

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared G. S. STEWART, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of said J. C. PENNEY COMPANY, INC., a corporation for the purposes and considerations therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this 23rd day of June, 1976.

Donna M. Hirsch
Notary Public

DONNA M. HIRSCH
NOTARY PUBLIC, State of New York
No. 41-4525718
Qualified in Queens County
Certificate filed in New York County
Commission Expires March 30, 1978

(Notarial Seal)

COOK COUNTY, ILLINOIS
FILED FOR RECORD

JUL 7 2 56 PM '76

*23549143

23 549 143

-13-

JULY-7-1976

SCHEDULE A

DESCRIPTION OF LAND

All the tracts or parcels of land and premises, hereinafter particularly described, situate, lying and being in Cook County, Illinois:

Parcel 1

All that part of Lot 3 in 58-62 Venture Subdivision of a part of Sections 8 and 9, Township 41 North, Range 11 East of the Third Principal Meridian, described as follows: commencing at the Southeast corner of said Lot; thence West, along the South line thereof a distance of 335.00 feet to the point of beginning of the herein described parcel of land; thence North, along a line drawn perpendicularly to said South line, 75.00 feet; thence Northeasterly 39.27 feet, along the arc of a circle of 25.00 feet radius, convex northwesterly, tangent to the last described line, and whose chord bears North 45 degrees 00 minutes 00 seconds East, to a line drawn 100.00 feet (measured perpendicularly) North of and parallel with the aforesaid South line of said Lot 3; thence East, along said parallel line and tangent to said arc, 33.06 feet; thence Northeasterly 127.346 feet, along the arc of a circle of 81.00 feet radius, convex Southeasterly, tangent to the last described line, and whose chord bears North 44 degrees 57 minutes 37.5 seconds East; thence North 0 degrees 04 minutes 45 seconds West, along a line tangent to the last described arc, 518.174 feet: thence Northeasterly 31.624 feet, along the arc of a circle of 40.00 feet radius, convex Northwesterly, whose chord bears North 22 degrees 34 minutes 12.5 seconds East and whose tangents are the last described line and a line drawn perpendicularly to the Northeasterly line of said Lot 3 through a point on said Northeasterly line, said point being 256.45 feet (as measured along said Northeasterly line) Northwesterly of the Northeast corner of said Lot: thence North 45 degrees 13 minutes 10 seconds East, along the last described perpendicular line, 114.538 feet to the aforesaid Northeasterly line of said Lot 3; thence North 44 degrees 46 minutes 50 seconds West, along said Northeasterly line, being also the Southwesterly line of Algonquin Road, a distance of 61.50 feet: thence South 45 degrees 13 minutes 10 seconds West, 75.828 feet: thence West,

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JULY-7-1976

along a line drawn from the last described point to a point on the West line of said Lot, said point being 784.752 feet (as measured along said West line) North of the Southwest corner of said Lot, a distance of 857.776 feet to a point 48.34 feet (as measured along the last described line) East of the West line of said Lot: thence Northwesterly 28.997 feet along the arc of a circle of 29.00 feet radius, convex Southwesterly, and whose chord bears North 27 degrees 11 minutes 35 seconds West, to the point of tangency with a line drawn 35.00 feet (measured perpendicularly) East of and parallel with the West line of said Lot; thence North 1 degree 27 minutes 05 seconds East, along said parallel line, 75.014 feet; thence Northeasterly 43.584 feet, along the arc of a circle of 63.00 feet radius, convex Northwesterly, whose chord bears North 21 degrees 16 minutes 12.5 seconds East and whose tangents are the last described parallel line and a line drawn 40.50 feet (measured perpendicularly) Southeasterly of and parallel with the Northwesterly line of said Lot: thence North 41 degrees 05 minutes 20 seconds East, along the last described parallel line, 414.889 feet; thence North 38 degrees 50 minutes 00 seconds East, 165.178 feet to the point of intersection with the Northeasterly line of said Lot, said point of intersection being 34.00 feet (as measured along said Northeasterly line) Southeasterly of the most Northerly corner of said Lot: thence Northwesterly 34.00 feet, along said Northeasterly line, being the arc of a circle of 2814.79 feet radius, convex Northeasterly and whose chord bears North 48 degrees 34 minutes 43 seconds West to the aforesaid most Northerly corner of said Lot; thence South 41 degrees 05 minutes 20 seconds West, along the Northwesterly line of said Lot, 608.82 feet to the angle corner of said Lot; thence South 1 degree 27 minutes 05 seconds West, along the West line of said Lot, 929.33 feet to the Southwest corner thereof: thence South 88 degrees 04 minutes 15 seconds East, along the Southwesterly line of said Lot, 420.41 feet to the angle corner of said Lot; thence East, along the South line of said Lot, 371.50 feet to the point of beginning.

Parcel 2

That part of the Southwest 1/4 of Section 9, Township 41 North, Range 11 East of the Third Principal Meridian, des-

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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

JULY-7-1976

cribed as follows: commencing at the Southeast corner of Lot 3 in 58-62 Venture Subdivision of part of Sections 8 and 9, Township and Range aforesaid; thence East, along the North line of Golf Road as condemned per Document No. 20913760, recorded July 29, 1969, a distance of 363.797 feet to the point of beginning of the herein described parcel of land; thence North, along a line drawn perpendicularly to said North line of Golf Road 113.03 feet; thence North 22 degrees 37 minutes 27.5 seconds East 52.002 feet; thence North 45 degrees 14 minutes 55 seconds East, along a line drawn perpendicularly to the Southwesterly line of Algonquin Road as widened per Document No. 11195779, a distance of 109.337 feet to said Southwesterly line of Algonquin Road; thence South 44 degrees 45 minutes 05 seconds East, along said Southwesterly line of Algonquin Road, 310.349 feet to a point 24.797 feet (as measured along said Southwesterly line) Northwesterly of the point of intersection of said Southwesterly line with the aforesaid North line of Golf Road; thence South 23 degrees 46 minutes 27 seconds West 19.24 feet to a point on said North line of Golf Road, said point being 25.216 feet (as measured along said North line) West of the aforesaid point of intersection of said North line with the aforesaid Southwesterly line of Algonquin Road; thence West, along said North line of Golf Road, 308.393 feet to the hereinabove designated point of beginning.

Parcel 3

All that part of Lot 3 in 58-62 Venture Subdivision of part of Sections 8 and 9, Township 41 North, Range 11 East of the Third Principal Meridian, described as follows: Beginning at a point on the Northeasterly line of said Lot, said point being 317.95 feet (as measured along said Northeasterly line) Northwesterly of the Northeast corner of said Lot; thence South 45 degrees 13 minutes 10 seconds West, along a line drawn perpendicularly to said Northeasterly line, 75.828 feet; thence West, along a line drawn from the last described point to a point on the West line of said Lot, said point being 784.752 feet (as measured along said West line) North of the Southwest corner of said Lot, a distance of 857.776 feet to a point

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Order: 1048739
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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

48.34 feet (as measured along the last described line) East of the West line of said Lot; thence Northwesterly 28.997 feet along the arc of a circle of 29.00 feet radius, convex Southwesterly, and whose chord bears North 27 degrees 11 minutes 35 seconds West, to the point of tangency with a line drawn 35.00 feet (measured perpendicularly) East of and parallel with the West line of said Lot; thence North 1 degree 27 minutes 05 seconds East, along said parallel lire, 75.014 feet; thence Northeasterly 43.584 feet, along the arc of a circle of 63.00 feet radius, convex Northwesterly, whose chord bears North 21 degrees 16 minutes 12.5 seconds East and whose tangents are the last described parallel line and a line drawn 40.50 feet (measured perpendicularly) Southeasterly of and parallel with the Northwesterly line of said Lot; thence North 41 degrees 05 minutes 20 seconds East, along the last described parallel line, 414.889 feet; thence North 38 degrees 50 minutes 00 seconds East, 165.178 feet to the point of intersection with the Northeasterly line of said Lot, said point of intersection being 34.00 feet (as measured along said Northeasterly line) Southeasterly of the most Northerly corner of said Lot; thence Southeasterly 169.31 feet, along said Northeasterly line, being the arc of a circle of 2814.79 feet radius, convex Northeasterly and whose chord bears South 46 degrees 30 minutes 34 seconds East: thence continuing along the Northeasterly line of said Lot, South 44 degrees 45 minutes 50 seconds East, 579.00 feet to the point of beginning.

Parcel 4

All that part of the Southwest 1/4 of Section 9, Township 41 North, Range 11 East of the Third Principal Meridian, described as follows: Beginning at the Southeast corner of Lot 3 in 58-62 Venture Subdivision of part of Sections 8 and 9, Township and Range aforesaid: thence East, along the North line of Golf Road as condemned per Document No. 20913760, recorded July 29, 1969, a distance of 363.797 feet; thence North along a line drawn perpendicularly to said North line of Golf Road 113.03 feet; thence North 22 degrees 37 minutes 27.5 seconds East 52.002 feet; thence North 45 degrees 14 minutes 55 seconds East, along a line drawn perpendicularly to the Southwesterly line of Algonquin Road as widened per Document No. 11195779, a distance

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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

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of 109.337 feet to said Southwesterly line of Algonquin Road; thence North 44 degrees 45 minutes 05 seconds West, along said Southwesterly line of Algonquin Road, 546.021 feet to the Easterly line of the aforesaid Lot 3; thence South 7 degrees 01 minutes 05 seconds West, along said Easterly line, 630.50 feet to the point of beginning;

also:

All that part of the aforesaid Lot 3 described as follows: Beginning at a point on the Easterly line of said Lot, said point being 431.735 feet (as measured along said Easterly line) North of the Southeast corner of said Lot; thence West, along a line drawn parallel with the South line of said Lot, a distance of 249.032 feet; thence North 0 degrees 04 minutes 45 seconds West 270.786 feet: thence Northeasterly 31.624 feet, along the arc of a circle of 40.00 feet radius, convex Northwesterly, whose chord bears North 22 degrees 34 minutes 12.5 seconds East and whose tangents are the last described line and a line drawn perpendicularly to the Northeasterly line of said Lot, through a point on said Northeasterly line said point being 256.45 feet (as measured along said Northeasterly line) Northwesterly of the Northeast corner of said Lot; thence North 45 degrees 13 minutes 10 seconds East, along the last described perpendicular line, 114.538 feet to said Northeasterly line of said Lot; thence South 44 degrees 46 minutes 50 seconds East, along said Northeasterly line being also the Southwesterly line of Algonquin Road, 256.45 feet to the Northeast corner of said Lot; thence South 7 degrees 01 minutes 05 seconds West, along the Easterly line of said Lot, 199.375 feet to the point of beginning;

also:

All that part of Lot 3 in 58-62 Venture Subdivision of part of Sections 8 and 9, Township 41 North, Range 11 East of the Third Principal Meridian, described as follows: Beginning at the Southeast corner of said Lot: thence West, along the South line thereof a distance of 335.00 feet; thence North, along a line drawn perpendicularly to said South line, 75.00 feet: thence Northeasterly 39.27 feet, along the arc of a circle of 25.00 feet radius, convex Northwesterly, tangent to the last described line, and whose chord bears North 45 degrees 00 minutes 00 seconds

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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

East, to a line drawn 100.00 feet (measured perpendicularly) North of and parallel with the aforesaid South line of said Lot 3; thence East, along said parallel line and tangent to said arc, 33.05 feet: thence Northeasterly 127.346 feet, along the arc of a circle of 81.00 feet radius, convex Southeasterly, tangent to the last described line, and whose chord bears North 44 degrees 57 minutes 37.5 seconds East; thence North 0 degrees 04 minutes 45 seconds West, along a line tangent to the last described arc, 247.388 feet to a line drawn parallel with the aforesaid South line of said Lot, through a point on the Easterly line thereof, said point being 431.735 feet (as measured along said Easterly line) North of the Southeast corner of said Lot; thence East, along said parallel line, 249.032 feet to the aforesaid point on the Easterly line of said Lot: thence South 7 degrees 01 minutes 05 seconds West, along said Easterly line, 431.735 feet to the point of beginning.

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Requested By: deborahruh, Printed: 1/28/2021 11:53 AM

Cover Sheet

KLOA Supplementary Exhibits

Dated May 21, 2024

PROPOSED PACIFICA ON GOLF FACILITY

200'R

18'

90'R

160'R

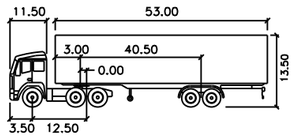
1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC.

N

SCALE: 1" = 60'

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
ARTICULATING ANGLE	: 70.0

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

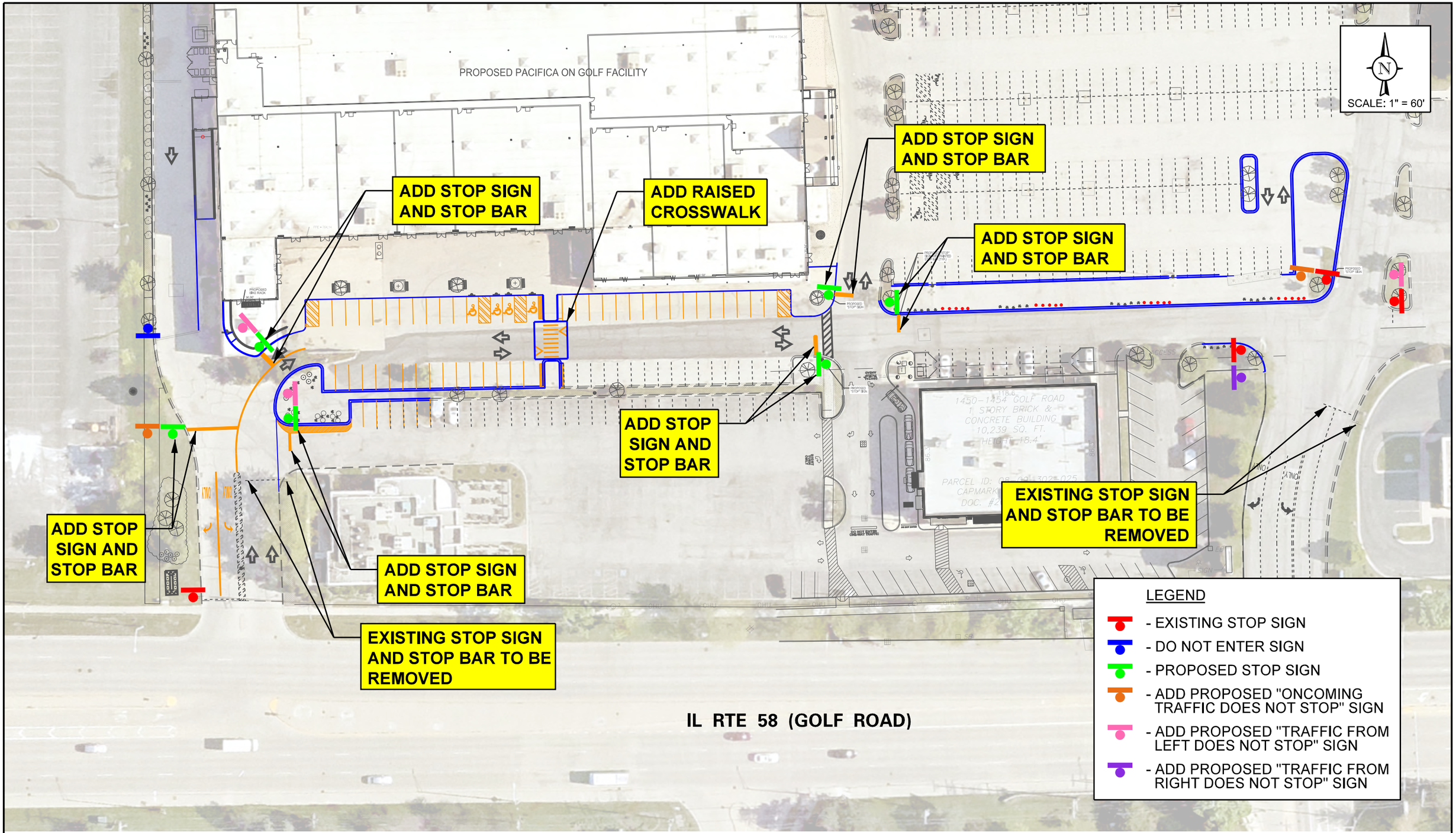
PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

TRUCK ACCESS MODIFICATIONS

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
EXHIBIT: D

CHECKED: LA
REV: 05-21-24

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



PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

PRELIMINARY GEOMETRIC PLAN

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
EXHIBIT: A1
CHECKED: LA
REV: 05-21-24

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

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

26'

9'

18'

24'

4'

1212

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

PRELIMINARY GEOMETRIC PLAN

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 05-21-24
EXHIBIT: A2

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

PROPOSED PACIFICA ON GOLF FACILITY

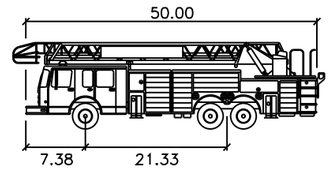
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 05-21-24
PROJECT #: 23-270
EXHIBIT: B1

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

PROPOSED PACIFICA ON GOLF FACILITY

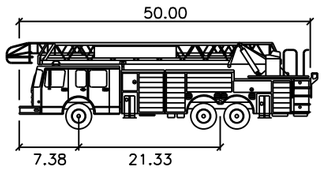
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 05-21-24
PROJECT #: 23-270
EXHIBIT: B2

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

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

PROPOSED BIKE RACK

PROPOSED "STOP" SIGN WITH PAINTED STOP BAR (TYP.)

PROPOSED "STOP" SIGN

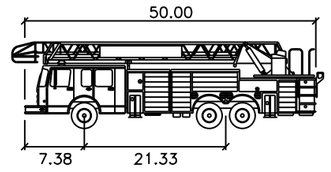
1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-02-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

ONLY

IL RTE 58 (GOLF ROAD)

1997 PIERCE LANCE 100' A.P.



	FEET
WIDTH	: 7.83
TRACK	: 7.00
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 35.4

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

FIRETRUCK MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 11-03-23 REV: 05-21-24
PROJECT #: 23-270
EXHIBIT: B3

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

PROPOSED PACIFICA ON GOLF FACILITY

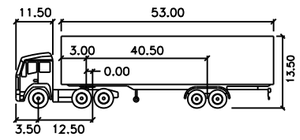
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-02-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
ARTICULATING ANGLE	: 70.0

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK INBOUND MANEUVERS

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 05-21-24
EXHIBIT: C1

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

PROPOSED PACIFICA ON GOLF FACILITY

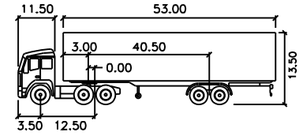
SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-02-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
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BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

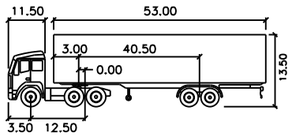
PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK INBOUND MANEUVER

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 05-21-24
EXHIBIT: C2

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

WB-55 TRUCK



	FEET
TRACTOR WIDTH	: 8.00
TRAILER WIDTH	: 8.50
TRACTOR TRACK	: 8.00
TRAILER TRACK	: 8.50
LOCK TO LOCK TIME	: 6.00
STEERING ANGLE	: 17.8
ARTICULATING ANGLE	: 70.0

BODY OF VEHICLE -
FRONT TIRES PATH -
REAR TIRES PATH -

PROPOSED PACIFICA ON GOLF FACILITY

N

SCALE: 1" = 60'

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT: 18.4'

PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

IL RTE 58 (GOLF ROAD)

PROPOSED PACIFICA
ROLLING MEADOWS, ILLINOIS

WB-55 TRUCK OUTBOUND MANEUVERS

DRAWN: MD
DATE: 11-03-23
PROJECT #: 23-270
CHECKED: LA
REV: 05-21-24
EXHIBIT: C3

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

STORMWATER MANAGEMENT REPORT

FOR

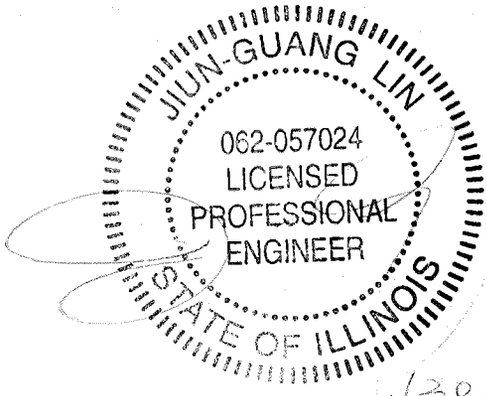
PACIFICA ON GOLF

1470 W. GOLF ROAD
ROLLING MEADOWS, IL
RC Project Number: 2022-0717

PREPARED BY: RIDGELINE CONSULTANTS, LLC
1661 AUCUTT ROAD
MONTGOMERY, IL 60538
Phone: 630-801-7927
Fax: 630-701-1385

COOK COUNTY, ILLINOIS

JANUARY, 2024



Expires 11/30/2025

Narrative

The project site is located at 1470 W Golf Road, Rolling Meadows in Cook County. The property has an area of 8.80 acres, occupied by a big-box commercial building and the supporting parking lots, driveways and the Truck delivery ramps. This commercial building was occupied by Sam's Club until January 2010 when it was closed down for business. The property was left vacant since. The current owner, Pacifica Rolling Meadows, LLC, purchased the property in late December 2022. The property is a portion of a 30.88-acre development from 1999, Marketplace of Rolling Meadows. The owner intends to turn the property to an Asian Fusion entertainment center consisting of a variety of restaurants, a gift shop, an Arcade, and a Grocery Store. Please see Site Improvements Plan for the details and the extent of the improvement. The property is located in a separate sewer area.

Based on our research into FEMA Flood Insurance Rate Map panel number 17031C0192J and 17031C0211J with an effective date of 08/19/2008,there is no regulatory floodplain or floodway existing onsite or immediate offsite. Based on US Fish and Wildlife Service National Wetlands Inventory, there is no wetland existing onsite or immediate offsite.

Upon researching into NRCS National Cooperative Soil Survey, the soil onsite is 805B, Orthents, Clayey, Undulating covering the entire property.

Because the development is greater than 0.5 acre in area, a watershed management permit is required per MWRD Watershed Management Ordinance (Ordinance). In addition, based on the Ordinance, the Runoff, Volume Control and Detention requirements of the Ordinance will have to be met because the project is a non-residential development on property holdings greater than or equal to 0.5, 0.5 and 3.0 acres respectively.

Marketplace was provided with detention per MWRD permit 99-230 using rainfall depth and methodology at that time, but not Volume Control as Volume Control was not incorporated in the current Watershed Management Ordinance (WMO) of MWRD until 2014. The required detention was originally provided by the combination of the parking lot surface, oversized storm sewers and the underground detention pipes. To account for the newly required detention and volume control volume as well as the runoff requirement, the current WMO Schedule D is followed.

From the Runoff Requirement standpoint, the onsite runoff within Marketplace overflows northerly and northeasterly before reaching Algonquin Rd. An analysis was prepared to assure that the overflow HWL is more than 1.0' lower than the finished floors of the nearby commercial buildings.

From the Volume Control standpoint, Schedule D.2, Volume Control Requirements, was followed to determine the required Volume Control volume and to assure that the provided BMP volume is greater than the required BMP volume. Similar to those proposed in the other Pacifica's commercial development in Aurora, the project BMP is provided through a Bio-Retention facility, only to follow MWRD's standard this time. The deep-rooted native plants, upon consulting with the local Ecological professional, will be planted by plugs, as opposed to be seeded, thus bypassing the germination and establishment periods to bolster a

more sturdy and healthy ecology environment. Seasonal Ground Water Table (SGWT) over at the Bio-Retention facility was determined through a Geotechnical Subsurface Investigation by a licensed PE, as required by WMO. The bottom of the proposed Bio-Retention facility is kept at a minimum of 2.0' above SGWT.

On the Detention Requirements, WMO Schedule D.3 through D.8 was followed. As allowed in WMO Section 504.9, the required detention was reduced and entirely replaced by the Volume Control provided for the project. In the other words, the Bio-Retention facility as proposed does address Volume Control and Detention requirements. Please note that the existing parking surface detention that was reduced by the regrading of the development is also accounted for as reflected in Schedule D.8.G of Watershed Management Permit Application.

It is our belief that the proposed development meets the minimum requirements of WMO.

EROSION AND SEDIMENTATION CONTROL MEASURES AND DEVICES/ BEST MANAGEMENT PRACTICES

Various soil erosion and sediment control measures and devices will be proposed to be implemented during construction activities. These measures are intended to protect downstream properties from erosion and sedimentation and to assure that surface or ground water quality is not unreasonable or unnecessarily degraded. The proposed erosion and sediment control features include:

- Temporary construction entrance for vehicle washdowns and removal of mud from tires.
- Silt fencing or Coir Logs surrounding the development area and the bio-retention facility.
- Disturbed areas vegetatively stabilized either temporarily or permanently and/or protected from soil erosion after final grading is accomplished.
- Installation of inlet protection filter baskets at existing and proposed storm sewer structures onsite and immediately offsite.

Best Management Practices incorporated into the project is a Bio-Retention Facility designed to meet WMO requirements.

STORMWATER MANAGEMENT SYSTEMS MONITORING AND MAINTENANCE PLAN

The property owners will be responsible for the periodic monitoring and maintenance of all stormwater storage and stormwater collection and conveyance systems and components within the limits of the site. Such systems and components include, but are not limited to storm sewer pipes and structures, overland drainage ways, all containment berms, and landscaping. The owner shall undertake appropriate measures to monitor and

maintain such facilities in accordance with the policies and procedures established under Stormwater Ordinances as amended as part of its routine maintenance operations

The program for monitoring and maintaining the stormwater management and/or stormwater conveyance facilities imposed under this plan shall include the following operations and procedures:

1. Swales and overland drainage ways shall be maintained to the line and grade established on the Site Improvement Plans to convey stormwater runoff in a free and unobstructed manner. Landscape plantings, earthen fill, or other obstructions that impede the flow of stormwater shall be removed, the area shall be re-graded, and a vegetative cover shall be re-established to deter erosion.

2. Existing storm sewers onsite needs to be regularly checked for blockage or sedimentation buildup which should be removed immediately.

3. Bio-Retention facility needs periodic maintenance. It is the owner's responsibility to inspect and maintain the functionality of the Bio-Retention Facility. If the Bio-Retention facility ceases to infiltrate, the owner needs to dig up the area, replace the filter fabric and water the stones before replacing each layer including the native landscaping. The perforated pipe riser or underdrain may become clogged or broken; periodically check to make sure water is flowing.

CONSTRUCTION SEQUENCE AND SCHEDULE OF IMPLEMENTATION FOR STORMWATER MANAGEMENT SYSTEM IMPROVEMENTS

The stormwater management systems and components proposed for construction on site including temporary and permanent erosion and sedimentation control measures and devices are intended to obtain and control stormwater so as to minimize increase in runoff rate, volumes, and pollutant loads during and following completion of construction in accordance with the Technical Guidance of the Ordinance, the U.S.E.P.A. "Guidance Specifying Management Measures for Sources of Non-point Pollution in Coastal Waters" and the United States Clean Water Act"33 U.S.C. 1251 as amended.

It will be incumbent upon the Contractor prior to that date to insure that (1) the stabilized construction entrance and silt fences/ditch check/coir logs are installed; (2) Bio-Retention Facility and Storm Sewers are properly constructed and maintained. Said erosion and sedimentation control measures and devices shall thereafter be monitored and maintained by the Contractor in accordance with NPDES guidelines. As soon as weather and growing conditions permit, topsoil shall be placed in the containment berms and the area vegetatively stabilized by a hydro-seeding and placement of erosion blanket.

Misc. Documents and Calculations

FIRMette

National Wetlands Inventory by US Fish & Wildlife Service

Soil Survey by USDA

Geotechnical Subsurface Investigation

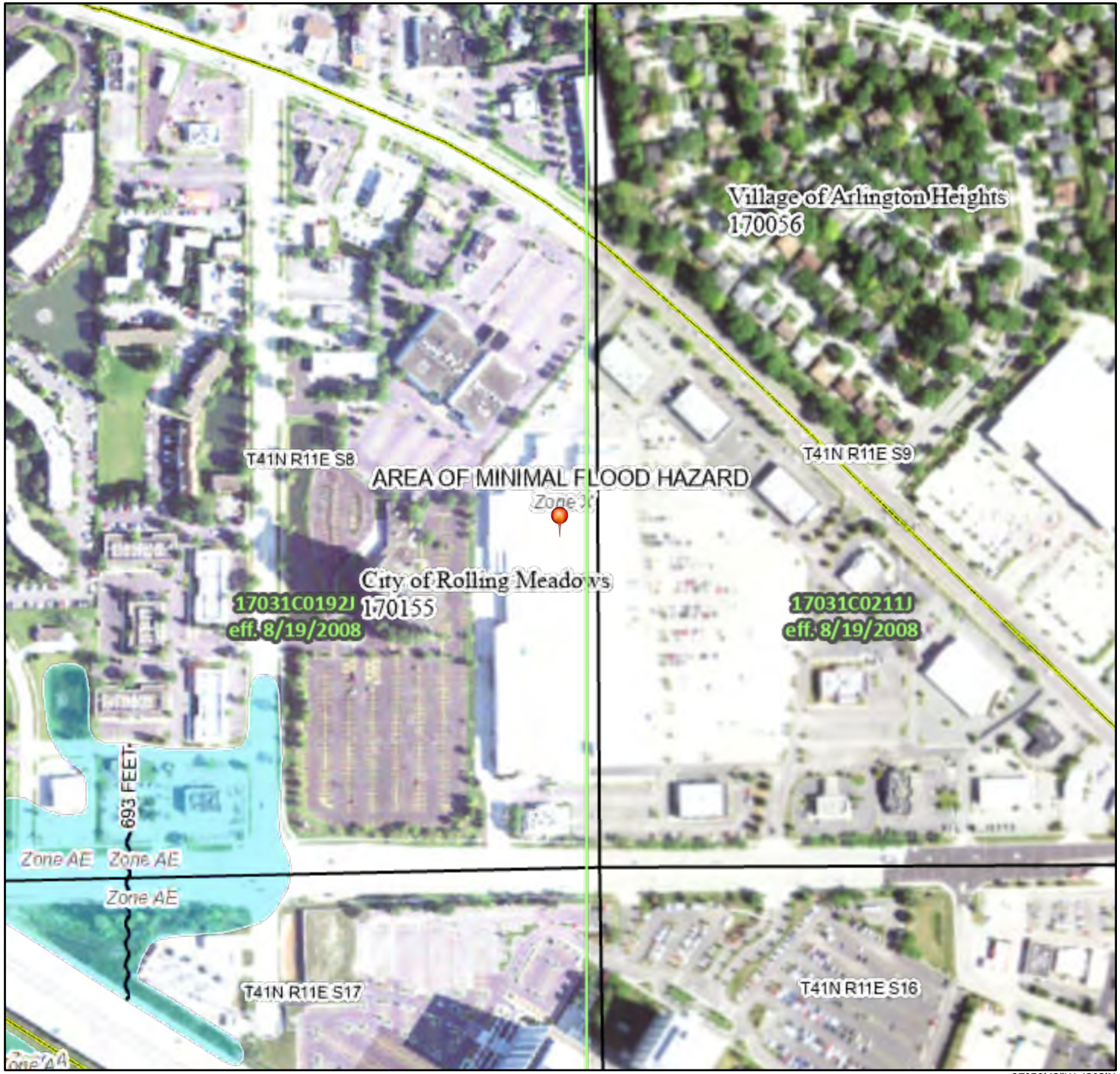
Drafted WMO Permit application

MWRD Permit 99-230

National Flood Hazard Layer FIRMette

FEMA

88°0'20"W 42°3'26"N



87°59'42"W 42°3'N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/21/2024 at 5:27 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands



January 21, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Map Scale: 1:1,510 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cook County, Illinois
Survey Area Data: Version 17, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 25, 2022—Aug 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
805B	Orthents, clayey, undulating	8.8	100.0%
Totals for Area of Interest		**8.8**	**100.0%**

Quality Environmental Solutions

419 York Street, Bolingbrook, Illinois 60440
Tel: (630) 724-1517 Fax: (630) 596-1066 www.qesco.com

Geotechnical Subsurface Investigation

at
1460-1470 W Golf Road
Rolling Meadows, Illinois 60008

QES Project # 23050

August 30, 2023

The following personnel has prepared and/or reviewed this report.



Signature

Jinan Yan, P.E. (License #062-051834)
Sr. Project Manager

August 30, 2023

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2.0 INTRODUCTION 2
2.1 Site Investigation Objectives 2
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4.4 Field Infiltration Rate Test 4
5.0 GENERAL CONSIDERATIONS AND CLOSING REMARKS 6
5.1 General Considerations 6
5.2 Closing Remarks 6

APPENDICES

Appendix A Soil Boring Location
Appendix B Soil Boring Log
Appendix C Soil Classification System
Appendix D Infiltration Test Result
Appendix E Soil Particle Analysis Result

1.0 EXECUTIVE SUMMARY

This geotechnical subsurface investigation report has been prepared for the proposed development at 1460-1470 West Golf Road in Rolling Meadows, Cook County, Illinois. The scope of the investigation included drilling, sampling and testing of soil at two (2) locations. The soil borings were advanced to a depth of ten (10) feet below grade. Soil samples were collected continuously to the terminus of each boring. Surface cover at the location of the borings consists of approximately two to three (2-3) feet fill material (mixture of clay of gravel). Beneath the fill materials, brown to grey loam (clayey silt with sand) was encountered to terminus of boring. During the drilling activities, groundwater encountered approximately 9.0 feet below grade.

Representative soil samples were obtained and soil classification (grain size analysis) was tested for each soil profile. Laboratory testing included moisture content and soil particle analysis. The laboratory soil classification result indicated that the soil was Loam: clayey silt with sand.

To obtain the permeability data for native soils, a field infiltrometer test was performed in accordance with the ASTM standards as well as the procedure contained in the City of Chicago Stormwater Management Ordinance Manual. Based on the testing results, the long-term infiltration rate, K, was estimated to be 0.01025 in/hr (inch per hour), or 9.376 x 10^{-6} cm/s (centimeter per second).

The Season High Ground Water Table (SHGWT) is the highest level at which the soil is situated with water. According to the soil profile and field observations (soil color changed from brown to grey), the SHGWT for the site is approximately 9.0 feet.

2.0 INTRODUCTION

2.1 Site Investigation Objectives

The subject property is located at 1460-1470 West Golf Road in Rolling Meadows, Cook County, Illinois. Previously, the property was occupied by a Sam's Club store. Currently, the property is vacant and unoccupied. A proposed bioretention facility will be constructed on the current parking lot. Quality Environmental Solutions (QES) was contracted to provide geotechnical data to assess the underlying soil conditions.

The scope of the investigation included drilling, sampling and testing of soil at two (2) locations, borings B1 and B2. The soil borings were advanced to a depth of ten (10) feet below grade. Representative soil samples were obtained and soil classification (grain size analysis) were tested for each soil profile. Seasonal high groundwater table were estimated based on soil profiles obtained from the field.

To obtain the permeability data for native soils, a field infiltrometer test was performed in accordance with the ASTM standards as well as the procedure contained in the City of Chicago Stormwater Management Ordinance Manual.

2.2 Project Overview

The purpose of this report is to provide geotechnical data to assess the underlying soil conditions. Seasonal high groundwater table was estimated based on soil profiles obtained from the field. A field Infiltration test was performed to determine the field permeability.

3.0 SUBSURFACE INVESTIGATION

3.1 Soil Boring Advancement

On August 21, 2023, QES mobilized subsurface drilling equipment to the boring locations, identified as B1 and B2, in the proposed bioretention facility area. Soil borings were advanced ten (10) feet below grade. A boring location diagram has been included in Appendix A of this report.

3.2 Soil Sampling

Representative soil samples were obtained using the split barrel sampling procedure performed in accordance with ASTM Standard D-1586, "Method for Penetration Test and Split Barrel Sampling of Soils." In a split barrel sampling procedure, a 140-pound hammer falls 30-inches and drives a two-inch outer diameter split barrel sampler into the soil 18-inches. Water level readings were taken during and following the completion of drilling operations.

The drill crew recorded a field log of the soils encountered in each boring. These field logs were later used to prepare the final geotechnical boring logs, which are included in the Appendix B of this report.

4.0 TESTING AND FIELD OBSERVATIONS

4.1 Testing

Soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the United Soil Classification System. A brief description of the Unified Soil Classification System has been included in Appendix C of this report.

Laboratory testing included moisture content and soil particle analysis for each soil profile. The laboratory soil classification result indicated that the soil was Loam: clayey silt with sand. The laboratory testing result is included in Appendix E of this report.

4.2 Subsurface Conditions

Surface cover at the location of the borings consists of approximately two to three (2-3) feet fill material (mixture of clay and gravel). Beneath the fill materials, brown to grey loam (clayey silt with sand) was encountered to terminus of boring. During the drilling activities, groundwater encountered approximately 9.0 feet below grade.

4.3 Groundwater Observations

The Season High Ground Water Table (SHGWT) is the highest level at which the soil is situated with water. The SHGWT is generally indicated by mottling (discoloration) and is determined with soil data collected from the soil borings advanced on site. The Munsell Color Charts was used to determine the value (degree of lightness), hue (color), and chroma (saturation) of the soil samples. According to the soil profile and field observations (soil color changed from brown to grey), the SHGWT for the site is approximately 9.0 feet.

4.4 Field Infiltration Rate Test

On August 21, 2023, a field Infiltration Test was conducted in accordance with the procedures outlined in the Chicago Stormwater Ordinance Manual. The field infiltration test was conducted in the current landscaping area (covered with mulch) near the boring B1. Detailed

location of the testing area is included in Appendix A in this Report. An approximately 2 feet by 2 feet pit was excavated at the test area. Once the mulch and all fill materials were removed, further excavation was performed to native soil. The depth of the pit was approximately 24 inches below grade. The bottom of the pit (test area) surface was prepared to nearly level. All excavated materials were placed near the excavated pit area. Once the testing is completed, the excavated soils were backfilled to the pit.

Once the testing surface was ready, the Infiltration Ring (Cylinder) was driven to depth of about 4 inches into the native soil. The excessive soil was packed against the inside and outside of the cylinder to achieve a good contact. Then, the cylinder was filled with clean water, and the water level decline was measured at regular intervals with a ruler, the clock time was recorded. This procedure was repeated for several hours until steady infiltration rate has been reached. The long-term infiltration rate, K, was estimated to be 0.01025 in/hr (inch per hour), or 9.376×10^{-6} cm/s (centimeter per second). Detailed infiltration testing data is provided in Appendix D.

5.0 GENERAL CONSIDERATIONS AND CLOSING REMARKS

5.1 General Considerations

This report has been prepared to aid in the evaluation and design of this project. If any changes occur in the design and/or location of the building, as outlined in this Report, we should be informed so that the soil engineer can review the changes and modify the conclusions of this report as necessary. Should deviations from the noted subsurface conditions be encountered during construction, attention should be brought to our geotechnical engineer. The recommendations provided in this report are based upon the data obtained from the soil borings performed at the locations indicated on the site diagram. It should be understood that the locations of the geotechnical borings are approximate, since no site survey was performed to locate the borings. This report does not reflect any variations that may occur between or beyond these borings.

5.2 Closing Remarks

The observations and conclusions contained herein are limited by the scope and intent of the work mutually agreed upon by the client and QES and the work actually performed.

Appendix A

SOIL BORING LOCATION

SITE PLAN

North
Scale 1" = 20'
20' 0' 20' 40'

SAMS CLUB
PARCEL 1A

PROP. OUTDOOR COURT YARD

HANDICAP ACCESSIBLE PARKING SIGN

"DO NOT ENTER" SIGN

"STOP" SIGN

PROPOSED FENCE

FOUND 1" IRON PIPE

FOUND MAG NAIL

10' UTILITY EASEMENT

SITE LIMITS

EXISTING SERVICE AREA

EXISTING RESTAURANT
BULLDOG ALE HOUSE
6,000 S.F.

NEW PATIO

NEW SIDEWALK

NEW PATIO

LAWN

LOT 2

NEW STRIPE ISLAND

NEW HANDICAP (5) PARKING AND SIGNAGE

NOTE:
TOTAL NUMBER OF PARKING STALLS PROVIDED = 506
INCLUDING ALL PARKING STALLS LOCATED ENTIRELY WITHIN PROPERTY BOUNDARY. PARKING COUNT ALSO INCLUDES 10 HANDICAP ACCESSIBLE PARKING STALLS.

GOLF ROAD (RTE. 58)

PARCEL 1A

Filtration Test Area

B1

B2

1450-1454 GOLF ROAD
1 STORY BRICK & CONCRETE BUILDING
10,239 SQ. FT.
HEIGHT 18.4'

LOT 3
PARCEL ID: 08-09-302-025
CAPMARK FINANCE INC.
DOC. #2002-561597

8 SPACES / 1 HC SPACE

9 SPACES

11 SPACES

16 SPACES / 2 HC SPACES

MENU BOARD

CLEARANCE POLE

ACCESS

EB SIGN

SB TV TSL

OHU

GOLF ROAD (RTE. 58)

SHEET	1
OF	1

PREPARED FOR:
PACIFIC SQUARE LLC.

PROPERTY ADDRESS:
1460 - 1470 W. GOLF ROAD
ROLLING MEADOWS, ILLINOIS

Ridgeline CONSULTANTS
CONSULTING ENGINEERS • LAND SURVEYORS

Ridgeline Consultants LLC
Illinois Professional Design Firm No. 184-004766
1661 Aucutt Road, Montgomery, IL 60538
PH: 630.801.7927 FAX: 630.701.1385
Jianfeng Hua P.L.S. 4071 Expiration Date 11/30/2024
George H. Skubelk P.L.S. 2580 Expiration Date 11/30/2024
Stacy L. Stewart P.L.S. 3415 Expiration Date 11/30/2024

REVISION	DATE	DESC

BOOK:
DRAWN: YCL
CHECKED: JGL
REFERENCE:
DATE: 07/07/2023
DWG. SIZE: E1
PROJECT NO. 2022-0717

Appendix B

SOIL BORING LOG

Project No: 23050	Boring Number: B1	Page: 1 of 1
		Date: 8/21/2023
Site Name: Commercial Property	Boring Location: See Attached Map Proposed Bioretention Area	Start:
Address: 1460-1470 W Golf Rd Rolling Meadows, IL 60008		Finish:

Sample Number	Sample Device	Samole Recovery (%)	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer, Qu	Blow Account (6"-6"-6")	Dry Unit Weight (rd), pcf
				1					
1	AS			2	Asphalt with fills (mixture of gravel and clay)				
2	SS	80		3 4	Loam (ML): Brown clayey silt with sand, moist			7,9,8	
3	SS	90		5 6 7 8					
4	SS	90		9				7,8,8	
				10	Loam (ML): Grey clayey silt with sand, wet				
				11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	EOB @ 10 ft				

Note: Stratification lines are approximately; in-situ transition between soil types may be gradual.

Groundwater Data		Rig Type: Hollow Stem Auger		Quality Environmental Solutions
Depth while Drilling	~9.0 ft	Geologist: Jack Yan	QES	
1 Hour after Drilling	~9.0 ft			
24 Hours after Drilling	not measured			
48 Hours after Drilling	not measured			

Project No: 23050	Boring Number: B2	Page: 1 of 1
		Date: 8/21/2023
Site Name: Commercial Property	Boring Location: See Attached Map Proposed Bioretention Area	Start:
Address: 1460-1470 W Golf Rd Rolling Meadows, IL 60008		Finish:

Sample Number	Sample Device	Samole Recovery (%)	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer, Qu	Blow Account (6"-6"-6")	Dry Unit Weight (rd), pcf
				1	Asphalt with fills (mixture of clay and gravel)				
1	AS			2					
				3					
2	SS	80		4				6,8,8	
				5	Loam (ML): brown clayey silt with sand, moist				
3	SS			6					
				7					
				8					
4	SS	90		9				8,7,9	
				10	Loam (ML): grey clayey silt with sand, wet				
				11	EOB @ 10 ft				
				12					
				13					
				14					
				15					
				16					
				17					
				18					
				19					
				20					
				21					
				22					
				23					
				24					
				25					

Note: Stratification lines are approximately; in-situ transition between soil types may be gradual.

Groundwater Data		Rig Type: Hollow Stem Auger		Quality Environmental Solutions
Depth while Drilling	~9.0 ft	Geologist: Jack Yan	QES	
1 Hour after Drilling	~9.0 ft			
24 Hours after Drilling	not measured			
48 Hours after Drilling	not measured			

Appendix C

SOIL CLASSIFICATION SYSTEM

DEFINITION OF TERMS RELATING TO STRATIFIED SOILS:

Parting	-	0 to 1/6 inch thickness
Seam	-	1/6 inch to ½ inch thickness
Layer	-	½ inch to 12 inches thickness
Stratum	-	Usually greater than 12 inches thick; occasionally less, e.g. topsoil
Varved Silt	-	Fresh water lake deposit usually in seams; occasionally in layers
Pocket	-	Small, erratic deposit usually in seams; occasionally in layers
Lens	-	Lenticular deposit, larger than pocket
Occasional	-	One or less per 12 inches of thickness
Frequent	-	More than one per 12 inches of thickness

DEGREE OF OVERALL *PLASTICITY*		***OVERALL PLASTICITY INDEX SAND-SILT-CLAY***	***IDENTIFICATION OF*** **PRINCIPAL COMPONENTS**	
TERM	SYMBOL		TERM	SYMBOL
Non-plastic		0	Silt	S
Slight	Sl	1 to 5	Clayey Silt	CyS
Low	L	5 to 10	Silt and Clay	S&C
Medium	M	10 to 20	Clay and Silt	C&S
High	H	20 to 40	Silty Clay	SyC
Very High	VH	over 40	Clay	C

Visual Log Patterns:

ASPHALT
CONCRETE
PEAT
FILL
Organic CLAY (medium-high plasticity) or SILT (OH)
Organic SILT or silty CLAY (low plasticity) (OL)
Inorganic CLAY (CL/CH)
Inorganic SILT (ML/MH)
Clayey SAND (SC)
Silty SAND (SM)
Clean SAND (SW/SP)
Clayey GRAVEL (GC)
Silty GRAVEL (GM)
Clean GRAVEL (GP)

Soil Description:

Material	Particle Size Range
Boulder	Over 12 inches
Cobble	3 to 12 inches
Coarse Gravel	¾ to 3 inches
Small Gravel	No. 4 sieve to ¾ inches
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Silt and Clay	Passing No. 200 sieve

Modifying Term	% by Weight
Trace	1 to 10
Little	10 to 20
Some	20 to 35

Cohesive Soils

Consistency	Qu/Qp (tsf)
Very Soft	Less than 0.3
Soft	0.3 to 0.6
Stiff	0.6 to 1.0
Tough	1.0 to 2.0
Very Tough	2.0 to 4.0
Hard	4.0 and over

Cohesionless Soils

Relative Density N (blow counts)
Very loose 0 to 4
loose 4 to 10
Firm (medium dense) 10 to 30
Dense 30 to 50
Very Dense 50 and over

Field and Lab Data

N: Standard penetration resistance, blow counts (blows per foot)
Moisture %: In situ water content
Qp: Unconfined compressive strength using a calibrated pocket penetrometer (tsf)
Dry Density: Dry unit weight in pounds per cubic foot
Sample Method: SS= split spoon, ST= Shelby Tube
AS= Auger Sample, HA= Hand Auger

Unified Soil Classification Chart

Criteria for assigning group symbols and group names using laboratory tests[a]				Soil classification	
				Group symbol	Group name[b]
Coarse-grained soils—more than 50% retained on #200 sieve	Gravels—more than 50% of coarse fraction retained on #4 sieve	Clean gravels—less than 5% fines	$C_u \geq 4$ and $1 \leq C_c \leq 3^e$	GW	Well-graded gravel[f]
			$C_u < 4$ and/or $1 > C_c > 3^e$	GP	Poorly graded gravel[f]
		Gravels with fines—more than 12% fines	Fines classify as ML or MH	GM	Silty gravel[f,g,h]
			Fines classify as CL or CH	GC	Clayey gravel[f,g,h]
	Sands—50% or more of coarse fraction passes #4 sieve	Clean sands—less than 5% fines	$C_u \geq 6$ and $1 \leq C_c \leq 3^e$	SW	Well-graded sand[f]
			$C_u < 6$ and/or $1 > C_c > 3^e$	SP	Poorly graded sand[f]
		Sands with fines—more than 12% fines	Fines classify as ML or MH	SM	Silty sand[g,h,i]
			Fines classify as CL or CH	SC	Clayey sand[g,h,i]
Fine-grained soils—50% or more passes the #200 sieve	Silts and clays—liquid limit less than 50	Inorganic	PI > 7 and plots on or above A line[j]	CL	Lean clay[k,l,m]
			PI < 4 or plots below A line[j]	ML	Silt[k,l,m]
		Organic	$\frac{\text{Liquid limit—oven dried}}{\text{Liquid limit—not dried}} < 0.75$	OL	Organic clay[k,l,m,n] / Organic silt[k,l,m,o]
	Silts and clays—liquid limit 50 or more	Inorganic	PI plots on or above A line	CH	Fat clay[k,l,m]
			PI plots below A line	MH	Elastic silt[k,l,m]
		Organic	$\frac{\text{Liquid limit—oven dried}}{\text{Liquid limit—not dried}} < 0.75$	OH	Organic clay[k,l,m,p] / Organic silt[k,l,m,q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

[a] Based on the material passing the 3-in (75 mm) sieve.

[b] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[c] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt; GW-GC well-graded gravel with clay; GP-GM poorly graded gravel with silt; GP-GC poorly graded gravel with clay.

[d] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt; SW-SC well-graded sand with clay; SP-SM poorly graded sand with silt; SP-SC poorly graded sand with clay.

[e] $C_u = D_{60}/D_{10}$ $\quad C_c = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[f] If soil contains ≥ 15% sand, add "with sand" to group name.

[g] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[h] If fines are organic, add "with organic fines" to group name.

[i] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[j] If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.

[k] If soil contains 15 to 29% plus #200, add "with sand" or "with gravel," whichever is predominant.

[l] If soil contains ≥ 30% plus #200, predominantly sand, add "sandy" to group name.

[m] If soil contains ≥ 30% plus #200, predominantly gravel, add "gravelly" to group name.

[n] PI ≥ 4 and plots on or above A line.

[o] PI < 4 or plots below A line.

[p] PI plots on or above A line.

[q] PI plots below A line.

Appendix D

INFILTRATION TEST RESULT

Project # 23050-Geo
Site: 1460-1470 W Golf Rd, Rolling Meadows
Date: 8/21/2023
Weather: Cloudy, 80s

Single Ring Infiltrometer Infiltration Test

Elapsed Time (minutes)	Change in Time (Minutes)	Water Decline (inch)	Water Decline (ft)	Cumulative Volume (cubic ft)
0	0	0.00	0.0000	0.0000
15	15	0.60	0.0500	0.03925
45	30	0.45	0.0375	0.06869
75	30	0.40	0.0333	0.09485
105	30	0.25	0.0208	0.11121
135	30	0.15	0.0125	0.12102
165	30	0.10	0.0083	0.12756
195	30	0.10	0.0083	0.13410
225	30	0.10	0.0083	0.14065
285	30	0.10	0.0083	0.14719
	Totals:	**2.25**	**0.1875**	**0.79481**

12-inch infiltrometer Volume Rate = 0.785 cubic feet/foot of drop

Infiltration Rate i=y/t = 0.00833/(30x60) = 0.0000046 feet per second (fps)

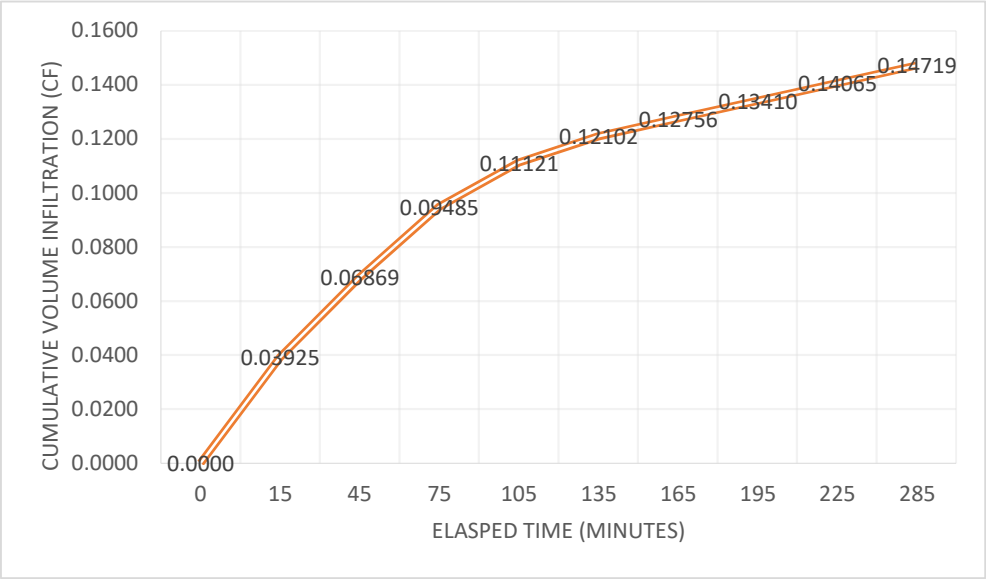
Z = 1.5 ft Y=0.1875 ft

iw=0.0000046*0.5*0.5/((0.5+0.5*0.5)*(0.5+0.5*0.5))
iw=0.000001415 fps

L=0.1875*0.5*0.5/(0.2*(0.5+0.5*0.5)*(0.5+0.5*0.5))
L= 0.41667 feet

K=iw*L/(Z+L)= 3.07611E-07 feet per second (fps)
K=iw*L/(Z+L)= **0.01025 in/hr** (Infiltration Rate)

Volume Infiltrated Verse Time



Appendix E

SOIL PARTICLE ANALYISIS RESULT

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave., Suite 150 Geneva, Illinois 60134
Tel. (708) 544-3260 • Toll Free (800) 783-LABS
Fax (708) 544-8587
www.suburbanlabs.com

August 28, 2023

Workorder: 2308J42

Jack Yan
Quality Environmental
419 York St.
Bolingbrook, IL 60440

TEL: (630) 724-1517
FAX: (630) 724-1519
RE: 23050/1460-1473 Golf Rd Rolling Meadow

Dear Jack Yan:

Suburban Laboratories, Inc. received 1 sample(s) on 8/22/2023 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,

Dan Galeher
Project Manager
708-544-3260 ext 216
dan@SuburbanLabs.com

Case Narrative

Client: Quality Environmental
Project: 23050/1460-1473 Golf Rd Rolling Meadow
WorkOrder: 2308J42
Temperature of samples upon receipt at SLI: C

Date: August 28, 2023
PO #:
QC Level: LEVEL I
Chain of Custody #:

General Comments:
- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:
- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS: (Surrogate Standard): Quality control compound added to the sample by the lab.
-LA: Lab Accident - No valid data to report.
-VO: Insufficient Volume provided
-BR: Received broken
-IP: Invalid Sampling

Method References:
For a complete list of method references please contact us.
- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater
- USP: Latest version of United States Pharmacopeia

Workorder Specific Comments: This report supersedes previous report dated today due to spelling error on Project name.

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Laboratory Results

Client ID: Quality Environmental
Project Name: 23050/1460-1473 Golf Rd Rolling Meadow

Report Date: August 28, 2023
Workorder: **2308J42**

Client Sample ID: **B1 (6-8)**
Lab ID: 2308J42-001
Date Received: 08/22/2023 9:51 AM

Matrix: SOIL
Collection Date: 08/21/2023 12:00 AM

Parameter	Result	Report Limit	Qual.	Units	Dilution Factor	Date Analyzed	Batch ID
PARTICLE-SIZE ANALYSIS OF SOILS		Method: ASTM-D422-Rev 1963				Analyst: KC	
% Soil in Suspension	COMPLETED	0	c		1	08/23/2023 9:48 AM	R166451
Diameter of Soil Particles	COMPLETED	0	c		1	08/23/2023 9:48 AM	R166451
Hydrometer	COMPLETED	0	c		1	08/23/2023 9:48 AM	R166451
Particle Density	COMPLETED	0	c		1	08/23/2023 9:48 AM	R166451
Sieve Analysis	COMPLETED	0	c		1	08/23/2023 9:48 AM	R166451

Created: 8/28/2023 3:43:18 PM

Suburban Laboratories, Inc.
1950 S. Batavia Ave., Suite 150, Geneva, IL 60134 (708) 544-3260

Qualifier Definitions

WO#: **2308J42**
Date: **8/28/2023**

Qualifiers:

*/x	Value exceeds Maximum Contaminant Level
B	Analyte detected in the associated Method Blank
C	Value is below Minimum Concentration Limit
c	Analyte not in TNI/NELAC scope of accreditation
E	Estimated, detected above quantitation range
G	Refer to case narrative page for specific comments
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limit (QL)
N	Tentatively identified compounds
ND	Not Detected at the Reporting Limit
P	Present
Q	Accreditation is not available from Wisconsin
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
T	Analyte detected in sample trip blank
V	EPA requires field analysis/filtration. Lab analysis would be considered past hold time.
WI	This sample was ran at the Wisconsin Laboratory, WI DNR Certified #246179890

SUBURBAN LABORATORIES, Inc.

1950 S. Batavia Ave. Ste. 150 Geneva, IL 60134 Tel. 708.544.3260 login@suburbanlabs.com www.suburbanlabs.com

CHAIN OF CUSTODY RECORD

Company Name: Quality Environmental Solutions
Company Address: 419 York Street
City: Belingbrook State: IL Zip: 60440
Office: 630-724-1517 Mobile: Fax: 630-596-1066
Email Address: jyan@qesco.com
Project ID / Location: 23050 / 1460-1470 Golf Rd. Rolling Meadows
Project Manager (Report to): Jack Yan
Sample Collector(s): Jack Yan

TURNAROUND TIME REQUESTED
[X] Normal [ ] RUSH*
* Must be pre-approved and surcharges apply. Checking this box indicates your approval of surcharges.
Date and Time Report Needed:

Specify Regulatory Program: [ ] None/Info Only
[ ] LUST [ ] SRP [ ] SDWA
[ ] 503 Sludge [ ] NPDES [ ] MWRDGC
[ ] Disposal [ ] CCDD [X] OTHER - Specify Below

ANALYSIS & METHOD REQUESTED
Enter an "X" in box below for request

Particle Analysis

T0107

Page 1 of 1
PO #
Report Type [ ] Normal [ ] Special*
* Additional charges apply for QC reports and raw data. Specify in comments section
Shipping Method

LAB USE ONLY
Work Order # 2308J42
Temperature of Received Samples 16 °C
Received within 24 hours of collection? [ ] No [ ] Yes

	SAMPLE IDENTIFICATION (Use 1 line per container type)	COLLECTION DATE	COLLECTION TIME	MATRIX	GRAB/ COMP.	CONTAINERS Qty	CONTAINERS SIZE & TYPE	PRESERVATIVE	Lab Comment	LAB #
1	B1 (6-8)	8/22/2023		Soil		1	Tube	None	X	
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

MATRIX: Drinking Water (DW), Soil (S), Waste Water (WW), Surface Water(SW), Ground Water (GW), Solid Waste (WA), Sludge (U), Wipe (P) CONTAINER: 2oz, 4oz, 8oz, 40ml Vial, 500ml, Liter (L), Tube, Glass (G), Plastic (P) PRESERVATIVE: H_2SO_4, HCl, HNO_3, Methanol (MeOH) NaOH, Sodium Bisulfate (NaB), NaThio

COMMENTS & SPECIAL INSTRUCTIONS:

1. Relinquished By	Date	2. Relinquished By	Date	3. Relinquished By	Date	4. Relinquished By	Date
	8/22/2023		8/22/23				
Received By ☐ Ice	Time 9:25	Received By ☐ Ice	Time 12:15	Received By ☐ Ice	Time	Received By ☐ Ice	Time

THIS FORM MUST BE FILLED OUT COMPLETELY BY THE SAMPLE COLLECTOR OR SUBMITTER AND ORIGINAL FORM MUST ACCOMPANY SAMPLES AT ALL TIMES. Rev 2/17

SUBURBAN LABORATORIES, Inc.
1950 S Batavia Ave Ste. 150 Geneva, Illinois 60134
Tel. (708) 544-3260 · Toll Free (800) 783-LABS · Fax (708) 544-8587
www.suburbanlabs.com

SLI Work Order: 2308J42 **Analysis Date: 8/25/2023**
SLI Sample ID: 2308J42-001A

Standard Test Method for Particle-Size Analysis of Soil

		Percent Retained
Sieve (U.S.)	Sieve Opening (mm)	2308J42-001A
1-1/2"	38.1	0.00%
1"	25.4	0.00%
0.75"	19.1	0.0%
No. 4	4.75	0.0%
No. 10	2.00	0.2%
No. 20	0.85	2.2%
No. 40	0.420	3.8%
No. 60	0.250	6.7%
No. 140	0.106	22.5%
No. 200	0.075	5.8%

		Percent Present
Particle(s)	Particle Size (mm)	2308J42-001A
Gravel	>4.75	0.0%
Sand, Course	4.74-2.0	0.2%
Sand, Medium	1.99-0.420	6.0%
Sand, Fine	0.419-0.075	35.0%
Silt	0.074-0.005	38.9%
Clay	<0.005-0.001	3.0%
Colloids	<0.001	16.9%

Analyst: Kara Coffel Date: 8/28/2023

Reviewed: _____ Date:

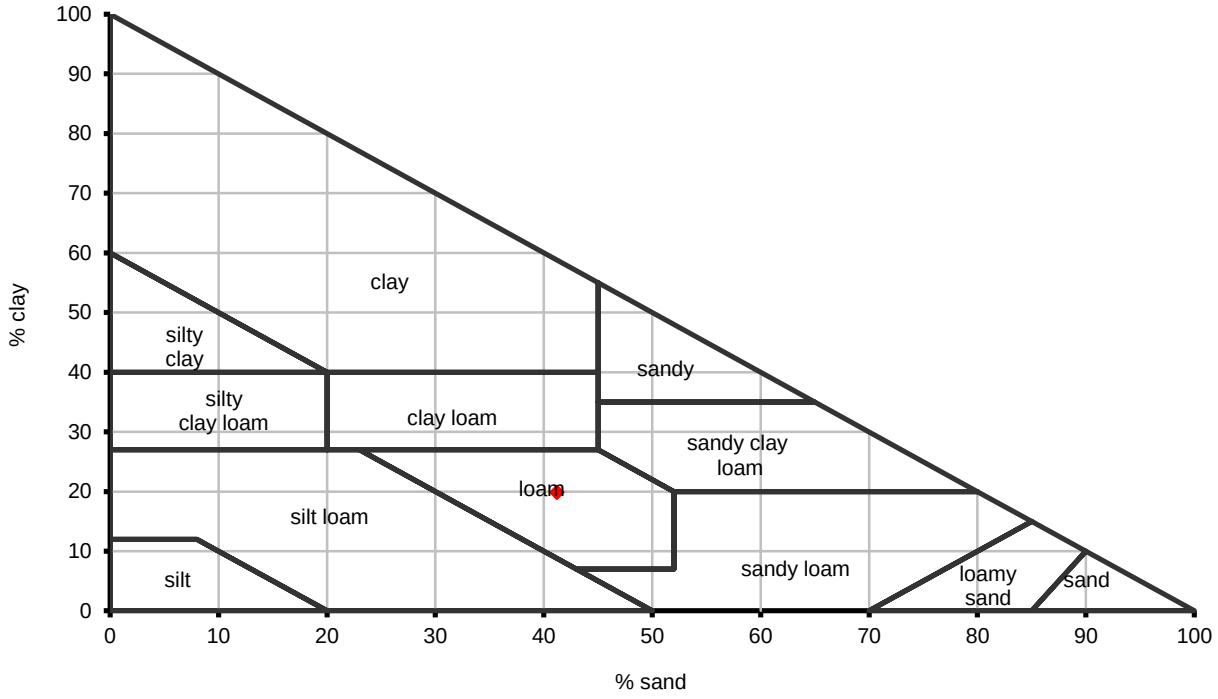
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www.suburbanlabs.com

SLI Work Order: 2308J42 **Analysis Date: 8/25/2023**

SLI Sample ID: 2308J42-001A

% SAND	% CLAY	%SILT
41.2	19.8	38.94

Soil Classification: Loam



Textural triangle by A. Gerakis and B. Baer, 26 July 2000.

WMO Permit Number: _____

WATERSHED MANAGEMENT PERMIT

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

LOCAL SEWER SYSTEMS SECTION
111 EAST ERIE STREET, CHICAGO, IL 60611
www.mwrd.org/wmo

INSTRUCTIONS FOR COMPLETING PERMIT FORM

Submit a signed copy of the Watershed Management Permit application electronically through the Watershed Management Ordinance Permit Application Submittal System (WPASS) at www.mwrd.org/wpass. Include any other applicable permit schedules with the application and check the appropriate boxes. Submit a signed and sealed copy of the plan set. If applicable, submit the Fee Payment Voucher and Payment Receipt. Payments can be mailed to the address at the top of this form or submitted electronically at https://mwrd.org/form/lsss-payment. For any questions or assistance with submitting the permit application please email us at wpass@mwrd.org or call (312) 751-3255.

NAME AND LOCATION OF PROJECT

Name of Project (as shown on the plan set): Pacifica On Golf

Location of Project (address or with respect to two major streets): 1470 Golf Rd., Rolling Meadows, IL 60008

Municipality (Township, if unincorporated): Rolling Meadows

PIN (include all impacted, use additional sheet if necessary): 08-08-403-036-0000, 08-09-302-034-0000

____-____-____-____-_____, ____-____-____-____-_____

SEWER AREA OF PROJECT

☐ Combined Sewer Area ☒ Separate Sewer Area

APPLICABLE PERMIT SCHEDULES

☒ Project Information (Required for all projects)	WMO Schedule A	(Page 5 of 9)
☒ Sewer Summary (Required for all projects)	WMO Schedule B	(Page 6 of 9)
☒ Sewer Connections (Required for all projects)	WMO Schedule C	(Page 7 of 9)
☐ Detention & Stormwater Management Facilities (WMO)	WMO Schedule D	(2 Pages)
☒ Detention & Stormwater Management Facilities (Legacy)	WMO Schedule D-Legacy	(4 Pages)
☐ Public Lift Station and/or Force Main	WMO Schedule E	(2 Pages)
☐ Characteristics of Waste Discharge	WMO Schedule F	(2 Pages)
☐ Treatment or Pretreatment Facilities	WMO Schedule G	(2 Pages)
☐ Hazard Areas (Floodplain / Floodway /Riparian Areas)	WMO Schedule H	(2 Pages)
☐ Affidavit Relative to Compliance with Article 7	WMO Schedule J	(1 Page)
☒ Affidavit of Disclosure of Property Interest	WMO Schedule K	(2 Pages)
☒ Notice of Requirements for Storm Water Detention	WMO Schedule L	(2 Pages)
☐ Outfall, Direct Connection, District Owned or Leased Property	WMO Schedule O	(1 Page)
☒ Soil Erosion and Sediment Control	WMO Schedule P	(1 Page)
☐ Recording and Maintenance	WMO Schedule R	(2 Pages)
☐ Wetlands and Wetland Buffer Areas	WMO Schedule W	(2 Pages)
☒ Current Survey of Property Interests (Required for most projects)	Exhibit A	

DISTRICT or AUTHORIZED MUNICIPALITY USE ONLY

Application Received: _____ Permit Issued: _____

PERMIT ISSUED BY: ☐ DISTRICT ☐ Authorized Municipality

WMO PERMIT
GENERAL CONDITIONS

WMO Permit Number:_____

1. **Definitions.** The definitions of Appendix A of the Watershed Management Ordinance are incorporated into this Watershed Management Permit by reference. Additionally, the following words and phrases shall be defined as follows:
    a) **Building and Occupancy Permit.** Building and Occupancy Permit issued by the Municipality.
    b) **Design Engineer.** A Professional Engineer who prepares plans and specifications for the project, and signs the Watershed Management Permit Application.
    c) **Inspection Engineer.** A Professional Engineer who inspects the development to ensure compliance with the design plans, specifications, a Watershed Management Permit, and the Watershed Management Ordinance.
    d) **Permit.** Watershed Management Permit.
    e) **General Conditions.** General Conditions contained in a Watershed Management Permit.
    f) **Special Conditions.** Special Conditions of this Watershed Management Permit.

2. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this Permit are made a part hereof. The Permit shall not relieve the Design Engineer of the sole responsibility for the adequacy of the design. The issuance of this Permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-Permittee or Design Engineer of their respective responsibilities.

3. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this Permit shall be a joint construction and operation permit, provided that the Permittee or Co-Permittee has complied with all General and Special Conditions.

4. **Allowable Discharges.** Discharges into the Sanitary Sewer system constructed under this Permit shall consist of sanitary Sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this Permit. Stormwater shall not be permitted to enter the Sanitary Sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the Sanitary Sewer system.

5. **Construction Inspection.** All erosion and sediment control facilities, Stormwater Facilities, Detention Facilities, and Qualified Sewer Construction shall be inspected and approved by an Inspection Engineer acting on behalf of the Permittee or the Owner of the project, or by a duly authorized and competent representative of the Inspection Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.

6. **Maintenance.** Stormwater Facilities, Detention Facilities, Qualified Sewer Construction, Sanitary Sewer lines, Combined Sewer lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the Permittee, the Co-Permittee, the property served, the Owner and the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property, unless the District has authorized assignment of the permit.

7. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and hold harmless the Metropolitan Water Reclamation District of Greater Chicago ("District", "MWRD", or "MWRDGC") and its Commissioners, officers, employees, servants, and agents from liabilities of every kind, including losses, damages and reasonable costs, payments and expenses (such as, but not limited to, court costs and reasonable attorneys' fees and disbursements), claims, demands, actions, suits, proceedings, judgments or settlements, any or all of which are asserted by any individual, private entity, or public entity against the District and its Commissioners, officers, employees, servants, or agents and arise out of or are in any way related to the issuance of this Permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and hold harmless the District and its Commissioners, officers, employees, servants, and agents from any claims or damages arising out of or in connection with the termination or revocation of this Permit.

   The Permittee shall be solely responsible for and shall defend, indemnify and hold harmless an Authorized Municipality and its elected officials, officers, employees, servants, and agents from liabilities of every kind, including losses, damages and reasonable costs, payments and expenses (such as, but not limited to, court costs and reasonable attorneys' fees and disbursements), claims, demands, actions, suits, proceedings, judgments or settlements, any or all of which are asserted by any individual, private entity, or public entity against the Authorized Municipality and its elected officials, officers, employees, servants, or agents and arise out of or are in any way related to the issuance of this Permit. Without limiting the generality

of the preceding sentence, the provisions of this paragraph shall extend to indemnify and hold harmless the Authorized Municipality and its elected officials, officers, employees, servants, and agents from any claims or damages arising out of or in connection with the termination or revocation of this Permit.

8. **Sewer Construction by District.** Permittee understands and acknowledges that the District has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this Permit is issued, and that by the District constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this Permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

   Therefore, by accepting this Permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the District and its Commissioners, officers, employees, servants, and agents of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee's successors and assigns hereafter can, shall, or may have against the District and its Commissioners, officers, employees, servants, and agents for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the District of sewer service facilities in the service area contemplated by this Permit, the rendering of such services, which District facilities and services decrease the value of the facilities constructed by the Permittee under this Permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under 70 ILCS 2605/19; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.

9. **Third Parties.** Regarding Qualified Sewer Construction, this Permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the District or of any other parties, (b) to construct outside of the territorial boundaries of the District except as allowed under an extraterritorial service agreement, (c) to construct or encroach upon the territorial boundaries of any units of local government within the District, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.

10. **Costs.** It is expressly stipulated and clearly understood that the Stormwater Facilities, Detention Facilities, Qualified Sewer Construction, or facilities for which the Permit is issued shall be constructed, operated and maintained at no cost to the District.

11. **Other Sewer Construction.** The District reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to a District interceptor and/or in public right-of-ways of District easements, and to introduce additional Sewage flow through this connection into the intercepting sewer of said District.

12. **Change of Use.** This Permit shall be incorporated in the Building and Occupancy Permit for the Building or Buildings served under this Permit. The Owner or occupant of any Building served under this Permit shall not cause, or permit, a change of use of the Building to a use other than that indicated in this Permit without first having obtained a written permission from the Executive Director of the District.

13. **Interceptors Overloading.** The District hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.

14. **Transferability.** This Permit may not be assigned or transferred without the written consent of the Executive Director of the District or Enforcement Officer of an Authorized Municipality. However, a Sole Permittee may be required to assign or transfer the Permit when divesting itself of ownership to a third-party and should notify the District prior to such divestment so that the District may determine whether assignment to the new owner is necessary.

15. **Termination.** The District has the right to enforce or revoke a Permit issued by either the District or an Authorized Municipality as outlined in Article 12 of the Watershed Management Ordinance.

    It is understood and agreed that in the event the Permittee shall default on or fail to perform and carryout any of the covenants, conditions or provisions of this Permit and such default or violation shall continue for sixty (60) days after receipt of notice thereof in writing given by the Executive Director of the District, then it shall be lawful for the District at or after the expiration of said sixty (60) days to declare said Permit terminated. The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this Permit. If the

Permittee fails to do so, the District shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the District for said disconnection.

16. **Rights and Remedies.** The various rights and remedies of the District contained in this Permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the District to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the District to pursue any other rights or remedies provided under the terms and provisions of this Permit or under any applicable rules, regulations, ordinances or laws.

17. **Expiration.** This Permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired Permit is deemed construction without a Permit. All construction under this Permit shall be completed within three (3) years after the date of permit issuance. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one (1) year period indicated will be considered from the date of final court action.

18. **Revocation.** In issuing this Permit, the District or Authorized Municipality has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this Permit, and all the rights of the Permittee hereunder shall immediately become null and void.

19. **Advance Notice.** The Permittee shall give the District or Authorized Municipality advance notice of at least two working days prior to the following: mobilization and installation of Erosion and Sediment Control Practices; commencement of construction; excavation for Qualified Sewer Construction; Major Stormwater Systems and Detention Facilities under this Permit; and completion of construction. When advance notice is given, the Permittee shall provide the Permit number, municipality and location.

20. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this Permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or Permit requirements shall be permitted unless revised plans have been submitted to, and approved by the District or Authorized Municipality. The Permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the jobsite at all times during construction and until final inspection and approval by the District or Authorized Municipality.

21. **Testing and Approval.** All construction under this Permit shall be subject to inspection, testing and approval by the District. All testing shall be made, or caused to be made, by the Permittee at no cost to the District and in the presence of the District representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the District. No sewer or other facilities shall be put in service until all the conditions of the Permit have been satisfactorily met.

22. **Record Drawings.** Before final inspection and approval by the District or an Authorized Municipality, the Permittee shall furnish, or cause to be furnished to the District or an Authorized Municipality, a set of Record drawings and Schedule R for the site stormwater plan, Detention Facilities, Stormwater Facilities, and Qualified Sewer Construction.

23. **Compliance with Rules and Regulations.** The Permittee hereby expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this Permit shall not constitute a waiver of any applicable requirements.

24. **Severability.** The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit, is held invalid, the remaining provisions of this Permit shall continue in full force and effect.

25. **Property Rights.** This Permit does not convey any property rights of any sort, or any exclusive privilege.

26. **Conflict with Other Conditions.** In the case of conflict between these General Conditions and any other condition(s) in this permit, the other condition(s) shall govern.

WMO SCHEDULE A
PROJECT INFORMATION

Watershed Management Permit No. ☐

1. **NAME OF PROJECT** Pacifica On Golf (as shown on the plans)

2. **APPURTENANCES** (check all applicable items)

☐ Siphon ☐ Drop Manholes ☐ Public Lift Station (Submit Sch. E) ☐ Outfalls (Submit Sch. O)

☐ Stream Crossing ☐ Direct Connections to District → Describe _____

3. **RECEIVING SANITARY/COMBINED SEWER SYSTEM**

A. System that project will connect to is:
☒ Existing ☐ Proposed /Under Construction → District Permit # _____

List owners of all sewers from project to District interceptor City of Rolling Meadows

4. **RECEIVING STORM SEWER SYSTEM TRIBUTARY TO WATERWAY**

A. System that project will connect to is:
☒ Existing ☐ Proposed /Under Construction → District Permit # _____

List owners of all sewers from project to waterway City of Rolling Meadows

5. **EXISTING LIFT STATION**

☒ No ☐ Yes → Receiving system includes existing lift station

If yes, indicate location _____

6. **FLOOD PROTECTION AREAS**
Does any part of the project area involve the following? (check all applicable items)

☐ Floodplain/Floodway/Riparian (Schedule H) ☐ Wetlands/Buffers/Riparian (Schedule W)

7. **SIZE OF PROJECT**

			Impervious area within project	
A. Total contiguous ownership interest	9.80	acres	C. Before development	1.25 acres
B. Development Area	1.28	acres	D. After development	1.07 acres

8. **STORMWATER MANAGEMENT**

A. Is project in the service area of a District permitted detention facility?
☐ No ☒ Yes → District Permit No. 99-230

B. Is stormwater management provided under this permit?
☐ No ☒ Yes → Required by: ☒ District (Submit Sch. D) ☐ Other

C. Type of stormwater management

☒ Runoff Control ☒ Volume Control ☒ Detention Storage

WMO SCHEDULE B

Watershed Management Permit No. _____

SEWER SUMMARY

PROJECT NAME: Pacifica On Golf
(as shown on the plans)

1. **SEWER SUMMARY:** Include all qualified sewer construction sewers (Sanitary sewers in combined and separate sewer areas and Storm sewers in combined sewer area) and their tributary type:
Sanitary (San), Combined (C), Storm to Combined (SC), Storm to Waterway (SW), or Storm part of Volume Control (SVC)

Tributary Type	Choose an Choose one	Choose an Choose one	Choose an Choose one	Choose an Choose one	Choose Choose one	Choose an Choose one	Choose Choose one
Pipe Size (in.)	N/A as no new sewer is proposed						
Total Length (ft.)							
Min. slope used (%)							
Pipe Material *							
Total Manholes							
Total Cleanouts							
Catch Basin/Inlets							

* Pipe material and joint specifications must be shown on plans. See Technical Guidance Manual for acceptable specifications.

Sewer construction in floodplain: ☒ No ☐ Yes → FPE _____ ft.

Sanitary Manholes in floodplain _____

Note: All structures shall have lids located above the FPE or be constructed with watertight, bolt down covers/lids.

2. **NATURE OF PROJECT** (Check all that apply)

Brief description Redevelopment To Ex. Retail/Commercial Site

- ☐ Publicly financed
- ☐ Sewer system serving a subdivision
- ☐ Off-site trunk sewer to serve subdivision
- ☐ Other _____
- ☐ Sewer extension to serve future development
- ☐ Storm sewers in combined sewer area
- ☒ Service connections to serve buildings (Sch. C)

3. **SEWER EXTENSIONS**

Identify proposed project designed to service future connections (not included in Schedule C). Check the appropriate box and submit service area map and estimate of population equivalent (PE) to be served.

☒ NO ☐ YES → ☐ Service area map

☐ P.E. estimate submitted

WMO SCHEDULE C SEWER CONNECTIONS

Watershed Management Permit No. _____

(FILL OUT ALL SECTIONS THAT APPLY)

1. BUILDING CONNECTION DATA

A. RESIDENTIAL BUILDINGS

☐ Single Family — Total dwelling units * _____

Number of sewer connections * _____ PE** _____

☐ Multi Family — Total dwelling units * _____

Number of sewer connections * _____ PE** _____

B. COMMERCIAL& RECREATIONAL BUILDINGS

☒ Number of sewer connections 2 PE** 266 (See calc.)

C. INDUSTRIAL BUILDINGS

☐ Number of sewer connections _____ PE** _____

* Each sanitary line exiting a building is a connection

** Population Equivalent (Submit calculations for each connection and total from all connections)

2. BUILDING USE - (Check all that apply)

A. COMMERCIAL & RECREATIONAL

Describe use of buildings, including principal product(s) or activities Grocery Store, Multiple Restaurants, Entertainment Centers for kids

☒ Food preparation or processing (install grease separator)

☐ Laundromat (install lint basin)

☐ Swimming pool (provide pool plans)

☐ Auto service (install triple basin)

☐ Manufacturing (describe) _____

☐ Auto wash (install mud basin)

☐ Other _____

B. INDUSTRIAL BUILDINGS

Describe use of buildings, including principal product(s) or activities _____

_____

☐ Sewer connections will receive domestic sewage only

☐ Industrial waste is produced

NOTE: If industrial waste is produced, submit WMO Schedule F & WMO Schedule G and plumbing plans along with flow diagram for pretreatment system.

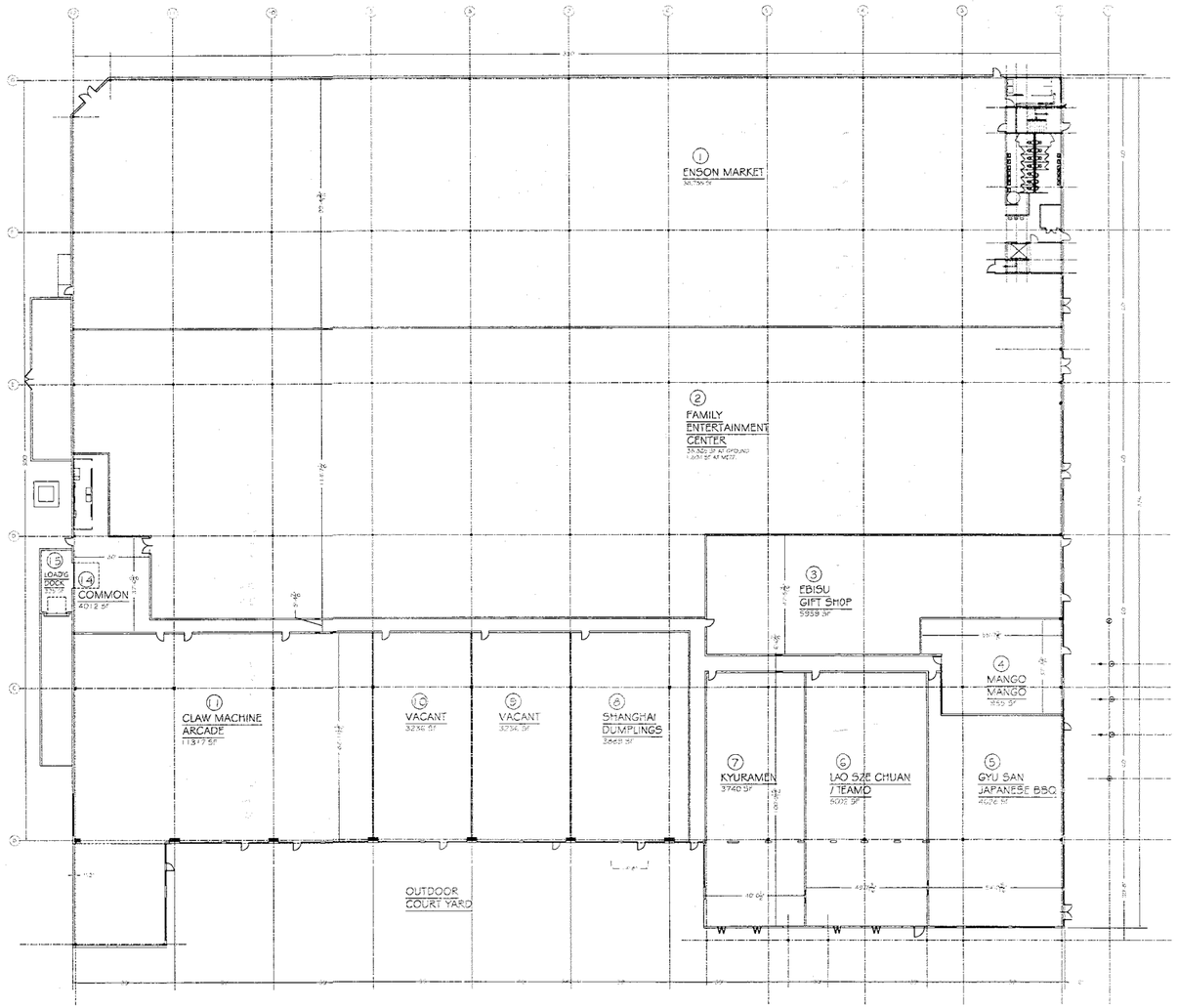
Pacifica on Golf, Rolling Meadows, IL

Sanitary Waste Estimate

Store Number	Store Name	Type	# of Workers (daily)	GPDPP(Worker)	# of Guests (Daily)	GPDPP(guests)	Total Discharge (Gallon)	PE	
1	Enson Market	Grocery Store						42	*
2	Family Entertainment Center	Kids Entertainment	20	15	200	2	700	7	
3	Ebisu Gift Shop	Gift Shop	4	15	30	2	120	1.2	
4	Mango Mango	Restaurant						30	*
5	Gyu San Japanese BBQ	Restaurant						30	*
6	Lao Sze Chuan	Restaurant						30	*
7	Kyu Ramen	Restaurant						30	*
8	Shanghai Dumplings	Restaurant						30	*
9	Unknow	Restaurant						30	*
10	Unknow	Restaurant						30	*
11	Claw Machine Arcade	Kids Entertainment	10	15	200	2	550	5.5	
							Total:	**265.7**	

Notes:

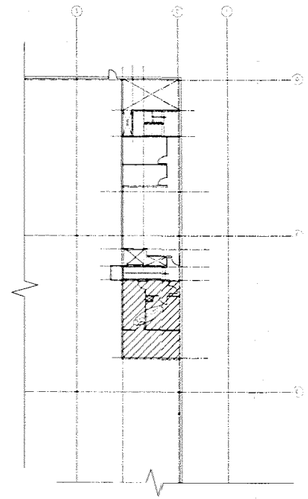
1. PE for the Grocery Store and the restaurant is based on the similar estiablishment in the other development in Aurora of Pacifica LLC



FLOOR LEASING PLAN

1/16" = 1'-0"

ZONING SUMMARY:
ZONING DISTRICT: C-2, PUD



LEASING PLAN

SUITE NO.	TENANT NAME	STORE AREA	COMMON AREA	LEASING AREA	REMARKS
	ENSON MARKET	46,000 SF	0	46,000	
SUMMARY OF STORE 1		46,000			
2	FAMILY ENTERTAINMENT CENTER	55,320 SF AT GROUND 1,000 SF AT MEZZ.	4012	60,332	
3	EBISU GIFT SHOP	5,958 SF		6,279	
4	MANGO MANGO	3,740 SF		3,855	
5	GYU SAN JAPANESE BBQ	4,026 SF		4,142	
6	LAO SZE CHUAN / TEAMO	5,032 SF		5,157	
7	KYURAMEN	3,740 SF		3,855	
8	SHANGHAI DUMPLINGS	3,668 SF		3,783	
9	VACANT	3,734 SF		3,849	
10	VACANT	3,234 SF		3,349	
11	CLAW MACHINE ARCADE	11,317 SF		11,617	
12	VACANT	3,234 SF		3,349	
13	COMMON	4,012 SF		4,012	
14	LOADING DOCK / STORAGE	1,000 SF	0	1,000	
SUMMARY OF STORE 2-13		46,000		60,332	
TOTAL PLAZA AREA				120,753	

LEASING PLAN FOR MANAGEMENT USE

ROLLING MEADOWS LEASING PLAN

1458 GOLF ROAD, ROLLING MEADOWS, IL 60008

PACIFICA PLAZA II

RAY H.C. FANG

REVISION LOGS

NO.	DESCRIPTION	BY	DATE
1	1ST SUBMITTAL	RAY	5/30/2023
2	2ND SUBMITTAL PER CITY COMMENTS	RAY	6/30/2023

DRAWN: RAY 5/30/2023
CHECKED: JUDY 6/30/2023
APPROVED:
PROJECT NUMBER: PH-01
SCALE: AS SHOWN
APPROVED:

STATE OF ILLINOIS
HUNG-CHUN FANG
011348
REGISTERED ARCHITECT

SHEET NO.
A-1

UTILITY INVOICE

Account #: 288055-39388
Name: PARK TO SHOP Grocery Store
Service At: 4334 E NEW YORK ST
Bill Date: 07/24/2023

Rate Class: Commercial
Bill Type: CYCLE BILL
Cycle/Route: 60-05
Due Date: 08/14/2023

Meter #	Service Period	No. of Days	Previous Read	Current Read	Usage
0087180879	05/11/23 to 07/14/23	64	7119	7480	361 CCF

Previous Balance	$1,932.20
Last Payment Amount	($1,932.20)
Adjustment	$0.00
Balance Forward	$0.00

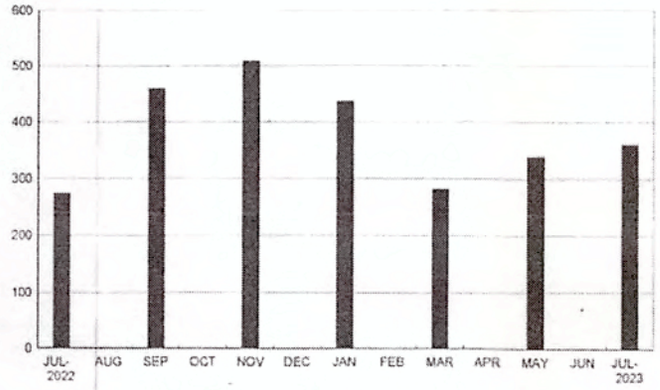
EPA-MANDATED LONG-TERM CONTROL PLAN 06/30/23 - 08/31/23	$5.85
WATER AVAILABILITY	$21.05
STORMWATER MGMT FEE	$6.90
WATER CONSUMPTION	$2,220.15
TOTAL CURRENT CHARGES	$2,253.95

Water Usage = 361 CCF x $\frac{748 \text{ gallons}}{CCF}$ ÷ 64 days x $\frac{PE}{100 GPD}$

= 42 PE (Per Grocery Store)

Balance Forward	$0.00
Total Current Charges	$2,253.95
Due Date for Current Charges only	08/14/2023
TOTAL AMOUNT DUE	$2,253.95
AMOUNT DUE AFTER 08/14/2023	$2,479.36

1 CCF = 748 Gallons



The City of Aurora will adjust its rates for water and sewer service effective July 1, 2023. The adjustments for water and sewer service are necessary to cover higher operating and capital costs associated with the city's water and sewer system. For more information, please visit the city's website at www.aurora-il.org

361 x 748 = 270,028

PAID
ck #5870
JUL 27 2023

UTILITY INVOICE

Account #: [redacted]
Name: [redacted] PHO
Service At: 4330 E NEW YORK ST 2M
Bill Date: 03/20/2023

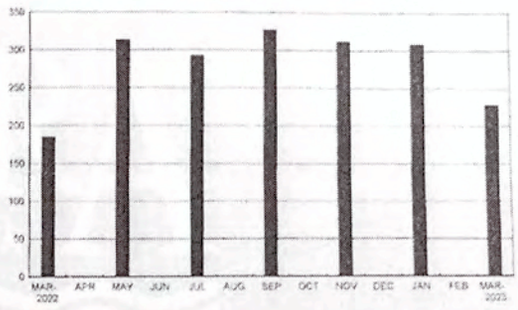
Rate Class: Commercial
Bill Type: CYCLE BILL
Cycle/Route: 60-05
Due Date: 04/10/2023

Meter #	Service Period	No. of Days	Previous Read	Current Read	Usage
[redacted]	01/12/23 to 03/10/23	57	2674	2902	228 CCF

Previous Balance	$1,764.20
Last Payment Amount	($1,764.20)
Adjustment	$0.00
Balance Forward	$0.00

EPA-MANDATED LONG-TERM CONTROL PLAN 02/28/23 - 04/30/23	$5.85
WATER AVAILABILITY	$21.05
STORMWATER MGMT FEE	$6.90
WATER CONSUMPTION	$1,276.80
TOTAL CURRENT CHARGES	$1,310.60

1 CCF = 748 Gallons



Water Usage:
228 CCF x 748 gallon / CCF ÷ 57 days
x PE / 100 GPD = 30 PE (Per Restaurant)

Balance Forward	$0.00
Total Current Charges	$1,310.60
Due Date for Current Charges only	04/10/2023
TOTAL AMOUNT DUE	$1,310.60
AMOUNT DUE AFTER 04/10/2023	$1,441.67

Please See Reverse For Additional Billing Information

Return This Remittance Stub With Your Check Made Payable To The City Of Aurora

City of Aurora
44 East Downer Place
Aurora, IL 60507

630-256-3600 • 630-256-3609 FAX
Office Hours: Monday - Friday 8 a.m. to 5 p.m.

ACCOUNT NUMBER: [redacted]
TOTAL AMOUNT DUE: $1,310.60
AMOUNT DUE AFTER 04/10/2023 $1,441.67
PAYMENT ENCLOSED:

SERVICE AT: 4330 E NEW YORK ST 2M

AUR0320A 2665 1 AV 0.471
7000002676 00.0007.0294 2665/1

NOODLE STATION PHO Restaurant
4330 E NEW YORK ST 2M
AURORA IL 60504-4121

CITY OF AURORA
PO BOX 2697
AURORA, IL 60507-2697

4/5/23 paid

00029470300003914500000131060 7

ENGINEERING CERTIFICATIONS

Watershed Management Permit No. _____

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, local, state and federal laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that where the design involves one or more connections to an existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the stormwater and/or wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: Ridgeline Consultants LLC **Telephone:** (630) 915-1747

Address: 661 Aucutt Rd **City:** Montgomery **Zip:** 60538

JIUNGUANG LIN 062-057024 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS Expires 11/30/2025

Signature: _____ **Date:** 01/31/24

(Name and Title)

Email Address: jlin@ridgelineconsultantsllc.com

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper in accordance with local requirements. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the stormwater and/or wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

I hereby certify that the project area is within the municipal corporate limits. ☐ YES ☐ NO

Owner of Local Sewer System: _____

Municipal Engineer: _____ **Telephone:** _____

Address: _____ **City:** _____ **Zip** _____

P.E. SEAL

Signature: _____ **Date:** _____

(Name and Title)

Email Address: _____

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the Permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the District or an Authorized Municipality before testing and approval by the District or Authorized Municipality of the completed work.

Engineering Firm: Ridgeline Consultants LLC **Telephone:** 630-915-1747

Address: 661 Aucutt Rd **City:** Montgomery **Zip** 60538

JIUNGUANG LIN 062-057024 P.E. LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS Expires 11/30/2025

Signature: _____ **Date:** 01/31/24

(Name and Title)

Email Address: jlin@ridgelineconsultantsllc.com

SPECIAL CONDITIONS

Watershed Management Permit No. _____

This Permit is issued subject to the General Conditions and the attached Special Conditions.

If Permit is granted:

☐ **Please return two (2) copies of the Permit to the Permittee; or**
☒ **Please mail one (1) copy to Permittee and one (1) copy to the person designated below:**

Name: Jiun-Guang Lin of Ridgeline Consultants LLC
Address : 1661 Aucutt Rd, Montgomery, IL 60538
Email : jlin@ridgelineconsultantsllc.com

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this Permit application, and agree to conform to the Permit conditions and other applicable requirements of the District. It is understood that construction hereunder, after the Permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the District or an Authorized Municipality. It is further understood that this application shall not constitute a Permit until it is approved, signed and returned by the Director of Engineering of the District or Enforcement Officer of an Authorized Municipality.

PERMITTEE **The project area is within municipal corporate limits.** ☐ Yes ☐ No ☐ Not Applicable	**CO-PERMITTEE** **(Co-Permittee is Property Owner)** Title to property is held in a land trust: ☐ Yes ☒ No If yes, Co-Permittee shall be beneficiary with Power of Direction
Municipality	Owner Pacifica Rolling Meadows LLC
Address	Address 4360 E New York St.
City Zip	City Aurora Zip 60504
Signature	Signature judy ni
Name (Print)	Name Judy Ni (Print)
Title	Title Director of Real Estate
Date Phone	Date 08/07/2023 Phone 330-807-2272
Email	Email judy@windfallusa.com

REVIEW AND APPROVAL BY THE DISTRICT OR AUTHORIZED MUNICIPALITY

Reviewed by: _____ **Date** _____
(Local Sewer Systems) or (Professional Engineer)

Approved for Issue

Approved by: _____ **Date** _____
(For the Director of Engineering) or (Enforcement Officer)

SCHEDULE D – LEGACY

WMO Permit Number: _____

STORMWATER MANAGEMENT FACILITIES

NAME OF PROJECT: Pacifica On Golf

(Submit a separate Schedule D for each stormwater facility, as needed)

1. RUNOFF REQUIREMENTS: Submit calculations and an exhibit that delineates the 100-year critical storm conveyed by the major stormwater system including cross-sections indicating the HGL at critical points (e.g. overflow weirs)

A. Method used to calculate the 100-year peak design runoff rate:
☐ Hydrologic model ☒ Rational Method → $i_{100\text{-year}}$ 10.59 in/hr
(100-yr 24-hr Depth → 8.59 in × 0.21 = rate of in/hr/acre; 0.17 Hr. ← Time of Concentration (10 Min.))

B. Onsite tributary area to the major stormwater system ..... (C) or CN 0.84 , 30.27 acres

C. Offsite tributary area to the major stormwater system ..... C or CN _____ , 0 acres

D. Total tributary area to the major stormwater system ..... (C) or CN 0.84 , 30.27 acres

E. Ratio of offsite to onsite tributary area 0

F. Time-of-concentration ..... 10 minutes

G. 100-year peak design runoff rate ..... 269.3 cfs

H. Capacity of major stormwater system discharging offsite ..... >71.2 cfs

I. Offsite discharge location of the major stormwater system:
☒ ROW/drainage easement ☒ Adjacent property *(submit calculations to comply with §502.3.B)*

J. Type and location of major stormwater system: Combination of Underground Storage & Parking Lot Surface

K. Building lowest entry elevation(s) are located at least 1 foot above the adjacent HGL:
(Submit calculations and cross-sections showing the lowest entry elevation(s) and adjacent HGL)
☐ Yes ☒ No *(for existing buildings located within the property holdings, submit acknowledgment)*

2. VOLUME CONTROL REQUIREMENTS: Submit calculations and a detail for the volume control facility including a cross-section indicating relevant elevations and the seasonal high groundwater table (SHGWT).

A. Does the site have any restrictive covenants related to environmental conditions (e.g., NFR letter)?
☒ No ☐ Yes → Explain: _____

B. Site constraint(s) that precludes the use of onsite retention-based practices *(submit documentation)*:
☒ None ☐ SHGWT ☐ Contaminated Soil ☐ Other: _____

C. Proposed impervious area of development ..... 1.07 acres

D. Gross volume control storage *(2.C / 12)* ..... 0.089 ac-ft

E. The onsite gross volume control storage may be reduced when a site constraint is present:
1. Existing impervious area within development ..... 0 acres
2. VC storage reduction *(5)(2.D)[1 – (2.C / 2.E.1)]* ..... 0 ac-ft

F. Required volume control storage *(2.D – 2.E.2)* ..... 0.089 ac-ft

G. Provided volume within retention-based practice ..... 0.184 ac-ft

H. Volume control facility *(*only when a site constraint is present)*:
☒ Retention-based practice* → Type of practice: Bioretention Storage
☐ Flow-through practice* → Type of practice: _____
☐ Detention Storage* → Type of facility: _____
☐ Offsite retention-based practice* → WMO Permit Number: _____

I. Facility designed as an offsite retention-based practice:
☒ No ☐ Yes → Impervious runoff volume tributary to facility ..... _____ ac-ft

SCHEDULE D – LEGACY
STORMWATER MANAGEMENT FACILITIES

WMO Permit Number: _____

3. EXISTING DETENTION FACILITY APPROVED UNDER:

- ☒ Sewer Permit Ordinance → SPO Permit Number: 99-230
  (Complete items 4, 5, 7, 8)
- ☐ Watershed Management Ordinance → WMO Permit Number: _____
  (Complete items 4, 5, 7, 9 or 10)
- ☐ Not permitted by MWRD → Date Constructed: _____
  (Complete items 4, 6, 7, 8)

4. REDEVELOPMENT INFORMATION: When the detention service area is redeveloped in the amount specified in §505.4.B of the WMO, the control structure must be modified and documented on Item 7 of this schedule.

A. Watershed specific release rate *(Appendix B)*	0.20	cfs/ac
B. Redevelopment area	1.15	acres
C. Detention Service Area *(existing or revised)*	30.27	acres
D. Redevelopment percentage *(4.B / 4.C)*	3.80	%

5. INFORMATION FOR EXISTING DETENTION FACILIY PERMITTED BY MWRD: Information obtained from the approved permit and recent survey. The existing detention facility may be modified to comply with the existing and/or new stormwater detention requirements.

A. Detention Service Area	30.27	acres
B. Gross allowable release rate	8.40	cfs
C. Unrestricted release rate	1.03	cfs
D. Depressional storage release rate adjustment	0	cfs
E. Net allowable release rate	7.37	cfs
F. Actual release rate	7.37	cfs
G. Required detention volume at actual release rate	6.15	ac-ft
H. Provided detention volume at HWL	6.18	ac-ft

6. INFORMATION FOR EXISTING DETENTION FACILIY NOT PERMITTED BY MWRD:

SPO methodology may be used to determine the stormwater detention requirements for existing detention facilities constructed prior to May 1, 2014. If constructed on or after May 1, 2014, use WMO Schedule D.

A. Detention Service Area		acres
B. Time-of-concentration		minutes
C. 3-year storm rainfall intensity		in/hr
D. Gross allowable release rate		cfs
E. Unrestricted release rate *(100-year rainfall intensity)*		cfs
F. Net allowable release rate *(6.D – 6.E)*		cfs
G. Composite C *(excluding unrestricted area)*		
H. Required detention volume at actual release rate *(7.H.2)*		ac-ft

SCHEDULE D – LEGACY
STORMWATER MANAGEMENT FACILITIES

WMO Permit Number: _____

7. REDEVELOPMENT RELEASE RATE REQUIREMENTS: Provide an exhibit delineating the assigned release rates for the redevelopment and remaining non-redeveloped areas of the detention service area. Release rates must be based on the lesser of the watershed specific release rate or the existing gross allowable release rate.

A.	Redeveloped area	1.28 ac, 0.20	cfs/ac
B.	Remaining detention service area	28.99 ac, 0.28	cfs/ac
C.	New composite gross allowable release rate	8.37	cfs
D.	Unrestricted area (*existing* or *revised*)	(C) or CN 0.8 , 0.17	acres
E.	Unrestricted release rate *(100-year, 24-hour storm)*	1.44	cfs
F.	Depressional storage release rate adjustment *(100-year, 24-hour storm)*	0	cfs
G.	New composite net allowable release rate *(7.C – 7.E – 7.F)*	6.93	cfs

H. Control structure (restrictor) information:

☐ Existing/Verified ____ ☒ Proposed

1. Diameter	8.75 in	2. Actual Release Rate	6.89 cfs
3. C_d	0.60	4. HWL	701.5 ft } Adjusted to Current Project Datum
5. Type	Orifice Plate	6. Invert elevation	689.38 ft }

8. REDEVELOPMENT TRIBUTARY TO SPO EXISTING DETENTION FACILITY: This item is for existing detention facilities approved under the SPO. All volumes must be based on the lesser of the watershed specific release rate or the actual release rate for the redevelopment area.

A.	Release rate for the redevelopment	0.20 ← From Sch D.4.A	cfs/ac
B.	Existing required detention volume for redevelopment	C 0.884, 0.365	ac-ft
C.	Proposed required detention volume for redevelopment	C 0.785, 0.407	ac-ft
D.	Incremental detention volume *(8.C – 8.B)*	0.042	ac-ft
E.	Provided storage within retention-based practice ~~*(2.F)*~~ 2.9	0.184	ac-ft
F.	New required detention volume *((5.G or 6.H) + 8.D – 8.E)*	6.008	ac-ft
G.	Verified detention volume ~~*(from survey)*~~ Provided Volume of 6.18 Ac-ft from Permit 99-230 (without verification) – 0.129 Ac-ft (fill caused by regrading w/ Development)	6.051	ac-ft
H.	Additional detention volume required *(8.F – 8.G)*	-0.043	ac-ft
I.	New provided detention volume at HWL *(must be ≥ ~~8.G~~ 8.H)*	0	ac-ft

9. REDEVELOPMENT TRIBUTARY TO WMO NOMOGRAPH EXISTING DETENTION FACILITY: This item is for existing detention facilities approved under the WMO using the nomograph. All volumes must be based on the lesser of the watershed specific release rate or the actual release rate for the redevelopment area.

A.	Release rate allocated for the redevelopment		cfs/ac
B.	Existing required detention volume for redevelopment	CN_{adj} _____ ,	ac-ft
C.	Proposed required detention volume for redevelopment	CN_{adj} _____ ,	ac-ft
D.	Incremental detention volume *(9.C – 9.B)*		ac-ft
E.	New required detention volume *(5.G + 9.D)*		ac-ft
F.	Verified detention volume *(from survey)*		ac-ft
G.	Additional detention volume required *(9.E – 9.F)*		ac-ft
H.	New provided detention volume at HWL *(must be ≥ 8.G)*		ac-ft

SCHEDULE D – LEGACY

WMO Permit Number: _____

STORMWATER MANAGEMENT FACILITIES

10. REDEVELOPMENT TRIBUTARY TO WMO MODELED EXISTING DETENTION FACILITY: This item is for existing detention facilities approved under the WMO using a hydrologic model. All volumes must be based on the lesser of the watershed specific release rate or the actual release rate pro-rated for the redevelopment area.

A. Time-of-concentration _____ minutes

B. Redevelopment area detained *(include trade areas)* _____ CN_{adj} _____ , _____ acres

C. Remaining non-redeveloped area detained _____ CN_{adj} _____ , _____ acres

D. Required detention volume at actual release rate *(7.H.2)* _____ ac-ft

E. Provided detention volume at HWL *(7.H.4)* _____ ac-ft

Engineering Firm: Ridgeline Consultants LLC

Name: Jiun-Guang Lin **Phone:** 630-915-1747

Title: Engineer **Email:** jlin@ridgelineconsultantsllc.com

Signature: _____ **Date:** 02/01/24

JIUN-GUANG LIN
062-057024
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

Expires 11/30/2025

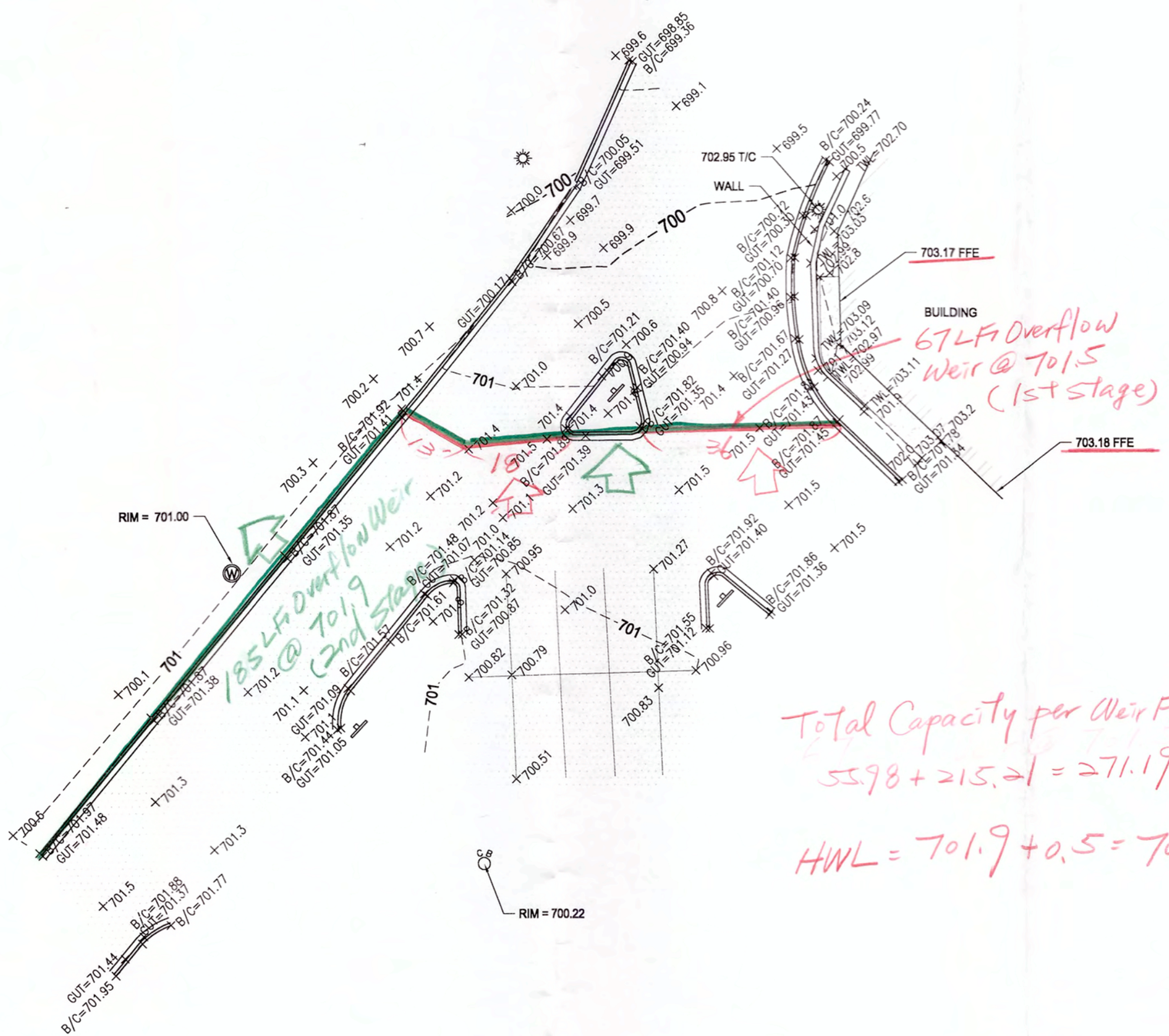
NEW WILKE RD

S KENNICOTT DR

W ALGONQUIN RD

Overflow of Attractive Market place.

Cook County GIS



Total Capacity per Weir Flow Calculator

55.98 + 215.21 = 271.19 (cfs) >> 69.3 cfs

OK!

HWL = 701.9 + 0.5 = 702.4

x FFE of Walmart 703.99

We Deliver. Get our products shipped directly to you. Freight included on Select Products!

back to calculators

Weir Flow Calculator

Metric U.S. Standard

Head 0.4 ft

Weir Length 67 ft

Calculate

Results

Q 55.98 cubic feet/sec

Discharge 25124.84 gpm

We Deliver. Get our products shipped directly to you. Freight included on Select Products!

back to calculators

Weir Flow Calculator

Metric U.S. Standard

Head 0.5 ft

Weir Length 185 ft

Calculate

Results

Q 215.21 cubic feet/sec

Discharge 96595.04 gpm

WATERSHED SPECIFIC RELEASE RATES

Watershed specific release rates for each of the **Watershed Planning Areas** depicted in Appendix E for the **storm event** having a one percent probability of being equaled or exceeded in a given year (100-year **storm event**):

Watershed Planning Area	**Gross Allowable Release Rate**
Poplar Creek Watershed	0.25 cfs/acre
Upper Salt Creek Watershed	0.20 cfs/acre
Lower Des Plaines Watershed	0.20 cfs/acre
North Branch Watershed	0.30 cfs/acre
Calumet Sag Channel Watershed	0.30 cfs/acre
Little Calumet River Watershed	0.25 cfs/acre

Sch D.4.A

Calculation of Unrestricted Release Rate (100 Yr -> 24 Hr. Storm) from Sch. D TE

- Per Exhibit of Unrestricted Flow Calc. in Permit 99-230, Unrestricted Area = 0.17 Ac. & Run-off Coefficient "C" is 0.8
- Intensity "I" when Tc = 10 Min. (Reasonably Estimated) per Bulletin 75. $= \frac{8.5 \text{ In} \times 0.21}{0.17 \text{ Hr.}} = 10.59 \text{ in/hr.}$

(0.21 ← ratio of x hr/24 hr. ; 0.17 Hr. ← Tc = 10 Min.)

- Unrestricted Release Rate = $CIA = 0.8 \times 10.59 \times 0.17$

$= 1.44$ (cfs)

↑ Sch D. 7. E

Detention Calculation
166 Lagoon Dr., Northfield, IL

06/08/23
Revised: 07/27/23
2023-0095

PACIFICA ON GOLF, Rolling Meadows, IL
Detention Basins and Orifice Sizing

Proposed Restrictor Sizing (Schedule D.7.H)

Use Orifice Equation to size proposed restrictor:

Outfall Pipe Release

Cd	0.6	← Sch D.7.H.3
Dia	8.750 in	← Sch D.7.H.1
Area	0.418 sq ft	
Invert of Orifice	689.38	← Sch D.7.H.6
Center of Orifice	689.74	

Orifice Release

Elev. Stage	Head	Orifice Discharge
689.38	-	0.000
701.50	11.76	6.894

Head = Stage less Center of Orifice
Orifice Discharge = C_d x $(2xgxH)^{\wedge 0.5}$xArea

less than 6.93 cfs Allowable Release Rate. OK!

Existing Required Detention Volume for Recevelopment (Schedule D.8.B)

Development Area:	1.28	acres out of 30.27 acres
Existing Impervious Area within the Development Area:	1.25	acres out of 1.28 acres
Existing Pervious Area within the Development Area:	0.03	acres out of 1.28 acres
Composite Runoff Coefficient "c"=	0.884	← Sch D.8.B
Allowable Release Rate :	0.36	cfs (0.28 cfs/ac per Schedule D.7.B * 1.28 acres)

Detention Basin Sizing:

100Yr-24Hr Rainfall Depth: 7.58

Hr	Ratio (x-hr/24-hr)	Intensity (in/hr)
0.5	0.37	5.61
1	0.47	3.56
1.5	0.53	2.65
2	0.58	2.20
3	0.64	1.62
4	0.68	1.28
5	0.71	1.08
6	0.75	0.95
7	0.77	0.83
8	0.79	0.75
9	0.81	0.68
10	0.83	0.63
11	0.85	0.59
12	0.87	0.55
13	0.88	0.51
14	0.89	0.48
15	0.91	0.46
16	0.92	0.43
17	0.93	0.41
18	0.94	0.40
24	1	0.32

Detention Calculation
166 Lagoon Dr., Northfield, IL

06/08/23
Revised: 07/27/23
2023-0095

c	T(Hr)	I (in/hr)	A (Ac.)	Q (cfs)	Qr (cfs)	q (cfs)	Storage (Ac-ft)
0.884	0.5	5.61	1.28	6.34	0.36	5.99	0.247
0.884	1	3.56	1.28	4.03	0.36	3.67	0.303
0.884	1.5	2.65	1.28	3.00	0.36	2.64	0.328
0.884	2	2.20	1.28	2.49	0.36	2.13	0.352
0.884	3	1.62	1.28	1.83	0.36	1.47	0.365
0.884	4	1.28	1.28	1.45	0.36	1.09	0.361
0.884	5	1.08	1.28	1.22	0.36	0.86	0.357
0.884	6	0.95	1.28	1.07	0.36	0.71	0.354
0.884	7	0.83	1.28	0.94	0.36	0.58	0.338
0.884	8	0.75	1.28	0.85	0.36	0.49	0.323
0.884	9	0.68	1.28	0.77	0.36	0.41	0.307
0.884	10	0.63	1.28	0.71	0.36	0.35	0.292
0.884	11	0.59	1.28	0.66	0.36	0.30	0.276
0.884	12	0.55	1.28	0.62	0.36	0.26	0.261
0.884	13	0.51	1.28	0.58	0.36	0.22	0.240
0.884	14	0.48	1.28	0.55	0.36	0.19	0.218
0.884	15	0.46	1.28	0.52	0.36	0.16	0.197
0.884	16	0.43	1.28	0.49	0.36	0.13	0.176
0.884	17	0.41	1.28	0.47	0.36	0.11	0.154
0.884	18	0.40	1.28	0.45	0.36	0.09	0.133
0.884	24	0.32	1.28	0.36	0.36	0.00	-0.002

Existing Required Detention Volume for Recevelopment: **0.365** CF ← Sch D.8.B

Proposed Required Detention Volume for Recevelopment (Schedule D.8.C)

Development Area:	1.28	acres out of 30.27 acres
Proposed Impervious Area within the Development Area:	1.07	acres out of 1.28 acres
Proposed Pervious Area within the Development Area:	0.21	acres out of 1.28 acres
Composite Runoff Coefficient "c"=	0.785	← Sch D.8.C
Allowable Release Rate :	0.26	cfs (0.20 cfs/ac per Schedule D.7.A * 1.28 acres)

Detention Basin Sizing:

100Yr-24Hr

Rainfall Depth	Hr	Ratio (x-hr/24-hr)	Intensity (in/hr)
8.57	0.5	0.37	6.34
	1	0.47	4.03
	1.5	0.53	3.00
	2	0.58	2.49
	3	0.64	1.83
	4	0.68	1.45
	5	0.71	1.22
	6	0.75	1.07
	7	0.77	0.94
	8	0.79	0.85
	9	0.81	0.77
	10	0.83	0.71
	11	0.85	0.66
	12	0.87	0.62
	13	0.88	0.58
	14	0.89	0.55
	15	0.91	0.52
	16	0.92	0.49
	17	0.93	0.47
	18	0.94	0.45
	24	1	0.36

Detention Calculation
166 Lagoon Dr., Northfield, IL

06/08/23
Revised: 07/27/23
2023-0095

c	T(Hr)	I (in/hr)	A (Ac.)	Q (cfs)	Qr (cfs)	q (cfs)	Storage (Ac-ft)
0.785	0.5	6.34	1.28	6.37	0.26	6.12	0.253
0.785	1	4.03	1.28	4.05	0.26	3.79	0.313
0.785	1.5	3.00	1.28	3.01	0.26	2.76	0.342
0.785	2	2.49	1.28	2.50	0.26	2.24	0.371
0.785	3	1.83	1.28	1.84	0.26	1.58	0.392
0.785	4	1.45	1.28	1.46	0.26	1.20	0.397
0.785	5	1.22	1.28	1.23	0.26	0.97	0.402
0.785	6	1.07	1.28	1.08	0.26	0.82	0.407
0.785	7	0.94	1.28	0.95	0.26	0.69	0.400
0.785	8	0.85	1.28	0.85	0.26	0.59	0.393
0.785	9	0.77	1.28	0.78	0.26	0.52	0.386
0.785	10	0.71	1.28	0.71	0.26	0.46	0.379
0.785	11	0.66	1.28	0.67	0.26	0.41	0.372
0.785	12	0.62	1.28	0.62	0.26	0.37	0.365
0.785	13	0.58	1.28	0.58	0.26	0.33	0.353
0.785	14	0.55	1.28	0.55	0.26	0.29	0.340
0.785	15	0.52	1.28	0.52	0.26	0.26	0.327
0.785	16	0.49	1.28	0.49	0.26	0.24	0.314
0.785	17	0.47	1.28	0.47	0.26	0.21	0.301
0.785	18	0.45	1.28	0.45	0.26	0.19	0.288
0.785	24	0.36	1.28	0.36	0.26	0.10	0.204

Existing Required Detention Volume for Recevelopment: **0.407** CF ← Sch D.8.C.

Volume Summary							
Name	**Type**	**Cut Factor**	**Fill Factor**	**2d Area** (Sq. Ft.)	**Cut** (Cu. Yd.)	**Fill** (Cu. Yd.)	**Net** (Cu. Yd.)
WEST VOL	full	1.000	1.000	14459.52	7.69	215.54	207.85<Fill>

Totals				
	2d Area (Sq. Ft.)	**Cut** (Cu. Yd.)	**Fill** (Cu. Yd.)	**Net** (Cu. Yd.)
Total	14459.52	7.69	215.54	207.85<Fill>

0.1>9 Ac-ft
Sch D&G

LOADING ZONE

WALL BEGINS
T/W=704.14
B/W=702.00

WALL ENDS
T/W=703.20
B/W=703.20

T/W=703.49
B/W=702.00

(FFE = 704.13)

40.37'

36.96'

2% MAX

FILL AMOUNT IN FEET
FROM EXISTING SURFACE
TO PROPOSED SURFACE
CAPPED AT HIGH WATER
LEVEL OF 701.5

CUT AMOUNT IN FEET
FROM EXISTING SURFACE
TO PROPOSED SURFACE
CAPPED AT HIGH WATER
LEVEL OF 701.5

AREA OF CALCULATION
(EXISTING DETENTION IMPOUNDMENT AREA)

16

18

N62° 02' 32"E 25.00'

43.88'

FOUND ¾" IRON PIPE

RIM = 701.30

FOUND MAG NAIL

LAWN

LAWN

Bridgeport Ave

North
Scale 1" = 10'

10' 0' 10' 20'

2022-0717
08/25/2023

Cut/Fill Exhibit within area of ex. detention provision on the west end of the project

Watershed Management Permit No. [ ]

WMO SCHEDULE K

AFFIDAVIT OF DISCLOSURE OF PROPERTY INTEREST

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

Name of Project: Pacifica On Golf

A. Eddie Ni (Name of Affiant -Type or Print) after first being duly sworn under oath, states that the above-named is (the owner and record title holder), (a principal beneficiary of Land Trust No. _____ held by _____ (Name of Trust Holder) as Trustee), (an officer _____ (Official Capacity) of _____ (Name of Corporation) Corporation), (a General Partner of _____ (Name of Partnership) Partnership), (a Managing Member of Pacifica Rolling Meadows LLC (Name of Limited Liability Company) Limited Liability Company), which is the record title holder of the property which is the subject of a certain watershed management permit application (covering the project indicated and designated by the number shown above) filed with the Metropolitan Water Reclamation District of Greater Chicago (District), which property is shown on the attached plat of survey which together with the legal description of the property are attached hereto as Exhibit "A" and specifically incorporated by reference herein.

B. Affiant further states that said property described, in Exhibit "A" (Plat of Survey with legal description) has a total area, including project area, of _____ acres and constitutes the total contiguous ownership of the owner, and that the portion of the property currently proposed for development (as defined by the Watershed Management Ordinance (WMO)) consists of _____ acres, and the property is intended for use as described hereinafter: _____

*C. Affiant further states that, because of its size and intended use, the property described in Exhibit "A" comes under the requirements of the District with respect to the establishment of site storm water management, which requirements are summarized on the attached table which is attached hereto as Attachment "WMO Schedule-K Attachment" and specifically incorporated by reference herein, and that storm water management facilities will be provided as part of the project in accordance with the design and calculations furnished to satisfy said requirements with respect to the property described in Exhibit "A", and further states that:

1. The owner of the property or any beneficiary of a land trust, if any, which is the record title holder of the property has no present interest, nor had any interest at any time during the previous two years, in any lands contiguous to said property if such interest is or was held, stormwater management requirements must be met for the total).

2. No owner of any lands contiguous to the property and no beneficiary of a land trust, if any, which is the record title holder of any land contiguous to the property has any interest in the property (if such interest is held, storm water management requirements must be met for the total).

3. Affiant understands and agrees that any permit issued by District in reliance upon this affidavit shall be deemed to contain a special condition that if, within two years after the issuance of the permit, the owner or any beneficiary of a land trust, if any, which is the record title holder of the property, acquires any interest in lands contiguous to the property, the owner shall provide for storm water management facilities for such lands in which an interest is acquired, regardless of the size of such lands.

6/17

* Delete paragraph C if exemption is claimed
* Delete paragraph D if no exemption is claimed.

WMO SCHEDULE K (Continued) Watershed Management Permit No. [ ]

*D. Affiant further states that, because of its size and intended use, the property described in Exhibit "A" is exempt from the requirements of the District with respect to the establishment of site storm water management, which requirements are summarized on the attached table which is attached hereto as Attachment "WMO Schedule K Attachment" and specifically incorporated by reference herein, and further states that:

1. The owner of the property or any beneficiary of a land trust, if any, which is the record title holder of the property has no present interest, nor had any interest at any time during the previous two years, in any lands contiguous to said property, such that the aggregate total area of the property and the contiguous lands equals or exceeds the acreages summarized on the said attachment for site storm water management requirements. (if such interest is held, storm water management requirements must be met for the total.)

2. No owner of any lands contiguous to the property and no beneficiary of a land trust, if any, which is the record title holder of any land contiguous to the property has any interest in the property, such that the aggregate total area of the property and the contiguous lands equals or exceeds the acreages summarized on the said attachment for site storm water management requirements. (if such interest is held, storm water management requirements must be met for the total.)

3. Affiant understands and agrees that any permit issued by District in reliance upon this affidavit shall be deemed to contain a special condition that if, within two years after the issuance of the permit, the owner or any beneficiary of a land trust, if any, which is the record title holder of the property acquires any interest in lands contiguous to the property such that the aggregate area of the property and the contiguous lands equals or exceeds the acreages summarized on the said attachment for site storm water management requirements, the owner shall provide for storm water management facilities for the entire aggregate area to fulfill the said requirements.

This affidavit is given to induce the District to issue its Watershed Management Permit with respect to the aforedescribed property and to exempt said property from any present requirements to provide and maintain storm water management facilities thereon.

E. Affiant further states, that for the purpose of this affidavit, the following terms have the meanings indicated:

Owner: means record title holder or a beneficiary of a land trust which is the record title holder, and includes singular and plural; if the owner is other than an individual, the term includes beneficiaries, agents, shareholders, officers and directors.

Ownership: means holding of record title or any beneficial interest.

Interest: means property interest or contractual interest, legal or equitable, directly or indirectly, in part or in full, and includes option to buy. In the case of shareholder interest, the shareholder shall be deemed to have interest if he owns or controls 5% or more of the shares.

Contiguous: means adjacent to and touching at one point or more: if the lands are separated by an easement or a dedicated right-of-way, it shall be considered contiguous.

F. Affiant understands and agrees that in the event that any of the aforementioned information is incorrect, erroneous, false or misleading, the District may immediately terminate any permit issued based on the above information.

Dated this 7th day of August 2023

X [signature] (Affiant)

SUBSCRIBED and SWORN to before me this 7th day of August 2023

[signature] (Notary Public)

WILLIAM S. BAZIANOS
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
August 17, 2025

6/17

* Delete paragraph D if exemption is claimed.
+ Delete paragraph D if no exemption is claimed.

SCHEDULE L

WMO Permit Number: _____

OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY

NOTICE OF REQUIREMENTS FOR STORM WATER DETENTION

Name of Project: Pacifica On Golf

A. NOTICE IS HEREBY GIVEN that the undersigned is (select one) (the owner and record title holder), (a principal beneficiary of Land Trust No. _____ , held by _____ (Name of Trust Holder) as Trustee), (an Officer) Director of Real Estate (Official Capacity) of Pacifica Bilt of Meadows, LLC (Name of Corporation) Corporation, (a General Partner _____ (Name of Partnership) partnership, which is the record title holder of the property or properties shown on the attached plat of survey and legally described on the attached sheet(s) and having a total area of 8.80 acres; said plat of survey and legal description being attached hereto as Exhibit "A" and specifically incorporated by reference herein; said property being now divided or will be divided into two or more lots or parcels to be sold to, occupied by, or developed and built up for the benefit or use of more than one owner or user, and said property being equal to or more than three (3) acres of multi-family residential area or non-residential area or five (5) acres of residential subdivision area , is subject to the rules and regulations of the Metropolitan Water Reclamation District of Greater Chicago (District) governing storm water detention requirements.

SPACE RESERVED
PLACE STICKER HERE
PROOF OF EXECUTED
RECORDATION DOC#

B. NOTICE IS FURTHER GIVEN that a Watershed Management Permit (permit) (covering the project indicated and designated by the number shown above) has been granted by the District with respect to the real estate described in Exhibit "A", for the development and/or redevelopment and/or construction of a qualified sewer lateral or system as shown on the permit and accompanying documents on file with the District.

~~*C. NOTICE IS FURTHER GIVEN that the construction contemplated under the permit on file with the District does not include the developments and/or redevelopments at this time, and that the construction contemplated either does not include the construction of any storm water detention facilities, or does include the construction of storm water detention facilities which are not adequate to satisfy the District rules, regulations and criteria relative to the storm water detention facilities required with respect to the property described in Exhibit "A".~~

~~*D. NOTICE IS FURTHER GIVEN that the construction contemplated at the present time on certain lot(s) or parcel(s) having a total area of less than one-half of an acre (0.5) acres (which lots or parcels are part of the property described in Exhibit "A") as shown on the permit and/or the accompanying documents which are specifically incorporated by reference herein, and that the contemplated construction does not include the construction of any storm water detention facilities, to satisfy the District requirements for storm water detention with respect to the property shown in the aforementioned permit and/or accompanying documents.~~

*E. NOTICE IS FURTHIER GIVEN that the construction contemplated at the present time on certain lot(s) or parcel(s) having a total area of 8.80 acres (which lots or parcels are part of the property described in Exhibit "A") as shown on the permit and/or the accompanying documents which are specifically incorporated by reference herein, and that the contemplated construction includes the construction of storm water detention facilities to satisfy the District requirements for storm water detention only with respect to the property shown in the aforementioned permit and/or accompanying documents and such storm water detention facilities are not adequate to meet the District requirements with respect to any part of the property described in Exhibit "A" outside of the property shown on the aforementioned permit and /or accompanying documents.

**F. NOTICE IS FURTHER GIVEN that the intention of the owner and/or applicant under aforementioned permit granted by District is that by filing of an application for permit and obtaining a permit from the District, it has covenanted and agreed that any request for permits hereinafter made or filed with respect to any or all of the property described in the aforesaid Exhibit "A" (which in the aggregate, comprises equal to or an excess of three (3) acres of multi-family residential area or non-residential area or five (5) acres of residential subdivision area, including the property shown in the aforesaid permit and/or accompanying documents) will provide for proper storm water detention in accordance with the rules and regulations of the District.

~~**G. NOTICE IS FURTHER GIVEN that the intention of the owner and/or applicant under aforementioned permit granted by District is that by filing of an application for permit and obtaining a permit from the District, it has covenanted and agreed that any request for permits hereinafter made or filed with respect to any or all of the property described in the aforesaid Exhibit "A" (which in the aggregate, comprises equal to or an excess of three (3) acres of multi-family residential or non-residential area or five (5) acres of residential subdivision area, including the property shown in the aforesaid permit and/or accompanying documents) will provide for proper storm water detention, in accordance with the rules and regulations of the District, for the aggregate total of development if the aggregate total of development, including the property shown in the aforesaid permit and /or accompanying documents, equals to or exceeds one-half (0.5) of an acre.~~

H. THIS NOTICE, after it has been recorded, shall not be withdrawn, rescinded or removed, except after the District requirements relative to detention facilities have been satisfied with respect to the entire property described in Exhibit "A", and a written release from the obligations hereunder is obtained from the District.

Schedule L is to be executed by owner and furnished to District for recording. Owner to pay all expenses for recording. Submit two originals and six copies of Schedule L and eight copies of the Plat of Survey, maximum size 30"x 36". The information provided on the plat should be legible when it is recorded (microfilmed). All documents submitted for filing must comply with the Illinois Plat Act and additional requirements as set forth by the County Recorder of Deeds.

* Delete C, D, or E, as appropriate
** Delete F, if D is applicable
Delete G, if C or E is applicable

WMO Permit Number: _____

SCHEDULE L

OFFICE OF THE RECORDER OF DEEDS OF COOK COUNTY

NOTICE OF REQUIREMENTS FOR STORM WATER DETENTION

This notice is intended to be given to any party or parties hereinafter acquiring any interest in the aforedescribed real estate, or dealing with said real estate in any manner whatsoever, notifying them of the requirements for providing storm water detention facilities for said real estate as provided herein.

The owner hereby certifies that the property is recorded in the office of the Cook County Recorder of Deeds.

Signed by owner and record title holder dated
this 07 day of August 2023

CHOOSE A, B, C, D, or E

A	(for individual owner)	_____	Owner
B	(for Partnership)	_____	General Partner
[C]	(for Limited Liability Company)	Eddie Ni	Managing Member
D	(for Corporation)	_____	President
		_____	Corporate Secretary
E	(for property in a land trust)	_____	Individual holding power of direction

NOTARIZATION OF OWNER'S SIGNATURE

NOTE: (For individual, Partnership or Corporation) (if title to property is held in land trust, the trust officer must countersign in space provided.)

CHOOSE A, B, C, D, or E, same as above

State of Illinois }
County of _____} ss.

A INDIVIDUAL OWNER

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that _____ personally known to me to be the same person(s) whose name (s) (is) (are) subscribed to the foregoing instrument appeared before me this day in person, and acknowledged that (he) (she) signed, sealed and delivered the said instrument as (his) (her) free and voluntary act, for the uses and purposes therein set forth, or,

B PARTNERSHIP

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that _____ personally known to me to be a general partner of the _____ partnership, personally known to me to be the same person(s) whose name (s) (is) (are) subscribed to the foregoing instrument appeared before me this day in person, and acknowledged that (he) (she) signed, sealed and delivered the said instrument as (his) (her) free and voluntary act, for the uses and purposes therein set forth, or,

C LIMITED LIABILITY COMPANY (LLC)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that Eddie Ni, Managing Member of Pacifica Rolling Meadows LLC, is personally known to me to be the same person whose name is subscribed to the preceding instrument as Managing Member, appeared before me this day in person, and acknowledged that (he) (she) signed, sealed and delivered the said instrument as Managing Member of the LLC, as (his) (her) free and voluntary act, and the free and voluntary act of the LLC, for the uses and purposes therein set forth, or,

D CORPORATION

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that _____, President of _____, and _____, Secretary of the corporation, are personally known to me to be the same persons whose names are subscribed to the preceding instrument as President and Secretary respectively, appeared before me this day in person and acknowledged that they signed and delivered the instrument as President and Secretary of the corporation, pursuant to authority given by the Board of Directors of the corporation, as their free and voluntary act, and as the free and voluntary act of the corporation, for the uses and purposes there stated.

Given under my hand and official seal
this 7th day of August, 2023

Commission expires 8-17-25, 201_

_____ (Notary Public)

WILLIAM S. BAZIANOS
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
August 17, 2025

E LAND TRUST

COUNTERSIGNATURE

_____ (Trust Officer)

_____ (Trust No.) held by _____ (Name of Trustee) as Trustee

: 18

SCHEDULE P

WMO Permit Number: _____

SOIL EROSION AND SEDIMENT CONTROL

NAME OF PROJECT: Pacifica On Golf

1. PROJECT INFORMATION:

A. Project Area *(include all disturbed area)* 1.15 _____ acres

B. Stormwater discharges directly to:

- [x] Storm Sewer
- [ ] Combined Sewer
- [ ] Overland Flow Route
- [ ] Waters of the State → Name of water body: _____
- [ ] Other → Explain: _____

C. Indicate if any of the following special circumstances apply *(check all that apply)*:

- [x] Volume Control Facility
- [ ] Wetland / Buffer
- [ ] Outfall to Waterway
- [ ] Floodplain / Floodway
- [ ] Riparian Environment
- [ ] Tributary to Lake Michigan

D. Explain how special circumstances indicated in Item 1.C will be protected from erosion and sedimentation:
Prop. Inlets draining To Bioretention Facility will be protected w/ Inlet Filters.

2. SOIL EROSION AND SEDIMENT CONTROL PRACTICES:

Submit a soil erosion and sediment control plan indicating type, location, and detail for all practices. Include a sequence for all major construction activities. All practices must be constructed in accordance with the Illinois Urban Manual.

A. Indicate all temporary soil erosion and sediment control practices installed as part of the project:

- [x] Entrance / Exit Control
- [x] Concrete Washout
- [ ] Silt Fence
- [ ] Double-Row Silt Fence
- [ ] Inlet Control
- [x] Vegetative Control
- [ ] Matting / Mulching
- [x] Coir Roll
- [ ] Sediment Trap
- [ ] Sediment Basin
- [ ] Filtration for Dewatering
- [ ] Conveyance Channel
- [ ] Velocity Dissipation
- [ ] Cofferdam / Silt Curtain
- [ ] Other: _____
- [ ] Other: _____

B. Indicate all permanent soil erosion control practices installed as part of the project:

- [x] Vegetative Control
- [ ] Velocity Dissipation
- [ ] Other: _____
- [ ] Other: _____

WMO Permit Number: _____

FEE PAYMENT VOUCHER

WATERSHED MANAGEMENT PERMIT

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
111 EAST ERIE STREET, CHICAGO, IL 60611
www.MWRD.org

Received Date

NAME OF PROJECT *(as shown on plans)*: Pacifica On Golf

LOCATION OF PROJECT *(street address or with respect to two major streets)*: 1470 Golf Road

MUNICIPALITY *(or Township if unincorporated)*: Rolling Meadows

NAME OF APPLICANT: Jiun-Guang Lin **TELEPHONE NO.:** (630) 915-1747

ADDRESS: 1661 Aucutt Rd, Montgomery IL 60538

EMAIL ADDRESS: jlin@ridgelineconsultants llc.com

A scanned copy of this form will be emailed to this address once the District accepts this payment.

INSTRUCTIONS:

1. Type or print all information and submit two copies of this form.

2. If this is a revision to a previously issued sewer permit, check box below.
   ☐ Revision to an issued permit - enter fee of $500.00 and calculate and enter ..... $ _____

3. If this is an application for a new permit, calculate the total fee required as follows:

A. Base Fee (Nonrefundable) – Use only one of these six:

a. Regular WMO Permit Application (used in most cases)	$1,100.00	☒
b. Notification and Request for Inspection (NRI) (for sewer replacements)	$250.00	☐
c. Earthwork/Foundation Limited Permit (optional, prior to full permit issuance)	$2,100.00	☐
d. Facility Connection Authorization (within City of Chicago)	$1,000.00	☐
e. Wetland/Riparian Environment Verification	$750.00	☐
f. Resubmittals	$0.00	☐

Base Fee - Enter fee for Aa, Ab, Ac, Ad, Ae, or Af (see above) ..... $ 1,100

B. Stormwater Management – Use only one of these four:

a. Runoff, volume control, or D-Legacy with no additional detention volume required	$0.00	☐
b. Nomograph or D-Legacy with additional detention volume required	$500.00	☒
c. Model – Small Detention Service Area (≤10 acres)	$1,500.00	☐
d. Model – Large Detention Service Area (>10 acres)	$3,000.00	☐

Stormwater Detention Fee - Enter fee for Ba, Bb, Bc, or Bd (see above) ..... $ 500

C. Wetland/Buffer/Riparian Environment Fee – Use all that apply:

a. Verification of Isolated Wetland Boundary, Classification and Buffer	$250.00	☐
b. Isolated Wetland Impact < 0.1 Acre or Riparian Environment without Mitigation Plan	$500.00	☐
c. Isolated Wetland Impact ≥ 0.10 Acre or Riparian Environment with Mitigation Plan	$2,500.00	☐

Wetland/Buffer/Riparian Fee - Enter fee for Ca, Cb, or Cc (see above) ..... $ _____

FEE PAYMENT VOUCHER
WATERSHED MANAGEMENT PERMIT

WMO Permit Number: _____

D. Sewer and Forcemain Inspection Fee – Use all that apply:

Compute the total length of sanitary sewer, combined sewer, storm sewer and underground vaults to be constructed that discharge directly or indirectly to MWRDGC collection and treatment facilities. Include all service lines except for residential dwelling units. For underground vaults, include the longest dimension length of the vault footprint.

Multiply total length of 0 feet by $5.00/ft and enter..... $ 0

E. Other Fees – Check all that apply:

a. Public Pump Station and/or Forcemain (Schedule E)	$250.00	☐
b. Hazard Areas (Floodplain/Floodway/Riparian Environment - Schedule H)	$250.00	☐
c. Notice of Requirements of Stormwater Detention (Schedule L)	$250.00	☒
d. Outfalls/Direct Connections to District Facilities/Impacts to District Property (Schedule O)	$250.00	☐
e. Recordation Deposit (Schedule R)	$500.00	☐
f. Inspections for Violations	$250 per inspection	☐
g. Variances (Filing and Review Fee)	$2,000.00	☐

Other Fees - Enter total fee for Ea through Eg (see above) ..... $ 250

Total Permit Fees: $ 1,850

4. Connection Impact Fee – Use only one of these three (*applicable only to area annexed by the District on or after July 9, 1998 which has not already paid the full connection impact fee*):

1) Low Density and/or Medium Density Residential (20 Units/Acre or Less) $3,750/Acre
2) High Density Residential (21 Units/Acre or More) $6,000/Acre
3) Commercial or Industrial $7,500/Acre

Total Connection Impact Fee: $ _____

5. Submit a company check, cashier's check, certified check or money order (personal check or cash are not acceptable) made payable to:
Metropolitan Water Reclamation District of Greater Chicago

Mail or deliver this voucher with payment and the Watershed Management Permit Application and plans to:
Local Sewer Systems Section, MWRDGC, at the address listed in the header.

Total Fees Owed: $_____

Any refunds for permit fees will be issued to the entity that paid the specific fee item, unless written permission is received by said entity indicating fees should be refunded to another party.

MWRD INTERNAL USE ONLY

Type of check: _____ Check Number: _____ Date on Check: _____

Amount: $ _____ Delivered to Finance (initial): _____ Date: _____

Finance Accepted by: _____ Date: _____

Note: For amount entered in Line 4. Connection Impact Fee, refer to attached Connection Impact Fee or Extraterritorial Impact Fee Payment Voucher for account number. Do not enter Connection Impact Fees in permit account.

SEWERAGE SYSTEM PERMIT

MWRDGC Permit No. 99 230

METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS
312-751-5600

INSTRUCTIONS FOR COMPLETING PERMIT FORM: Submit four typed copies of permit application (eight pages) and any required schedules listed below; do not leave any blank spaces; use "X" for checking applicable information. Also submit four copies of location map and plans. Submit two copies of specifications, if specifications are not part of the plan sheets. Address all correspondence to the Local Sewer Systems Section; for any inquiries or assistance, telephone (312)751-3260.

NAME AND LOCATION:

Name of project (as shown on plans): Marketplace of Rolling Meadows

Location of Project (street address or with respect to two major streets): 1400 East Golf Road - Previous Permit #84-345

Municipality (Township, if unincorporated) Rolling Meadows

Section 8 & 9 Township 41 N. Range 11 E.

Is project in MWRDGC combined sewer area Yes [ ] No [X]

SERVICE BASIN
OHA WRP

DOCUMENTS BEING SUBMITTED:

- [X] Basic Information (Required in all cases) ..... Schedule A ..... (Page 4 of 8)
- [X] Sewer Summary (Required in all cases) ..... Schedule B ..... (Page 5 of 8)
- [X] Sewer Connections (Required in all cases) ..... Schedule C ..... (page 6 of 8)
- [X] Detention Facilities ..... Schedule D ..... (2 pages)
- [ ] Lift Station and/or Force Main ..... Schedule E ..... (1 page)
- [ ] Characteristics of Waste Discharges ..... Schedule F ..... (1 page)
- [ ] Treatment or Pre-treatment Facilities ..... Schedule G ..... (2 pages)
- [ ] Certification Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule H ..... (1 page)
- [ ] Affidavit Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule J ..... (1 page)
- [X] Affidavit of Disclosure of Property Interest ..... Schedule K ..... (2 pages)
- [ ] Notice of Requirements for Storm Water Detention ..... Schedule L ..... (2 pages)
- [X] Current Survey of Property Interests ..... Exhibit A

OTHER DOCUMENTS: Indicate title, number of pages and originator: Plan of Proposed Improvements - Marketplace of Rolling Meadows 15 pages

NOTE: ATTACH FEE PAYMENT VOUCHER AND PAYMENT IF APPLICABLE

MWRDGC USE ONLY
Application received on: JUN 11 1999 Permit issued on: AUG 16 1999

99 230

GENERAL CONDITIONS OF THE PERMIT

1. Adequacy of Design. The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility .The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-Permittee or Design Engineer of their respective responsibilities.

2. Joint Construction and Operation Permits. Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.

3. Allowable Discharges. Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.

4. Construction Inspection. All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.

5. Maintenance. The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MWRDGC STANDARD CONDITIONS

6. Indemnification. The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Water Reclamation District of Greater Chicago (hereinafter MWRDGC) from and against any and all claims, costs, damages, or expenses the MWRDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the construction, use, state of repair; operation and maintenance of the proposed facilities, arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MWRDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.

7. Construction by MWRDGC. Permittee understands and acknowledges that the MWRDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MWRDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MWRDGC of any and all claims whatsoever which Permittee may now have or hereafter aquire and which Permittee's successors and assigns hereafter can, shall, or may have against the MWRDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MWRDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MWRDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.

8. Third Parties. This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MWRDGC or of any other parties, (b) to construct outside of the territorial boundaries of the MWRDGC, (c) to construct or encroach upon the territorial boundaries of any units of local government within the MWRDGC, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.

9. Costs. It is expressly stipulated and clearly understood that the sewerage system or facilities for which the permit is issued shall be constructed, operated and maintained at no cost to the MWRDGC.

10. Other Construction. The MWRDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to an MWRDGC interceptor and/or in public right-of-ways of MWRDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MWRDGC.

11. Change of Use. This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit. The owner or occupant of any building served under this permit shall not cause, or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MWRDGC.

12. Interceptors Overloading. The MWRDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.

13. Non-Transferability. This permit may not be assigned or transferred without the written consent of the General Superintendent of the MWRDGC.

14. Termination. It is understood and agreed that in the event the Permittee shall default in or fail to perform and carry out any of the covenants, conditions and provisions of this permit and such default or violation shall continue for sixty (60) days after receipt or notice thereof in writing given by the General Superintendent of the MWRDGC, then it shall be lawful for the MWRDGC at or after the expiration of said sixty (60) days to declare said permit terminated. The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this permit. If the Permittee fails to do so, the MWRDGC shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the MWRDGC for said disconnection. The various rights and remedies of the MWRDGC contained in this permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the MWRDGC to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the MWRDGC to pursue any other rights or remedies provided under the terms and provisions of this permit or under any applicable rules, regulations, ordinances or laws.

15. Expiration. This permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired permit is deemed construction without a permit. All construction under this permit shall be completed within two (2years) after start of construction. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one (1) year period indicated will be considered from the date of final court action.

16. Revocation. In issuing this permit, the MWRDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.

17. Advance Notice. Prior to commencement of construction under this permit, the Permittee shall give the MWRDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.

18. Compliance with Plans and Specifications. All construction shall be in accordance with the plans and specifications submitted for this permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by the MWRDGC. The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final inspection and approval by the MWRDGC.

19. Testing and Approval. All construction under this permit shall be subject to inspection, testing and approval by the MWRDGC. All testing shall be made, or caused to be made, by the Permittee at no cost to the the MWRDGC and in the presence of the MWRDGC representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the MWRDGC. No sewer or other facilities shall be put in service until all the conditions of the permit have been satisfactorily met.

20. Record Drawings. Within sixty (60) days after final inspection and approval by the MWRDGC, the Permittee shall furnish, or cause to be furnished to the MWRDGC, a set of Record drawings, or a statement that the project was constructed in accordance with the original plans and specifications.

21. Compliance with Rules and Regulations. The Permittee hereby expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this permit shall not constitute a waiver of any applicable requirements.

OFFICE COPY

SCHEDULE A
BASIC INFORMATION

MWRDGC Permit No. 99 239

1. NAME OF PROJECT Marketplace of Rolling Meadows
(as shown on plans)

2. APPURTENANCES (check all applicable items)

☐ Siphon ☐ Drop Manholes

☐ Stream Crossing ☐ Direct Connections to MWRDGC

3. RECEIVING SANITARY SEWER SYSTEM

A. System that project will connect to is:

☒ Existing ☐ Proposed/Under Construction—>MWRDGC Permit # _____

B. List owners of all sewers from project to MWRDGC interceptor City of Rolling Meadows

Previous MWRD Permit #84-345

4. EXISTING LIFT STATION

☒ No ☐ Yes—> Receiving system includes existing lift station

If Yes, indicate location _____

5. FLOOD PLAIN

Is any part of the project area in a flood plain?

☒ No ☐ Yes—> Percentage of area in flood plain _____ %

Flood crest elevation _____ Ft.

Identify any manholes in flood plain: _____

6. SIZE OF PROJECT

30.27 ← Sch D.4.C & Sch D.5.A

A. What is the size of this project? ~~30.88~~ acres 3

B. Total contiguous ownership, including project 30.88 acres

C. Existing impervious area within project ~~30.9~~ 0 acres

D. New impervious area created within project ~~0~~ 27.87 acres

7. DETENTION

A. Is detention provided under this permit?

☐ No ☒ Yes —> Detention required by: ☒ MWRDGC ☐ Other

B. Is project in the service area of existing detention reservoir?

☐ No ☒ Yes —> MWRDGC Permit No. 84-345

OFFICE COPY

ULE B
ER SUMMARY

PLETE IN ALL CASES

MWRDGC Permit No. 99-230

ROJECT NAME Marketplace of Rolling Meadows
(as shown on the plans)

Sewer Summary, including all building service sewers, stubs and risers:

Include all sewers in combined sewer area
Include all sanitary sewers in separate sewered area

Pipe Size in.	6"	8"					
Total length ft.	769	2129					
Min. slope used -%	1.00	0.44					
Pipe Material *	PVC -	SDR - 26					
Total manholes	7	8					
Total cleanouts	0	0					

* Pipe material and joint specifications must be shown on plans. See Manual of Procedures for acceptable specifications.

2. NATURE OF PROJECT (Check all that apply)

- [ ] Project is publicly financed
- [X] Sewer system serving a subdivision
- [ ] Off-site trunk sewer to serve subdivision
- [ ] Sewer extension to serve future development
- [ ] Storm sewers in combined sewer area
- [x] Service connections to serve buildings (Schedule C)
- [ ] Other _____

3. SEWER EXTENSIONS

If any part of the proposed project is designed to service future connections (not included in Schedule C), check yes below and submit service area map and estimate of population equivalent to be served.

- [ ] NO
- [X] YES ——> [ ] Service area map Within subdivision (outlots 1 & 2)
- [ ] P.E. estimate submitted

SCHEDULE C
SEWER CONNECTIONS DRAFT COPY

MWRDGC Permit No. 99-230

(FILL OUT ALL SECTIONS THAT APPLY)

1) BUILDING CONNECTION DATA

A) RESIDENTIAL BUILDINGS

☐ Single Family Total dwelling units * _____

Number of sewer connections * _____ PE** _____

☐ Multi Family Total dwelling units * _____

Number of sewer connections * _____ PE** _____

B) COMMERCIAL & RECREATIONAL BUILDINGS

☒ Number of sewer connections * 15 PE** 215

C) INDUSTRIAL BUILDINGS

☐ Number of sewer connections * _____ PE** _____

* Each sanitary line exiting a building is a connection
** Population Equivalent

2) BUILDING USE - (Check all that apply)

A) COMMERCIAL & RECREATIONAL

☒ Food preparation or processing (install grease separator)

☒ Auto service (install triple basin)

☐ Auto wash (install mud basin)

☐ Swimming pool (provide pool plans)

☐ Other _____

B) INDUSTRIAL BUILDINGS

☐ Sewer connections will receive domestic sewage only

☐ Industrial waste is produced

NOTE: If industrial waste is produced, submit Schedules F & G and plumbing plans along with flow diagram for pretreatment system.

SCHEDULE D - DETENTION

OFFICE COPY MWRDGC Permit No. 99-230

A. PROJECT INFORMATION

Name of Project Marketplace of Rolling Meadows (See permit #84-345)
(as shown on plans)

B. Method of Detention:

☐ Reservoir ☐ Rooftop ☒ Parking Lot & ☒ Other Pipe Storage

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE

1. Area of site	~~3.88~~ - (0.78 - 0.17)= 30.27 (30.8?)	acres
2. Average ground slope	0.011	feet\foot
3. Overland flow distance	1480	feet
4. Overland flow time of concentration	63	minutes
5. Average slope of channelized flow (see note)	----	feet\foot
6. Channelized flow distance (see note) Permit 84-345	----	feet
7. Channelized flow time of concentration	----	minutes
8. Total time of concentration (line 4 + line 7)	63	minutes
9. Rainfall intensity for 3-year storm (Sch.D.5.B)	1.85 (unrestricted) (Sch.D.5.C)	inches/hr
10. Allowable release rate, (0.15*line 9*line 1 or Q=0.15*i*A)	8.40 - 1.03 = 7.37	cfs
11. Actual release rate (cannot be greater than line 10)	7.37	cfs
12. Restrictor size	9.05" - ~~7.88~~ orifice plate restrictor	inches

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculation.

SCHEDULE D - DETENTION (continued)

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MWRDGC Permit No. 99-230

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE

Sch D.1.B

(Submit calculations for 3 and 4)

1. Impervious drainage area	27.87	acres (≥ 0.>7 Ac.)
2. Pervious drainage area	2.40	acres
3. Composite runoff coefficient(c) (Sch D.1.B)	0.84	
4. Required detention capacity (Sch D.5.G)	6.15	acre-feet
5. Actual detention capacity provided (Sch D.5.H)	6.18	acre-feet

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Design frequency shall be determined by local ordinance. If no local requirement is established use 5 year storm frequency.

1. Total area upstream	---	acres
2. Impervious area		acres
3. Pervious area		acres
4. Composite runoff coefficient (minimum of 0.35)		
5. Design storm frequency for the upstream area		year
6. Time of concentration for upstream area at point of entry; upstream area to be considered as developed		minutes
7. Rainfall intensity for time of concentration		inches/hr
8. Permissible bypass rate (line 1*line 4*line 7)	---	cfs

Name James C. Uecker, P.E.

Title President

Signature

Date 4-99

Engineering Firm JAS Associates, Inc.

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS SEAL

ENGINEERING CERTIFICATIONS

MWRDGC Permit No. 99 230

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal Laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that, where the design involves one or more connections to an existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: CAS Associates, Inc. Telephone: (847) 310.9400

Address: 1345 Wiley Rd. Suite 110 City: Schaumburg, IL Zip: 60173

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

P.E. SEAL

Signature _____, Principal Date: 4-16-99

(Name and Title)

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder. I hereby certify that the project area (is) ~~(is not)~~ within the municipal corporate limits.

Comments, if any: _____

Owner of Local Sewer System: City of Rolling Meadows

Municipal Engineer: Christopher Burke Engineering Telephone: (847) 823.0500

Address: 9575 W. Higgins Rd., #600 City: Rosemont, IL Zip: 60018

DANIEL L. LYNCH 62-049167 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

PE SEAL

Signature _____ Date: 5-28-99

(Name and Title)

Date: ... forms herein, is understood to be an expression of opinion by the Engineer based upon due and diligent inquiry and review of all pertinent available documentation. As such, it constitutes neither a guaranty nor a warranty.

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the MWRDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: CAS Associates, Inc. Telephone: (847) 310.9400

Address: 1345 Wiley Rd., Suite 110 City: Schaumburg, IL Zip: 60173

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

P.E. SEAL

Signature _____, Principal Date: 4-16-99

(Name and Title)

SPECIAL CONDITIONS FOR MWRD PERMIT NO. 99-230

1. All drains from the auto service area shall be connected to a triple basin.

2. All waste containing grease shall be discharged to a grease interceptor or grease trap befor discharge into the sewer with the exception of restaurant dishwashers, which shall have their discharge bypass the grease separator or grease trap and discharge directly or indirectly to the sanitary sewer.

3. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner under MWRD Permit No. 97-544, and said Affidavit is made a part of this permit.

4. The stormwater detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by ponding on the parking area, storage in oversized storm sewers and underground storage with a 9.05 inch diameter orifice restrictor.

5. The proposed 9.05 inch diameter orifice restrictor shall have a sharp edge.

6. **NOTE:** The detention facilities proposed under this permit supersede the facilities covered by MWRD Permit No. 84-345.

7. **NOTE:** The detention calculations proposed under this permit supersede the calculations covered by MWRD Permit No. 84-345.

8. All abandoned sanitary sewers shall be plugged at both ends with a minimum of two (2) feet long concrete plugs.

OFFICE COPY

SPECIAL CONDITIONS:

MWRDGC Permit No. 99 230

This permit is issued subject to the MWRDGC's General Conditions, Standard Conditions and the following Special Conditions:

☐ NONE ☒ SEE ATTACHED SHEET

If permit is granted:

☐ Please return two copies of the permit to the Permittee ; or

☒ Please mail one copy to Permittee and one copy to the person designated below:

Name JAS Associates, Inc.

Address 1345 Wiley Rd., Suite 110 Schaumburg, IL 60173

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MWRDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MWRDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MWRDGC.

Title to permit premises is held in a land trust: Yes ☒ No ☐

If yes, Co-Permittee shall be beneficiary with Power of Direction.

PERMITTEE

The permit premises is within municipal corporate limits.
YES ☒ NO ☐ NOT APPLICABLE ☐

Municipality City of Rolling Meadows

Address 3600 Kirchoff Rd.

Rolling Meadows, IL Zip 60008

Signature

Name RODNEY A. BLANE (Type or Print)

Title BUILDING & ZONING DIR.

Date 6/1/99 Phone 847.394.8500

CO-PERMITTEE
(Co-Permittee is Property Owner)

Owner Meadows Market LLC
c/o Bradford Real Estate Services Corp.

Address 10 S. Riverside Plaza, #420

Chicago, IL Zip 60606

By: Ziebel Water Service Products, Inc.

Signature

Name Robert Charal, Treasurer (Type or Print)

Title Member

Date Phone 312.474.9000

REVIEW AND APPROVAL BY THE MWRDGC

Reviewed by: S. Patel (Local Sewer Systems) Date 8/4/99

Approved for issue:

Date of Issue By: 8/4/99 For the Chief Engineer

OFFICE COPY

MSDGC Permit No. 84-340
IEPA Log No. _____

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) Chicago Outlet Mall

Location Algonquin & Golf

Design criteria: MSDGC [X]; Local Government [ ]; Other [ ]

II. Determination of Allowable Release Rate - Undeveloped Site:

1.	Area of site	31.47 WAM	acres
2.	Average ground slope	.011	foot/foot
3.	Overland flow distance	1480	feet
4.	Overland flow time of concentration	63	minutes
5.	Average slope of channelized flow (See Note a)	-	foot/foot
6.	Channelized flow distance (See Note a)	-	feet
7.	Channelized flow time of concentration	-	minutes
8.	Total time of concentration (Line 4 + Line 7)	47	minutes
9.	Rainfall intensity for three-year.storm	.85	inches/hr.
10.	Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(1) of the MSDGC Manual)	.15	
11.	Allowable release rate, (line 1 x line 9 x line 10:Q=ciA)	8.73	cfs.

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. Determination of Reservoir Size - Developed Site:

12.	Impervious drainage area	29.30 WAM	acres
13.	Pervious drainage area	2.17 WAM	acres
14.	Composite runoff coefficient (c). (Submit calculations)	.85	
15.	Required reservoir capacity (Submit calculations)	6.09	acre-feet

IV. Permissible Bypass Rate through Development Site from Upstream Area:

16.	Total area upstream	-0-	acres
17.	Future/present impervious area (cross out inappropriate case)		acres
18.	Future/present pervious area (cross out inappropriate case)		acres
19.	Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)		
20.	Design storm frequency for the upstream area (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.)		year
21.	Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8)		minutes
22.	Design storm intensity for above duration		inches/hour
23.	Permissible bypass rate (line 16 x line 19 x line 22)	-0-	cfs.

*If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.

JAMES BIBBY 39785 REGISTERED PROFESSIONAL ENGINEER SEAL OF ILLINOIS

Engineering Firm Cowhey Associates, Ltd.

Signature _____ Date 6/14/84

(Name and Title)

Jim Bibby P.E.,
Project Engineer

SPECIAL CONDITIONS #84-345

1. All waste containing grease shall be discharged to a grease interceptor or grease trap before discharge into the sewer. (The engineer has indicated the installation of a grease separator and sources of waste containing grease to be the kitchen sink).

2. The "No-Bel" joint material shall be allowed subject to the following conditions:

   a. The PVC collar installed on the pipe instead of the monolithic clay bell shall conform to ASTM Specification D-1784. The collar shall be installed at the factory and shall be shrunk-fit onto a smooth clay pipe surface. The factory-applied barrier between the PVC collar and the clay pipe shall be EVA (Ethylene Vinyl Acetate).

   b. The finished joint shall meet all material and performance tests specified under ASTM Specification C-425.

3. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner, and said Affidavit is incorporated herein and made a part hereof.

4. The storm water detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by ponding on the parking area and pipe storage with a 8 inch outlet restrictor pipe.

5. The proposed 8 inch diameter restrictor pipe shall have a projecting edge.

6. All non-residential buildings connecting into this sanitary system, other than the buildings under this permit, will require separate MSD permits.

DETENTION REVIEW SHEET

A. PROJECT

Permit No. 99-230 Date Received 6/11/99

Name of Project Market Place

Location 11400 E 61st Road, Rolling Meadows

B. Basic Information

1. Total Project Area 30.17 Acres

2. Impervious Area: (a) Existing 19.3; (b) New 0

3. Runoff Coefficient _____

4. Project is: Residential ___; Non-Residential ✓

5. Project is in flood plain area ..... yes/no

6. Building Connections are proposed under this permit ..... yes/no

7. Detention is required for the project covered by this permit ..... yes/no

8. Detention is provided under this permit ..... yes/no

9. Detention criteria: MSD X; Other \

C. Non-Applicability

Detention requirements are not applicable for the reason(s) indicated:

1. Project is in combined sewer area ..... ____

2. Total contiguous ownership is less than 5 acres ..... ____

3. Remaining developable ownership as of 1/1/72 is less than 5 acres . ____

4. Project is single family, residential and area is less than 10 acres ..... ____

5. Project consists of an outlet sewer only and no connections are proposed ..... ____

6. Project consists of sewer rehabilitation work only ..... ____

7. Buildings existing and currently served by septic system ..... ____

8. No new impervious area proposed ..... ____

9. Other _____ ..... ____

D. Relation with Other Projects

1. Detention required for this project is provided by existing/proposed detention facilities ..... ____
Facilities are covered by Permit No. 84-345

Regrading - New ~~Road~~ Parking Lot under this Permit.

D Permit No. _____

D. Relation with Other Projects

2. Detention facilities provided under this permit are intended to serve other areas ..... _____
If so, contributing area is _____ acres.

3. Project covered by permit receives drainage from another area and the flow is bypassed ..... _____

4. This project is part of a previous development that exceeded five/ten acres and for which detention has been previously provided in full or in part ..... _____

5. This project is part of a total contiguous land holding that exceeds five/ten acres and for which no detention has been provided ..... _____

6. This project is part of an area previously encumbered for detention ..... _____

E. Design Summary	MSD Requirements	Project Design
1. Drainage area for which detention is provided under this permit	xxxx	30.27 acre
2. Detention requirements for area above	6.15 ac.ft.	6.18 ac.ft.
3. Detention requirements for this project	6.15 ac.ft.	6.18 ac.ft.
4. Release rate for drainage area (1) above *	7.37 cfs	7.37 cfs
5. Bypass rate, if any	___ cfs	___ cfs
6. Total discharge	7.37 cfs	7.37 cfs

F. Method of Detention * 8.40 - 1.03 (unrestricted) = 7.37

1. Method of Storage: Roof___, Ground___, Parking Lot___, Pond___, Other___

2. Method of Control: Roof Restrictor _____, Weir_____.
Pipe Outlet ___, Size_____, Length_____,

Restrictor/Orifice _____, Size 9.05, Edge Type Sharp edge.

G. Other Comments

Note: The detention was provided on parking lot under 84-345 Permit. The new detention is provided by under ground storage & Parking Lot.

Reviewed: [signature] Date 8/6/99 Checked A.S Date 8/11/99

LSS-72-09-01 Rev.2/27/81

SCHEDULE D - DETENTION

MWRDGC Permit No. 90-230

OFFICE COPY

A. PROJECT INFORMATION

Name of Project Marketplace of Rolling Meadows (See permit #84-345)
(as shown on plans)

B. Method of Detention:

☐ Reservoir ☐ Rooftop ☒ Parking Lot &

☒ Other Pipe Storage

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE

1. Area of site	~~3.88~~ 30.86 - (0.78 - 0.17) = 30.27	acres
2. Average ground slope	0.011	feet\foot
3. Overland flow distance	1480	feet
4. Overland flow time of concentration	63	minutes
5. Average slope of channelized flow (see note)	Permit 84-345 ----	feet\foot
6. Channelized flow distance (see note)	----	feet
7. Channelized flow time of concentration	----	minutes
8. Total time of concentration (line 4 + line 7)	63	minutes
9. Rainfall intensity for 3-year storm	1.85 (unrestricted)	inches/hr
10. Allowable release rate, (0.15*line 9*line 1 or Q=0.15*i*A)	8.40 - 1.03 = 7.37	cfs
11. Actual release rate (cannot be greater than line 10)	7.37	cfs
12. Restrictor size	9.05" - ~~7.88~~ Orifice Plate restriction	inches

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculation.

SCHEDULE D - DETENTION (continued)

MWRDGC Permit No. 99-230

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE

OFFICE COPY

(Submit calculations for 3 and 4)

1. Impervious drainage area	27.87	acres
2. Pervious drainage area	2.40	acres
3. Composite runoff coefficient(c)	0.84	
4. Required detention capacity	6.15	acre-feet
5. Actual detention capacity provided	6.18	acre-feet

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Design frequency shall be determined by local ordinance. If no local requirement is established use 5 year storm frequency.

1. Total area upstream	---	acres
2. Impervious area		acres
3. Pervious area		acres
4. Composite runoff coefficient (minimum of 0.35)		
5. Design storm frequency for the upstream area		year
6. Time of concentration for upstream area at point of entry; upstream area to be considered as developed		minutes
7. Rainfall intensity for time of concentration		inches/hr
8. Permissible bypass rate (line 1*line 4*line 7)	---	cfs

Name James C. Uecker, P.E.

Title President

Signature _____ Date 2/8/99

Engineering Firm JAS Associates, Inc.

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS P.E. SEAL

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows
Rolling Meadows, Illinois

89-201
Revised 8/5/99

99-230

Total Site Area	30.88
Undetained Area	0.78
Unrestricted Flow Area	0.17
Total Site Drainage Area	30.27
Overland Flow Distance in Feet	1480
Slope in Ft/Ft	0.0114
Runoff Coefficient "c"	0.15
Time of Concentration in minutes	62.97
3 year Intensity in inch/hour	1.85
Allowable Release Rate in cfs	8.40
Any Unrestricted Flow in cfs	1.03 (0.17x0.80x7.60)
Net Release Rate	7.37
cfs/acre	0.24

1.37 cfs / 30.27 Ac. = 0.24 cfs/Ac.

RESTRICTOR CALCULATIONS

High water level	702.00
Invert elevation of Restrictor	689.88
Restrictor Diameter in inches	9.05
Height	11.74
Restrictor "c"	0.80
Actual Restrictor Release in cfs	7.37 OK

DEVELOPED RUNOFF "c"

Impervious area	27.87
Impervious "c"	0.90
Pervious Area	2.40
Pervious "c"	0.20
Composite "c"	0.84

REQUIRED VOLUME CALCULATIONS

Duration (min.)	Intensity (100yr, in/hr)	Inflow (cfs)	Stored Rate	Reservoir Size (ac-ft)
10.00	7.60	194.28	186.91	2.60
20.00	5.50	140.60	133.23	3.70
30.00	4.40	112.48	105.11	4.38
40.00	3.70	94.58	87.21	4.85
50.00	3.20	81.80	74.43	5.17
60.00	2.80	71.58	64.21	5.35
90.00	2.10	53.68	46.31	5.79
120.00	1.70	43.46	36.09	6.01
180.00	1.25	31.95	24.58	6.15
240.00	1.00	25.56	18.19	6.06
300.00	0.84	21.47	14.10	5.88
360.00	0.73	18.66	11.29	5.65
420.00	0.65	16.62	9.25	5.39
480.00	0.58	14.83	7.46	4.97
540.00	0.53	13.55	6.18	4.63
600.00	0.49	12.53	5.16	4.30

STORAGE REQUIRED = 6.15 acre-feet

STORAGE PROVIDED = 6.18 acre-feet

OFFICE COPY

JAMES C. UEDELHOFEN 28366 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

89-201.xls

PROJECT NAME :	Market Place of Rolling Meadows					
Permit =	99-230					
AREA OF SITE IN ACRES.....				30.27		
OVERLAND FLOW DISTANCE IN FEET....=				1480.00		
SLOPE IN FT/FT.....				0.0114		
"c"				0.15		
TIME OF CONCENTRATION IN MINUTES =				62.97		
CHANNELIZED FLOW IN MINUTES.....				0.00		
TOTAL TIME OF CONCENTRATION.....				62.97		
3-YEAR INTENSITY IN IN/HR.....				1.85		
ALLOWABLE RELEASE RATE IN CFS.....=				8.40		
ANY UNRESTRICTED FLOW IN CFS.....				0.00		
NET RELEASE.....				8.40		
CFS/ACRE.....				0.28		
DRAINAGE AREA 1						
RESTRICTOR CALCULATIONS						
ENTER HIGHWATER LEVEL OF POND..=				702.00	Height =	11.74
ENTER INVERT ELEVATION(RESTRICTOR)				689.88		
ENTER RESTRICTOR DIAMETER(INCHES)				9.05		
ENTER RESTRICTOR "C".....				0.60		
ACTUAL RESTRICTOR RELEASE (CFS)....=				7.37	OK	
FOR LONG PIPES						
ENTER Ke.....				0.00	0.43	
ENTER Ko.....				0.00	1.00	
ENTER n.....				0.0130		
RESTRICTOR LENGTH IN FEET.....				0.00		
ACTUAL RESTRICTOR RELEASE (CFS)....=				#DIV/0!		
		"c"				
Water	0	1				
IMP AREA=	27.87	0.9				
Pervious Area	2.40	0.2	Total Area =	30.27		
comp "C"	0.84					
RELEASE=	7.37		VOL.REQD.	6.15		
			VOL. PROVIDED =		6.14	

REQUIRED VOLUME CALCULATIONS

MSD METHOD (MODIFIED RATIONAL)

DURATION (HRS)	(100) (IN/HR)	Q(IN) (CFS)	Q(STOR) (CFS)	STORAGE (AC-FT)
0.17	7.60	194.28	186.91	2.65
0.33	5.50	140.60	133.23	3.66
0.50	4.40	112.48	105.11	4.38
0.67	3.70	94.58	87.21	4.87
0.83	3.20	81.80	74.43	5.15
1.00	2.80	71.58	64.21	5.35
1.50	2.10	53.68	46.31	5.79
2.00	1.70	43.46	36.09	6.01
3.00	1.25	31.95	24.58	6.15
4.00	1.00	25.56	18.19	6.06
5.00	0.84	21.47	14.10	5.88
6.00	0.73	18.66	11.29	5.65
7.00	0.65	16.62	9.25	5.39
8.00	0.58	14.83	7.46	4.97
9.00	0.53	13.55	6.18	4.63
10.00	0.49	12.53	5.16	4.30
11.00	0.46	11.76	4.39	4.02
12.00	0.43	10.99	3.62	3.62
24.00	0.25	6.39	-0.98	-1.96

Total area = 30.88

Unrestricted Area = 0.17

Net watershed Area = 30.88 - (0.78 - 0.17)

= 30.27

0.78 is not drain to Pond. Therefore is not accounted for allowable release.

— × —

Unrestricted flow — Sch D.7.D

= 0.17 × 0.8 × 7.6 (2/100) = 1.03 cfs

Net Allowable release = 8.40 − 1.03

= 7.73 cfs.

— × —

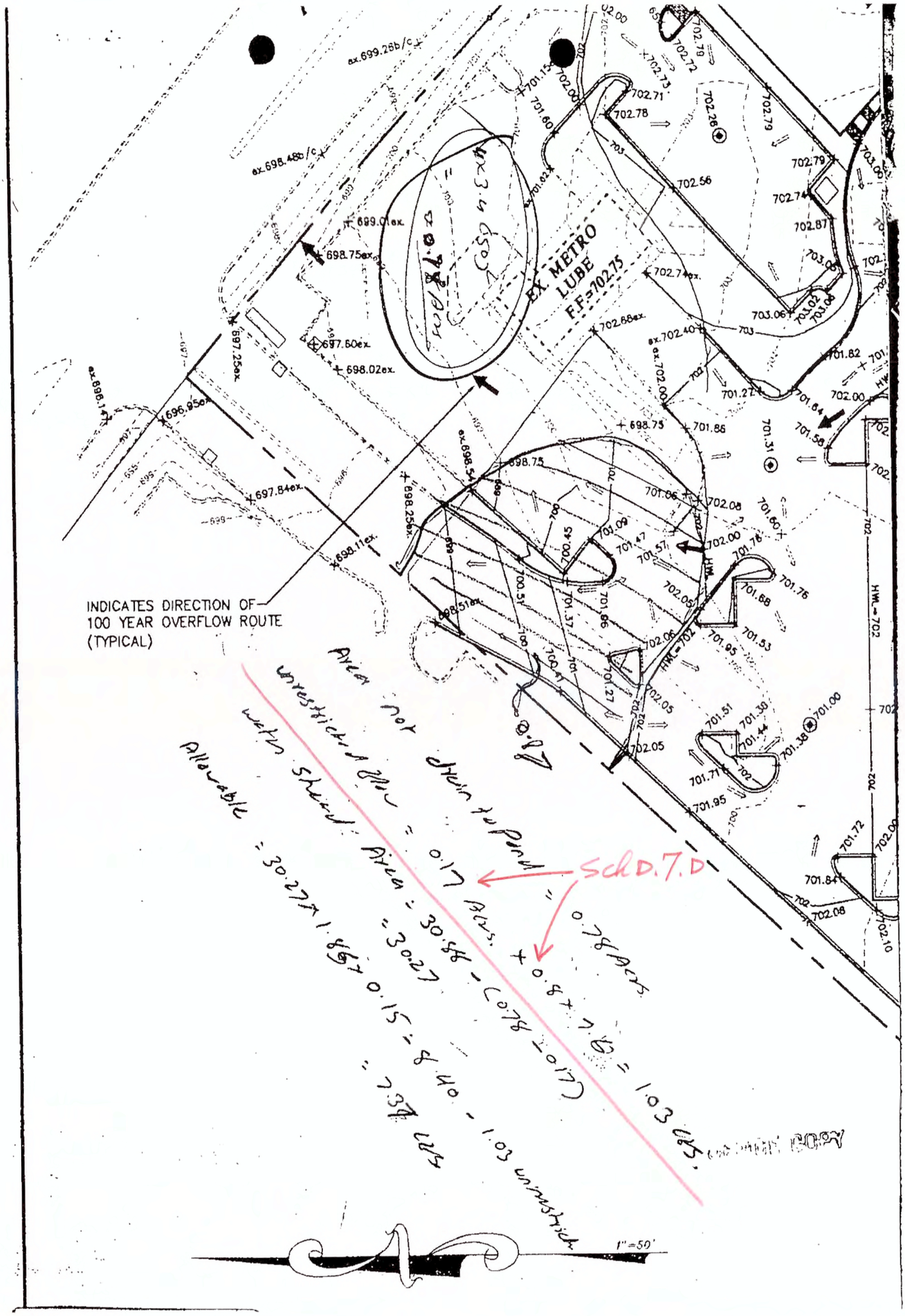
Note: Ex. Chili's restorant building is not consider as draining towards the pond

Ok by Mr. Bob Khal.

8/3/99

OFFICE COPY

90-230


EX. METRO LUBE FF=702.75
INDICATES DIRECTION OF 100 YEAR OVERFLOW ROUTE (TYPICAL)
Area not drain to pond = 0.17 Acres.
Unrestricted flow = 30.48 - (0.78 + 0.17) = 30.27
Within Shaw: Area = 30.27 - 0.15 - 4.40 - 1.03 unrestricted
Allowable = 7.39 l/s
Sch D.7.D = 0.78 Acres + 0.8 + 1.03 l/s.
1"=50'

Office Copy

99 230

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

MARKETPLACE OF ROLLING MEADOWS

(Formally Meadows Town Mall)
89-201
April 16, 1999

Area - 30.88 Acres

Previous MWRD Permit – 84-345

Storage Required – 6.13 Ac. Ft. = 267,023 ft.^{3}

Storage Provided:

Pipe Storage - 12" – 2981 ft.^{3} ✓
15" – 2336 ft.^{3}
36" – 8482 ft.^{3}
84" – 83,732 ft.^{3}
96" – 12,315 ft.^{3}

Structure Storage 4958 ft.^{3} ✓

Parking Lot Surface Storage (12") - 152,460 ft.^{3}

Total Storage Provided - 267,264 ft.^{3}
- 6.14 acre feet

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows — 89-201
Rolling Meadows, Illinois — 07/21/99

PARKING LOT VOLUME CALCULATIONS

Site Volume Table:

	Cut yards	Fill yards	Net yards	Method
Site: volume				
Stratum: 1	fg1 702			
	85	5758	5673	(F) Grid
	58	5753	5695	(F) Composite

The parking lot storage volume was calculated using Autocad R14 and Softdesk S8, earthworks volume module. A TIN (triangulated irregular network) or 3d surface was created of the proposed parking lot and drainage field. A second 3d surface was created representing the High Water Elevation of 702.00. A stratum was the created representing the difference between the two surfaces. The fill volumes shown represent the parking lot areas under the high water elevation (702.00). Two methods were used to calculate the volume, grid and composite surface. The average of the two is 5755 cubic yards, or 3.57 acre feet. A ±2% error was used to reduce the volume to 3.50 acre feet.

RESTRICTOR CALCULATIONS

100 Year release rate
with 8" diameter restrictor

using: Q=CA 2gH

C= 0.61 H=702.00 - 689.88 + 4" = 11.79
A= 0.349066
g= 32.2
H= 11.79
Q=5.87 cfs
Q=8.73 cfs on MWRD permit 84-345

99-230

COPY

Marketplace at Rolling Meadows
Rolling Meadows, Illinois

Storage Volume in Storm Structures

89-201
7/21/99

2 of 4

2' dia. (L.F.)	4' dia. (L.F.)	5' dia. (L.F.)	6' dia. (L.F.)	10' dia. (L.F.)
3	2.8	1	9.8	11.1
3	4.3	1.5	11.5	
3	9.6	5	11.6	
24	10.1	4.3	12.1	
26	7	4.5	12	
29	7.2		11.6	
3	6.3		11.4	
3	5.5		11.2	
3	5.9			
3	3.8			
3	3.8			
3	3.4			
3	3.2			
3	2.6			
3	4.3			
3	0.8			
	3.9			
	7.6			
	7.3			
	7			
	6.8			
	4.6			
	3			
	3.9			
	3			
	3			
	3.6			
	4			
	3.8			
	3			
	1			
	1.4			
	2.3			
	3.2			
	3			
	3.3			
	3.2			
	3.4			
	3.6			
	3.2			
	3.7			
	3			
	3.5			

Totals	118	182.9	16.3	91.2	11.1
Vol/L.F.	3.142	12.566	19.635	28.274	78.54
Storage(cu.ft)	370.8	2298.3	320.1	2578.6	871.8

Total Pipe Storage	6439.5	cubic feet
	0.15	acre feet

99-230

12" (lineal feet)	15" (lineal feet)	18" (lineal feet)	21" (lineal feet)	24" (lineal feet)	36" (lineal feet)	84" (lineal feet)	96" (lineal feet)
48	182	63	42	90	103	544	245
89	78	156	80	32	211	544	
113	61		125	44	48	544	
50	70				79	544	
181	131				151		
50	104				139		
50	108				71		
95	68				39		
115	82				284		
174	68						
240	37						
60	61						
76	61						
20	61						
30	61						
92	61						
67	68						
62							
74							
50							
22							
90							
34							
40							
61							
37							
40							
61							
37							
46							
61							
37							
37							
61							
54							
61							
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37							
61							
61							
37							
61							
61							
37							
37							
61							
61							
83							
120							
29							
40							
120							
148							
159							
69							
77							
29							
38							
57							
55							

Totals	4114	1362	219	247	166	1125	2176	245
Vol/L.F.	0.785	1.227	1.767	2.405	3.142	7.069	38.485	50.266
Storage(cu.ft)	3229.5	1671.2	387.0	594.0	521.6	7952.6	83743.4	12315.2

Total Pipe Storage 110414.4 cubic feet
2.53 acre feet

Total Paking lot storage 3.5 acre feet

Total storage in Structures 0.15 acre feet

Total Site Storage Volume 6.18 acre feet

COPY

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, IL

07/02/99
89-201

TOTAL SITE AREA	1,345,306.00 sq. ft.
	30.88 acres
LOT 4 & 5 AREAS	83,865.00 sq. ft.
	1.93 acres
SITE - LOTS 4 & 5	1,261,441.00 sq. ft.
	28.96 acres
SUB-SITE TOTAL PERVIOUS AREA	92,306.00 sq. ft.
	2.12 acres
SUB-SITE TOTAL IMPERVIOUS AREA	26.84 acres
ASSUME 85% IMPERVIOUS	71,285.00 sq. ft.
FOR LOT 4 & 5	1.64 acres
TOTAL SITE AREA	30.88 acres
TOTAL SITE AREA ON 84-345 PERMIT	31.47 acres
TOTAL SITE IMPERVIOUS AREA	28.48 acres
TOTAL SITE IMPERVIOUS AREA ON 84-345 PERMIT	29.3 acres
TOTAL SITE PERVIOUS AREA	2.41 acres
TOTAL SITE PERVIOUS AREA ON 84-345 PERMIT	2.17 acres

...GE COPY

99-230

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows
Rolling Meadows, Illinois

89-201
Revised 8/5/99

Total Site Area	30.88	
Undetained Area	0.78	
Unrestricted Flow Area	0.17	
Total Site Drainage Area	30.27	
Overland Flow Distance in Feet	1480	
Slope in Ft/Ft	0.0114	
Runoff Coefficient "c"	0.15	
Time of Concentration in minutes	62.97	
3 year Intensity in inch/hour	1.85	
Allowable Release Rate in cfs	8.40	
Any Unrestricted Flow in cfs	1.03	(0.17x0.80x7.60)
Net Release Rate	7.37	
cfs/acre	0.24	

RESTRICTOR CALCULATIONS

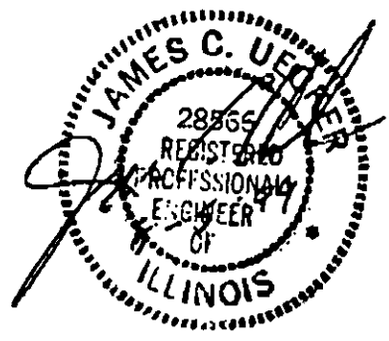
High water level	702.00
Invert elevation of Restrictor	689.88
Restrictor Diameter in inches	9.05
Height	11.74
Restrictor "c"	0.60
Actual Restrictor Release in cfs	7.37 *OK*

DEVELOPED RUNOFF "c"

Impervious area	27.87
Impervious "c"	0.90
Pervious Area	2.40
Pervious "c"	0.20
Composite "c"	0.84

REQUIRED VOLUME CALCULATIONS

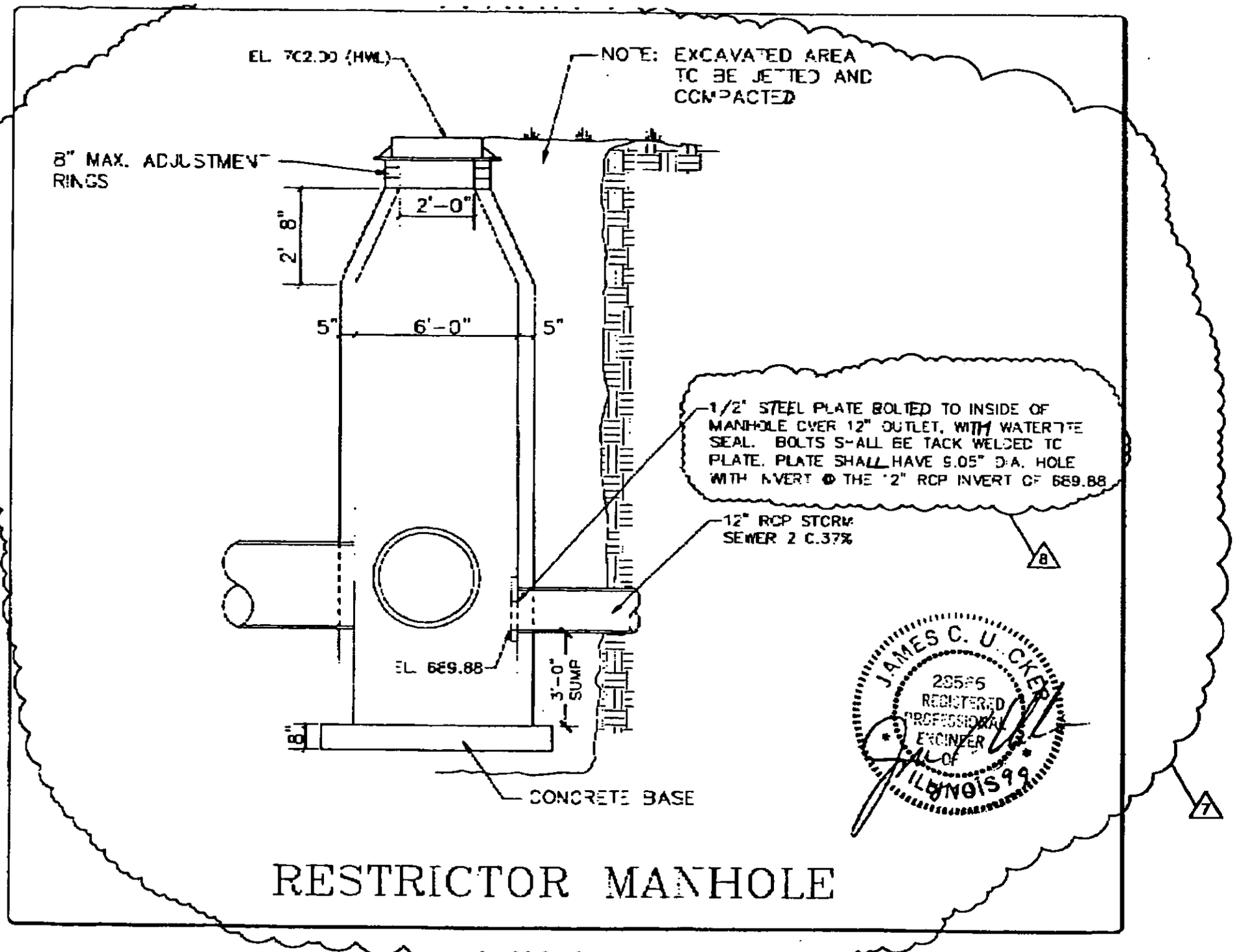
Duration (min.)	Intensity (100yr, in/hr)	Inflow (cfs)	Stored Rate	Reservoir Size (ac-ft)
10.00	7.60	194.28	186.91	2.60
20.00	5.50	140.60	133.23	3.70
30.00	4.40	112.48	105.11	4.38
40.00	3.70	94.58	87.21	4.85
50.00	3.20	81.80	74.43	5.17
60.00	2.80	71.58	64.21	5.35
90.00	2.10	53.68	46.31	5.79
120.00	1.70	43.46	36.09	6.01
180.00	1.25	31.95	24.58	6.15
240.00	1.00	25.56	18.19	6.06
300.00	0.84	21.47	14.10	5.88
360.00	0.73	18.66	11.29	5.65
420.00	0.65	16.62	9.25	5.39
480.00	0.58	14.83	7.46	4.97
540.00	0.53	13.55	6.18	4.63
600.00	0.49	12.53	5.16	4.30



STORAGE REQUIRED = 6.15 acre-feet

STORAGE PROVIDED = 6.18 acre-feet

89-201.xls



RESTRICTOR MANHOLE

AUG-05-99 03:08 PM JAS ASSOCIATES 3100087 P.03

SCHEDULE D - DETENTION

MWRDGC Permit No. 99 230

A. PROJECT INFORMATION

Name of Project Marketplace of Rolling Meadows (See permit #84-345)
(as shown on plans)

B. Method of Detention:

☐ Reservoir ☐ Rooftop ☐ Parking Lot

☒ Other Pipe Storage

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE

1. Area of site	30.88	acres
2. Average ground slope		feet\foot
3. Overland flow distance		feet
4. Overland flow time of concentration		minutes
5. Average slope of channelized flow (see note)		feet\foot
6. Channelized flow distance (see note)		feet
7. Channelized flow time of concentration		minutes
8. Total time of concentration (line 4 + line 7)		minutes
9. Rainfall intensity for 3-year storm		inches/hr
10. Allowable release rate, (0.15*line 9*line 1 or Q=0.15*i*A)		cfs
11. Actual release rate (cannot be greater than line 10)		cfs
12. Restrictor size	8"	inches

Original site permit requested 6.13 acre feet of storage with 8" restrictor.
Current plan provides 6.14 acre feet of storage with 8" restrictor.

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculation.

SCHEDULE D - DETENTION (continued)

MWRDGC Permit No. 99 230

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE

(Submit calculations for 3 and 4)

1. Impervious drainage area..... _____ acres
2. Pervious drainage area ..... _____ acres
3. Composite runoff coefficient(c)..... _____
4. Required detention capacity..... _____ acre-feet
5. Actual detention capacity provided..... 6.14 acre-feet

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Design frequency shall be determined by local ordinance. If no local requirement is established use 5 year storm frequency.

1. Total area upstream..... --- acres
2. Impervious area..... _____ acres
3. Pervious area ..... _____ acres
4. Composite runoff coefficient..... _____
   (minimum of 0.35)
5. Design storm frequency for the upstream area..... _____ year
6. Time of concentration for upstream area at point of entry; upstream area to be considered as developed..... _____ minutes
7. Rainfall intensity for time of concentration..... _____ inches/hr
8. Permissible bypass rate..... _____ cfs
   (line 1*line 4*line 7)

Name James C. Uecker, P.E.

Title President

Signature _____ Date 7-9-99

Engineering Firm JAS Associates, Inc.

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS SEAL

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows — 89-201
Rolling Meadows, Illinois — 8/2/99

Total Site Area	30.88
Undetained Area	0.78
Unrestricted Flow Area	0.17
Total Site Drainage Area	30.27
Overland Flow Distance in Feet	1480
Slope in Ft/Ft	0.0114
Runoff Coefficient "c"	0.15
Time of Concentration in minutes	62.97
3 year Intensity in inch/hour	1.85
Allowable Release Rate in cfs	8.40
Any Unrestricted Flow in cfs	1.03 (0.17x0.80x7.60)
Net Release Rate	7.37
cfs/acre	0.24

RESTRICTOR CALCULATIONS

High water level	702.00
Invert elevation of Restrictor	689.88
Restrictor Diameter in inches	7.88
Height	11.79
Restrictor "c"	0.79
Actual Restrictor Release in cfs	7.37 OK

DEVELOPED RUNOFF "c"

Impervious area	27.87
Impervious "c"	0.90
Pervious Area	2.40
Pervious "c"	0.20
Composite "c"	0.84

REQUIRED VOLUME CALCULATIONS

Duration (min.)	Intensity (100yr, in/hr)	Inflow (cfs)	Stored Rate	Reservoir Size (ac-ft)
10.00	7.60	194.28	186.91	2.60
20.00	5.50	140.60	133.22	3.70
30.00	4.40	112.48	105.10	4.38
40.00	3.70	94.58	87.21	4.85
50.00	3.20	81.80	74.43	5.17
60.00	2.80	71.58	64.20	5.35
90.00	2.10	53.68	46.31	5.79
120.00	1.70	43.46	36.08	6.01
180.00	1.25	31.95	24.58	6.15
240.00	1.00	25.56	18.19	6.06
300.00	0.84	21.47	14.10	5.88
360.00	0.73	18.66	11.29	5.64
420.00	0.65	16.62	9.24	5.39
480.00	0.58	14.83	7.45	4.97
540.00	0.53	13.55	6.18	4.63
600.00	0.49	12.53	5.15	4.29

STORAGE REQUIRED =	6.15 acre-feet
STORAGE PROVIDED =	6.18 acre-feet

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

SEWERAGE SYSTEM PERMIT

OFFICE COPY

MWRDGC Permit No. 99 230

METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS
312-751-5600

99 JUN 11

INSTRUCTIONS FOR COMPLETING PERMIT FORM: Submit four typed copies of permit application (eight pages) and any required schedules listed below; do not leave any blank spaces; use "X" for checking applicable information. Also submit four copies of location map and plans. Submit two copies of specifications, if specifications are not part of the plan sheets. Address all correspondence to the Local Sewer Systems Section; for any inquiries or assistance, telephone (312)751-3260.

NAME AND LOCATION:

Name of project (as shown on plans): Marketplace of Rolling Meadows

Location of Project (street address or with respect to two major streets): 1400 East Golf Road - Previous Permit #84-345

Municipality (Township, if unincorporated) Rolling Meadows

Section 8 & 9, Township 41 N, Range 11 E.

Is project in MWRDGC combined sewer area Yes ☐ No ☒

SERVICE BASIN OKA WRP

DOCUMENTS BEING SUBMITTED:

- ☒ Basic Information (Required in all cases) ..... Schedule A ..... (Page 4 of 8)
- ☒ Sewer Summary (Required in all cases) ..... Schedule B ..... (Page 5 of 8)
- ☒ Sewer Connections (Required in all cases) ..... Schedule C ..... (page 6 of 8)
- ☒ Detention Facilities ..... Schedule D ..... (2 pages)
- ☐ Lift Station and/or Force Main ..... Schedule E ..... (1 page)
- ☐ Characteristics of Waste Discharges ..... Schedule F ..... (1 page)
- ☐ Treatment or Pre-treatment Facilities ..... Schedule G ..... (2 pages)
- ☐ Certification Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule H ..... (1 page)
- ☐ Affidavit Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule I ..... (1 page)
- ☒ Affidavit of Disclosure of Property Interest ..... Schedule K ..... (2 pages)
- ☐ Notice of Requirements for Storm Water Detention ..... Schedule L ..... (2 pages)
- ☒ Current Survey of Property Interests ..... Exhibit A

OTHER DOCUMENTS: Indicate title, number of pages and originator: - Plan of Proposed Improvements - Marketplace of Rolling Meadows 15 pages

NOTE: ATTACH FEE PAYMENT VOUCHER AND PAYMENT IF APPLICABLE

MWRDGC USE ONLY
Application received on: JUN 11 1999 Permit issued on: AUG 16 1999

OFFICE COPY

SCHEDULE A
BASIC INFORMATION

MWRDGC Permit No. 99 230

1. NAME OF PROJECT Marketplace of Rolling Meadows
(as shown on plans)

2. APPURTENANCES (check all applicable items)

☐ Siphon ☐ Drop Manholes

☐ Stream Crossing ☐ Direct Connections to MWRDGC

3. RECEIVING SANITARY SEWER SYSTEM

A. System that project will connect to is:

☒ Existing ☐ Proposed/Under Construction—>MWRDGC Permit # _____

B. List owners of all sewers from project to MWRDGC interceptor City of Rolling Meadows

Previous MWRD Permit #84-345

4. EXISTING LIFT STATION

☒ No ☐ Yes—> Receiving system includes existing lift station

If Yes, indicate location _____

5. FLOOD PLAIN

Is any part of the project area in a flood plain?

☒ No ☐ Yes—> Percentage of area in flood plain _____ %

Flood crest elevation _____ Ft.

Identify any manholes in flood plain: _____

6. SIZE OF PROJECT

A. What is the size of this project? ~~30.88~~ 30.27 acres 3

B. Total contiguous ownership, including project 30.88 acres

C. Existing impervious area within project ~~30.3~~ 0 acres

D. New impervious area created within project ~~0~~ 27.87 acres

7. DETENTION

A. Is detention provided under this permit?

☐ No ☒ Yes —> Detention required by: ☒ MWRDGC ☐ Other

B. Is project in the service area of existing detention reservoir?

☐ No ☒ Yes —> MWRDGC Permit No. 84-345

SPECIAL CONDITIONS FOR MWRD PERMIT NO. 99-230

1. All drains from the auto service area shall be connected to a triple basin.

2. All waste containing grease shall be discharged to a grease interceptor or grease trap befor discharge into the sewer with the exception of restaurant dishwashers, which shall have their discharge bypass the grease separator or grease trap and discharge directly or indirectly to the sanitary sewer.

3. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner under MWRD Permit No. 97-544, and said Affidavit is made a part of this permit.

4. The stormwater detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by ponding on the parking area, storage in oversized storm sewers and underground storage with a 9.05 inch diameter orifice restrictor.

5. The proposed 9.05 inch diameter orifice restrictor shall have a sharp edge.

6. **NOTE:** The detention facilities proposed under this permit supersede the facilities covered by MWRD Permit No. 84-345.

7. **NOTE:** The detention calculations proposed under this permit supersede the calculations covered by MWRD Permit No. 84-345.

8. ~~All abandoned sanitary sewers shall be plugged at both ends with a minimum of~~ two (2) feet long concrete plugs.

SCHEDULE D - DETENTION

MWRDGC Permit No. 90-230

OFFICE COPY

A. PROJECT INFORMATION

Name of Project Marketplace of Rolling Meadows (See permit #84-345)
(as shown on plans)

B. Method of Detention:

☐ Reservoir ☐ Rooftop ☒ Parking Lot &

☒ Other Pipe Storage

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE

1. Area of site	~~3.88 = (0.78 - 0.17) = 30.27~~ 30.88	acres
2. Average ground slope	0.011	feet\foot
3. Overland flow distance	1480	feet
4. Overland flow time of concentration	63	minutes
5. Average slope of channelized flow (see note) Permit 84-345	----	feet\foot
6. Channelized flow distance (see note)	----	feet
7. Channelized flow time of concentration	----	minutes
8. Total time of concentration (line 4 + line 7)	63	minutes
9. Rainfall intensity for 3-year storm	1.85 (corrected)	inches/hr
10. Allowable release rate, (0.15*line 9*line 1 or Q=0.15*i*A)	8.40 - 1.03 = 7.37	cfs
11. Actual release rate (cannot be greater than line 10)	7.37	cfs
12. Restrictor size	9.05" - ~~7.88~~ Orifice Plate restriction.	inches

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculation.

SCHEDULE D - DETENTION (continued)

MWRDGC Permit No. 99-230

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE

OFFICE COPY

(Submit calculations for 3 and 4)

1. Impervious drainage area	27.87	acres
2. Pervious drainage area	2.40	acres
3. Composite runoff coefficient(c)	0.84	
4. Required detention capacity	6.15	acre-feet
5. Actual detention capacity provided	6.18	acre-feet

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Design frequency shall be determined by local ordinance. If no local requirement is established use 5 year storm frequency.

1. Total area upstream	---	acres
2. Impervious area		acres
3. Pervious area		acres
4. Composite runoff coefficient (minimum of 0.35)		
5. Design storm frequency for the upstream area		year
6. Time of concentration for upstream area at point of entry; upstream area to be considered as developed		minutes
7. Rainfall intensity for time of concentration		inches/hr
8. Permissible bypass rate (line 1*line 4*line 7)	---	cfs

Name James C. Uecker, P.E.

Title President

Signature _____ Date 2/8/99

Engineering Firm JAS Associates, Inc.

JAMES C. UECKER 28566 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS SEAL

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows
Rolling Meadows, Illinois

89-201
Revised 8/5/99

99-230

Total Site Area	30.88
Undetained Area	0.78
Unrestricted Flow Area	0.17
Total Site Drainage Area	30.27
Overland Flow Distance in Feet	1480
Slope in Ft/Ft	0.0114
Runoff Coefficient "c"	0.15
Time of Concentration in minutes	62.97
3 year Intensity in inch/hour	1.85
Allowable Release Rate in cfs	8.40
Any Unrestricted Flow in cfs	1.03 (0.17x0.80x7.60)
Net Release Rate	7.37
cfs/acre	0.24

RESTRICTOR CALCULATIONS

High water level	702.00
Invert elevation of Restrictor	689.88
Restrictor Diameter in inches	9.05
Height	11.74
Restrictor "c"	0.60
Actual Restrictor Release in cfs	7.37 OK

DEVELOPED RUNOFF "c"

Impervious area	27.87
Impervious "c"	0.90
Pervious Area	2.40
Pervious "c"	0.20
Composite "c"	0.84

REQUIRED VOLUME CALCULATIONS

Duration (min.)	Intensity (100yr, in/hr)	Inflow (cfs)	Stored Rate	Reservoir Size (ac-ft)
10.00	7.60	194.28	186.91	2.60
20.00	5.50	140.60	133.23	3.70
30.00	4.40	112.48	105.11	4.38
40.00	3.70	94.58	87.21	4.85
50.00	3.20	81.80	74.43	5.17
60.00	2.80	71.58	64.21	5.35
90.00	2.10	53.68	46.31	5.79
120.00	1.70	43.46	36.09	6.01
180.00	1.25	31.95	24.58	6.15
240.00	1.00	25.56	18.19	6.06
300.00	0.84	21.47	14.10	5.88
360.00	0.73	18.66	11.29	5.65
420.00	0.65	16.62	9.25	5.39
480.00	0.58	14.83	7.46	4.97
540.00	0.53	13.55	6.18	4.63
600.00	0.49	12.53	5.16	4.30

STORAGE REQUIRED = 6.15 acre-feet

STORAGE PROVIDED = 6.18 acre-feet

OFFICE COPY

JAMES C. UEDA 28366 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

89-201.xls

PROJECT NAME :	Market Place of Rolling Meadows					
Permit =	99-230					
AREA OF SITE IN ACRES.....				30.27		
OVERLAND FLOW DISTANCE IN FEET....=				1480.00		
SLOPE IN FT/FT.....				0.0114		
"C"				0.15		
TIME OF CONCENTRATION IN MINUTES =				62.97		
CHANNELIZED FLOW IN MINUTES.....				0.00		
TOTAL TIME OF CONCENTRATION.....				62.97		
3-YEAR INTENSITY IN IN/HR.....				1.85		
ALLOWABLE RELEASE RATE IN CFS.....=				8.40		
ANY UNRESTRICTED FLOW IN CFS.....				0.00		
NET RELEASE.....				8.40		
CFS/ACRE.....				0.28		
DRAINAGE AREA 1						
RESTRICTOR CALCULATIONS						
ENTER HIGHWATER LEVEL OF POND..=				702.00	Height =	11.74
ENTER INVERT ELEVATION(RESTRICTOR)				689.88		
ENTER RESTRICTOR DIAMETER(INCHES)				9.05		
ENTER RESTRICTOR "C".....				0.60		
ACTUAL RESTRICTOR RELEASE (CFS)....=				7.37	OK	
FOR LONG PIPES						
ENTER Ke.....				0.00	0.43	
ENTER Ko.....				0.00	1.00	
ENTER n.....				0.0130		
RESTRICTOR LENGTH IN FEET.....				0.00		
ACTUAL RESTRICTOR RELEASE (CFS)....=				#DIV/0!		
		"C"				
Water	0	1				
IMP AREA=	27.87	0.9				
Pervious Area	2.40	0.2	Total Area =	30.27		
comp "C"	0.84					
RELEASE=	7.37		VOL.REQD.	6.15		
			VOL. PROVIDED =		6.14	

REQUIRED VOLUME CALCULATIONS

MSD METHOD (MODIFIED RATIONAL)

DURATION (HRS)	I(100) (IN/HR)	Q(IN) (CFS)	Q(STOR) (CFS)	STORAGE (AC-FT)
0.17	7.60	194.28	186.91	2.65
0.33	5.50	140.60	133.23	3.66
0.50	4.40	112.48	105.11	4.38
0.67	3.70	94.58	87.21	4.87
0.83	3.20	81.80	74.43	5.15
1.00	2.80	71.58	64.21	5.35
1.50	2.10	53.68	46.31	5.79
2.00	1.70	43.46	36.09	6.01
3.00	1.25	31.95	24.58	6.15
4.00	1.00	25.56	18.19	6.06
5.00	0.84	21.47	14.10	5.88
6.00	0.73	18.66	11.29	5.65
7.00	0.65	16.62	9.25	5.39
8.00	0.58	14.83	7.46	4.97
9.00	0.53	13.55	6.18	4.63
10.00	0.49	12.53	5.16	4.30
11.00	0.46	11.76	4.39	4.02
12.00	0.43	10.99	3.62	3.62
24.00	0.25	6.39	-0.98	-1.96

Total area = 30.88

Unrestricted Area = 0.17

Net watershed Area = 30.88 - (0.78 - 0.17)

= 30.27

0.78 is not drain to Pond. Therefore is not accounted for allowable release.

— × —

unrestricted flow

= 0.17 × 0.8 × 7.6 (I/100) = 1.03 cfs

Net Allowable release = 8.40 - 1.03

= 7.73 cfs.

— × —

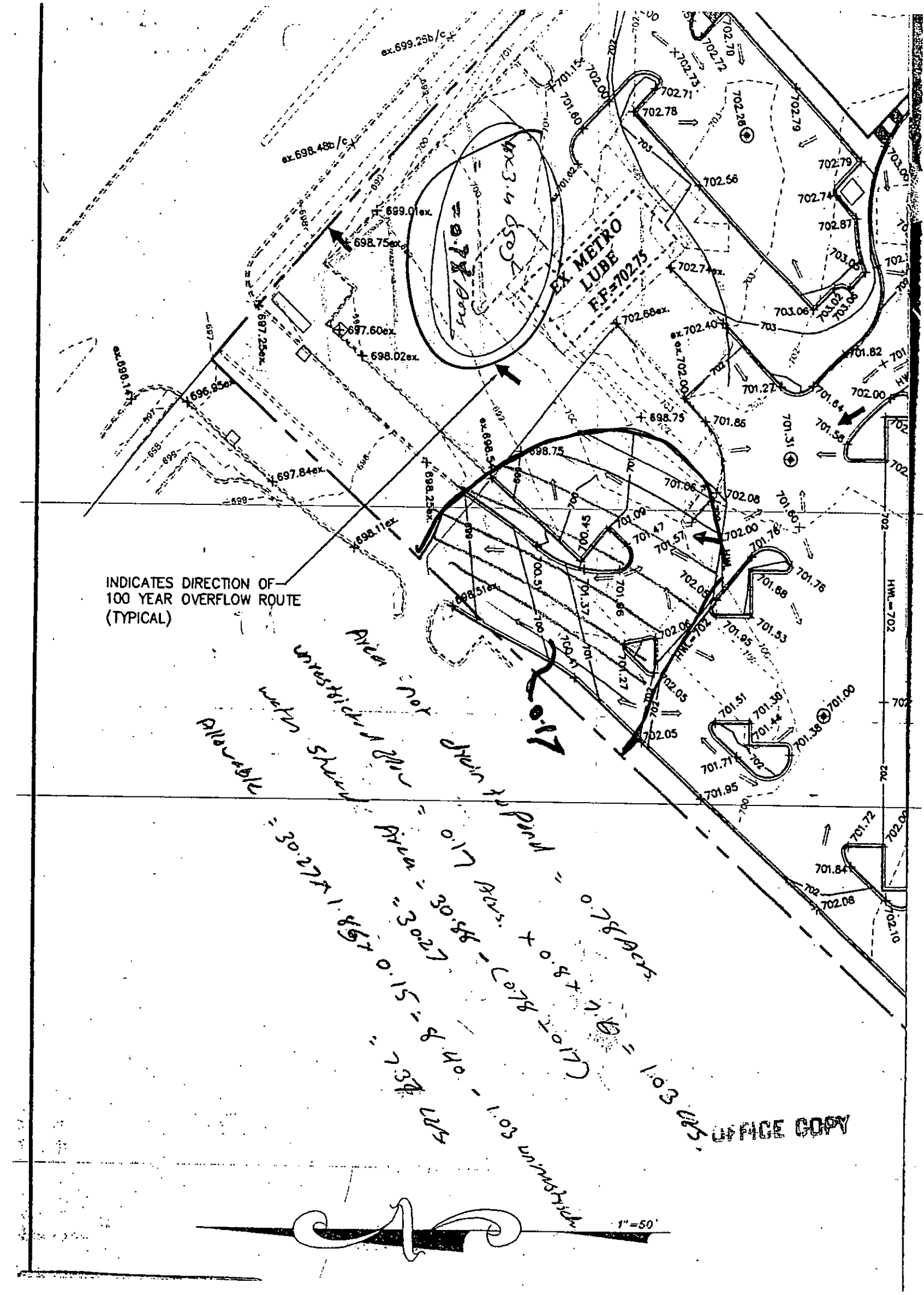
Note: Ex. Chili's restorant building is ~~not~~ consider as draining towards the pond

Oh by Mr. Bob Kral.

8/3/99

OFFICE COPY

90-230


EX. METRO
LUBE
F.F.=702.75
INDICATES DIRECTION OF
100 YEAR OVERFLOW ROUTE
(TYPICAL)
HWL=702
1"=50'
OFFICE COPY

OFFICE COPY 99 230

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

MARKETPLACE OF ROLLING MEADOWS

(Formally Meadows Town Mall)
89-201
April 16, 1999

Area - 30.88 Acres

Previous MWRD Permit – 84-345

Storage Required = 6.13 Ac. Ft. = 267,023 ft.^{3}

Storage Provided:

Pipe Storage -
12" – 2981 ft.^{3}
15" – 2336 ft.^{3}
36" – 8482 ft.^{3}
84" – 83,732 ft.^{3}
96" – 12,315 ft.^{3}

Structure Storage 4958 ft.^{3}

Parking Lot Surface Storage (12") - 152,460 ft.^{3}

Total Storage Provided = 267,264 ft.^{3}
- 6.14 acre feet

DETENTION REVIEW SHEET

A. PROJECT

Permit No. 99-230 Date Received 6/11/99

Name of Project Market Place

Location 11400 E 62nd Road; Rolling Meadows

B. Basic Information

1. Total Project Area 30.27 Acres

2. Impervious Area: (a) Existing 23; (b) New 0

3. Runoff Coefficient _____

4. Project is: Residential ___; Non-Residential ✓

5. Project is in flood plain area ..... yes/no

6. Building Connections are proposed under this permit ..... yes/no

7. Detention is required for the project covered by this permit ..... yes/no

8. Detention is provided under this permit ..... yes/no

9. Detention criteria: MSD X; Other ___

C. Non-Applicability

Detention requirements are not applicable for the reason(s) indicated:

1. Project is in combined sewer area ..... ___

2. Total contiguous ownership is less than 5 acres ..... ___

3. Remaining developable ownership as of 1/1/72 is less than 5 acres . ___

4. Project is single family, residential and area is less than 10 acres ..... ___

5. Project consists of an outlet sewer only and no connections are proposed ..... ___

6. Project consists of sewer rehabilitation work only ..... ___

7. Buildings existing and currently served by septic system ..... ___

8. No new impervious area proposed ..... ___

9. Other _____ ..... ___

D. Relation with Other Projects

1. Detention required for this project is provided by existing/proposed detention facilities ..... ___

Facilities are covered by Permit No. 84-345

Regrading. New ~~Road~~ Parking Lot under this Permit

Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

Marketplace of Rolling Meadows
Rolling Meadows, Illinois

89-201
07/21/99

PARKING LOT VOLUME CALCULATIONS

Site Volume Table:

	Cut yards	Fill yards	Net yards	Method
Site: volume				
Stratum: 1	fg1 702			
	85	5758	5673 (F)	Grid
	58	5753	5695 (F)	Composite

The parking lot storage volume was calculated using Autocad R14 and Softdesk S8, earthworks volume module. A TIN (triangulated irregular network) or 3d surface was created of the proposed parking lot and drainage field. A second 3d surface was created representing the High Water Elevation of 702.00. A stratum was the created representing the difference between the two surfaces. The fill volumes shown represent the parking lot areas under the high water elevation (702.00). Two methods were used to calculate the volume, grid and composite surface. The average of the two is 5755 cubic yards, or 3.57 acre feet. A ±2% error was used to reduce the volume to 3.50 acre feet.

RESTRICTOR CALCULATIONS

100 Year release rate
with 8" diameter restrictor

using: $Q=CA\sqrt{2gH}$

C= 0.61
A= 0.349066
g= 32.2
H= 11.79
Q=5.87 cfs
Q=8.73 cfs on MWRD permit 84-345

H=702.00 - 689.88 + 4" = 11.79

94-230

ORIGINAL COPY

Marketplace at Rolling Meadc
Rolling Meadows, Illinois

Storage Volume in Storm Structure

89-201
7/21/99

2 of 4

2' dia (L.F.)	4' dia (L.F.)	5' dia (L.F.)	6' dia (L.F.)	10' dia (L.F.)
3	2.8	1	9.8	11.1
3	4.3	1.5	11.5	
3	9.6	5	11.6	
24	10.1	4.3	12.1	
26	7	4.5	12	
29	7.2		11.6	
3	6.3		11.4	
3	5.5		11.2	
3	5.9			
3	3.8			
3	3.8			
3	3.4			
3	3.2			
3	2.6			
3	4.3			
3	0.8			
	3.9			
	7.6			
	7.3			
	7			
	6.8			
	4.6			
	3			
	3.9			
	3			
	3			
	3.6			
	4			
	3.8			
	3			
	1			
	1.4			
	2.3			
	3.2			
	3			
	3.3			
	3.2			
	3.4			
	3.6			
	3.2			
	3.7			
	3			
	3.5			

Totals	118	182.9	16.3	91.2	11.1
Vol/L.F.	3.142	12.566	19.635	28.274	78.54
Storage(cu.ft)	370.8	2298.3	320.1	2578.6	871.8

Total Pipe Storage	6439.5	cubic feet
	0.15	acre feet

99-230

12" (lineal feet)	15" (lineal feet)	18" (lineal feet)	21" (lineal feet)	24" (lineal feet)	36" (lineal feet)	84" (lineal feet)	96" (lineal feet)
48	182	63	42	90	103	544	245
89	78	156	80	32	211	544	
113	61		125	44	48	544	
50	70				79	544	
181	131				151		
50	104				139		
50	108				71		
95	68				39		
115	82				284		
174	68						
240	37						
60	61						
76	61						
20	61						
30	61						
92	61						
67	68						
62							
74							
50							
22							
90							
34							
40							
61							
37							
40							
61							
37							
46							
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37							
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37							
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61							
37							
61							
61							
37							
37							
61							
61							
83							
120							
29							
40							
120							
148							
159							
69							
77							
29							
38							
57							
55							
Totals	4114	1362	219	247	166	1125	2176	245
Vol/L.F.	0.785	1.227	1.767	2.405	3.142	7.069	38.485	50.266
Storage(cu.ft)	3229.5	1671.2	387.0	594.0	521.6	7952.6	83743.4	12315.2

Total Pipe Storage	110414.4	cubic feet
	2.53	acre feet
Total Paking lot storage	3.5	acre feet
Total storage in Structures	0.15	acre feet

Total Site Storage Volume 6.18 acre feet

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Associates
1345 WILEY ROAD, SUITE 110, SCHAUMBURG, ILLINOIS 60173
847-310-9400 FAX 847-310-0087

MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, IL

07/02/99
89-201

TOTAL SITE AREA	1,345,306.00 sq. ft. 30.88 acres
LOT 4 & 5 AREAS	83,865.00 sq. ft. 1.93 acres
SITE - LOTS 4 & 5	1,261,441.00 sq. ft. 28.96 acres
SUB-SITE TOTAL PERVIOUS AREA	92,306.00 sq. ft. 2.12 acres
SUB-SITE TOTAL IMPERVIOUS AREA	26.84 acres
ASSUME 85% IMPERVIOUS FOR LOT 4 & 5	71,285.00 sq. ft. 1.64 acres

TOTAL SITE AREA	30.88 acres
TOTAL SITE AREA ON 84-345 PERMIT	31.47 acres
TOTAL SITE IMPERVIOUS AREA	28.48 acres
TOTAL SITE IMPERVIOUS AREA ON 84-345 PERMIT	29.3 acres
TOTAL SITE PERVIOUS AREA	2.41 acres
TOTAL SITE PERVIOUS AREA ON 84-345 PERMIT	2.17 acres

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89-201AREAS.xls

99-230

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MSDGC Permit No. 84-345
IEPA Log No. _____

SEWERAGE SYSTEM PERMIT

THE
METROPOLITAN SANITARY DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS 60611 - 751-5600

INSTRUCTIONS FOR FILLING FORMS: Submit *typed* forms of permit and schedules in quadruplicate; complete all information or indicate non-applicability; do not leave any blank spaces; use "X" for checking applicable information. Submit four copies of location map, plans and all applicable schedules. Submit two copies of specifications, where applicable. Address all correspondence to Local Sewer Systems Section; for any inquiries or assistance, telephone 751-5789.

NAME AND LOCATION:
Name of project (as shown on plans): Chicago Outlet Mall - 10192
Location of Project (street address or with respect to two major streets): Golf & Algonquin Roads

Municipality (Township, if unincorporated) Rolling Meadows Illinois
Section 8 & 9, Township 41 N, Range 11 E.
Is project in MSDGC combined sewer area Yes [ ] No [X]

(OFFICE USE ONLY: X [1018286], Y [1018716], Code [101],
Receiving STP and/or Lift Station John Egan T.P.)

DOCUMENTS BEING SUBMITTED: If project involves any of the items listed below, submit the corresponding schedule.

X	Basic Information (Required in all cases)	Schedule A
____	Sewer Connection(s)	Schedule B
____	Sewer Extension(s)	Schedule C
____	Detention Facilities	Schedule D
____	Lift Station and/or Force Main	Schedule E
____	Characteristics of Waste Discharges	Schedule F
____	Treatment or Pre-treatment Facilities	Schedule G
____	Certification Relative to Compliance with Art. 4-1, 6-2d, and 6-3b	Schedule H
____	Affidavit Relative to Compliance with Art. 4-1, 6-2d, and 6-3b	Schedule J
X	Affidavit of Disclosure of Property Interest	Schedule K
____	Notice of Requirements for Storm Water Detention	Schedule L
____	Affidavit Relative to Compliance with Art. 6-4	Schedule M

OTHER DOCUMENTS: Indicate title, number of pages and originator:

OFFICE COPY

MSDGC Permit No. 84-0
IEPA Log No. _____

SCHEDULE D - DETENTION*

I. **Project Information**

Name of Project (as shown on plans) Chicago Outlet Mall

Location Algonquin & Golf

Design criteria: MSDGC [X]; Local Government [ ]; Other [ ]

II. **Determination of Allowable Release Rate - Undeveloped Site:**

1.	Area of site	31.47 WSM	acres
2.	Average ground slope	.011	foot/foot
3.	Overland flow distance	1480	feet
4.	Overland flow time of concentration	63	minutes
5.	Average slope of channelized flow (See Note a)	-	foot/foot
6.	Channelized flow distance (See Note a)	-	feet
7.	Channelized flow time of concentration	-	minutes
8.	Total time of concentration (Line 4 + Line 7)	47	minutes
9.	Rainfall intensity for three-year storm	3.85	inches/hr.
10.	Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(1) of the MSDGC Manual)	.15	
11.	Allowable release rate, (line 1 x line 9 x line 10: Q=ciA)	8.73	cfs.

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. **Determination of Reservoir Size - Developed Site:**

12.	Impervious drainage area	29.30 WSM	acres
13.	Pervious drainage area	2.17 WSM	acres
14.	Composite runoff coefficient (c). (Submit calculations)	.85	
15.	Required reservoir capacity (Submit calculations)	6.09	acre-feet

IV. **Permissible Bypass Rate through Development Site from Upstream Area:**

16.	Total area upstream	-0-	acres
17.	Future/present impervious area (cross out inappropriate case)		acres
18.	Future/present pervious area (cross out inappropriate case)		acres
19.	Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)		
20.	Design storm frequency for the upstream area (Design storm frequency shall be as determined by local ordinance; if no local requirement is established, use 5-yr. storm frequency.)		year
21.	Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8)		minutes
22.	Design storm intensity for above duration		inches/hour
23.	Permissible bypass rate (line 16 x line 19 x line 22)	-0-	cfs.

*If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.

JAMES BIBBY 39785 REGISTERED PROFESSIONAL ENGINEER SEAL OF ILLINOIS

Engineering Firm Cowhey Associates, Ltd.

Signature _____ Date 6/14/84

(Name and Title)
Jim Bibby P.E.,
Project Engineer

SPECIAL CONDITIONS #84-345

1. All waste containing grease shall be discharged to a grease interceptor or grease trap before discharge into the sewer. (The engineer has indicated the installation of a grease separator and sources of waste containing grease to be the kitchen sink).

2. The "No-Bel" joint material shall be allowed subject to the following conditions:

   a. The PVC collar installed on the pipe instead of the monolithic clay bell shall conform to ASTM Specification D-1784. The collar shall be installed at the factory and shall be shrunk-fit onto a smooth clay pipe surface. The factory-applied barrier between the PVC collar and the clay pipe shall be EVA (Ethylene Vinyl Acetate).

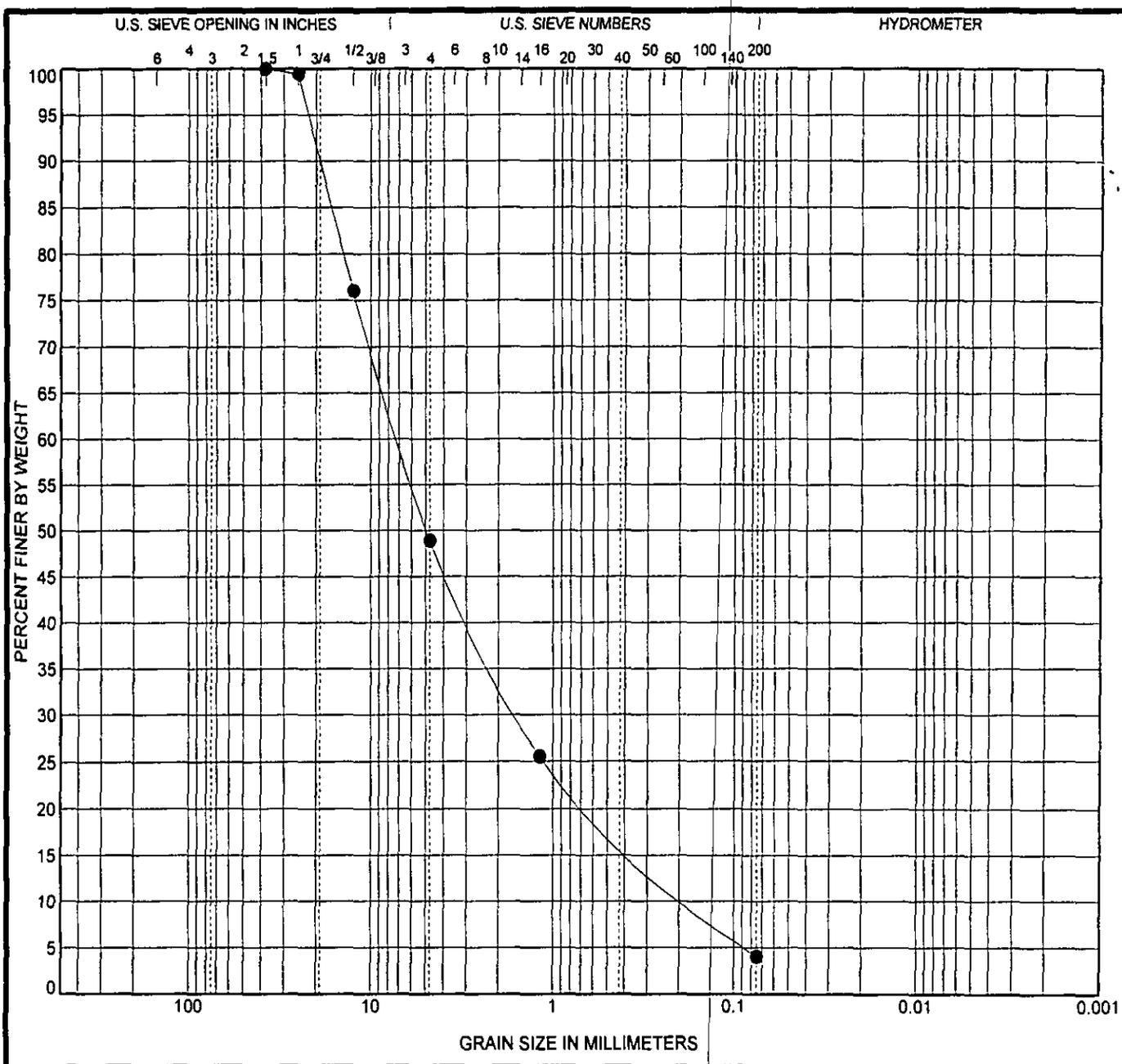
   b. The finished joint shall meet all material and performance tests specified under ASTM Specification C-425.

3. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner, and said Affidavit is incorporated herein and made a part hereof.

4. The storm water detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by ponding on the parking area and pipe storage with a 8 inch outlet restrictor pipe.

5. The proposed 8 inch diameter restrictor pipe shall have a projecting edge.

6. All non-residential buildings connecting into this sanitary system, other than the buildings under this permit, will require separate MSD permits.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	LL	PL	PI	Cc	Cu
●	SAMPLE-D 0.0'	BR SANDY GRAVEL, TRACE SILT (CA-6) (GP-GM)				2.10	43.93

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	SAMPLE-D 0.0'	38.1	7.061	1.544	0.161	51.1	44.8	4.1	

Terracon

GRAIN SIZE DISTRIBUTION

Project: PROPOSED MARKET PLACE RETAIL CENTER
Site: ROLLING MEADOWS, ILLINOIS
Job #: 11991090
Date: 9-11-99

TERRACON_GRAIN SIZE 11991090.GPJ TERRACON.GDT 9/11/99

Grad No.	3″	2 1/2″	2″	1 1/2″	1″	3/4″	1/2″	3/8″	No. 4	No. 16	No. 50	No. 200 2/
CA 1	100	95 ± 5	60 ± 15	15 ± 15	3 ± 3							
CA 2		100	95 ± 5		75 ± 15		50 ± 15		30 ± 10	20 ± 15		8 ± 4
CA 3		100	93 ± 7	55 ± 20	8 ± 8		3 ± 3					
CA 4			100	95 ± 5	85 ± 10		60 ± 15		40 ± 10	20 ± 15		8 ± 4
CA 5				97 ± 3 3/	40 ± 25		5 ± 5		3 ± 3			
CA 6				100	95 ± 5		75 ± 15		43 ± 13	25 ± 15		8 ± 4
CA 7				100	95 ± 5		45 ± 15 4/		5 ± 5			
CA 8				100	97 ± 3	85 ± 10	55 ± 10		10 ± 5	3 ± 3 5/		
CA 9				100	97 ± 3		60 ± 15		30 ± 15	10 ± 10		6 ± 6
CA 10					100	95 ± 5	80 ± 15		50 ± 10	30 ± 15		9 ± 4
CA 11					100	92 ± 8	45 ± 15 6/		6 ± 6	3 ± 3 5/ 7/		
CA 12						100	95 ± 5	85 ± 10	60 ± 10	35 ± 10		9 ± 4
CA 13						100	97 ± 3	80 ± 10	30 ± 15	3 ± 3 5/		
CA 14							90 ± 10 8/	45 ± 20	3 ± 3			
CA 15							100	75 ± 15	7 ± 7	2 ± 2		
CA 16							100	97 ± 3	30 ± 15	2 ± 2 5/		
CA 17	100								65 ± 20	45 ± 20	20 ± 10	10 ± 5
CA 18	100				95 ± 5				75 ± 25	55 ± 25	10 ± 10	2 ± 2
CA 19	100				95 ± 5				60 ± 15	40 ± 15	20 ± 10	10 ± 5

1/ When an optional range is specified, once the range is selected, it shall not be changed.

2/ Subject to Maximum percent allowed in Coarse Aggregate Quality Table.

3/ Shall be 100 percent passing the 45 mm (1 3/4″) sieve.

4/ When using gradation CA 7 for A binder, the percent passing the 12.5 mm (1/2″) sieve may also be 35 ± 10 or 15 ± 10.

5/ When used in Class I Bituminous Mixtures, the percent passing the 1.18 mm (No. 16) sieve for gradations CA 8, CA 11, CA 13 or CA 16, shall be 4 ± 4%.

6/ When using gradation CA 11 for B binder, the percent passing the 12.5 mm (1/2″) sieve may also be 15 ± 10.

7/ The 1.18 mm (No. 16) requirement will be waived when CA 11 is used in the manufacture of portland cement concrete.

8/ 100 percent passing 16 mm (5/8″) sieve.

(d) Incompatibility. Incompatibility of any of the gradations or combinations of gradation permitted resulting in unworkable mixtures, nonadherence to the final mix gradation limits, or any other indication of incompatibility shall be just cause for rejection of one or both of the sizes.

(e) Storage of Coarse Aggregate. Sites for stockpiles shall be grubbed and

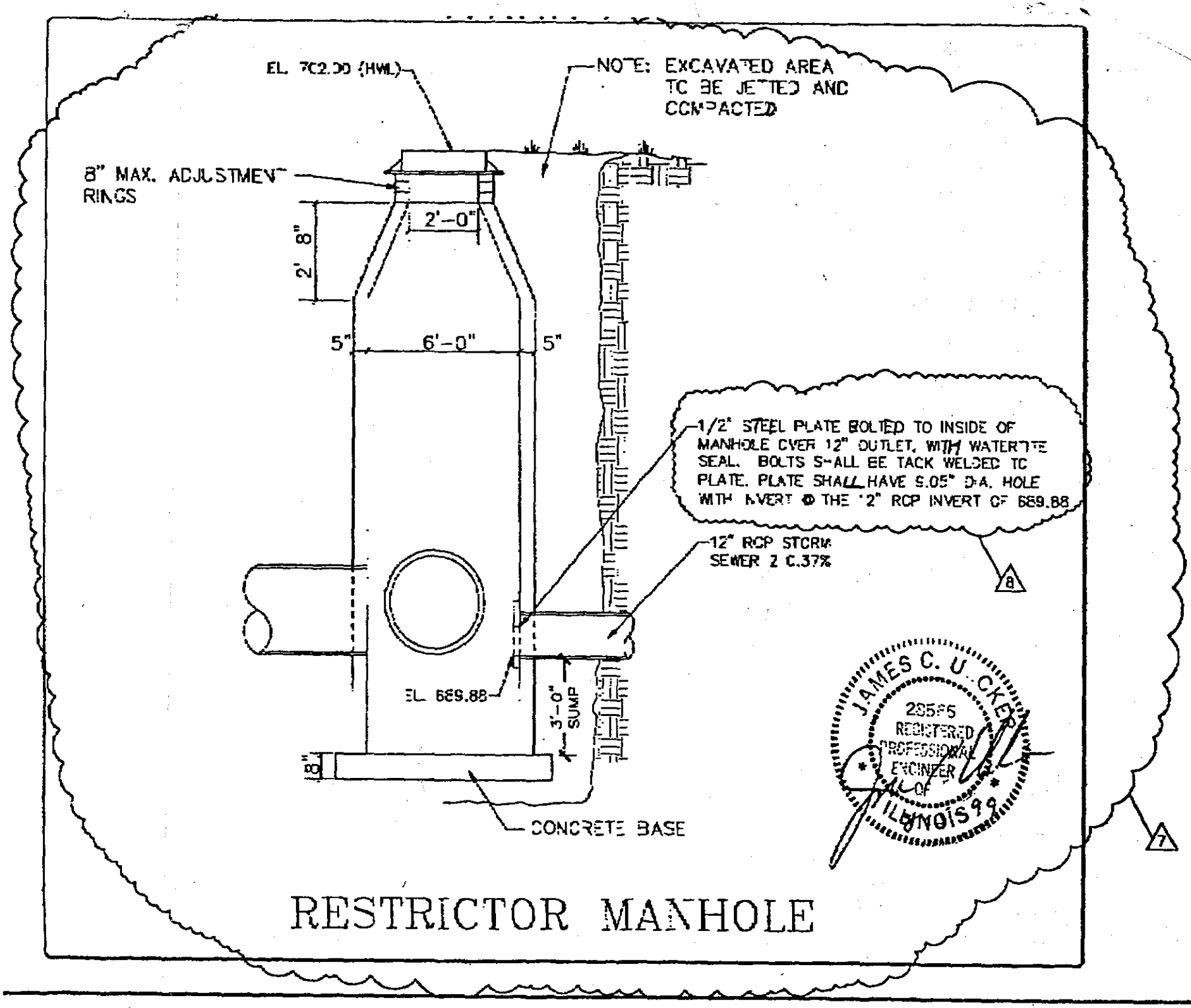
704.(
conform
requirem

(a)

(b)

(c)

(d)



RESTRICTOR MANHOLE

PLAN OF PROPOSED IMPROVEMENTS

FOR

MARKETPLACE OF ROLLING MEADOWS

1400 EAST GOLF ROAD
ROLLING MEADOWS, ILLINOIS

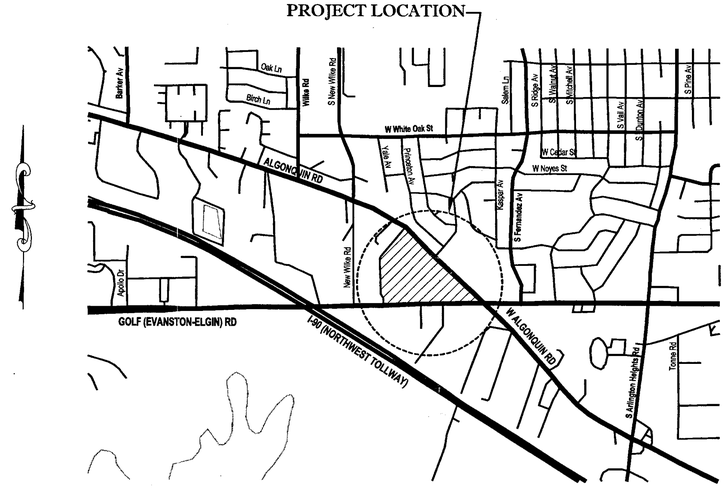
MWRD NOTES

1. The MWRD Sewer Permit Section Field Office must be notified at least two (2) working days prior to the commencement of work (call 708-588-4055).
2. Elevation datum is U.S.G.S.
3. All floor drains shall discharge to the sanitary sewer.
4. All downspouts and footing drains shall discharge to the storm system.
5. All (specify material) sanitary, and storm in combined sewer area, sewer pipe joints shall conform to (specify joint specification).

Material	Joint Spec
PVC Gravity Sewer Pipe	
6"-15" dia. SDR35 D-3034	
18"-27" dia. F/dy=46 F-697	
Joints-Gasket	D-3212
-Solvent	D-2855
PVC J-M Ribbed 18"-48" dia. F-794	F-794
PVC A-2000 Corrugated 4"-10" dia. F-949	F-949
Polyethylene (HDPE) Sewer Pipe Pipe 18"-120" dia. F-894	F-894

6. All sanitary, and storm in combined sewer areas, sewer construction requires stone bedding 1/4" to 1" in size, with a minimum thickness equal to 1/4 the outside diameter of the sewer, but not less than four (4) inches for more than eight (8) inches. Material Shall be CA-11 or CA-13 and shall be extended at least 2" above the top of the pipe when using PVC.
7. "Band-Seal" or similar flexible-type couplings shall be used in the connection of sewer pipe of dissimilar materials.
8. When connecting to an existing sewer main by means other than an existing wye, tee, or an existing manhole, one of the following methods shall be used.
   A. Circular saw-cut of sewer main by proper tools ("Sewer-Tap" machine or similar) and proper installation of hug-wye saddle or hub-tee saddle.
   B. Remove an entire section of pipe (breaking only the top of one bell) and replace with a wye or tee branch section.
   C. With a pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting, using "Band Seal" or similar couplings to hole it firmly in place.
9. Wherever a sewer crosses under a watermain, the minimum vertical distance from the top of the sewer to the bottom of the watermain shall be 18 inches. Furthermore, a minimum horizontal distance of 10 feet between sanitary sewers and watermains shall be maintained unless: The sewer is laid in a separate trench, keeping a minimum 18" vertical separation; or the sewer is laid in the same trench with the watermain located at the opposite side on a bench of undisturbed earth, keeping a minimum 18" vertical separation. If either the vertical or horizontal distances described above cannot be maintained, or the sewer crosses above the watermain, the sewer shall be constructed to watermain standards.
10. All existing septic systems to be abandoned. Abandoned tanks to be filled or removed.
11. All sanitary manholes, and storm manholes in combined sewer areas shall have a minimum inside diameter of 48 inches, and shall be cast in place or pre-cast reinforced concrete.

PROJECT LOCATION



LOCATION MAP
NO SCALE

LEGEND

	EX. HYDRANT
	EX. VALVE VAULT
	EX. WATER LINE
	EX. SANITARY MH
	EX. SANITARY LINE
	EX. STORM MH
	EX. CATCH BASIN
	EX. INLET
	EX. STORM LINE
782.78xx	EXISTING ELEVATION
	EX. UTILITY POLE
794	EX. CONTOUR
	PROPOSED HYDRANT
	PROPOSED VALVE VAULT
	PROPOSED WATER LINE
	PROPOSED SANITARY MH
	PROPOSED SANITARY LINE
	PROPOSED STORM MH
	PROPOSED DRAIN BASIN
	PROPOSED INLET
	PROPOSED STORM LINE
792	PROPOSED CONTOUR
	DRAINAGE DIRECTION
782.25	PROPOSED PAVEMENT GRADE

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2. ALTA/ACSM LAND TITLE SURVEY
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5. O.C.B. & FUNWORLD GEOMETRICS
6. WAL-MART/SAM'S GRADING
7. O.C.B. & FUNWORLD GRADING
8. WAL-MART/SAM'S STORM SEWER
9. O.C.B. & FUNWORLD STORM SEWER
10. WAL-MART/SAM'S SANITARY SEWER & WATERMAIN
11. O.C.B. & FUNWORLD SANITARY SEWER & WATERMAIN
12. WAL-MART/SAM'S LIGHTING, SIGNAGE, & UTILITY
13. O.C.B. & FUNWORLD LIGHTING, SIGNAGE, & UTILITY
14. SANITARY SEWER PROFILES
15. GENERAL NOTES & SPECIFICATIONS
16. LANDSCAPE PLAN

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Metropolitan Water Reclamation District of Greater Chicago Sewage Permit -99-230

BENCHMARKS

B.M.#1 NORTHEAST FLANGE BOLT ON HYDRANT ±200' EAST CHILI'S ON THE NORTH SIDE OF GOLF ROAD ELEV.=702.70(USGS DATUM)

B.M.#2 NORTHWEST FLANGE BOLT ON HYDRANT ON WEST PROPERTY LINE ±75' NORTH OF SHARED DRIVE ELEV.=704.18(USGS DATUM)

OFFICE COPY

DUTY TO INDEMNIFY

The Contractor shall defend, indemnify, keep and save harmless the Village, Owner, and Engineer, and their respective board members, representatives, agents, and employees, in both individual and official capacities, against all suits , claims, damages, losses and expenses, including attorney's fees, caused by, growing out of, or incidental to, the performance of the work under the Contract by the Contractor or its subcontractors to the full extent as allowed by the laws of the State of Illinois and not beyond any extent which would render these provisions void or unenforceable. This obligation includes but is not limited to: The Illinois laws regarding structural work (Ill. Rev. Stat. Ch.48, par.60 et seq.). And regarding the protection of adjacent landowners (Ill.Rev. Stat. Ch.17 1/2 par.51 et seq.). In the event of any such injury (including death) or loss or damage, or claims therefore, the Contractor shall give prompt notice to the owner.

J.A.S. Associates, INC.
1345 WILEY RD., STE. 110, SCHAUMBURG, IL., 60173
PHONE: 1-847-310-9400 FAX: 1-847-310-0087
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CIVIL ENGINEERING LAND SURVEYING LAND PLANNING

Prepared at or under the direction of:

Illinois registered Professional Engineer No. 28566

Sig.- 7.2.99
Ren.- 11.30.99

48 HOURS BEFORE YOU DIG
CALL J.U.L.I.E.
WITH THE FOLLOWING INFORMATION
COUNTY-NAME COOK
TOWNSHIP-NAME or number 41 NORTH
SECTION NUMBER 8
800-892-0123
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS

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No.	Date	By	Description
	07/02/99		PER CITY
	06/15/99		PER CITY
	06/10/99		PER CITY
	05/24/99		PER OWNER
	05/07/99		PER OWNER

REVISIONS

Date: 04/16/99	Drawn: M.D.W.	SHEET 1 of 16	Project No. 89-201
Drawing name: 89201-01.dwg	Approved: J.C.U.		

ALTA/ACSM
LAND TITLE SURVEY

UTILITY COMPANY OWNERS:

COMED (formerly Commonwealth Edison Company)
Phone No.: 1-800-334-7661

NICOR (formerly Northern Illinois Gas Company)
Phone No.:1-888-642-9727

AMERITECH (formerly Illinois Bell Telephone Company)
Phone No.: (847) 706-7600

CITY OF ROLLING MEADOWS
Phone No.: (847) 394-8500

CITY OF ROLLING MEADOWS (PUBLIC WORKS)
Phone No.: (847) 394-8500

J.U.L.I.E. (Joint Utility Location Information For Excavators)
Phone No.: 1-800-892-0123

UTILITY LOCATION:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ORDINARY UTILITY SERVICE DROPS OR CONNECTIONS ARE NOT LOCATED OR SHOWN ON SURVEY.

LEGEND

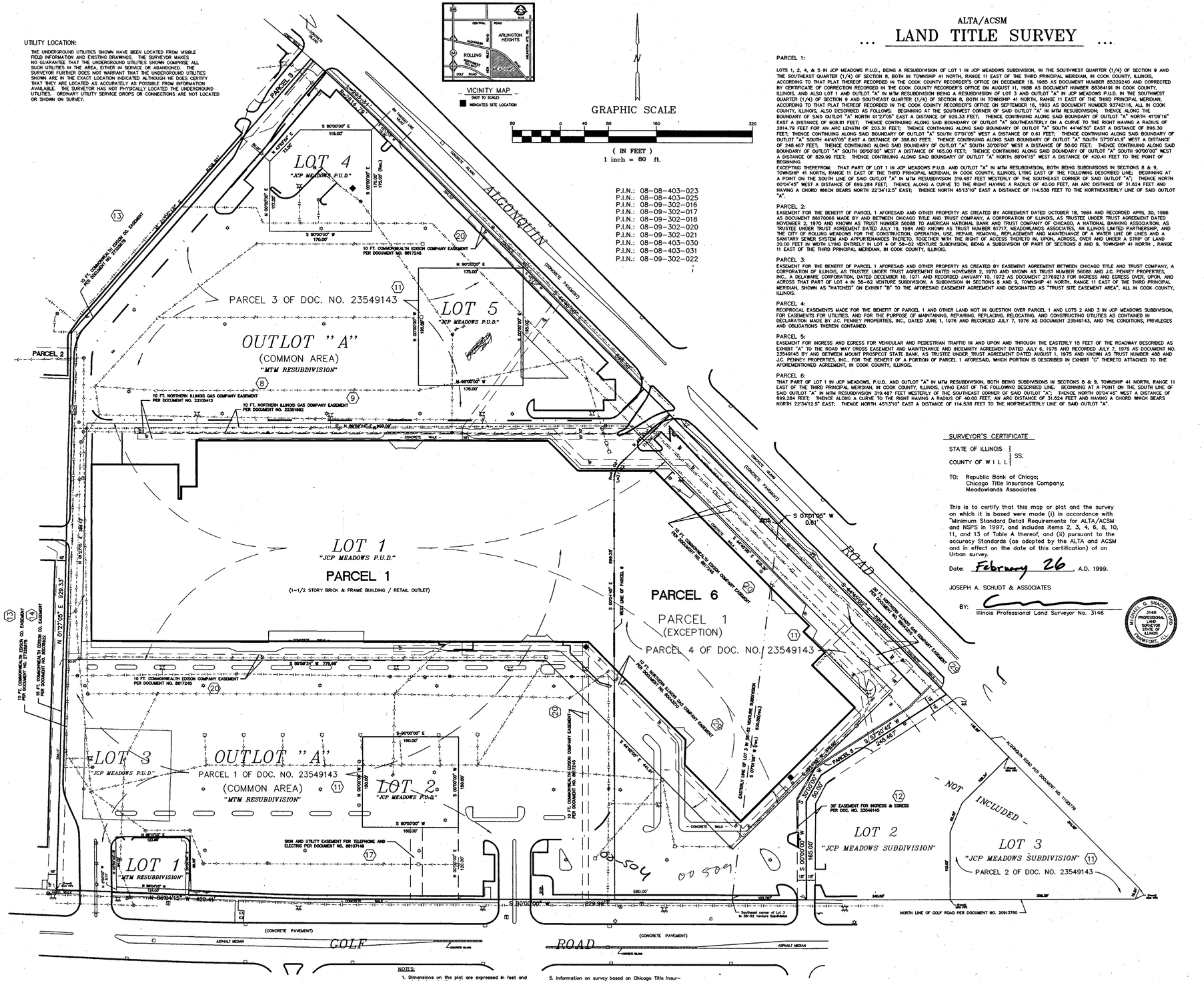
S	SANITARY SEWER MANHOLE
	SANITARY SEWER LINE
WV	WATER VALVE IN VAULT
	WATER VALVE
	WATER LINE
	FIRE HYDRANT
	STORM SEWER INLET
	STORM SEWER CATCH BASIN
	STORM SEWER MANHOLE
	STORM SEWER LINE
	POWER POLE
	TRANSFORMER BOX/PAD
	LIGHT POLE
	TRAFFIC SIGNAL
HH	HAND HOLE
	AMERITECH TELEPHONE (BT)
	GAS VALVE
	UNDERGROUND TELEPHONE CABLE
E	UNDERGROUND ELECTRIC CABLE
G	UNDERGROUND GAS LINE
L	UNDERGROUND LIGHT CABLE
O/E	OVERHEAD ELECTRIC LINE
	CURB LINE
E	ELECTRIC MANHOLE
T	TELEPHONE MANHOLE
	SIGN
	FENCE LINE
	DECIDUOUS TREE
	EVERGREEN
	BRUSH/HEDGE
	PINE TREES
(10)	NOTES CORRESPONDING TO SCHEDULE B



VICINITY MAP
(NOT TO SCALE)
■ INDICATES SITE LOCATION

GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.

P.I.N.: 08-08-403-023
P.I.N.: 08-08-403-025
P.I.N.: 08-09-302-016
P.I.N.: 08-09-302-017
P.I.N.: 08-09-302-018
P.I.N.: 08-09-302-020
P.I.N.: 08-09-302-021
P.I.N.: 08-08-403-030
P.I.N.: 08-08-403-031
P.I.N.: 08-09-302-022



NOTES CORRESPONDING TO SCHEDULE B:

(8) A 10 FOOT EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY J. C. PENNY PROPERTIES, INC. RECORDED NOVEMBER 1, 1972 AS DOCUMENT NO. 22105413 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(9) A 10 FOOT EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY J. C. PENNY PROPERTIES, INC. RECORDED JUNE 7, 1973 AS DOCUMENT NO. 22351992 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(11) EASEMENTS FOR UTILITIES OVER PARTS OF THE LAND FOR THE BENEFIT OF THE LAND AND OTHER PROPERTY FOR THE PURPOSE OF INSTALLING, MAINTAINING, REPAIRING, REPLACING AND CONSTRUCTING SAID UTILITIES RECORDED JULY 7, 1976 AS DOCUMENT NO. 23549143 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL. EASEMENT IS BLANKET IN NATURE.

(12) A MUTUAL AND RECIPROCAL EASEMENT FOR THE PURPOSE OF INGRESS AND EGRESS OF VEHICULAR AND PEDESTRIAN TRAFFIC RECORDED JULY 7, 1976 AS DOCUMENT NO. 23549145 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(13) A 10 FOOT EASEMENT GRANTED TO COMMONWEALTH EDISON COMPANY BY MEADOWLANDS ASSOCIATES RECORDED NOVEMBER 9, 1984 AS DOCUMENT NO. 27338878 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(14) AN EASEMENT GRANTED TO COMMONWEALTH EDISON COMPANY BY AMERICAN NATIONAL BANK & TRUST COMPANY OF CHICAGO RECORDED MAY 29, 1985 AS DOCUMENT NO. 85038922 IS PLOTTED ONLY FOR INFORMATIONAL PURPOSES ONLY FROM AN ILLEGIBLE SKETCH PROVIDED TO SURVEYOR.

(17) A SIGN AND UTILITY EASEMENT FOR TELEPHONE AND ELECTRICAL SERVICE AS CREATED BY MEMORANDUM OF LEASE RECORDED MARCH 19, 1986 AS DOCUMENT NO. 86107149 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(18) AN EASEMENT FOR SEWER AND WATER MAIN PURPOSES GRANTED TO THE CITY OF ROLLING MEADOWS RECORDED APRIL 30, 1986 AS DOCUMENT 86170068 IS NOT PLOTTED OR SHOWN ON SURVEY, DOCUMENT PROVIDED TO SURVEYOR WAS ILLEGIBLE.

(19) AN EASEMENT FOR WATER MAIN PURPOSES GRANTED TO THE CITY OF ROLLING MEADOWS RECORDED 30, 1986 AS DOCUMENT NO. 86170069 IS NOT PLOTTED OR SHOWN ON SURVEY, DOCUMENT PROVIDED TO SURVEYOR WAS ILLEGIBLE.

(20) AN EASEMENT GRANTED TO COMMONWEALTH EDISON BY MEADOWLANDS ASSOCIATES RECORDED MAY 2, 1986 AS DOCUMENT NO. 86174245 IS PLOTTED AND SHOWN ON SURVEY AS AN APPROXIMATE GRAPHIC LOCATION BASED UPON SKETCH IN AFORESAID DOCUMENT AND IS USED ONLY FOR INFORMATIONAL DEPICTION OF SAID EASEMENT.

(21) AGREEMENT AND DECLARATION OF COVENANTS AND EASEMENTS DATED MAY 30, 1986 AS DOCUMENT NO. 86214935 IS NOT PLOTTED OR SHOWN ON SURVEY, THE SKETCH IN DOCUMENT PROVIDED TO THE SURVEYOR IS ILLEGIBLE.

(28) AN EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY RECORDED APRIL 9, 1990 AS DOCUMENT NO. 90160241 IS NOT PLOTTED OR SHOWN ON SURVEY. THE EXHIBIT "A" IN DOCUMENT AFORESAID IS ILLEGIBLE.

(29) A GAS MAIN EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY WESTERN MIDWEST CORPORATION RECORDED JUNE 3, 1985 AS DOCUMENT NO. 85043210 IS PLOTTED AND SHOWN ON SURVEY AS AN APPROXIMATE GRAPHIC LOCATION BASED UPON SKETCH IN AFORESAID DOCUMENT AND IS USED ONLY FOR INFORMATIONAL DEPICTION OF SAID EASEMENT.

FLOOD CERTIFICATION

THIS IS TO CERTIFY THAT WE HAVE EXAMINED COMMUNITY PANEL NUMBER 170155 0005 C EFFECTIVE JUNE 19, 1985, AS ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITH REFERENCE TO THE ABOVE NAMED TRACT AND FIND IT TO BE IN ZONE "C" (NO SHADING) WHICH IS AREAS OF MINIMAL FLOODING.

NOTES:

1. Dimensions on the plat are expressed in feet and decimal parts thereof.
2. Bearings are referred to the Plat of Subdivision of MTM Resubdivision per Document No. 93742116.
3. Property contains: 1,345,306 Sq. Ft. (30.884 Acres), more or less.
4. Zoning Designation: Planned Unit Development.
5. Information on survey based on Chicago Title Insurance Company Title Commitment No. 1401 007669401 D1 dated August 14, 1997.
6. Buildings and related improvements not located or shown on survey per request.
7. Parking, setback, height, density and bulk restrictions are ambiguous and unplottable. (Subject to submittal of site plan to City of Rolling Meadows).

PARCEL 1:

LOTS 1, 2, 4, & 5 IN JCP MEADOWS P.U.D., BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUBDIVISION, IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON DECEMBER 18, 1985 AS DOCUMENT NUMBER 85329240 AND CORRECTED BY CERTIFICATE OF CORRECTION RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON AUGUST 11, 1988 AS DOCUMENT NUMBER 88364191 IN COOK COUNTY, ILLINOIS, AND ALSO LOT 1 AND OUTLOT "A" IN MTM RESUBDIVISION BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D. IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON SEPTEMBER 15, 1993 AS DOCUMENT NUMBER 93742116, ALL IN COOK COUNTY, ILLINOIS, ALSO DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID OUTLOT "A" IN MTM RESUBDIVISION; THENCE ALONG THE BOUNDARY OF SAID OUTLOT "A" NORTH 01°27'05" EAST A DISTANCE OF 929.33 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" NORTH 41°09'16" EAST A DISTANCE OF 608.81 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTHEASTERLY ON A CURVE TO THE RIGHT HAVING A RADIUS OF 2814.79 FEET FOR AN ARC LENGTH OF 203.31 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 44°46'50" EAST A DISTANCE OF 896.30 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 07°01'05" WEST A DISTANCE OF 0.61 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 44°45'05" EAST A DISTANCE OF 398.80 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 57°20'41.9" WEST A DISTANCE OF 248.467 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 30°00'00" WEST A DISTANCE OF 50.00 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 60°00'00" WEST A DISTANCE OF 165.00 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 90°00'00" WEST A DISTANCE OF 829.99 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" NORTH 88°04'15" WEST A DISTANCE OF 420.41 FEET TO THE POINT OF BEGINNING.
EXCEPTING THEREFROM: THAT PART OF LOT 1 IN JCP MEADOWS P.U.D. AND OUTLOT "A" IN MTM RESUBDIVISION, BOTH BEING SUBDIVISIONS IN SECTIONS 8 & 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, LYING EAST OF THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT ON THE SOUTH LINE OF SAID OUTLOT "A" IN MTM RESUBDIVISION 319.487 FEET WESTERLY OF THE SOUTHEAST CORNER OF SAID OUTLOT "A"; THENCE NORTH 00°04'45" WEST A DISTANCE OF 699.284 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 31.624 FEET AND HAVING A CHORD WHICH BEARS NORTH 22°34'12.5" EAST; THENCE NORTH 45°13'10" EAST A DISTANCE OF 114.538 FEET TO THE NORTHEASTERLY LINE OF SAID OUTLOT "A".

PARCEL 2:

EASEMENT FOR THE BENEFIT OF PARCEL 1 AFORESAID AND OTHER PROPERTY AS CREATED BY AGREEMENT DATED OCTOBER 18, 1984 AND RECORDED APRIL 30, 1986 AS DOCUMENT 86170066 MADE BY AND BETWEEN CHICAGO TITLE AND TRUST COMPANY, A CORPORATION OF ILLINOIS, AS TRUSTEE UNDER TRUST AGREEMENT DATED NOVEMBER 2, 1970 AND KNOWN AS TRUST NUMBER 56088 TO AMERICAN NATIONAL BANK AND TRUST COMPANY OF CHICAGO, A NATIONAL BANKING ASSOCIATION, AS TRUSTEE UNDER TRUST AGREEMENT DATED JULY 19, 1984 AND KNOWN AS TRUST NUMBER 61717, MEADOWLANDS ASSOCIATES, AN ILLINOIS LIMITED PARTNERSHIP, AND THE CITY OF ROLLING MEADOWS FOR THE CONSTRUCTION, OPERATION, USE, REPAIR, REMOVAL, REPLACEMENT AND MAINTENANCE OF A WATER LINE OF LINES AND A SANITARY SEWER SYSTEM AND APPURTENANCES THERETO, TOGETHER WITH THE RIGHT OF ACCESS THERETO IN, UPON, ACROSS, OVER AND UNDER A STRIP OF LAND 20.00 FEET IN WIDTH LYING ENTIRELY IN LOT 4 OF 58-62 VENTURE SUBDIVISION, BEING A SUBDIVISION OF PART OF SECTIONS 8 AND 9, TOWNSHIP 41 NORTH , RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 3:

EASEMENT FOR THE BENEFIT OF PARCEL 1 AFORESAID AND OTHER PROPERTY AS CREATED BY EASEMENT AGREEMENT BETWEEN CHICAGO TITLE AND TRUST COMPANY, A CORPORATION OF ILLINOIS, AS TRUSTEE UNDER TRUST AGREEMENT DATED NOVEMBER 2, 1970 AND KNOWN AS TRUST NUMBER 56088 AND J.C. PENNEY PROPERTIES, INC., A DELAWARE CORPORATION, DATED DECEMBER 10, 1971 AND RECORDED JANUARY 10, 1972 AS DOCUMENT 21769213 FOR INGRESS AND EGRESS OVER, UPON, AND ACROSS THAT PART OF LOT 4 IN 58-62 VENTURE SUBDIVISION, A SUBDIVISION IN SECTIONS 8 AND 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, SHOWN AS "HATCHED" ON EXHIBIT "B" TO THE AFORESAID EASEMENT AGREEMENT AND DESIGNATED AS "TRUST SITE EASEMENT AREA", ALL IN COOK COUNTY, ILLINOIS.

PARCEL 4:

RECIPROCAL EASEMENTS MADE FOR THE BENEFIT OF PARCEL 1 AND OTHER LAND NOT IN QUESTION OVER PARCEL 1 AND LOTS 2 AND 3 IN JCP MEADOWS SUBDIVISION, FOR EASEMENTS FOR UTILITIES, AND FOR THE PURPOSE OF MAINTAINING, REPAIRING, REPLACING, RELOCATING, AND CONSTRUCTING UTILITIES AS CONTAINED IN DECLARATION MADE BY J.C. PENNEY PROPERTIES, INC., DATED JUNE 1, 1976 AND RECORDED JULY 7, 1976 AS DOCUMENT 23549143, AND THE CONDITIONS, PRIVILEGES AND OBLIGATIONS THEREIN CONTAINED.

PARCEL 5:

EASEMENT FOR INGRESS AND EGRESS FOR VEHICULAR AND PEDESTRIAN TRAFFIC IN AND UPON AND THROUGH THE EASTERLY 15 FEET OF THE ROADWAY DESCRIBED AS EXHIBIT "A" TO THE ROAD AND CROSS EASEMENT AND MAINTENANCE AND INDEMNITY AGREEMENT DATED JULY 6, 1976 AS RECORDED JULY 7, 1976 AS DOCUMENT NO. 23549145 BY AND BETWEEN MOUNT PROSPECT STATE BANK, AS TRUSTEE UNDER TRUST AGREEMENT DATED AUGUST 1, 1975 AND KNOWN AS TRUST NUMBER 488 AND J.C. PENNEY PROPERTIES, INC., FOR THE BENEFIT OF A PORTION OF PARCEL 1 AFORESAID, WHICH PORTION IS DESCRIBED IN EXHIBIT "C" THERETO ATTACHED TO THE AFOREMENTIONED AGREEMENT, IN COOK COUNTY, ILLINOIS.

PARCEL 6:

THAT PART OF LOT 1 IN JCP MEADOWS, P.U.D. AND OUTLOT "A" IN MTM RESUBDIVISION, BOTH BEING SUBDIVISIONS IN SECTIONS 8 & 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, LYING EAST OF THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT ON THE SOUTH LINE OF SAID OUTLOT "A" IN MTM RESUBDIVISION 319.487 FEET WESTERLY OF THE SOUTHEAST CORNER OF SAID OUTLOT "A"; THENCE NORTH 00°04'45" WEST A DISTANCE OF 699.284 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 31.624 FEET AND HAVING A CHORD WHICH BEARS NORTH 22°34'12.5" EAST; THENCE NORTH 45°13'10" EAST A DISTANCE OF 114.538 FEET TO THE NORTHEASTERLY LINE OF SAID OUTLOT "A".

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS }
COUNTY OF W I L L } SS.

TO: Republic Bank of Chicago;
Chicago Title Insurance Company;
Meadowlands Associates

This is to certify that this map or plat and the survey on which it is based were made (i) in accordance with "Minimum Standard Detail Requirements for ALTA/ACSM and NSPS in 1997, and includes items 2, 3, 4, 6, 8, 10, 11, and 13 of Table A thereof, and (ii) pursuant to the accuracy Standards (as adopted by the ALTA and ACSM and in effect on the date of this certification) of an Urban survey.

Date: February 26 A.D. 1999.

JOSEPH A. SCHUDT & ASSOCIATES

BY: _____
Illinois Professional Land Surveyor No. 3146

MICHAEL G. SHACKELFORD 3146 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS FRANKFORT, IL.

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CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL LAND PLANNING GPS SERVICES

2-26-99
sheet 1 of 1
9859-215

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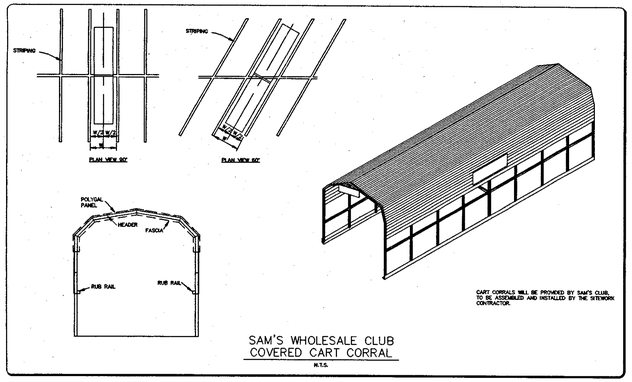
ALTA/ACSM LAND TITLE SURVEY
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:

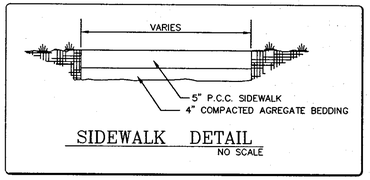
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drawn: M.D.W.
checked: J.C.U.

sheet: 2 of 16

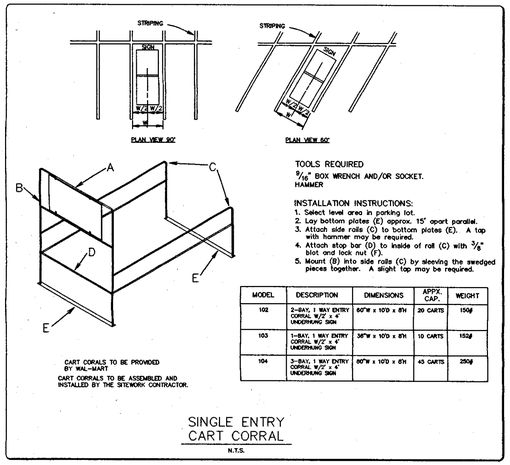
project number: 89-201



SAM'S WHOLESALE CLUB
COVERED CART CORRAL
N.T.S.



SIDEWALK DETAIL
NO SCALE



TOOLS REQUIRED
9/16" BOX WRENCH AND/OR SOCKET.
HAMMER

INSTALLATION INSTRUCTIONS:
1. Select level area in parking lot.
2. Lay bottom plates (E) approx. 15' apart parallel.
3. Attach side rails (C) to bottom plates (E). A tap with hammer may be required.
4. Attach stop bar (D) to inside of rail (C) with 5/8" bolt and lock nut (F).
5. Mount (B) into side rails (C) by sleeving the swedged pieces together. A slight tap may be required.

MODEL	DESCRIPTION	DIMENSIONS	APPX. CAP.	WEIGHT
102	2-BAY, 1 WAY ENTRY CORRAL W/2' x 4' UNDERRAIL SIGN	60"W x 107D x 6'H	20 CARTS	150#
103	1-BAY, 1 WAY ENTRY CORRAL W/2' x 4' UNDERRAIL SIGN	30"W x 107D x 6'H	10 CARTS	152#
104	2-BAY, 1 WAY ENTRY CORRAL W/2' x 4' UNDERRAIL SIGN	60"W x 107D x 6'H	43 CARTS	250#

CART CORRALS TO BE PROVIDED BY WAL-MART
CART CORRALS TO BE ASSEMBLED AND INSTALLED BY THE SITEWORK CONTRACTOR.

SINGLE ENTRY
CART CORRAL
N.T.S.

PAVEMENT LEGEND

INDICATES HEAVY-DUTY BITUMINOUS PAVEMENT
2" BIT. SURFACE COURSE, CLASS I
3" BIT. BINDER COURSE, CLASS I
13" AGGREGATE BASE COURSE, CA-6, GRADE 9

INDICATES REGULAR DUTY BITUMINOUS PAVEMENT
1-1/2" BIT. SURFACE COURSE, CLASS I
1-1/2" BIT. BINDER COURSE, CLASS I
9" AGGREGATE BASE COURSE, CA-6, GRADE 9

INDICATES CONCRETE PAVEMENT
8" P.C.C. SURFACE
4" AGGREGATE BASE COURSE, CA-6, GRADE 9
6"x6"x6" WIRE MESH 3" FROM BOTTOM OF P.C.C.

INDICATES EXISTING BITUMINOUS PAVEMENT TO BE GROUND AND REPAVED WITH 1 1/2" BITUMINOUS OVERLAY

INDICATES EXISTING BITUMINOUS PAVEMENT TO BE OVERLAYED WITH 3" OF BITUMNOUS PAVEMENT

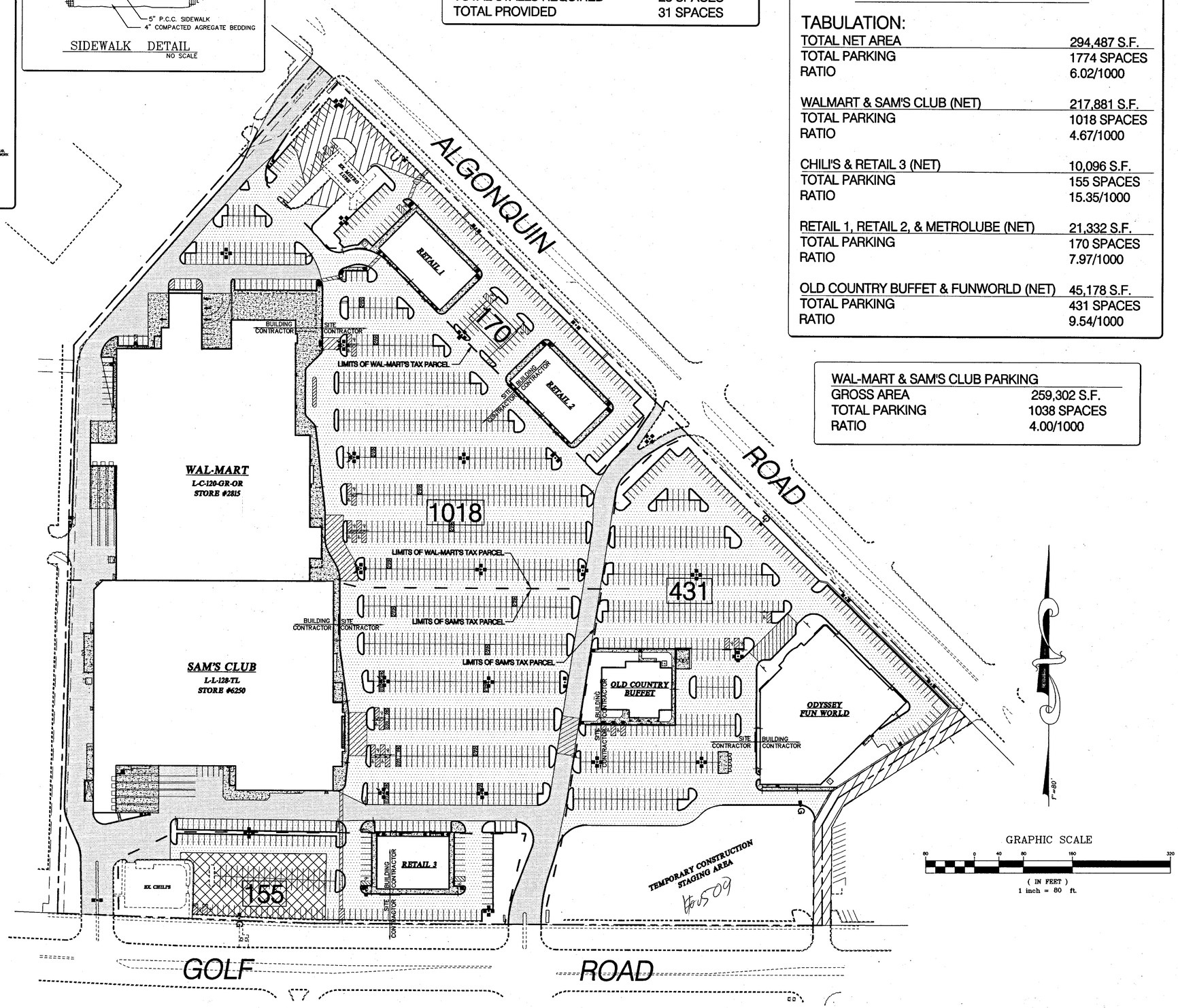
HANDICAP STALL PARKING SUMMARY	
TOTAL STALLS REQUIRED	28 SPACES
TOTAL PROVIDED	31 SPACES

PARKING SUMMARY

TABULATION:

TOTAL NET AREA	294,487 S.F.
TOTAL PARKING	1774 SPACES
RATIO	6.02/1000
WALMART & SAM'S CLUB (NET)	217,881 S.F.
TOTAL PARKING	1018 SPACES
RATIO	4.67/1000
CHILI'S & RETAIL 3 (NET)	10,096 S.F.
TOTAL PARKING	155 SPACES
RATIO	15.35/1000
RETAIL 1, RETAIL 2, & METROLUBE (NET)	21,332 S.F.
TOTAL PARKING	170 SPACES
RATIO	7.97/1000
OLD COUNTRY BUFFET & FUNWORLD (NET)	45,178 S.F.
TOTAL PARKING	431 SPACES
RATIO	9.54/1000

WAL-MART & SAM'S CLUB PARKING	
GROSS AREA	259,302 S.F.
TOTAL PARKING	1038 SPACES
RATIO	4.00/1000



GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.

JAS Associates, Inc.
1345 WILEY ROAD SUITE 110 SCHAUMBURG, ILLINOIS 60173
phone: (847)310-9400
fax: (847)310-0087
email: jas1345@ix.netcom.com
Civil Engineers - Surveyors - Land Planners

PROPOSED SITE IMPROVEMENTS
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

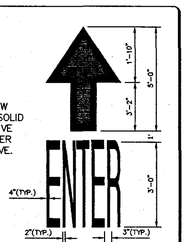
revisions:
05/07/99 PER OWNER
05/14/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=80'
drawing name: 89201-03
drawn: M.D.W.
checked: J.C.U.

sheet: 3 of 16
project number: 89-201

NOTES:
1. ALL CURB & GUTTER SHALL BE B-6.12 PER I.D.O.T. SPECIFICATIONS, UNLES OTHERWISE NOTED.
2. ALL DIMENSIONS ARE MEASURED TO THE FACE OF CURB, UNLES OTHERWISE NOTED.
3. ALL FACE OF CURB RADII SHALL BE 2' UNLESS OTHERWISE NOTED.
4. WHERE EXISTING CURB IS TO REMAIN, SAW-CUT AND NEATLY REMOVE.
5. SITE CONTRACTOR TO PROVIDE TRASH ENCLOSURE PADS.
6. ALL CURB & GUTTER SHALL BE REVERSED PITCH UNLESS OTHERWISE NOTED AS STANDARD CURB.

NOTE:
ALL TRAFFIC FLOW ARROWS TO BE SOLID YELLOW REFLECTIVE TRAFFIC PAINT PER DIMENSIONS ABOVE.



"ENTER" PAVEMENT MARKER w/ ARROW
N.T.S.

ALGONQUIN ROAD

RETAIL 1
11,980 S.F.

RETAIL 2
11,980 S.F.

RETAIL 3
10,260 S.F.

EX. METRO LUBE

L-C-120-GR-OR
WALMART
GROSS SQ. FT W/GL=130,215 S.F.
STORE #2815

*SITE CONTRACTOR TO PREPARE BUILDING PADS, PLUS 5' OUTSIDE FOOTPRINT PER SAM'S/WAL*MART CRITERIA & GEOTECHNICAL REPORT

L-L-128-TL
SAM'S CLUB
129,087 S.F.
STORE #6250

*SITE CONTRACTOR TO PREPARE BUILDING PADS, PLUS 5' OUTSIDE FOOTPRINT PER SAM'S/WAL*MART CRITERIA & GEOTECHNICAL REPORT

(SEE SHEET 5) MATCHLINE

GRAPHIC SCALE
1"=50'
(IN FEET)
1 inch = 50 ft.

JAS Associates, Inc.
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Civil Engineers - Surveyors - Land Planners

WAL-MART/SAM'S GEOMETRICS
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

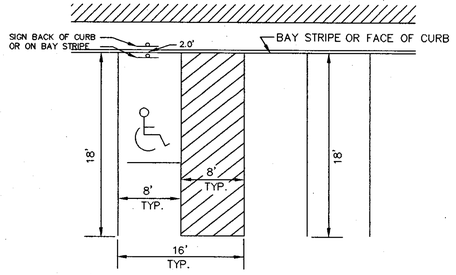
revisions:
05/07/99 PER OWNER
05/24/99 PER OWNER
06/08/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

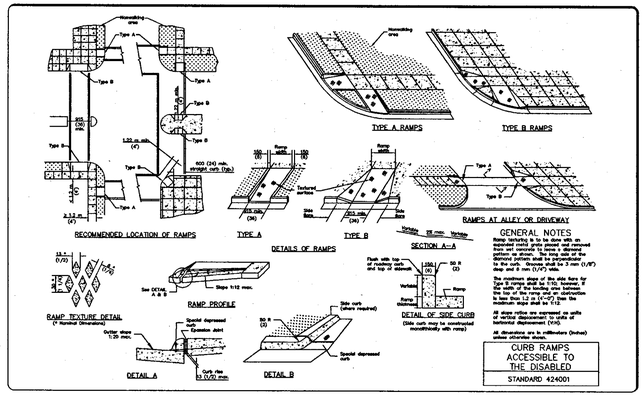
date: 04/16/99
scale: 1"=50'
drawing name: 89201-04
drawn: M.D.W.
checked: J.C.U.

sheet: 4 of 16
project number: 89-201

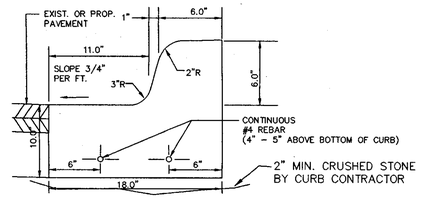
PARKING DETAIL

NO SCALE



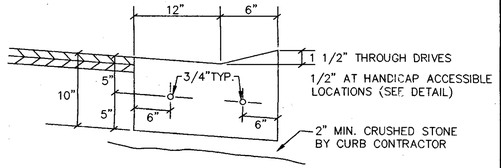


NOTES:
1. ALL CURB & GUTTER SHALL BE B-6.12 PER I.D.O.T. SPECIFICATIONS, UNLES OTHERWISE NOTED.
2. ALL DIMENSIONS ARE MEASURED TO THE FACE OF CURB, UNLES OTHERWISE NOTED.
3. ALL FACE OF CURB RADII SHALL BE 2' UNLESS OTHERWISE NOTED.



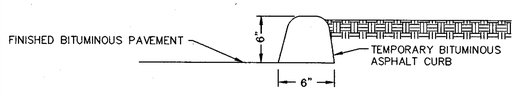
CURB DETAIL TYPE B-6.12

NO SCALE

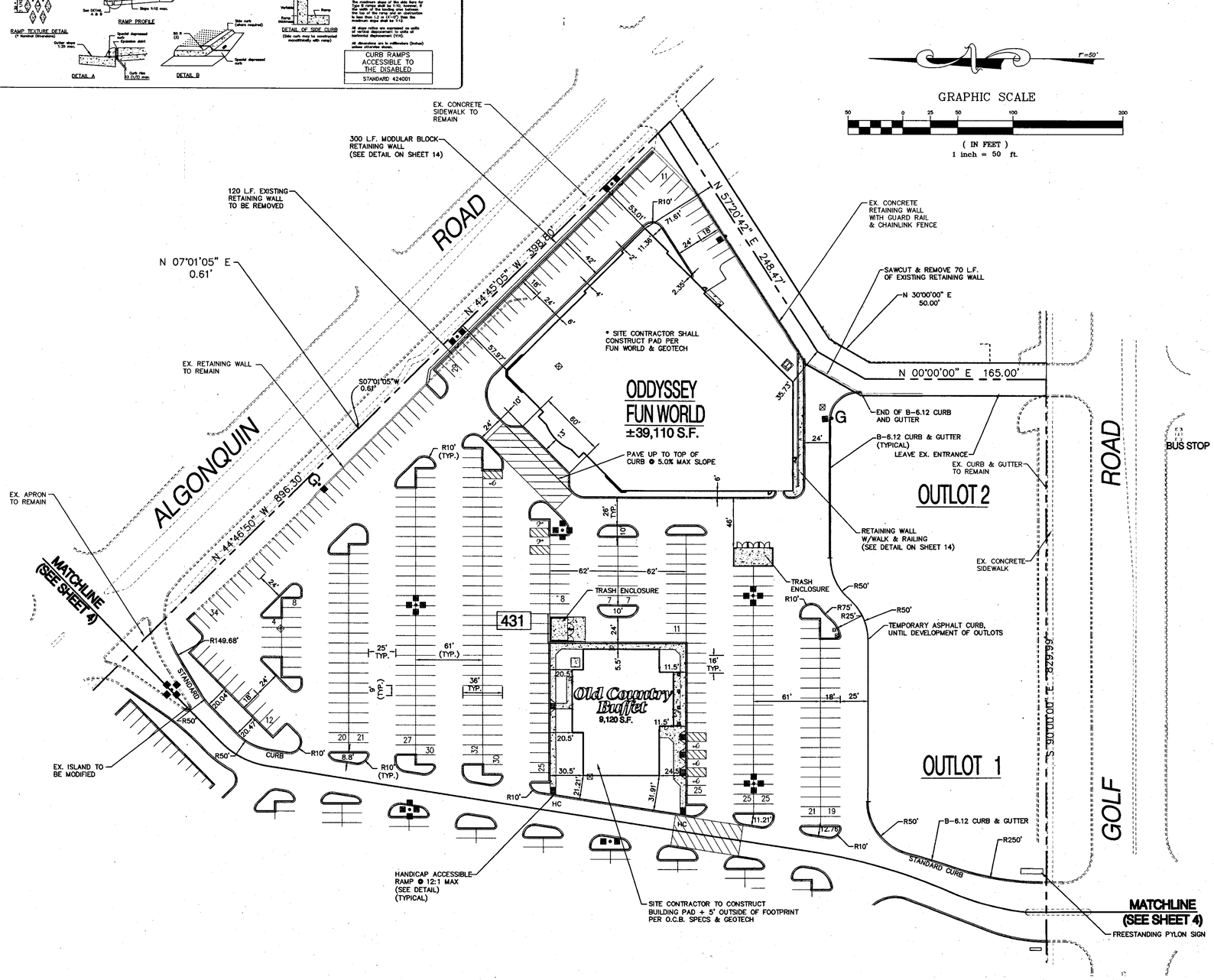


DEPRESSED CURB DETAIL

NO SCALE



ASPHALT CURB DETAIL



1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

JAS Associates, Inc.
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email: jas1345@ix.netcom.com

O.C.B. & FUN WORLD GEOMETRICS

MARKETPLACE OF ROLLING MEADOWS ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
06/30/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-05
drawn: M.D.W.
checked: J.C.U.

sheet: 5 of 16

project number: 89-201

NOTE:
1. ALL GRADES SHOWN ARE SHALL BE PAVEMENT GRADES, UNLESS OTHERWISE NOTED.

STORM WATER DETENTION SUMMARY

REQUIRED STORAGE=6.13 ACRE*FEET

PROVIDED STORAGE:
PIPE AND STRUCTURES=2.68 ACRE*FEET
SURFACE STORAGE (12" DEPTH)=3.50 ACRE*FEET
TOTAL PROVIDED STORAGE=6.18 ACRE*FEET

BENCHMARKS

B.M.#1 NORTHEAST FLANGE BOLT ON HYDRANT ±200' EAST CHILI'S ON THE NORTH SIDE OF GOLF ROAD ELEV.=702.70

B.M.#2 NORTHWEST FLANGE BOLT ON HYDRANT ON WEST PROPERTY LINE ±75' NORTH OF SHARED DRIVE ELEV.=704.18

EX. TOPOGRAPHY BY JAS ASSOCIATES, INC.

ALGONQUIN ROAD

GOLF ROAD

RETAIL 1
F.F.=703.50

RETAIL 2
F.F.=703.50

RETAIL 3
F.F.=703.50

EX. METRO LUBE
F.F.=702.75

EX. CHILI'S
F.F.=702.75

WAL-MART
FINISHED FLOOR=704.80
(SEE SHEET 15 FOR FOUNDATION SUB SURFACE PERPARATION NOTES)

SAM'S CLUB
FINISHED FLOOR=704.80
(SEE SHEET 15 FOR FOUNDATION SUB SURFACE PERPARATION NOTES)

INDICATES DIRECTION OF 100 YEAR OVERFLOW ROUTE (TYPICAL)

INDICATES PROPOSED TOP OF WALK/TOP OF PAVEMENT GRADE

DEPRESS 5 L.F. OF CURB TO ALLOW 100 YEAR OVERFLOW AT ELEV. 702.00

HIGH WATER LEVEL=702.00

HWL=702

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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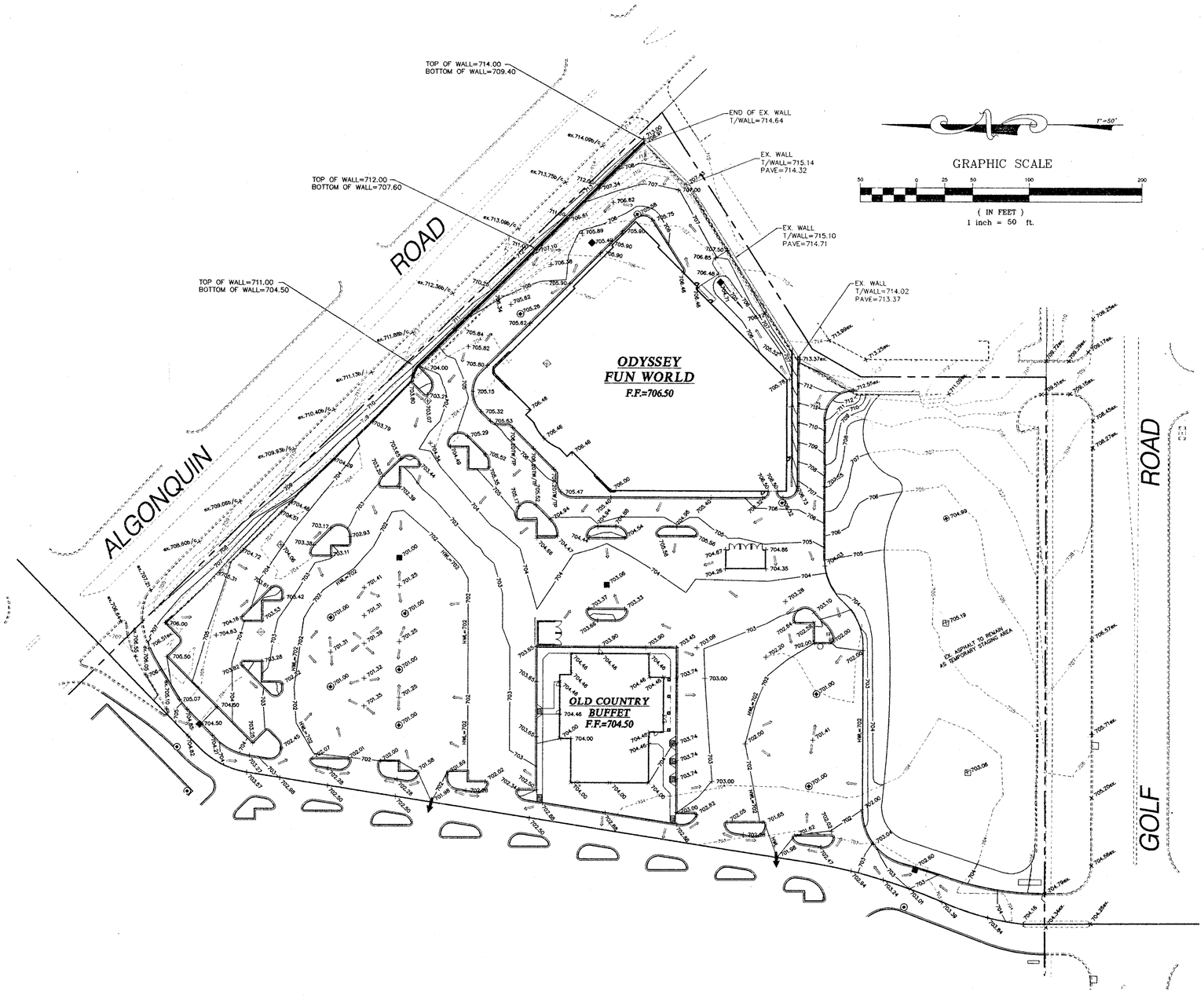
WAL-MART/SAM'S GRADING
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
05/24/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY
07/21/99 PER MWRD

date: 04/16/66
scale: 1"=50'
drawing name: 89201-06
drawn: M.D.W.
checked: J.C.U.

sheet: 6 of 16
project number: 89-201

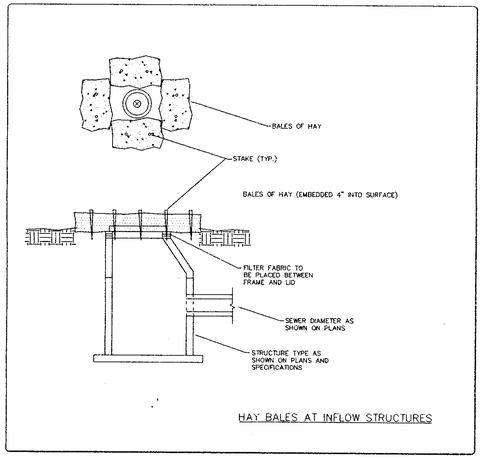
NOTE:
1. ALL GRADES SHOWN ARE SHALL BE PAVEMENT GRADES, UNLESS OTHERWISE NOTED.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



HAY BALES AT INFLOW STRUCTURES

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O.C.B. & FUN WORLD GRADING
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY
07/21/99 PER MWRD

date: 04/16/99
scale: 1"=50'
drawing name: 89201-07
drawn: M.D.W.
checked: J.C.U.

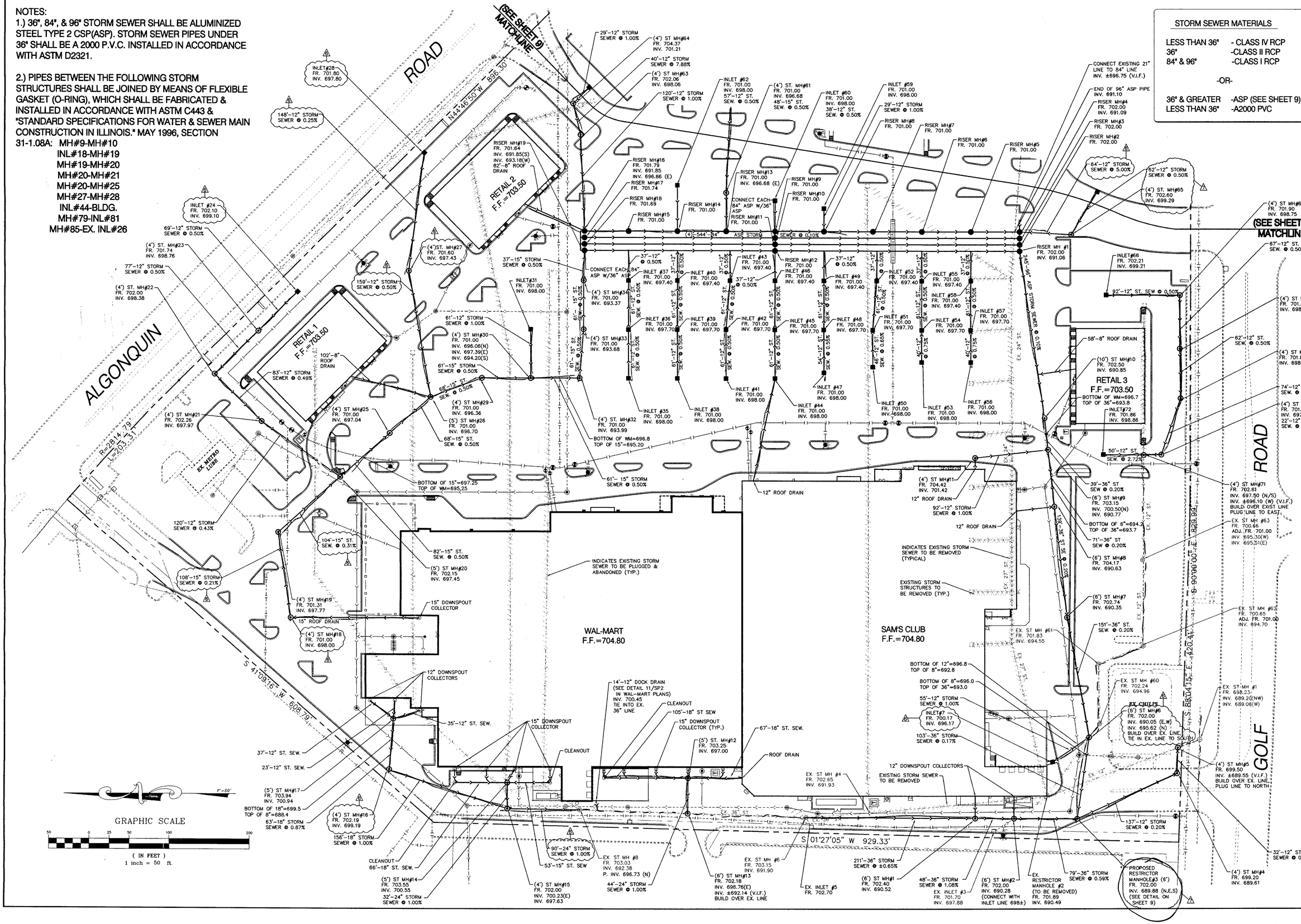
sheet: 7 of 16

project number: 89-201

NOTES:
1.) 36", 84", & 96" STORM SEWER SHALL BE ALUMINIZED STEEL TYPE 2 CSP(ASP). STORM SEWER PIPES UNDER 36" SHALL BE A 2000 P.V.C. INSTALLED IN ACCORDANCE WITH ASTM D2321.

2.) PIPES BETWEEN THE FOLLOWING STORM STRUCTURES SHALL BE JOINED BY MEANS OF FLEXIBLE GASKET (O-RING), WHICH SHALL BE FABRICATED & INSTALLED IN ACCORDANCE WITH ASTM C443 & "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS." MAY 1996, SECTION
31-1.08A: MH#9-MH#10
INL#18-MH#19
MH#19-MH#20
MH#20-MH#21
MH#20-MH#25
MH#27-MH#28
INL#44-BLDG.
MH#79-INL#81
MH#85-EX. INL#26

STORM SEWER MATERIALS	
LESS THAN 36"	- CLASS IV RCP
36"	-CLASS II RCP
84" & 96"	-CLASS I RCP
-OR-	
36" & GREATER	-ASP (SEE SHEET 9)
LESS THAN 36"	-A2000 PVC



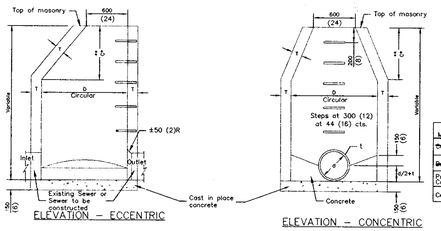
JAS Associates, Inc.
Civil Engineers - Surveyors - Land Planners
1345 WILEY ROAD SUITE 110 SCHAUMBURG, ILLINOIS 60173
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WAL-MART/SAM'S STORM SEWER
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

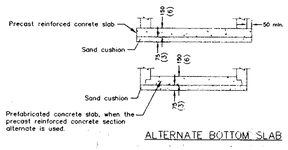
revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
06/25/99 PER CITY
07/02/99 PER CITY
07/21/99 STORM SEWER
08/03/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-08
drawn: M.D.W.
checked: J.C.U.

sheet: 8 of 16
project number: 89-201



ALTERNATE MATERIALS FOR WALLS	D	C	T (min.)
~~Concrete Masonry Unit~~	~~1.2 m (4'-0") 750~~	~~(30)~~	~~125 (5)~~
	~~1.5 m (5'-0") 1.15 m (3'-9") 125 (5)~~		
~~Brick Masonry~~	~~1.2 m (4'-0") 750~~	~~(30)~~	~~200 (8)~~
	~~1.5 m (5'-0") 1.15 m (3'-9") 200 (8)~~		
Precast Reinforced Concrete Section	1.2 m (4'-0") 750	(30)	100 (4)
	1.5 m (5'-0") 1.15 m (3'-9") 125 (5)		
Cast-in-place Concrete	1.2 m (4'-0") 750	(30)	150 (6)
	1.5 m (5'-0") 1.15 m (3'-9") 150 (6)		



ALTERNATE BOTTOM SLAB

GENERAL NOTES

See Standard 602701 for details of steps.

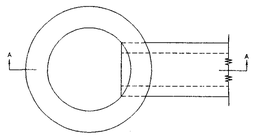
*Dimension "C" for Precast Reinforced Concrete Sections may vary from the dimension given to plus 150 mm (6").

** See Standard 602601 for Optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in millimeters (inches) unless otherwise shown.

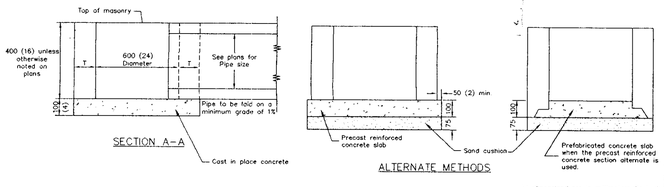
MANHOLE TYPE A (STORM ONLY)

STANDARD 602401



PLAN

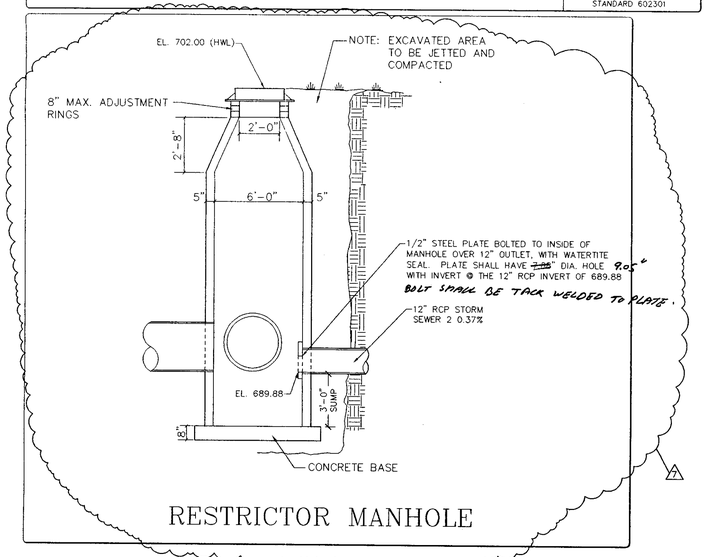
ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	200 (8)
CAST-IN-PLACE CONCRETE	150 (6)
CONCRETE MASONRY UNIT	125 (5)
PRECAST REINFORCED CONCRETE SECTION	75 (3)



All dimensions are in millimeters (inches) unless otherwise shown.

INLET – TYPE A

STANDARD 602301



RESTRICTOR MANHOLE

ALUMINIZED STEEL TYPE 2 CSP

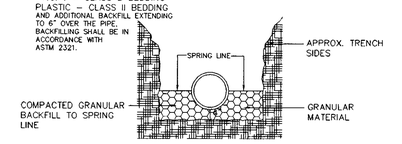
1. MATERIALS
   - A. The coils from which the pipe is fabricated shall be hot dip coated in a bath of commercially pure aluminum referred to as type 2. Aluminum-coated sheet for this product is identified as CSP grade and is produced in coating weight, designated 1.00 oz/sq. ft.
   - B. The material shall meet the requirements of AASHTO M-274.
2. FABRICATION
   - A. Pipe shall be furnished circular or pipe arch shaped per dimensions and material gage as shown on plans. Pipe fabricated under this specification shall conform to the dimensions and tolerances of the applicable sections of AASHTO M-36.
   - B. The pipe shall be fabricated with helical corrugations and a continuous welded seam of lock seam extending from end to end of each length of pipe.
   - C. Pipe corrugations shall be:
     1. 3" x 1" per AASHTO M36 Type 1. (for 120" pipe)
     2. 3/4" x 3/4" x 7-1/2" per AASHTO M36 Type 1R. (for 60" pipe)
   - D. Each pipe end shall be fabricated with a minimum of two annular corrugations for purpose of joining pipe sections with coupling bands.
3. COUPLING BANDS
   - A. Pipe shall be joined together with coupling bands made from the same metal used for the pipe. Pipe coupling bands shall conform to the applicable sections of AASHTO M-36.
   - B. The bands shall be not more than 3 nominal sheet thickness thinner than the thickness of the pipe to be connected and in no case thinner than 0.052 inch nominal sheet thickness.
   - C. Coupling bands shall be formed with two corrugations that are spaced to provide seating in the second corrugation of each pipe end without creating more than 1/2 inch annular space between pipe ends when joined together.
   - D. Connecting bands shall not be less than 7 inches wide for pipe diameters 36" and smaller and not less than 12" wide for pipe diameters greater than 36".
   - E. Coupling bands shall be drawn together by two 1/2 inch diameter galvanized bolts through the use of a bar and strap connector suitably attached to the band.
   - F. Welded steel end plates shall be installed on the end of the pipe in accordance with manufacturers design.
   - G. Backfill shall be placed in accordance with manufacturers specifications for gradation, placement, and compaction.
   - H. Riser manholes shall be constructed with the pipe material in accordance with manufacturers recommendation and shall be complete including frames & grates.

PIPE (FOUNDATION) BEDDING

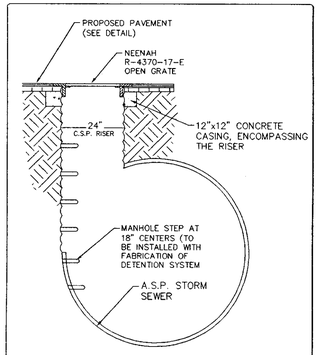
FOR SANITRAY AND STORM SEWER LINES, WATER LINES AND SEWER AND WATER SERVICES FOR PIPE DIAMETERS 6" AND LARGER

NOTE: TRENCH BACKFILL SHALL BE USED IN ALL TRENCHES

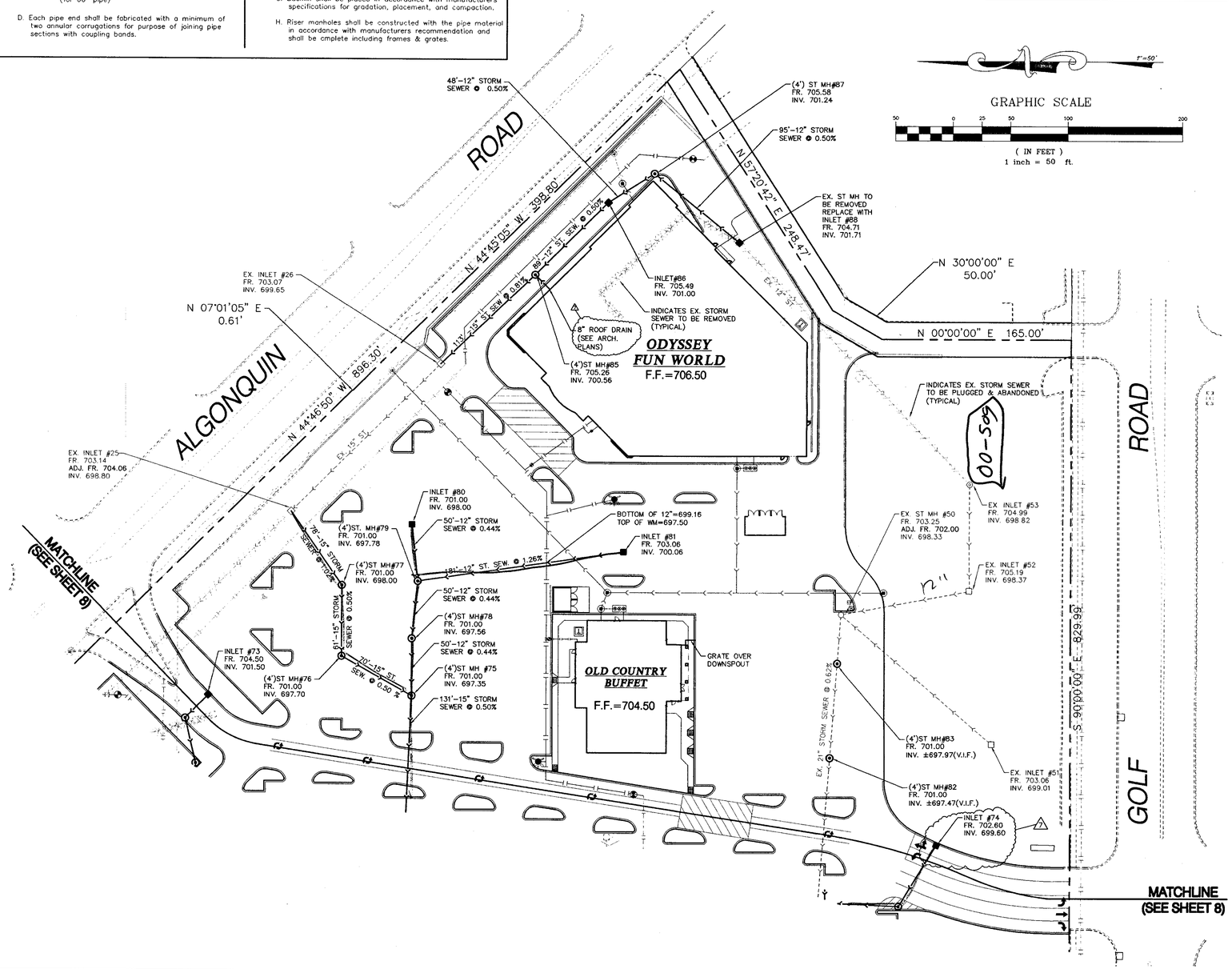
NOTE:
V.C.P. – CLASS B BEDDING
PLASTIC – CLASS II BEDDING
AND ADDITIONAL BACKFILL EXTENDING TO 6" OVER THE PIPE. BACKFILLING SHALL BE IN ACCORDANCE WITH ASTM 2321.



NOTE: MINIMUM DEPTH OF GRANULAR MATERIAL TO EXTEND 4" BELOW THE BOTTOM OUTSIDE OF PIPE BARREL



RISER MANHOLE
NO SCALE



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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Civil Engineers - Surveyors - Land Planners

O.C.B. & FUN WORLD STORM SEWER

MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY
△ 08/03/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 88201-09
drawn: M.D.W.
checked: J.C.U.

sheet: 9 of 16

project number: 89-201

NOTE:
1.) EXISTING HYDRANT MARKERS SHALL BE RELOCATED WITH HYDRANTS.

(SEE SHEET 11) MATCHLINE

12"X12" TEE (PLUG LINE TO W)
12" 45° BEND
12" VALVE & VAULT #11
FR. 704.25

12" 45° BEND

EX. VALVE & VAULT #21
ADJUST FR. 704.05

(4)-8"-45° BENDS
TO RELOCATE WATERMAIN
AROUND BUILDING

N44°46'50"W 836.30'

12" WATERMAIN

EX. HYDRANT
#18 TO BE
RELOCATED
TO HYDRANT
#7B

RETAIL 2
F.F.=703.50

1-1/2" DOMESTIC SERVICE
WITH VALVE BOX

4" WATER SERVICE

4" VALVE BOX

8"X4" TEE

8"X6" TEE HYDRANT #7
#5 W/AUX. VALVE

12"X6" TEE #7B
HYDRANT#4
W/AUX. VALVE

INSP. MH#6
FR. 702.75
INV. 793.06±
20'-8" SAN
SERVICE
@ 1.00% (MIN.)

CUT IN 12"X12" TEE
12"X8" REDUCER

12" 90° BEND

INSP. MH#7
FR. 702.75
INV. 697.75

EX. HYDRANT #17
TO BE RELOCATED
TO HYDRANT #7

EX. 8" WATER

5'-6" SAN. SEWER
@ 1.00% (MIN.)

EX. SAN MH #16
FR. 704.54
INV. 691.19
INV. 692.04(N)

EX. 8" SANITARY

92'-6" P.V.C. SDR 26
SAN. SEW. @ 5.62%

EX. SAN MH #17
FR. ADJ. TO 702.70
INV. 692.58

EX. SAN MH #20
FR. 701.70
INV. 695.00±
PLUG CONNECTION
TO NE RECONNECT
TO SOUTHEAST

RETAIL 1
F.F.=703.50

EX. 12" WATER

EX. 8" SAN.

1-1/2" DOMESTIC SERVICE
WITH VALVE BOX

4" WATER SERVICE

4" VALVE BOX
8" X 4" REDUCER

EX. 8" VALVE & VAULT#20
ADJUST FR. TO 701.83

8" VALVE & VAULT #6
FR. 703.15

8"X6" TEE
HYDRANT #4
W/AUX VALVE

8" VALVE & VAULT#5
FR.702.93
8" X 8" TEE

6"X8" TEE
(PLUG LINE
TO WEST)

8" VALVE & VAULT #7
FR. 703.08

8" VALVE & VAULT #8
FR. 703.09
8" X 8" TEE

8"X6" TEE
HYDRANT #5
W/AUX. VALVE

8" WATERMAIN

EX. 8" WATER

EX. 8" SANITARY

ALGONQUIN ROAD

R=2814.79'
L=203.31'

EX. METRO LUBE

12" VALVE & VAULT #10
FR. 702.63

8" VALVE & VAULT #9
FR. 702.74

EX. HYDRANT #24
BOTTOM OF 8"=695.50
TOP OF WM=694.00

262'-8" P.V.C. SDR 26 SANITARY SEWER @ 0.44%

SAN MH#6
FR. 702.40
INV. 689.14

143'-8" P.V.C. SDR 26
SAN. SEWER @ 4.10%

2" COPPER WATERLINE
TO UTILITY BOLLARD

UTILITY BOLLARD
(SEE DETAIL ON PAGE 11)

EX. HYDRANT #16
TO BE REMOVED

SAN. MH#5
FR. 703.72
INV. 690.29
(PLUG LINE TO WEST)

2-1/2" DOMESTIC
SERVICE W/BOX
PER CITY
REQUIREMENTS

8" FIRE SERVICE

SANITARY
LINE "B"

EX. 12" WATER

46'-6" P.V.C SDR 26
SAN. SEW. @2.00%

INSP MH#5
FR. 704.30
INV. 697.10

8"x6" TEE W/DROP
CONNECTION
269'-8" P.V.C. SDR 26
SAN. SEW. @ 0.44%

39'-6" SAN SERVICE @ 2.88%

EX. HYDRANT #15
TO BE REMOVED

CLEANOUT
INV. 698.22

20'-6" SAN SERVICE @ 2.88%
INV. @ BLDG. 698.80

5'-6" SAN.
SEW @ 2.00%

GREASE SEPARATOR
FR. 704.45
INV. IN. 698.70
INV. OUT. 697.20

5'-6" SAN. @ 2.00%
INV. @ BLDG. 698.80

12'-6" SAN. SERVICE @ 2.50%
INV. 696.30

INSP. MH#4
FR. 703.42
INV. 696.00

SAN MH#7
FR. 704.12
INV. 687.95

12"X6" TEE
HYDRANT #6
W/AUX. VALVE

S 41°09'16" W 605.79'

184'-8" P.V.C. SDR 26
SAN. SEW. @ 0.44%

EX. 12" WATER

WAL-MART
F.F.=704.80

EX. 8" WATER TO BE PLUGGED & ABANDONED

EX. 8" SAN. TO BE PLUGGED & ABANDONED

5'-6" SAN. SERVICE @ 1.00%
INV. 696.30

INSP. MH#3
FR. 704.35
INV. 696.00

34'-6" SANITARY
SERVICE @ 2.00%

EX. SAN MH#3
FR. 702.92

EX. 8" SAN.

EX. 8" WATER

EX. VALVE & VAULT
ADJUST FR. TO 702.60

EX. HYDRANT #14

EX. HYDRANT #13

EX. SAN MH #2
FR. 703.01
INV. 687.76

EX. TEE TO BE REPLACED WITH 8" D.I.P.

EX. VALVE & VAULT #13
ADJUST FR. TO 702.95

EX. SAN MH #1
FR. 702.85
INV. 685.75
P. INV. 687.14

EX. 10" SANITARY

34'-6" SANITARY
SERVICE @ 2.00%

CUT IN "TEE"
WITH RISER
CONNECTION

SAM'S CLUB
F.F.=704.80

EX. 8" WATER TO BE PLUGGED & ABANDONED

EX. HYDRANT #10
TO BE RELOCATED
TO HYDRANT #5

(4)-8"-45° BENDS
54'-16" STEEL CASING PIPE
RELOCATE WATERMAIN UNDER STORM SEWER
MAINTAIN MIN. 18" SEPARATION

(SEE SHEET 11) MATCHLINE

EX. HYDRANT #4

1-1/2" DOMESTIC
SERVICE WITH
VALVE BOX

4" WATER
SERVICE

MAINTAIN A MIN.
18" BETWEEN TOP
OF WATERMAIN AND
BOTTOM OF
SANITARY SEWER

8"X8" TEE
(PLUG EX. LINE
TO WEST)
8" VALVE & VAULT #3
FR. 703.43

EX. HYDRANT #9
TO BE RELOCATED
TO HYDRANT #3

8" VALVE & VAULT #4
FR. 703.40

8" WATERMAIN

8" WATERMAIN WATERMAIN

MAINTAIN A MIN. 18"
BETWEEN TOP OF STORM
SEWER & BOTTOM OF

8"X6" TEE
HYDRANT #2
W/AUX. VALVE

BOTTOM W.M. ±696.70
TOP OF SAN. ±691.00

2-1/2" WATER SERVICE
W/BOX PER CITY
REQUIREMENTS

8" FIRE SERVICE

8"X4" TEE
4" VALVE BOX

5'-6" SAN SERVICE
@ 2.00%
INV. @ BLDG. 698.80

INSP. MH#1
FR. 704.63
INV. 698.70

30'-6" SANITARY
SEWER @ 9.00%

EX. 8" WATER TO BE PLUGGED & ABANDONED

RETAIL 3
F.F.=703.50

12'-6" SAN. SERVICE
@ 1.00% (MIN.)

INSP. MH#8
FR. 702.72
INV. 695.00

MAINTAIN A MIN. 18" BETWEEN
TOP OF STORM SEWER & BOTTOM
OF WATERMAIN

CUT IN 12"X 8" TEE
8" VALVE & VAULT #2
FR. 701.90
REMOVE & REPLACE EX.
SIDEWALK AS REQUIRED
PER CITY STANDARDS

8" WATERMAIN

83'-6" P.V.C. SDR 26
SAN. SEW. @ 1.00%

SAN. MH#4
FR. 704.44
INV. 694.17(E.W)
INV. 695.98(N)

EX. HYDRANT #3

337'-8" P.V.C. SDR 26 SAN. SEW. @ 0.44%

SANITARY
LINE "A"

S 88°04'15" E 720.41'

S 88°06'00" E 828.89'

ROAD

EX. 8" WATER TO BE PLUGGED & ABANDONED

GREASE SEPARATOR
FR. 703.70
INV. IN. 698.70
INV. OUT. 697.20

15'-6" SAN SER.
@ 1.00%

INSP. MH#2
FR. 702.45
INV. 697.15

5'-6" SAN. SERVICE
@ 2.00%
INV. @ BLDG. 698.80

EX. HYDRANT #8
TO BE RELOCATED
TO HYDRANT #4

79'-6" SANITARY
SERVICE @ 4.77%

EX CHILI'S

6"x8" TEE
INV. 693.00

315'-8" P.V.C. SDR 26
SAN. SEW. @ 0.44%

30'-6" SAN SERVICE
@ 5.50%
INV. @ BLDG. 698.80

EX. SAN MH #60
FR. 701.10
INV. 697.00

EX. HYDRANT #2

EX. SAN MH#4
FR. 703.24
INV. 689.21
P. INV. 690.81
(PLUG LINE
TO SOUTH)

SAN. MH#1
FR. 703.29
INV. 690.98

EX. SAN MH #3

RELOCATE EX.
HYDRANT #7
TO HYDRANT #1

CUT IN 12"X 8" TEE
8" VALVE & VAULT #1
FR. 698.75
REMOVE & REPLACE EX.
SIDEWALK AS REQUIRED
PER CITY STANDARDS

EX. HYDRANT #1

GOLF

S 01°27'05" W 929.33'

HYDRANT #1

RELOCATE TEE
TO WEST

EX. TEE
TO BE
REMOVED

EX. SAN MH #5
FR. 702.66
INV. 690.06 (N)

REMOVE EX. 6" WATERMAIN
& REPLACE WITH 8" WATERMAIN

SAN. MH#2
FR. 702.04
INV. 692.37

39'-8" P.V.C. SDR26
SAN. SEW. @ 0.44%

71'-8" P.V.C. SDR 26
SAN. SEW. @ 0.44%

SAN MH#3 (5' DIA.)
FR. 701.45
INV. 692.68 (E,W)
INV. ±696.18 (S)
PLUG LINE TO NORTH
CONSTRUCT DROP
FOR LINE TO SOUTH

1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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Civil Engineers - Surveyors - Land Planners

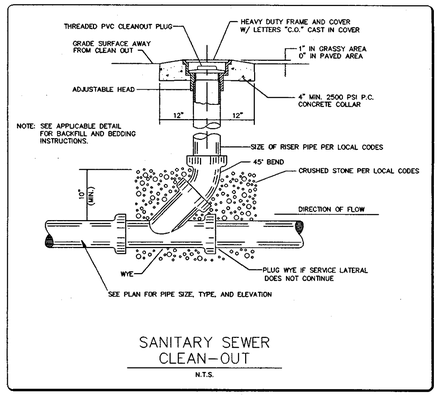
WAL-MART/SAM'S SANITARY SEWER & WATERMAIN
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
05/24/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 88201-10
drawn: M.D.W.
checked: J.C.U.

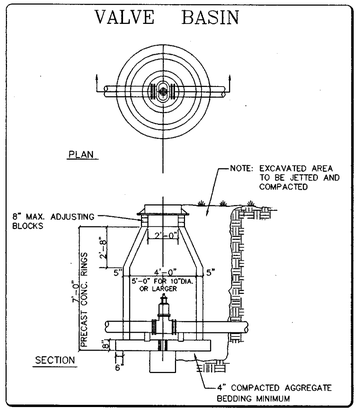
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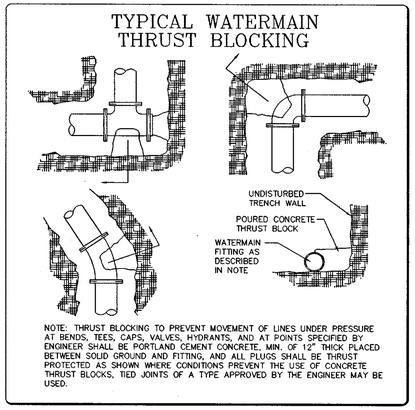
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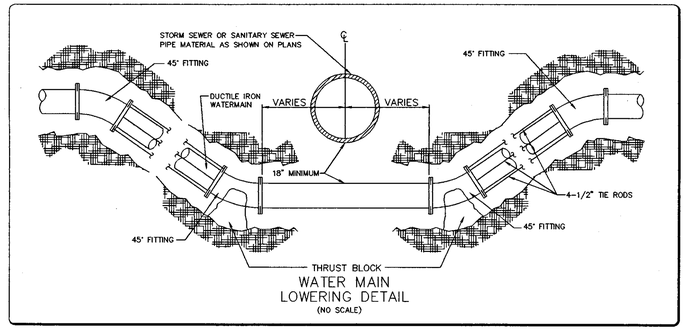


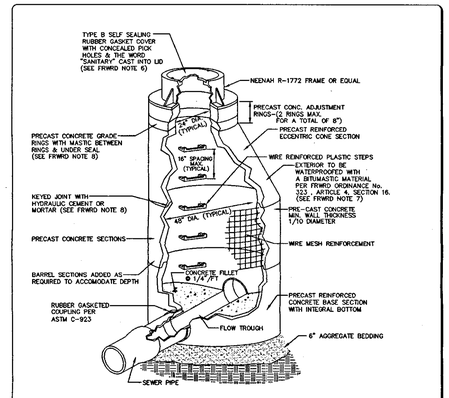
SANITARY SEWER CLEAN–OUT

N.T.S.

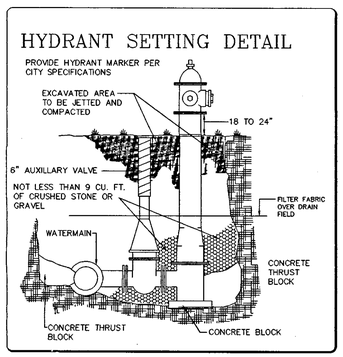


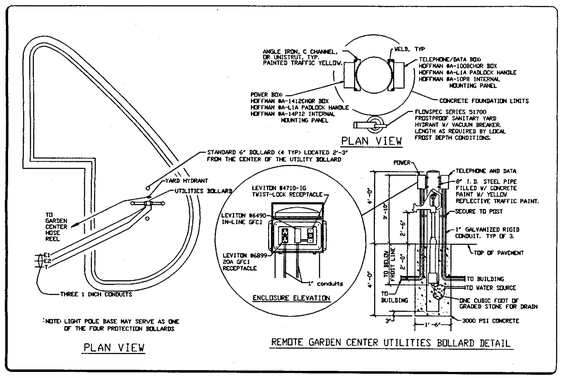


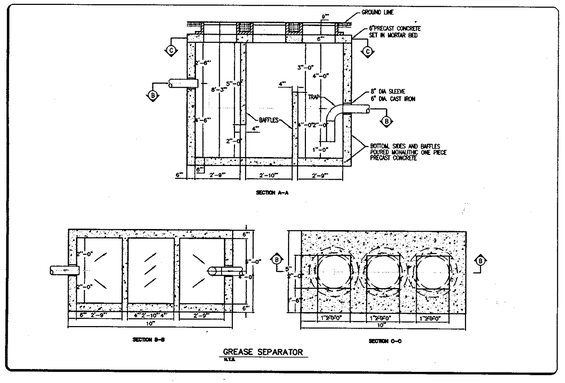


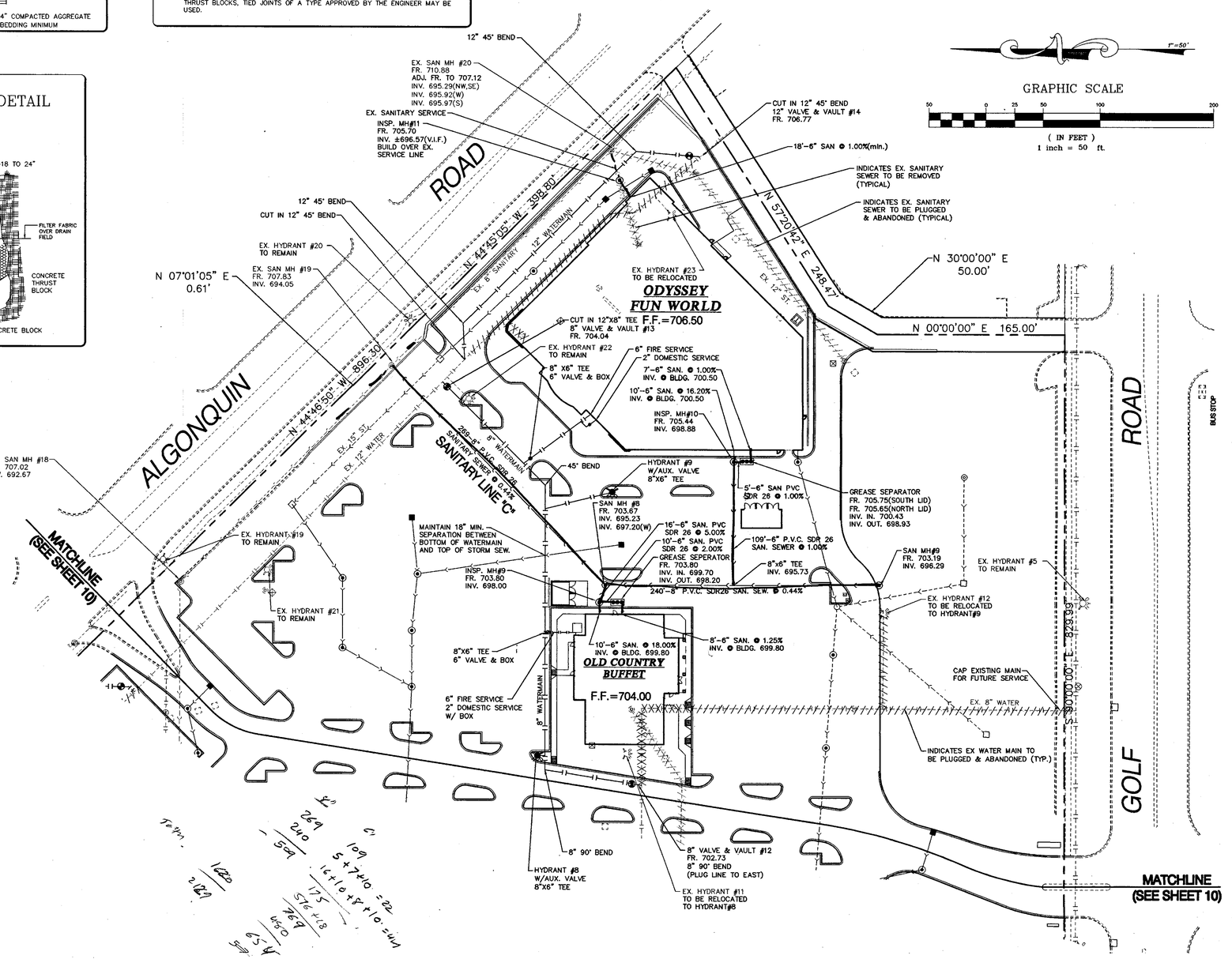


SANITARY INSPECTION SAMPLING MANHOLE









GRAPHIC SCALE

1"=50'

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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O.C.B. & FUN WORLD SANITARY SEWER & WATERMAIN
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date: 04/16/99
scale: 1"=50'
drawing name: 89201-11
drawn: M.D.W.
checked: J.C.U.

sheet: 11 of 16

project number: 89-201

LIGHT LEGEND

- D UNLESS SPECIFIED AS G
- J
- J-MOD
- AV
- AV-F1
- AV-F2

SEE PHOTOMETRIC PLAN BY MALMSTROM-WHITE COMPANY DATED: 4-06-99

SIGN LEGEND

1. R1-1 30"X30" STOP SIGN
2. R7-8 HANDICAPED SIGN
3. TRUCK EXIT (ARROW UP)
4. TRUCK EXIT (ARROW RIGHT)
5. TRUCK ENTRANCE (ARROW UP)
6. NO PARKING-FIRE LANE

PAVEMENT STRIPING LEGEND

1. 4" YELLOW - SOLID
2. 4" WHITE - SOLID
3. PAVEMENT SYMBOLS - WHITE

NOTES:
1. TRANSFORMER PADS & BOLLARDS PROTECTION PER COM ED SPECIFICATIONS.
2. COM ED CONDUIT SHALL INCORPORATE "LONG SWEEP" BENDS AT ALL CHANGES IN DIRECTION.

(SEE SHEET 13) MATCHLINE

ALGONQUIN ROAD

RETAIL 1

RETAIL 2

RETAIL 3

WALMART

SAM'S CLUB

T.M.A.

T.L.E.

GARDEN CENTER

RECEIVING

DEPRESSED DOCKS

SURFACE DOCKS

ENTRANCE

FREE-STANDING SIGN

PYLON SIGN

EX. METRO LUBE

EX. CHILI'S

GOLF ROAD

N 44°46'50" W 896.30'

S 41°09'16" W 608.79'

S 01°27'05" W 929.33'

S 90°00'00" E 829.99'

N 88°04'15" W 420.41'

S 88°04'15" E 420.41'

R=2814.79'
L=203.31'

WM

SC

IG

GAS METER
ELECTRIC
TELEPHONE

TRANSFORMER W/CONC. PAD

EX. TRANSFORMER TO BE REMOVED

COM ED CONDUIT SHALL USE "LONG SWEEP" BENDS

AMERITECH CONDUIT

COM ED CONDUIT

NICOR CONDUIT (BY OTHERS)

10' UTILITY EASEMENT (SEE DETAIL)

UTILITY BOLLARD (SEE DETAIL ON SHEET 11)

(3)-1" CONDUITS FOR UTILITY BOLLARD (SEE ARCHITECT'S PLANS FOR EXACT LOCATION)

GARDEN CENTER ELECTRIC

IRRIGATION

SITE LIGHTING

INDICATES SAM'S CLUB LIGHT (TYPICAL)

INDICATES WAL-MART LIGHT (TYPICAL)

TELEPHONE

TAMPER SWITCH

ENCLOSED CONDENSOR

GAS METER

COMPACTOR W/SCREEN WALL

EX. SWITCH BOX TO REMAIN

"PG" STYLE SERVICE BOX PER AMERITECH STANDARDS

(2) EX. HANDICAPED PARKING SIGNS

GRAPHIC SCALE

1"=50'

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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WAL-MART/SAM'S LIGHTING, SIGNAGE, & UTILITIES
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
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06/30/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-12
drawn: M.D.W.
checked: J.C.U.

sheet: 12 of 16

project number: 89-201

FIXTURE ORDER INFORMATION

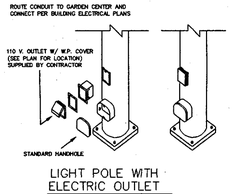
NOTE: ALL PARKING LOT LIGHTING POLES AND FIXTURES, INCLUDING LAMPS AND PAINT, WILL BE PROVIDED BY WAL-MART AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE WAL-MART A ONE-YEAR WARRANTY CERTIFICATE. ALL INCURRED COSTS FOR RECEIVING, STORAGE, UNWRAPPING OF FACTORY PAINTED POLES, LIABILITY AND WARRANTY LABOR SHALL BE INCLUDED IN THE INSTALLATION CONTRACT PRICE.

FIXTURE ORDER INFORMATION

NOTE: ALL PARKING LOT LIGHTING POLES AND FIXTURES WITH LAMPS AND PAINT WILL BE INSTALLED BY THE DEVELOPER'S ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE WAL-MART A ONE-YEAR WARRANTY CERTIFICATE. ALL INCURRED COSTS FOR RECEIVING, STORAGE, UNWRAPPING OF FACTORY PAINTED POLES, LIABILITY AND WARRANTY LABOR SHALL BE INCLUDED IN THE INSTALLATION CONTRACT PRICE. ALL OTHER SITE LIGHTING FIXTURES AND POLES WILL BE PROVIDED BY THE DEVELOPER'S ELECTRICAL CONTRACTOR.

FIXTURE ORDER INFORMATION

NOTE: ALL PARKING LOT LIGHTING POLES AND FIXTURES WITH LAMPS AND PAINT WILL BE INSTALLED BY THE DEVELOPER'S ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE WAL-MART A ONE-YEAR WARRANTY CERTIFICATE. ALL INCURRED COSTS FOR RECEIVING, STORAGE, UNWRAPPING OF FACTORY PAINTED POLES, LIABILITY AND WARRANTY LABOR SHALL BE INCLUDED IN THE INSTALLATION CONTRACT PRICE. ALL OTHER SITE LIGHTING FIXTURES AND POLES WILL BE PROVIDED BY THE DEVELOPER'S ELECTRICAL CONTRACTOR.



LIGHT POLE WITH ELECTRIC OUTLET

N.T.S.

All Catalog Numbers shown are 480 Volt. Other voltages are available, please specify (120, 240, 208, 277).
Gardco Optical Systems are protected by U.S. Patent #3746884

Gardco Lighting

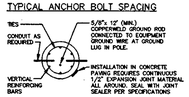
1	Types CV, D, F, G	4	Type AV
2	Types BV, E, J	5	Type AWF1
2A	Type J-MOD	6	Type AWF2
3	Types KV, KV-MOD		

TYPE	QTY.	CATALOG NUMBER	DESCRIPTION/LAMP
AV	–	WGT-184SHP-480-420MH-BLP	4-WAY (MS 420 BU)
AWF1	–	WGT-184SHP-480-420MH-BLP	4-WAY (MS 420 BU) SINGLE FLOOD (M 1000 U)
AWF2	–	WGT-184SHP-480-420MH-BLP	4-WAY (MS 420 BU) TWIN FLOOD (M 1000 U)
KV	–	WGT-193SHP-480-420MH-BLP	3-WAY (MS 420 BU)
BV	–	WGT-192VSHP-480-420MH-BLP	2-WAY (MS 420 BU)
CV	–	WGT-191SHP-480-420MH-BLP	1-WAY (MS 420 BU)
D	–	WGT-191NL-480-420MH-BLP	1-WAY (MS 420 HOR)
E	–	WGT-192NL-480-420MH-BLP	2-WAY (MS 420 HOR)
F	–	WGT-191NW-480-420MH-BLP	1-WAY (MS 420 HOR)
G	–	WGT-191NSHP-480-420MH-BLP	1-WAY (MS 420 HOR)
J	–	WGT-192SHP-480-420MH-BLP	2-WAY (MS 420 HOR)
J-MOD	–	WGT-192SHP-480-420MH-BLP	2-WAY (MS 420 HOR)
	–	GFG FESTOON	TYPE
	–	MHM-R24H-480H	FLOODLIGHT
	–	WGD-TRS-30-11-DM-BLP	30' ROUND TAPERED STEEL POLE
	–	WGD-TRS-30-1-240GD-BLP	POLE W/SINGLE BULLHORN
	–	WGD-TRS-30-1-240BD-BLP	POLE W/DOUBLE BULLHORN
	–	SIGNS	TOUCH-UP KIT
	–	MS-420 HOR	HORIZ. LAMP
	–	MS 420 BU	VERTICAL LAMP

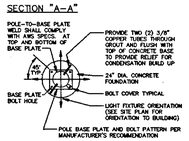
FLOOD LIGHTS PLACEMENT DIRECTION



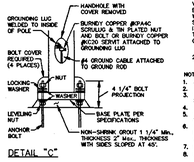
TYPICAL ANCHOR BOLT SPACING



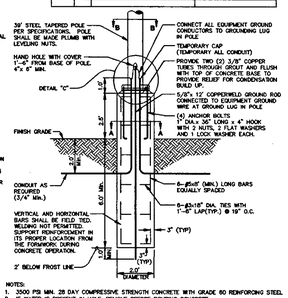
SECTION "A-A"



SECTION "B-B"



DETAIL "C"

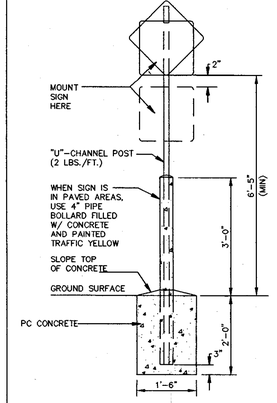


NOTES:
1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL.
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED SOIL OR BACKFILL.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 3000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2(A1) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
7. EXPOSED CONCRETE AND GROUT SHALL BE PAINTED TRAFFIC YELLOW.
8. DETAIL FOR 30' POLE WITH MAX. FIXTURE EPA 4.6 SQ.FT.

TYPICAL LIGHTING POLE BASE DETAIL

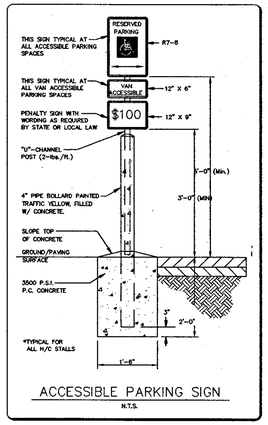
N.T.S. WAL-MART STORES

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



STANDARD SIGN BASE

N.T.S.

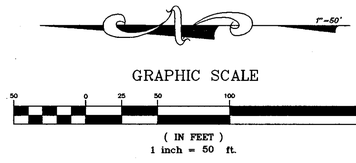


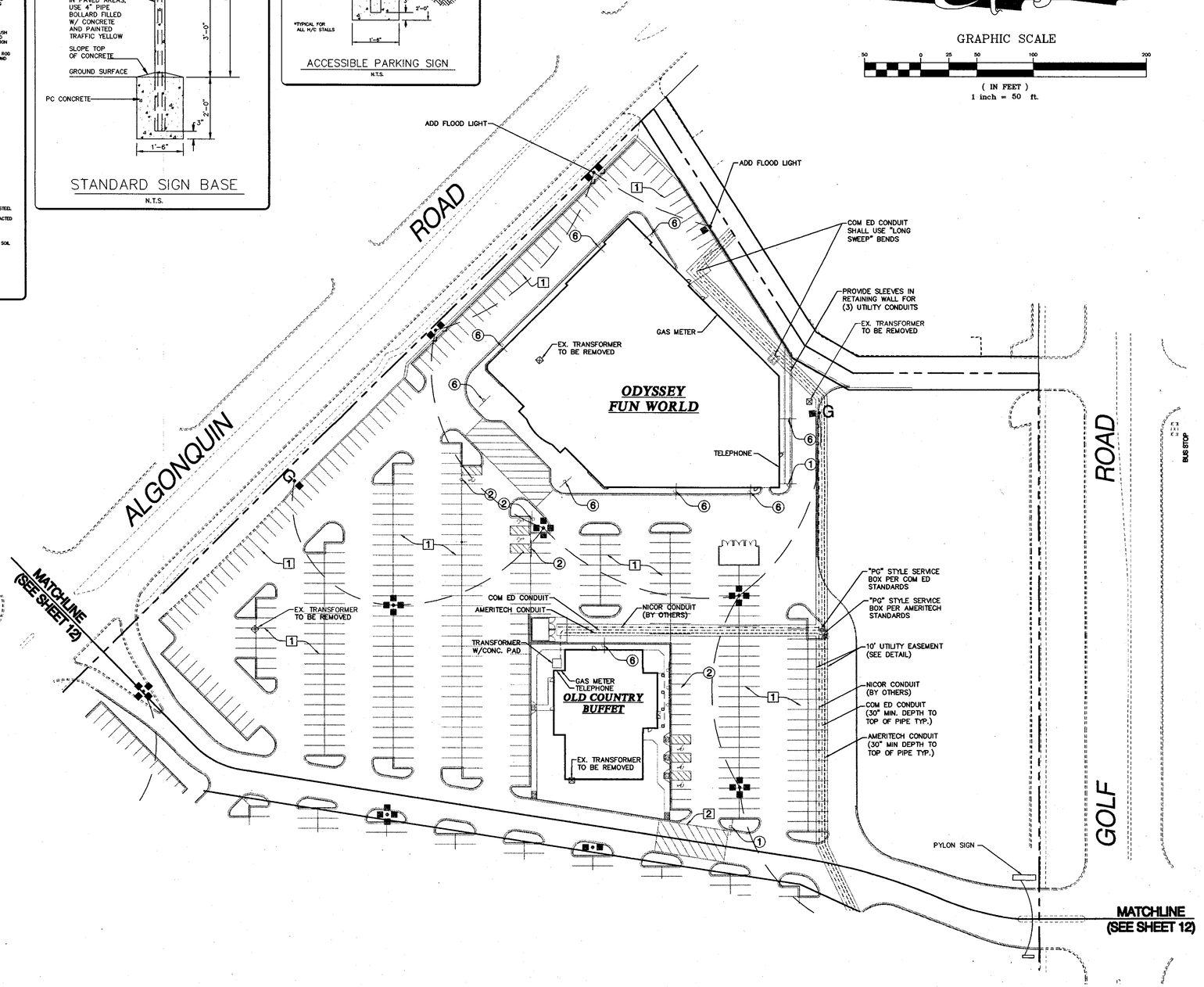
ACCESSIBLE PARKING SIGN

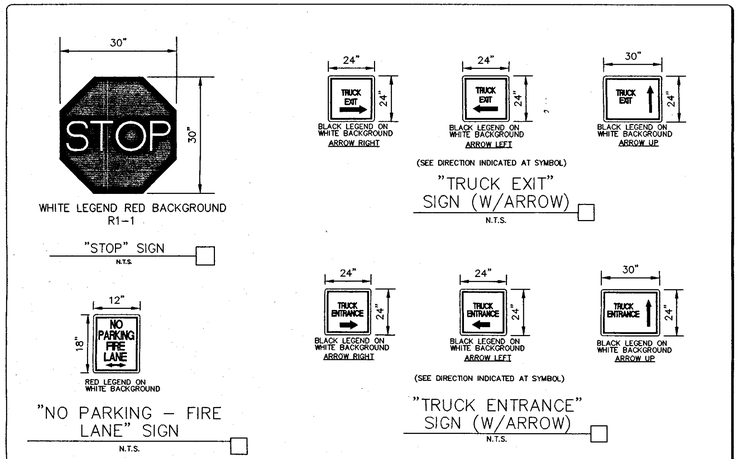
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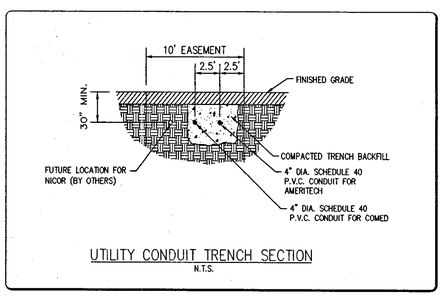
NOTE:
1) ALL JUNCTIONS FOR AMERITECH & COM ED CONDUIT SHALL BE IN "PG" STYLE SERVICE BOXES, BY QUAZITE COMPOSOLITE.

2) UNLESS NOTED, ALL CHANGES IN DIRECTION, FOR COMED CONDUIT, SHALL BE CONSTRUCTED WITH "LONG SWEEP" BENDS.









UTILITY CONDUIT TRENCH SECTION

N.T.S.

JAS Associates, Inc.
1345 WILEY ROAD SUITE 110 SCHAUMBURG, ILLINOIS 60173
phone: (847)310-9400
fax: (847)310-0087
email: jas1345@ix.netcom.com
Civil Engineers - Surveyors - Land Planners

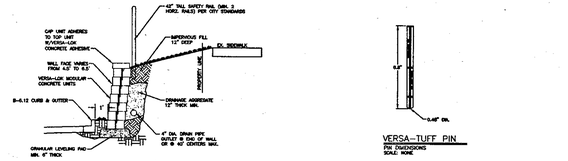
O.C.B. & FUN WORLD LIGHTING, SIGNAGE, & UTILITIES
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
05/24/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

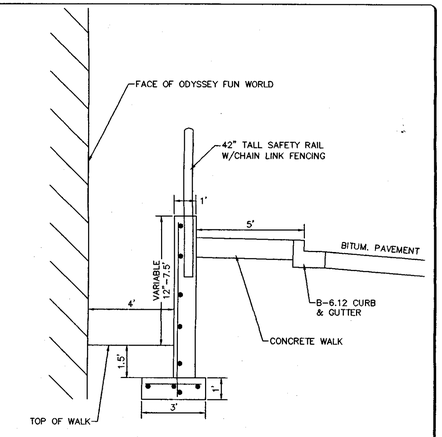
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drawing name: 89201-13
drawn: M.D.W.
checked: J.C.U.

sheet: 13 of 16

project number: 89-201

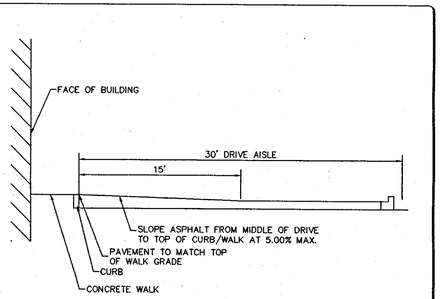


MODULAR BLOCK RETAINING WALL
NORTH OF ODYSSEY FUN WORLD



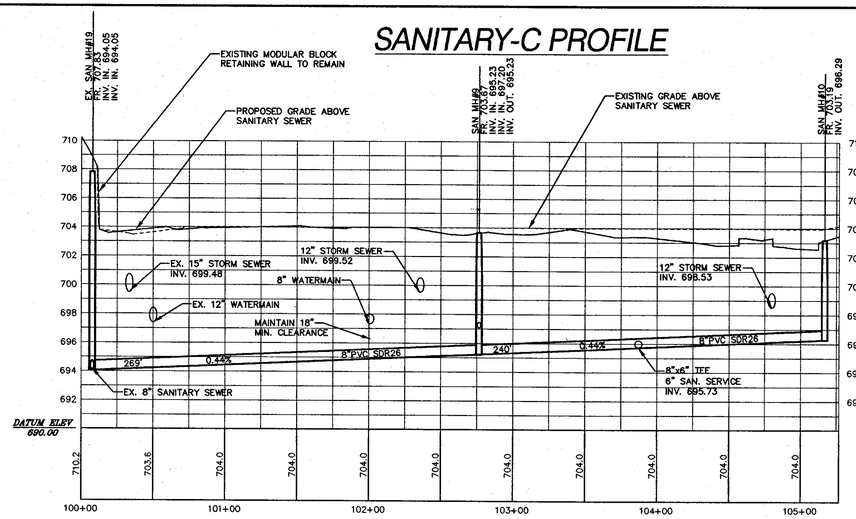
CONCRETE RETAINING WALL
SOUTH OF ODYSSEY FUN WORLD

CONTRACTOR SHALL SUBMIT WALL DESIGNS & CALCULATIONS, SIGNED BY A REGISTERED STRUCTURAL ENGINEER, TO OWNER & CITY PRIOR TO CONSTRUCTION.



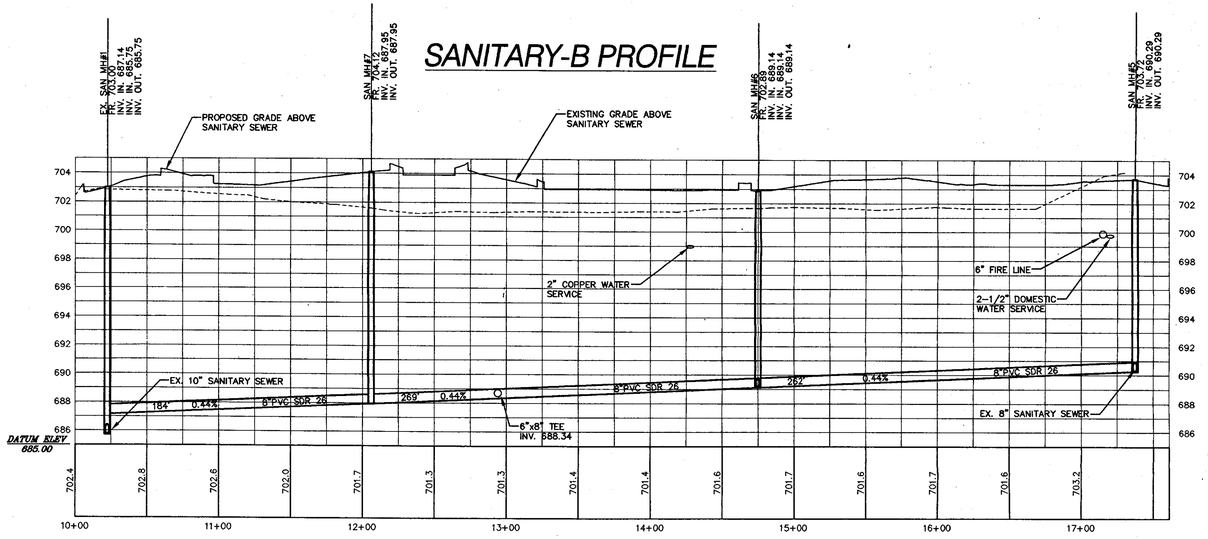
ASPHALT RAMP SECTION IN FRONT OF
ODYSSEY FUN WORLD, SAM'S AND WAL-MART

SANITARY-C PROFILE

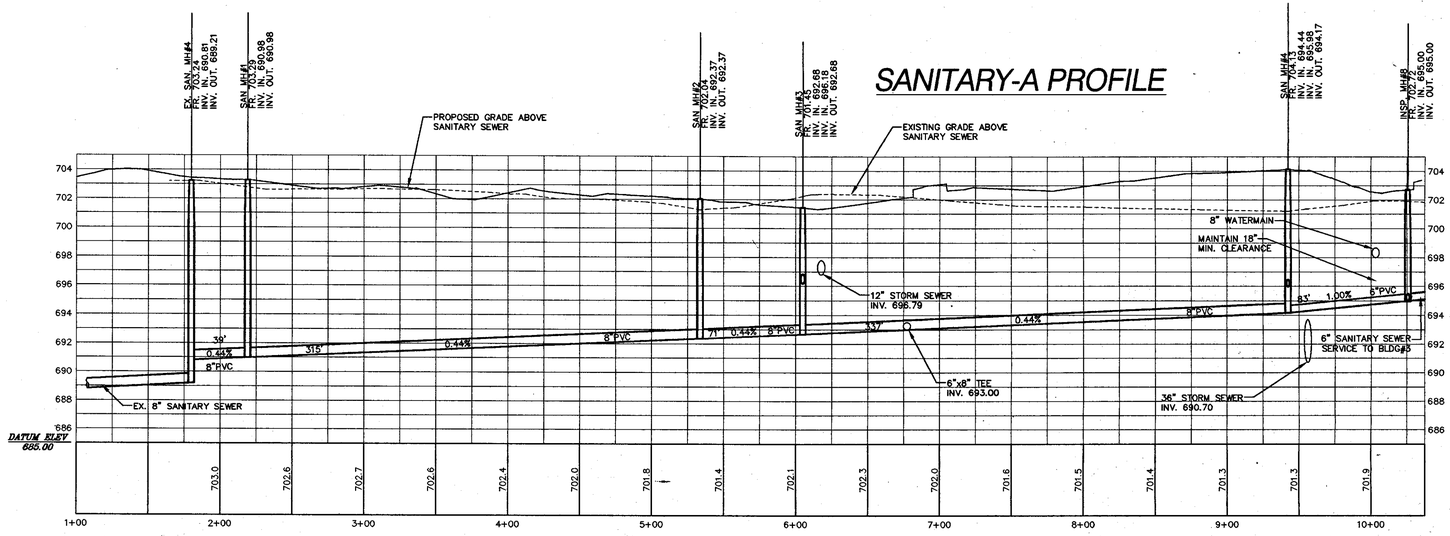


PROFILE SCALES:
HORZ:1"=50'
VERT:1"=5"

SANITARY-B PROFILE



SANITARY-A PROFILE



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SANITARY SEWER PROFILES
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-14
drawn: M.D.W.
checked: J.C.U.

sheet: 14 of 16

project number: 89-201

GENERAL NOTES

1. The Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction" Jan. 1, 1997 edition, the "Standard Specifications for Water and Sewer Main Construction in IL", May, 1996, all applicable sections of the Municipality's subdivision ordinance, The "National Electric Code" and the "Standard Specifications for Traffic Control Items", and all addenda thereto shall govern this work.

2. The Project Specifications dated April 16, 1999 shall govern the construction of this development with the above specifications. Where any conflict may occur, the contractor shall submit in writing a notice of such conflict to the owner's representative or engineer for a written decision on which may govern.

3. The Standard Specifications, Construction plans and subsequent details are all to be considered as part of the contract. Incidental items or accessories necessary to complete this work may not be specifically noted but are to be considered a part of the contract.

4. No construction plans shall be used for construction unless specifically marked "For Construction". Prior to commencement of construction, the contractor shall verify all dimensions and conditions at the job site. In addition, the contractor must verify the engineer's line and grade stakes. If there are any discrepancies from what is shown on the construction plans, he must immediately report same to the engineer before doing any work, otherwise the Contractor assumes full responsibility. In the event of disagreement between the construction plans, standard specifications and/or special details, the contractor shall secure written instructions from the engineer prior to proceeding with any part of the work affected by omissions or discrepancies. Failing to secure such instructions, the contractor will be considered to have proceeded at his own risk and expense. In the event of any doubt or question rising with respect to the true meaning of the construction plans or specifications, the decision of the engineer shall be final and conclusive.

5. All work performed under this contract shall be guaranteed by the contractor and his surety for a period of 12 months from the date of final acceptance of the work by the municipality against all defects in materials and workmanship of whatever nature.

6. Before acceptance by the Owner and final payment, all work shall be inspected and approved by the owner or his representative. Final payment will be made after all of the Contractor's work has been approved and accepted.

7. Upon award of the contract and when required by the municipality, the Contractor shall furnish a labor, material and performance bond per municipal requirements guaranteeing completion of the work. The underwriter shall be acceptable to the municipality. Maintenance Bond after construction may also be required.

8. Easements for the existing utilities, both public and private, and utilities within public rights-of-way are shown on the plans according to available record. The contractor shall be responsible for determining the exact location in the field of these utility lines and their protection from damage due to construction operations. If existing utility lines of any nature are encountered which conflict in location with new construction, the contractor shall notify the engineer so that the conflict may be resolved.

9. Removed pavement, sidewalk, curb and gutter, etc. shall be disposed of at off-site locations provided by the contractor at his own expense.

10. The Contractor shall be responsible for the installation and maintenance of adequate signs, traffic control devices, and warning devices to inform and protect the public during all phases of construction.

11. Barricades and warning signs shall be provided in accordance with Article 901.03 of the standard specifications. Adequate lighting shall be maintained from dusk to dawn at all locations where construction operations warrant or as designated by the Engineer.

12. Commonwealth Edison, Illinois Bell Telephone and Northern Illinois Gas have underground and/or overhead service facilities in the vicinity of the proposed work, the contractor shall be responsible for having the utility companies locate their facilities in the field prior to construction and shall also be responsible for the maintenance and preservation of these facilities. The contractor shall call J.U.L.I.E. at (800) 892-0123 for utility locations.

13. Whenever the performance of work is indicated on the plans, and no item is included in the contract for payment, the work shall be considered incidental to the contract, and no additional compensation will be allowed.

14. All existing traffic signs, street signs, etc., which interfere with construction operations and not noted for removal or disposal shall be removed and reset by the contractor at locations as designated by the engineer. This shall be considered incidental to the contract and no additional compensation shall be allowed. Damage to these items shall be repaired by the contractor at his own expense. All signs not required to be reset shall be delivered to the City or County as appropriate.

15. All permanent type pavements or permanent improvements which abut the proposed improvement and must be removed, shall be saw-cut prior to removal. All items so removed shall be replaced with similar construction materials to their original condition or better. Payment for sawing shall be included in the cost for removal of each item and replacement will be paid under the respective items in the contract, unless otherwise indicated.

16. Where overhanging branches interfere with operations of construction, said branches shall be trimmed and sealed in accordance with Article 253.09 of the standard specifications, and the cost of same shall be incidental to the contract. If trees or shrubs must be removed, they will be paid for in accordance with the specifications.

17. Drawing shall be used in conjunction w/project specifications. In case of conflict, contractor shall provide most stringent product/specification.

18. The contractor shall submit in writing a "Schedule of Operations" showing approximate dates for commencing and completing various phases of construction under this contract. The schedule shall have the approval of the Owner and the date for starting shall be mutually agreed upon between the contractor and the Owner.

19. Special attention is drawn to the fact that Article 105.06 of the1'818 standard specification's require's the contractor to have a competent superintendent on the project site at all times irrespective of the amount of work sublet. The superintendent shall be capable of reading and understanding the plans and specificationss, shall have full authority to execute orders to expedite the project, and shall be responsible for scheduling and have control of all work as the agent of the general contractor. Failure to comply with this provision will result in a suspension of work as provided in Article 108.07.

20. Water Valve boxes and Buffalo boxes that are uncovered during construction shall be adjusted to grade prior to restoring the pavement, sidewalk or parkway. The cost of same shall be considered as incidental to the contract.

21. It shall be the responsibility of the Contractor to remove from the site any and all materials and debris which result from his construction operation at no additional expense to the owner.

22. The contractor shall notify the Municipality and or Governing Agency 48 hours prior to the start of any construction. Failure to do so will result in the stoppage of all construction and the contractor will have to prove that the work done without notification was done according to the approved plans.

EARTHWORK

1. Work under this section shall include but not be limited to the following:

   A. Clearing and removing from the site, all undesirable trees and other vegetative growth within the construction area. Tree removal shall be kept to a minimum.

   B. Stripping of topsoil from all proposed street's and structural clay fill areas.

   C. Stockpiling of topsoil at locations as directed by the Owner or Engineer. Topsoil stockpiled for future use shall be relatively free from large roots, sticks, weeds, brush, stones larger than one (1) inch diameter or other litter and waste products including other extraneous materials not conductive to plant growth. Topsoil shall be stockpiled in sequence to eliminate any rehandling or double movements by the Contractor.

   D. Clay cut and Clay fill with compaction within roadway and all other structural fill areas.

   E. Placement and compaction of clay to standards as required on the construction plans to the design subgrade elevations. The Contractor will note that the elevations shown on the construction plans are finished grade elevations and that pavement thickness must be subtracted to determine subgrade elevations. The Contractor may obtain required clay fill from on-site excavation and on-site borrow excavation as directed by the Engineer, or Owner.

   F. Backfilling and compaction behind new curbs and gutters.

   G. Movement and compaction of soil material from the construction of underground utilities.

   H. Topsoil Placement to design finished grade elevations (6" minimum or as otherwise noted).

   I. If required, removal from site of all excess earth material including excess utility trench spoil after final grading.

2. It is the Contractor's responsibility to determine all material material quantities and appraise himself of all site conditions. The contract price submitted by the Contractor shall be considered as sum for the complete project. No claims for extra work will be recognized unless ordered in writing by the Owner.

3. Proposed pavement areas and when applicable, building pads, driveways and sidewalks shall be excavated or filled to plus or minus 0.1 foot of design subgrade elevations by the Contractor.

4. The subgrade shall be free of unsuitable material and shall be compacted to a minimum of ninety-five (95) percent of modified proctor density. Testing for compaction shall be the responsibility of the Contractor. All test results shall be submitted to the Owner & Engineer.

5. Upon completion of the surface improvements, the excavator shall respread a 6" layer of topsoil on all disturbed parkway areas.

6. During construction operations, the Contractor shall insure positive site drainage at the conclusion of each day. Site drainage may be achieved by ditching, pumping or any other method acceptable to the Engineer. The Contractor's failure to provide the above will preclude any possible added compensation requested due to delays or unsuitable materials created as a result thereof.

7. Whenever, during construction operations, any loose material is deposited in the flow line of gutter, drainage structures, ditches, etc. such that the natural flow line of water is obstructed, this loose material shall be removed at the close of each working day. At the conclusion of construction operations, all drainage structures and flow lines shall be free from dirt and debris. This work shall be considered incidental to the contract.

8. All disturbed areas outside the right-of-way, parkways and detention areas shall be restored with sod.

9. Soil erosion control specifications shall be considered as part of this section.

10. Soil erosion control measures in accordance with the "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois" shall be followed at the discretion of the municipality.

UNDERGROUND

1. Work under this section shall include trenching, installation of pipe, castings, structures, backfilling of trenches and compaction.

2. All manholes and valve vaults shall be equipped with molded plastic steps.

3. All sewer and water main trenches beneath proposed or existing utilities, proposed or existing pavement, driveways, sidewalks and for a distance of two feet on either side of same, and/or wherever else shown on the construction plan shall be backfilled with course aggregate backfill (CA-6) and thoroughly compacted in accordance with the state specifications.

4. All structure sections, adjusting rings and frames shall be securely sealed to each other or to the cone section or top barrel section of the manhole using resilient, flexible, non-hardening, preformed, bituminous mastic (RAM-NEK, or Approved Equal). This mastic shall be applied in such a manner that no surface water or ground water inflow can enter the manhole through gaps between barrel sections or cone sections and adjusting rings. (ASTM C-478 STRUCTURES)

5. The Underground Contractor shall stock pile all utility spoil in an area designated by the engineer or owner. This work shall be considered incidental to the contract. If required to do so, the underground contractor shall level all utility spoil or remove it from the site. the Underground Contractor shall be responsible for removal of all excess Utility Spoil from the site. This work shall be considered incidental to the contract.

6. The construction will be inspected by the Owners Engineer. All work shall conform to the requirements of the municipality as well as the standard specifications.

7. The contractor shall provide the Engineer, Owner, and the Municipality, and/or the Governing Agency with legible Mylar As-Built of all field tiles, cleanouts, wyes, service stubs, B-Boxes, and underdrains as required.

8. Separation between water mains and sewers must be maintained in accordance with Section 41-2.01B, C, & D of the "Standard Specifications". For storm sewer pipes that cross water mains, the storm sewer must be constructed of low head pressure pipe meeting ASTM C-443. The flexible "O" ring utilized in the type of joint must be properly seated to insure water-tightness.

9. Watermain shall be ductile iron pipe, Class 52 conforming to A.N.S.I. A-21.51 or A.W.W.A. C-151. Gaskets and cast iron fittings shall conform to A.N.S.I. A-21.11 or A.W.W.A. C-110 or C-111. Watermain shall be cement lined in conformance with A.N.S.I. A21.4 or A.W.W.A. C-104. Minimum cover from finished grade to top of watermain shall be 5-1/2 feet.

10. Gate Valves shall be used wherever valves are called for. Valves shall be iron body, bronze mounted, parallel seat valves per AWWA C-509. All valves shall be rated for 300 PSI test pressure and 150 PSI working pressure. All valves shall have resilient seals. Valves shall be American Flow Control, Series 500, Resilient Wedge Valves or Series 2500, Ductile Iron Resilient Wedge Valves.

11. All watermains shall be bedded with compacted, granular CA-6 materials, minimum thickness equal to 1/4 the outside diameter of the pipe, but not less than 4".

12. Hydrants shall be equipped with auxiliary valves and be Waterous company, TVC-5 hydrant, or WB-67 or Kennedy/Guardian model K81/D Traffic Style, Compression Type Hydrant.

13. Thrust blocking shall be installed on watermains at all bends, hydrants, tees, elbows, etc.

14. Valve vaults shall be precast structures, diameter as specified on the plans, with appropriate frame and lids (see construction standards sheet). Lids shall be imprinted "Water". All precast structures shall be ASTM C-478.

15. All watermains shall be subjected to a pressure test upon completion and prior to acceptance. Installation of watermains shall conform to AWWA Section C-600-77. Hydrostatic pressure test and leakage test shall be based on the municipality's requirements. The procedure for watermain disinfection shall conform to AWWA Section C-651-86.

16. All system valves shall be opened fully once the water mains have been tested completely. This system will be checked by the municipality's Fire Department for adequate fire flows as soon as possible after the water mains are completed.

17. All floor drains shall be connected to the Sanitary Sewer and all downspouts and footing drains shall discharge into storm sewers or onto the ground.

18. Unless noted otherwise, storm sewer Class IV shall be reinforced concrete culvert pipe. ASTM C-76 joints shall be mastic.

19. Storm sewer shall be constructed of the following materials as specified on the plans: Ductile Iron Pipe (DIP) Class 52 conforming to ANSI A21.51 with joints conforming to ANSI A21.11; Reinforced Concrete Pipe (RCP), shall be Class IV unless otherwise noted, conforming to ASTM C-76 with mastic joints, Contech A-2000 or approved equal.

20. Rigid Sanitary Sewers and Storm Sewers shall be installed on Class B bedding, 1/4" to 1" in size, with a minimum thickness equal to 1/4th the outside diameter of the sewer pipe, but not less than 4". Blocking of any kind for grade is not permitted. Bedding material shall conform to the requirements of ASTM C-33 for soundness and CA-11 or CA-13 for gradation. Cost for bedding shall be merged with unit price bid for the sewer.

21. Where flexible pipe is used, the pipe shall be installed on Class II Bedding and additional backfill extending to 12" over the pipe. Backfilling shall be in accordance with ASTM 2321. A deflection test shall be required by using a Rigid Ball or Mandrel as required in accordance with ASTM D-3034.

22. 'Band-Seal' or similar flexible type couplings shall be used when connecting sewer pipes of dissimilar materials. When connecting to an existing sanitary sewer by means other than an existing wye or manhole, contractor shall use a 'sewer-tap' and hub-wye or hub-tee saddle.

23. All Sewer Main connections to an existing sanitary sewer main shall be with a manhole.

24. Sanitary sewers and service lines shall be constructed of PVC pipe SDR of 26-160 pressure pipe.

25. All sanitary sewer manholes shall have eccentric cones, cone openings shall be centered over the outlet pipe. All precast structures to be as per ASTM C-478.

26. Sanitary sewer manholes shall be 4'-0" diameter precast structures with bituminous coating on exterior walls. Manholes shall also include the appropriate frame and sealed lids (see Construction Standards sheet) lids shall be imprinted "Sanitary".

27. All Sanitary sewer shall be tested by an infiltration, and/or air test method upon completion and prior to acceptance in accordance with the regulations for the municipality and/or the metropolitan sanitary district and/or the inspecting agency. Maximum allowable infiltration or exfiltration for sanitary sewers shall not exceed 200 gallons per inch diameter of pipe, per mile, per day. (200 lad)

PAVING, CURB, & WALKS

1. Work under this section shall include final subgrade shaping and preparation, forming, placement of roadway base course materials and subsequent binder and/or surface courses, finishing and curing of concrete, final clean-up and all related work.

2. The proposed pavement shall consist of the subgrade course (as specified) base course, Bituminous Concrete Binder course, and Bituminous Concrete Surface course, Class 1, or the thickness and materials as specified on the construction plans. Prime coat material shall be bituminous M.C. - 30. Unless shown as a bid item, prime coat shall be considered as incidental to the cost of the contract. All pavement shall be constructed in accordance with the I.D.O.T. "Standard Specifications for Road and Bridge Construction," July 1, 1994.

3. Sidewalks and combination curb and gutter shall be of the type as detailed in the construction plans shall consist of Portland Cement Concrete with air entertainment of not less than five percent (5%) or more than eight (8%). Concrete shall be a minimum six (6) bag mix and shall develop a minimum of 3,500 PSI compressive strength at fourteen (14) days. All concrete shall be broom finished & sealed in accordance with I.D.O.T. specifications.

4. Curing and protection shall be in accordance with Article 720.13 of the "Standard Specifications" method A, B, or C.

5. All damaged areas in the binder, base or curb and gutter shall be repaired to the satisfaction of the engineer and municipality prior to laying the surface course. The paving contractor shall provide whatever equipment and manpower necessary including the use of power brooms if required by the engineer to prepare the pavement for application of the surface course. Equipment and manpower for cleaning shall be considered as incidental to the cost of the contract. Prime coat for the binder course shall also be considered as incidental to the cost of the contract and shall be applied to the binder at a rate of 0.3 gallons per square yard.

6. 3/4" thick Premoulded Fibre Expansion Joints with 3/4" x 13" plain round, steel dowel bars shall be installed at fifty (50) foot intervals and at all P.C.'S, P.T.'S and curb returns. Alternated ends of the dowel bars shall be greased and fitted with metal expansion tubes. Contraction joints shall be provided at ten (10) foot intervals in the curb. The cost of these joints shall be considered as incidental to the cost of the contract. Expansion joints shall be placed near all curb inlets.

7. Backfilling of curbs or pavement shall be the responsibility of the earthwork contractor.

8. Curbs shall be depressed at locations where public walks/pedestrian paths intersect curb line at street intersections and other locations as directed, for the purpose of providing access by the handicapped.

9. Two (2) coats of boiled linseed oil in conformance with section 408 of the standard specifications shall be applied to exposed concrete surfaces, cost of which shall be incidental to the cost of the contract.

10. It shall be the responsibility of the contractor to remove from the site any and all materials and debris which result from his construction operations at no additional expense to the owner.

11. The paving contractor shall be responsible for providing all coring, testing, and pavement evaluation as required by the municipality for acceptance at his own expense. The contractor shall include this as a separate bid item or else it will be assumed that this cost has been figured into the unit prices for the paving items. All testing results shall be made available to the City or Village for review.

12. Concrete sidewalks shall have three -1/4 inch diameter, 10 foot long reinforcing rods centered over all utility crossings. Expansion joints shall be provided in the concrete sidewalks at 50 foot intervals.

SEDIMENTATION & EROSION CONTROL

1. The general contractor, and all subcontractors involved with a construction activity that disturbes site soil or who implement a pollutant control measure identified in the Storm Water Pollution Prevention Plan (SWPPP) must comply with the requirements of the National Pollution Discharge Elimination Systems (NPDES) General Permit and any local governing agency having jurisdiction concerning erosion and sedimentation control:

2. The general contractor shall prepare and keep current a storm water plan in accordance with the "STORM WATER POLLUTION PLAN FOR CONSTRUCTION ACTIVITIES AT THE MARKETPLACE OF ROLLING MEADOWS" attached and made part of these specifications.

3. The General Contractor and all Sub-contractors shall comply with the Storm Water Pollution Prevention Plan Fro Construction Activities dated Aprill 16,1999. This Work will include preparing a specific plan for maintaining records in the plans.

4. Topsoil stockpiles are to have a minimum 3' high berm around the circumference of the pile so as to control erosion and runoff. If a stockpile is to remain in place for more than nine months, it is required that the stockpile be seeded so as to minimize soil erosion by both wind and water.

5. All storm water runoff is to be directed to catch basins with proper sumps. Straw bales shall be placed around all storm structures.

6. All catch basins, sumps and/or retention basins are to be cleaned at the end of the project prior to final acceptance. Cleaning may also be required during the course of the construction of the project if it is determined that the silt and debris traps are not properly functioning and their performance is impaired.

7. Unless soil erosion control items are specifically referred to as bid items (such as topsoil respread, seeding, etc.), they are to be considered as incidental to the cost of the contract.

8. Soil erosion control measures in accordance with the "Procedures and Standards for Urban soil erosion and sedimentation control in Illinois" shall be followed at the discretion of the municipality.

9. Any soil erosion control measures in addition to those outlined in these plans and which are deemed necessary by the City Engineer, shall be implemented immediately by the contractor.

10. RIP-RAP material shall be in accordance with Article 705 and installed according to Article 281 of the "Standard Specifications" and grouted in place with concrete.

11. Sodding shall conform to Article 252 of the "Standard Specifications".

SAM'S & WALMART FOUNDATION SUBSURFACE PREPARATION

Unless specifically indicated otherwise in the drawings and/or the specifications, the limits of this subsurface preparation are considered to be that portion of the site directly beneath and 10 feet beyond the building and appurtenances. Appurtenances are those items attached to the building proper (refer to drawing sheet sp1) and typically include, but are not limited to, the building sidewalks, garden center, porches, ramps, stoops, truck wells / docks, concrete aprons at the automotive center, compactor pad, etc. The subbase does not extend beyond the limits of the actual building and the appurtenances.

Establish the final subgrade elevation at 11 1/2 inches below the finished concrete to allow for a 5 1/2 inch thick slab and a 6 inch thick subbase. The subbase shall be crushed stone complying with idot ca-6. The contractor is responsible for obtaining accurate measurements for all cut and fill depths required.

Existing foundations, slabs, pavements and below grade structures shall be removed from the building area. Remove surface vegetation, topsoil, root systems, organic material, existing fill, and soft or otherwise unsuitable material from the building area. Proof roll exposed subgrade. Remove and replace unsuitable areas with suitable material. Fill material shall be free of organic and other deleterious materials and shall be low plasticity or granular soils having a plasticity index less than 20 percent and liquid limit less than 45 percent.

Place fill material in loose lifts not exceeding 9 inches in thickness. Adjust moisture content to be within 1 percent below to 3 percent above the optimum value, and compact to at least 95 percent of the modified proctor maximum dry density (astm d1557) for fill placed below foundation bearing elevation and at least 90 percent of the same standard for fill placed below slab bearing elevation and above foundation bearing elevation.

The foundation system shall be isolated spread footings at columns and continuous spread footings at the walls.

This foundation subsurface preparation does not constitute a complete site work specification. Information covered in this preparation governs over the contract specifications. Refer to the site work specifications and the geotechnical report by terracon, inc., dated february 1, 1999, for information not covered in this preparation. The geotechnical report is for information only and is not considered as a design specification.

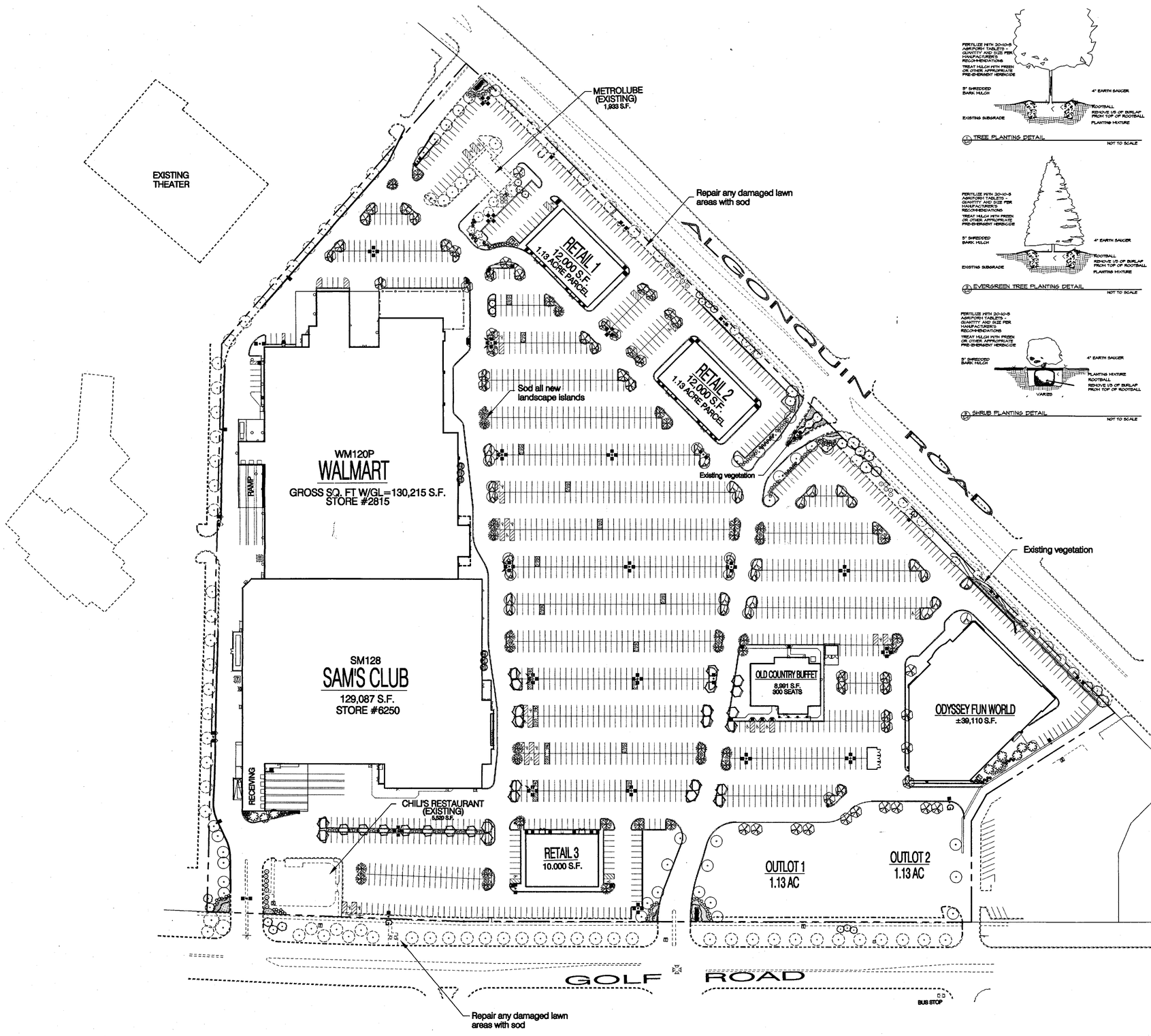
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drawn: M.D.W.
checked: J.C.U.

GENERAL NOTES & SPECS
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

sheet: 15 of 16
project number: 8395-200



PLANT LIST

PLANT SYMBOL		PLANT SIZE	QUANTITY	BOTANICAL NAME	COMMON NAME
CANOPY TREES					
		Existing Tree			
		Existing Evergreen Tree			
CANOPY TREES					
		2.5" CAL.	52	ACER FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE
		2.5" CAL.	24	ACER PLATANOIDES 'EMERALD QUEEN'	EMERALD QUEEN NORWAY MAPLE
		2.5" CAL.	30	FRAXINUS PENNSYLVANICA 'MARSHALL'S SEEDLESS'	MARSHALL'S SEEDLESS ASH
		2.5" CAL.	34	PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR
		2.5" CAL.	34	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN
ORNAMENTAL TREES					
		6' CLUMP	5	BETULA PLATYPHYLLA VAR. JAPONICA	ASIAN WHITE BIRCH
		6' CLUMP	6	PYRUS CALLERYANA 'VALIANT'	VALIANT PEAR
EVERGREEN TREES					
		6' HT.	9	PINUS NIGRA	AUSTRIAN PINE
SHRUBS					
	CR	24" HT.	15	CORNUS RACEMOSA	GRAY DOGWOOD
	CS	24" HT.	52	CORNUS SERICEA 'ISANTI'	ISANTI DOGWOOD
	CO	24" HT.	35	COTONEASTER ACUTIFOLIA	HEDGE COTONEASTER
	SH	24" HT.	25	SYRINGA MEYERI 'PALIBIN'	DWARF KOREAN LILAC
	SP	24" HT.	74	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC
	VD	24" HT.	40	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM
	VT	24" HT.	30	VIBURNUM TRILOBUM 'COMPACTUM'	COMPACT AMERICAN CRANBERRYBUSH
GROUNDCOVERS					
		1 GAL. CONT. @ 18" O.C.	1405	ASSORTED PERENNIAL DISPLAY - CONTRACTOR TO SELECT AND SUBMIT SPECIES	
				SOD- ALLOW ALL NEW LAWN AREAS TO BE SOD	

PLANT NOTES

1. ALL SHRUB BEDS AND INDIVIDUAL TREE PLANTINGS ARE TO RECEIVE A 3" THICK LAYER OF SHREDDED BARK MULCH. ALL GROUNDCOVER BEDS ARE TO RECEIVE A 2" THICK LAYER OF THE SAME MULCH MATERIAL. COSTS FOR ALL MULCH SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF THE PLANTINGS.
2. ALL PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY.
3. ALL PLANTS (EXCEPT FOR THE GROUNDCOVER) SHALL BE BALLED AND BURLAPPED STOCK.
4. ALL PLANT MATERIAL SHALL BE OBTAINED FROM AN APPROVED NORTHERN ILLINOIS NURSERY WITH HEAVY CLAY SOILS.
5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING (OR IF PLANTS ARE NOT OF THE QUALITY SPECIFIED), THE LANDSCAPE ARCHITECT, AT HIS DISCRETION MAY SUBSTITUTE SIMILAR PLANTS WITH THE SAME WHOLESALE VALUE.
6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE THE TOP 2 INCHES OF SOIL.
7. TREE AND SHRUB PLANTING BACKFILL MIXTURE SHALL BE.
   2 PARTS EXISTING NATIVE TOPSOIL
   1 PART SPHAGNUM PEAT MOSS WITH DECOMPOSED MANURE.
8. LANDSCAPE CONTRACTOR TO PROVIDE 6" OF TOPSOIL FILL IN ALL LANDSCAPE ISLANDS AND NEW PLANTING AREAS.
9. GUARANTEE SPECIFICATIONS ARE AS FOLLOWS. CONTRACTOR SHALL PROVIDE THE OWNER WITH A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT (BEGINNING ON THE OWNER'S POSSESSION DATE). THIS AGREEMENT SHALL INCLUDE LABOR AND MATERIALS FOR REPLACEMENT OF DEAD OR DYING PLANT MATERIAL. CONTRACTOR SHALL PROVIDE OWNER WITH A TYPEWRITTEN LIST OF SPECIFIC MAINTENANCE INSTRUCTIONS FOR EACH TYPE OF VEGETATION AND PLANT WITH THE WRITTEN AGREEMENT AND BOND.
10. ALL LANDSCAPE SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
11. ALL LANDSCAPE MATERIAL ALONG ALGONQUIN AND GOLF ROAD IS TO BE EVALUATED AND CORRECTED AS NECESSARY UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT. LANDSCAPE COST ESTIMATE TO INCLUDE AN ALLOWANCE OF $5000 TO PRUNE, SHAPE OR TRIM ANY OF THE EXISTING TREES ALONG THE NOTED ROADS.

PREPARED BY:

TESKA ASSOCIATES INC.

Community Planning . Resource Management
Site Design . Landscape Architecture
627 Grove Street
Evanston, Illinois 60201
708.869.2015

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 ft.

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LANDSCAPE PLAN

MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions: 06/15/99 PER OWNER
07/02/99 PER CITY

date: 05/05/99
scale: 1"=80'
drawing name: 89201-16
drawn: M.D.W.
checked: J.C.U.

sheet: 16 of 16

project number: 89-201

NOTE:
1. ALL GRADES SHOWN ARE SHALL BE PAVEMENT GRADES, UNLESS OTHERWISE NOTED.

STORM WATER DETENTION SUMMARY

REQUIRED STORAGE=6.13 ACRE*FEET

PROVIDED STORAGE:
PIPE AND STRUCTURES=2.64 ACRE*FEET
SURFACE STORAGE (12" DEPTH)=3.50 ACRE*FEET
TOTAL PROVIDED STORAGE=6.14 ACRE*FEET

BENCHMARKS

B.M.#1 NORTHEAST FLANGE BOLT ON HYDRANT ±200' EAST CHILI'S ON THE NORTH SIDE OF GOLF ROAD ELEV.=702.70

B.M.#2 NORTHWEST FLANGE BOLT ON HYDRANT ON WEST PROPERTY LINE ±75' NORTH OF SHARED DRIVE ELEV.=704.18

EX. TOPOGRAPHY BY JAS ASSOCIATES, INC.

ALGONQUIN ROAD

GOLF ROAD

RETAIL 1
F.F.=703.50

RETAIL 2
F.F.=703.50

RETAIL 3
F.F.=703.50

EX. METRO LUBE
F.F.=702.75

EX. CHILI'S
F.F.=702.75

WAL-MART
FINISHED FLOOR=704.80
(SEE SHEET 15 FOR FOUNDATION SUB SURFACE PERPARATION NOTES)

SAM'S CLUB
FINISHED FLOOR=704.80
(SEE SHEET 15 FOR FOUNDATION SUB SURFACE PERPARATION NOTES)

INDICATES DIRECTION OF 100 YEAR OVERFLOW ROUTE (TYPICAL)

INDICATES PROPOSED TOP OF WALK/TOP OF PAVEMENT GRADE

DEPRESS 5 L.F. OF CURB TO ALLOW 100 YEAR OVERFLOW AT ELEV. 702.00

1"=50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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WAL-MART/SAM'S GRADING

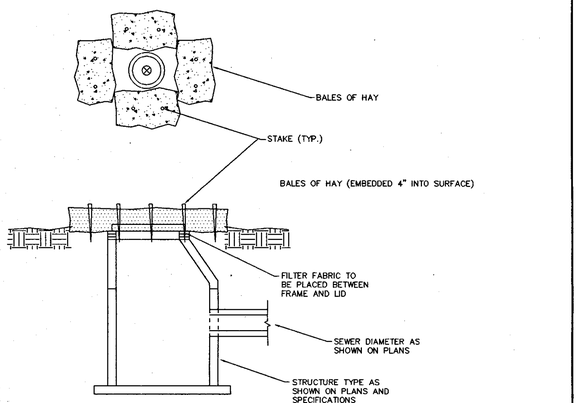
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
05/24/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-06
drawn: M.D.W.
checked: J.C.U.

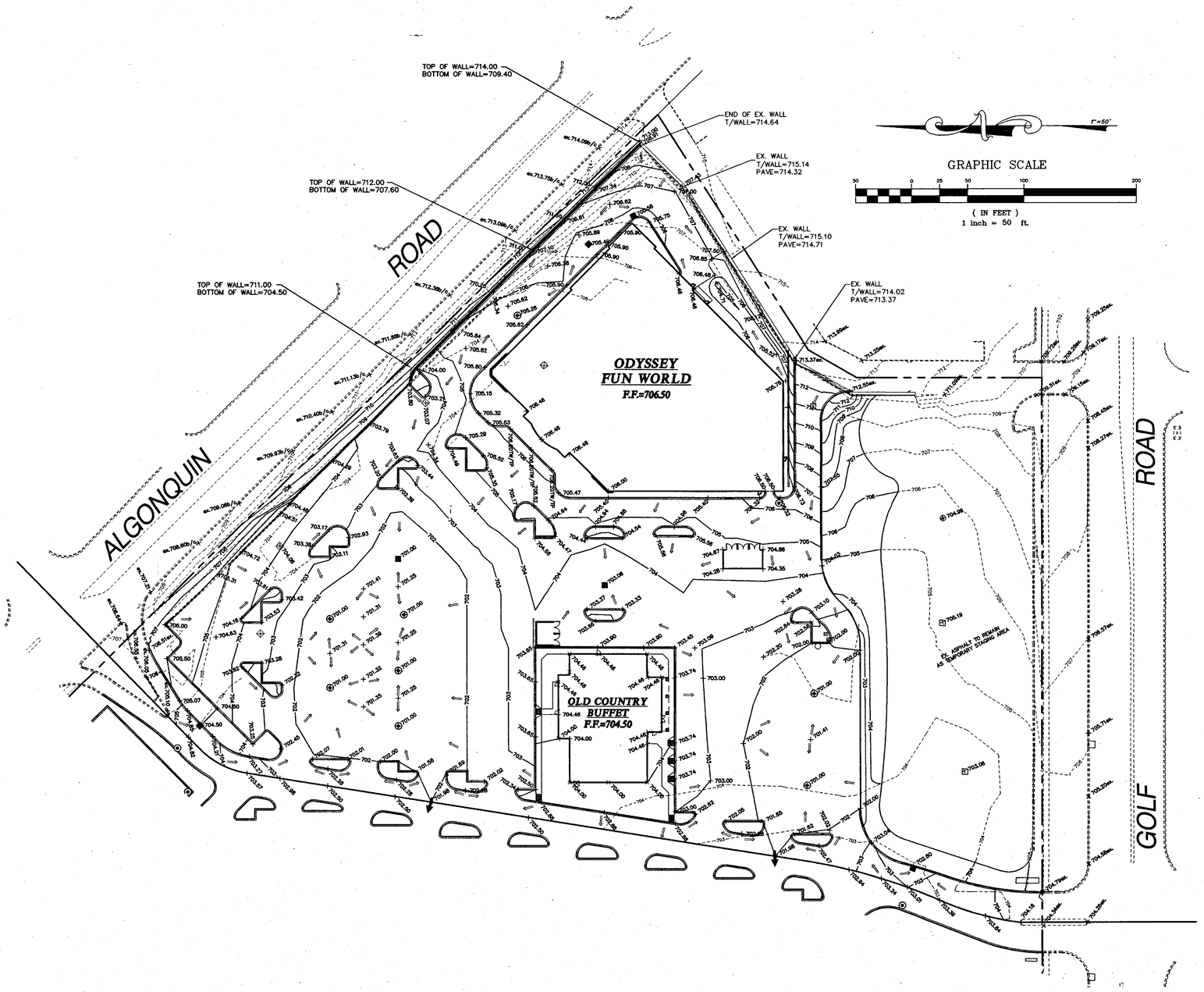
sheet: 6 of 16

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HAY BALES AT INFLOW STRUCTURES

NOTE:
1. ALL GRADES SHOWN ARE SHALL BE PAVEMENT GRADES, UNLESS OTHERWISE NOTED.



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O.C.B. & FUN WORLD GRADING
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/01/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-07
drawn: M.D.W.
checked: J.C.U.

sheet: 7 of 16

project number: 89-201

NOTES:
1.) 36", 84", & 96" STORM SEWER SHALL BE ALUMINIZED STEEL TYPE 2 CSP(ASP). STORM SEWER PIPES UNDER 36" SHALL BE A 2000 P.V.C. INSTALLED IN ACCORDANCE WITH ASTM D2321.

2.) PIPES BETWEEN THE FOLLOWING STORM STRUCTURES SHALL BE JOINED BY MEANS OF FLEXIBLE GASKET (O-RING), WHICH SHALL BE FABRICATED & INSTALLED IN ACCORDANCE WITH ASTM C443 & "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS." MAY 1996, SECTION
31-1.08A: MH#9-MH#10
INL#18-MH#19
MH#19-MH#20
MH#20-MH#21
MH#20-MH#25
MH#27-MH#28
INL#44-BLDG.
MH#79-INL#81
MH#85-EX. INL#26

STORM SEWER MATERIALS	
LESS THAN 36"	- CLASS IV RCP
36"	-CLASS II RCP
84" & 96"	-CLASS I RCP
-OR-	
36" & GREATER	-ASP (SEE SHEET 9)
LESS THAN 36"	-A2000 PVC

ROAD
ALGONQUIN
ROAD
GOLF
(SEE SHEET 9) MATCHLINE
(SEE SHEET 9) MATCHLINE
N44°46'50"W 896.30'
S 41°09'16" W 608.79'
S 01°27'05" W 929.33'
S 88°04'15" E 420.41'
R=2814.79'
L=205.31'
RETAIL 1 F.F.=703.50
RETAIL 2 F.F.=703.50
RETAIL 3 F.F.=703.50
BOTTOM OF WM=696.7
TOP OF 36"=693.8
WAL-MART F.F.=704.80
SAM'S CLUB F.F.=704.80
EX. METRO LUBE
EX. CHILI'S
(4)-544'-84" ASP STORM SEWER @ 0.10%
245'-96" ASP STORM SEWER @ 0.10%
EX. 24" ST.
EX. 12" ST.
EX. 27" ST.
EX. 36" ST.
INDICATES EXISTING STORM SEWER TO BE PLUGGED & ABANDONED (TYP.)
INDICATES EXISTING STORM SEWER TO BE REMOVED (TYPICAL)
EXISTING STORM STRUCTURES TO BE REMOVED (TYP.)
EXISTING STORM SEWER TO BE REMOVED
CONNECT EACH 84" ASP W/36" ASP
CONNECT EACH 84" ASP W/36" ASP
CONNECT EXISTING 21" LINE TO 84" LINE INV. ±696.75 (V.I.F.)
END OF 96" ASP PIPE INV. 691.10
RISER MH#1 FR. 702.00 INV. 691.06
RISER MH#2 FR. 702.00
RISER MH#3 FR. 702.00
RISER MH#4 FR. 702.00 INV. 691.09
RISER MH#5 FR. 701.00
RISER MH#6 FR. 701.00
RISER MH#7 FR. 701.00
RISER MH#8 FR. 701.00
RISER MH#9 FR. 701.00
RISER MH#10 FR. 701.00
RISER MH#11 FR. 701.00
RISER MH#12 FR. 701.00
RISER MH#13 FR. 701.00 INV. 696.68 (E)
RISER MH#14 FR. 701.00
RISER MH#15 FR. 701.00
RISER MH#16 FR. 701.79 INV. 691.85 INV. 696.86 (E)
RISER MH#17 FR. 701.74
RISER MH#18 FR. 701.69
RISER MH#19 FR. 701.64 INV. 691.85(S) INV. 693.18(W) 82'-8" ROOF DRAIN
INLET#28 FR. 701.80 INV. 698.80
INLET#1 FR. 701.00 INV. 698.00
INLET#2 FR. 701.00 INV. 698.00
INLET#3 FR. 701.00 INV. 698.00
INLET#4 FR. 701.00 INV. 698.00
INLET#5 FR. 701.00 INV. 698.00
INLET#6 FR. 701.00 INV. 698.00
INLET#7 FR. 700.17 INV. 697.17
INLET#8 FR. 701.00 INV. 698.00
INLET#9 FR. 701.00 INV. 698.00
INLET#10 FR. 701.00 INV. 698.00
INLET#11 FR. 701.00 INV. 698.00
INLET#12 FR. 701.00 INV. 698.00
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INLET#24 FR. 701.00 INV. 698.00
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INLET#27 FR. 701.00 INV. 698.00
INLET#28 FR. 701.00 INV. 698.00
INLET#29 FR. 701.00 INV. 698.00
INLET#30 FR. 701.00 INV. 698.00
INLET#31 FR. 701.00 INV. 698.00
INLET#32 FR. 701.00 INV. 698.00
INLET#33 FR. 701.00 INV. 698.00
INLET#34 FR. 701.00 INV. 698.00
INLET#35 FR. 701.00 INV. 698.00
INLET#36 FR. 701.00 INV. 698.00
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INLET#39 FR. 701.00 INV. 698.00
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INLET#43 FR. 701.00 INV. 698.00
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INLET#45 FR. 701.00 INV. 698.00
INLET#46 FR. 701.00 INV. 698.00
INLET#47 FR. 701.00 INV. 698.00
INLET#48 FR. 701.00 INV. 698.00
INLET#49 FR. 701.00 INV. 698.00
INLET#50 FR. 701.00 INV. 698.00
INLET#51 FR. 701.00 INV. 698.00
INLET#52 FR. 701.00 INV. 698.00
INLET#53 FR. 701.00 INV. 698.00
INLET#54 FR. 701.00 INV. 698.00
INLET#55 FR. 701.00 INV. 698.00
INLET#56 FR. 701.00 INV. 698.00
INLET#57 FR. 701.00 INV. 698.00
INLET#58 FR. 701.00 INV. 698.00
INLET#66 FR. 702.21 INV. 699.21
INLET#72 FR. 701.86 INV. 698.86
(4') ST. MH#21 FR. 702.26 INV. 697.97
(4') ST. MH#22 FR. 702.00 INV. 698.38
(4') ST. MH#23 FR. 701.74 INV. 698.76
(4') ST. MH#24 FR. 702.10 INV. 699.10
(4')ST. MH#27 FR. 700.80 INV. 697.90
(4') ST MH#25 FR. 701.00 INV. 697.04
(4') ST MH#29 FR. 701.00 INV. 696.36
(5') ST MH#26 FR. 700.70 INV. 696.70
(4') ST MH#30 FR. 701.00 INV. 696.06(N) INV. 697.39(E) INV. 694.20(S)
(4') ST MH#32 FR. 701.00 INV. 693.99
(4') ST MH#33 FR. 701.00 INV. 693.68
(4') ST MH#34 FR. 701.00 INV. 693.37
(5') ST MH#17 FR. 703.94 INV. 700.94
(5') ST MH#14 FR. 703.55 INV. 700.55
(4') ST MH#15 FR. 702.00 INV. 700.23(E) INV. 697.63
(5') ST MH#20 FR. 702.15 INV. 697.45
(4') ST MH#19 FR. 701.31 INV. 697.77
(5') ST. MH#12 FR. 703.25 INV. 697.00
(4') ST MH#64 FR. 704.37 INV. 701.21
(4') ST. MH#61 FR. 701.00 INV. 696.68 48"-15" ST. SEW. @ 0.50%
(4') ST MH#63 FR. 702.06 INV. 698.06
(4') ST. MH#65 FR. 702.60 INV. 699.43
(4') ST MH#67 FR. 701.90 INV. 698.75
(4') ST MH#68 FR. 701.83 INV. 698.42
(4') ST MH#69 FR. 701.88 INV. 698.11
(4') ST MH#70 FR. 701.83 INV. 697.95 22'-12" ST. SEW. @ 2.05%
(4') ST MH#71 FR. 702.61 INV. 697.50 (N/S) INV. ±696.10 (W) (V.I.F.) BUILD OVER EXIST LINE PLUG LINE TO EAST
(4') ST MH#4 FR. 699.20 INV. 689.61
(4') ST MH#11 FR. 704.42 INV. 701.42
(10') ST MH#10 FR. 702.50 INV. 690.85
(6') ST MH#9 FR. 703.15 INV. 700.50(N) INV. 690.77
(6') ST MH#8 FR. 704.17 INV. 690.63
(6') ST MH#7 FR. 702.74 INV. 690.35
(6') ST MH#6 FR. 702.00 INV. 690.05 (E,W) INV. 696.62 (N) BUILD OVER EX. LINE, TIE IN EX. LINE TO SOUTH
(4') ST MH#5 FR. 699.50 INV. ±689.55 (V.I.F.) BUILD OVER EX. LINE, PLUG LINE TO NORTH
(6') ST MH#1 FR. 702.40 INV. 690.52
(6') ST MH#2 FR. 702.00 INV. 690.28 (CONNECT WITH INLET LINE 698±)
(6') ST MH#3 FR. 701.70 INV. 697.88
EX. ST MH #1 FR. 698.23 INV. 689.20(NW) INV. 689.06(W)
EX. ST MH #2 FR. 703.66 ADJ. FR. 701.00 INV. 695.30(W) INV. 695.51(E)
EX. ST MH #4 FR. 702.65 INV. 691.93
EX. ST MH #6 FR. 703.15 INV. 691.90
EX. ST MH #8 FR. 703.03 INV. 692.38 P. INV. 696.73 (N)
EX. ST MH #60 FR. 702.24 INV. 694.96
EX. ST MH #61 FR. 701.83 INV. 694.55
EX. ST MH #62 FR. 700.65 ADJ. FR. 701.00 INV. 694.70
EX. INLET #5 FR. 702.70
29'-12" STORM SEWER @ 1.00%
40'-12" STORM SEWER @ 7.88%
120'-12" STORM SEWER @ 1.00%
148'-12" STORM SEWER @ 0.61%
69'-12" STORM SEWER @ 0.50%
77'-12" STORM SEWER @ 0.50%
159'-12" STORM SEWER @ 0.75%
61'-12" STORM SEWER @ 1.00%
83'-12" STORM SEWER @ 0.49%
61'-15" STORM SEWER @ 0.50%
68'-15" ST. SEW. @ 0.50%
61'- 15" STORM SEWER @ 0.50%
120'-12" STORM SEWER @ 0.43%
108'-12" STORM SEWER @ 0.21%
104'-12" ST. SEW. @ 0.31%
82'-15" ST. SEW. @ 0.50%
37'-15" STORM SEWER @ 0.50%
35'-12" ST. SEW.
37'-12" ST. SEW.
23'-12" ST. SEW.
63'-18" STORM SEWER @ 0.87%
156'-18" STORM SEWER @ 1.00%
66'-18" ST. SEW.
53'-15" ST. SEW
32'-24" STORM SEWER @ 1.00%
44'-24" STORM SEWER @ 1.00%
67'-18" ST. SEW.
90'-12" STORM SEWER @ 1.00%
34'-12" STORM SEWER @ 0.50%
90'-12" STORM SEWER @ 2.00%
67'-12" ST. SEW. @ 0.50%
92'-12" ST. SEW @ 0.50%
62'-12" ST. SEW. @ 0.50%
74'-12" ST. SEW. @ 0.50%
50'-12" ST. SEW. @ 2.72%
39'-36" ST SEW @ 0.20%
71'-36" ST SEW @ 0.20%
151'-36" ST. SEW. @ 0.20%
55'-12" STORM SEWER @ 1.00%
103'-36" STORM SEWER @ 0.17%
211'-36" STORM SEWER @ ±0.65%
48'-36" STORM SEWER @ 1.08%
79'-36" STORM SEWER @ 0.59%
137'-12" STORM SEWER @ 0.20%
32'-12" STORM SEWER @ 0.20%
92'-12" STORM SEWER @ 1.00%
12" ROOF DRAIN
58'-8" ROOF DRAIN
102'-8" ROOF DRAIN
15" ROOF DRAIN
15" DOWNSPOUT COLLECTOR
12" DOWNSPOUT COLLECTORS
14'-12" DOCK DRAIN (SEE DETAIL 11/SP2 IN WAL-MART PLANS) INV. 700.45 TIE INTO EX. 36" LINE
CLEANOUT
105'-18" ST SEW
15" DOWNSPOUT COLLECTOR (TYP.)
ROOF DRAIN
BOTTOM OF 15"=697.25 TOP OF WM=695.25
BOTTOM OF WM=696.8 TOP OF 15"=695.20
BOTTOM OF 18"=699.5 TOP OF 8"=688.4
BOTTOM OF 12"=696.8 TOP OF 8"=692.8
BOTTOM OF 8"=696.0 TOP OF 36"=693.0
BOTTOM OF 6"=694.2 TOP OF 36"=693.7
PROPOSED RESTRICTOR MANHOLE #3 (6") FR. 702.00 INV. 689.88 (N,E,S) (8" DIA. RESTRICTOR TO THE SOUTH)
EX. RESTRICTOR MANHOLE #2 (TO BE REMOVED) FR. 701.89 INV. 690.49

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.
1"=50'

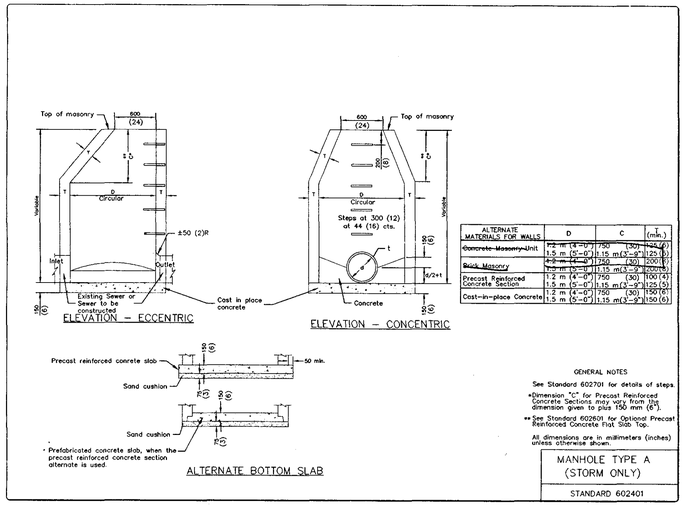
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WAL-MART/SAM'S STORM SEWER
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

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06/10/99 PER CITY
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checked: J.C.U.

sheet: 8 of 16
project number: 89-201



ALTERNATE MATERIALS FOR WALLS	D	C	(min.)
~~Concrete Masonry Unit~~	~~1.2 m (4'-0")~~	~~150 (30)~~	~~125 (5)~~
	1.5 m (5'-0")	1.15 m(3'-9") 125 (5)	
~~Brick Masonry~~	~~1.2 m (4'-0")~~	~~150 (30)~~	~~200 (8)~~
	~~1.5 m (5'-0")~~	~~1.15 m(3'-9")~~	~~200 (8)~~
Precast Reinforced Concrete Section	1.2 m (4'-0")	150 (30)	100 (4)
	1.5 m (5'-0")	1.15 m(3'-9")	125 (5)
Cast-in-place Concrete	1.2 m (4'-0")	150 (30)	150 (6)
	1.5 m (5'-0")	1.15 m(3'-9")	150 (6)

GENERAL NOTES

See Standard 602701 for details of steps.

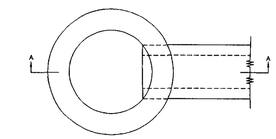
*Dimension "C" for Precast Reinforced Concrete Sections may vary from the dimension given to plus 150 mm (6").

** See Standard 602601 for Optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in millimeters (inches) unless otherwise shown.

MANHOLE TYPE A (STORM ONLY)

STANDARD 602401



ALTERNATE MATERIALS FOR WALLS	T
~~Concrete Masonry~~	~~200 (8)~~
CAST-IN-PLACE CONCRETE	150 (6)
~~CONCRETE MASONRY UNIT~~	~~125 (5)~~
PRECAST REINFORCED CONCRETE SECTION	75 (3)

All dimensions are in millimeters (inches) unless otherwise shown.

INLET – TYPE A

STANDARD 602301

ALUMINIZED STEEL TYPE 2 CSP

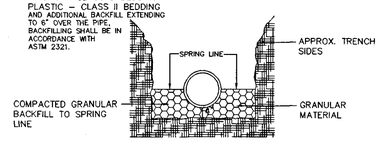
1. MATERIALS
   - A. The coils from which the pipe is fabricated shall be hot dip coated in a bath of commercially pure aluminum referred to as type 2. Aluminum-coated sheet for this product is identified as CSP grade and is produced in coating weight, designated 1.00 oz/sq. ft.
   - B. The material shall meet the requirements of AASHTO M-274.
2. FABRICATION
   - A. Pipe shall be furnished circular or pipe arch shaped per dimensions and material gage as shown on plans. Pipe fabricated under this specification shall conform to the dimensions and tolerances of the applicable sections of AASHTO M-36.
   - B. The pipe shall be fabricated with helical corrugations and a continuous welded seam of lock seam extending from end to end of each length of pipe.
   - C. Pipe corrugations shall be:
     1. 3" x 1" per AASHTO M36 Type 1. (for 120" pipe)
     2. 3/4" x 3/4" x 7-1/2" per AASHTO M36 Type 1R. (for 60" pipe)
   - D. Each pipe end shall be fabricated with a minimum of two annular corrugations for purpose of joining pipe sections with coupling bands.
3. COUPLING BANDS
   - A. Pipe shall be joined together with coupling bands made from the same metal used for the pipe. Pipe coupling bands shall conform to the applicable sections of AASHTO M-36.
   - B. The bands shall be not more than 3 nominal sheet thickness thinner than the thickness of the pipe to be connected and in no case thinner than 0.052 inch nominal sheet thickness.
   - C. Coupling bands shall be formed with two corrugations that are spaced to provide seating in the second corrugation of each pipe end without creating more than 1/2 inch annular space between pipe ends when joined together.
   - D. Connecting bands shall not be less than 7 inches wide for pipe diameters 36" and smaller and not less than 12" wide for pipe diameters greater than 36".
   - E. Coupling bands shall be drawn together by two 1/2 inch diameter galvanized bolts through the use of a bar and strap connector suitably attached to the band.
   - F. Welded steel end plates shall be installed on the end of the pipe in accordance with manufacturers design.
   - G. Backfill shall be placed in accordance with manufacturers specifications for gradation, placement, and compaction.
   - H. Riser manholes shall be constructed with the pipe material in accordance with manufacturers recommendation and shall be cmplete including frames & grates.

PIPE (FOUNDATION) BEDDING

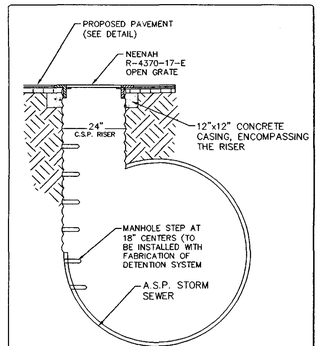
FOR SANITRAY AND STORM SEWER LINES, WATER LINES AND SEWER AND WATER SERVICES FOR PIPE DIAMETERS 6" AND LARGER

NOTE: TRENCH BACKFILL SHALL BE USED IN ALL TRENCHES

NOTE: V.C.P. – CLASS B BEDDING PLASTIC – CLASS II BEDDING AND ADDITIONAL BACKFILL EXTENDING TO 6" OVER THE PIPE BACKFILLING SHALL BE IN ACCORDANCE WITH ASTM 2321.

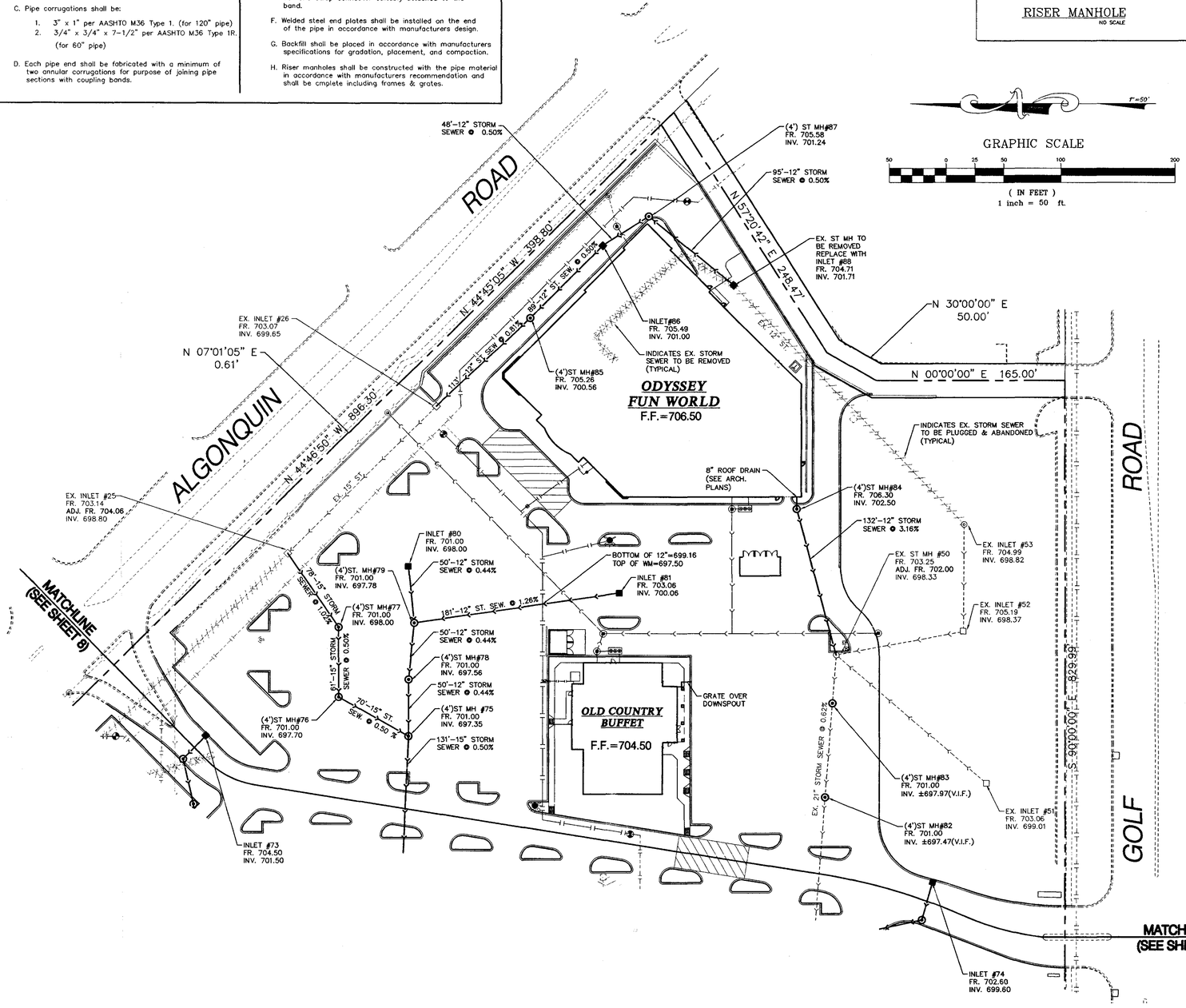


NOTE: MINIMUM DEPTH OF GRANULAR MATERIAL TO EXTEND 4" BELOW THE BOTTOM OUTSIDE OF PIPE BARREL



RISER MANHOLE

NO SCALE



JAS Associates, Inc.
Civil Engineers - Surveyors - Land Planners
1345 WILEY ROAD SUITE 110 SCHAUMBURG, ILLINOIS 60173
phone: (847)310-9400
fax: (847)310-0087
email: jas1345@ix.netcom.com

O.C.B. & FUN WORLD STORM SEWER

MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:
05/07/99 PER OWNER
06/10/99 PER CITY
06/15/99 PER CITY
07/02/99 PER CITY

date: 04/16/99
scale: 1"=50'
drawing name: 89201-09
drawn: M.D.W.
checked: J.C.U.

sheet: 9 of 16

project number: 89-201

99 230 EXHIBIT "A"

OFFICE COPY

ALTA/ACSM LAND TITLE SURVEY

PARCEL 1:

LOTS 1, 2, 4, & 5 IN JCP MEADOWS P.U.D., BEING A RESUBDIVISION OF LOT 1 IN JCP MEADOWS SUBDIVISION, IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND THE SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON DECEMBER 18, 1985 AS DOCUMENT NUMBER 85329240 AND CORRECTED BY CERTIFICATE OF CORRECTION RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON AUGUST 11, 1988 AS DOCUMENT NUMBER 88364191 IN COOK COUNTY, ILLINOIS, AND ALSO LOT 1 AND OUTLOT "A" IN MTM RESUBDIVISION BEING A RESUBDIVISION OF LOT 3 AND OUTLOT "A" IN JCP MEADOWS P.U.D. IN THE SOUTHWEST QUARTER (1/4) OF SECTION 9 AND SOUTHEAST QUARTER (1/4) OF SECTION 8, BOTH IN TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THAT PLAT THEREOF RECORDED IN THE COOK COUNTY RECORDER'S OFFICE ON SEPTEMBER 16, 1993 AS DOCUMENT NUMBER 93742116, ALL IN COOK COUNTY, ILLINOIS, ALSO DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID OUTLOT "A" IN MTM RESUBDIVISION; THENCE ALONG THE BOUNDARY OF SAID OUTLOT "A" NORTH 01°27'05" EAST A DISTANCE OF 929.33 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" NORTH 41°09'16" EAST A DISTANCE OF 608.81 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTHEASTERLY ON A CURVE TO THE RIGHT HAVING A RADIUS OF 2814.79 FEET FOR AN ARC LENGTH OF 203.31 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 44°46'50" EAST A DISTANCE OF 896.30 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 07°01'05" WEST A DISTANCE OF 0.61 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 44°45'05" EAST A DISTANCE OF 398.80 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 57°20'41.9" WEST A DISTANCE OF 248.467 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 30°00'00" WEST A DISTANCE OF 50.00 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 00°00'00" WEST A DISTANCE OF 165.00 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" SOUTH 90°00'00" WEST A DISTANCE OF 829.99 FEET; THENCE CONTINUING ALONG SAID BOUNDARY OF OUTLOT "A" NORTH 88°04'15" WEST A DISTANCE OF 420.41 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM: THAT PART OF LOT 1 IN JCP MEADOWS P.U.D. AND OUTLOT "A" IN MTM RESUBDIVISION, BOTH BEING SUBDIVISIONS IN SECTIONS 8 & 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, LYING EAST OF THE FOLLOWING DESCRIBED LINE; BEGINNING AT A POINT ON THE SOUTH LINE OF SAID OUTLOT "A" IN MTM RESUBDIVISION 319.487 FEET WESTERLY OF THE SOUTHEAST CORNER OF SAID OUTLOT "A"; THENCE NORTH 00°04'45" WEST A DISTANCE OF 699.284 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 31.624 FEET AND HAVING A CHORD WHICH BEARS NORTH 22°34'12.5" EAST; THENCE NORTH 45°13'10" EAST A DISTANCE OF 114.538 FEET TO THE NORTHEASTERLY LINE OF SAID OUTLOT "A".

PARCEL 2:

EASEMENT FOR THE BENEFIT OF PARCEL 1 AFORESAID AND OTHER PROPERTY AS CREATED BY AGREEMENT DATED OCTOBER 18, 1984 AND RECORDED APRIL 30, 1986 AS DOCUMENT B6170066 MADE BY AND BETWEEN CHICAGO TITLE AND TRUST COMPANY, A CORPORATION OF ILLINOIS, AS TRUSTEE UNDER TRUST AGREEMENT DATED NOVEMBER 2, 1970 AND KNOWN AS TRUST NUMBER 56088 TO AMERICAN NATIONAL BANK AND TRUST COMPANY OF CHICAGO, A NATIONAL BANKING ASSOCIATION, AS TRUSTEE UNDER TRUST AGREEMENT DATED JULY 19, 1984 AND KNOWN AS TRUST NUMBER 61717, MEADOWLANDS ASSOCIATES, AN ILLINOIS LIMITED PARTNERSHIP, AND THE CITY OF ROLLING MEADOWS FOR THE CONSTRUCTION, OPERATION, USE, REPAIR, REMOVAL, REPLACEMENT AND MAINTENANCE OF A WATER LINE AND A SANITARY SEWER SYSTEM AND APPURTENANCES THERETO, TOGETHER WITH THE RIGHT OF ACCESS THERETO IN, UPON, ACROSS, OVER AND UNDER A STRIP OF LAND 20.00 FEET IN WIDTH LYING ENTIRELY IN LOT 4 OF 58-62 VENTURE SUBDIVISION, BEING A SUBDIVISION OF PART OF SECTIONS 8 AND 9, TOWNSHIP 41 NORTH , RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PARCEL 3:

EASEMENT FOR THE BENEFIT OF PARCEL 1 AFORESAID AND OTHER PROPERTY AS CREATED BY EASEMENT AGREEMENT BETWEEN CHICAGO TITLE AND TRUST COMPANY, A CORPORATION OF ILLINOIS, AS TRUSTEE UNDER TRUST AGREEMENT DATED NOVEMBER 2, 1970 AND KNOWN AS TRUST NUMBER 56088 AND J.C. PENNEY PROPERTIES, INC., A DELAWARE CORPORATION, DATED DECEMBER 10, 1971 AND RECORDED JANUARY 10, 1972 AS DOCUMENT 21769213 FOR INGRESS AND EGRESS OVER, UPON, AND ACROSS THAT PART OF LOT 4 IN 58-62 VENTURE SUBDIVISION, A SUBDIVISION IN SECTIONS 8 AND 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, SHOWN AS "HATCHED" ON EXHIBIT "B" TO THE AFORESAID EASEMENT AGREEMENT AND DESIGNATED AS "TRUST SITE EASEMENT AREA," ALL IN COOK COUNTY, ILLINOIS.

PARCEL 4:

RECIPROCAL EASEMENTS MADE FOR THE BENEFIT OF PARCEL 1 AND OTHER LAND NOT IN QUESTION OVER PARCEL 1 AND LOTS 2 AND 3 IN JCP MEADOWS SUBDIVISION, FOR EASEMENTS FOR UTILITIES, AND FOR THE PURPOSE OF MAINTAINING, REPAIRING, REPLACING, RELOCATING, AND CONSTRUCTING UTILITIES AS CONTAINED IN DECLARATION MADE BY J.C. PENNEY PROPERTIES, INC., DATED JUNE 1, 1976 AND RECORDED JULY 7, 1976 AS DOCUMENT 23549143, AND THE CONDITIONS, PRIVILEGES AND OBLIGATIONS THEREIN CONTAINED.

PARCEL 5:

EASEMENT FOR INGRESS AND EGRESS FOR VEHICULAR AND PEDESTRIAN TRAFFIC IN AND UPON AND THROUGH THE EASTERLY 15 FEET OF THE ROADWAY DESCRIBED AS EXHIBIT "A" TO THE ROAD WAY CROSS EASEMENT AND MAINTENANCE AND INDEMNITY AGREEMENT DATED JULY 6, 1976 AND RECORDED JULY 7, 1976 AS DOCUMENT NO. 23549145 BY AND BETWEEN MOUNT PROSPECT STATE BANK, AS TRUSTEE UNDER TRUST AGREEMENT DATED AUGUST 1, 1975 AND KNOWN AS TRUST NUMBER 458 AND J.C. PENNEY PROPERTIES, INC., FOR THE BENEFIT OF A PORTION OF PARCEL 1 AFORESAID; WHICH PORTION IS DESCRIBED IN EXHIBIT "C" THERETO ATTACHED TO THE AFOREMENTIONED AGREEMENT, IN COOK COUNTY, ILLINOIS.

PARCEL 6:

THAT PART OF LOT 1 IN JCP MEADOWS, P.U.D. AND OUTLOT "A" IN MTM RESUBDIVISION, BOTH BEING SUBDIVISIONS IN SECTIONS 8 & 9, TOWNSHIP 41 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, LYING EAST OF THE FOLLOWING DESCRIBED LINE; BEGINNING AT A POINT ON THE SOUTH LINE OF SAID OUTLOT "A" IN MTM RESUBDIVISION 319.487 FEET WESTERLY OF THE SOUTHEAST CORNER OF SAID OUTLOT "A"; THENCE NORTH 00°04'45" WEST A DISTANCE OF 699.284 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET, AN ARC DISTANCE OF 31.624 FEET AND HAVING A CHORD WHICH BEARS NORTH 22°34'12.5" EAST. THENCE NORTH 45°13'10" EAST A DISTANCE OF 114.538 FEET TO THE NORTHEASTERLY LINE OF SAID OUTLOT "A".

P.I.N.: 08-08-403-023
P.I.N.: 08-08-403-025
P.I.N.: 08-09-302-016
P.I.N.: 08-09-302-017
P.I.N.: 08-09-302-018
P.I.N.: 08-09-302-020
P.I.N.: 08-09-302-021
P.I.N.: 08-08-403-030
P.I.N.: 08-08-403-031
P.I.N.: 08-09-302-022

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS }
} SS.
COUNTY OF W I L L }

TO: Republic Bank of Chicago,
Chicago Title Insurance Company,
Meadowlands Associates

This is to certify that this map or plat and the survey on which it is based were made (i) in accordance with "Minimum Standard Detail Requirements for ALTA/ACSM and NSPS in 1997, and includes items 2, 3, 4, 6, 8, 10, 11, and 13 of Table A thereof, and (ii) pursuant to the accuracy Standards (as adopted by the ALTA and ACSM and in effect on the date of this certification) of an Urban survey.

Date: February 26 A.D. 1999.

JOSEPH A. SCHUDT & ASSOCIATES

BY: _____
Illinois Professional Land Surveyor No. 3146

MICHAEL G. SHADDUCK 3146 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS EXPIRES OCT. 31

LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- WATER VALVE IN VAULT
- WATER VALVE
- WATER LINE
- FIRE HYDRANT
- STORM SEWER INLET
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- STORM SEWER LINE
- POWER POLE
- TRANSFORMER BOX/PAD
- LIGHT POLE
- TRAFFIC SIGNAL
- HAND HOLE
- AMERITECH TELEPHONE (@T)
- GAS VALVE
- UNDERGROUND TELEPHONE CABLE
- UNDERGROUND ELECTRIC CABLE
- UNDERGROUND GAS LINE
- UNDERGROUND LIGHT CABLE
- OVERHEAD ELECTRIC LINE
- CURB LINE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- SIGN
- FENCE LINE
- DECIDUOUS TREE
- EVERGREEN
- BUSH/HEDGE
- PINE TREES
- (10) NOTES CORRESPONDING TO SCHEDULE B

UTILITY COMPANY OWNERS:

COMED (formerly Commonwealth Edison Company)
Phone No.: 1-800-334-7661

NICOR (formerly Northern Illinois Gas Company)
Phone No.:1-888-642-9727

AMERITECH (formerly Illinois Bell Telephone Company)
Phone No.: (847) 706-7600

CITY OF ROLLING MEADOWS
Phone No.: (847) 394-8500

CITY OF ROLLING MEADOWS (PUBLIC WORKS)
Phone No.: (847) 394-8500

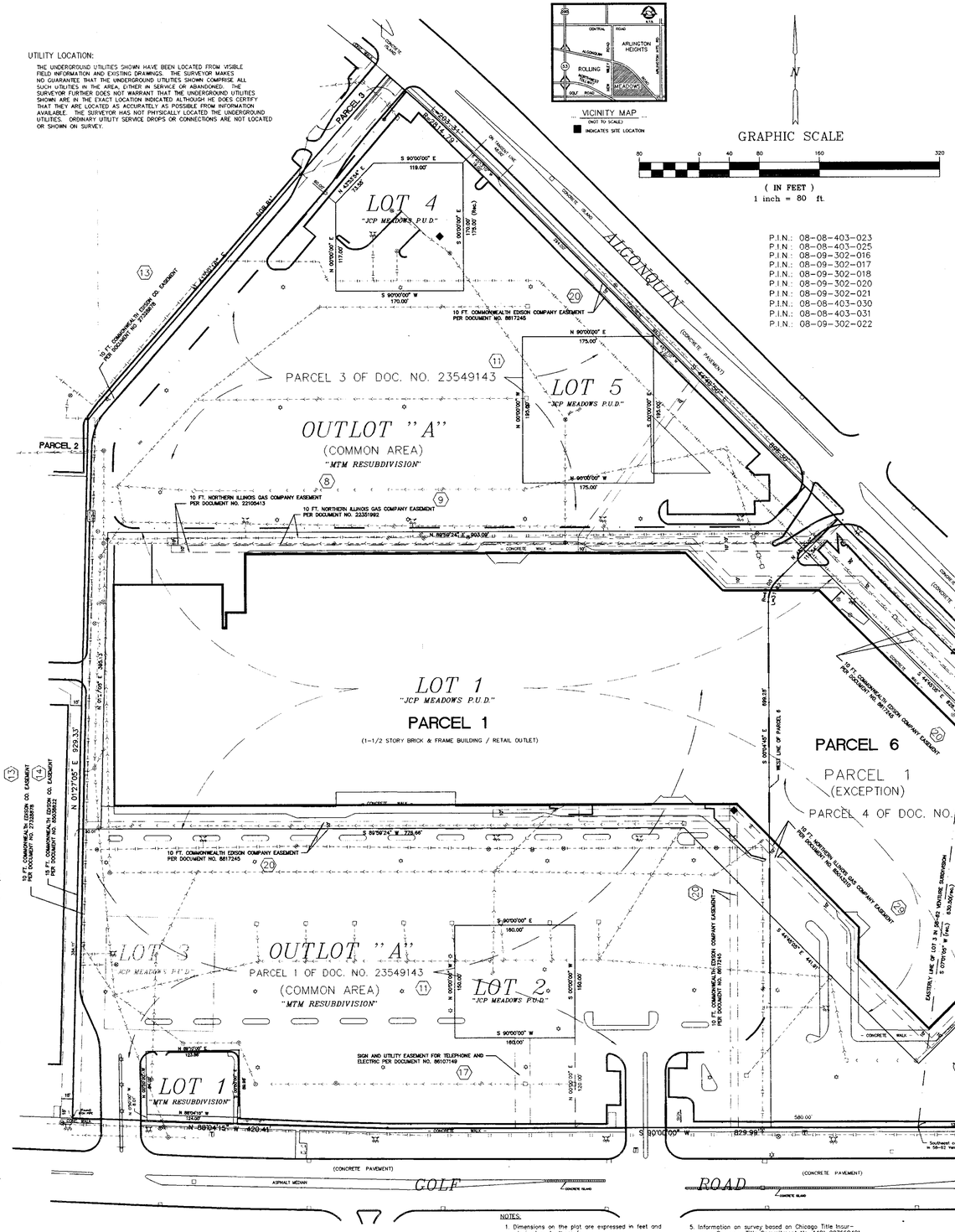
J.U.L.I.E. (Joint Utility Location Information For Excavators)
Phone No.: 1-800-892-0123

UTILITY LOCATION:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ORDINARY UTILITY SERVICE DROPS OR CONNECTIONS ARE NOT LOCATED OR SHOWN ON SURVEY.

VICINITY MAP
(NOT TO SCALE)
INDICATES SITE LOCATION

GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.



99-230

EXHIBIT A

NOTES CORRESPONDING TO SCHEDULE B:

(8) A 10 FOOT EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY J. C. PENNY PROPERTIES, INC. RECORDED NOVEMBER 1, 1972 AS DOCUMENT NO. 22105413 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(9) A 10 FOOT EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY J. C. PENNY PROPERTIES, INC. RECORDED JUNE 7, 1973 AS DOCUMENT NO 22351992 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(11) EASEMENTS FOR UTILITIES OVER PARTS OF THE LAND FOR THE BENEFIT OF THE LAND AND OTHER PROPERTY FOR THE PURPOSE OF INSTALLING, MAINTAINING, REMOVING, REPLACING AND CONSTRUCTING UTILITIES RECORDED JULY 7, 1976 AS DOCUMENT NO 23549143 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL. EASEMENT IS BLANKET IN NATURE.

(12) A MUTUAL AND RECIPROCAL EASEMENT FOR THE PROPOSE OF INGRESS AND EGRESS OF VEHICULAR AND PEDESTRIAN TRAFFIC RECORDED JULY 7, 1976 AS DOCUMENT NO. 23549145 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(13) A 10 FOOT EASEMENT GRANTED TO COMMONWEALTH EDISON COMPANY BY MEADOWLANDS ASSOCIATES RECORDED NOVEMBER 8, 1984 AS DOCUMENT NO. 27328078 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(14) AN EASEMENT GRANTED TO COMMONWEALTH EDISON COMPANY BY AMERICAN NATIONAL BANK & TRUST COMPANY OF CHICAGO RECORDED MAY 29, 1985 AS DOCUMENT NO. 85038822 IS PLOTTED ONLY FOR INFORMATIONAL PURPOSES ONLY FROM AN ILLEGIBLE SKETCH PROVIDED TO SURVEYOR.

(17) A SIGN AND UTILITY EASEMENT FOR TELEPHONE AND ELECTRICAL SERVICE AS CREATED BY MEMORANDUM OF LEASE RECORDED MARCH 19, 1986 AS DOCUMENT NO. 86107149 IS PLOTTED AND SHOWN ON SURVEY TO THE EXTENT POSSIBLE AND PRACTICAL.

(18) AN EASEMENT FOR SEWER AND WATER MAIN PURPOSES GRANTED TO THE CITY OF ROLLING MEADOWS RECORDED APRIL 30, 1986 AS DOCUMENT B6170068 IS NOT PLOTTED OR SHOWN ON SURVEY, DOCUMENT PROVIDED TO SURVEYOR WAS ILLEGIBLE.

(19) AN EASEMENT FOR WATER MAIN PURPOSES GRANTED TO THE CITY OF ROLLING MEADOWS RECORDED 30, 1986 AS DOCUMENT NO. B6170069 IS NOT PLOTTED OR SHOWN ON SURVEY, DOCUMENT PROVIDED TO SURVEYOR WAS ILLEGIBLE.

(20) AN EASEMENT GRANTED TO COMMONWEALTH EDISON BY MEADOWLANDS ASSOCIATES RECORDED MAY 2, 1986 AS DOCUMENT NO. B8174245 IS PLOTTED AND SHOWN ON SURVEY AS AN APPROXIMATE GRAPHIC LOCATION BASED UPON SKETCH IN AFORESAID DOCUMENT AND IS USED ONLY FOR INFORMATIONAL DEPICTION OF SAID EASEMENT.

(21) AGREEMENT AND DECLARATION OF COVENANTS AND EASEMENTS DATED MAY 30, 1986 AS DOCUMENT NO. B8214935 IS NOT PLOTTED OR SHOWN ON SURVEY, THE SKETCH IN DOCUMENT PROVIDED TO THE SURVEYOR IS ILLEGIBLE.

(22) AN EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY RECORDED APRIL 9, 1990 AS DOCUMENT NO. 90160241 IS NOT PLOTTED OR SHOWN ON SURVEY. THE EXHIBIT "A" IN DOCUMENT AFORESAID IS ILLEGIBLE.

(23) A GAS MAIN EASEMENT GRANTED TO NORTHERN ILLINOIS GAS COMPANY BY WESTERN MIDWEST CORPORATION RECORDED JUNE 3, 1985 AS DOCUMENT NO. 85043210 IS PLOTTED AND SHOWN ON SURVEY AS AN APPROXIMATE GRAPHIC LOCATION BASED UPON SKETCH IN AFORESAID DOCUMENT AND IS USED ONLY FOR INFORMATIONAL DEPICTION OF SAID EASEMENT.

FLOOD CERTIFICATION

THIS IS TO CERTIFY THAT WE HAVE EXAMINED COMMUNITY PANEL NUMBER 170055 0005 C EFFECTIVE JUNE 19, 1985, AS ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITH REFERENCE TO THE ABOVE NAMED TRACT AND FIND IT TO BE IN ZONE "C" (NO SHADING) WHICH IS AREAS OF MINIMAL FLOODING.

NOTES:

1. Dimensions on the plat are expressed in feet and decimal parts thereof.
2. Bearings are referred to the Plat of Subdivision of MTM Resubdivision per Document No. 93742116.
3. Property contains: 1,345,306 Sq. Ft. (30.884 Acres), more or less.
4. Zoning Designation: Planned Unit Development.
5. Information on survey based on Chicago Title Insurance Company Title Commitment No. 1401 007669401 D1 dated August 14, 1997.
6. Buildings and related improvements not located or shown on survey per request.
7. Parking, setback, height, density and bulk restrictions are ambiguous and unplottable. (Subject to submittal of site plan to City of Rolling Meadows).

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Joseph A. Schudt & Associates
19350 S. HARLEM AVENUE FRANKFORT, IL 60423
PHONE: 708-720-1000 FAX: 708-720-1065
CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL LAND PLANNING GPS SERVICES

2-26-99
sheet 1 of 1
9859-215

JAS Associates, Inc.
1345 WILEY ROAD SUITE 110 SCHAUMBURG, ILLINOIS 60173
phone: (847)310-9400
fax: (847)310-0087
email: jas1345@ix.netcom.com
Civil Engineers - Surveyors - Land Planners

ALTA/ACSM LAND TITLE SURVEY
MARKETPLACE OF ROLLING MEADOWS
ROLLING MEADOWS, ILLINOIS

revisions:

date: 04/16/99
scale: 1"=80'
drawing name: 89201-02
drawn: M.D.W.
checked: J.C.U.

sheet: 2 of 16

project number: 89-201

Exhibit A

LANDLORD'S DESIGN CRITERIA FOR TENANT'S SIGNS

1. All Tenant identification signage shall be subject to the approval of Landlord. Two copies of detailed sign drawings shall be submitted for approval. Drawings to demonstrate placement of signage on complete building facade and pertinent storefront elevation, including all decals, open signs, etc. on the glazed storefront. Submit plans to Pacifica Rolling Meadows LLC, at 4360 East New York Street, Aurora, Illinois, Attn: Judy Ni.
ANY SIGNAGE THAT DISPLAYS THE NAME OF THE BUSINESS, SERVICES, PRODUCTS, PROMOTIONS, TEMPORARY, ETC. OTHER THAN THE PREVIOUSLY APPROVED SIGNAGE BY LANDLORD NEEDS APPROVAL BY LANDLORD, SHALL NOT EXCEED 25% OR 1/4th OF THE BUSINESS WINDOW, AND SUCH SIGNS SHALL NOT BE DISPLAYED FOR NO MORE THAN 30 DAYS.

2. Tenant shall be limited to Building facade signage only.

3. Tenant signage shall be limited to store name only.

4. Sign permits must be obtained by Tenant.

5. Any damage caused by Tenant's work by signage installation shall be repaired by Landlord and charged to Tenant.

6. Building Facade Signage Design Criteria.

a. Signage will be composed of individually constructed illuminated letters mounted on a continuous wire way painted to match fascia and manufactured to Landlord's specifications. No more than one (1) sign will be permitted on any one tenant façade.

b. Logos and logo panels will be subject to Landlord approval. Signage area should not exceed 8% of the total area of the tenant façade. A corner tenant may have one (1) sign on front elevation and one (1) sign on side elevation.

c. Maximum length of signage shall be 60% of the width of Tenant's demised premises.

d. Maximum height of sign area shall be 2'6". No individual letter height may exceed 2'6". Variations to the aforesaid height limits may be permitted with Landlord's approval. Where 2 lines of letters are utilized, the overall height will remain within the limits of the sign band, but variations may be permitted with Landlord's approval. There must be a minimum of 6" between the two lines of letters. Sign is to be centered on sign facade both vertically and horizontally.

e. On termination of lease, Tenant shall repair damage to building facade caused by its signage installation and fill in holes with same material to match existing finish. Contractor selection, material and methods for repair must be approved in writing by the Landlord in advance of the work.

f. Seven (7) day, calendar-type, time control device shall be provided by Tenant for the control of the illumination of Tenant's sign, storefront and show window lighting during the required hours designated by Landlord.

7. Landlord's Signage Specification.

a. PLASTIC FACED LETTERS MOUNTED ON WIREWAY WITH REMOTE TRANSFORMER.

b. LETTERS

i. Each letter shall be fabricated in channel block or log style having the body of the letter 5" deep. Letter channels and faces shall be formed in exact shape of letters.

ii. Material used for reverse of letter shall be .090 aluminum sheet and shall be cleaned free of oil and grease. This channel will be primed with Matthews 3125-A wash primer or similar type. Two coats of white acrylic polyurethane will be applied. Finished surfaces to be smooth and free of lint and dust.

iii. Letter faces shall be cut from 3/16" flat Rohm and Haas Plexiglas #2283. Lenses to be held to metal channel with trip cap retainer of white held in place with sheet metal screws painted to match trim cap. Each letter to have a 1/2" to 1" white outline on the face. The outline is to be 3M translucent high performance white vinyl.

iv. The sign shall be designed so as not to allow light leaks outside the illuminated letter housing.

v. All signs shall be approved by Landlord prior to fabrication. Landlord's approval of Tenant's plans and specifications shall not be deemed to constitute approval by Landlord of any of Tenant's sign work. Tenant must submit separate Sign drawings and specifications, in quadruplicate, including samples of materials and colors, for all its proposed sign work. The drawings shall clearly show the location of all signs on the storefront elevation drawing, graphics, color and construction and attachment details. Full information regarding electrical load requirements and brightness in foot-candles or foot-lamberts shall also be included. Within a reasonable time after the receipt of such drawings and specifications, Landlord shall return one (1) set thereof to Tenant with its approval and/or any suggested modifications thereof, and if Tenant fails to take exception thereto by written notice to Landlord with ten (10) days from Tenant's receipt of the suggested modifications from Landlord, Tenant shall be deemed to have agreed to and approved all suggested modifications. No sign shall be erected by Tenant except in accordance with Sign drawings bearing Landlord's approval.

c. ILLUMINATION

i. Each letter shall be illuminated within letter channel by double stroke red neon tubing.

ii. Neon tubing shall be formed in the shape of the letter and shall be individually gas filled at 10 M.M. pressure or those pressures which will result in essentially uniform life for each section. Electrodes shall be type 8C as manufactured by Engineering Glass Laboratory of Newark, New Jersey.

iii. Tube supports shall be adjustable type (not less than 3/8" diameter buttress threaded glass posts) in which tubing shall be firmly attached by means of pure annealed copper tie wires, without strain on tubing so supported. Supports shall be fastened to metal letter with stainless steel rivets.

d. WIREWAY

The wire way to be fabricated from .125 aluminum sheet and shall be cleaned free of oil and grease. The wire way to be coated with Matthews 3125-A wash primer or similar type. Two coats of acrylic, polyurethane comparable to Matthews acrylic polyurethane will be applied. Transformer lead wires *only* are to penetrate the brick wall area through 3/8" seal tight or 1/2" conduit with the appropriate connectors at each end. Transformers are to be enclosed in an appropriate metal enclosure and located inside the store area (not in canopy area).

NOTE: Balance of Tenant signage criteria to follow upon final approval of building facade and size as approved by the City of Rolling Meadows. In any event, Tenant's signage shall comply with the City of Rolling Meadows sign ordinances.