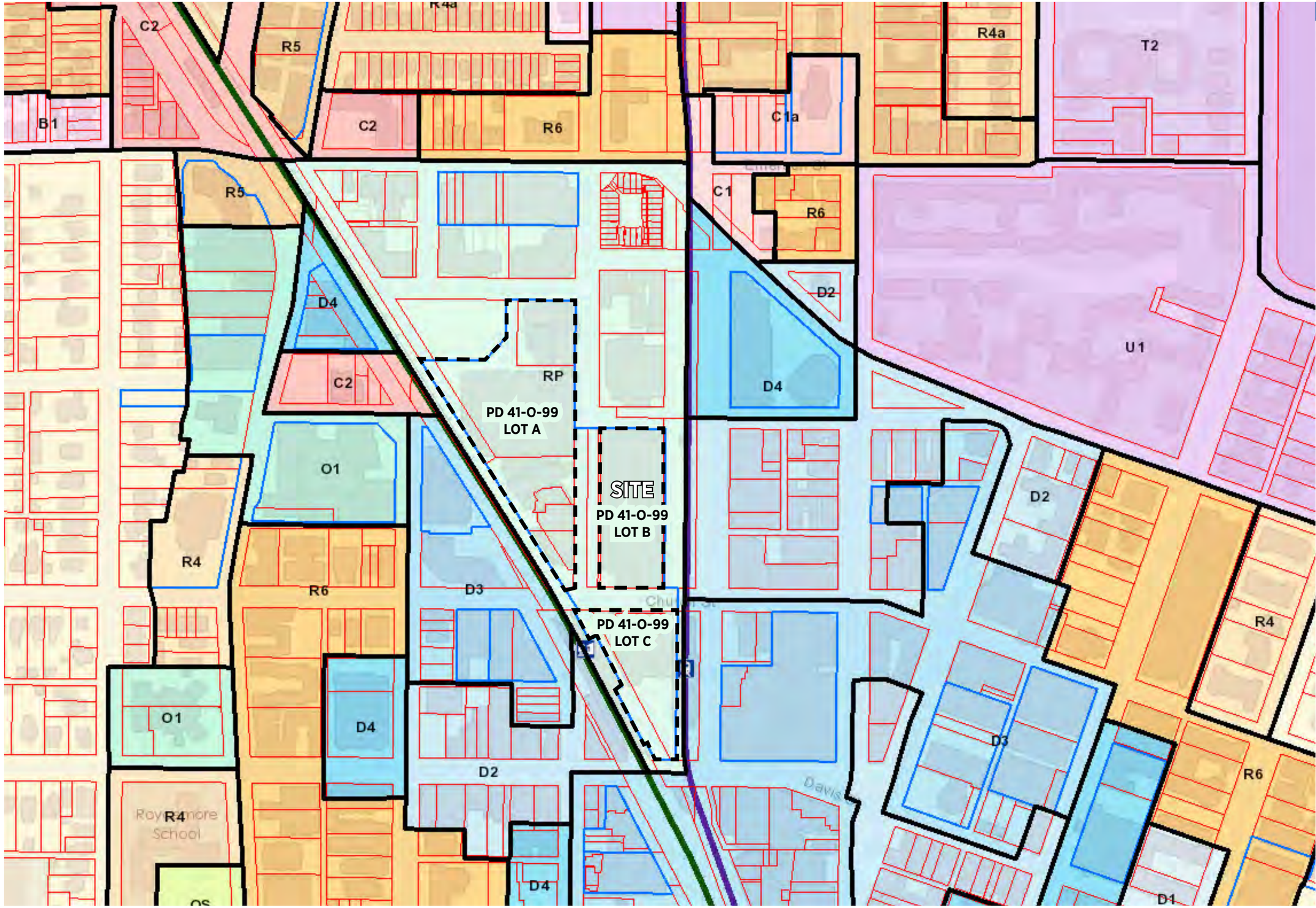
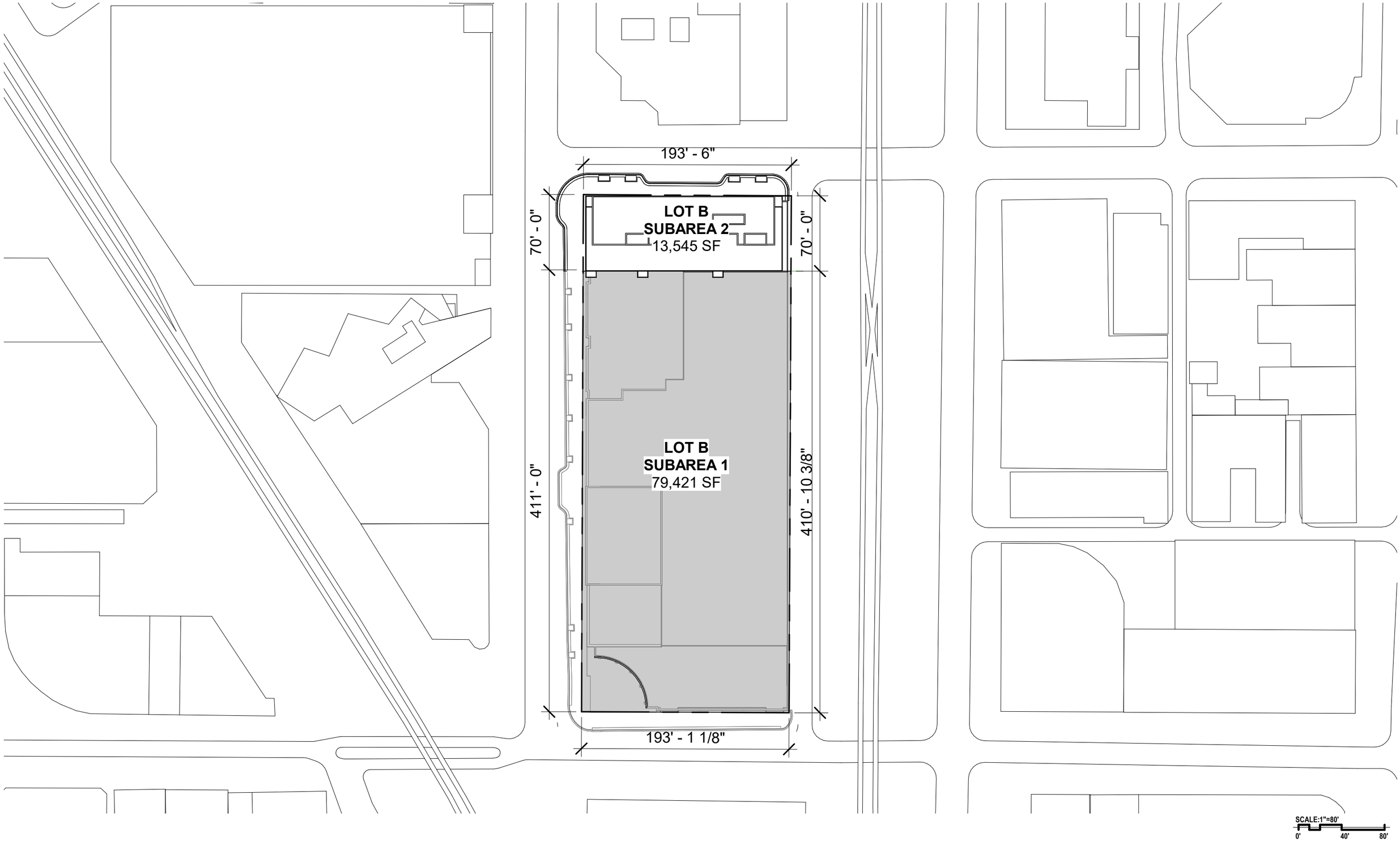
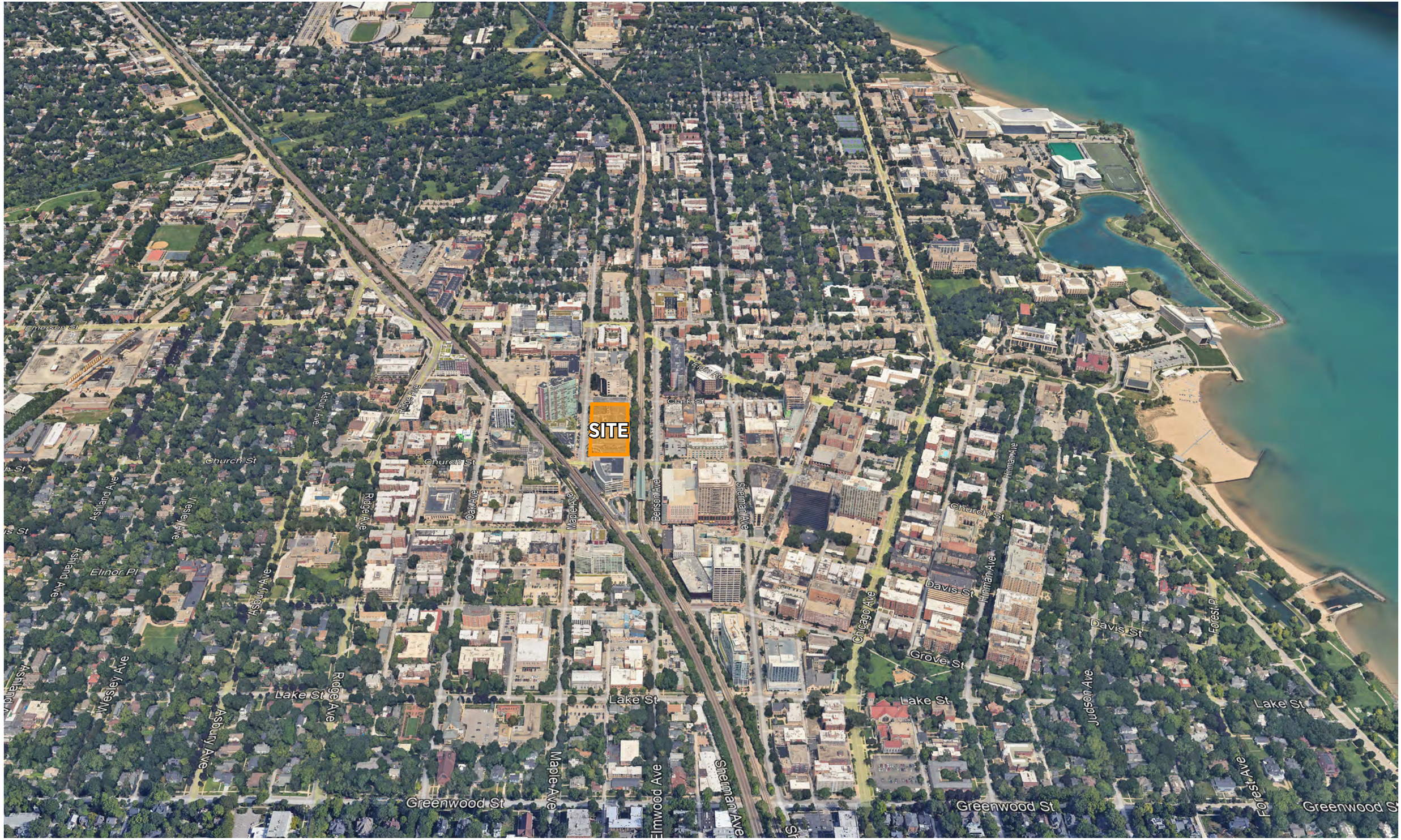

CAFE


C2
R5
R4a
B1
C2
R6
C1a
T2
R5
C1
R6
D4
D2
C2
RP
PD 41-O-99
LOT A
D4
U1
O1
SITE
PD 41-O-99
LOT B
D2
R4
R6
D3
PD 41-O-99
LOT C
R4
O1
D4
D2
D3
R6
R4
D4
D1
Legend
Property Browser
Zoning Boundaries & Labels
Zoning Overlay Districts
oCSC - Central Street Corridor
oDM - Dempster-Main Overlay
oH - Hospital Overlay
oRD - Redevelopment Overlay
oWE- West Evanston Overlay
Federal Historic Districts
Northeast
Ridge
Lakeshore
Oakton
Local Historic Districts
Northeast
Woman's Christian Temperance Union
Ridge
Lakeshore
Planned Developments
TOD Area Parcels
Tax Parcels
CTA Stations
Metra Stations
CTA Train Lines
Purple
Yellow (Skokie Swift)
Metra Union Pacific North Line
Zoning Districts
B1 - Business
B1a - Business
B2 - Business
B3 - Business
C1 - Commercial
C1a - Commercial Mixed-Use
C2 - Commercial
D1 - Downtown Fringe
D2 - Downtown Retail Core
D3 - Downtown Core Development
D4 - Downtown Transition
I1 - Industrial / Office
I2 - General Industrial
I3 - General Industrial
MUE - Transitional Manufacturing-Employment
MXE - Mixed Use Employment
O1 - Office
OS - Open Space
R1 - Single-Family Residential
R2 - Single-Family Residential
R3 - Two-Family Residential
R4 - General Residential
R4a - General Residential
R5 - General Residential
R6 - General Residential
RP - Research Park
T1 - Transitional Campus
T2 - Transitional Campus
U1 - University Housing
U1a - University Housing and Parking
U2 - University Athletic Facilities
U3 - University Lakefront Campus
WE1 - West Evanston Transitional
City Boundary


193' - 6"
70' - 0"
70' - 0"
LOT B
SUBAREA 2
13,545 SF
LOT B
SUBAREA 1
79,421 SF
411' - 0"
410' - 10 3/8"
193' - 1 1/8"
SCALE:1"=80'
0'
40'
80'


SITE
Church St
Ashland Ave
Wesley Ave
Ridge Ave
Asbury Ave
Maple Ave
Benson Ave
Sherman Ave
Chicago Ave
Hinman Ave
Elinor Pl
Lake St
Grove St
Davis St
Judson Ave
Forest Ave
Greenwood St
Elmwood Ave


PROPOSED
RESIDENTIAL
BUILDING
EXISTING
BUILDING
CLARK STREET
CHURCH STREET
cta
DAVIS
MAPLE AVENUE
Metra
DAVIS STREET / EVANSTON


PARKING
CLARK STREET
PROPOSED
RESIDENTIAL
BUILDING
EXISTING
BUILDING
MAPLE AVENUE
BENSON AVENUE
NORTH
CHURCH STREET

VIEW FROM CHURCH STREET LOOKING NORTH

VIEW FROM INTERSECTION OF MAPLE AVENUE AND CHURCH STREET LOOKING NORTHEAST

VIEW FROM INTERSECTION OF MAPLE AVENUE AND CLARK STREET LOOKING SOUTHEAST

VIEW FROM CLARK STREET LOOKING SOUTH


DOWN TOWN
EVANSTON
CHURCH
EVANSTON
HARBOR CAFE


CAFE

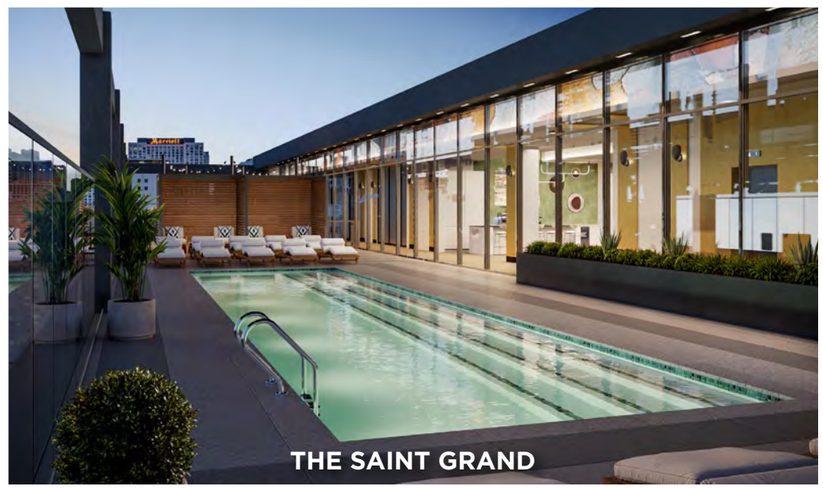

THE LINCOLN COMMON

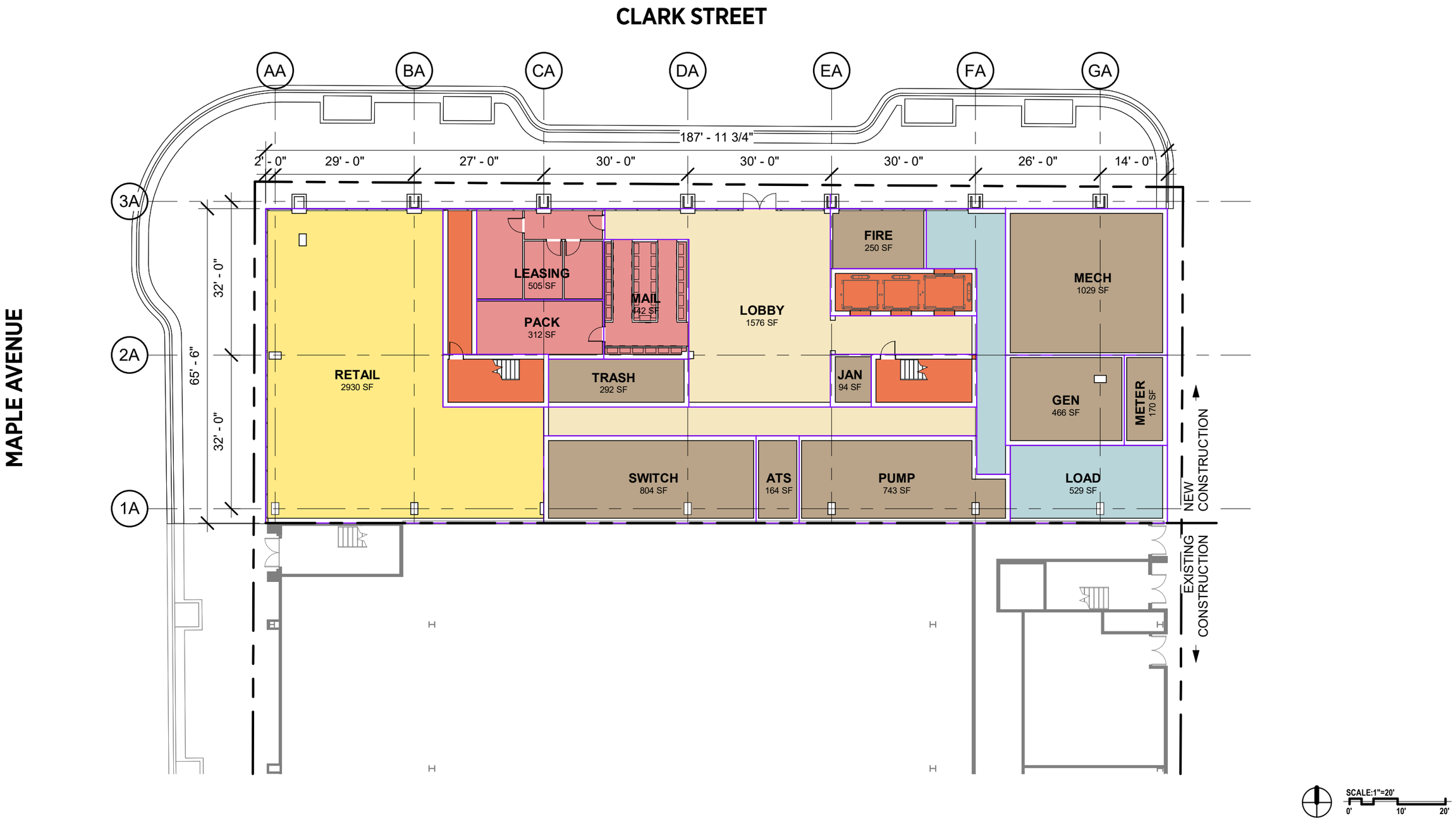

THE LEO


MARLOWE


400 W. HURON


THE SAINT GRAND


THE SAINT GRAND


CLARK STREET
MAPLE AVENUE
AA
BA
CA
DA
EA
FA
GA
3A
2A
1A
187' - 11 3/4"
2' - 0"
29' - 0"
27' - 0"
30' - 0"
30' - 0"
30' - 0"
26' - 0"
14' - 0"
32' - 0"
65' - 6"
32' - 0"
RETAIL
2930 SF
LEASING
505 SF
PACK
312 SF
MAIL
442 SF
TRASH
292 SF
LOBBY
1576 SF
FIRE
250 SF
JAN
94 SF
MECH
1029 SF
GEN
466 SF
METER
170 SF
SWITCH
804 SF
ATS
164 SF
PUMP
743 SF
LOAD
529 SF
NEW CONSTRUCTION
EXISTING CONSTRUCTION
SCALE:1"=20'
0'
10'
20'


AA
BA
CA
DA
EA
FA
GA
176' - 0"
7' - 0"
29' - 0"
27' - 0"
30' - 0"
30' - 0"
30' - 0"
26' - 0"
3A
2A
1A
70' - 0"
32' - 0"
32' - 0"
1-BED
740 SF
STUDIO
454 SF
STUDIO
461 SF
STUDIO
460 SF
CONV
615 SF
CONV
584 SF
1-BED
714 SF
1-BED
754 SF
STUDIO
477 SF
TR
94 SF
MECH
94 SF
1-BED+DEN
877 SF
BIKE
PARKING
3025 SF
2-BED
1147 SF
NEW
CONSTRUCTION
EXISTING
CONSTRUCTION
THEATER B7
THEATER B6
SCALE:1"=20'
0'
10'
20'

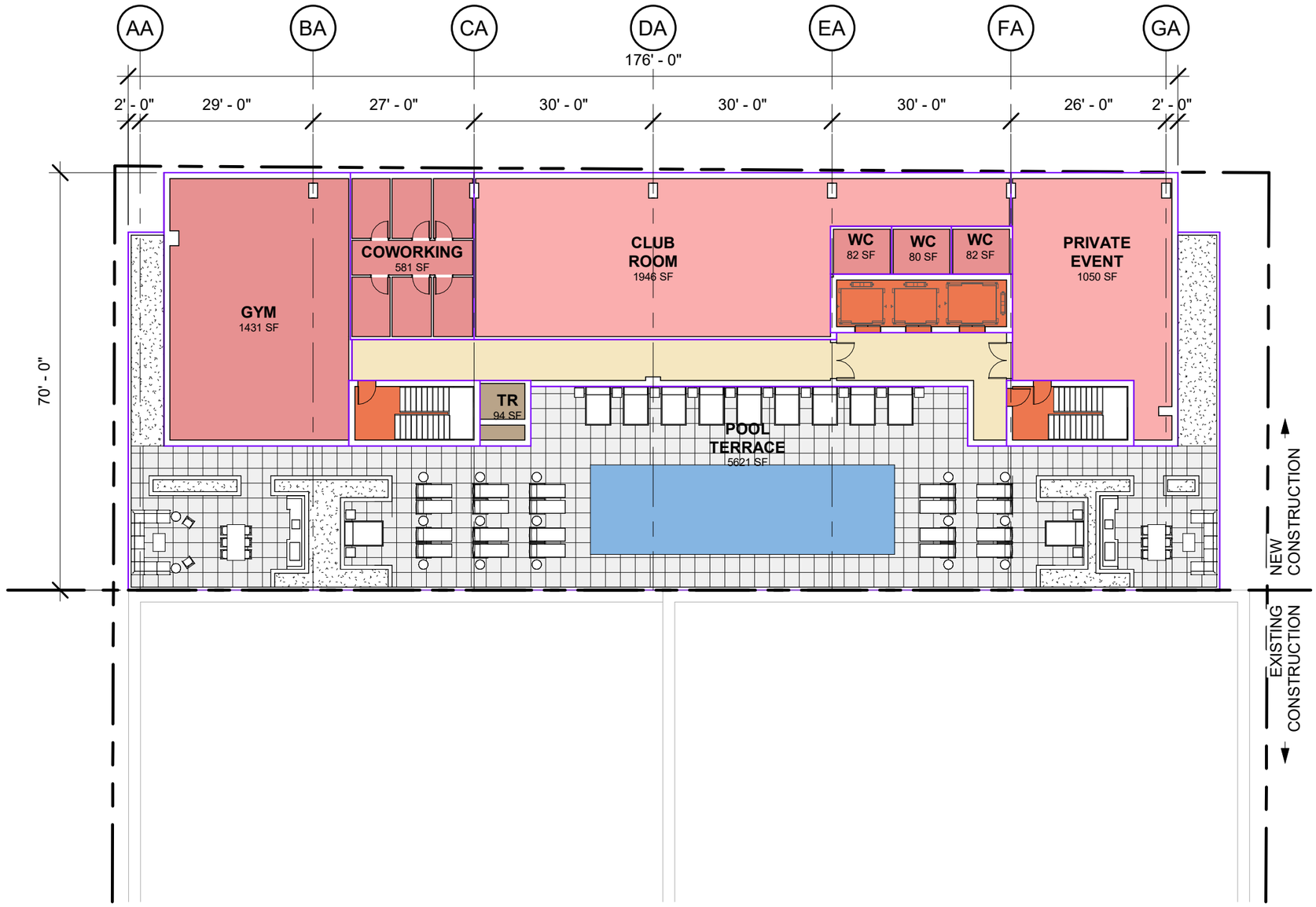
SCALE:1"=20'
0' 10' 20'

SCALE:1"=20'
0' 10' 20'

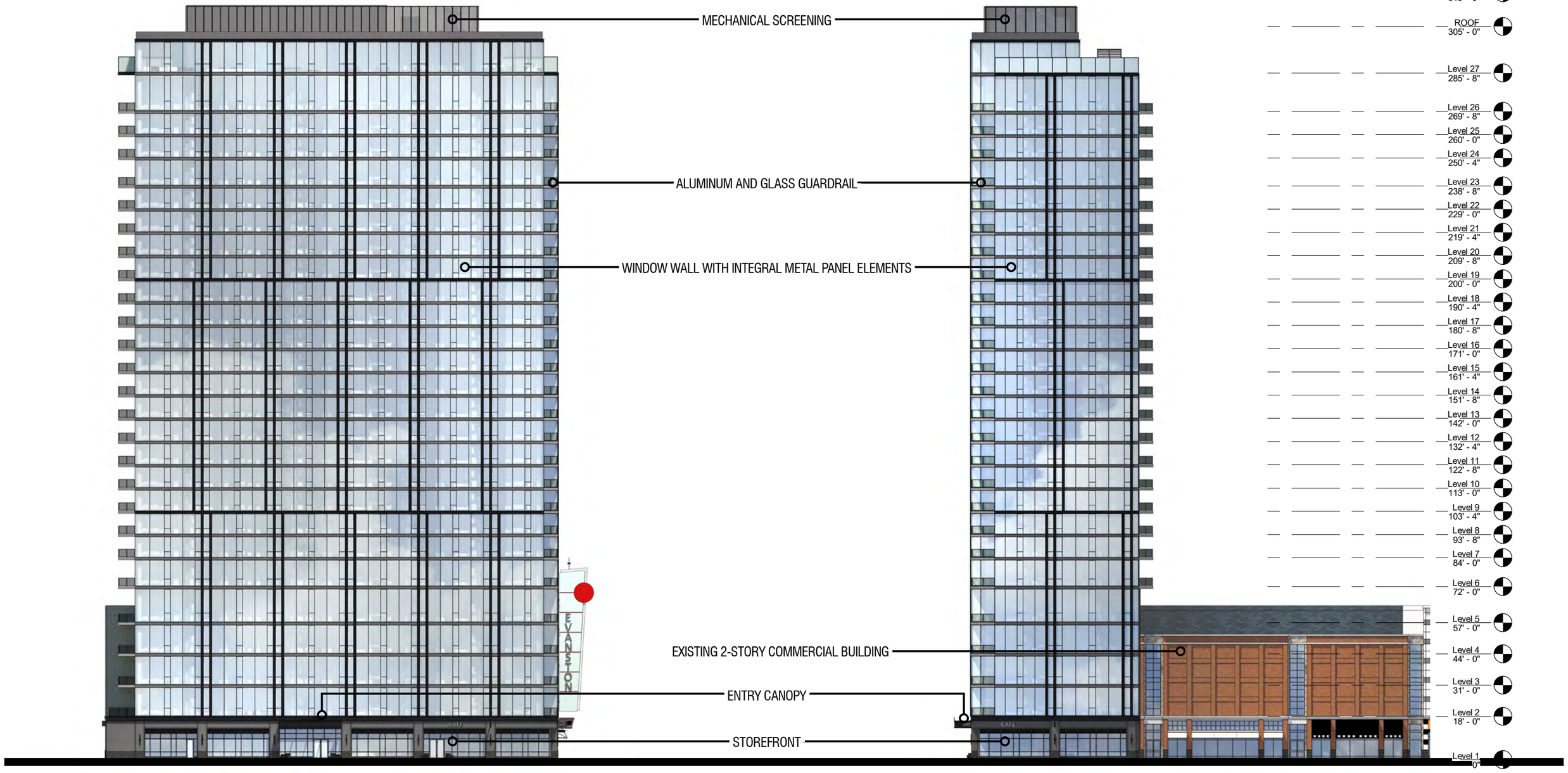
SCALE:1"=20'
0' 10' 20'

SCALE:1"=20'
0' 10' 20'

SCALE:1"=20'
0' 10' 20'



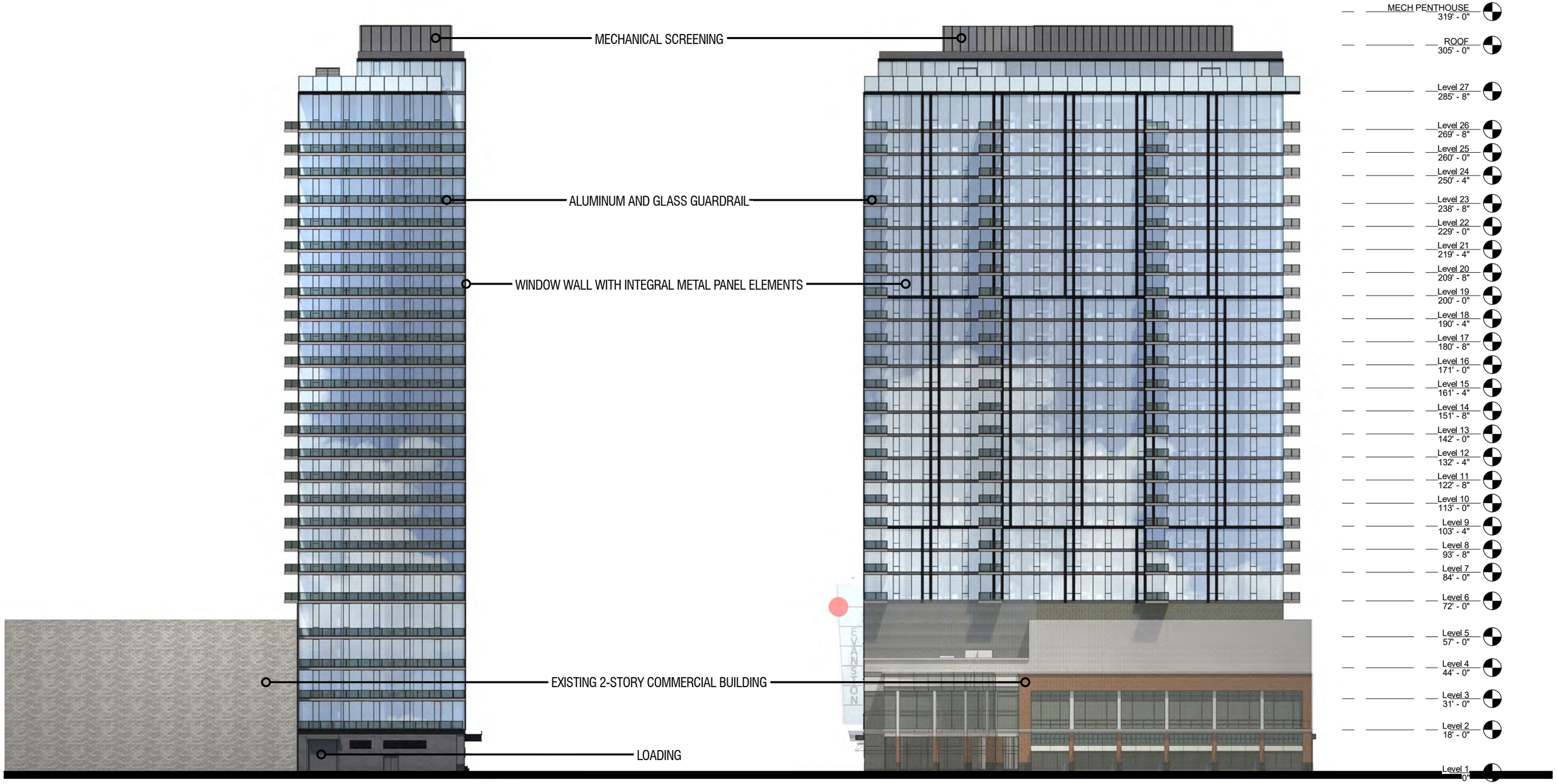
SCALE:1"=20'
0' 10' 20'



NORTH ELEVATION

WEST ELEVATION

SCALE:1"=40'
0' 20' 40'



EAST ELEVATION

SOUTH ELEVATION

SCALE:1"=40'
0' 20' 40'

ROOFTOP AMENITIES:

- CLUB ROOM
- OPEN AIR TERRACE
- POOL DECK
- CO-WORKING
- PRIVATE EVENT SPACE
- FITNESS CENTER

RESIDENTIAL FLOORS:

- PRIVATE TENANT TERRACES
- HIGH-PERFORMANCE GLAZING, LOW-E COATING

LOWER PODIUM AMENITIES:

- BICYCLE ROOM
- DOG RUN
- GOLF SIMULATOR

GROUND FLOOR:

- RESIDENTIAL LOBBY
- COMMERCIAL SPACE SIZED TO COMPLIMENT THE NEIGHBORHOOD

CHURCH STREET PLAZA DEVELOPMENT
Zoning Analysis Application Project Worksheet

	PROPOSED - LOT B - SUBAREA 1 - Existing Theater & Retail							
	Parking / Loading	Dwelling Units	Hallways / Lobby	Elevator / Stairs	Mechanical / Accessory Space	Commercial (Non-Residentail Gross Leasable Area)	Other	Gross Floor Area*
Basement	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1st Floor	(0) Auto stalls Alley Loading	-	6,830		8,200	57,585		64,880
2nd Floor	-	-	8,420			64,610		68,810
Mezzanine	-	-	430			5,650		5,645
3rd Floor								
4th Floor								
5th Floor								
6th Floor								
7th Floor								
8th Floor								
9th Floor								
10th Floor								
11th Floor								
12th Floor								
13th Floor								
14th Floor								
15th Floor								
16th Floor								
17th Floor								
18th Floor								
19th Floor								
20th Floor								
21st Floor								
22nd Floor								
23rd Floor								
24th Floor								
25th Floor								
26th Floor								
27th Floor								
Roof				0				
TOTALS			15,680	0	8,200	127,845	0	139,335

	PROPOSED - LOT B - SUBAREA 2 - Mixed Use Residential Building								
	Parking / Loading	Dwelling Units	Common (Hallways / Leasing / Lobby, etc.)	Vertical Areas (Elevator / Stairs)	Mechanical / Accessory Space	Amenity	Commercial (Non-Residentail Gross Leasable Area)	Residential	Gross Floor Area*
Basement	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1st Floor	529 sf Loading	0	3,995	996	4,012		2,930	0	6,925
2nd Floor	3025 SF Bike Parking	11	1,131	784	187			7,283	8,414
Mezzanine	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3rd Floor		11	4,156	784	187			7,283	11,439
4th Floor		11	4,156	784	187			7,283	11,439
5th Floor		11	1,131	784	187	2,291		7,283	10,705
6th Floor		16	1,014	784	187			10,425	11,439
7th Floor		16	1,014	784	187			10,425	11,439
8th Floor		16	1,014	784	187			10,425	11,439
9th Floor		16	1,014	784	187			10,425	11,439
10th Floor		16	1,014	784	187			10,425	11,439
11th Floor		16	1,014	784	187			10,425	11,439
12th Floor		16	1,014	784	187			10,425	11,439
13th Floor		16	1,014	784	187			10,425	11,439
14th Floor		16	1,014	784	187			10,425	11,439
15th Floor		16	1,014	784	187			10,425	11,439
16th Floor		16	1,014	784	187			10,425	11,439
17th Floor		16	1,014	784	187			10,425	11,439
18th Floor		16	1,014	784	187			10,425	11,439
19th Floor		16	1,014	784	187			10,425	11,439
20th Floor		16	1,014	784	187			10,425	11,439
21st Floor		16	1,014	784	187			10,425	11,439
22nd Floor		16	1,014	784	187			10,425	11,439
23rd Floor		16	1,014	784	187			10,425	11,439
24th Floor		9	979	784	187			10,461	11,440
25th Floor		9	979	784	187			10,461	11,440
26th Floor		8	966	1,008	187			10,251	11,217
27th Floor		0	1,076	777	94	5,253			6,329
Roof		0	0	0	3,000			0	0
TOTALS	3,360	358	36,821	21,597	11,781	7,544	2,930	247,955	295,250

Site Area - Subarea 1	79,421	sf
Site Area - Subarea 2	13,545	sf
Site Area - Lot B Total	92,966	sf
FAR -Lot B - Blended	4.67	

(Gross Floor Area definition from Zoning Analysis Application & Code Section 6-18-3)
*GROSS FLOOR AREA: The sum of areas of all floors of a building measured from the exterior walls or from the center line of walls separating 2 buildings. The gross floor area of a building shall also include but not be limited to: basements, interior balconies and mezzanines, enclosed porches, and attic space finished or unfinished having minimum 5-foot floor to rafters height. The following areas shall be excluded from the calculation of gross floor area: elevator shafts, stairwells, space used solely for heating, cooling, mechanical, electrical and mechanical penthouses, refuse rooms and uses accessory to the building, off-street parking and loading.

CHURCH STREET PLAZA DEVELOPMENT
Zoning Analysis Application Unit Mix

UNIT MIX																													
LEVEL	STUDIO						CONVERTIBLE				1 BED						1 BED + DEN			2 BED						3 BED			4 BED
	STUDIO (1)	STUDIO (2)	STUDIO (3)	STUDIO (4)	STUDIO (5)	STUDIO (6)	CONV. (1)	CONV. (2)	CONV. (3)	CONV. (4)	1 BED (1)	1 BED (2)	1 BED (3)	1 BED (4)	1 BED (5)	1 BED (6)	1 BED + DEN (1)	1 BED + DEN (2)	1 BED + DEN (3)	2 BED (1)	2 BED (2)	2 BED (3)	2 BED (4)	2 BED (5)	2 BED (6)	3 BED (1)	3 BED (2)	3 BED (3)	4 BED (1)
Roof																													
27																													
26																		951 sf	862 sf		1,165 sf	1,197 sf		1,114 sf		1,383 sf		1,471 sf	2,108 sf
25																		951 sf	862 sf		1,165 sf	1,197 sf	1,263 sf	1,114 sf	1,100 sf	1,383 sf	1,426 sf		
24																		951 sf	862 sf		1,165 sf	1,197 sf	1,263 sf	1,114 sf	1,100 sf	1,383 sf	1,426 sf		
23	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
22	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
21	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
20	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
19	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
18	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
17	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
16	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
15	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
14	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
13	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
12	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
11	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
10	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
9	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
8	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
7	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
6	477 sf	454 sf	461 sf	461 sf	461 sf	461 sf			564 sf	562 sf	740 sf	714 sf	754 sf	719 sf	774 sf	829 sf	859 sf			1,136 sf									
5	477 sf	454 sf	461 sf	461 sf			615 sf	584 sf			740 sf	714 sf	754 sf				877 sf			1,147 sf									
4	477 sf	454 sf	461 sf	461 sf			615 sf	584 sf			740 sf	714 sf	754 sf				877 sf			1,147 sf									
3	477 sf	454 sf	461 sf	461 sf			615 sf	584 sf			740 sf	714 sf	754 sf				877 sf			1,147 sf									
2	477 sf	454 sf	461 sf	461 sf			615 sf	584 sf			740 sf	714 sf	754 sf				877 sf			1,147 sf									
1																													
	22	22	22	22	18	18	4	4	18	18	22	22	22	18	18	18	22	3	3	22	3	3	2	3	2	3	2	1	1
TOTAL	124 Studio Units						44 Convertible Units				120 1-Bed Units						28 1-Bed + Den Units			35 2-Bed Units						6 3-Bed Units			1 4-Bed Unit
	358 Units																												

SUSTAINABILITY:

- Three Green Globes Certification to be targeted
- Project design is anticipating the language of the Illinois Stretch Energy Code currently being written, and plans to voluntarily meet and exceed the standards likely to be implemented. All in-unit fixtures will be fully electric including cooktops, dryers and ovens.
- Project will engage ComEd to participate in their energy efficient program.
- White “Cool Roof”, green roof and permeable surfacing utilized to decrease urban heat island effect
- High-efficiency heating, ventilation and air conditioning systems.
- Energy Star kitchen appliances.
- Water saving plumbing fixtures.
- 100% LED lighting fixtures.
- This site was selected due to its ideal location in proximity to public transportation and it’s ability to only utilize parking spaces in an existing parking garage.
- Promotion of bicycle use by residents.
- Public Transportation virtual screen in lobby will advertise live train and bus times for residents’ convenience.

Preliminary Engineering
for

CHURCH STREET PLAZA NORTH

900 CLARK STREET
CITY OF EVANSTON, ILLINOIS

STANDARD SYMBOLS

06-01-16

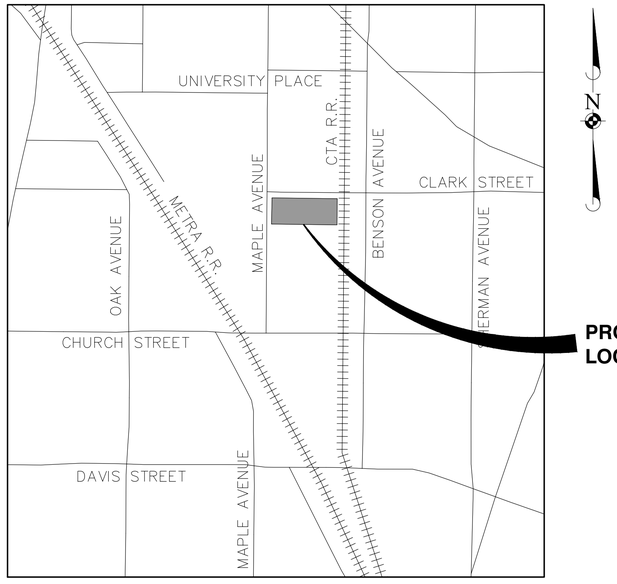
EXISTING		PROPOSED
	STORM SEWER	
	SANITARY SEWER	
	COMBINED SEWER	
FM	FORCEMAIN	FM
	DRAINTILE	
W	WATER MAIN	W
E	ELECTRIC	E
G	GAS	G
T	TELEPHONE	T
OH	OVERHEAD WIRES	OH
	SANITARY MANHOLE	
	STORM MANHOLE	
	CATCH BASIN	
	STORM INLET	
	CLEANOUT	
	HAY BALES	
	RIP RAP	
	VALVE IN VAULT	
	VALVE IN BOX	
	FIRE HYDRANT	
	BUFFALO BOX	
	FLARED END SECTION	
	STREET LIGHT	
	SUMMIT / LOW POINT	S/C
795.20 / 790.25	RIM ELEVATION / INVERT ELEVATION	795.25 / 790.20
	DITCH OR SWALE	
	DIRECTION OF FLOW	
	OVERFLOW RELIEF SWALE	
764	1 FOOT CONTOURS	764
	CURB AND GUTTER	
	DEPRESSED CURB AND GUTTER	
	REVERSE CURB AND GUTTER	
	SIDEWALK	
	DETECTABLE WARNINGS	
	PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	MAIL BOX	
	SIGN	
	TRAFFIC SIGNAL	
	POWER POLE	
	GUY WIRE	
	GAS VALVE	
	HANDHOLE	
E / T	ELECTRICAL EQUIPMENT	
	TELEPHONE EQUIPMENT	
	CHAIN-LINK FENCE	
200.00	SPOT ELEVATION	792.8 C
	BRUSH/TREE LINE	
16"	DECIDUOUS TREE WITH TRUNK DIA. IN INCHES (TBR)	16"
25'	CONIFEROUS TREE WITH HEIGHT IN FEET (TBR)	25'
S	SILT FENCE	S
	RETAINING WALL	
	WETLAND	

ABBREVIATIONS

06-01-16

ADJ	ADJUST
AGG.	AGGREGATE
ARCH	ARCHITECT
B.A.M.	BITUMINOUS AGGREGATE MIXTURE
B-B	BACK TO BACK
B/C	BACK OF CURB
B/P	BOTTOM OF PIPE
B/W	BACK OF WALK
B-BOX	BUFFALO BOX
BIT.	BITUMINOUS
BM	BENCHMARK
B.O.	BY OTHERS
C.E.	COMMERCIAL ENTRANCE
CB	CATCH BASIN
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
CNTRL	CONTROL
CO	CLEANOUT
CONC.	CONCRETE
CY	CUBIC YARD
D	DITCH
DIA.	DIAMETER
DIP	DUCTILE IRON PIPE
DIWM	DUCTILE IRON WATER MAIN
DS	DOWNSPOUT
DT	DRAIN TILE
E	ELECTRIC
E-E	EDGE TO EDGE
ELEV.	ELEVATION
E/P	EDGE OF PAVEMENT
EX.	EXISTING
F.O.	FIELD ENTRANCE
F-F	FACE TO FACE
F.F.	FINISHED FLOOR
FES	FLARED END SECTION
F/L	FLOW LINE
FM	FORCE MAIN
G	GROUND
G/F	GRADE AT FOUNDATION
GW	GUY WIRE
HDWL	HEADWALL
HH	HANDHOLE
HWL	HIGH WATER LEVEL
HYD	HYDRANT
INL	INLET
INV	INVERT
IP	IRON PIPE
L.T	LEFT
MAX.	MAXIMUM
MB	MAILBOX
M/E	MEET EXISTING
MH	MANHOLE
MIN.	MINIMUM
NWL	NORMAL WATER LEVEL
P.E.	PRIVATE ENTRANCE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
ℙ	PROPERTY LINE
PP	POWER POLE
PROP.	PROPOSED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
P	PAVEMENT
P.U.D.E.	PUBLIC UTILITY & DRAINAGE EASEMENT
R	RADIUS
R.O.W.	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
REM	REMOVAL
REV	REVERSE
RR	RAILROAD
RT	RIGHT
SAN	SANITARY
SF	SQUARE FOOT
SHLD.	SHOULDER
SL	STREET LIGHT
SMH	SANITARY MANHOLE
ST	STORM
STA.	STATION
STD	STANDARD
SW	SIDEWALK
SY	SQUARE YARDS
TBR	TO BE REMOVED
T	TELEPHONE
T-A	TYPE A
T/C	TOP OF CURB
T/F	TOP OF FOUNDATION
T/P	TOP OF PIPE
T/W	TOP OF WALK
T/WALL	TOP OF WALL
TEMP	TEMPORARY
TRANS	TRANSFORMER
V.B.	VALVE BOX
VCP	VITRIFIED CLAY PIPE
V.V.	VALVE VAULT
WL	WATER LEVEL
WM	WATER MAIN

MANHARD CONSULTING IS NOT RESPONSIBLE FOR THE SAFETY OF ANY PARTY AT OR ON THE CONSTRUCTION SITE. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF PERSONS ENGAGED IN THE WORK OR THE MEANS OR METHODS OF CONSTRUCTION.



LOCATION MAP
N.T.S.

INDEX OF SHEETS

NOTE:

THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY MANHARD CONSULTING ON OCTOBER 11, 2024. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.

BENCHMARKS:

REFERENCE BENCHMARK: (CITY OF EVANSTON BM#52)
NGS 3D MONUMENT LOCATED E. END OF ARNE AND MARY OLDBERG PARK, BETWEEN CLARK STREET AND ELGIN ROAD. 3.5 FEET NORTH AND 2.7 FEET SOUTH OF SIDEWALK, 15.2 FEET SOUTHWEST OF FENCE CORNER.

ELEVATION=17.72 DATUM=CITY OF EVANSTON DATUM

SITE BENCHMARK #1:
CUT SQUARE ON NORTHEAST CORNER OF TRAFFIC SIGNAL HANDHOLE LOCATED APPROXIMATELY 35 FEET NORTHERLY OF THE CENTERLINE OF CLARK STREET AND APPROXIMATELY 238 FEET EASTERLY OF THE CENTERLINE OF MAPLE AVENUE

ELEVATION=19.19 DATUM=CITY OF EVANSTON DATUM

SITE BENCHMARK #2:
NORTHEAST TAG BOLT ON HYDRANT LOCATED APPROXIMATELY 35 FEET NORTHERLY OF THE CENTERLINE OF CLARK STREET AND APPROXIMATELY 33 FEET EASTERLY OF THE CENTERLINE OF MAPLE AVENUE

ELEVATION=22.79 DATUM=CITY OF EVANSTON DATUM

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312.266.1126

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GAS NICOR 300 W TERRA COTTA AVE. CRYSTAL LAKE, IL 60014 (224) 471-9356 CONTACT: KAREY JOHNSON	TELEPHONE ATT (847) 759-5242 EMAIL: G11629@ATT.COM
SEWER CITY OF EVANSTON 2100 RIDGE AVE EVANSTON, IL (847) 448-8220 CONTACT: TIM BARTUS	CABLE COMCAST 688 INDUSTRIAL DRIVE ELMHURST, IL 60126 (224) 229-5862 CONTACT: MARTHA GIERAS

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CHURCH STREET PLAZA NORTH
CITY OF EVANSTON, ILLINOIS
TITLE SHEET

PROJ. MGR.: MJC
PROJ. ASSOC.: CMB
DRAWN BY: MJH
DATE: 12-06-24
SCALE: N.T.S.

SHEET 1 OF 5
ANT.EVIL01

PRELIMINARY ENGINEERING - NOT FOR CONSTRUCTION

December 4, 2024 - 15:07 Dwg Name: P:\Antevil01\Data\Engr\Preliminary\Plan Sets\TITLE SHEET.dwg Updated By: CBeckett

DEMOLITION LEGEND

- BITUMINOUS PAVEMENT TO BE REMOVED (SEE NOTE 5)
- CONCRETE PAVEMENT AND BASE TO BE REMOVED
- BUILDING TO BE REMOVED
- BRICK PAVER AND BASE TO BE REMOVED
- RETAINING WALL, CURB AND GUTTER, TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- UTILITY LINE REMOVAL, FILL OR ABANDONMENT (REFER TO SPECIFICATIONS)
- TREE TO BE REMOVED
- (TBR) TO BE REMOVED
- (TR) TO REMAIN
- SAWCUT LINE

N

0 5 10 20

SCALE: 1"=10'

SITE BENCHMARK #2

SITE BENCHMARK #1

CLARK STREET

MAPLE AVENUE

ALLEY

EXISTING CHURCH STREET PLAZA

DEMO AND REBUILD EXISTING THEATER PORTION (SEE ARCH. PLANS FOR MORE DETAIL)

EXISTING BUILDING

288.50' S89°51'33"W

S00°16'21"E 481.00'

N00°13'32"W 480.86'

MULTI-STORY BRICK AND GLASS BUILDING

APPROXIMATE LOCATION OF MANHOLE PER PLANS NOT FIELD LOCATED

BRICK TO REMAIN. CONTRACTOR TO REPLACE IN KIND IF DEMOLITION IS REQUIRED.

CONCRETE PAVEMENT TO REMAIN. CONTRACTOR TO REPLACE SIDEWALK IN KIND IF DEMOLITION IS REQUIRED.

STRUCTURES TO BE ADJUSTED TO PROPOSED GRADE. CONTRACTOR TO COORDINATE WITH ENGINEER AS NEEDED.

STRUCTURE MAY REQUIRE ADJUSTMENT TO NEW PROPOSED GRADE

SAWCUT PAVEMENT (FULL DEPTH)

SAWCUT CONCRETE (FULL DEPTH)

ADA RAMP TO BE REMOVED AND REPLACED

6" PVC TO BE REMOVED UP TO PROPERTY LINE AND CAPPED

EXISTING CONDITIONS AND DEMOLITION NOTES:

1. EXISTING CONDITIONS AND DEMOLITION PLAN REPRESENT SITE CONDITIONS AS OF OCTOBER 11, 2024. CONTRACTOR SHALL INSPECT SITE PRIOR TO BIDDING WORK TO VERIFY ACTUAL FIELD CONDITIONS AS PORTIONS OF THE DEMOLITION WORK MAY HAVE SINCE BEEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEMOLITION WORK AS PER PLANS TO PREPARE THE SITE FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.
3. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL AND DISPOSAL (IN A LOCATION APPROVED BY ALL JURISDICTIONAL GOVERNING ENTITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, ROAD, PARKING LOTS, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THESE PLANS CAN BE CONSTRUCTED. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES.
5. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FEATURES INDICATED TO REMAIN, THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCEPT FOR MATERIALS DESIGNED TO BE RELOCATED ON THIS PLAN, ALL OTHER CONSTRUCTION MATERIALS SHALL BE NEW.
6. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
8. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED SHALL BE COORDINATED BY THE CONTRACTOR WITH THE AFFECTED UTILITY COMPANY.
9. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES.
10. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION.
11. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPARTMENT AND THE JURISDICTIONAL GOVERNING ENTITY TO PLAN THE PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS AVAILABLE TO THE FACILITY AND SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE JURISDICTIONAL GOVERNING ENTITY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUTS OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
12. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS, HOWEVER IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.
14. THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION WITH THE JURISDICTIONAL GOVERNING ENTITY AND CLIENT TO ENSURE PROTECTION AND MAINTENANCE OF SANITARY SEWER AND WATER UTILITIES AS NECESSARY AND TO PROVIDE STORMWATER CONVEYANCE UNTIL NEW FACILITIES ARE CONSTRUCTED, TESTED AND PLACED INTO OPERATION.
15. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR LOCATION OF EXISTING UTILITIES AND SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
16. BASE COURSE SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND REMOVED AND REPLACED IF RECOMMENDED.

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CHURCH STREET PLAZA NORTH

CITY OF EVANSTON, ILLINOIS

EXISTING CONDITIONS AND DEMOLITION PLAN

PROJ. MGR.: MJC
PROJ. ASSOC.: CMB
DRAWN BY: MJH
DATE: 12-06-24
SCALE: 1"=10'

SHEET 2 OF 5
ANT.EVIL01

PRELIMINARY ENGINEERING - NOT FOR CONSTRUCTION

January 9, 2025 - 14:48 Data Name: P:\Vol4\001\Vol4\Dwg\Preliminary\Plan Set\EXISTING CONDITIONS AND DEMOLITION PLAN.dwg Updated By: cBeshlet

06-01-16

PAVEMENT LEGEND

- HEAVY DUTY PAVEMENT
  REPLACE PAVEMENT IN KIND
- CONCRETE PAVEMENT (ALLEY)
  8" PORTLAND CEMENT CONCRETE PAVEMENT W/ 6 X 6 W1.4 WWF
  4" COMPACTED AGGREGATE BASE, TYPE B
- CONCRETE SIDEWALK
  5" PORTLAND CEMENT CONCRETE
  4" COMPACTED AGGREGATE BASE COURSE, TYPE B
- BRICK PAVER
  ARCH. TO PROVIDE TYPICAL SECTION

NOTE: PAVEMENT DESIGN PROVIDED BY GEOTECHNICAL REPORT

SITE DATA

SITE AREA	18,340 S.F.
NEW BUILDING AREA (1ST FLOOR)	12,420 S.F.
NEW PAVEMENT AREA	1,345 S.F.
NEW SIDEWALK AREA	4,375 S.F.
NEW LANDSCAPE AREA	200 S.F.
PARKING PROVIDED	3 SPACES

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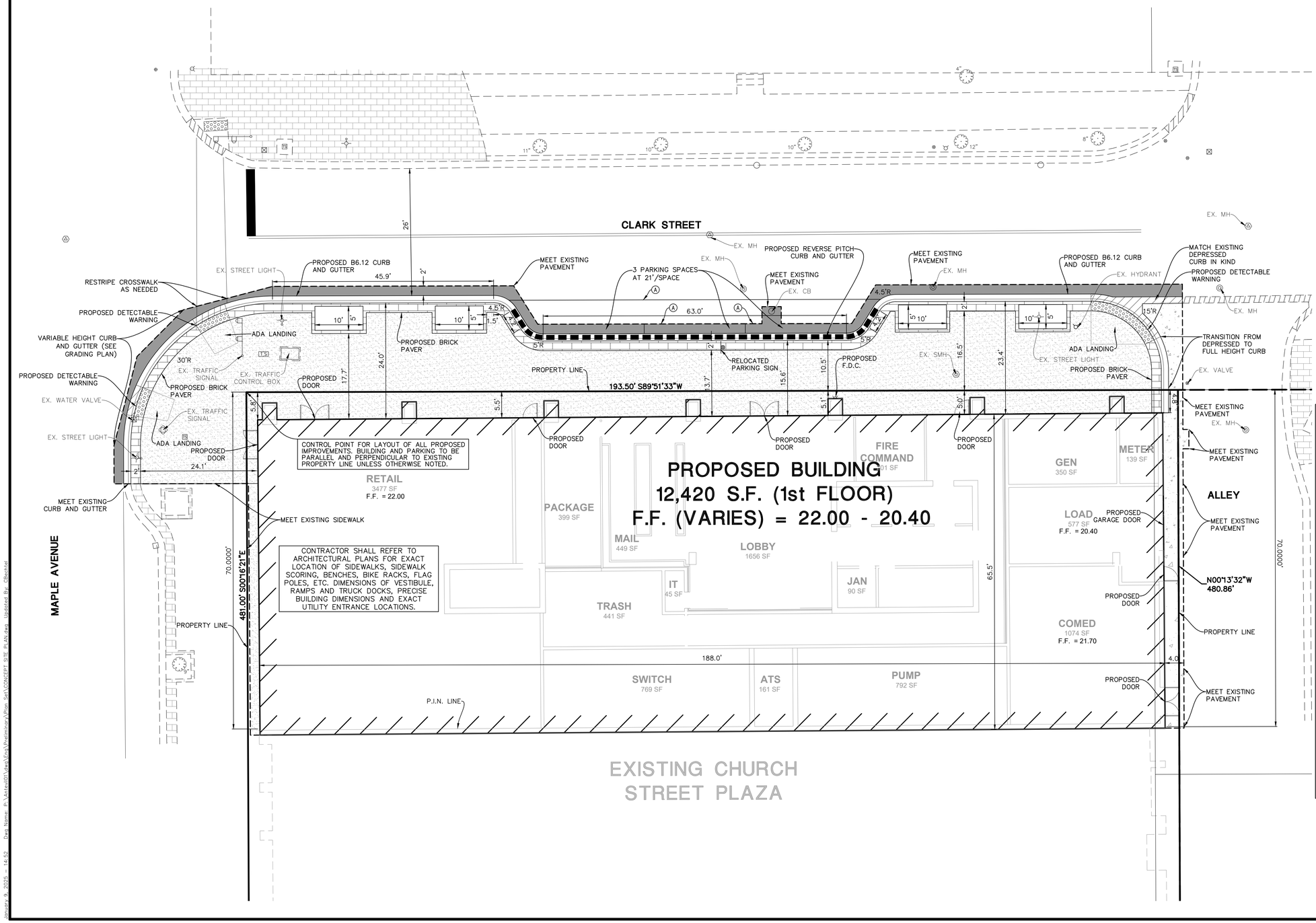
0 5 10 20

SCALE: 1"=10'



PAVEMENT MARKING LEGEND

Ⓐ 6" SOLID WHITE

06-01-16

SITE DIMENSIONAL AND PAVING NOTES:

1. ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB OR BUILDING FOUNDATION UNLESS NOTED OTHERWISE.
2. ALL PROPOSED CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
3. ALL CURB RADII SHALL BE 3' MEASURED TO FACE OF CURB UNLESS NOTED OTHERWISE.
4. TIE ALL PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH 2–#6 BARS x 18" LONG DOWELED INTO EXISTING CURB.
5. BUILDING DIMENSIONS AND ADJACENT PARKING HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. BUILDING DIMENSIONS SHOWN SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT OF BUILDING.
6. IMPROVEMENTS ADJACENT TO BUILDING, IF SHOWN, SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
7. LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAY. CONTRACTOR TO VERIFY ACTUAL BUILDING PLAN LOCATIONS WITH ARCHITECT/DEVELOPER PRIOR TO CONSTRUCTING THE SIDEWALKS.
8. ALL ROADWAY AND PARKING LOT SIGNAGE, STRIPING, SYMBOLS, ETC. SHALL BE IN ACCORDANCE WITH LATEST JURISDICTIONAL GOVERNMENTAL ENTITY DETAILS.
9. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
10. PROVIDE DEPRESSED CURB AND RAMP AT ALL HANDICAP ACCESSIBLE SIDEWALK AND PATH LOCATIONS PER FEDERAL AND STATE STANDARDS.
11. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1–800–892–0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
12. ALL ROADWAY AND PARKING LOT IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, LATEST EDITION.
13. BASE COURSE SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND REMOVED AND REPLACED IF RECOMMENDED.

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CHURCH STREET PLAZA NORTH

CITY OF EVANSTON, ILLINOIS

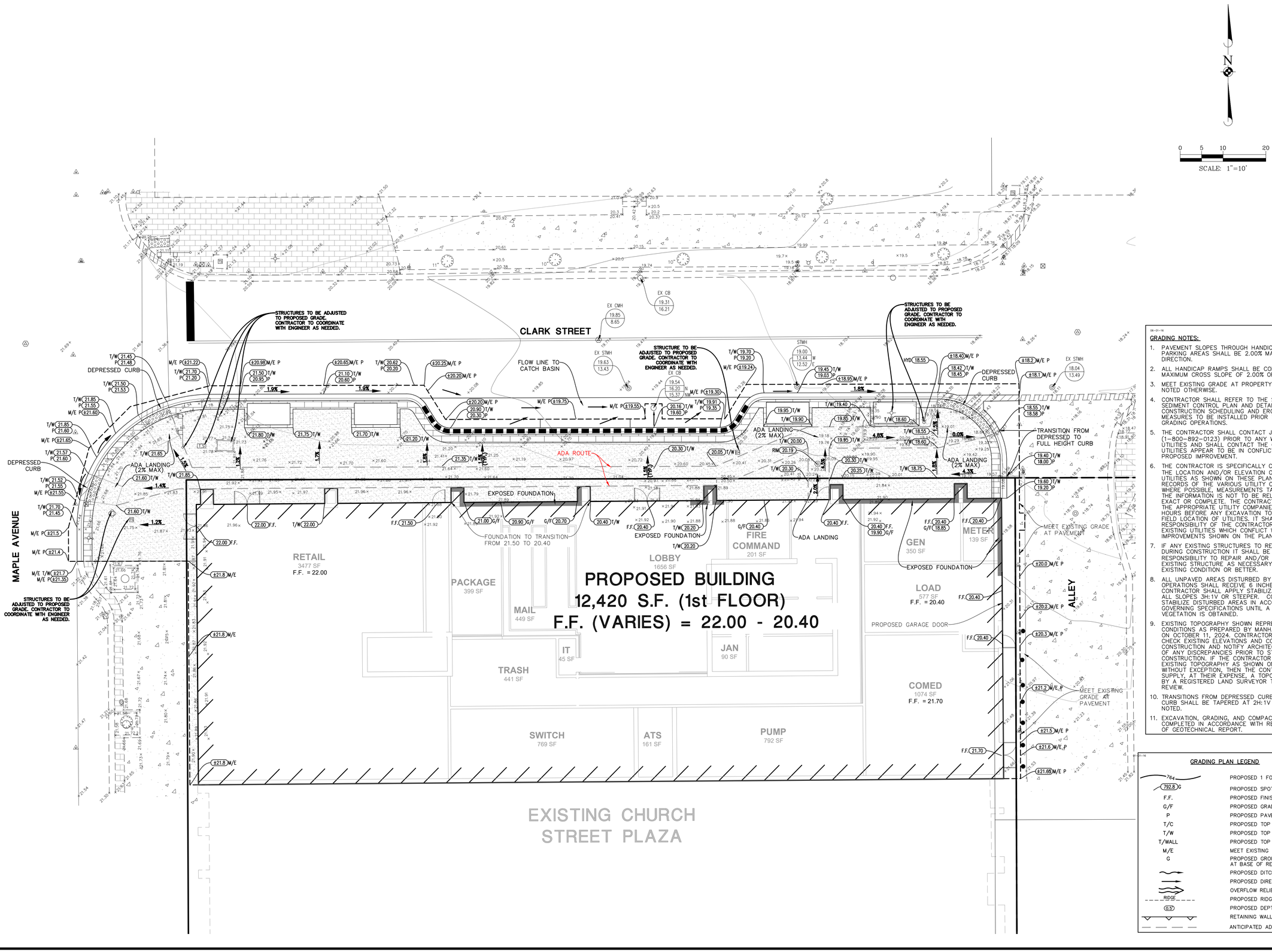
SITE DIMENSIONAL AND PAVING PLAN

PRELIMINARY ENGINEERING - NOT FOR CONSTRUCTION

PROJ. MGR.: MJC
PROJ. ASSOC.: CMB
DRAWN BY: MJH
DATE: 12–06–24
SCALE: 1"=10'

SHEET 3 OF 5
ANT.EVIL01

January 9, 2025 - 14:52 Dwg Name: P:\Active\01\dgn\Dgn\Preliminary\Plan Set\CONCEPT SITE PLAN.dwg Updated By: CBechtel



06-01-16

GRADING NOTES:

1. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
2. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
3. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
4. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
5. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
6. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
7. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
8. ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
9. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING ON OCTOBER 11, 2024. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
10. TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.
11. EXCAVATION, GRADING, AND COMPACTION TO BE COMPLETED IN ACCORDANCE WITH RECOMMENDATIONS OF GEOTECHNICAL REPORT.

06-01-16

GRADING PLAN LEGEND

764	PROPOSED 1 FOOT CONTOURS
792.8 G	PROPOSED SPOT ELEVATION
F.F.	PROPOSED FINISHED FLOOR ELEVATION
G/F	PROPOSED GRADE AT FOUNDATION
P	PROPOSED PAVEMENT ELEVATION
T/C	PROPOSED TOP OF CURB
T/W	PROPOSED TOP OF WALK
T/WALL	PROPOSED TOP OF WALL
M/E	MEET EXISTING
G	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE
	PROPOSED DIRECTION OF FLOW
	OVERFLOW RELIEF SWALE
RIDGE	PROPOSED RIDGE LINE
0.5'	PROPOSED DEPTH OF PONDING
	RETAINING WALL
	ANTICIPATED ADA ROUTE

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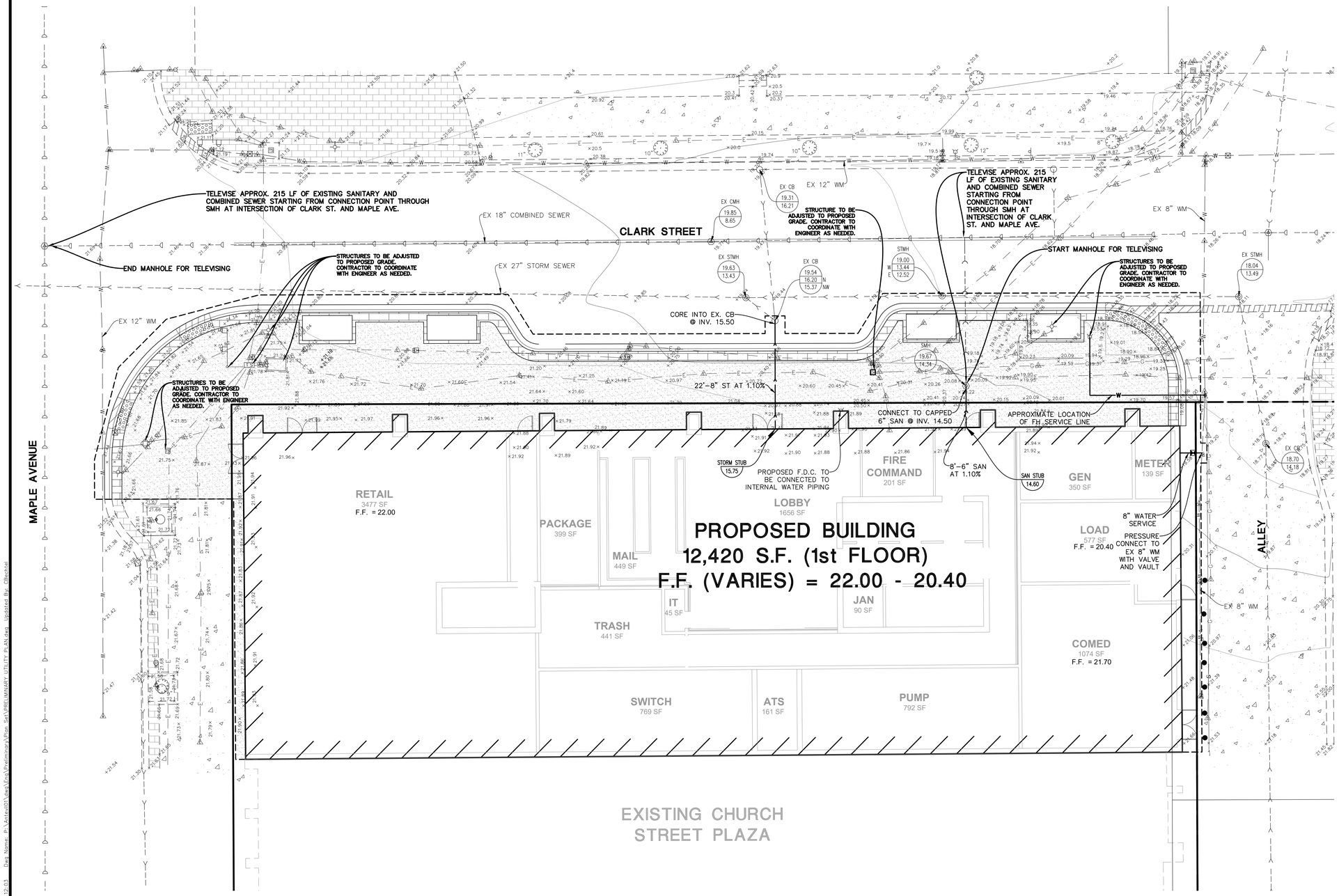
CHURCH STREET PLAZA NORTH
CITY OF EVANSTON, ILLINOIS
GRADING PLAN

PROJ. MGR.: MJC
PROJ. ASSOC.: CMB
DRAWN BY: MJH
DATE: 12-06-24
SCALE: 1"=10'

SHEET 4 OF 5
ANT.EVIL01

PRELIMINARY ENGINEERING - NOT FOR CONSTRUCTION

January 9, 2025 - 15:00 Drawing Name: P:\Active\031\Civil\Engineering\Plan Sets\PRELIMINARY GRADING PLAN.dwg Updated By: rzschichel



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SCALE: 1"=10'

06-01-22

UTILITY NOTES:

1. ALL UTILITY DIMENSIONS ARE TO CENTER OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
2. BUILDING DIMENSIONS AND ADJACENT UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
4. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES IF SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL EXCAVATE AND VERIFY ALL EXISTING SEWER, WATER MAIN AND DRY UTILITY LOCATIONS, SIZES, CONDITIONS & ELEVATIONS AT PROPOSED POINTS OF CONNECTION AND CROSSINGS PRIOR TO ANY UNDERGROUND CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
6. LIGHTING AND UNDERGROUND CABLE IF SHOWN ON PLANS ARE FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS AND DETAILS.
7. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED FINISH GRADES.
8. CONTRACTOR TO VERIFY LOCATION, SIZES, AND ELEVATION OF ALL BUILDING SERVICE LOCATIONS WITH ARCHITECTURAL PLANS.
9. AT LOCATIONS WHERE WATER MAIN CROSSES BENEATH OR LESS THAN 18" ABOVE A SEWER, PROVIDE WATER MAIN PROTECTION PER STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
10. ELEVATIONS GIVEN FOR STORM SEWER STRUCTURES LOCATED IN CURB LINE ARE PAVEMENT ELEVATIONS.
11. ALL WATER MAIN SHALL BE 5'-6" BELOW FINISHED GRADE TO TOP OF MAINS UNLESS NOTED OTHERWISE.
12. ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT ELEVATION OR LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
13. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HERE ON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED.
14. ALL SANITARY AND STORM SEWER LENGTHS SHOWN ARE CENTER OF MANHOLE TO CENTER OF MANHOLE OR STORM MANHOLE TO FES.
15. CONTRACTOR SHALL CORE AND BOOT ALL PIPE ENTRANCES TO EXISTING SANITARY MANHOLES.
16. EXTERNAL CHIMNEY SEALS ARE REQUIRED ON PROPOSED AND ADJUSTED EXISTING SANITARY MANHOLES.
17. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
18. ALL D.I. WATERMAIN PIPE AND D.I. WATERMAIN FITTINGS SHALL BE WRAPPED.
19. ALL UNDERGROUND IMPROVEMENTS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS. IN THE EVENT OF CONFLICTING GUIDELINES, THE MORE RESTRICTIVE SHALL GOVERN.

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Civil Engineers • Water Resource Engineers • Surveyors
Construction Managers • Environmental Scientists • Landscape Architects • Planners

CHURCH STREET PLAZA NORTH
CITY OF EVANSTON, ILLINOIS
UTILITY PLAN

PRELIMINARY ENGINEERING - NOT FOR CONSTRUCTION

PROJ. MGR.: MJC
PROJ. ASSOC.: CMB
DRAWN BY: CMB
DATE: 12-06-24
SCALE: 1"=10'

SHEET 5 OF 5
ANT.EVIL01

Date Name: P:\Kenosha\Civil\Engineering\Preliminary\Plan Set\PRELIMINARY UTILITY PLAN.dwg Updated By: CBechtel
January 9, 2025 - 12:03

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

CLARK STREET

66.00' RIGHT-OF-WAY HERETOFORE DEDICATED

BUILDING CORNER AND BUILDING OVERHANG IS 0.55' S

TRAFFIC CONTROL PANEL BOX

DEPRESSED CURB

BUILDING OVERHANG IS 1.13' S AND 2.61' E

BUILDING CORNER IS 2.09' E

BITUMINOUS PAVEMENT

BUILDING CANOPIES

1 5.44' N

BUILDING CORNER AND BUILDING OVERHANG IS 0.39' SOUTH

1 0.25' N

1 BUILDING CANOPIES ARE 0.25' MINIMUM TO 5.44' MAXIMUM NORTH ON NORTH SIDE OF BUILDING

CONCRETE CURB & GUTTER

PARKING AREA

N 89°51'33" E 193.50'

RAILING

BUILDING CANOPIES

PLANTER

DEPRESSED CURB

CONCRETE

BIKE RACK

BRICK PAVERS

DOOR NO ADDRESS

25.85'

L1

L2

2.65' RAMP

CONCRETE

CONCRETE RAILING

DOOR ADDRESS # 900

61.97'

DOOR ADDRESS # 1765

3 3.41' W

DOOR ADDRESS # 1765

BENCH

BUILDING CANOPIES

BUILDING CORNER IS 0.15' SOUTH

BUILDING CORNER IS 0.32' SOUTH

FOUND CROSS IN BRICK

LANDSCAPE AREA

PARKING AREA

EXISTING TREE TO BE REMOVED, DUE TO CONFLICT WITH CONSTRUCTION
10" HONEY LOCUST

MAPLE AVENUE

80.00'

EXISTING TREE TO BE REMOVED, DUE TO CONFLICT WITH CONSTRUCTION
8" AMERICAN ELM

DOOR NO ADDRESS

CONCRETE CURB & GUTTER

EXISTING TREE TO REMAIN

DOOR ADDRESS # 1755

BUILDING CANOPIES

EXISTING TREE TO REMAIN

BITUMINOUS

BUILDING CORNER IS 0.23' NORTH

25.85'

1.75'

PROPERTY LINE

EXISTING

BUILDING CORNER IS 0.36' NORTH

6 WEST FAC WALL IS 1

CONCRETE

WROUGHT FENCE

CONCRETE

5.00'

DOOR

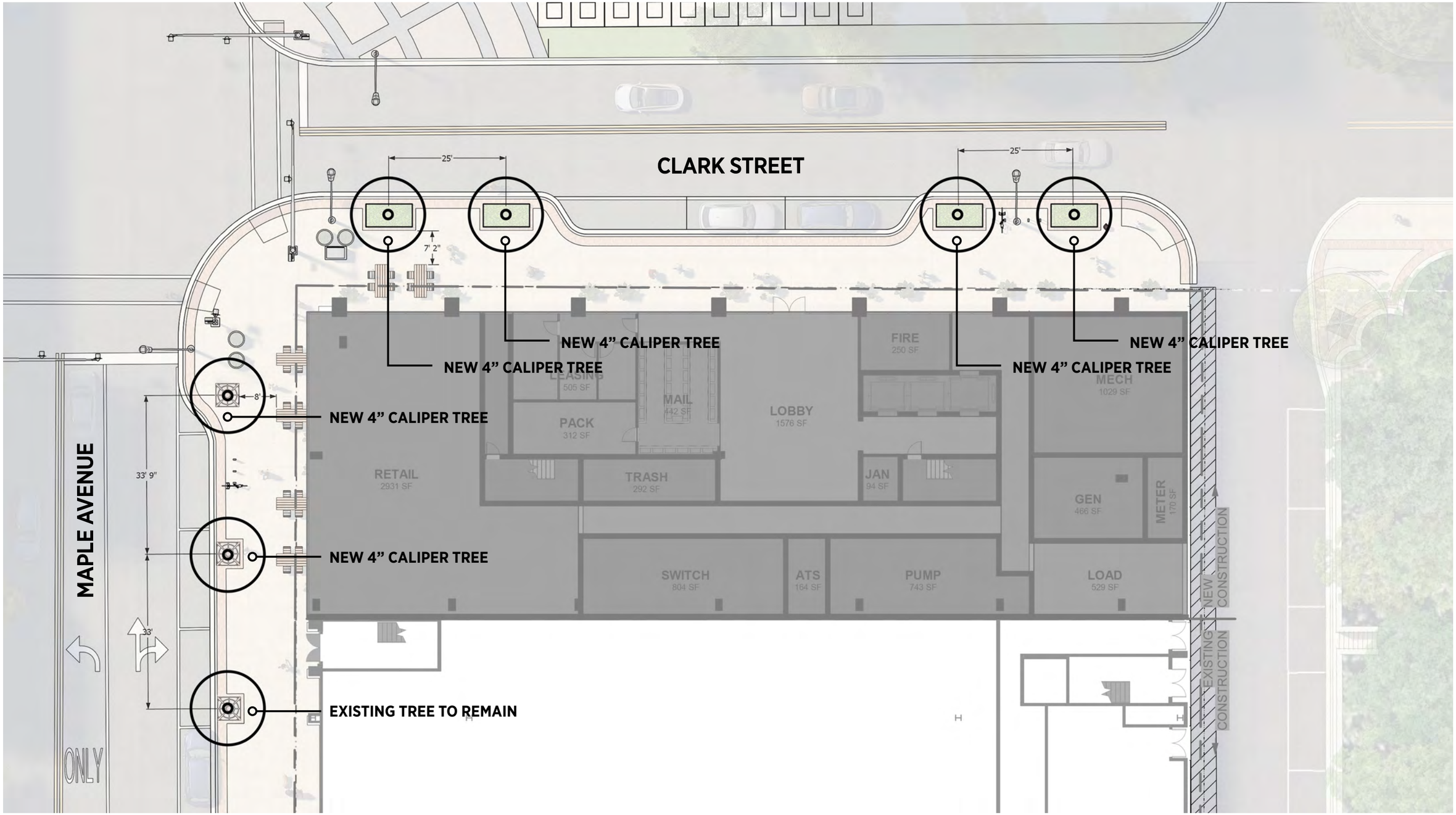
DOOR

DOOR

CONCRETE CURB & GUTTER

RETAINING WALL

SCALE:1"=20'
0' 10' 20'



SCALE:1"=20'
0' 10' 20'


CAFE
CAFE


THE LINCOLN COMMON


THE LINCOLN COMMON


TORONTO, ONT.


HUB AT MADISON

SEATTLE, WA

BALTIMORE, MD

CLARK STREET

14' 8"

14' 8"

8'

1' 9"

19' 7"

3' 2"

PROPOSED CURB

EXISTING CURB
(WHITE DASHED LINE)

MAPLE AVENUE

ONLY

RETAIL
2930 SF

LEASING
505 SF

PACK
312 SF

MAIL
442 SF

LOBBY
1576 SF

FIRE
250 SF

MECH
1029 SF

TRASH
292 SF

JAN
94 SF

GEN
466 SF

METER
170 SF

PROPOSED RESIDENTIAL BUILDING

LOT B
SUB-AREA 2

SWITCH
804 SF

ATS
164 SF

PUMP
743 SF

LOAD
529 SF

NEW CONSTRUCTION

EXISTING CONSTRUCTION

EXISTING BUILDING

LOT B
SUB-AREA 1

SCALE:1"=20'
0' 10' 20'

Traffic Impact Study
Church Street Plaza
Residential Development

Evanston, Illinois

Prepared for:

Continuum Development, LLC

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

January 14, 2025

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Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development located in Evanston, Illinois. The development is to be located along the north end of the Church Street Plaza development which is located on the east side of Maple Avenue between Church Street and Clark Street. To accommodate the development, approximately 23,775 square feet of gross floor area at Church Street Plaza will be removed which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater.

The objective of the traffic study was as follows:

- Determine the existing vehicular, pedestrian, bicycle, and public transportation conditions in the study area to establish existing condition.

- Assess the impact that the proposed development will have on transportation conditions in the area.

- Determine any roadway, access, bicycle, and pedestrian modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Accessibility to and from the area is enhanced by the public transportation and various alternative modes of transportation. The Metra Union Pacific North Line (UP-N) and Chicago Transit Authority (CTA) Rapid Transit Purple Line have stations less than 0.2 miles from the site and several CTA bus routes have stops in the area. In addition, pedestrian facilities including sidewalks and crosswalks are generally provided on all roadways within the area. Barrier-protected bike lanes are provided on Church Street and Davis Street. Car-sharing vehicles are also located within the area.

Vehicle, pedestrian, and bicycle counts were conducted during the weekday morning and evening peak periods in order to determine the general transportation conditions during these time periods. The following intersections were analyzed as part of this study:

- Maple Street with Church Street
- Maple Avenue with the midblock pedestrian crossing
- Maple Avenue with Clark Street and the Maple Avenue parking garage access drive
- Maple Avenue with University Place
- Benson Avenue with Clark Street

The proposed Transit Oriented Development (TOD) will be a mixed-use development containing approximately 358 apartment units with 168 studios, 148 one-bedroom units, 35 two-bedroom units, six three-bedroom units, and one four-bedroom unit and approximately 3,400 square feet of commercial space. Parking for the development will be provided via the City of Evanston Maple Street parking garage located directly west of the site. In addition, the development will provide indoor parking for 179 bicycles.

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

- The volume of new traffic to be generated by the development will be reduced due to (1) the public transportation and alternative modes of transportation serving the area and (2) the fact that the development will be replacing approximately 23,775 square feet of gross floor area at Church Street Plaza which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater.

- Parking for the development will be provided via the Maple Street parking garage located directly west of the site. Primary access to the parking garage is provided via an access drive located on the west side of Maple Avenue aligned opposite Clark Street. The access drive has one inbound lane and three outbound lanes striped for a separate left-turn lane, a shared through/left-turn lane, and a separate right-turn lane. The intersection of Maple Avenue with Clark Street and the parking garage access drive is under traffic signal control. Secondary access to the parking garage is provided via an access road that extends from the south side of University Place to the entrance of the parking garage. The access road provides one lane in each direction with the northbound lane under stop sign control at its intersection with University Place.

- As proposed, the parking along the south side of Clark Street along the frontage of the development is to be eliminated to extend the sidewalk and to provide a dedicated loading zone for three passenger vehicles. The loading zone will be used for short-term drop-off/pick-up of residents, guests, and commercial patrons via private vehicles, taxis, and ride share companies as well as for food deliveries. Loading for all truck deliveries will occur in the loading dock. The three-space loading zone should be sufficient to accommodate the peak demand of the development and is similar to what is provided at other residential developments.

- Access to the loading dock to be located on the east side of the building will be provided via the existing north-south alley that extends between Church Street Plaza and the CTA tracks. All deliveries will be accommodated via the loading dock which is designed for single-unit trucks.

- The existing roadway system has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development. All the intersections within the study area are projected to continue to operate at a good level of service assuming the additional traffic to be generated by the proposed development and the other area growth. As such, no roadway improvements and/or traffic control modifications are required.

- The following summarizes measures to be implemented by the development and/or recommendations to further minimize the impact of the development, foster alternative modes of transportation, and to enhance pedestrian/bicycle safety:

    - The development will provide covered parking for approximately 179 bicycles.

- Parking at the Maple Street parking garage will be an additional cost and is not included in the base unit lease. Charging for parking or unbundling parking costs from unit leases is an effective method to reduce traffic to and from the development as well as reduce the demand for on-site parking.

- Consideration should be given to making transit information available to residents by providing an information kiosk in the leasing office with information on the CTA Purple line, the Metra Pacific North Line, and local bus routes.

- Consideration should be given to replacing the standard style crosswalks with high visibility, ladder style crosswalks at the following intersections:

  - On all four legs of the intersection of Maple Avenue with Clark Street and the Maple Street parking garage access drive.

  - On all four legs of the intersection of Benson Avenue with Clark Street.

- Parking for the development is proposed to be provided via the Maple Avenue parking garage located directly west of the site. If the development is approved, the owners of the development have committed to lease from the City of Evanston a minimum of 79 designated parking spaces within the Maple Avenue parking garage. Further, the City of Evanston has indicated that the Maple Avenue parking garage has sufficient vacancy to accommodate in excess of 125 leased parking spaces for the proposed development. The range of the parking ratios for the proposed development is comparable, particularly the ratios per bedroom, to the parking ratios for several recently approved developments in the City of Evanston.

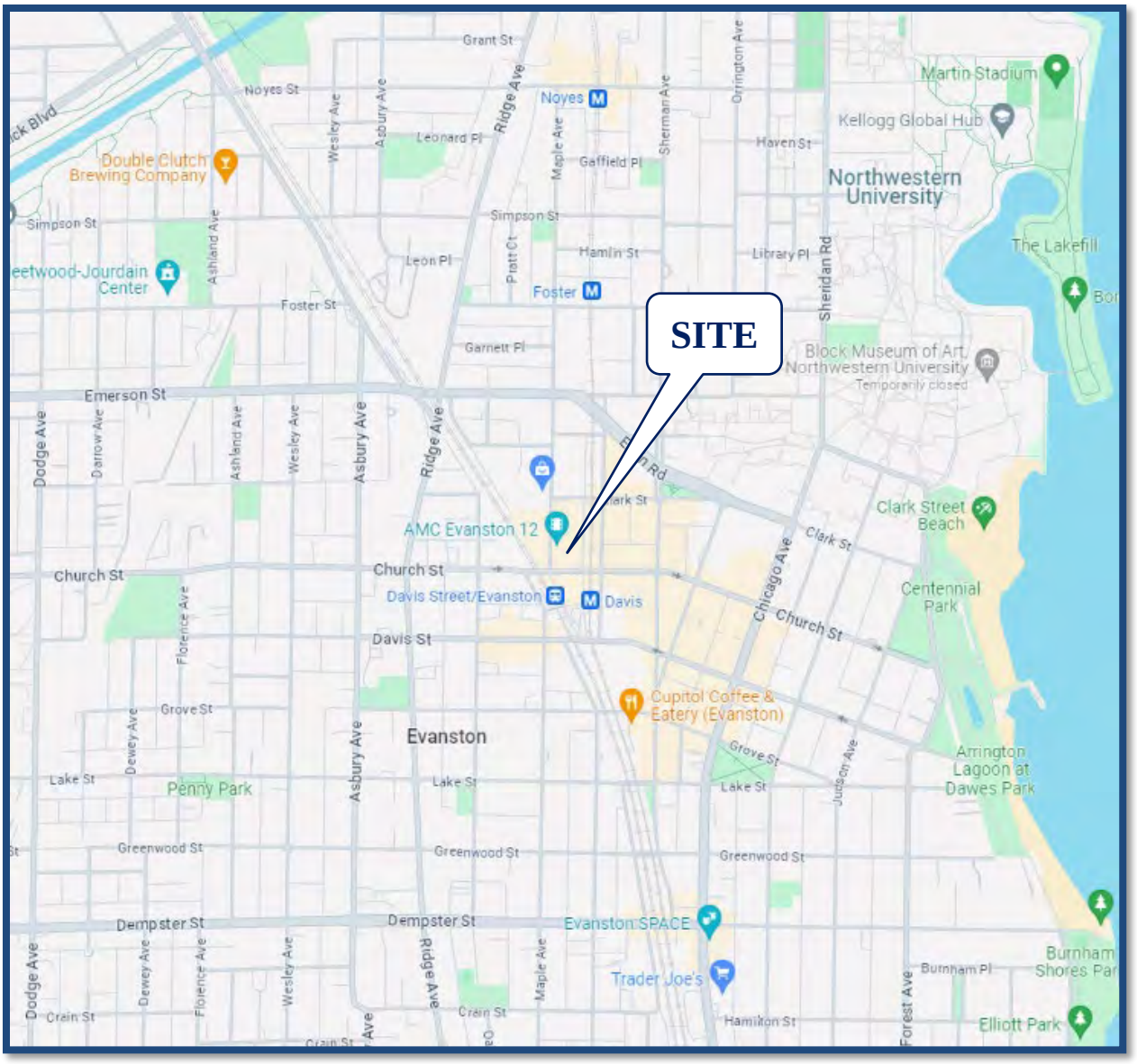
1. Introduction

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development located in Evanston, Illinois. The development is to be located along the north end of the Church Street Plaza development which is located on the east side of Maple Avenue between Church Street and Clark Street. To accommodate the development, approximately 23,775 square feet of gross floor area at Church Street Plaza will be removed which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of Church Street Plaza and the subject site.

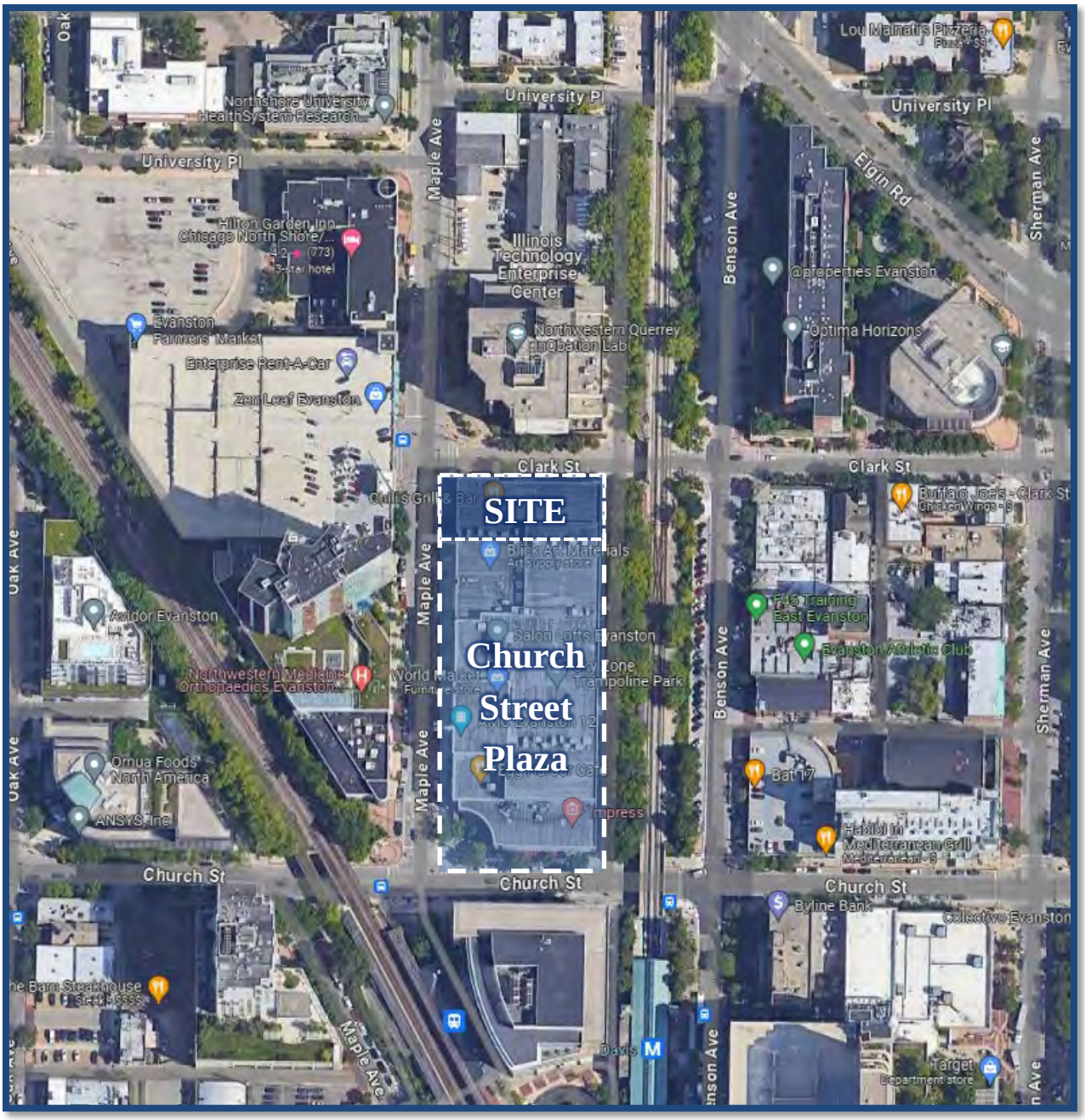
The proposed Transit Oriented Development (TOD) will be a mixed-use development with approximately 358 apartments with 168 studios, 148 one-bedroom units, 35 two-bedroom units, six three-bedroom units, and one four-bedroom unit and approximately 3,400 square feet of commercial space. Parking for the development will be provided via the City of Evanston Maple Street parking garage located directly west of the site. In addition, the development will provide indoor parking for 179 bicycles. As proposed, the parking along the south side of Clark Street along the frontage of the development is to be eliminated to extend the sidewalk and to provide a dedicated loading zone for three passenger vehicles.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development. The sections of this report present the following:

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



Site Location **Figure 1**



Aerial View of Site **Figure 2**

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

1. Year 2024 Existing Conditions – Analyzes the capacity of the existing roadway system using the existing traffic volumes.

2. Year 2030 No-Build Conditions – Analyzes the capacity of the existing roadway system using the existing traffic volumes increased by a regional growth factor and including the traffic to be generated by other proposed and/or approved area developments.

3. Year 2030 Total Projected Conditions – Analyzes the capacity of the projected roadway system assuming projected traffic volumes which include the existing traffic volumes, ambient area growth not attributable to any particular development, the traffic to be generated by other proposed/approved area developments, and the traffic estimated to be generated by the proposed subject development.

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a data base 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 and the public transportation and alternative modes of transportation serving the area.

Site Location

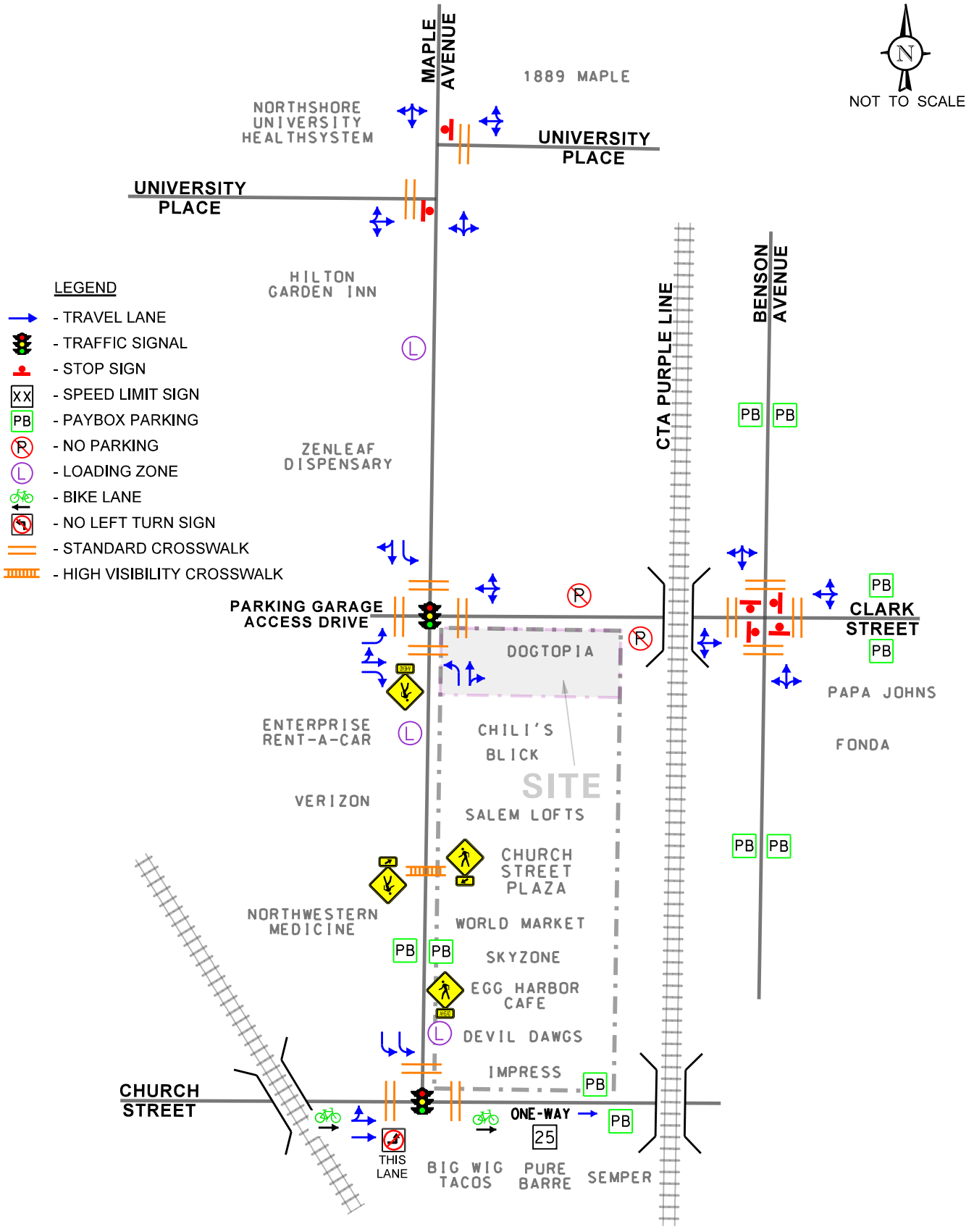
The development is to be located along the north end of the Church Street Plaza development which is located on the east side of Maple Avenue between Church Street and Clark Street. To accommodate the development, approximately 23,775 square feet of gross floor area at Church Street Plaza will be removed which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater. Located within Evanston's central business district, the land uses surrounding the site generally consist of commercial, office, and multi-story residential developments. The City of Evanston Maple Street parking garage is located directly west of the site.

Existing Roadway System Characteristics

The characteristics of the existing roadways within the study area are illustrated in **Figure 3** and described below. All roadways are under the jurisdiction of the City of Evanston unless otherwise stated.

Maple Avenue is a north-south, local road that has one lane in each direction with parking and loading generally permitted on both sides of the road. At its signalized T-intersection with Church Street, Maple Avenue has dual left-turn lanes and a standard-style crosswalk on the southbound approach. At its signalized intersection with Clark Street/parking garage access drive, Maple Avenue has a separate left-turn lane and a shared through/right-turn lane as well as a standard crosswalk on both approaches. At its unsignalized, off-set intersections with University Place, Maple Avenue has single-lane approaches. In addition, a mid-block crosswalk with a high visibility, ladder style crosswalk and pedestrian warning signs is located on Maple Avenue approximately halfway between Clark Street and Church Street.

Benson Avenue is a north-south, local road that has one lane in each direction with parking and loading generally permitted on both sides of the road north of Clark Street and prohibited on both sides of the road south of Clark Street. At its all-way stop sign controlled intersection with Clark Street, Benson Avenue has single-lane approaches with standard style crosswalks on both legs of the intersection.



Church Street Plaza
Residential Development
Evanston, Illinois

Existing Roadway Characteristics

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

Job No: 24-174 Figure: 3

Church Street is generally a one-way eastbound road that has two eastbound vehicle lanes, a barrier-protected eastbound bike lane on the north side of the road, and parking and loading generally permitted on both sides of the road. At its signalized intersection with Maple Avenue, Church Street has a through lane and a shared through/right-turn lane on the eastbound approach. Both the east and west legs of the intersection provide standard style crosswalks. Church Street is classified as a major collector road and carries an average annual daily traffic (AADT) volume of 7,600 vehicles (Illinois Department of Transportation [IDOT] 2023).

Clark Street is generally an east-west, local road that has one lane in each direction with parking and loading generally permitted on both sides of the road. At its signalized intersection with Maple Avenue, Clark Street is aligned opposite the Maple Street parking garage access drive and has a single-lane approach with a standard style crosswalk. The Maple Street parking garage access drive has a separate left-turn lane, a shared through/left-turn lane, and a separate right-turn lane with a standard style crosswalk. At its all-way stop sign controlled intersection with Benson Avenue, Clark Street has single-lane approaches with standard style crosswalks on both legs of the intersection.

University Place is an east-west, local road that has an off-set intersection with Maple Avenue and provides one lane in each direction with parking generally prohibited on both sides of the road. At unsignalized intersections with Maple Avenue, University Place has single-lane approaches that are under stop sign control. In addition, standard style crosswalks are provided on both legs of University Place at its intersections with Maple Avenue.

Alternative Modes of Transportation

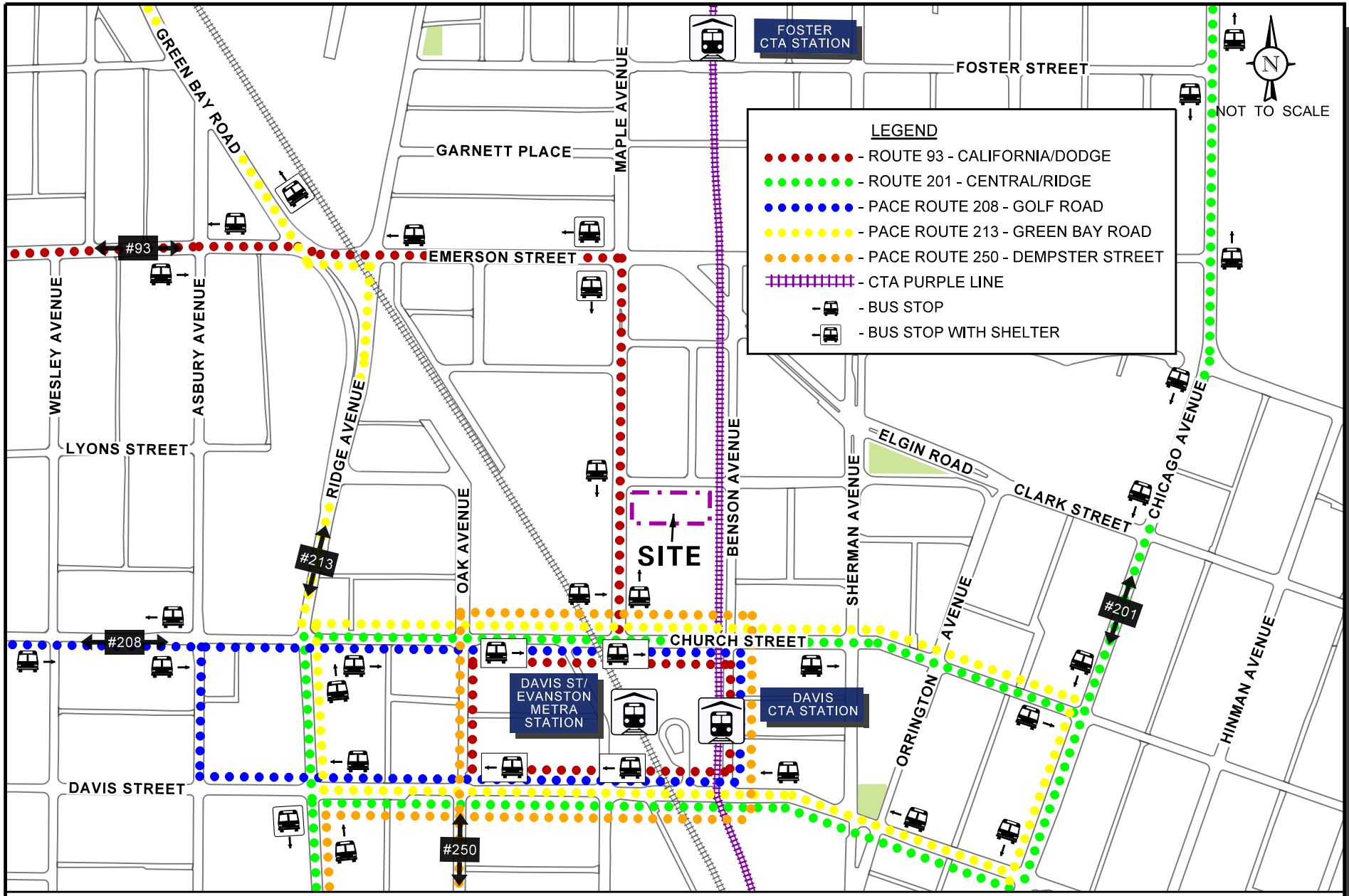
Accessibility to and from the Evanston central business district is enhanced by the alternative modes of transportation serving the area as summarized below.

Public Transportation. The area is served by several modes of public transportation including Metra commuter rail, CTA rapid transit service, and several bus lines.

The following summarizes the rail lines providing service to the area:

- The *Metra Union Pacific/North Line (UP-N)* has a local stop at Benson Avenue just north of Davis Street, which is located approximately 0.1 miles or a three-minute walk north of the site. This line provides daily service between Ogilvie Transportation Center in Chicago and Kenosha, Wisconsin.

- The *CTA Purple Transit Line* has a local stop at Benson Avenue, which is located approximately 0.2 miles or a four-minute walk north of the site. This line provides daily service between the Linden station in Wilmette and the Howard station on the border of Chicago and Evanston. In addition, weekday peak period express service is provided between the Howard station and downtown Chicago.



Church Street Plaza
Residential Development
Evanston, Illinois

Public Transportation

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

Job No: 24-174

Figure: 4

The following bus routes serve the immediate area with bus stops located between 0.1 to 0.3 miles or a one- to eight-minute walk from the site:

- *Route 208 (Golf)* generally runs along Golf Road between the Davis Street CTA station and Woodfield Mall. Service is provided weekdays and Saturdays.

- *Route 213 (Green Bay Road)* generally runs along Chicago Avenue and Green Bay Road between the Howard Street CTA station and downtown Highland Park with a stop at the Davis Street CTA station. Service is provided on weekdays and Saturdays.

- *Route 201 (Dempster and Dempster Pulse Line)* generally runs along Dempster Street between the Davis Street CTA station and O'Hare Airport and Old Orchard Mall. Service is provided seven days a week.

Non-Motorized Transportation Systems. Most of the roads within the immediate area have sidewalks on both sides of the road. Standard style crosswalks are generally provided on all approaches under traffic signal or stop sign control in the study area. In addition, countdown pedestrian traffic signals are provided at the intersection of Maple Avenue with Church Street and Maple Avenue with Clark Street and the parking garage access drive. In addition, a mid-block crosswalk with a high visibility, ladder style crosswalk with pedestrian warning signs is located on Maple Avenue approximately halfway between Clark Street and Church Street.

According to the City of Evanston's Area Bike Map, Maple Avenue, Church Street, and Davis Street are designated bike routes. In addition, Davis Street and Church Street provide barrier-protected bike lanes within the vicinity of the site.

Divvy Bike Share System. One Divvy bike share station is located within 0.2 miles of the site at the Benson Avenue and Church Street intersection and contains 12 bike docks.

Car-Sharing Transportation Availability. Multiple car-sharing services serve the area.

Existing Traffic Volumes

In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. performed peak period transportation counts at the following intersections:

- Maple Avenue with Church Street
- Maple Avenue with the midblock pedestrian crossing
- Maple Avenue with Clark Street and the Maple Street parking garage access drive
- Maple Avenue with University Place
- Benson Avenue with Clark Street

All the traffic counts were conducted during the weekday morning (7:00 A.M. to 9:00 A.M.) and evening (4:00 P.M. to 6:00 P.M.) peak periods on Thursday, July 11, 2024. The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 8:00 A.M. to 9:00 A.M. and the weekday evening peak hour of traffic occurs from 4:45 P.M. to 5:45 P.M. **Figure 5** illustrates the Year 2024 existing peak hour traffic volumes and **Figure 6** illustrates the existing pedestrian and bicycle peak hour volumes. Copies of the traffic count summary sheets are included in the Appendix.

Crash Analysis

KLOA, Inc. obtained crash data[1] from IDOT for the most recent available five years (2019 to 2023) for the four intersections within the study area. The crash data at the Maple Avenue with Church Street intersection is summarized in **Table 1.** The following summarizes the number of crashes at the other intersections:

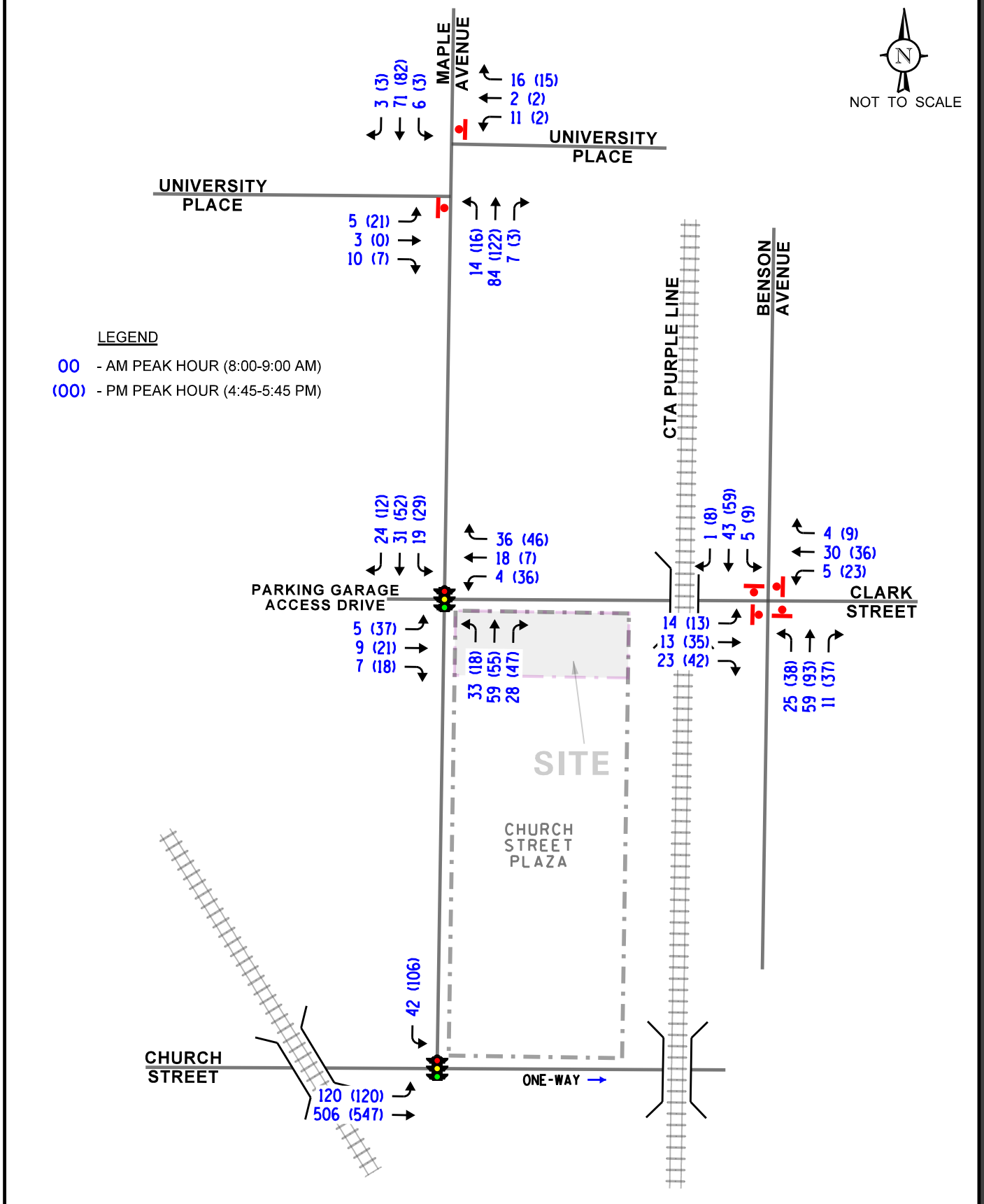
- Only one crash occurred in the five-year period at the Maple Avenue/Clark Street/parking garage access drive intersection.
- Only one crash occurred in the five-year period at the Maple Avenue/University Place intersections.
- Only two crashes occurred in the five-year period at the Clark Stret/Benson Avenue intersection.

Further, it should be noted that no fatalities were reported at these intersections during the five-year period.

Table 1
MAPLE AVENUE WITH CHURCH STREET – CRASH SUMMARY

Year	Type of Crash Frequency							
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	Total
2019	0	0	0	0	2	3	1	6
2020	0	0	1	0	0	1	0	2
2021	0	0	0	0	0	3	1	4
2022	0	0	1	0	1	0	0	2
2023	0	0	1	0	0	0	0	1
Total	**0**	**0**	**3**	**0**	**3**	**7**	**2**	**15**
Average	**0**	**0**	**<1.0**	**0**	**<1.0**	**1.4**	**<1.0**	**3.0**

[1] IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).

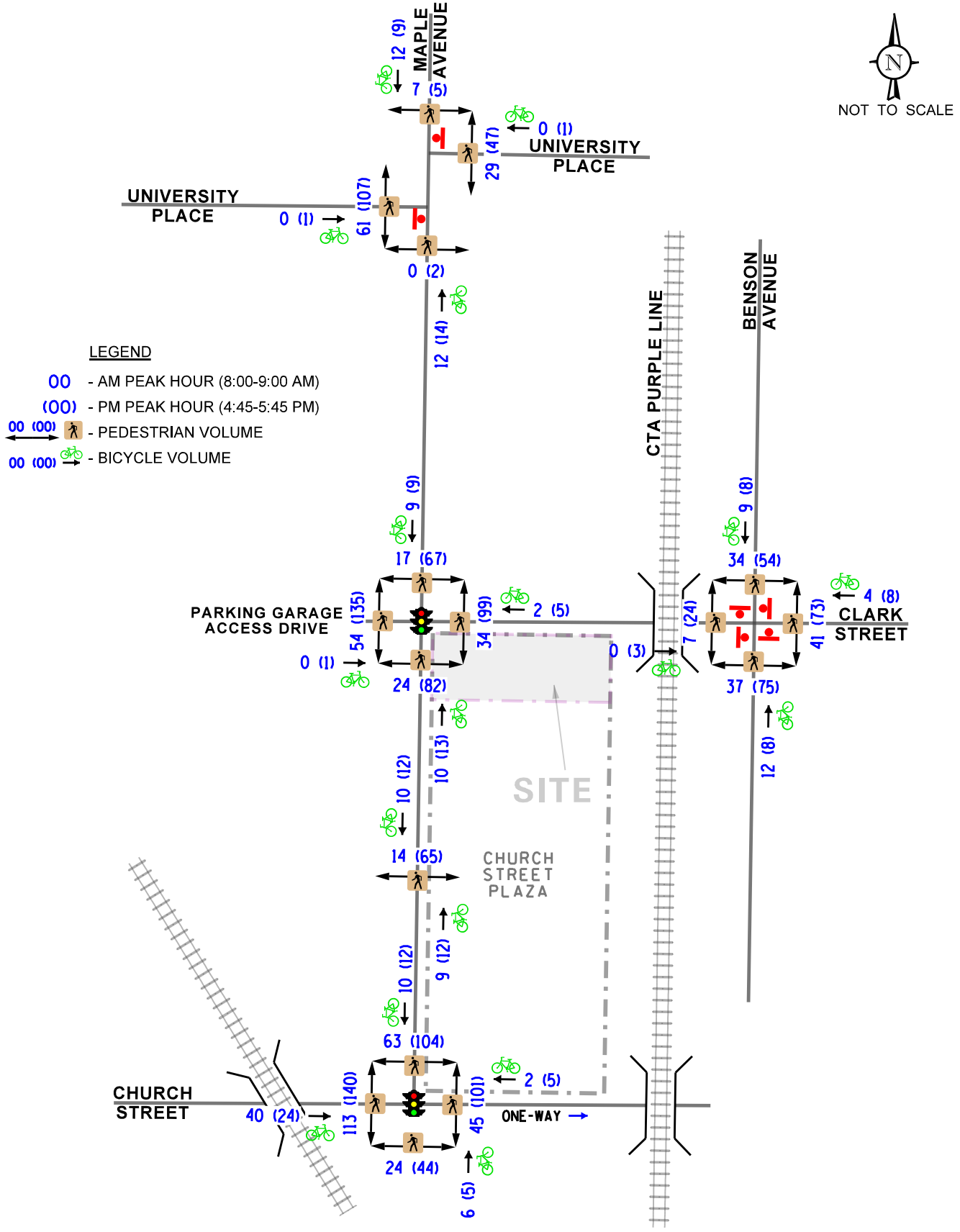


Church Street Plaza
Residential Development
Evanston, Illinois

Existing Traffic Volumes

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

Job No: 24-174 Figure: 5



Church Street Plaza
Residential Development
Evanston, Illinois

Existing Pedestrian and Bicycle Traffic Volumes

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

Job No: 24-174 Figure: 6

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 Site Plan

The proposed TOD will be a mixed-use development containing approximately 358 apartment units 168 studios, 148 one-bedroom units, 35 two-bedroom units, six three-bedroom units, and one four-bedroom unit and approximately 3,400 square feet of commercial space. To accommodate the development, approximately 23,775 square feet of gross floor area at Church Street Plaza will be removed which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater. In addition, the development will provide indoor parking for 179 bicycles.

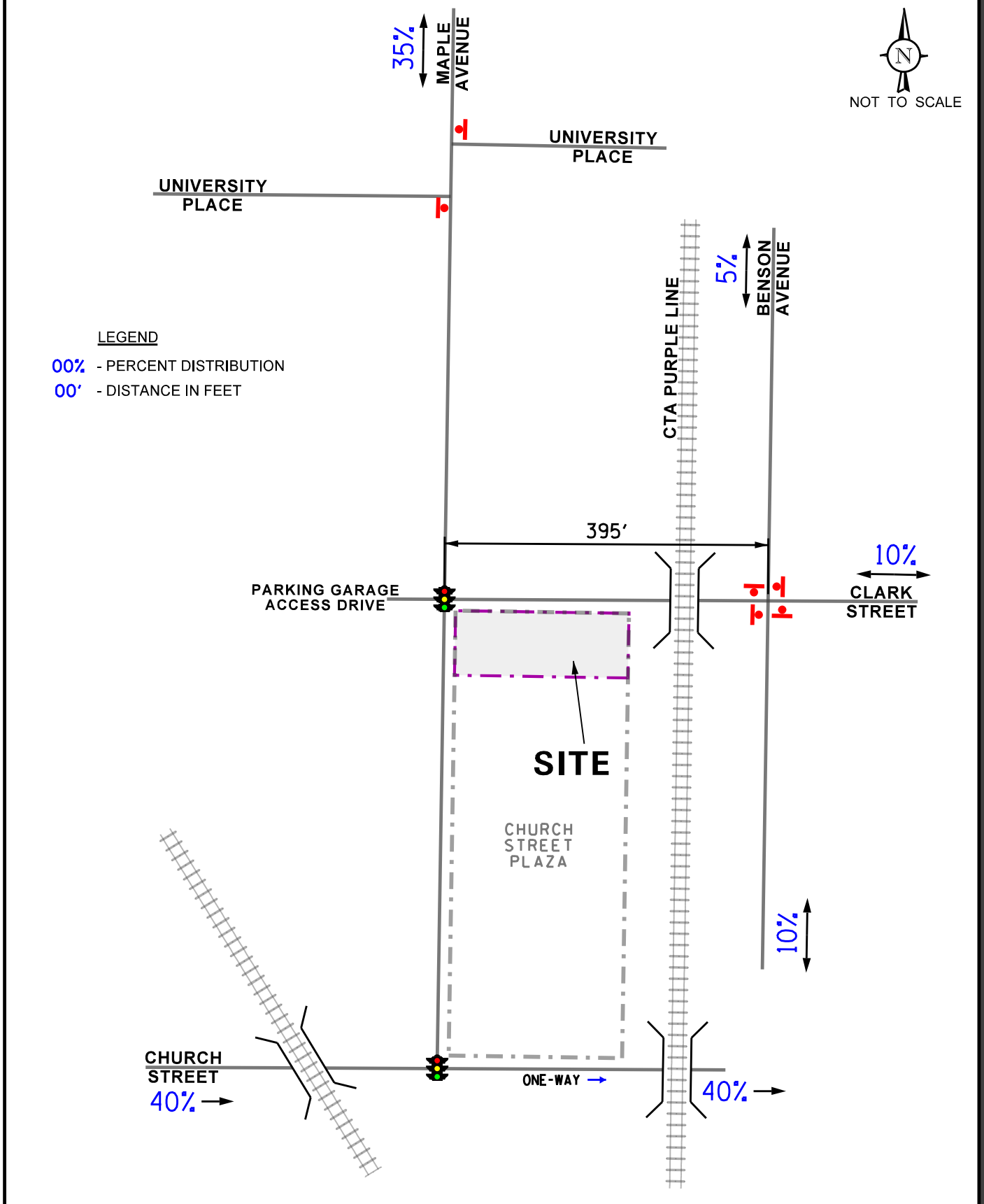
Parking for the development will be provided via the Maple Street parking garage located directly west of the site. Primary access to the parking garage is provided via an access drive located on the west side of Maple Avenue aligned opposite Clark Street. The access drive has one inbound lane and three outbound lanes striped for a separate left-turn lane, a shared through/left-turn lane, and a separate right-turn lane. The intersection of Maple Avenue with Clark Street and the parking garage access drive is under traffic signal control. Secondary access to the parking garage is provided via an access road that extends from the south side of University Place to the entrance of the parking garage. The access road provides one lane in each direction with the northbound lane under stop sign control at its intersection with University Place.

In addition, the parking along the south side of Clark Street along the frontage of the development is proposed to be eliminated to extend the sidewalk and to provide a dedicated loading zone for three passenger vehicles. The loading zone will be used for short term drop-off/pick-up of residents, guests, and commercial patrons via private vehicles, taxis, and ride share companies as well as for food deliveries. Loading for all truck deliveries will occur in the loading dock.

Access to the loading dock to be located on the east side of the building will be provided via the existing north-south alley that extends between Church Street Plaza and the CTA tracks. All deliveries will be accommodated via the loading dock which is designed for single-unit trucks.

Directional Distribution

The directions from which development-generated traffic will approach and depart the development were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 7** illustrates the directional distribution of the development-generated traffic.



Church Street Plaza
Residential Development
Evanston, Illinois

Directional Distribution

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

Job No: 24-174 Figure: 7

Development Traffic Generation

The number of peak hour vehicle trips estimated to be generated by the proposed development was based on vehicle trip generation rates contained in the *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). It should be noted that the ITE trip rates are based on suburban rates where the primary mode of transportation is the automobile. Given the location of the proposed site within the central business district and its proximity to alternative modes of transportation, the number of additional vehicle trips generated by the development will be reduced. A review of the U.S. Census data in the area showed that only approximately 50 percent of residents in the area drive a car to work. In addition, it was assumed that five percent of the trips will be made via taxi or ride share. **Table 2** summarizes the estimated gross trips and the projected vehicle trips anticipated with the development during the weekday morning and weekday evening peak hours. Copies of the ITE trip generation sheets are included in the Appendix.

Table 2
DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Land Use/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Gross Trips						
Apartments – 358 units (LUC 220)	34	109	143	115	64	183
Retail – 3,400 s.f. (LUC 822)	8	6	14	18	18	36
Total Gross Trips	**42**	**115**	**157**	**133**	**82**	**215**
Vehicle Trips						
Vehicle Trips (50 Percent)	21	58	79	67	41	108
Ride-share, taxi, etc. (5 Percent)	7	7	14	9	9	18
Total Vehicle Trips	28	65	93	76	50	118

As discussed previously**,** to accommodate the development, approximately 23,775 square feet of gross floor area at Church Street Plaza will be removed which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater. As such, the traffic to be generated by the proposed development will not be all new traffic to the area roadway system as it will be replacing existing uses that currently generate traffic.

4. Projected Traffic Conditions

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

Development Traffic Assignment

The estimated weekday morning and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the road system in accordance with the previously described directional distribution (Figure 7) and are illustrated in **Figure 8.**

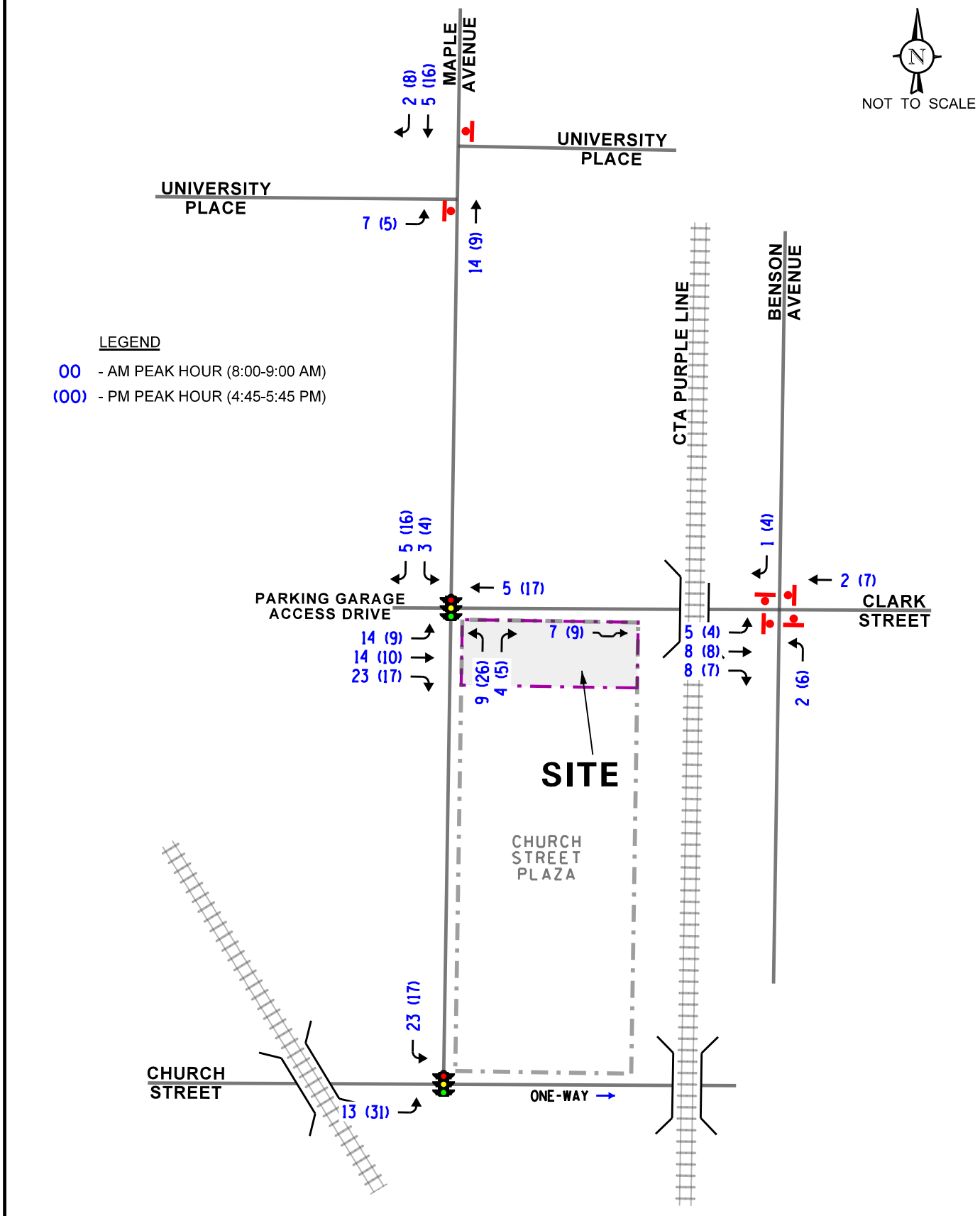
Background (No-Build) Traffic Conditions

The Year 2024 existing traffic volumes (Figure 5) 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 employment and population projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter dated July 11, 2024 the existing traffic volumes in the study area were increased by a compounded growth rate of 0.70 percent per year for six years for a total of approximately 4.3 percent. A copy of the CMAP letter is included in the Appendix. Further, since the existing traffic counts were performed in the summer when enrollment at Northwestern University is lower, all the existing traffic volumes were increased by an additional 15 percent for a total increase in traffic of 19.3 percent.

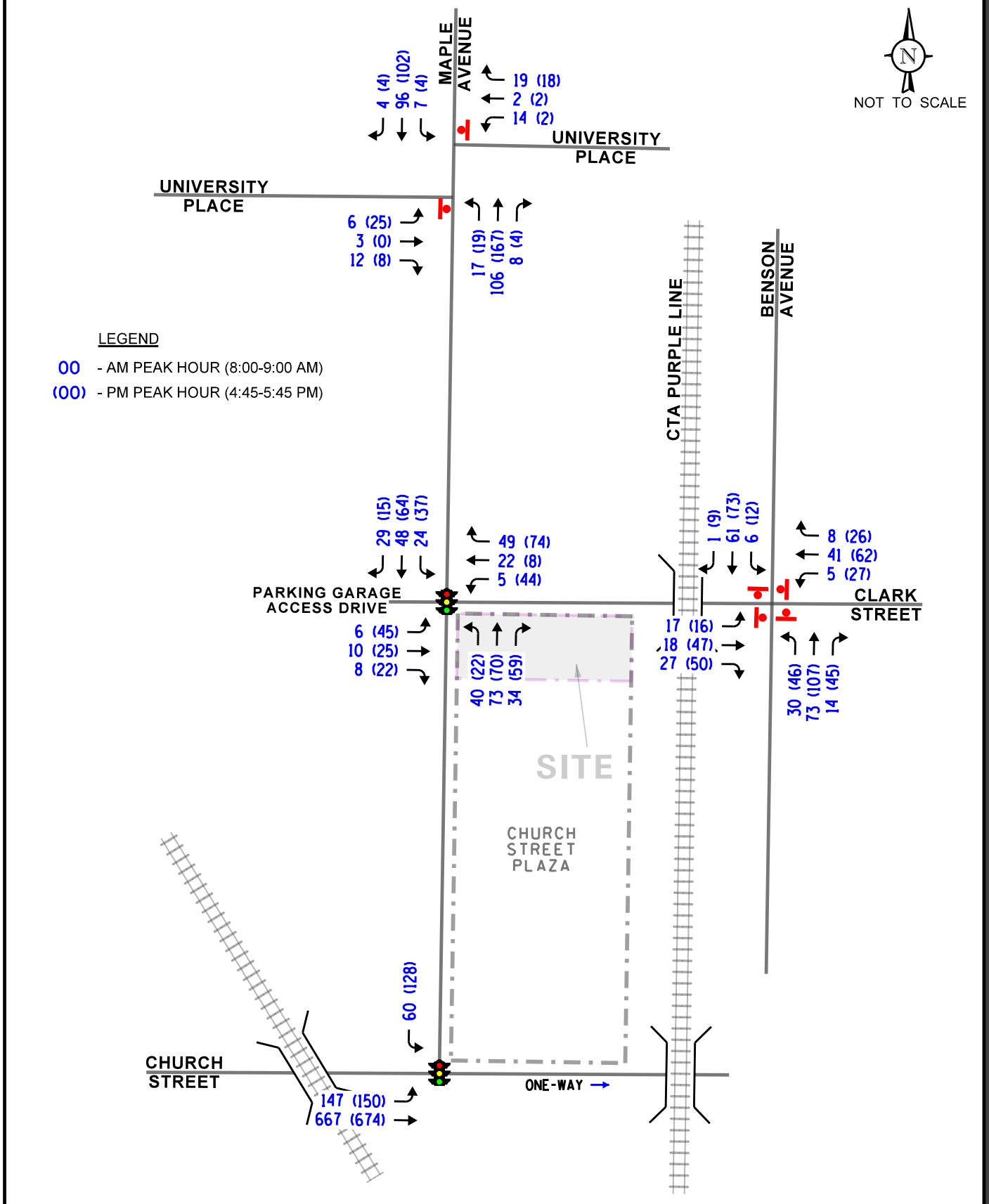
In addition, the traffic study included the buildout of the following proposed and/or approved area developments:

- An office development approved to be located at 605 Davis Street that is to contain approximately 200,000 square feet of office space.
- An office development approved to be located at 710 Clark Street that is to contain approximately 123,00 square feet of office/laboratory space and 5,200 square feet of ground floor retail space.
- The Emerson development approved to be located at 1900 Sherman Avenue that is to contain approximately 168 age-restricted units.
- A residential development proposed to be located at 1012-1034 Chicago Avenue that is to contain 116 units and approximately 5,000 square feet of ground floor retail space.
- The redevelopment of the Varsity Theater located at 1706 Sherman Avenue that is to contain 35 units and approximately 10,000 square feet of ground floor retail space.

The Year 2030 no-build traffic volumes are illustrated in **Figure 9**.



Church Street Plaza Residential Development Evanston, Illinois	Site-Generated Traffic Volumes	KLOA Kenig,Lindgren,O'Hara,Aboona,Inc. Job No: 24-174 Figure: 8



Church Street Plaza
Residential Development
Evanston, Illinois

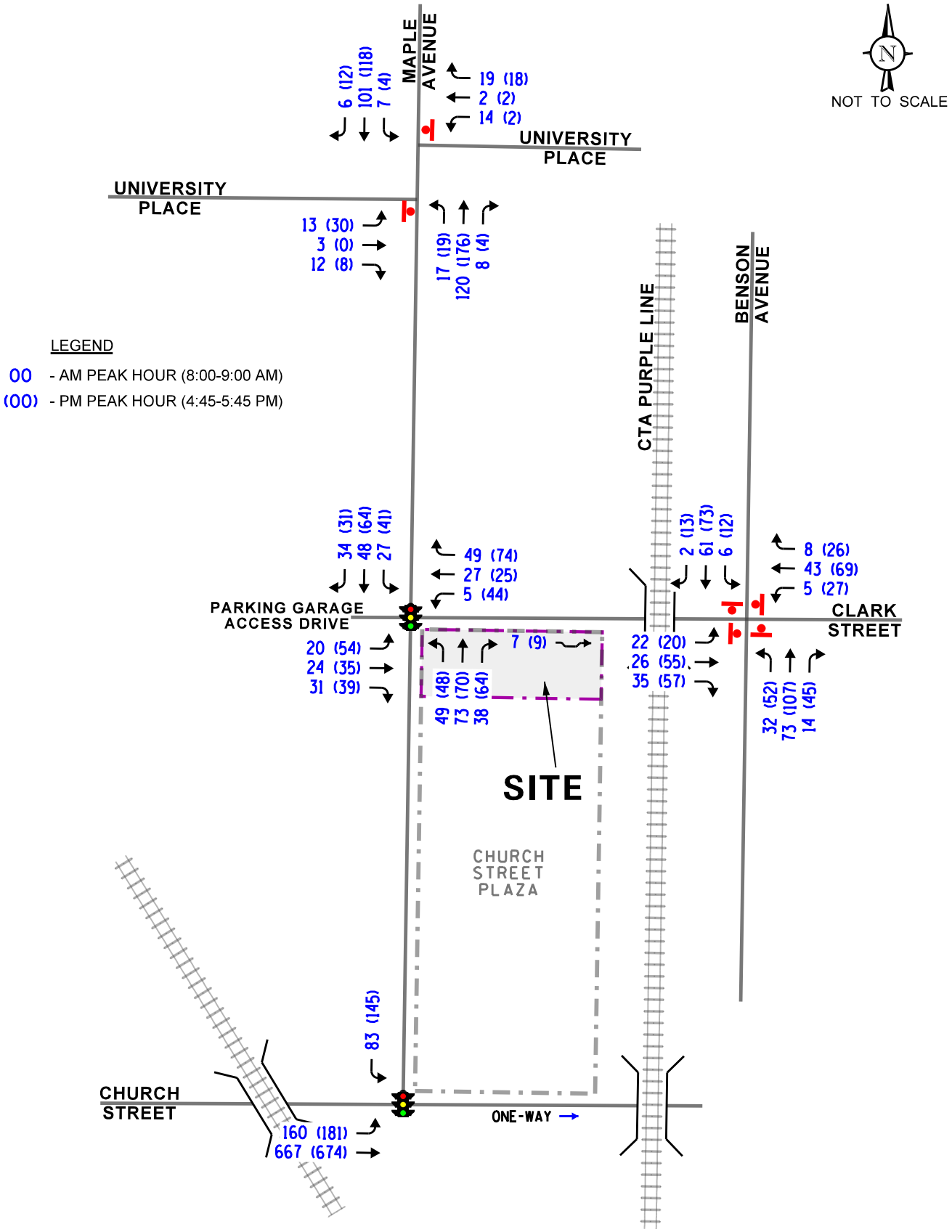
Year 2030 No-Build Traffic Volumes

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

Job No: 24-174 Figure: 9

Total Projected Traffic Volumes

The development-generated traffic (Figure 8) was added to the Year 2024 existing traffic volumes accounting for background growth (Figure 9) to determine the Year 2030 total projected traffic volumes, shown in **Figure 10.**



Church Street Plaza
Residential Development
Evanston, Illinois

Year 2030 Total Traffic Volumes

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

Job No: 24-174 Figure: 10

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening 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

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the Year 2024 existing, Year 2030 no-build, and Year 2030 total 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 computer software. The analyses for signalized intersections were done using field measured cycle lengths and phasings.

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 Year 2024 existing, Year 2030 no-build, and Year 2030 total projected conditions for the study area intersections are presented in **Tables 3** through **6**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3
MAPLE AVENUE WITH CLARK STREET/GARAGE ACCESS DRIVE – SIGNALIZED

	Peak Hour	Eastbound			Westbound	Northbound		Southbound		Overall
		L	T	R	L/T/R	L	T/R	L	T/R	
Year 2024 Existing Conditions	**Weekday Morning**	C 30.2	C 30.1	A 0.3	C 21.3	A 0.8	A 0.7	A 6.4	A 4.4	A 7.8
		C – 20.6				A – 0.7		A – 4.9		
	Weekday Evening	C 32.7	C 28.8	A 0.7	C 26.0	A 1.3	A 1.7	A 5.8	A 4.8	B 12.7
		C – 24.0				A – 1.6		A – 5.1		
Year 2030 No-Build Conditions	**Weekday Morning**	C 29.3	C 29.5	A 0.3	C 20.9	A 0.9	A 0.7	A 6.8	A 4.8	A 7.8
		C – 20.1				A – 0.7		A – 5.3		
	Weekday Evening	C 34.7	C 27.6	A 0.7	C 24.8	A 1.6	A 2.0	A 7.6	A 6.3	B 13.4
		C – 24.8				A – 2.0		A – 6.8		
Year 2030 Projected Conditions	**Weekday Morning**	C 31.4	C 30.8	A 1.3	C 21.5	A 1.0	A 0.8	A 7.0	A 4.7	A 9.1
		C – 18.9				A – 0.8		A – 5.3		
	Weekday Evening	D 35.7	C 27.3	A 1.6	C 27.2	A 2.1	A 2.5	A 9.1	A 6.7	B 14.1
		C – 23.0				A – 2.4		A – 7.5		

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

Table 4
MAPLE AVENUE WITH CHURCH STREET– SIGNALIZED

	Peak Hour	Eastbound	Southbound	Overall
		L/T	L	
Year 2024 Existing Conditions	**Weekday Morning**	C 26.1	A 8.8	C 25.0
	Weekday Evening	C 24.8	A 9.7	C 22.7
Year 2030 No-Build Conditions	**Weekday Morning**	C 22.3	B 11.2	C 21.6
	Weekday Evening	C 21.8	B 12.2	C 20.5
Year 2030 Projected Conditions	**Weekday Morning**	C 22.0	B 12.0	C 21.1
	Weekday Evening	C 21.3	B 13.1	C 20.1

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

Table 5
BENSON AVENUE WITH CLARK STREET – ALL-WAY STOP CONTROL

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Year 2024 Existing Conditions				
• Overall	A	7.7	A	8.2
• Eastbound Approach	A	7.4	A	7.9
• Westbound Approach	A	7.6	A	8.1
• Northbound Approach	A	7.8	A	8.6
• Southbound Approach	A	7.9	A	8.0
Year 2030 No-Build Conditions				
• Overall	A	8.0	A	8.8
• Eastbound Approach	A	7.7	A	8.4
• Westbound Approach	A	7.8	A	8.6
• Northbound Approach	A	8.2	A	9.3
• Southbound Approach	A	8.2	A	8.5
Year 2030 Projected Conditions				
• Overall	A	8.1	A	9.0
• Eastbound Approach	A	7.9	A	8.7
• Westbound Approach	A	7.9	A	8.8
• Northbound Approach	A	8.3	A	9.5
• Southbound Approach	A	8.3	A	8.6

LOS = Level of Service
Delay is measured in seconds.

Table 6
MAPLE AVENUE WITH UNIVERSITY PLACE – TWO-WAY STOP CONTROL

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Year 2024 Existing Conditions				
• Eastbound Approach	B	10.3	B	12.4
• Westbound Approach	B	10.1	B	10.3
• Northbound Left	A	7.8	A	8.0
• Southbound Left	A	7.7	A	7.7
Year 2030 No-Build Conditions				
• Eastbound Approach	B	10.8	B	13.9
• Westbound Approach	B	10.6	B	10.8
• Northbound Left	A	7.9	A	8.1
• Southbound Left	A	7.8	A	7.9
Year 2030 Projected Conditions				
• Eastbound Approach	B	11.4	B	14.7
• Westbound Approach	B	10.8	B	10.9
• Northbound Left	A	7.9	A	8.2
• Southbound Left	A	7.9	A	7.9

LOS = Level of Service
Delay is measured in seconds.

Discussion and Recommendations

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

Maple Avenue with Church Street

The results of the capacity analysis indicate that this signalized intersection currently operates at an overall Level of Service (LOS) C during the weekday morning and evening peak hours. Both approaches currently operate at LOS C or better during both peak hours. Under Year 2030 no-build and total conditions, the overall intersection is projected to continue to operate at LOS C during the weekday morning and evening peak hours. Further, both approaches are projected to continue to operate at LOS C or better during both peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Maple Avenue with Clark Street and Parking Garage Access Drive

The results of the capacity analysis indicate that this signalized intersection currently operates at an overall LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour. All the approaches and movements currently operate at LOS C or better during both peak hours. Under Year 2030 no-build conditions, the overall intersection is projected to continue to operate at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour. Further, all the approaches and movements are projected to continue to operate at LOS C or better during both peak hours. Under Year 2030 projected conditions, the overall intersection is projected to continue to operate at LOS A during the weekday morning peak hour and LOS B during the weekday evening peak hour. Further, all the approaches and movements are projected to continue to operate at LOS C or better during both peak hours, except the eastbound left-turn movement. During the weekday evening peak hour, the left-turn movement is projected to operate on the threshold of LOS C/D. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Clark Street with Benson Avenue

The results of the capacity analysis indicate that this all-way stop sign controlled intersection overall and all four approaches currently operate at LOS A during the weekday morning and evening peak hours. Under Year 2030 no-build and total conditions, the overall intersection and all four approaches are projected to continue to operate at LOS A during the weekday morning and evening peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Maple Avenue with University Place

The results of the capacity analysis indicate that the critical approaches and movements at this unsignalized intersection currently operate at LOS B or better during the weekday morning and evening peak hours. Under Year 2030 no-build and total conditions, the critical approaches and movements at this intersection are projected to continue to operate at LOS B or better during the weekday morning and evening peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications will be required.

Operation of Clark Street Loading Zone

As proposed, the parking along the south side of Clark Street along the frontage of the development is to be eliminated to extend the sidewalk and to provide a dedicated loading zone for three passenger vehicles. The loading zone will be used for short term drop-off/pick-up of residents, guests, and commercial patrons via private vehicles, taxis, and ride share companies as well as for food deliveries. Loading for all truck deliveries and/or longer-term deliveries will occur in the loading dock. It is important to note the residential portion of the development will have a doorman that will manage the loading zone. In addition, all food deliveries will be dropped off with the doorman, reducing the time that the food delivery vehicles will be in the loading zone. As such, the loading zone should be sufficient to accommodate the peak development demand and is similar to what is provided at other residential developments.

Transportation Sustainability Conclusions and Recommendations

The following summarizes measures to be implemented by the development and/or recommendations to further minimize the impact of the development, foster alternative modes of transportation other than the automobile, and to enhance pedestrian/bicycle safety:

- The development will provide covered parking for approximately 179 bicycles.
- Parking at the Maple Street parking garage will be an additional cost and is not included in the base unit lease. Charging for parking or unbundling parking costs from unit leases is an effective method to reduce traffic to and from the development as well as reduce the demand for on-site parking.
- Consideration should be given to making transit information available to residents by providing an information kiosk in the leasing office with information on the CTA Purple line, the Metra Pacific North Line, and local bus routes.
- Consideration should be given to replacing the standard style crosswalks with high visibility, ladder style crosswalks at the following intersections:
    - On all four legs of the intersection of Maple Avenue with Clark Street and the Maple Street parking garage access drive.
    - On all four legs of the intersection of Benson Avenue with Clark Street.

Parking Analysis

The development is proposed to have a total of 358 apartment units with 168 studios, 148 one-bedroom units, 35 two-bedroom units, six three-bedroom units, and one four-bedroom unit. As proposed, parking for the development will be provided via the Maple Avenue parking garage located directly west of the site. If the development is approved, the owners of the development have committed to lease from the City of Evanston a minimum of 79 designated parking spaces within the Maple Avenue parking garage. Further, the City of Evanston has indicated that the Maple Avenue parking garage has sufficient vacancy to accommodate in excess of 125 leased parking spaces for the proposed development. As such, based on the ability to lease between 79 to 125 parking spaces, the development will have a parking ratio as follows:

- A parking ratio of 0.22 to 0.0.35 parking spaces per unit
- A parking ratio of 0.19 to 0.0.31 parking spaces per bedroom

It is important to note that the range of the parking ratios for the proposed development is comparable, particularly the ratios per bedroom, to the parking ratios for several recently approved developments in the City of Evanston. Furthermore, given the location of the development within downtown Evanston and its proximity to public transportation and alternative modes of transportation, the development is considered a Transit Oriented Development (TOD). As such, the development's parking demand will be reduced given the following:

- Numerous studies have shown that TODs have a lower parking demand than typical developments. For example, *Empty Parking Spaces: Real Parking Needs at Five TODs*, published by Smart Growth America, found that the parking demand of the five TODs were 55 to 80 percent lower than what would be estimated based on parking generation rates published by ITE. The lower parking demand of TODs is due in part to the proximity of TODs to public transportation and alternative modes of transportation. As indicated previously, the area is served by several modes of transportation, and it is anticipated that a minimum of 50 percent of the residents will commute to work via alternative modes of transportation.

- The 88 percent of the units within the development will be studio and one-bedroom units. *Stalled Out: How Empty Parking Spaces Diminish Neighborhood Affordability*, published by the Center for Neighborhood Technology (CNT), is a study that summarizes the results and findings of parking surveys performed at 41 TODs in the City of Chicago. The study showed that parking demand for buildings comprised entirely of studio and one-bedroom units was approximately one-half the parking demand of buildings comprised entirely of two- and three-bedroom units.

- Approximately 60 of the units within the development will be reserved as inclusionary units. The vehicle ownership of inclusionary units is typically lower than vehicle ownership for market rate units.

- Further reducing the car ownership at TODs is the growth of ride hailing and car sharing services over the past decade. The reliability and affordability of these services as well as rental car services has greatly reduced the need to own a vehicle, particularly considering the costs of the vehicle, gas, maintenance, and parking. Several car sharing vehicles are located within walking distance of the site. It is important to note that the costs for parking in the TOD will be extra and not included in the base rent for the unit.

6. Conclusion

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

- The volume of new traffic to be generated by the development will be reduced due to (1) the public transportation and alternative modes of transportation serving the area and (2) the fact that the development will be replacing approximately 23,775 square feet of gross floor area at Church Street Plaza which is currently occupied by Chili's Grill & Bar, Dogtopia of Downtown Evanston, and a portion of the AMC movie theater.

- Parking for the development will be provided via the Maple Street parking garage located directly west of the site. Primary access to the parking garage is provided via an access drive located on the west side of Maple Avenue aligned opposite Clark Street. The access drive has one inbound lane and three outbound lanes striped for a separate left-turn lane, a shared through/left-turn lane, and a separate right-turn lane. The intersection of Maple Avenue with Clark Street and the parking garage access drive is under traffic signal control. Secondary access to the parking garage is provided via an access road that extends from the south side of University Place to the entrance of the parking garage. The access road provides one lane in each direction with the northbound lane under stop sign control at its intersection with University Place.

- As proposed, the parking along the south side of Clark Street along the frontage of the development is to be eliminated to extend the sidewalk and to provide a dedicated loading zone for three passenger vehicles. The loading zone will be used for short term drop-off/pick-up of residents, guests, and commercial patrons via private vehicles, taxis, and ride share companies as well as for food deliveries. Loading for all truck deliveries will occur in the loading dock. The three-space loading zone should be sufficient to accommodate the peak demand of the development and is similar to what is provided at other residential developments.

- Access to the loading dock to be located on the east side of the building will be provided via the existing north-south alley that extends between Church Street Plaza and the CTA tracks. All deliveries will be accommodated via the loading dock which is designed for single-unit trucks.

- The existing roadway system has sufficient reserve capacity to accommodate the traffic to be generated by the proposed development. All the intersections within the study area are projected to continue to operate at a good level of service assuming the additional traffic to be generated by the proposed development and the other area growth. As such, no roadway improvements and/or traffic control modifications are required.

- The following summarizes measures to be implemented by the development and/or recommendations to further minimize the impact of the development, foster alternative modes of transportation, and to enhance pedestrian/bicycle safety:

  - The development will provide covered parking for approximately 179 bicycles.

  - Parking at the Maple Street parking garage will be an additional cost and is not included in the base unit lease. Charging for parking or unbundling parking costs from unit leases is an effective method to reduce traffic to and from the development as well as reduce the demand for on-site parking.

  - Consideration should be given to making transit information available to residents by providing an information kiosk in the leasing office with information on the CTA Purple line, the Metra Pacific North Line, and local bus routes.

  - Consideration should be given to replacing the standard style crosswalks with high visibility, ladder style crosswalks at the following intersections:

    - On all four legs of the intersection of Maple Avenue with Clark Street and the Maple Street parking garage access drive.

    - On all four legs of the intersection of Benson Avenue with Clark Street.

- Parking for the development is proposed to be provided via the Maple Avenue parking garage located directly west of the site. If the development is approved, the owners of the development have committed to lease from the City of Evanston a minimum of 79 designated parking spaces within the Maple Avenue parking garage. Further, the City of Evanston has indicated that the Maple Avenue parking garage has sufficient vacancy to accommodate in excess of 125 leased parking spaces for the proposed development. The range of the parking ratios for the proposed development is comparable, particularly the ratios per bedroom, to the parking ratios for several recently approved developments in the City of Evanston.

Appendix

Traffic Count Summary Sheets
Preliminary Site Plan
Trip Generation Sheets
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

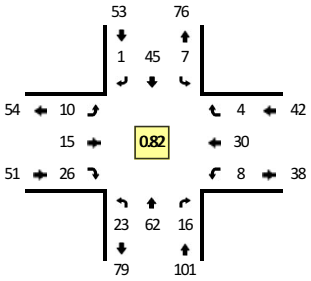
Type of peak hour being reported: Intersection Peak

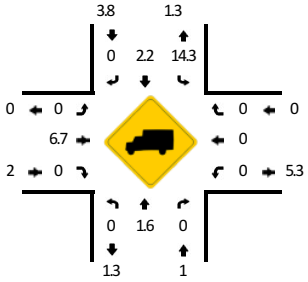
Method for determining peak hour: Total Entering Volume

LOCATION: Benson Ave -- Clark St
CITY/STATE: Evanston, IL

QC JOB #: 16659801
DATE: Thu, Jul 11 2024

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM





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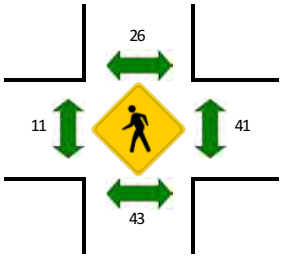
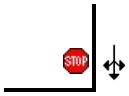
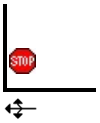
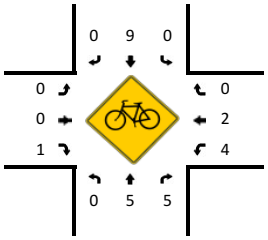
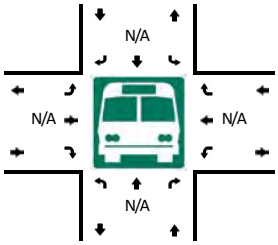
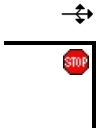


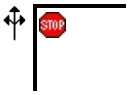


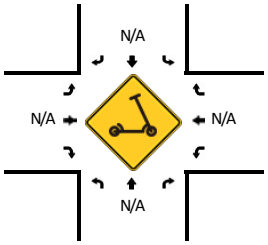












15-Min Count Period Beginning At	Benson Ave (Northbound)				Benson Ave (Southbound)				Clark St (Eastbound)				Clark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	8	6	0	0	10	0	0	0	4	2	0	2	2	0	0	36	
7:15 AM	4	4	6	0	3	5	0	0	0	2	3	0	1	1	0	0	29	
7:30 AM	5	5	3	0	1	8	0	0	1	3	1	0	2	6	0	0	35	
7:45 AM	5	21	10	0	3	10	0	0	1	5	8	0	4	8	0	0	75	175
8:00 AM	7	15	2	0	2	8	1	0	1	3	5	0	0	9	2	0	55	194
8:15 AM	5	11	1	0	1	16	0	0	1	5	3	0	1	7	1	0	52	217
8:30 AM	6	15	3	0	1	11	0	0	7	2	10	0	3	6	1	0	65	247
8:45 AM	7	18	5	0	1	8	0	0	5	3	5	0	1	8	0	0	61	233

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	84	40	0	12	40	0	0	4	20	32	0	16	32	0	0	300
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		56				16				16				40			128
Bicycles	0	4	0		0	0	0		0	0	4		4	8	0		20
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

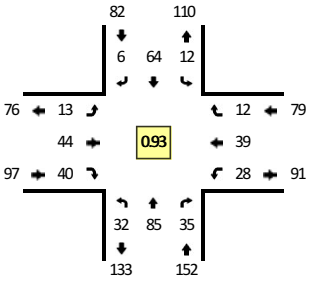
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

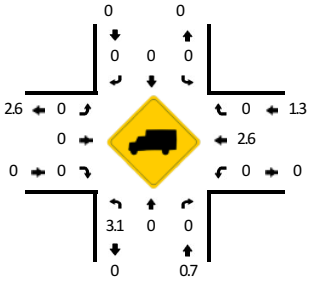
LOCATION: Benson Ave -- Clark St
CITY/STATE: Evanston, IL

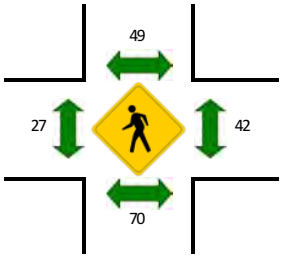
QC JOB #: 16659802
DATE: Thu, Jul 11 2024

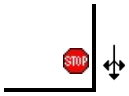
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

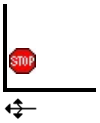


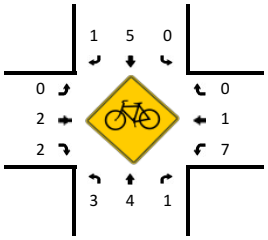
TRUE DATA TO IMPROVE MOBILITY

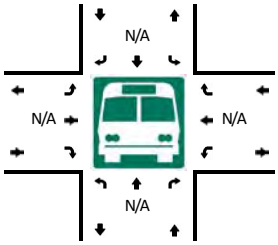


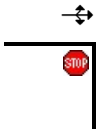


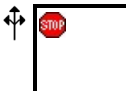


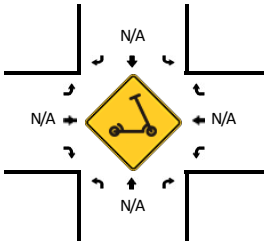












15-Min Count Period Beginning At	Benson Ave (Northbound)				Benson Ave (Southbound)				Clark St (Eastbound)				Clark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	19	11	0	1	14	4	0	2	5	9	0	3	7	3	0	86	
4:15 PM	8	19	9	0	2	16	1	0	4	10	7	0	8	11	5	0	100	
4:30 PM	5	21	8	0	5	18	1	0	2	14	8	0	8	6	2	0	98	
4:45 PM	7	24	9	1	3	15	0	0	4	14	12	0	7	12	2	0	110	394
5:00 PM	11	21	9	0	2	15	4	0	3	6	13	0	5	10	3	0	102	410
5:15 PM	8	27	7	0	2	19	2	0	1	9	5	0	5	10	1	0	96	406
5:30 PM	11	21	12	0	2	10	2	0	5	4	12	0	6	4	3	0	92	400
5:45 PM	9	24	6	0	3	9	0	0	1	6	5	0	6	6	3	0	78	368

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	96	36	4	12	60	0	0	16	56	48	0	28	48	8	0	440
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		60				40				20				40			160
Bicycles	0	0	0		0	0	0		0	4	0		8	0	0		12
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

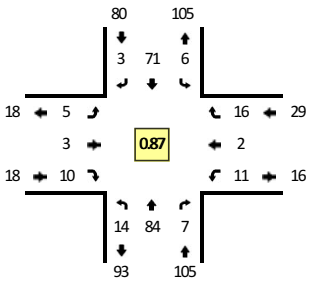
Type of peak hour being reported: Intersection Peak

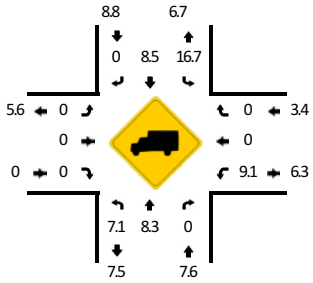
Method for determining peak hour: Total Entering Volume

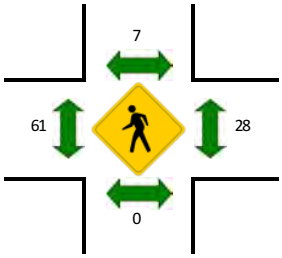
LOCATION: Maple Ave -- University Pl
CITY/STATE: Evanston, IL

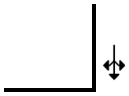
QC JOB #: 16659803
DATE: Thu, Jul 11 2024

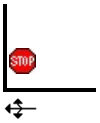
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:30 AM -- 8:45 AM

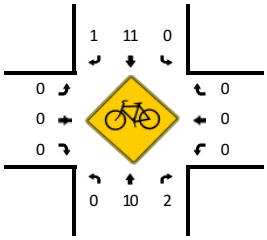


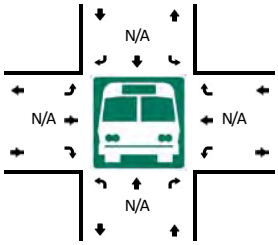


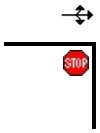


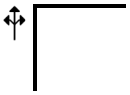


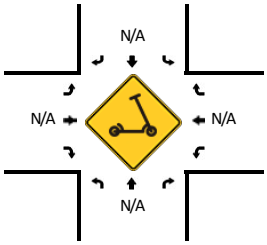












15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				University Pl (Eastbound)				University Pl (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	2	0	0	4	2	0	0	2	3	0	2	2	3	0	27	
7:15 AM	0	10	2	0	2	13	0	0	2	0	2	0	1	0	5	0	37	
7:30 AM	3	9	2	0	2	11	0	0	1	0	3	0	2	2	1	0	36	
7:45 AM	2	22	2	0	1	21	1	0	2	0	1	0	2	0	5	0	59	159
8:00 AM	3	27	0	1	2	12	1	0	1	0	2	0	2	0	0	0	51	183
8:15 AM	0	25	0	0	1	17	0	0	0	0	0	0	2	0	5	0	50	196
8:30 AM	6	16	4	0	1	23	0	0	2	1	6	0	5	1	2	0	67	227
8:45 AM	4	16	3	0	2	19	2	0	2	2	2	0	2	1	9	0	64	232

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	64	16	0	4	92	0	0	8	4	24	0	20	4	8	0	268
Heavy Trucks	0	4	0		4	8	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		0				24				96				28			148
Bicycles	0	16	4		0	8	0		0	0	0		0	0	0		28
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

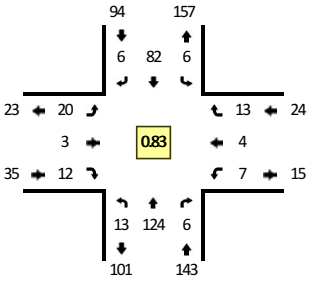
Type of peak hour being reported: Intersection Peak

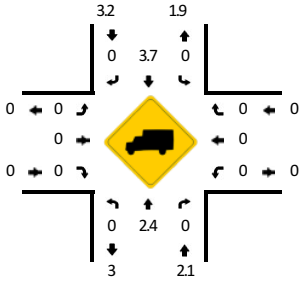
Method for determining peak hour: Total Entering Volume

LOCATION: Maple Ave -- University Pl
CITY/STATE: Evanston, IL

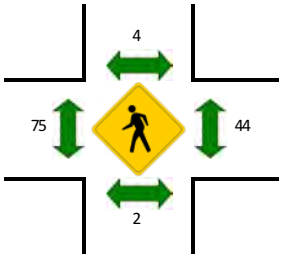
QC JOB #: 16659804
DATE: Thu, Jul 11 2024

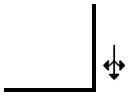
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

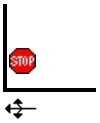


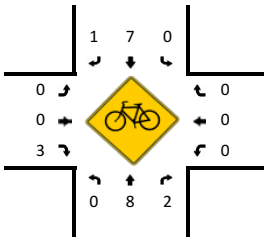


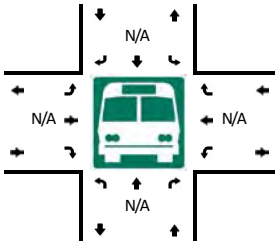
TRUE DATA TO IMPROVE MOBILITY

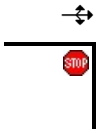


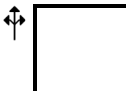


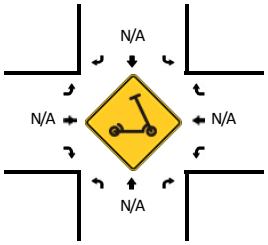












15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				University Pl (Eastbound)				University Pl (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	33	1	0	3	28	2	0	7	2	2	0	1	0	7	0	89	
4:15 PM	3	30	2	0	0	19	2	0	7	0	5	0	4	3	2	0	77	
4:30 PM	1	28	0	0	2	21	2	0	4	1	4	0	1	0	3	0	67	
4:45 PM	6	33	3	0	1	14	0	0	2	0	1	0	1	1	1	0	63	296
5:00 PM	2	32	0	0	1	22	1	0	7	0	2	0	0	1	6	0	74	281
5:15 PM	2	32	0	0	0	18	1	0	5	0	1	0	0	0	4	0	63	267
5:30 PM	6	25	0	0	1	28	1	0	7	0	3	0	1	0	4	0	76	276
5:45 PM	3	23	1	1	0	18	2	0	1	1	1	0	0	0	11	0	62	275

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	132	4	0	12	112	8	0	28	8	8	0	4	0	28	0	356
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		4				8				52				28			92
Bicycles	0	8	4		0	20	0		0	0	0		0	0	0		32
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

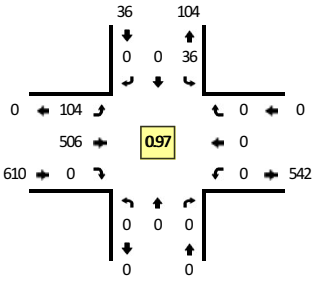
Type of peak hour being reported: Intersection Peak

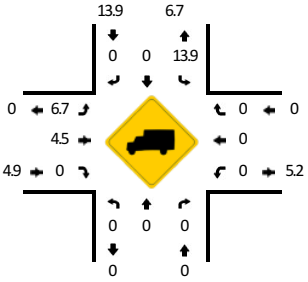
Method for determining peak hour: Total Entering Volume

LOCATION: Maple Ave -- Church St
CITY/STATE: Evanston, IL

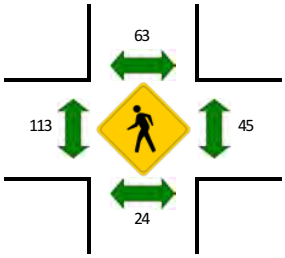
QC JOB #: 16659805
DATE: Thu, Jul 11 2024

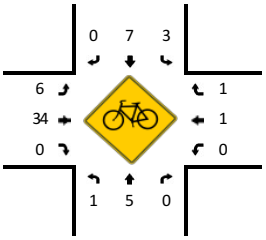
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

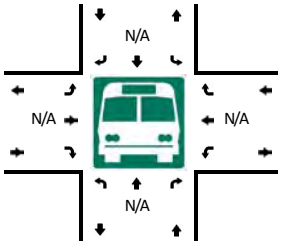


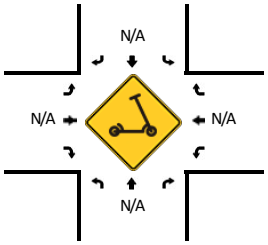


TRUE DATA TO IMPROVE MOBILITY









15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				Church St (Eastbound)				Church St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	6	0	0	0	16	47	0	0	0	0	0	0	69	
7:15 AM	0	0	0	0	3	0	0	0	15	66	0	0	0	0	0	0	84	
7:30 AM	0	0	0	0	4	0	0	0	20	77	0	0	0	0	0	0	101	
7:45 AM	0	0	0	0	9	0	0	0	18	89	0	0	0	0	0	0	116	370
8:00 AM	0	0	0	0	10	0	0	0	35	113	0	0	0	0	0	0	158	459
8:15 AM	0	0	0	0	10	0	0	0	26	125	0	0	0	0	0	0	161	536
8:30 AM	0	0	0	0	5	0	0	0	16	139	0	0	0	0	0	0	160	595
8:45 AM	0	0	0	0	11	0	0	0	27	129	0	0	0	0	0	0	167	646

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	44	0	0	0	108	516	0	0	0	0	0	0	668
Heavy Trucks	0	0	0		0	0	0		4	24	0		0	0	0		28
Buses																	
Pedestrians		4				48				72				44			168
Bicycles	0	4	0		4	8	0		4	20	0		0	0	0		40
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

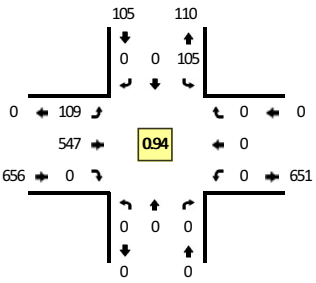
Type of peak hour being reported: Intersection Peak

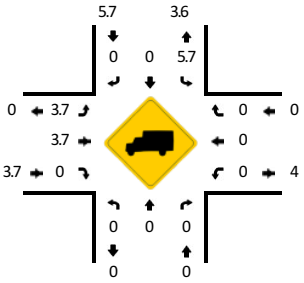
Method for determining peak hour: Total Entering Volume

LOCATION: Maple Ave -- Church St
CITY/STATE: Evanston, IL

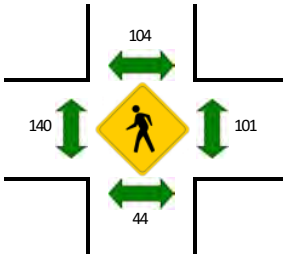
QC JOB #: 16659806
DATE: Thu, Jul 11 2024

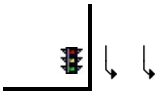
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

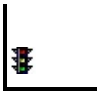


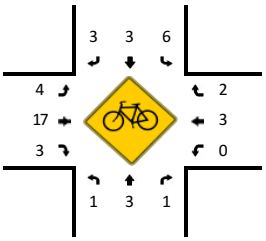


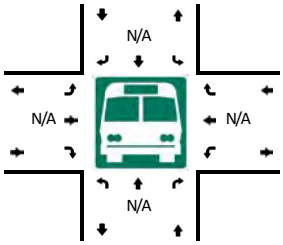
TRUE DATA TO IMPROVE MOBILITY

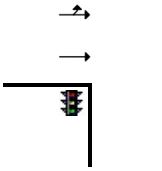


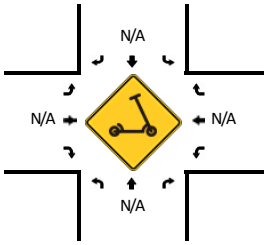












15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				Church St (Eastbound)				Church St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	29	0	0	0	30	100	0	0	0	0	0	0	159	
4:15 PM	0	0	0	0	26	0	0	0	16	111	0	0	0	0	0	0	153	
4:30 PM	0	0	0	0	19	0	0	0	31	119	0	0	0	0	0	0	169	
4:45 PM	0	0	0	0	28	0	0	1	34	140	0	0	0	0	0	0	203	684
5:00 PM	0	0	0	0	28	0	0	0	26	135	0	0	0	0	0	0	189	714
5:15 PM	0	0	0	0	28	0	0	0	26	138	0	0	0	0	0	0	192	753
5:30 PM	0	0	0	0	20	0	0	0	23	134	0	0	0	0	0	0	177	761
5:45 PM	0	0	0	0	20	0	0	0	16	105	0	0	0	0	0	0	141	699

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	112	0	0	4	136	560	0	0	0	0	0	0	812
Heavy Trucks	0	0	0		0	0	0		4	28	0		0	0	0		32
Buses																	
Pedestrians		44				116				144				124			428
Bicycles	0	4	4		4	4	0		4	8	0		0	0	0		28
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

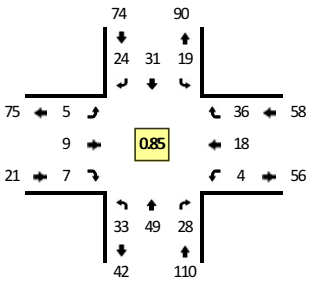
Type of peak hour being reported: Intersection Peak

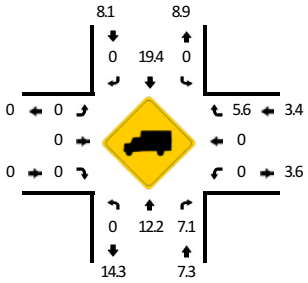
Method for determining peak hour: Total Entering Volume

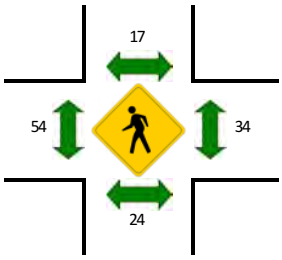
LOCATION: Maple Ave -- Parking Garage/Clark St
CITY/STATE: Evanston, IL

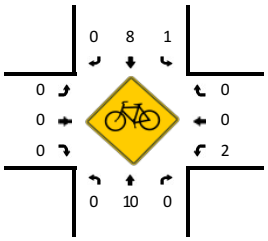
QC JOB #: 16659807
DATE: Thu, Jul 11 2024

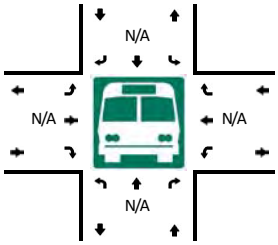
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

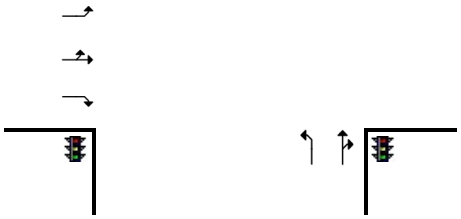


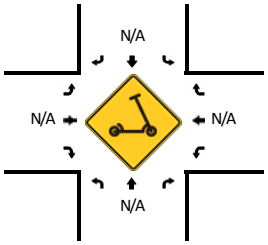












15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				Parking Garage/Clark St (Eastbound)				Parking Garage/Clark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	5	3	0	4	4	1	0	1	0	0	0	1	1	4	0	31	
7:15 AM	8	2	2	0	4	4	7	0	1	0	0	0	0	4	3	1	36	
7:30 AM	12	7	2	0	3	5	4	0	2	1	0	0	0	4	6	0	46	
7:45 AM	7	7	2	0	10	7	4	0	3	3	1	0	2	4	8	0	58	171
8:00 AM	13	19	7	0	4	10	2	0	0	1	2	0	2	8	9	0	77	217
8:15 AM	9	7	9	0	2	7	4	0	2	2	3	0	0	2	11	0	58	239
8:30 AM	2	10	3	0	10	6	8	0	3	2	0	0	0	3	9	0	56	249
8:45 AM	9	13	9	0	3	8	10	0	0	4	2	0	2	5	7	0	72	263

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	52	76	28	0	16	40	8	0	0	4	8	0	8	32	36	0	308
Heavy Trucks	0	4	4		0	8	0		0	0	0		0	0	4		20
Buses																	
Pedestrians		36				16				68				28			148
Bicycles	0	8	0		4	0	0		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

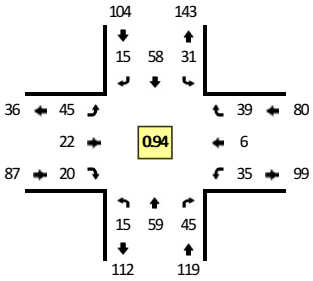
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

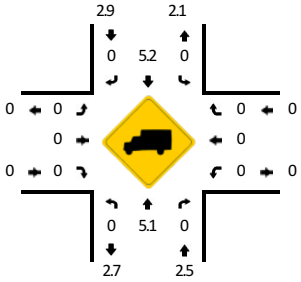
LOCATION: Maple Ave -- Parking Garage/Clark St
CITY/STATE: Evanston, IL

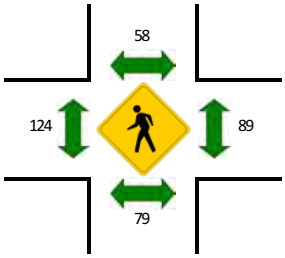
QC JOB #: 16659808
DATE: Thu, Jul 11 2024

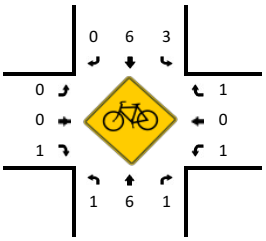
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

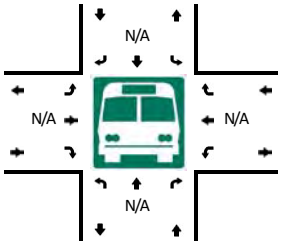


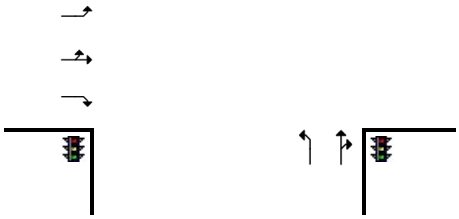
TRUE DATA TO IMPROVE MOBILITY

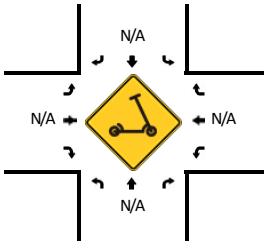












15-Min Count Period Beginning At	Maple Ave (Northbound)				Maple Ave (Southbound)				Parking Garage/Clark St (Eastbound)				Parking Garage/Clark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	20	9	0	7	19	4	0	12	5	5	0	11	2	7	0	102	
4:15 PM	4	11	7	0	10	15	4	0	11	6	5	0	7	2	13	0	95	
4:30 PM	6	10	10	0	7	13	4	0	11	7	6	0	5	1	9	0	89	
4:45 PM	4	18	19	0	7	11	3	0	11	4	4	0	11	1	10	1	104	390
5:00 PM	5	12	12	1	5	14	4	0	9	8	6	0	8	1	15	0	100	388
5:15 PM	4	11	8	0	6	13	1	0	10	5	6	0	8	1	14	0	87	380
5:30 PM	4	14	8	0	11	14	4	0	7	4	2	0	8	4	7	0	87	378
5:45 PM	2	11	4	0	9	11	4	0	8	2	5	0	2	0	10	0	68	342

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	72	76	0	28	44	12	0	44	16	16	0	44	4	40	4	416
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		64				92				124				120			400
Bicycles	4	4	0		4	4	0		0	0	0		0	0	0		16
Scooters																	

Comments:

Report generated on 7/16/2024 9:17 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Preliminary Site Plan

SCALE:1"=20'
0' 10' 20'

CHURCH STREET PLAZA

ANTUNOVICH ASSOCIATES • ARCHITECTURE, PLANNING, INTERIOR DESIGN • **CONTINUUM DEVELOPMENT / LUXURY LIVING** • DEVELOPER

SITE PLAN 1

EVANSTON, ILLINOIS • JANUARY 10, 2025

Trip Generation Sheets

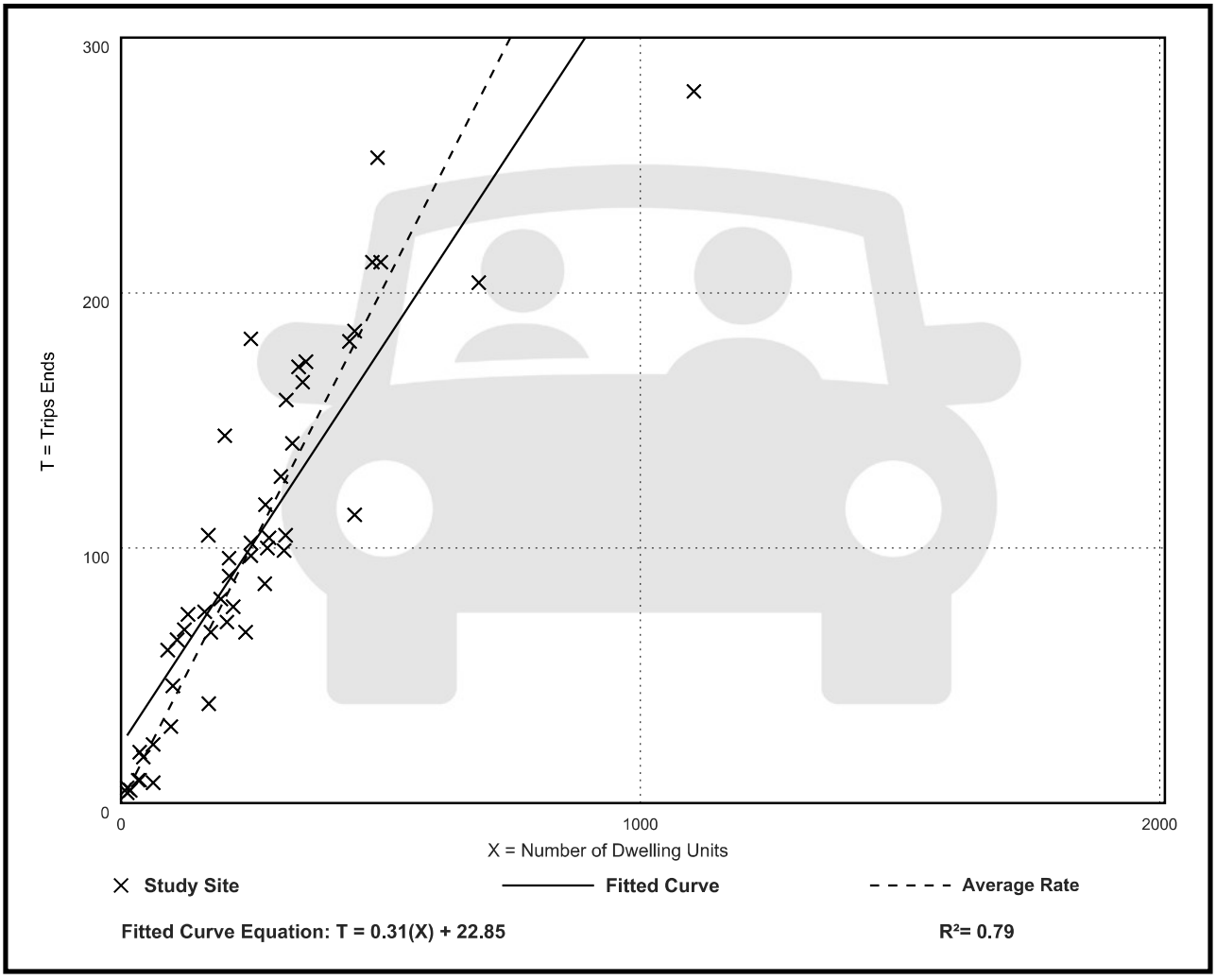
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
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: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 22.85

R^2= 0.79

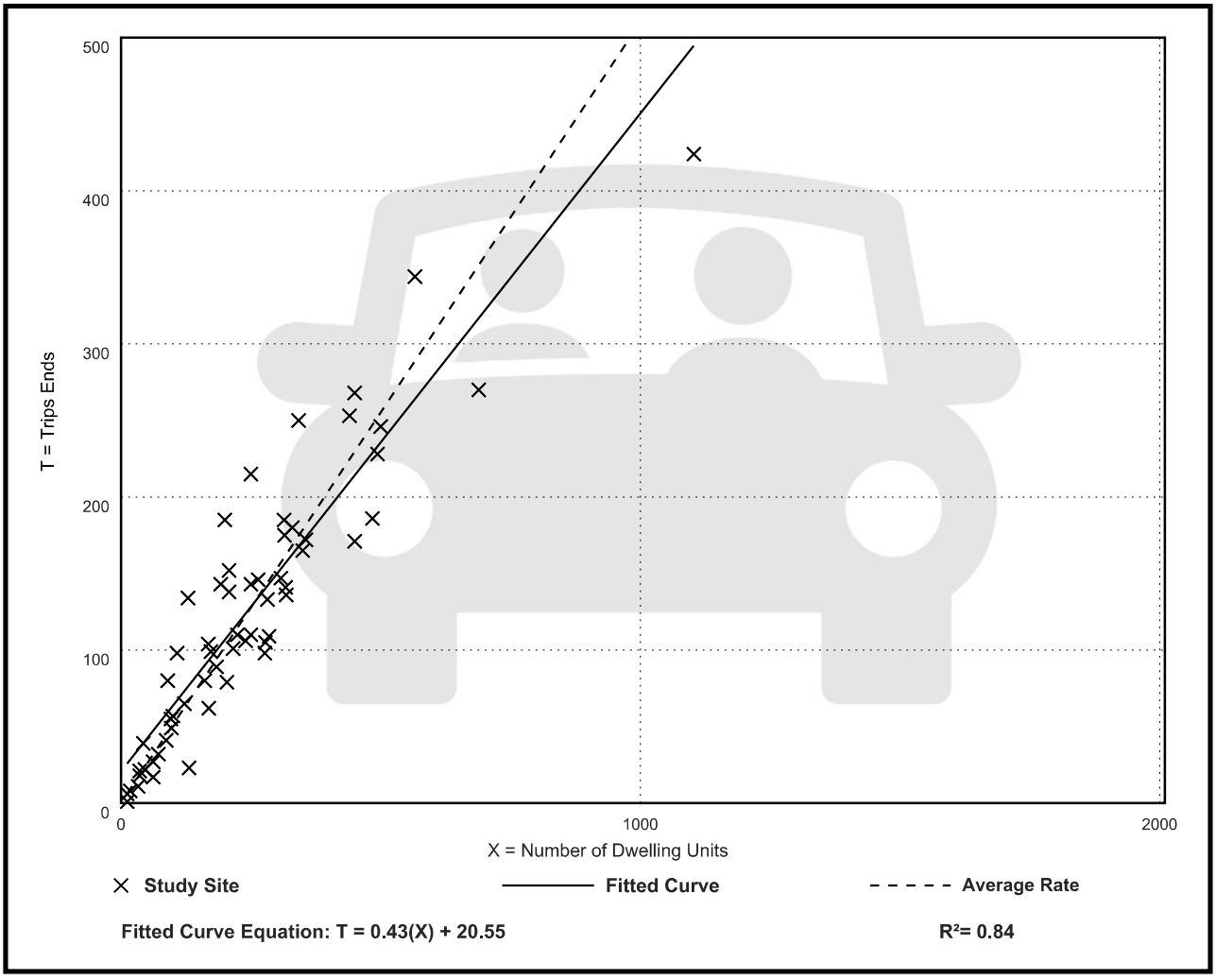
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units
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: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

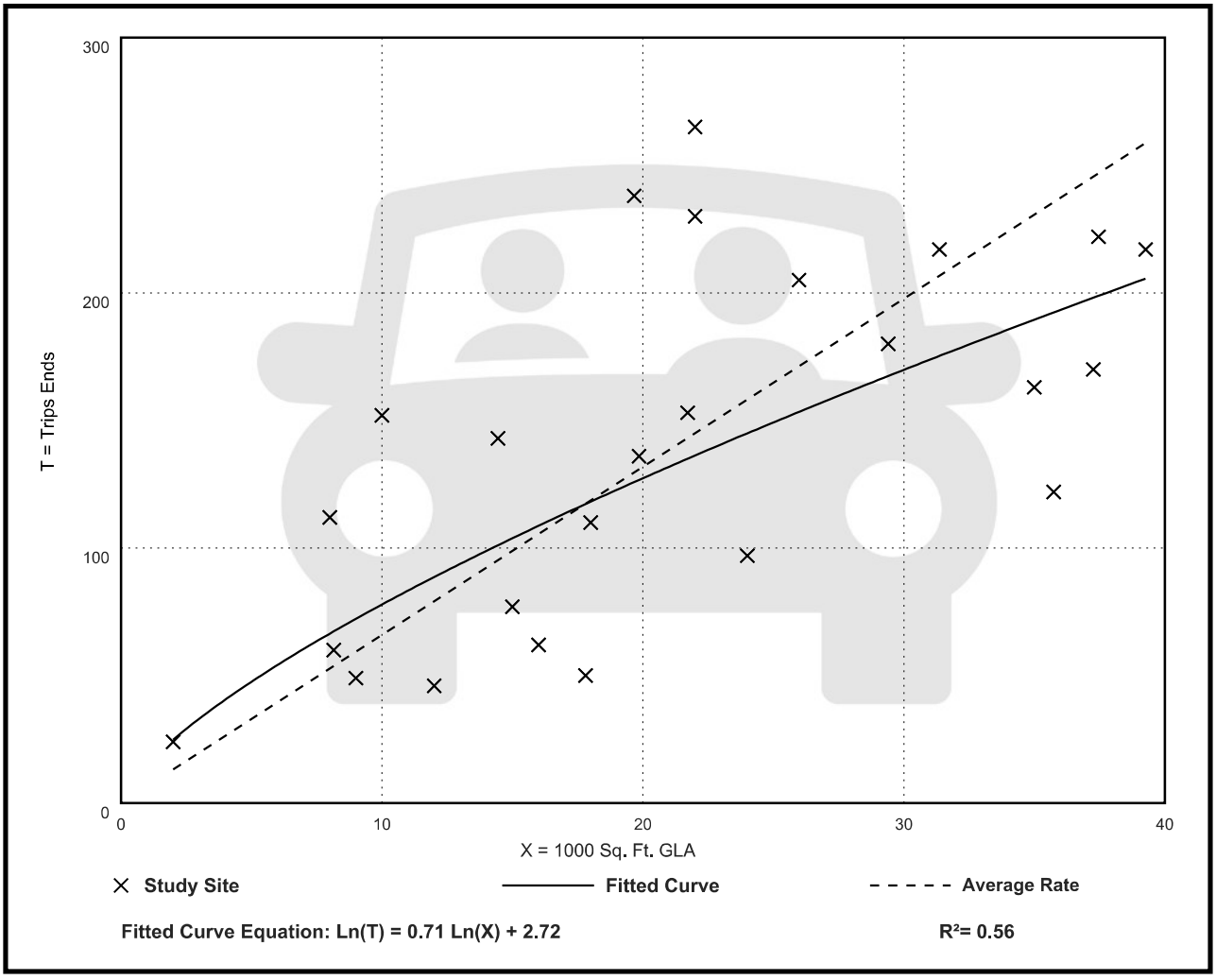
Strip Retail Plaza (<40k)
(822)

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)

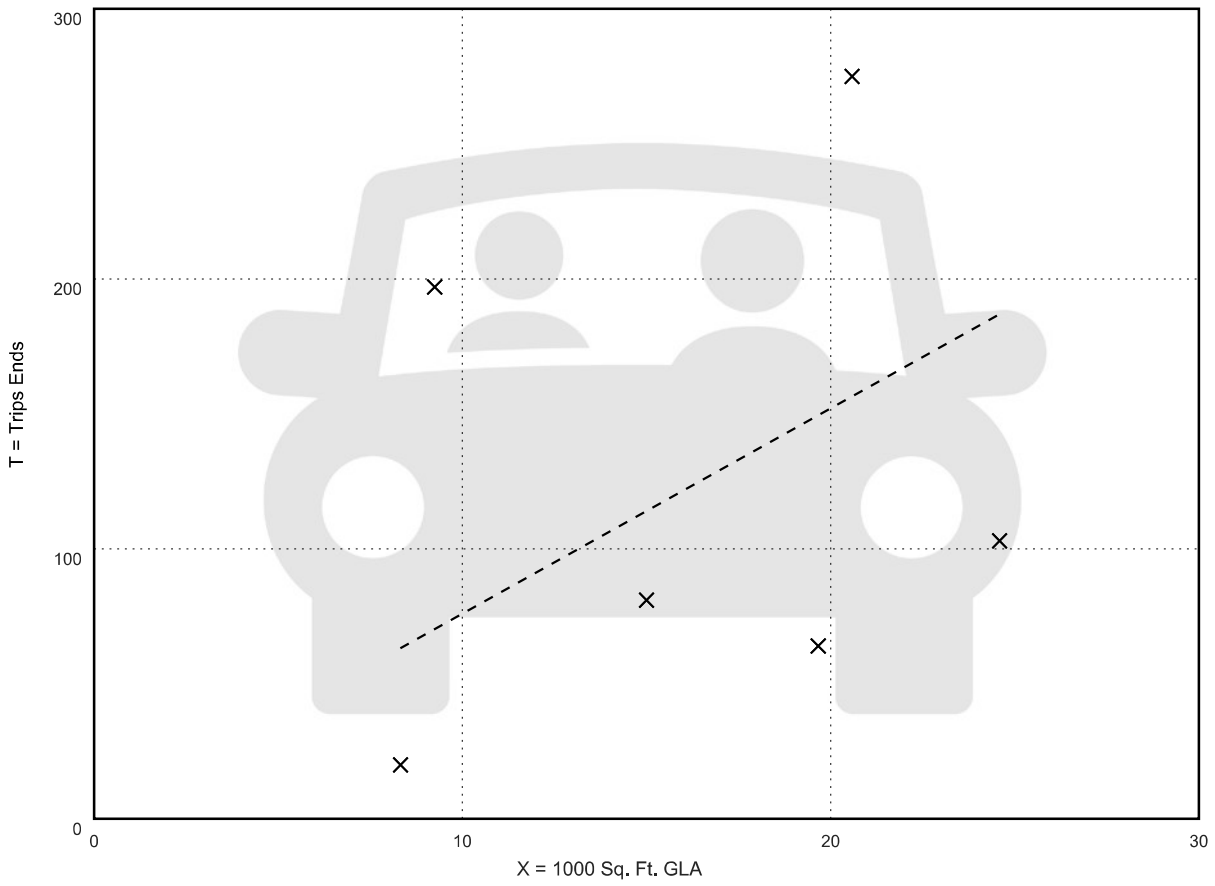
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GLA: 16
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
7.60	2.40 - 21.30	6.45

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ***

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

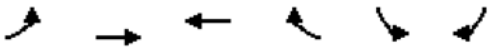
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of 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.	>80.0

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

Source: *Highway Capacity Manual,* 2010.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Existing Conditions

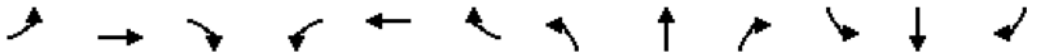


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	120	506	0	0	42	0
Future Volume (vph)	120	506	0	0	42	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.97			0.91	
Frt						
Flt Protected		0.990			0.950	
Satd. Flow (prot)	0	3391	0	0	3072	0
Flt Permitted		0.990			0.950	
Satd. Flow (perm)	0	3306	0	0	2784	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	63				45	
Confl. Bikes (#/hr)						10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	5%	2%	2%	14%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	646	0	0	43	0
Turn Type	Perm	NA			Perm	
Protected Phases		4				
Permitted Phases	4				6	
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		22.1			40.9	
Actuated g/C Ratio		0.29			0.55	
v/c Ratio		0.66			0.03	
Control Delay (s/veh)		26.1			8.8	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		26.1			8.8	
LOS		C			A	
Approach Delay (s/veh)		26.1			8.8	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		C			A	
Queue Length 50th (ft)		137			4	
Queue Length 95th (ft)		165			11	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1719			1518	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.38			0.03	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 25.0		Intersection LOS: C	
Intersection Capacity Utilization 31.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue

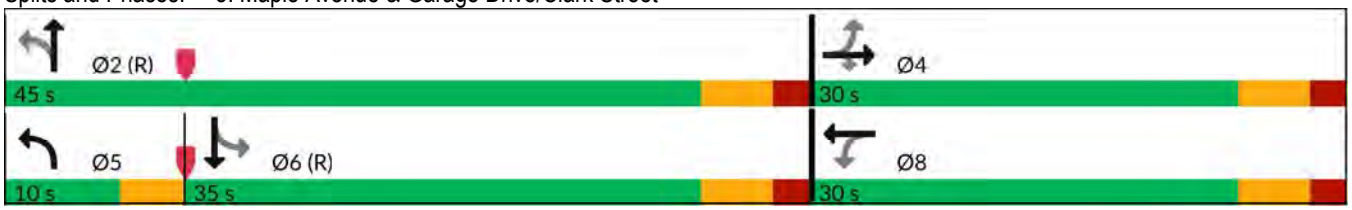


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	9	7	4	18	36	33	59	28	19	31	24
Future Volume (vph)	5	9	7	4	18	36	33	59	28	19	31	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.93		0.96		0.91	0.97		0.94	0.94	
Frt			0.850		0.917			0.951			0.934	
Flt Protected	0.950				0.996		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1614	0	1805	1586	0	1805	1507	0
Flt Permitted	0.713				0.972		0.668			0.691		
Satd. Flow (perm)	1311	1900	1504	0	1570	0	1151	1586	0	1232	1507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		42			33			28	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	17		24	24		17	54		34	34		54
Confl. Bikes (#/hr)						2			10			9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	11	8	0	68	0	39	102	0	22	64	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		24.0	24.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	7.2	7.2	7.2		7.2		60.6	59.3		53.5	53.5	
Actuated g/C Ratio	0.10	0.10	0.10		0.10		0.81	0.79		0.71	0.71	
v/c Ratio	0.05	0.06	0.03		0.36		0.04	0.08		0.03	0.06	
Control Delay (s/veh)	30.2	30.1	0.3		21.3		0.8	0.7		6.4	4.4	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	30.2	30.1	0.3		21.3		0.8	0.7		6.4	4.4	
LOS	C	C	A		C		A	A		A	A	
Approach Delay (s/veh)		20.6			21.3			0.7			4.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	3	5	0		11		0	0		3	6	
Queue Length 95th (ft)	12	18	0		42		1	0		12	20	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	419	608	545		530		986	1261		879	1083	
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	0.01	0.02	0.01		0.13		0.04	0.08		0.03	0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay (s/veh): 7.8		Intersection LOS: A	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	13	23	5	30	4	25	59	11	5	43	1
Future Vol, veh/h	14	13	23	5	30	4	25	59	11	5	43	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	7	0	0	0	0	0	2	0	14	2	0
Mvmt Flow	17	16	28	6	37	5	30	72	13	6	52	1
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, s/veh	7.4	7.6	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	28%	13%	10%
Vol Thru, %	62%	26%	77%	88%
Vol Right, %	12%	46%	10%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	50	39	49
LT Vol	25	14	5	5
Through Vol	59	13	30	43
RT Vol	11	23	4	1
Lane Flow Rate	116	61	48	60
Geometry Grp	1	1	1	1
Degree of Util (X)	0.132	0.07	0.057	0.073
Departure Headway (Hd)	4.116	4.126	4.322	4.424
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	860	873	833	799
Service Time	2.194	2.127	2.324	2.511
HCM Lane V/C Ratio	0.135	0.07	0.058	0.075
HCM Control Delay, s/veh	7.8	7.4	7.6	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.2

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	3	10	11	2	16	14	84	7	6	71	3
Future Vol, veh/h	5	3	10	11	2	16	14	84	7	6	71	3
Conflicting Peds, #/hr	7	0	0	0	0	7	61	0	29	29	0	61
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	9	0	0	7	8	0	17	9	0
Mvmt Flow	6	3	11	13	2	18	16	97	8	7	82	3

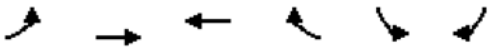
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	295	324	144	259	322	137	146	0	0	134	0	0
Stage 1	158	158	-	162	162	-	-	-	-	-	-	-
Stage 2	137	166	-	97	160	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.17	-	-	4.27	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.263	-	-	2.353	-	-
Pot Cap-1 Maneuver	661	597	908	680	599	917	1406	-	-	1364	-	-
Stage 1	849	771	-	824	768	-	-	-	-	-	-	-
Stage 2	871	765	-	892	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	592	537	856	636	538	886	1324	-	-	1326	-	-
Mov Cap-2 Maneuver	592	537	-	636	538	-	-	-	-	-	-	-
Stage 1	795	722	-	791	737	-	-	-	-	-	-	-
Stage 2	834	734	-	871	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.3	10.08	1.03	0.58
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	236	-	-	700	742	134	-	-
HCM Lane V/C Ratio	0.012	-	-	0.03	0.045	0.005	-	-
HCM Control Delay (s/veh)	7.8	0	-	10.3	10.1	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Existing Conditions



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	120	547	0	0	106	0
Future Volume (vph)	120	547	0	0	106	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.96			0.79	
Frt						
Flt Protected		0.991			0.950	
Satd. Flow (prot)	0	3440	0	0	3303	0
Flt Permitted		0.991			0.950	
Satd. Flow (perm)	0	3306	0	0	2608	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	104				101	
Confl. Bikes (#/hr)						12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	4%	2%	2%	6%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	710	0	0	113	0
Turn Type	Perm	NA			Prot	
Protected Phases		4			6	
Permitted Phases	4					
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		24.0			39.0	
Actuated g/C Ratio		0.32			0.52	
v/c Ratio		0.67			0.07	
Control Delay (s/veh)		24.8			9.7	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		24.8			9.7	
LOS		C			A	
Approach Delay (s/veh)		24.8			9.7	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach LOS		C			A	
Queue Length 50th (ft)		150			13	
Queue Length 95th (ft)		174			30	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1719			1715	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.41			0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 22.7		Intersection LOS: C	
Intersection Capacity Utilization 32.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue

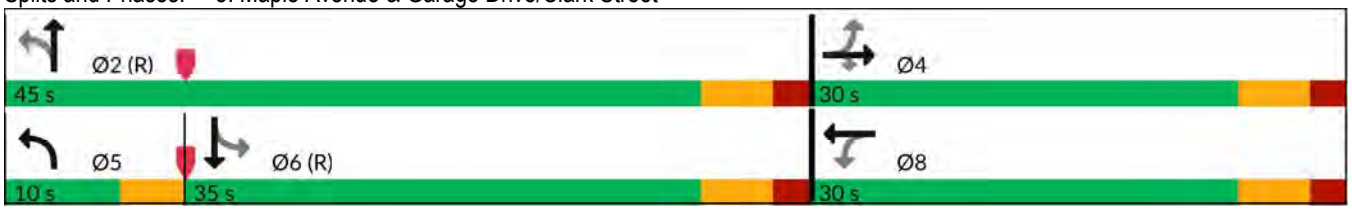
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	21	18	36	7	46	18	55	47	29	52	12
Future Volume (vph)	37	21	18	36	7	46	18	55	47	29	52	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.88		0.81		0.85		0.77	0.89		0.82	0.94	
Frt			0.850		0.930			0.931			0.971	
Flt Protected	0.950				0.980		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1538	0	1805	1443	0	1805	1507	0
Flt Permitted	0.816				0.858		0.667			0.687		
Satd. Flow (perm)	1360	1900	1311	0	1256	0	975	1443	0	1074	1507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		49			50			13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	67		82	82		67	135		99	99		135
Confl. Bikes (#/hr)			1			5			13			9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	22	19	0	94	0	19	109	0	31	68	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		25.0	25.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	8.6	8.6	8.6		8.6		59.2	57.9		55.9	55.9	
Actuated g/C Ratio	0.11	0.11	0.11		0.11		0.79	0.77		0.75	0.75	
v/c Ratio	0.25	0.10	0.08		0.50		0.02	0.10		0.04	0.06	
Control Delay (s/veh)	32.7	28.8	0.7		26.0		1.3	1.7		5.8	4.8	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	32.7	28.8	0.7		26.0		1.3	1.7		5.8	4.8	
LOS	C	C	A		C		A	A		A	A	
Approach Delay (s/veh)		24.0			26.0			1.6			5.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	17	9	0		20		0	0		3	6	
Queue Length 95th (ft)	41	27	0		59		m3	21		18	29	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	435	608	484		435		841	1124		800	1126	
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	0.09	0.04	0.04		0.22		0.02	0.10		0.04	0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 12.7		Intersection LOS: B	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

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

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	35	42	23	36	9	38	93	37	9	59	8
Future Vol, veh/h	13	35	42	23	36	9	38	93	37	9	59	8
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	3	0	3	0	0	0	0	0
Mvmt Flow	14	38	45	25	39	10	41	100	40	10	63	9
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, s/veh	7.9	8.1	8.6	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	14%	34%	12%
Vol Thru, %	55%	39%	53%	78%
Vol Right, %	22%	47%	13%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	90	68	76
LT Vol	38	13	23	9
Through Vol	93	35	36	59
RT Vol	37	42	9	8
Lane Flow Rate	181	97	73	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.218	0.116	0.093	0.101
Departure Headway (Hd)	4.344	4.329	4.592	4.446
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	829	829	782	807
Service Time	2.36	2.35	2.613	2.466
HCM Lane V/C Ratio	0.218	0.117	0.093	0.102
HCM Control Delay, s/veh	8.6	7.9	8.1	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.4	0.3	0.3

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	0	7	2	2	15	16	122	3	3	82	3
Future Vol, veh/h	21	0	7	2	2	15	16	122	3	3	82	3
Conflicting Peds, #/hr	5	0	2	2	0	5	107	0	47	47	0	107
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	4	0
Mvmt Flow	25	0	8	2	2	18	19	147	4	4	99	4

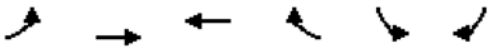
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	407	451	210	342	451	201	209	0	0	198	0	0
Stage 1	215	215	-	234	234	-	-	-	-	-	-	-
Stage 2	192	236	-	108	217	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	558	507	836	616	507	845	1373	-	-	1387	-	-
Stage 1	792	729	-	773	715	-	-	-	-	-	-	-
Stage 2	815	713	-	902	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	476	426	749	569	426	804	1233	-	-	1325	-	-
Mov Cap-2 Maneuver	476	426	-	569	426	-	-	-	-	-	-	-
Stage 1	709	652	-	726	671	-	-	-	-	-	-	-
Stage 2	776	670	-	888	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	12.35	10.26	0.9	0.26
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	203	-	-	523	707	61	-	-
HCM Lane V/C Ratio	0.016	-	-	0.064	0.032	0.003	-	-
HCM Control Delay (s/veh)	8	0	-	12.4	10.3	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – No-Build Conditions

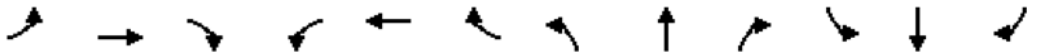


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	147	667	0	0	60	0
Future Volume (vph)	147	667	0	0	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.97			0.90	
Frt						
Flt Protected		0.991			0.950	
Satd. Flow (prot)	0	3395	0	0	3072	0
Flt Permitted		0.991			0.950	
Satd. Flow (perm)	0	3307	0	0	2752	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	69				50	
Confl. Bikes (#/hr)						11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	2%	2%	14%	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)	0	840	0	0	62	0
Turn Type	Perm	NA			Perm	
Protected Phases		4				
Permitted Phases	4				6	
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		27.9			35.1	
Actuated g/C Ratio		0.37			0.47	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.68			0.05	
Control Delay (s/veh)		22.3			11.2	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		22.3			11.2	
LOS		C			B	
Approach Delay (s/veh)		22.3			11.2	
Approach LOS		C			B	
Queue Length 50th (ft)		168			6	
Queue Length 95th (ft)		190			14	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1719			1289	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.49			0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 21.6		Intersection LOS: C	
Intersection Capacity Utilization 36.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue



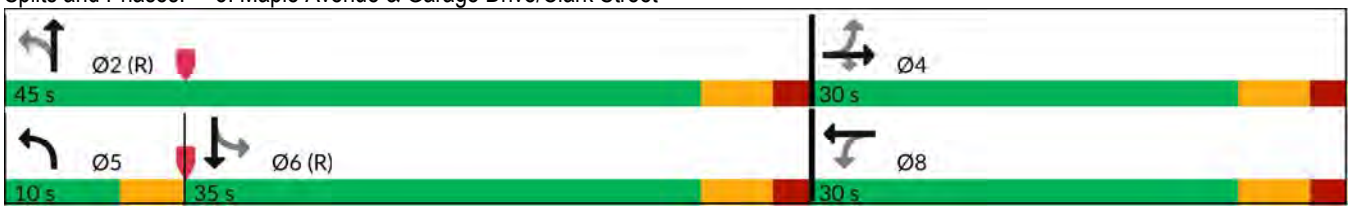
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	10	8	5	22	49	40	73	34	24	48	29
Future Volume (vph)	6	10	8	5	22	49	40	73	34	24	48	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.93		0.96		0.90	0.97		0.94	0.94	
Frt			0.850		0.913			0.952			0.943	
Flt Protected	0.950				0.997		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1600	0	1805	1585	0	1805	1512	0
Flt Permitted	0.870				0.974		0.652			0.676		
Satd. Flow (perm)	1595	1900	1497	0	1557	0	1117	1585	0	1201	1512	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		58			40			34	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	19		26	26		19	59		37	37		59
Confl. Bikes (#/hr)						2			11			10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	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)	7	12	9	0	90	0	47	126	0	28	90	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		24.0	24.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	7.5	7.5	7.5		7.5		60.3	59.0		53.1	53.1	
Actuated g/C Ratio	0.10	0.10	0.10		0.10		0.80	0.79		0.71	0.71	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.06	0.04		0.43		0.05	0.10		0.03	0.08	
Control Delay (s/veh)	29.3	29.5	0.3		20.9		0.9	0.7		6.8	4.8	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.3	29.5	0.3		20.9		0.9	0.7		6.8	4.8	
LOS	C	C	A		C		A	A		A	A	
Approach Delay (s/veh)		20.1			20.9			0.8			5.3	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	3	5	0		14		0	0		5	9	
Queue Length 95th (ft)	13	18	0		48		m2	2		15	28	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	510	608	543		537		957	1254		850	1080	
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	0.01	0.02	0.02		0.17		0.05	0.10		0.03	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay (s/veh): 7.8		Intersection LOS: A	
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



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	17	18	27	5	41	8	30	73	14	6	61	1
Future Vol, veh/h	17	18	27	5	41	8	30	73	14	6	61	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	7	0	0	0	0	0	2	0	14	2	0
Mvmt Flow	21	22	33	6	50	10	37	89	17	7	74	1
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, s/veh	7.7	7.8	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	27%	9%	9%
Vol Thru, %	62%	29%	76%	90%
Vol Right, %	12%	44%	15%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	117	62	54	68
LT Vol	30	17	5	6
Through Vol	73	18	41	61
RT Vol	14	27	8	1
Lane Flow Rate	143	76	66	83
Geometry Grp	1	1	1	1
Degree of Util (X)	0.17	0.09	0.081	0.106
Departure Headway (Hd)	4.293	4.285	4.431	4.618
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	839	811	779
Service Time	2.306	2.299	2.445	2.633
HCM Lane V/C Ratio	0.171	0.091	0.081	0.107
HCM Control Delay, s/veh	8.2	7.7	7.8	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.3	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	3	12	14	2	19	17	106	8	7	96	4
Future Vol, veh/h	6	3	12	14	2	19	17	106	8	7	96	4
Conflicting Peds, #/hr	8	0	0	0	0	8	67	0	32	32	0	67
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	9	0	0	7	8	0	17	9	0
Mvmt Flow	7	3	14	16	2	22	20	122	9	8	110	5

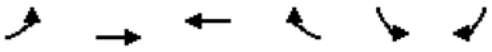
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	366	398	180	326	396	166	182	0	0	163	0	0
Stage 1	196	196	-	198	198	-	-	-	-	-	-	-
Stage 2	170	202	-	128	198	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.17	-	-	4.27	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.263	-	-	2.353	-	-
Pot Cap-1 Maneuver	594	543	868	614	545	883	1364	-	-	1329	-	-
Stage 1	811	743	-	788	741	-	-	-	-	-	-	-
Stage 2	837	738	-	859	741	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	523	481	813	568	483	850	1277	-	-	1289	-	-
Mov Cap-2 Maneuver	523	481	-	568	483	-	-	-	-	-	-	-
Stage 1	754	691	-	752	707	-	-	-	-	-	-	-
Stage 2	793	704	-	835	689	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.78	10.59	1.02	0.51
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	230	-	-	647	684	117	-	-
HCM Lane V/C Ratio	0.015	-	-	0.037	0.059	0.006	-	-
HCM Control Delay (s/veh)	7.9	0	-	10.8	10.6	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – No-Build Conditions

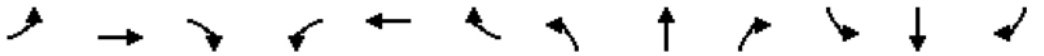


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	150	674	0	0	128	0
Future Volume (vph)	150	674	0	0	128	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.96			0.77	
Frt						
Flt Protected		0.991			0.950	
Satd. Flow (prot)	0	3440	0	0	3303	0
Flt Permitted		0.991			0.950	
Satd. Flow (perm)	0	3291	0	0	2540	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	114				111	
Confl. Bikes (#/hr)						13
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 (%)	4%	4%	2%	2%	6%	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)	0	877	0	0	136	0
Turn Type	Perm	NA			Prot	
Protected Phases		4			6	
Permitted Phases	4					
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		28.9			34.1	
Actuated g/C Ratio		0.39			0.45	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.69			0.09	
Control Delay (s/veh)		21.8			12.2	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		21.8			12.2	
LOS		C			B	
Approach Delay (s/veh)		21.8			12.2	
Approach LOS		C			B	
Queue Length 50th (ft)		174			17	
Queue Length 95th (ft)		197			35	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1711			1499	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.51			0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 20.5		Intersection LOS: C	
Intersection Capacity Utilization 37.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	25	22	44	8	74	22	70	59	37	64	15
Future Volume (vph)	45	25	22	44	8	74	22	70	59	37	64	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)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.88		0.80		0.84		0.75	0.88		0.81	0.94	
Frt			0.850		0.921			0.931			0.971	
Flt Protected	0.950				0.983		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1491	0	1805	1427	0	1805	1498	0
Flt Permitted	0.663				0.874		0.655			0.669		
Satd. Flow (perm)	1104	1900	1284	0	1242	0	933	1427	0	1032	1498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		79			63			16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	74		90	90		74	149		109	109		149
Confl. Bikes (#/hr)			1			5			14			10
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%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	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)	48	27	23	0	135	0	23	137	0	39	84	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		25.0	25.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	9.6	9.6	9.6		9.6		58.2	56.9		53.0	53.0	
Actuated g/C Ratio	0.13	0.13	0.13		0.13		0.78	0.76		0.71	0.71	

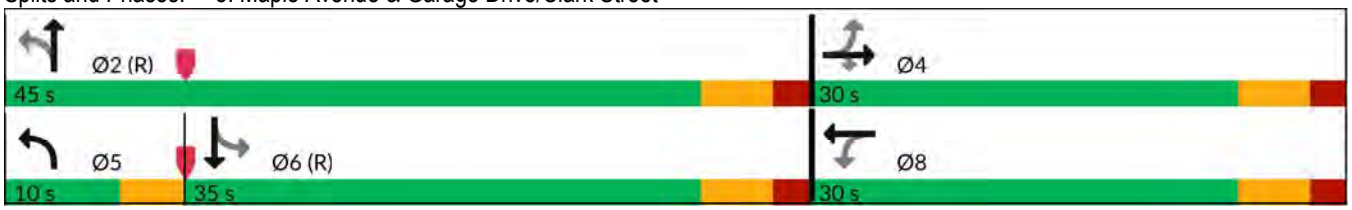
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.34	0.11	0.09		0.59		0.03	0.12		0.05	0.08	
Control Delay (s/veh)	34.7	27.6	0.7		24.8		1.6	2.0		7.6	6.3	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	34.7	27.6	0.7		24.8		1.6	2.0		7.6	6.3	
LOS	C	C	A		C		A	A		A	A	
Approach Delay (s/veh)		24.8			24.8			2.0			6.8	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	21	11	0		24		0	0		4	7	
Queue Length 95th (ft)	47	30	0		70		m5	37		24	37	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	353	608	475		451		799	1097		729	1063	
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	0.14	0.04	0.05		0.30		0.03	0.12		0.05	0.08	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay (s/veh): 13.4 Intersection LOS: B
Intersection Capacity Utilization 59.2% ICU Level of Service B
Analysis Period (min) 15

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

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	47	50	27	62	26	46	107	45	12	73	9
Future Vol, veh/h	16	47	50	27	62	26	46	107	45	12	73	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	3	0	3	0	0	0	0	0
Mvmt Flow	17	51	54	29	67	28	49	115	48	13	78	10
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, s/veh	8.4	8.6	9.3	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	14%	23%	13%
Vol Thru, %	54%	42%	54%	78%
Vol Right, %	23%	44%	23%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	198	113	115	94
LT Vol	46	16	27	12
Through Vol	107	47	62	73
RT Vol	45	50	26	9
Lane Flow Rate	213	122	124	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.269	0.153	0.161	0.132
Departure Headway (Hd)	4.553	4.547	4.688	4.69
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	788	786	763	762
Service Time	2.59	2.59	2.731	2.733
HCM Lane V/C Ratio	0.27	0.155	0.163	0.133
HCM Control Delay, s/veh	9.3	8.4	8.6	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.5	0.6	0.5

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	8	2	2	18	19	167	4	4	102	4
Future Vol, veh/h	25	0	8	2	2	18	19	167	4	4	102	4
Conflicting Peds, #/hr	5	0	2	2	0	5	118	0	52	52	0	118
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	4	0
Mvmt Flow	30	0	10	2	2	22	23	201	5	5	123	5

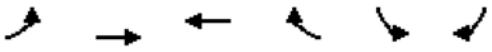
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	506	557	245	436	557	261	246	0	0	258	0	0
Stage 1	253	253	-	301	301	-	-	-	-	-	-	-
Stage 2	253	304	-	135	255	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	480	442	798	534	442	783	1332	-	-	1318	-	-
Stage 1	756	701	-	712	668	-	-	-	-	-	-	-
Stage 2	756	667	-	874	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	398	363	707	487	363	741	1182	-	-	1253	-	-
Mov Cap-2 Maneuver	398	363	-	487	363	-	-	-	-	-	-	-
Stage 1	668	620	-	662	621	-	-	-	-	-	-	-
Stage 2	711	620	-	857	619	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.87	10.79	0.81	0.29
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	179	-	-	445	649	65	-	-
HCM Lane V/C Ratio	0.019	-	-	0.089	0.041	0.004	-	-
HCM Control Delay (s/veh)	8.1	0	-	13.9	10.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.1	0	-	-

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Projected Conditions

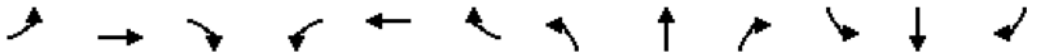


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	160	667	0	0	83	0
Future Volume (vph)	160	667	0	0	83	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.97			0.90	
Frt						
Flt Protected		0.990			0.950	
Satd. Flow (prot)	0	3391	0	0	3072	0
Flt Permitted		0.990			0.950	
Satd. Flow (perm)	0	3297	0	0	2752	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	69				50	
Confl. Bikes (#/hr)						11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	2%	2%	14%	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)	0	853	0	0	86	0
Turn Type	Perm	NA			Perm	
Protected Phases		4				
Permitted Phases	4				6	
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		28.4			34.6	
Actuated g/C Ratio		0.38			0.46	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.68			0.07	
Control Delay (s/veh)		22.0			12.0	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		22.0			12.0	
LOS		C			B	
Approach Delay (s/veh)		22.0			12.0	
Approach LOS		C			B	
Queue Length 50th (ft)		170			9	
Queue Length 95th (ft)		192			21	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1714			1269	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.50			0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 21.1		Intersection LOS: C	
Intersection Capacity Utilization 37.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue



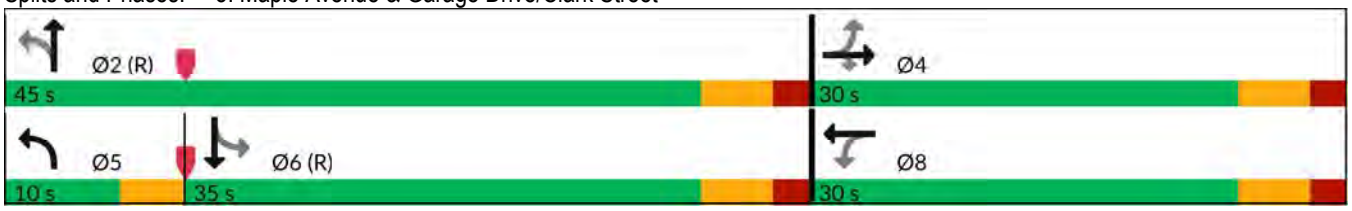
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	24	31	5	27	49	49	73	38	27	48	34
Future Volume (vph)	20	24	31	5	27	49	49	73	38	27	48	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.93		0.96		0.90	0.96		0.94	0.94	
Frt			0.850		0.918			0.948			0.937	
Flt Protected	0.950				0.997		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1616	0	1805	1576	0	1805	1503	0
Flt Permitted	0.826				0.975		0.648			0.673		
Satd. Flow (perm)	1515	1900	1497	0	1575	0	1112	1576	0	1197	1503	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		58			45			40	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	19		26	26		19	59		37	37		59
Confl. Bikes (#/hr)						2			11			10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	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)	24	28	36	0	96	0	58	131	0	32	96	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		24.0	24.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	7.8	7.8	7.8		7.8		60.0	58.7		52.7	52.7	
Actuated g/C Ratio	0.10	0.10	0.10		0.10		0.80	0.78		0.70	0.70	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.15	0.14	0.15		0.45		0.06	0.11		0.04	0.09	
Control Delay (s/veh)	31.4	30.8	1.3		21.5		1.0	0.8		7.0	4.7	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	31.4	30.8	1.3		21.5		1.0	0.8		7.0	4.7	
LOS	C	C	A		C		A	A		A	A	
Approach Delay (s/veh)		18.9			21.5			0.8			5.3	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	10	12	0		17		1	0		5	9	
Queue Length 95th (ft)	28	31	0		52		m4	5		17	29	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	484	608	543		543		950	1243		841	1068	
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	0.05	0.05	0.07		0.18		0.06	0.11		0.04	0.09	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay (s/veh): 9.1		Intersection LOS: A	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



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	22	26	35	5	43	8	32	73	14	6	61	2
Future Vol, veh/h	22	26	35	5	43	8	32	73	14	6	61	2
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	7	0	0	0	0	0	2	0	14	2	0
Mvmt Flow	27	32	43	6	52	10	39	89	17	7	74	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, s/veh	7.9	7.9	8.3	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	27%	9%	9%
Vol Thru, %	61%	31%	77%	88%
Vol Right, %	12%	42%	14%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	83	56	69
LT Vol	32	22	5	6
Through Vol	73	26	43	61
RT Vol	14	35	8	2
Lane Flow Rate	145	101	68	84
Geometry Grp	1	1	1	1
Degree of Util (X)	0.176	0.121	0.085	0.109
Departure Headway (Hd)	4.365	4.309	4.476	4.681
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	833	802	767
Service Time	2.381	2.327	2.495	2.7
HCM Lane V/C Ratio	0.176	0.121	0.085	0.11
HCM Control Delay, s/veh	8.3	7.9	7.9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.4	0.3	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	3	12	14	2	19	17	120	8	7	101	6
Future Vol, veh/h	13	3	12	14	2	19	17	120	8	7	101	6
Conflicting Peds, #/hr	8	0	0	0	0	8	67	0	32	32	0	67
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	9	0	0	7	8	0	17	9	0
Mvmt Flow	15	3	14	16	2	22	20	138	9	8	116	7

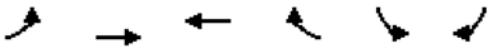
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	389	421	187	348	420	183	190	0	0	179	0	0
Stage 1	203	203	-	214	214	-	-	-	-	-	-	-
Stage 2	186	218	-	134	206	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.19	6.5	6.2	4.17	-	-	4.27	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.19	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.581	4	3.3	2.263	-	-	2.353	-	-
Pot Cap-1 Maneuver	574	527	861	594	528	865	1354	-	-	1311	-	-
Stage 1	804	738	-	773	730	-	-	-	-	-	-	-
Stage 2	820	726	-	853	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	504	467	806	549	468	832	1268	-	-	1271	-	-
Mov Cap-2 Maneuver	504	467	-	549	468	-	-	-	-	-	-	-
Stage 1	747	686	-	737	695	-	-	-	-	-	-	-
Stage 2	777	692	-	828	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.4	10.76	0.92	0.48
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	208	-	-	595	665	109	-	-
HCM Lane V/C Ratio	0.015	-	-	0.054	0.06	0.006	-	-
HCM Control Delay (s/veh)	7.9	0	-	11.4	10.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Projected Conditions

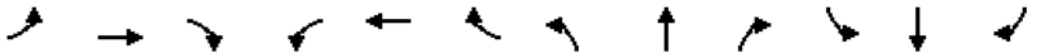


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	181	674	0	0	145	0
Future Volume (vph)	181	674	0	0	145	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	80	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	0.95	0.95	1.00	1.00	0.97	1.00
Ped Bike Factor		0.95			0.77	
Frt						
Flt Protected		0.990			0.950	
Satd. Flow (prot)	0	3436	0	0	3303	0
Flt Permitted		0.990			0.950	
Satd. Flow (perm)	0	3263	0	0	2540	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)		25	25		25	
Link Distance (ft)		536	831		575	
Travel Time (s)		14.6	22.7		15.7	
Confl. Peds. (#/hr)	114				111	
Confl. Bikes (#/hr)						13
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 (%)	4%	4%	2%	2%	6%	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)	0	910	0	0	154	0
Turn Type	Perm	NA			Prot	
Protected Phases		4			6	
Permitted Phases	4					
Detector Phase	4	4			6	
Switch Phase						
Minimum Initial (s)	5.0	5.0			5.0	
Minimum Split (s)	24.0	24.0			24.0	
Total Split (s)	45.0	45.0			30.0	
Total Split (%)	60.0%	60.0%			40.0%	
Yellow Time (s)	4.0	4.0			4.0	
All-Red Time (s)	2.0	2.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		6.0			6.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None			C-Max	
Act Effct Green (s)		30.0			33.0	
Actuated g/C Ratio		0.40			0.44	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
v/c Ratio		0.70			0.11	
Control Delay (s/veh)		21.3			13.1	
Queue Delay		0.0			0.0	
Total Delay (s/veh)		21.3			13.1	
LOS		C			B	
Approach Delay (s/veh)		21.3			13.1	
Approach LOS		C			B	
Queue Length 50th (ft)		180			21	
Queue Length 95th (ft)		200			41	
Internal Link Dist (ft)		456	751		495	
Turn Bay Length (ft)					80	
Base Capacity (vph)		1696			1454	
Starvation Cap Reductn		0			0	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.54			0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 20.1		Intersection LOS: C	
Intersection Capacity Utilization 38.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Church Street & Maple Avenue



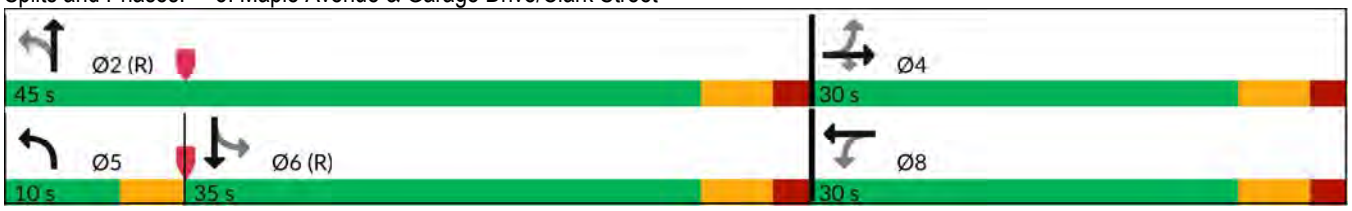
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	35	39	44	25	74	48	70	64	41	64	31
Future Volume (vph)	54	35	39	44	25	74	48	70	64	41	64	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	25			25			70			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.88		0.80		0.86		0.76	0.88		0.81	0.89	
Frt			0.850		0.930			0.928			0.951	
Flt Protected	0.950				0.985		0.950			0.950		
Satd. Flow (prot)	1805	1900	1615	0	1535	0	1805	1416	0	1805	1429	0
Flt Permitted	0.624				0.883		0.642			0.666		
Satd. Flow (perm)	1046	1900	1284	0	1301	0	923	1416	0	1029	1429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		75			68			33	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		163			399			575			378	
Travel Time (s)		4.4			10.9			15.7			10.3	
Confl. Peds. (#/hr)	74		90	90		74	149		109	109		149
Confl. Bikes (#/hr)			1			5			14			10
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%	0%	0%	0%	0%	6%	0%	12%	7%	0%	19%	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)	57	37	41	0	153	0	51	142	0	44	101	0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		9.5	24.0		25.0	25.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		10.0	45.0		35.0	35.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		13.3%	60.0%		46.7%	46.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		3.5	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		3.5	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	10.4	10.4	10.4		10.4		55.1	52.6		46.6	46.6	
Actuated g/C Ratio	0.14	0.14	0.14		0.14		0.73	0.70		0.62	0.62	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.39	0.14	0.16		0.63		0.07	0.14		0.07	0.11	
Control Delay (s/veh)	35.7	27.3	1.6		27.2		2.1	2.5		9.1	6.7	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	35.7	27.3	1.6		27.2		2.1	2.5		9.1	6.7	
LOS	D	C	A		C		A	A		A	A	
Approach Delay (s/veh)		23.0			27.2			2.4			7.5	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)	25	15	0		34		0	0		8	13	
Queue Length 95th (ft)	54	36	3		83		m13	45		28	42	
Internal Link Dist (ft)		83			319			495			298	
Turn Bay Length (ft)							100			75		
Base Capacity (vph)	334	608	475		467		756	1013		638	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	0.17	0.06	0.09		0.33		0.07	0.14		0.07	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 14.1		Intersection LOS: B	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			

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

Splits and Phases: 5: Maple Avenue & Garage Drive/Clark Street



Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	55	57	27	69	26	52	107	45	12	73	13
Future Vol, veh/h	20	55	57	27	69	26	52	107	45	12	73	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	3	0	3	0	0	0	0	0
Mvmt Flow	22	59	61	29	74	28	56	115	48	13	78	14
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, s/veh	8.7	8.8	9.5	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	15%	22%	12%
Vol Thru, %	52%	42%	57%	74%
Vol Right, %	22%	43%	21%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	132	122	98
LT Vol	52	20	27	12
Through Vol	107	55	69	73
RT Vol	45	57	26	13
Lane Flow Rate	219	142	131	105
Geometry Grp	1	1	1	1
Degree of Util (X)	0.283	0.181	0.173	0.139
Departure Headway (Hd)	4.639	4.603	4.757	4.753
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	776	752	751
Service Time	2.683	2.652	2.806	2.804
HCM Lane V/C Ratio	0.284	0.183	0.174	0.14
HCM Control Delay, s/veh	9.5	8.7	8.8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.7	0.6	0.5

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	0	8	2	2	18	19	176	4	4	118	12
Future Vol, veh/h	30	0	8	2	2	18	19	176	4	4	118	12
Conflicting Peds, #/hr	5	0	2	2	0	5	118	0	52	52	0	118
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	4	0
Mvmt Flow	36	0	10	2	2	22	23	212	5	5	142	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	541	592	269	466	597	271	275	0	0	269	0	0
Stage 1	277	277	-	312	312	-	-	-	-	-	-	-
Stage 2	264	315	-	154	284	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	455	422	774	510	419	772	1300	-	-	1306	-	-
Stage 1	734	685	-	703	661	-	-	-	-	-	-	-
Stage 2	746	659	-	853	680	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	377	346	686	464	344	730	1154	-	-	1242	-	-
Mov Cap-2 Maneuver	377	346	-	464	344	-	-	-	-	-	-	-
Stage 1	649	605	-	653	614	-	-	-	-	-	-	-
Stage 2	701	613	-	836	601	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	14.71	10.94	0.78	0.24
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	171	-	-	416	633	53	-	-
HCM Lane V/C Ratio	0.02	-	-	0.11	0.042	0.004	-	-
HCM Control Delay (s/veh)	8.2	0	-	14.7	10.9	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0	-	-

Evanston Row
900 Clark Street
Evanston, IL

Fiscal Impact Study

January 21, 2025

Prepared for

Continuum Development

By

Johnson Research Group, Inc.

Contents

Tables

Appendices

1 Executive Summary

Introduction

Continuum Development ("Developer") engaged Johnson Research Group, Inc. ("JRG") to prepare an estimate of the fiscal impacts for a proposed mixed-use development, featuring 358 rental apartment units and 2,934 square feet of commercial space, at 900 Clark Street in the City of Evanston, Illinois ("City"). This study addresses the fiscal impacts to Evanston-Skokie Consolidated Community School District 65 ("CCSD 65") and Evanston Township High School District 202 ("HSD 202").

The Project

The Developer's proposed mixed-use development at 900 Clark Street would include 286 market-rate and 72 affordable rental apartments and 2,934 square feet of commercial space ("Project"). The bedroom mix and rent levels are summarized below.

900 Clark Street: Unit Mix and Rent Levels

Unit Type	Average Size (Sq. Ft.)	Market Rate Units	Affordable Units	Total Units	Market Monthly Rent ($)	Affordable Monthly Rent ($)
Studio / Convertible	491	116	52	168	2,423	1,177
1 BR / 1BR + Den	775	133	15	148	3,161	1,261
2 BR	1,148	31	4	35	4,495	1,513
3 BR	1,412	5	1	6	6,237	1,749
4 BR	2,108	1	0	1	8,995	N/A
Total		**286**	**72**	**358**		

Sources: Continuum Development, JRG.

Net Fiscal Impact

Key impacts of the Project for the school districts after stabilization are as follows:

Evanston-Skokie School District 65

- The annual net fiscal impact for CCSD 65 will be positive $925,543.
- The Project's 358 households could generate as many as six (6) school age children in grades K-8. The schools associated with the Project site have capacity to absorb these additional students.
- The Project will generate $1,086,157 in annual property tax revenue for CCSD 65.

Evanston Township High School District 202

- The annual net fiscal impact for HSD 202 is estimated to be positive $634,851.
- The Project's 358 households are expected to generate approximately two (2) students in grades 9-12. The school associated with the Project site has capacity to absorb these additional students.
- The Project will generate a $690,537 in property tax revenue for HSD 202.

2 Introduction

Continuum Development ("Developer") engaged Johnson Research Group, Inc. ("JRG") to prepare an estimate of the fiscal impacts for a proposed mixed-use development, featuring 358 rental apartment units and 2,934 square feet of commercial space, at 900 Clark Street in the City of Evanston, Illinois ("City"). This study addresses the net fiscal impacts to Evanston-Skokie Consolidated Community School District 65 ("CCSD 65") and Evanston Township High School District 202 ("HSD 202").

2.1 The Project

The Developer's proposed mixed-use development at 900 Clark Street will include 298 market-rate and 72 affordable rental apartment units, and 2,934 square feet of commercial space ("Project"). The bedroom mix and rent levels are summarized in Table 1 below.

Table 1. 900 Clark Street - Unit Mix and Sale Prices

Unit Type	Average Size (Sq. Ft.)	Market Rate Units	Affordable Units	Total Units	Market Monthly Rent ($)	Affordable Monthly Rent ($)
Studio / Convertible	491	116	52	168	2,423	1,177
1 BR / 1BR + Den	775	133	15	148	3,161	1,261
2 BR	1,148	31	4	35	4,495	1,513
3 BR	1,412	5	1	6	6,237	1,749
4 BR	2,108	1	0	1	8,995	N/A
Total		**286**	**72**	**358**		

Sources: Continuum Development, JRG.

Consistent with other fiscal impact studies, findings are presented in today's dollars (2025), rather than dollars inflated to a future point in time when the Project is expected to be fully stabilized. Therefore, every year after the first year is assumed to have the same impact as this first stabilized year.

3 Student Population Estimates

3.1 Methodology

This section presents estimates of school-age children residing at the Project who might attend school in CCSD 65 and HSD 202 based on a widely used set of residential multipliers published by the Illinois School Consulting Service/Associated Municipal Consultants, Inc. The multipliers for school-age children are grouped by grade levels that allow for aggregation by school type. For purposes of this study, estimates are aggregated by grade for elementary school (grades K-5), junior high (grades 6-8) and high school (grades 9-12).

3.2 Public School Student Population Estimates

Table 2 below includes estimates of residents per unit, including adults and children by age (and grade) for each unit based on the number of bedrooms.

Table 2. Estimated Population Per Individual Dwelling Unit

Bedrooms	Pre-School (0-4 yrs.)	Grades K-5 (5-10 yrs.)	Grades 6-8 (11-13 yrs.)	Grades 9-12 (14-17 yrs.)	Adults (18+ yrs.)	Total
Studio / Convert.	0.000	0.000	0.000	0.000	1.294	1.294
1	0.000	0.002	0.001	0.001	1.754	1.758
2	0.047	0.086	0.042	0.046	1.693	1.914
3 / 4	0.052	0.234	0.123	0.118	2.526	3.053

Source: Illinois School Consulting Service/Associated Municipal Consultants, Inc.

Using the per unit multipliers above, Table 3 presents the total estimated population, including adults and school-age children for the whole Project, based on the total number of units and number of bedrooms.

Table 3. Project Estimated Population by Number of Bedrooms

Bedrooms	Units	Pre-School (0-4 yrs.)	Grades K-5 (5-10 yrs.)	Grades 6-8 (11-13 yrs.)	Grades K-8 (5-13 yrs.)	Grades 9-12 (14-17 yrs.)	Adults (18+ yrs.)	Total
Studio / Convert.	168	0.0	0.0	0.0	0.0	0.0	217.4	217.4
1	148	0.0	0.3	0.1	0.4	0.1	259.6	260.2
2	35	1.6	3.0	1.5	4.5	1.6	59.3	67.0
3 / 4	7	0.4	1.6	0.9	2.5	0.8	17.7	21.4
Total	**358**	**2.0**	**4.9**	**2.5**	**7.4**	**2.6**	**553.9**	**565.9**

Sources: Illinois School Consulting Service/Associated Municipal Consultants, Inc., JRG.

As Table 3 shows, the Project could generate eight (8) school children in grades K-8 and three (3) school children in grades 9-12; however, not all children from the Project would be expected to enroll in public school. Data from the American Community Survey ("ACS") 2023 one-year estimates show that 79.2% of elementary school-age children (grades K-8) living in the attendance boundaries of CCSD 65 attend public school and 85.9% of high-school age children (grades 9-12) living in the attendance boundaries of HSD 225 attend public school. Applying these proportions to the eight (8) students generated by the Project results in six (6) students enrolled in CCSD 65 and two (2) students enrolled in HSD 202 (see Table 4).

Table 4. Total Expenditures Per Pupil ("TEPP") by School District from New Students

Grade Level	Project School-Age Children	Public School Enrollment (%)	Project Public School Students
Elementary (K-5)	5	79.2	4
Middle (6-8)	3	79.2	2
High School (9-12)	3	85.9	2
Total	**11**		**8**

Sources: U.S. Census Bureau: American Community Survey (2023, 1-Year Estimates), JRG.

4 Public School District Expenditures and School Capacity

4.1 Total Expenditures Per Pupil

Additional school district expenditures due to student generation from the Project are estimated to be $160,614 for CCSD 65 and $55,686 HSD 202. However, property tax revenue from residential properties supports 63.8% of CCSD 65 annual operating costs and 67.9% of HSD 202 annual operating costs (see Table 5). As a result, property taxes generated by the Project are expected to cover $102,523 of operating costs for CCSD 65 and $37,006 of operating costs for HSD 202. These proportions are derived from an analysis of the various funding sources for each school district (see Table 6) and the proportion of property taxes that are paid by residential properties compared to other types of property like commercial and industrial (see Table 7).

Table 5. Operating Expenditures from New Students by School District

School District	New Students	OEPP ($)	Total Expenditures ($)	Property Tax / All Funding Sources (%)	Residential Share of Prop. Tax (%)	Residential Effective Share (%)	Project Share ($)
CCSD 65	6	26,769	160,614	78.8	81.0	63.8	102,523
HSD 202	2	27,843	55,686	83.8	81.0	67.9	37,806
Total	**8**		**216,300**				**140,329**

Sources: Illinois State Board of Education, Cook County Clerk, JRG.

The estimates of additional expenses from enrollment of public-school students living at the Project for CCSD 65 and HSD 202 are based on each district's operating expenditures per pupil ("OEPP") reported to, and published by, the Illinois State Board of Education ("ISBE"). Estimates for the Project are based on FY 2023-24 OEPP for each district, which are the most recent figures available. The figures have been adjusted for FY2024-25 budgetary increases for each district to align with the property tax estimates in this study. FY 2023-24 OEPP for CCSD 65 was $25,864, which equates to $26,769 after adjusting for FY2024-25 budgetary increases (+3.5%). FY 2023-24 OEPP for HSD 202 was $26,568 and is $27,843 after accounting for increases (+4.8%) in the FY2024-25 budget.

Local property taxes account for 78.8% of revenue sources CCSD 65 and 83.8% of revenue for HSD 202 (see Table 6). The remainder comes from other local sources as well as state and federal grants.

Table 6. School District Revenue by Source (FY22-23)

Funding Source	CCSD 65 ($)	CCSD 65 (%)	HSD 202 ($)	HSD 202 (%)
Local Property Taxes	130,846,598	78.8	86,826,759	83.8
Other Local Funding	6,174,054	3.7	5,455,541	5.3
Evidence Based Funding	7,902,261	4.8	2,962,571	2.9
Other State Funding	4,907,081	3.0	1,488,572	1.4
Federal Funding	16,271,240	9.8	6,895,617	6.7
Total	**166,101,234**	**100.0**	**103,629,060**	**100.0**

Sources: Illinois State Board of Education, JRG.

The residential share of equalized assessed value ("EAV") available to each school district is 81.1%, which also equates to residential properties share of each districts' tax extension (see Table 7).

Table 7. School District Equalized Assessed Value by Valuation Type (Tax Year 2023)

Valuation Type	EAV in CCSD 65 ($)	EAV in CCSD 65 (%)	EAV in HSD 202 ($)	EAV in HSD 202 (%)
Residential	3,415,762,145	81.0	3,415,762,145	81.0
Farm	14,467	0.0	14,467	0.0
Commercial	759,993,078	18.0	759,993,078	18.0
Industrial	37,131,329	0.9	37,131,329	0.9
Railroad	2,505,866	0.1	2,505,866	0.1
Total	**4,215,406,885**	**100.0**	**4,215,406,885**	**100.0**

Sources: Cook County Clerk, JRG.

4.2 School Capacity

One measure of school capacity is the ratio of students to teachers or average class size. Table 8 lists the schools and grade levels with attendance boundaries that include the Project Site as well as the average class size for each school starting with 2023-24, going back to 2016-17. Based on current attendance boundaries, students from the Project in grades K- 5 would attend Dewey Elementary, students in grades 6-8 would attend Nichols Middle School and students in grades 9-12 would attend Evanston Township High School.

Table 8. Average Class Size by School Year and School

School	2023-24	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Dewey (K-5).	19.5	18.7	16.1	9.8	17.7	21.2	21.0	21.8
Nichols (6-8)	21.4	20.9	19.9	20.1	20.7	24.4	22.0	21.4
Evanston HS (9-12)	13.3	13.5	14.2	14.5	16.6	14.9	19.0	18.7

Sources: Illinois State Board of Education, JRG

Table 9 compares average class size for the 2023-24 school year to an estimate of what it would be after absorbing students from the Project enrolling in public school. As Table 9 shows, the Project will have a negligible impact on class size in elementary, middle school and high school.

Table 9. Average Class Size and Capacity by School

School (Grades)	2023-2024 Enrollment	Average Class Size	Project Enrollment	New Average Class Size	Change	Change (%)
Dewey (K-5).	329	19.5	4	19.7	0.2	1.2
Nichols (6-8)	623	21.4	2	21.5	0.1	0.6
Evanston HS (9-12)	3,499	13.3	2	13.3	0.0	0.1

Sources: Illinois State Board of Education, JRG

As Table 8 shows, 2023-24 average class sizes are below pre-pandemic COVID-19 levels at all three schools. For its part, CCSD 65 projects district-wide enrollment will decline over the next decade. As part of its analysis, it has prepared a multi-year projection of enrollment for each school in the district. The projections for Dewey and Nichols are shown in Table 10. CCSD 65

projects that enrollment at Dewey Elementary will eventually decline to 325 by 2028-29, slightly below 2023-24 enrollment of 329. As for Nichols, enrollment is projected to grow, peaking at 651 in 2027-28 but then decline to 645 for 2028-2029.

Table 10. CCSD 65 Projected Enrollment by School, Grade, and School Year

School Grade	2024-25	2025-26	2026-27	2027-28	2028-29	Average
CCSD 65 – Dewey Elementary School						
K	55	53	53	54	53	*54*
1	57	55	53	53	54	*54*
2	55	57	55	53	53	*55*
3	59	55	57	55	53	*55*
4	56	59	55	57	55	*56*
5	47	56	59	55	57	*55*
Subtotal	***329***	***335***	***332***	***327***	***325***	
CCSD 65 – Nichols Middle School						
6	201	223	215	213	217	*214*
7	210	201	223	215	213	*213*
8	212	210	201	223	215	*212*
Subtotal	**623**	**634**	**639**	**651**	**645**	

Sources: CCSD 65: Sarita Smith, Director of Student Assignments, 11/13/2023 Memorandum to Board of Education Re: Annual Students Assignment Process; 5-Year Enrollment Projections (2023-24 to 2028-29)

Although HSD 202 does not publish data like CCSD 65 in Table 10 above, its Annual Comprehensive Audit for FY 2022-23 indicates the school has capacity for 5,500 students although enrollment was 3,593, resulting in a capacity utilization rate of 65.3%.

5 Property Tax Estimates

5.1 Methodology

Annual property tax estimates for the Project are based on the assumptions described below. The Developer provided information about the Project components, quantities, rents, construction timeline, and absorption. JRG gathered all other relevant information from the following sources: Cook County Assessor, Cook County Clerk, Cook County Treasurer and CoStar. Appendix A provides a detailed explanation of how property taxes are calculated in Cook County.

5.2 Current Equalized Assessed Value and Property Taxes

The Project Site, as proposed, will occupy a fraction of two existing PINS (approximately 14%), requiring a PIN split as part of the Development process. The larger PINs currently generate $1,768,415 in total property taxes, with the prorated share attributable to the Project Site being $254,651. Of that amount, $103,816 (40.8%) is generated by the CCSD 65 tax extension and $67,595 (25.9%) is generated by the HSD 202 tax extension on the Site.

The PINs within which the Project site lies are listed in Table 11 and includes the most recent (tax year 2024) certified assessed values ("AV") for both the land and improvements, as well as the equalized assessed value ("EAV") and aggregate property tax extension for all taxing agencies for each PIN. JRG has not calculated the post-Project EAV for the remaining PIN following subdivision.

Table 11. Current Assessed Value, Equalized Assessed Value, and Property Tax by PIN (Tax Year 2024)

PIN	Land AV ($)	Improved AV ($)	Current EAV ($)	Total Property Taxes ($)
11-18-125-014-0000	1,145,900	6,049,564	21,703,678	1,768,416
11-18-125-016-0000	12,000	0	36,196	2,949
Totals	**1,157,900**	**6,049,564**	**21,739,874**	**1,771,365**

Sources: Continuum Development, Cook County Clerk, City of Evanston, JRG.

5.3 Comparable Properties

JRG reviewed a market study and other documentation provided by the Client to generate a list of seven comparable Evanston multi-family properties to establish the rate of assessment being placed upon properties by the Cook County Assessor for tax purposes (see Table 12). Among the properties, five were completed since 2010. Building heights range from five to 24 stories. Unit counts range between 112 and 355 units, totaling approximately 1,548 across all seven buildings. As proposed, the Project would be 27 stories with 358 units.

The seven comparable properties have an average equalized assessed value ("EAV") per unit of $67,500, resulting in an average taxes of $5,500 per unit across all 1,548 existing units (see Table 12). The seven comparable properties also utilize a substantial land area, averaging 1.2 acres but as high as 2.0 acres for both the AMLI and the Reserve.

Table 12. Comparison of Evanston Multi-Family Properties

Properties	Unit Count	Year Built	Stories	Address	Class	Total EAV	Total Taxes	EAV/ Unit	Taxes/ Unit	Acres	Total Taxes per Acre
E2	355	2015	16	1890 Maple Ave	3-91	27,928,269	2,275,595	78,671	6,410	1.5	1,483,529
Albion Evanston	268	2019	15	1500 Sherman Ave	3-91	19,403,982	1,581,036	72,403	5,899	0.9	1,763,725
The Park Evanston	283	1997	24	1630 Chicago Ave	3-97	19,546,767	1,592,671	69,070	5,628	1.0	1,633,354
Reserve IL	193	2003	4	1930 Ridge Ave	3-91	11,896,878	969,358	61,642	5,023	2.0	485,576
The Main	112	2016	9	847 Chicago Ave	3-97	7,541,576	614,488	67,336	5,486	0.7	881,366
Tapestry Station	120	2024	5	740 Main St	3-91	4,508,518	367,354	37,571	3,061	0.6	570,866
AMLI Evanston	217	2012	5	737 Chicago Ave	3-97	13,616,972	1,109,511	62,751	5,113	2.0	553,561
Average	**221**	**2012**	**11**			**14,920,423**	**1,215,716**	**67,500**	**5,500**	**1.2**	**972,900**
Project	**358**	**2027**	**27**	**900 Clark St**		**32,695,860**	**2,664,059**	**91,329**	**7,442**	**0.3**	**8,566,606**

Source: JRG, Cook County Assessor, Continuum Development LLC

At completion and stabilization in 2028, the Developer anticipates an average EAV per unit of 91,000 and average property taxes per unit of approximately $7,440.

Instead of providing onsite parking for residents, the Developer proposes to lease spots in a City-owned parking garage across the street for Project residents. As a result of providing offsite parking, this concept requires 0.3 acres of land resulting in a per acre value of approximately $8.5M, which far exceeds the average value of the comparable Evanston properties ($972,000). The Project also highlights the substantial property value that Evanston could capture by supporting similar projects that use under-utilized public parking assets in the downtown.

5.4 Project Valuation

Following stabilization, the EAV of the Project site will be approximately $32.7 million, compared to $3.1 million before Project construction begins (see Table 13). Total annual base property taxes from the completed Project are estimated to be $2,664,059 compared to $254,651 in tax year 2023. This represents a ten-fold increase in the amount of property taxes generated when compared to its present use.

Table 13. Project Valuation Assumptions and Estimates

Assumption	Value
Net Operating Income ($)	9,603,996
Cap Rate & Tax Load (%)	8.86
Fair Market Value ($)	108,397,242
Level of Assessment (%)	10
Assessed Value ($)	10,839,724
Equalization Factor	3.0163
Equalized Assessed Value ($)	32,695,860
Tax Rate (%)	8.148
Estimated Property Taxes ($)	2,664,059
Estimated Property Taxes / Unit ($)	7,442

Source: Continuum Development LLC, JRG

5.5 Affordable Housing Assessment Reduction

As part of the Project, the Developer will be including 72 units of affordable housing. This will allow the Development to qualify for the Tier 3 property tax reduction plan as prescribed by 35 ILCS 200/15-178, signed into law in 2021. The terms of this program require that at least 20% of the units be affordable to households earning 60% or less than the area median income ("AMI"). By complying with this legislation, the Project will receive the following reductions in assessed value and property taxes:

- Year 1-3: Reduction equal to 100% of the difference between pre-occupation valuation and post-construction assessed values.
- Year 4-6: 80% reduction
- Year 7-9: 60% reduction

- Year 10-12: 40% reduction
- Year 13-30: 20% reduction

5.6 Estimated Property Taxes for School District 65 and High School District 202

Using the 2023 tax rates of 3.322% for CCSD 65 and 2.112% for HSD 202, the Project is estimated to generate annual property taxes of $1,086,157 for CCSD 65 and $690,537 for HSD 202 following full stabilization. As shown in Table 14, these amounts, when compared to 2023 levels, mark a net increase in property tax revenue of $261,691 for CCSD 65 and $162,060 for HSD 202. Table 14 also shows the current and potential property taxes for all other taxing agencies.

Table 14. Comparison of 2023 Property Taxes and Estimated Property Taxes from Project Components by Taxing Agency

Taxing Agency	2023 Rate (%)	Proportion (%)	2023 Taxes ($)	Total Project Taxes ($)	Delta ($)
Evanston-Skokie School District 65	3.322	40.8	103,823	1,086,157	982,334
Evanston Township High School District 202	2.112	25.9	66,007	690,537	624,530
Oakton Community College District Skokie Des Plaines	0.227	2.8	7,094	74,220	67,125
City of Evanston	1.269	15.6	39,660	414,911	375,250
Evanston Library Fund	0.221	2.7	6,907	72,258	65,351
Evanston Special Service Area 9	0.122	1.5	3,813	39,889	36,076
Evanston General Assistance	0.029	0.4	906	9,482	8,575
Cook County	0.170	2.1	5,313	55,583	50,270
Cook County Forest Preserve	0.075	0.9	2,344	24,522	22,178
Cook County Public Safety	0.139	1.7	4,344	45,447	41,103
Cook County Consolidated Elections	0.032	0.4	1,000	10,463	9,463
Cook County Health Facilities	0.077	0.9	2,406	25,176	22,769
Water Reclamation District of Chicago	0.345	4.2	10,782	112,801	102,018
North Shore Mosquito Abatement District	0.008	0.1	250	2,616	2,366
Total	**8.148**	**100.0**	**254,651**	**2,664,059**	**2,409,408**

Sources: Cook County, JRG

6 Parking Fee Revenue

The City operates a parking garage at 1800 Maple Street, on the northeast corner of Maple and Clark, across the street from the Project Site. The Developer intends to negotiate a lease agreement with the City to reserve up to 79 parking spaces for Project residents instead of providing parking onsite at the Project. The garage has 1,400 spaces and typically has between 1,100 to 1,200 parking spots available during the week The City currently charges $115 for a monthly parking pass. The Maple Street garage is one of three parking garages operated by the

City, in addition to several surface parking lots and metered street parking spaces throughout Evanston.

Based on the assumptions above, the Project could generate as much as $109,020 annually in parking revenue for the City based on a monthly parking rate $115 for 79 spaces. This does not include potential revenue from Project residents renting additional parking spaces or any parking fees that guests might generate while visiting Project residents.

7 Net Fiscal Impact on School District 65 and High School District 202

This section presents a brief recap of the revenues and operating expenses resulting from student generation by the Project and finishes with a comparison of the figures to produce the net fiscal impact for each school district.

7.1 School District Revenues

As noted earlier the Project is estimated to generate property taxes of $1,086,157 for CCSD 65 and $690,537 for HSD 202. These figures are used to estimate the Net Fiscal Impact to CCSD 65 and HSD 202 in Table 15 below.

7.2 School District Expenditures

The Project is estimated to generate six (6) students and additional operating expenses of $160,614 for CCSD 65, and two (2) students and $55,686 of additional operating expenses for HSD 202. Although property taxes from residential property owners fund 63.8% of CCSD 65 operating expenses and 67.9% of HSD 202 of operating expense, the full operating expense estimates are used to calculate the net fiscal impact.

7.3 School District Net Fiscal Impact

Table 15 shows that annual net impact for CCSD 65 will be a positive $925,543 and a positive $634,851 for HSD 202.

Table 15. Project's Net Fiscal Impact on CCSD 65 and HSD 202

Project Impacts	CCSD 65 ($)	HSD 202 ($)
Property Tax Revenue	1,086,157	690,537
Operating Expenses	(160,614)	(55,686)
Net Fiscal Impact	**925,543**	**634,851**

Source: JRG

Appendices

A. Methodology for Estimating Property Tax Revenues

Appendix A

Methodology for Estimating Property Tax Revenues

Annual property tax estimates for the Project are based on the assumptions described below. The Developer provided information about the Project components, quantities, residential rent levels, construction timing and leasing absorption. JRG gathered all other relevant information from the following sources: Cook County Assessor, Cook County Treasurer, Cook County Clerk, and CoStar.

Property Tax Calculation. The formula for calculation of property taxes is shown in Figure 1 below.

Figure B-1. Property Tax Calculation

Property Tax	=	Assessor's Fair Market Value	X	Assessment Rate	X	Equalization Factor	X	Tax Rate

Assessor's Fair Market Value (FMV). The Project's FMV was estimated using the sales approach for residential components of the Project. An Assessor Discount Factor of 12% is then applied to the estimated market value to estimate the Assessor's Fair Market Value (e.g. estimated market value x 88% = Assessor's Fair Market Value).

Assessment Level. The residential units are assessed at 10% of FMV.

State Equalization Factor. The most recent (2023) State Equalization Factor for Cook County is 3.0163.

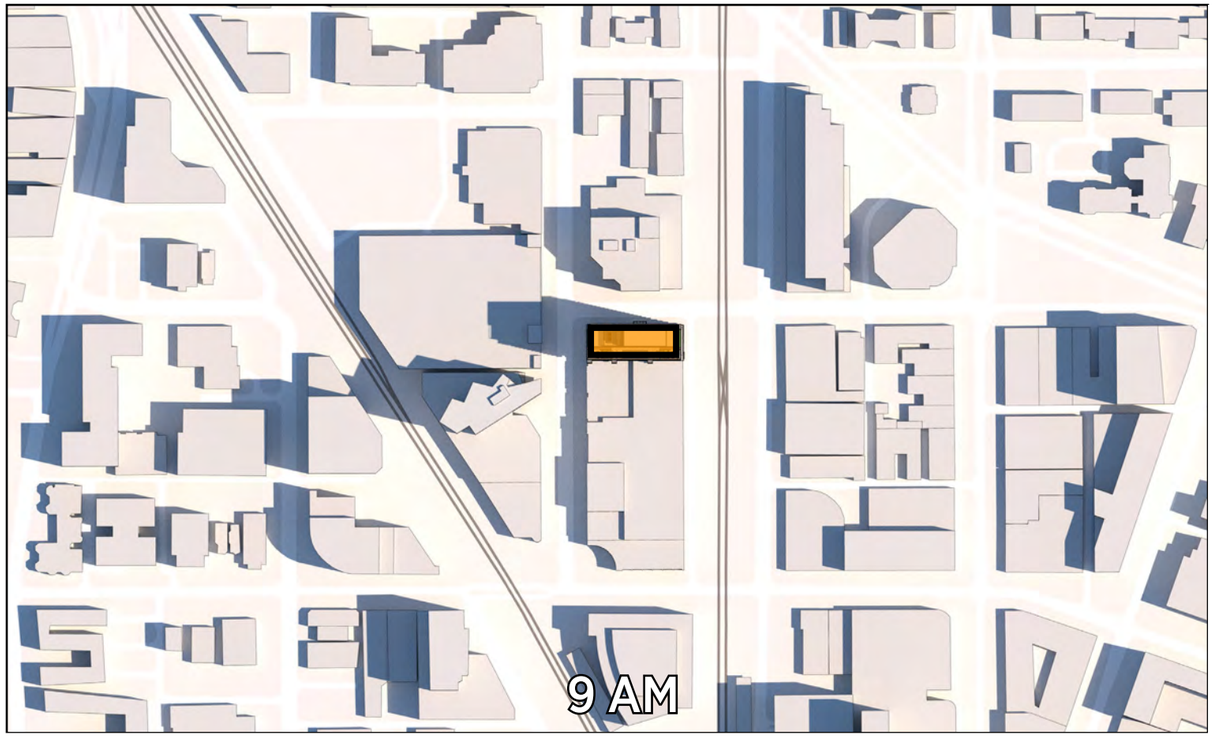
Tax Rates. For purposes of these estimates, the most recent tax rates (2023) for CCSD 65 and HSD 202 and other taxing districts extensions utilized. The property tax rates for tax assessment year 2023, payable in 2024 are shown in the following table.

Table A-1. Tax Year 2023 Tax Rates by Taxing Agency

Taxing Agency	2023 Rate (%)
Evanston-Skokie School District 65	3.322
Evanston Township High School District 202	2.112
Oakton Community College District Skokie Des Plaines	0.227
City of Evanston	1.269
Evanston Library Fund	0.221
Evanston Special Service Area 9	0.122
Evanston General Assistance	0.029
Cook County	0.170
Cook County Forest Preserve	0.075
Cook County Public Safety	0.139
Cook County Consolidated Elections	0.032
Cook County Health Facilities	0.077
Water Reclamation District of Chicago	0.345
North Shore Mosquito Abatement District	0.008
Total	**8.148**

Source: Cook County Clerk

Fully Assessed Taxes. Based on these assumptions, the Project will have a total EAV of $32,695,860 the first full year following full stabilization and generate $2,664,059 in property taxes.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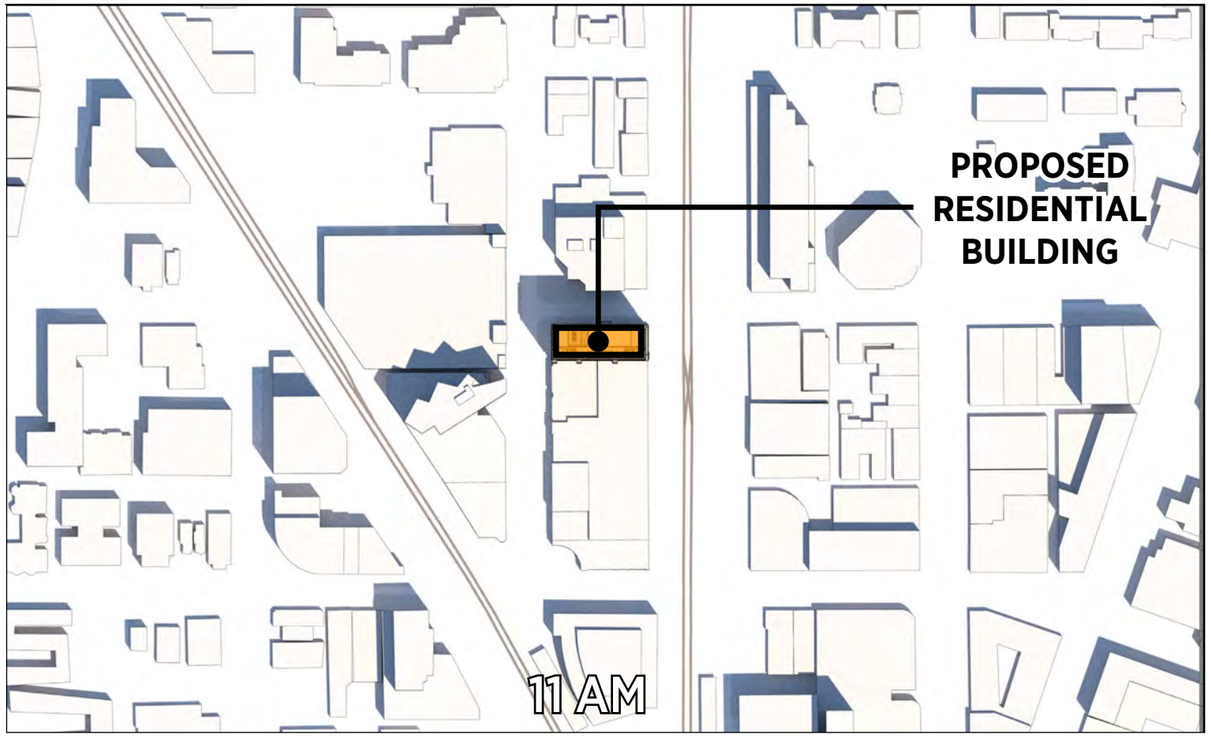
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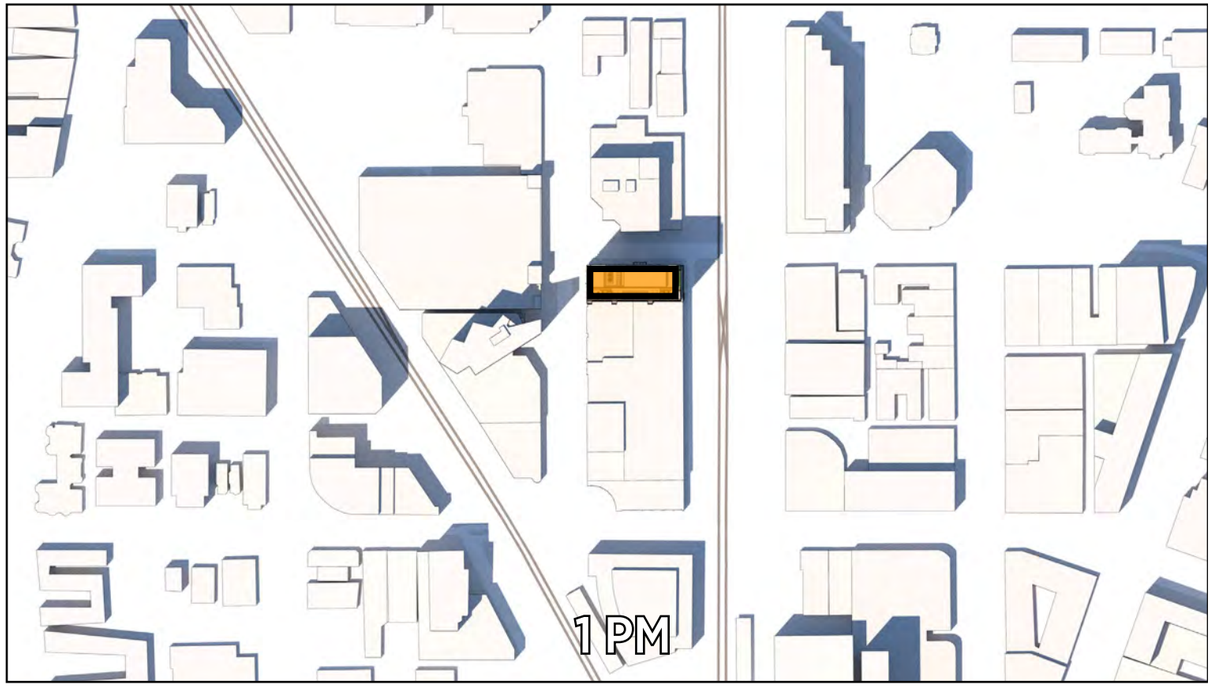
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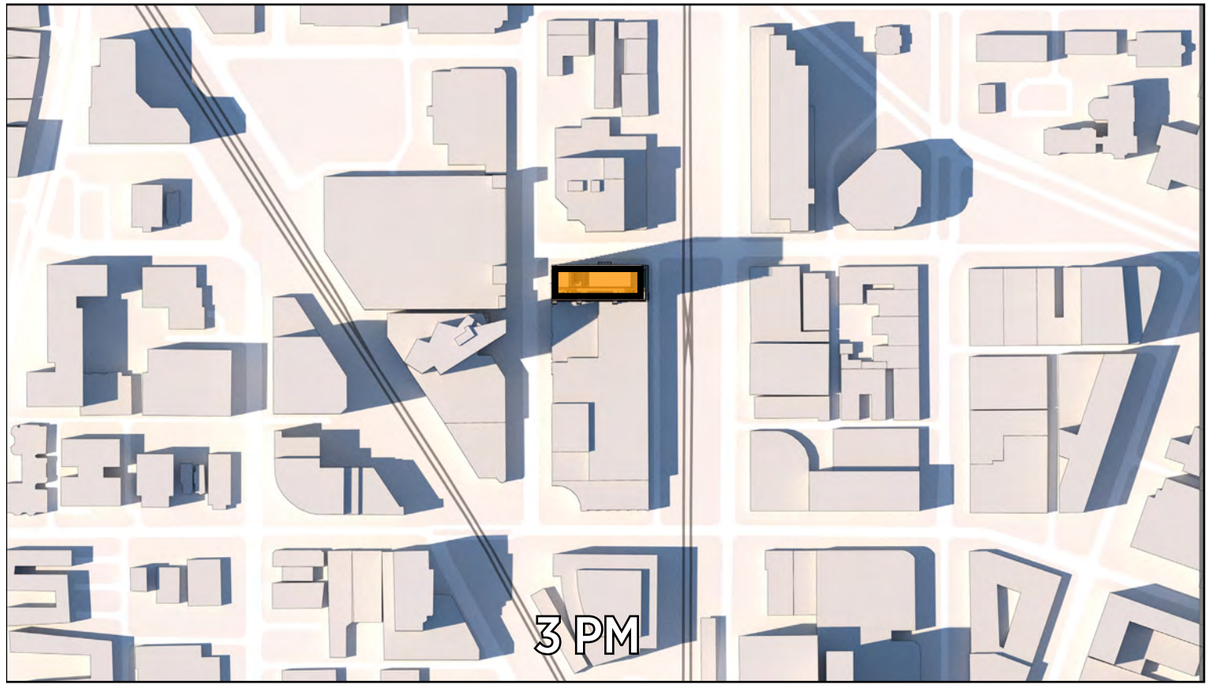
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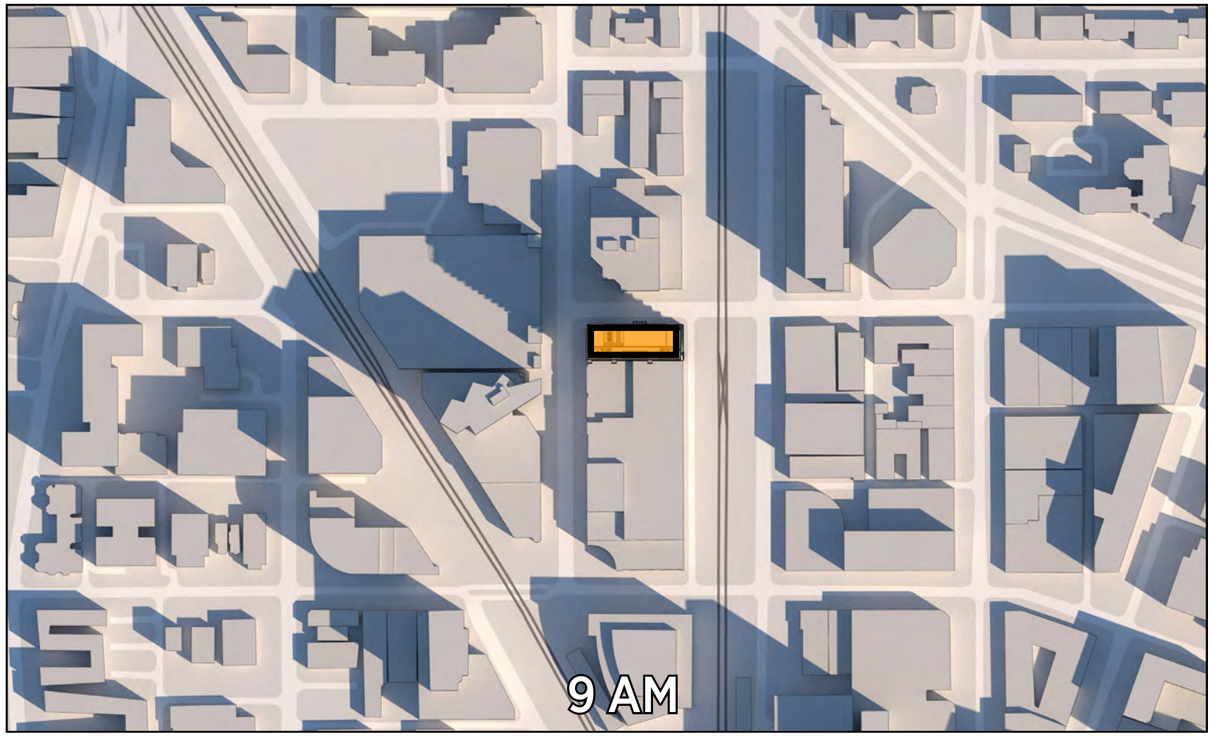
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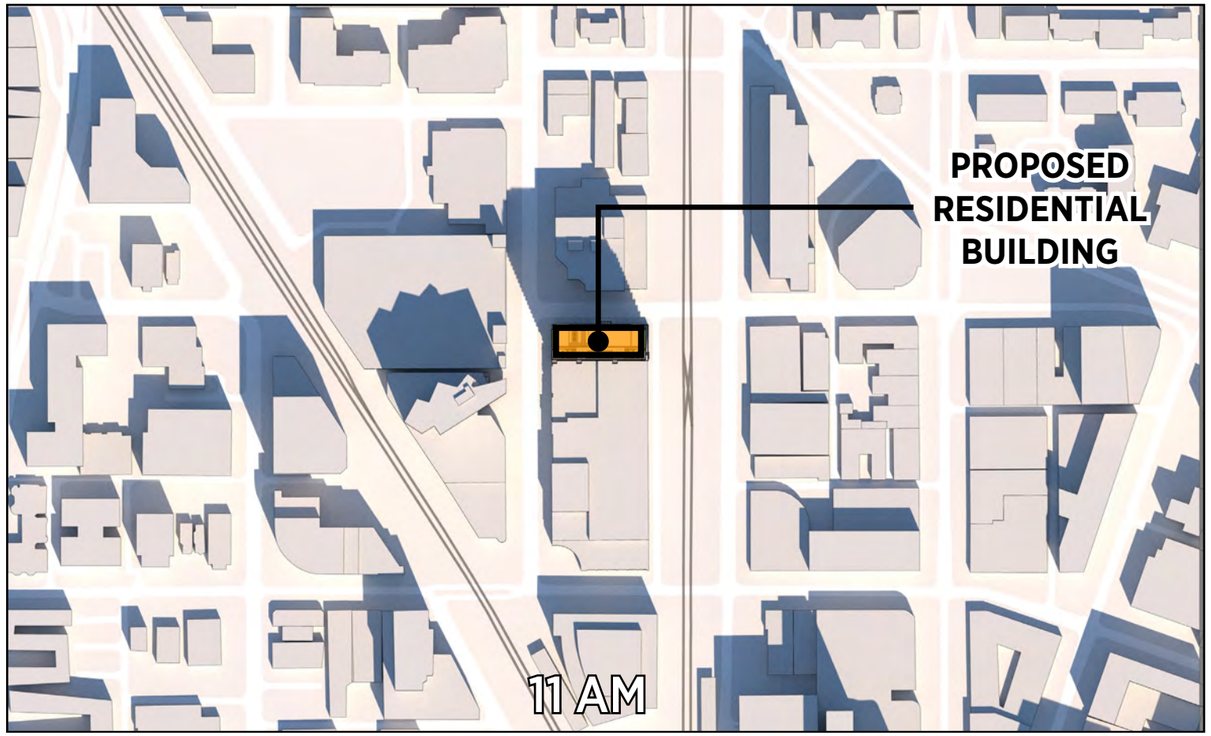
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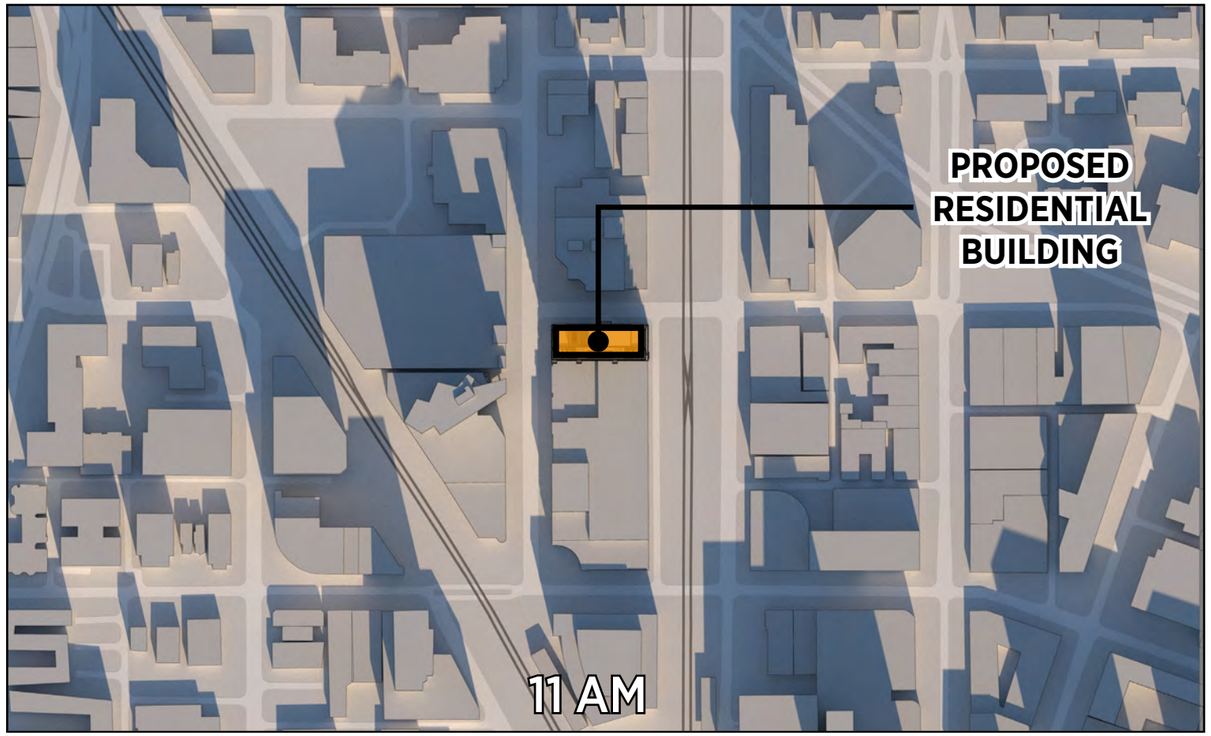
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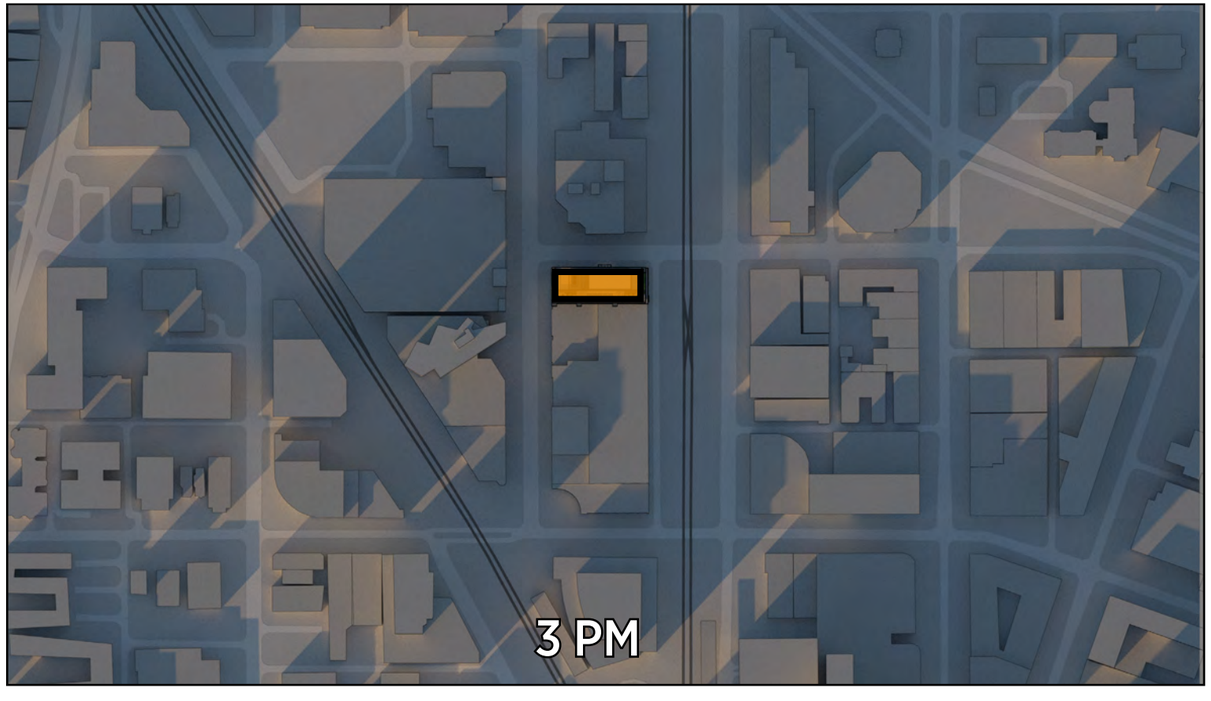
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PRELIMINARY REPORT

CHURCH STREET PLAZA

EVANSTON, IL

PEDESTRIAN WIND COMFORT ASSESSMENT – PRELIMINARY SUMMARY

PROJECT #2505414
SEPTEMBER 6, 2024

SUBMITTED TO

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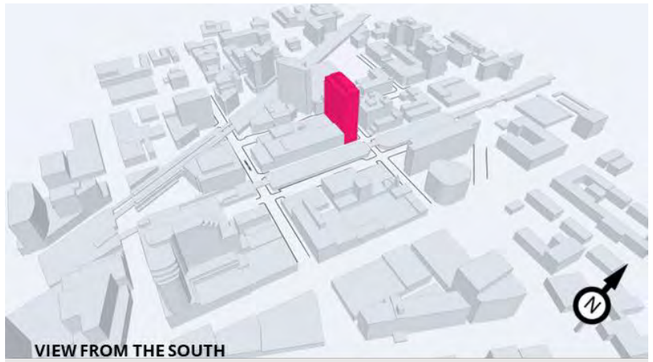
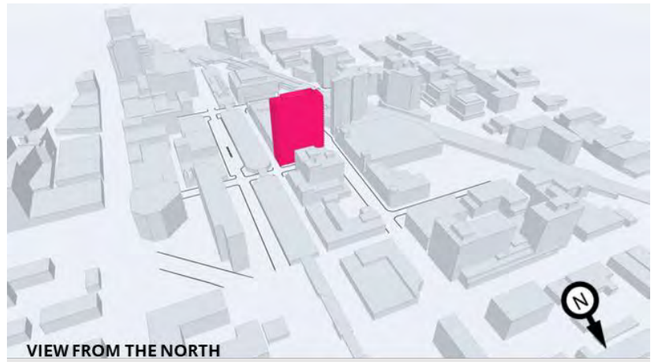
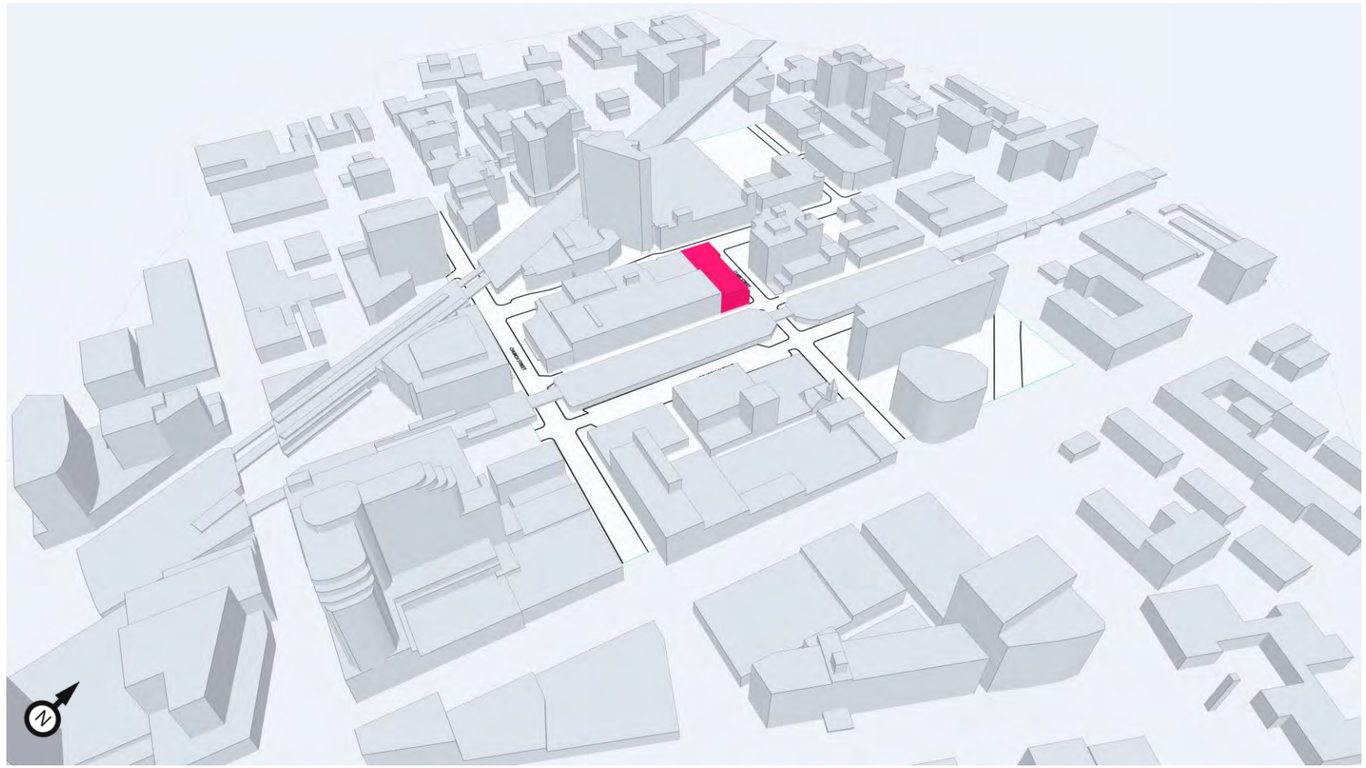
SIMULATION MODEL





Computer model of the project site with surroundings

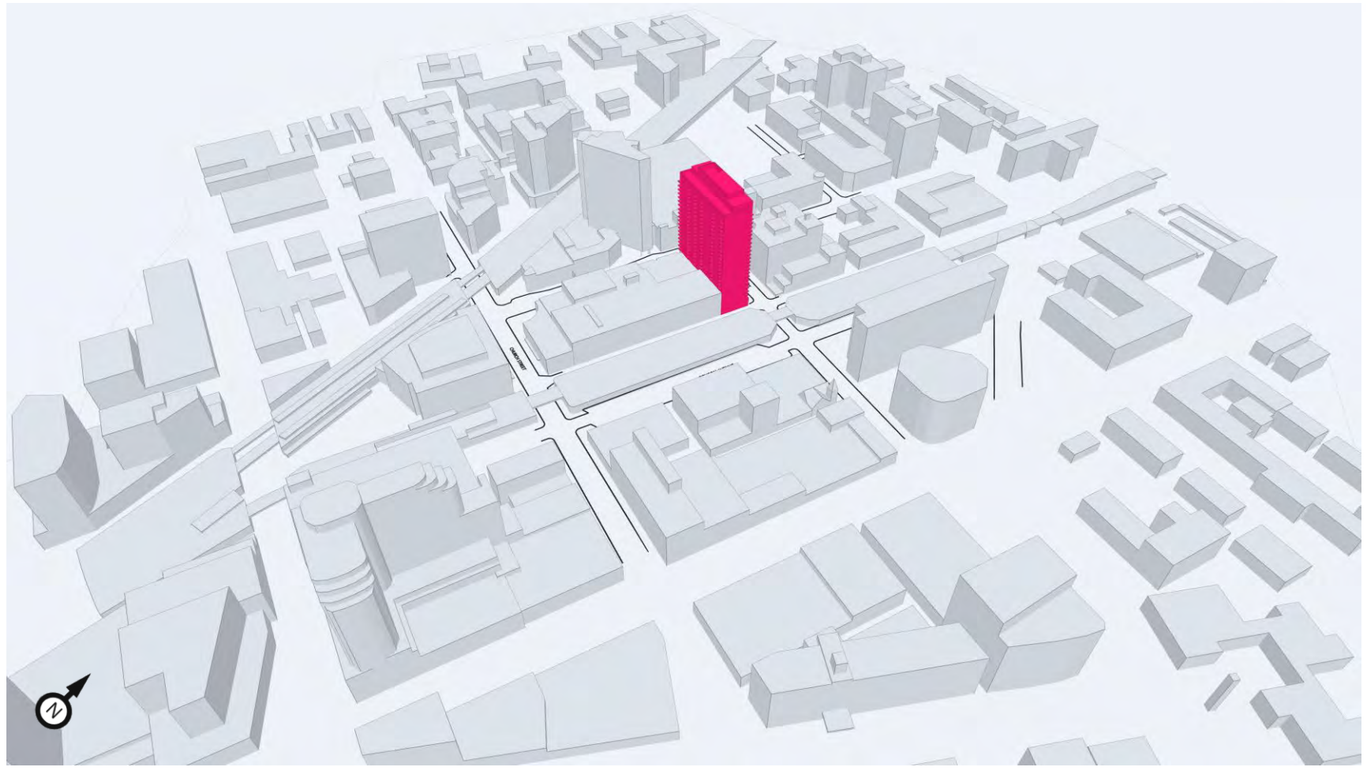
SIMULATION MODEL – EXISTING SCENARIO



Computer model of the existing site with surroundings

RWDI Project #2505414
September 6, 2024

SIMULATION MODEL – PROPOSED SCENARIO



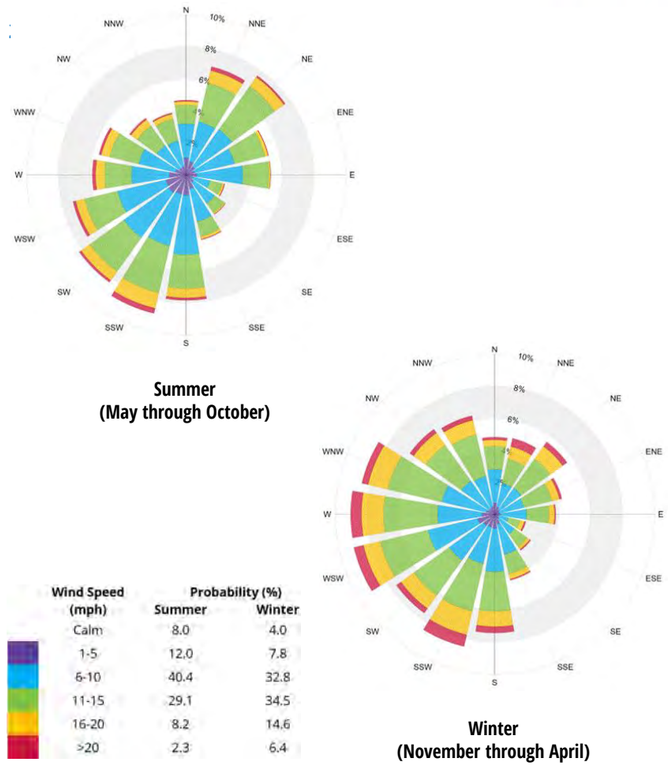
Computer model of the proposed high-rise with surroundings

RWDI Project #2505414
September 6, 2024

METEOROLOGICAL DATA

In order to assess pedestrian wind comfort condition, the local wind statistic records are combined with CFD modeling results. We have reviewed the climate data for Chicago O'Hare International Airport, Chicago Palwaukee Executive Airport and Waukegan Regional Airport. The data from the various stations show similar directionality and wind intensity. The data from Chicago O'Hare International Airport has been used in this assessment as the station provides the most complete records. As presented in the wind roses, winds from the south through northwest and northeast directions are predominant during both the summer and winter. In the winter, winds are also frequent from the northwest. Strong winds of a mean speed greater than 20 mph, measured at the airport at an anemometer height of 33 ft, occur more often during the winter than the summer season (red bands in the Image). These winds potentially could be the source of uncomfortable or severe wind conditions, depending on the site exposure and orientation of the proposed buildings.

Wind statistics were scaled and adjusted for the assessment in order to account for the effect of the site location and built terrain around the project site. The data was then combined with the CFD simulations of wind flows around the project to predict the wind conditions at the project site and assessed against the RWDI wind criteria for pedestrian comfort.



Directional distribution of winds approaching Chicago O'Hare International Airport (1993 to 2023)

WIND CRITERIA

The RWDI pedestrian wind criteria are used in the current study; the criteria presented in the table below, addresses pedestrian safety and comfort. These criteria have been developed by RWDI through research and consulting practice since 1974. They have also been widely accepted by municipal authorities, building designers and the city planning community.

Pedestrian Comfort

Pedestrian comfort is associated with common wind speeds conducive to different levels of human activity. Wind conditions are considered suitable for sitting, standing, strolling or walking if the associated mean wind speeds (see table) are expected for at least four out of five days (80% of the time). The assessment considers winds occurring between 6 AM and midnight. Limited usage of outdoor spaces is anticipated in the excluded period. Speeds that exceed the criterion for Walking are categorized Uncomfortable. These criteria for wind forces represent average wind tolerance. They are sometimes subjective and regional differences in wind climate and thermal conditions as well as variations in age, health, clothing, etc. can also affect people's perception of the wind climate.

Comfort Category	GEM Speed (mph)	Description (Based on seasonal compliance of 80%)
Sitting	≤ 6	Calm or light breezes desired for outdoor seating areas where one can read a paper without having it blown away
Standing	≤ 8	Gentle breezes suitable for main building entrances, bus stops, and other places where pedestrians may linger
Strolling	≤ 10	Moderate winds appropriate for window shopping and strolling along a downtown street, plaza or park
Walking	≤ 12	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 12	Strong winds considered a nuisance for all pedestrian activities. Wind mitigation is typically recommended

Pedestrian Safety

Pedestrian safety is associated with excessive Gust Speeds that can adversely affect a person's balance and footing. These are usually infrequent events but deserve special attention due to the potential impact on pedestrian safety.

Safety Criterion	Gust Speed (mph)	Description (Based on annual exceedance of 9 hrs or 0.1% of time)
Exceeded	> 56	Excessive gusts that can adversely affect one's balance and footing. Wind mitigation is typically required

RESULTS

Existing Scenario:

(a) Summer (b) Winter

COMFORT: SITTING | STANDING | STROLLING | WALKING | UNCOMFORTABLE

N

Predicted wind conditions – GROUND LEVEL – EXISTING SCENARIO

RESULTS

Proposed Scenario:

(a) Summer

(b) Winter

COMFORT: SITTING | STANDING | STROLLING | WALKING | UNCOMFORTABLE

Predicted wind conditions – GROUND LEVEL – PROPOSED SCENARIO

RWDI Project #2505414
September 6, 2024

SUMMARY

RWDI was retained to provide an assessment of the potential pedestrian level wind impact of the proposed project at Church Street Plaza in Evanston, Illinois . Our assessment was based on computational modeling, simulation and analysis of wind conditions for the proposed development design, in conjunction with the local wind climate data and the RWDI wind criteria for pedestrian comfort and safety. Our findings are summarized as follows:

- The proposed building is taller than most building in the surroundings to the northeast, northwest and southwest – these are the predominant wind directions.
- The new building will redirect wind around it and to ground level. Much of the downwash on the south side would be disrupted by the low roof of the existing building.
- Wind approaching from the northeast would be diverted downward on the north side of the building and accelerate around the southwest corner of the site as the wind flows downwashed by the tower take the path of least resistance around it.
- The wind flows around the tower would be similar to the flows around other tall buildings in the area – note the green and yellow zones in the result figures pertaining to the Proposed Scenario.
- Wind conditions at ground level are expected to be appropriate for the sidewalk use. Compared to the existing scenario, increased wind activity is expected on Maple Avenue, however, these conditions may be acceptable as they are predicted to meet the walking criteria.
- The addition of landscaping, such as street trees, will help reduce wind speeds at the streel level in the summer when the trees are in full leaf.

STATEMENT OF LIMITATIONS

This report was prepared by Rowan Williams Davies & Irwin Inc. for ANTUNOVICH ASSOCIATES ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein and authorized scope. The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by Client to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.