15th Avenue North
PRELIMINARY SP PLANS

OCTOBER 13, 2022

COUNCIL DISTRICT 19, COUNCIL MEMBER FREDDIE O'CONNELL
CITY OF NASHVILLE, DAVIDSON COUNTY, TENNESSEE
CASE NO. 2022SP-049-001

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STG Design, Inc.
stgdesign.com

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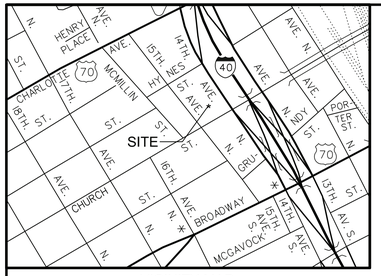
211 Union Street Suite 103, Nashville, Tennessee 37201



VICINITY MAP
(N.T.S.)

SURVEYOR'S DESCRIPTION

Being a parcel of land situated in the 19th Council-Manic District within the Urban Services District of Nashville-Davidson County Tennessee. Being generally located to the north of Church Street, east of 15th Avenue North, (Formerly West Carroll Street), south of Hynes Street, and west of 14th Avenue North. Being Lot No's 57-62 as shown in the Plan of Hines Addition of record in Davidson County Chancery Court Book 1, Page 21, and being more particularly described as follows:

BEGINNING at an Iron Rod (Old) N 59° 19' 02" E, 94.50 feet the north east quadrant of the intersection of 15th Avenue North, and Church Street at the southwest corner of Marvin W. Stansell Family Limited Partnership of record in Deed Book 9535, Page 751, R.O.D.C.;

THENCE, along Church Streets northerly right-of-way S 59° 19' 02" W, 58.70 feet to the easterly line of the 1418 Church Street, LLC property of record in Instrument No. 20160824-0088480, R.O.D.C.;

THENCE, with 1418 Church Street, LLC property the following calls:

N 32° 31' 23" W, 59.66 feet along a Party Wall as described in Instrument No. 20160824-0088480, R.O.D.C. and Instrument No. 202107151-0095477, R.O.D.C. continuing 74.7 feet for a total 133.36 feet to the PK Nail (Old),
S 58° 14' 23" W, 55.17 feet to an Iron Rod (Old) the easterly right-of-way of said 15th Avenue North;

THENCE, with said 15th Avenue North the following calls:

N 40° 49' 03" W, 27.68 feet,
N 41° 10' 19" W, passing existing Iron Rod (Old) at 9.88 feet, passing a 2nd Iron Rod (Old) at 56.03 feet, and continuing 168.56 feet for a total of 234.47 feet to the southerly right-of-way of Alley No. 248;

THENCE, with said Alley No. 248, N 60° 01' 32" E, 188.36 feet to Alley No. 243;

THENCE, with said Alley No. 243, S 34° 18' 08" E, passing an PK Nail (Old) with shiner stamped cherry at 163.00 feet, passing a 2nd PK Nail (Old) at 105.52, and continuing 119.98 feet for a total of 268.52 feet to a PK Nail (Old) at the northeast corner of said Marvin W. Stansell Family Limited Partnership;

THENCE, with said Marvin W. Stansell Family Limited Partnership the following calls:

S 59° 21' 02" E, 46.99 feet to a PK Nail (Old)
S 34° 12' 49" W, 120.00 feet to the POINT OF BEGINNING;

Containing 57,953 Square Feet or 1.33 Acres, more or less;

NOTES

1. *THIS SURVEY MEETS THE REQUIREMENTS OF AN URBAN LAND SURVEY (CATEGORY 1), WITH A RATIO OF PRECISION OF THE UNADJUSTED SURVEY GREATER THAN 1:10,000 AS PER STANDARDS OF PRACTICE ADOPTED BY THE BOARD OF EXAMINERS FOR LAND SURVEYORS, STATE OF TENNESSEE.*
2. *BEARINGS SHOWN ARE BASED ON THE TENNESSEE COORDINATE SYSTEM OF 1983 (NAD-1983), ELEVATIONS ARE BASED ON NAVD-1988, USING GEOID 2003 FOR ORTHOMETRIC HEIGHT DETERMINATION.*
3. *PROPERTIES ARE ZONED "MUI-A" (MIXED USE INTENSIVE) WITHIN THE OV-UZO, OV-ADE OVERLAY DISTRICTS.*
   ZONING INFORMATION SHOWN HEREON WAS TAKEN FROM METROPOLITAN PLANNING DEPARTMENT-ONLINE MAPPING, PARCEL REPORT, NO ZONING LETTER, OR ZONING REPORT WAS PROVIDED TO THIS SURVEYOR.
4. *THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY NO. 470040, PANEL NO. 0241 H, DATED APRIL 5, 2017. ZONE "X".*
5. *ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM FIELD LOCATED VISIBLE APPURTENANCES, ATLAS MAPS AS MAY BE AVAILABLE FROM MUNICIPALITIES OR UTILITY COMPANIES, AND OTHER DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION CONSULTED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. TO AVOID ANY POSSIBLE HAZARD OR CONFLICT, IT IS A REQUIREMENT OF THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT, FOR ANYONE WHO ENGAGES IN EXCAVATION TO NOTIFY ALL KNOWN UTILITY OWNERS NO LESS THAN THREE (3) OR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE. CALL TENNESSEE ONE CALL AT 1-800-351-1111.*
6. *TITLE COMMITMENT NO. NCS-1113891-NAS, DATED MARCH 2, 2022 AT 7:30 AM, AND TITLE COMMITMENT NO. NCS-1113895-NAS, DATED MARCH 2, 2022 AT 7:30 AM PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY WAS FURNISHED TO THIS SURVEYOR.*
7. *THIS PARCEL CONTAINS 46 REGULAR PARKING SPACES AND 0 HANDICAP PARKING SPACES FOR A TOTAL OF 46 PARKING SPACES.*
8. *THERE ARE NO BUILDINGS ON SUBJECT PROPERTY OTHER THAN ADJOINING PARTY WALL.*
9. *CONTOUR INTERVAL ONE-FOOT, CONTOURS WERE INTERPOLATED FROM RANDOM SHOTS TAKEN ON A 50-FOOT INTERVAL.*

DEED REFERENCE

PARCELS 351, 352, 353, 354, AND 355
BEING PROPERTY CONVEYED TO SHAAR FORERO PROPERTIES, INC. BY DEED OF RECORD IN INSTRUMENT NO. 20210312-0033569, R.O.D.C.

PARCELS 356, 357 AND 359
BEING PROPERTY CONVEYED TO THOMAS MICHAEL HORRELL BY DEED OF RECORD IN INSTRUMENT NO. 20210715-0095447, R.O.D.C.

PROPERTY MAP REFERENCE

BEING PARCEL NOS. 351, 352, 353, 354, 355, 356, 357 AND 359 AS SHOWN ON DAVIDSON COUNTY PROPERTY MAP NO. 92-12.

PLAT REFERENCE

BEING LOT NOS. 57-62 AS SHOWN ON THE SUBDIVISION PLAT OF HINES ADDITION OF RECORD IN CHANCERY COURT BOOK 1, PAGE 21

SURVEYOR'S CERTIFICATE

TO: ROERS CAPITAL LLC; AND FIRST AMERICAN TITLE INSURANCE COMPANY;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS. JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 7(b)(1), 8, 9, AND 13 OF TABLE A THEREOF.
THE FIELDWORK WAS COMPLETED ON FEBRUARY 7, 2022.

BARGE DESIGN SOLUTIONS, INC.

DATE OF PLAT OR MAP: APRIL 5, 2022

TN.LIC.NO. 2431

NAME:

PRINTED NAME: BRAD T. THOMAS

RECORD DESCRIPTION

PARCEL NOS. 356, 357 AND 359

PARCEL 1 (Map 92-12. Parcel 359)

A certain tract or parcel of land in Davidson County, State of Tennessee, described as follows, to wit:

Being the easterly part of Lot No. 61 on the map of Hynes' Addition, as of record in Minute Book "B", Page 85, Chancery Court, at Nashville, described according to a survey made by S. R. Sanford, Jr., Surveyor, October 29, 1943, as follows:

Beginning on the northerly margin of Church Street, as widened, at a point 35.8 feet east of the easterly margin of 15th Avenue North, said point being the center of a party wall; thence, with the center of said party wall northerly 59.66 feet to the northern terminus of said wall, continuing in the same direction 73.7 feet, more or less, in all 133.36 feet, more or less, to an old fence in the southerly line of the property conveyed to M. J. Halloran by deed from Robert Vaughn, Clerk and Master, of record in Book 472, Page 48, Register's Office for said county; thence, with said fence eastwardly 33.2 feet to a stake at the northwest corner of concrete fooling; thence, southwardly 133.4 feet to the northerly margin of Church Street; thence, with same westwardly 33.8 feet to the beginning.

Also an easement or right-of-way across the northwesterly part of Lot No. 61 on the map of Hynes' Addition, as of record in Minute Book "B", Page 85, Chancery Court at Nashville, described according to a survey made by S. R. Sanford, Jr., Surveyor, October 29, 1943, as follows:

Beginning on the easterly margin of 15th Avenue North at a point 118.95 feet north of the northerly margin of Church Street, as widened; thence, with said avenue northwardly 15.4 feet to a spike in an old fence in the southerly line of the property conveyed to M. J. Halloran by deed from Robert Vaughn, Clerk and Master, of record in Book 472, Page 48, Register's Office for said county; thence, with said line eastwardly 53.3 feet; thence, southwardly 15 feet; thence, westwardly 50.2 feet to the beginning.

PARCEL 2 (Map 92-12. Parcel 359):

A certain tract or parcel of land in Davidson County, State of Tennessee, described as follows, to wit:

Being part of Lot No. 62 on the map of Hynes' Addition, of record in Minute Book "B", Page 85, of the Chancery Court at Nashville, and described as follows:

Beginning at a point in the north margin of Church Street, as widened, 47 feet west of the westerly margin of a 20-foot alley at the southwest corner of the property conveyed to D. C. Nicholson and wife by deed of record in Book 1091, Page 340, Register's Office for said county; thence, with the margin of said street westerly 23 feet to a point at the common corner of Lots Nos. 61 and 62; thence, with die line between said lots northerly 132 1/2 feet, more or less, to a point; thence, easterly 70 feet, more or less to the easterly margin of said 20-foot alley; thence, with the margin of the same southerly 12 1/2 feet to a point at the northeast corner of the property conveyed to Deluxe Ice Cream Company by deed from John W. Kelley and wife, of record in Book 1281, Page 624, Register's Office for said county; thence, along said Deluxe Ice Cream Company's north line and along the north line of said Nicholson lot above-mentioned westerly 47 feet to a point; thence, along Nicholson's westerly line southerly 120 feet to the point of beginning.
PARCEL 3 (Map 92-12. Parcel 357):

A certain tract or parcel of land in Davidson County, State of Tennessee, described as follows, to wit:

Being part of Lot No. 60 on the map of the Hynes' Addition, of record in Book 1, Page 21, of the Chancery
Court at Nashville, and described as follows:

Beginning at a point in the easterly margin of 15th Avenue North, 171 feet 11 inches, more or less, north of Church Street, as widened, being the southwest comer of the property conveyed to Tennie L. Smith by
deed of record in Book 919, Page 778, Register's Office for said county; thence, along Smith's southerly line easterly 158 feet, more or less, to the westerly margin of a 20-foot alley; thence, with the margin of the same southerly 45 1/2 feet to a point; thence, westerly 154 feet, more or less, to the easterly margin of 15th Avenue North; thence, with the margin of same northerly 35 feet 5 inches to the point of beginning.

PARCEL 4 (Map 92-12. Parcel 356):

A certain tract or parcel of land in Davidson County, State of Tennessee, described as follows, to wit:

Being the southerly part of Lot No. 59 and the northerly part of Lot No. 60 on the Plan of Hynes' Addition,
as of record in Plan No. 1, Page 21, Chancery Court at Nashville, described as follows:

Beginning on the easterly margin of 15th Avenue North, formerly Carroll Street, at a point 171 feet 11 inches north of the northerly margin of Church Street, as widened, said point being the northwest corner of Tract No. 1 conveyed to M. J. Halloran by deed from Robert Vaughn, Clerk and Master, of record in Book 472, Page 48, Register's Office for said County; thence, with the easterly margin of said avenue northwardly 59 feet, 7 inches, more or less, to the southwest corner of the property conveyed to Fannie Mitchell by deed from R. H. Thompson and wife, of record in Book 546, Page 252, said Register's Office; thence, with her southerly line eastwardly 166 feet, more or less, to the westerly margin of an alley; thence, with said alley southwardly 47 1/2 feet more or less, to the northeast corner of said Halloran lot; thence, with the northerly line of same westwardly 158 feet, more or less, to the beginning.

RECORD DESCRIPTION (CONT.)

PARCEL NOS. 351, 352, 353, 354, and 355

TRACT 1:
Map/Parcel 092 12 0 0351.00
224 15th Avenue North

Parcel I:
Land in Davidson County, Tennessee, being the northerly part of Lot No. 57 on the Plan of Hynes Addition (Hine's Addition) to Nashville, as of record in Minute Book "B", Page 85, in Plan Book 1, Page 21, Chancery Court at Nashville, described according to a survey made by Erie Drake, County Surveyor, July 12, 1934, as follows:

Beginning on the easterly margin of 15th Avenue North, formerly Carroll Street, at a point 142 feet south of the southerly margin of Hynes Street, being the corner of Lots Nos. 55 and 57; thence with the line between said two lots, eastwardly 188 feet to the westerly margin of an alley; thence with said alley, southwardly 33 feet to the northeast corner of a part of said lot owned by Agnes D. Bevington; thence with her northerly line, westwardly 183.5 feet to the easterly margin of 15th Avenue North; thence with same, northwardly 34 feet to the beginning

Parcel II:
Land in Davidson County, Tennessee, being the northerly 15.5 feet of the southerly 31 feet of Lot No. 57 on the Plan of Hynes' Addition (Hine's Addition) of Nashville, as of record in Minute Book "B", Page 85, and Plan Book 1, Page 21, Chancery Court at Nashville, Davidson County, Tennessee, described as follows:

Beginning on the easterly margin of 15th Avenue North, formerly Carroll Street, at a point that is 15.5 feet northerly from the common corner of Lot Nos. 57 and 58; thence, with a severance line running parallel to the line between said lots, eastwardly to the westerly margin of an alley; thence with said alley northwardly 15.5 feet, more or less, to the southeast corner of the property conveyed to Lizzie C. Story by deed from Richard B. Thompson and wife, of record in Book 546, Page 281, Register's Office for said County, and conveyed to the Grantee by deed from Wilder Properties, Ltd., dated December 23, 1999, of record in Instrument No. 19991228-0307540, said Register's Office; thence with the Grantee's existing southerly line westwardly 183.5 feet to the easterly margin of 15th Avenue North; thence with said Avenue southwardly 15.5 feet to the beginning.

Being the same property conveyed to Shiv Investment Group, A Tennessee Partnership by Warranty Deed filed for record on August 30, 2016 in Instrument Number 20160830-0090893, of the Register's Office of Davidson County, Tennessee.

TRACT 2:
Map/Parcel 092 12 0 355.00
216 15th Avenue North

Land in Davidson County, Tennessee, and being the North part of Lot No. 59 on the Map of Hine's Addition, according to survey and plat of same of record in Minute Book B, page 85 and Plan Book 1, page 21, in the Chancery Court of Davidson County, Tennessee, to which plat reference is hereby made for a more accurate and complete description of said lot.
Said part of said lot fronts 35 feet on the westerly side (incorrectly stated as easterly side in Book 2880, page 355) of 15th Avenue North, as widened and runs back between parallel lines, 168 feet more or less to an alley.

Being a portion of the same property conveyed to Shiv Investment Group, GP, a Tennessee general partnership by Quitclaim Deed filed for record on September 6, 2016 in Instrument No. 20160906-0093417, of the Register's Office of Davidson County, Tennessee.

TRACT 3:
Map/Parcel 092 12 0 354.00
218 15th Avenue North

Land in Davidson County, Tennessee, being the south half of Lot number fifty-eight Hynes Addition (Hines Addition) to Nashville, Tennessee, according to survey and plat of same appearing of record in Minute Book B, page 85 and Plan Book 1, page 21, in the Chancery Court of Davidson County, Tennessee, to which plat reference is hereby made for a more accurate and complete description of said lot. Said south half of Lot 58 fronts thirty-two and one-half feet on the easterly side of Fifteenth Avenue, North (formerly Stonewall Street and formerly Carroll Street) and runs back on the north line about seventy four (174) feet and on the south line about one-hundred seventy one (171) feet to an alley on which it measures thirty-two (32) feet.

Being a portion of the same property conveyed to Shiv Investment Group, GP, a Tennessee general partnership by Quitclaim Deed filed for record on September 6, 2016 in Instrument No. 20160906-0093417, of the Register's Office of Davidson County, Tennessee.

TRACT 4:
Map/Parcel 092 12 0 353.00
220 15th Avenue North

Land in Davidson County, Tennessee, and being the north one-half of Lot No. 58 on the Map of Hine's Addition to Nashville, Tennessee, according to survey and plat of same of record in Minute Book B, page 85 and Plan Book 1, page 21, in the Chancery Court of Davidson County, Tennessee, to which plat reference is hereby made for a more accurate and complete description of said lot.

Said part of said lot fronts 32-1/2 feet on the east side of 15th Avenue, North (formerly Stonewall Street), and runs back between lines, 177 feet on the northerly line, and 174 feet more or less on the southerly line, to an alley on which it measures 32 feet.

Being a portion of the same property conveyed to Shiv Investment Group, GP, a Tennessee general partnership by Quitclaim Deed filed for record on September 6, 2016 in Instrument No. 20160906-0093417, of the Register's Office of Davidson County, Tennessee.

TRACT 5:
Map/Parcel 092 12 0 352.00
222 15th Avenue North

Land in Davidson County, Tennessee, and being the southerly part of Lot 57 of Hynes' (Hine's) Addition of Nashville, according to survey and plat of same appearing of record in Minute Book B, page 85 and Plan Book 1, page 21, in the Chancery Court of Davidson County, Tennessee, and more particularly described as follows:

Beginning on the easterly margin of 15th Avenue North, formerly Carroll Street, at the corner of Lot Nos. 57 & 58; thence with the line between said two lots eastwardly 177 feet to the westerly margin of an alley; thence with said alley northwardly 31 feet to the southeast corner of the property conveyed to Lizzie C. Story by deed from Richard B. Thompson and wife, of record in Book 546, page 281, Register's Office for said County; thence with Story's southerly line westwardly 183.5 feet to the easterly margin of 15th Avenue North; thence with said Avenue southwardly 31 feet to the beginning.

Less and except:

Land in Davidson County, Tennessee, and being the northerly 15.5 feet of the southerly 31 feet of Lot 57 on the Plan of Hynes' (Hine's) Addition of Nashville, as of record in Minute Book B, page 85 and Plan Book 1, page 21, in the Chancery Court of Davidson County, Tennessee, described as follows:

Beginning on the easterly margin of 15th Avenue North, formerly Carroll Street, at a point that is 15.5 feet northerly from the common corner of Lot 57 & 58; thence, with a severance line running parallel to the line between said lots, eastwardly to the westerly margin of an alley; thence with said alley northwardly 15.5 feet, more or less, to the southeast corner of the property conveyed to Lizzie C. Story by deed from Richard B. Thompson and wife, of record in Book 546, page 281, Register's Office for said County; and conveyed to the Grantee by deed from Wilder Properties, LTD, dated December 23, 1999, in Instrument No. 19912280307540, said Register's Office; thence with Grantee's existing southerly line westwardly 183.5 feet to the easterly margin of 15th Avenue North; thence with said Avenue southwardly 15.5 feet to the beginning.

Being a portion of the same property conveyed to Shiv Investment Group, GP, a Tennessee general partnership by Quitclaim Deed filed for record on September 6, 2016 in Instrument No. 20160906-0093417, of the Register's Office of Davidson County, Tennessee.

SCHEDULE B, PART II EXCEPTIONS

TITLE COMMITMENT NO. NCS-1113891-NAS
10. All matters contained in Deed of record in Instrument No. 202107150095447 and Instrument No. 20190715007067I, in the Register's Office of Davidson County, Tennessee. (APPLIES, BLANKET IN NATURE AS TO PARCELS 356, 357, AND 359)

11. Rights of others in and to the alley contiguous to the land.

12. That portion of the land embraced within the bounds of any public road or thoroughfare.

13. Rights of parties in possession not shown by the Public Records.

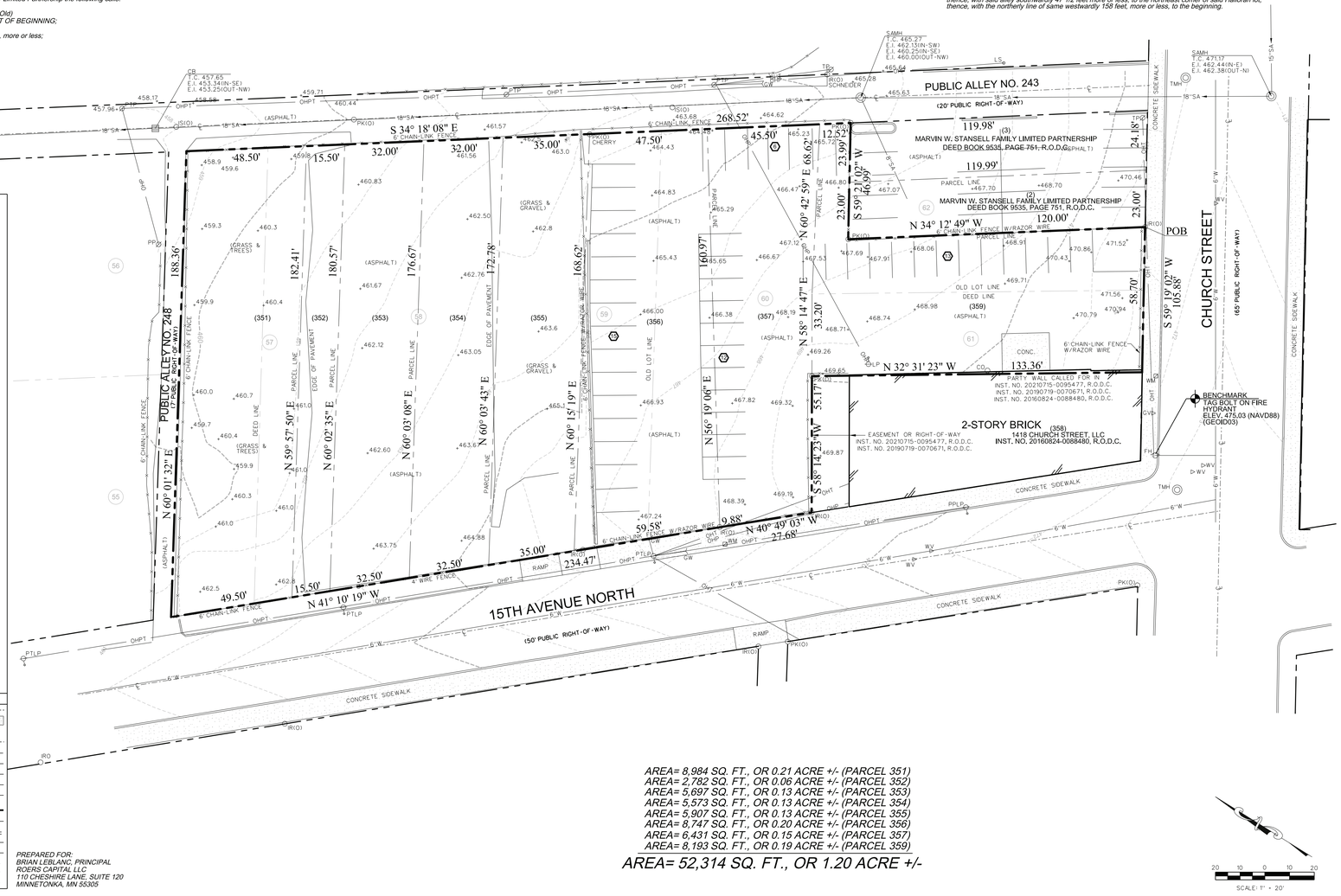
TITLE COMMITMENT NO. NCS-1113895-NAS
10. All matters affecting title as a result of matter filed in Putnam County, Tennessee as evidenced by Clerk and Master's Deed of record in Instrument No. 202103120033569 and Order of record in Instrument No. 202103120033019, in the Register's Office of Davidson County, Tennessee. (APPLIES, BLANKET IN NATURE AS TO PARCELS 351, 352, 353, 354, AND 355)

11. Rights of others in and to the alley contiguous to the land.

12. That portion of the land embraced within the bounds of any public road or thoroughfare.

13. Any claim that the Title is subject to a trust or lien created under The Perishable Agricultural Commodities Act, 1930 (7 U.S.C. §§499a, et seq.) or the Packers and Stockyards Act of 1921 (7 U.S.C. §§181 et seq.) or under similar state laws. Consideration for the deletion of this exception is highly fact intensive. Please contact the underwriter assigned to your file as soon as possible to discuss.

14. Rights of parties in possession not shown by the Public Records.



AREA= 8,984 SQ. FT., OR 0.21 ACRE +/- (PARCEL 351)
AREA= 2,782 SQ. FT., OR 0.06 ACRE +/- (PARCEL 352)
AREA= 5,697 SQ. FT., OR 0.13 ACRE +/- (PARCEL 353)
AREA= 5,573 SQ. FT., OR 0.13 ACRE +/- (PARCEL 354)
AREA= 5,907 SQ. FT., OR 0.13 ACRE +/- (PARCEL 355)
AREA= 8,747 SQ. FT., OR 0.20 ACRE +/- (PARCEL 356)
AREA= 6,431 SQ. FT., OR 0.15 ACRE +/- (PARCEL 357)
AREA= 8,193 SQ. FT., OR 0.19 ACRE +/- (PARCEL 359)

AREA= 52,314 SQ. FT., OR 1.20 ACRE +/-

LEGEND

MAPPING SYMBOLS AND CODES

- AIR CONDITIONER (AC)
- BACKFLOW PREVENTER (BFP)
- CATCH BASIN (CB)
- AREA DRAIN (ADS/ADR)
- DOUBLE CATCH BASIN (DCB)
- TRIPLE CATCH BASIN (TCB)
- CLEANOUT
- ELECTRIC JUNCTION BOX (EJB)
- ELECTRIC METER (EM)
- ELECTRIC TRANSFORMER (ETF)
- FINISHED FLOOR ELEVATION (F.F.E.)
- FIRE HYDRANT (FH)
- POST
- GAS METER (GM)
- GUY POLE (GP)
- GAS VALVE (GV)
- GUY WIRE (GW)
- IRON ROD NEW (IRN)
- IRON ROD OLD (IRO)
- IRON PIPE OLD (IPO)
- IRON SPIKE OLD (ISO)
- LIGHT STANDARD METAL/WOOD (LS/LP)
- MAIL BOX (MB)
- MANHOLE (MH)
- CONCRETE MONUMENT OLD (MONO)
- CONCRETE MONUMENT NEW (MONN)
- P.K. NAIL OLD (PKO)
- P.K. NAIL NEW (PKN)
- POST INDICATOR VALVE (PIV)
- POWER LIGHT POLE (PLP)
- POWER MANHOLE (PMH)
- POWER POLE (PP)
- POWER TELEPHONE LIGHT POLE (PTLP)
- POWER TELEPHONE POLE (PTP)
- RIGHT-OF-WAY MONUMENT (RWM)
- SPRINKLER VALVE (SV)
- SANITARY SEWER MANHOLE (SAMH)
- SIGN (SN)
- STEAM MANHOLE (STMH)
- STORMWATER MANHOLE (SWMH)
- TELEPHONE JUNCTION BOX (TJB)
- TELEPHONE LIGHT POLE (TLP)
- TELEPHONE POLE (TP)
- TREE: DECIDUOUS / EVERGREEN
- WATER METER (WM)
- WATER VALVE (WV)

LINE STYLES

- CENTERLINE
- CONCRETE AREA
- EDGE OF WOODS LINE
- EASEMENT LINE
- FENCE LINE
- GAS LINE (G)
- OVERHEAD POWER LINE (OHP)
- OVERHEAD TELEPHONE LINE (OHT)
- OVERHEAD POWER AND TELEPHONE LINE (OHPT)
- PROPERTY LINE
- SANITARY SEWER LINE (SA)
- STORM LINE (RCP, CMP, PVC, CPP, HDPE)
- UNDERGROUND POWER LINE (UGP)
- UNDERGROUND TELEPHONE LINE (UGT)
- WATER LINE (W)
- GUARDRAIL
- EDGE OF WATER

PREPARED FOR:
BRIAN LEBLANC, PRINCIPAL
ROERS CAPITAL LLC
110 CHESHIRE LANE, SUITE 120
MINNETONKA, MN 55305

BARGE DESIGN SOLUTIONS
615 Third Avenue South, Suite 700, Nashville, Tennessee 37210
PHONE (615)254-1500 FAX (615) 255-6572

ROERS CAPITAL LLC

ALTA/NSPS LAND TITLE SURVEY

CHURCH STREET AND 15TH AVENUE NORTH

URBAN SERVICES DISTRICT
19TH COUNCILMANIC DISTRICT
NASHVILLE, DAVIDSON COUNTY, TENNESSEE

DR.	CHK.	DATE	DESCRIPTION
AMJ	BTT	03/31/22	ORIGINAL ISSUE
AMJ	BTT	04/04/22	ADD TITLE COMMITMENT
AMJ	BTT	04/05/22	ADD TITLE COMPANY TO CERTIFICATION

FILE NO. 3782400

4/5/2022
9:28:53 AM
BTThomas
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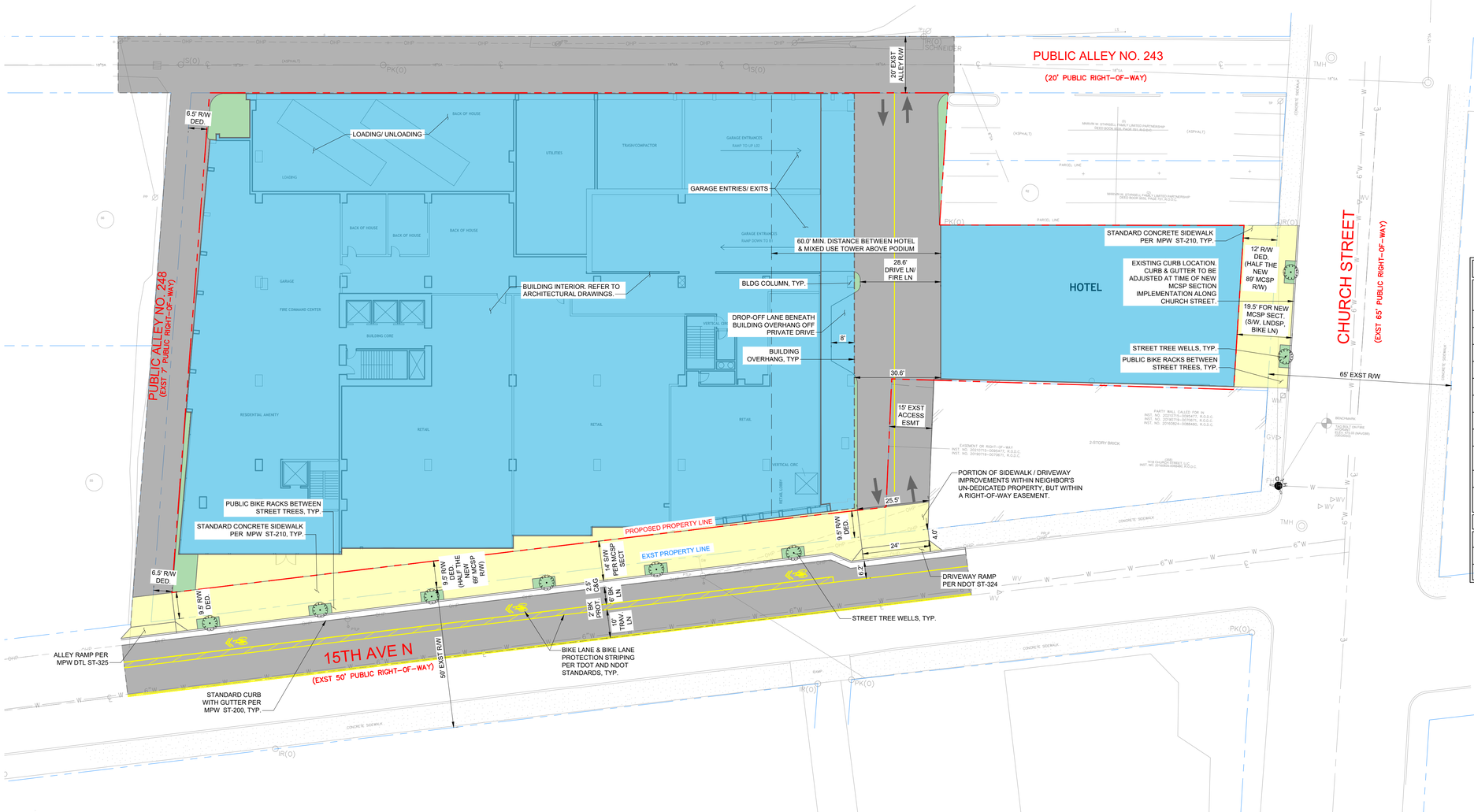

HATCH LEGEND

- HEAVY DUTY CONCRETE (PER MPW ST-325)
- CONCRETE SIDEWALK (PER MPW ST-210)
- MILL & OVERLAY
- HEAVY DUTY ASPHALT (PER MPW ST-261)
- BUILDING INTERIOR (REFER TO ARCHITECTURAL DRAWINGS)
- LANDSCAPE SPACE

SITE LAYOUT NOTES

1. INSTALL CONCRETE JOINTS WHERE SHOWN ON PLANS AND DETAILS. ALIGN ON WALLS, BUILDINGS, RADII, ETC. EVENLY SPACE BETWEEN ELEMENTS AS SHOWN. PROVIDE EXPANSION JOINTS BETWEEN CONCRETE PAVEMENT AND ALL VERTICAL ELEMENTS (WALLS, CURBS, ETC.).
2. LAYOUT ALL CURVES SMOOTHLY WITH NO ABRUPT CHANGES AT TANGENT POINTS.
3. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
4. LAYOUT ALL ELEMENTS IN FIELD AND CONTACT OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE BEGINNING ANY CONSTRUCTION.
5. CONTRACTOR TO TAKE ALL PRECAUTIONS TO FIND AND AVOID SITE UTILITIES. ALL UTILITIES ARE NOT SHOWN ON DRAWING. VERIFY LOCATIONS AND CONSIDER SUCH WHEN ESTIMATING.
6. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
7. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE INSTALLED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
8. ALL SIDEWALK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED PER MPW STANDARD DWG NO. ST-210.
9. SAW CUT LINES SHALL BE DONE IN A STRAIGHT NEAT LINE A MINIMUM OF 18" FROM THE EXISTING EDGE OF PAVEMENT.
10. REFER TO ARCHITECTURAL PLAN FOR STRIPING WITHIN THE GARAGE.
11. ALL TREE GRATES SHALL BE ADA COMPLIANT AND H20 TRAFFIC RATED.

SITE DATA TABLE

SITE ADDRESS	210, 212, 216, 218, 220 15TH AVE N 1414 CHURCH STREET NASHVILLE, TN 37203
TAX MAP	MAP 09-12-0, PARCEL 35-357, 359
EXISTING ZONING	MUI-A, UZO
PROPOSED ZONING	SP
PERMITTED USES	ALL USES PERMITTED WITHIN MUI-A BASE ZONING
MAXIMUM FAR	16.0
MAXIMUM BUILDING HEIGHT	30 STORIES
BUILDING STEP-BACK	NO STEP-BACK
MAXIMUM HEIGHT IN BUILD-TO-ZONE	30 STORIES
MIXED USE DENSITY	MULTI-FAMILY: 570 UNITS HOTEL: 375 KEYS RETAIL/ RESTAURANT: 26,000 SF
PARKING REQUIREMENTS	NONE
PARKING MAXIMUMS	MULTI-FAMILY: 1 SPACE/ UNIT HOTEL: 1 SPACE/ 4 KEYS RETAIL & RESTAURANT: 80 SPACES TOTAL

OVERALL AREA	EXISTING	PROPOSED
SITE AREA	1.20 AC	1.10 AC
DISTURBED AREA	N/A	TBD
DEDICATED R.O.W. AREA	N/A	0.10 AC

SP NOTES

1. MODIFICATIONS TO ALLOW EXPANSIONS AND CONNECTIONS OF FLOOR AND PARKING PLATES ABOVE AND BELOW GRADE ACROSS ALLEY 243 MAY BE APPROVED ADMINISTRATIVELY IF THE METROPOLITAN COUNCIL APPROVES AERIAL OR SUBTERRANEAN ENCROACHMENTS.
2. RELIEF IN MASSING TO ACHIEVE EXPOSED AMENITY SPACE WITHIN THE TOWER MAY BE APPROVED ADMINISTRATIVELY.
3. FLUCTUATION IN PARKING DEMANDS MAY OCCUR WITH ADJUSTMENTS IN USES. REDUCTIONS SHOULD OCCUR AT A 1:1 RATE FOR PARKING ABOVE AND BELOW GRADE.

TN STATE PLANE

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

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15th AVE N & CHURCH ST MIXED-USE DEVELOPMENT

NASHVILLE, TENNESSEE

METRO CASE # 2022SP-049-001

DRAFT
PRELIMINARY PLANS
FOR REVIEW ONLY

No.	REVISIONS	DATE	BY
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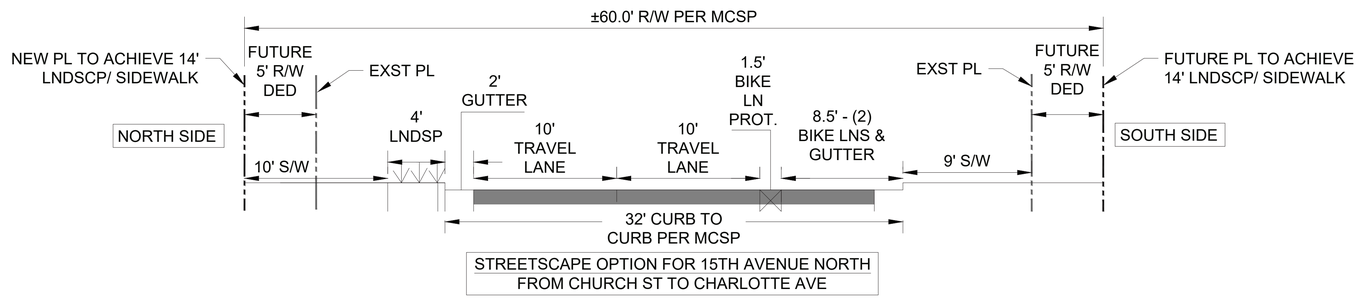
DESIGNED BY:	MEH
DRAWN BY:	MEH
CHECKED BY:	RM
DATE:	09/12/2022
KIMLEY-HORN PROJECT NO.	118447000

SITE LAYOUT

SHEET NUMBER
C2-00



STREETSCAPE OPTION FOR 15TH AVENUE NORTH
FROM CHURCH ST TO CHARLOTTE AVE

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

15th AVE N & CHURCH ST MIXED-USE DEVELOPMENT

NASHVILLE, TENNESSEE

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DESIGNED BY:	MEH
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CHECKED BY:	RM
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15TH AVENUE NORTH

STREET SECTION - OPTION #1

SHEET NUMBER
C2.01

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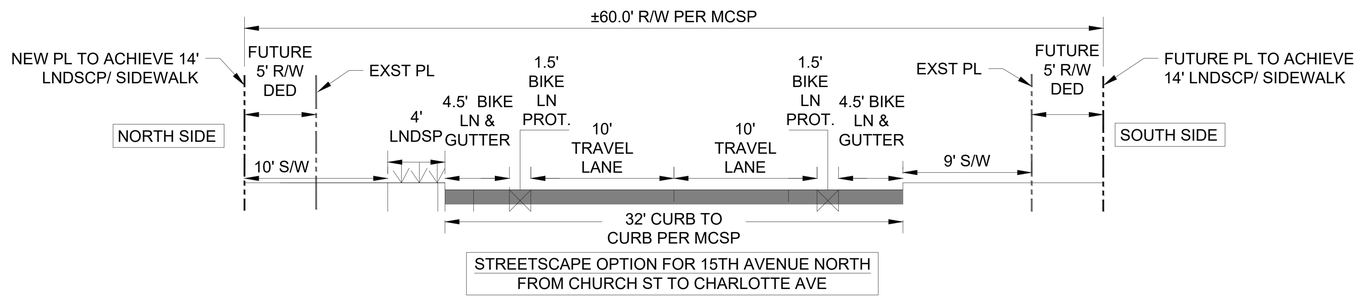

STREETSCAPE OPTION FOR 15TH AVENUE NORTH
FROM CHURCH ST TO CHARLOTTE AVE

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15th AVE N & CHURCH ST MIXED-USE DEVELOPMENT

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15TH AVENUE NORTH

STREET SECTION - OPTION #2

SHEET NUMBER
C2.02

METRO AS BUILT NOTE I

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOWING AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- UNDERGROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- ABOVE GROUND DETENTION AND WATER QUALITY INFRASTRUCTURE
- PUBLIC STORM SEWER INFRASTRUCTURE
- CUT & FILL IN THE FLOODPLAIN
- SINK HOLE ALTERATIONS
- BIORETENTION POND

THE ENGINEER SHALL CONTACT STORMWATER DEVELOPMENT REVIEW STAFF FOR SUBMITTAL REQUIREMENTS.

METRO AS BUILT NOTE II

IN ACCORDANCE WITH THE METRO STORMWATER MANAGEMENT MANUAL, VOLUME 1, SECTION 3.9, AS-BUILT CERTIFICATIONS, MWS STORMWATER DIVISION MUST APPROVE THE FOLLOW AS-BUILTS PRIOR TO ISSUANCE OF THE USE & OCCUPANCY PERMIT:

- A CERTIFICATION LETTER FROM TENNESSEE REGISTERED PROFESSIONAL ENGINEER STATING THE SITE HAS BEEN INSPECTED AND THAT THE STORMWATER MANAGEMENT SYSTEM AND STORMWATER CONTROL MEASURES (BOTH STRUCTURAL AND NONSTRUCTURAL) ARE COMPLETE AND FUNCTIONAL IN ACCORDANCE WITH THE PLANS APPROVED BY MWS
- AN AS-BUILT LID SPREADSHEET
- HYDROLOGIC AND HYDRAULIC CALCULATIONS FOR AS-BUILT CONDITIONS, AS REQUIRED.
- AS-BUILT DRAWINGS SHOWING FINAL TOPOGRAPHIC FEATURES OF ALL THESE FACILITIES, INCLUDING BIORETENTION POND. THIS SHALL INCLUDE INVERT ELEVATIONS OF OUTLET CONTROL STRUCTURES.
- ANY DEVIATIONS FROM THE APPROVED PLANS SHALL BE NOTED ON AS-BUILT DRAWINGS SUBMITTED.
- COPY OF AS-BUILT PLAN CAD FILE ON A CD AND SHOULD BE REGISTERED TO THE TN STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD83). DATA SHOULD BE PLACED IN SEPARATE LAYERS AND SHOULD BE LABELED / NAMED FOR EASY IDENTIFICATION.
- CUT AND FILL BALANCE CERTIFICATION FOR FLOODPLAIN AND SINKHOLE ALTERATIONS.
- WATER QUALITY BUFFERS SHALL BE SURVEYED AND INCLUDED WITH THE AS-BUILT SUBMITTAL.
- ANY PUBLIC (TO BECOME THE RESPONSIBILITY OF METRO TO MAINTAIN) STORMWATER INFRASTRUCTURE SHALL BE VIDEO-INSPECTED TO VERIFY PROPER INSTALLATION WITH THE VIDEO RECORDING AND ANY ASSOCIATED INSPECTION REPORT SUBMITTED AS PART OF AS-BUILT RECORD.
- ADDITIONAL TESTING MAY BE REQUIRED AS/IF WARRANTED BY VIDEO INSPECTION.

GRADING PLAN LEGEND

476.17	SPOT ELEVATION	HP	HIGH POINT	LP	LOW POINT
		TC	TOP OF CURB	BC	BOTTOM OF CURB / GUTTER LINE
		TW	TOP OF WALL	BW	BOTTOM OF EXPOSED WALL
		INV	INVERT	RIM	TOP OF GRATE / COVER
FFE 472.50	FINISH FLOOR ELEVATION				
500	EXISTING CONTOUR				
500	PROPOSED CONTOUR				
X	MIN. 5' X 5' TURNING MANEUVER AT 2% MAX. IN ANY DIRECTION.				

GRADING NOTES

1. CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING OR INSTALLATION OF ANY PROPOSED UTILITIES. CONTRACTOR TO IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
2. AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH SECTION 4.1.4 OF THE TENNESSEE GENERAL NPDES PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
3. ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.
4. DISTURBED AREAS LEFT IDLE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
5. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. IF UNABLE TO ACCOMPLISH, MULCH SHALL BE USED AS A TEMPORARY COVER. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER (DOES NOT APPLY TO RETAINING WALLS), AND CUTS AND FILLS WITHIN BUFFERS, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS.
6. THE GRADING PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
7. EROSION AND SEDIMENT CONTROL DEVICES MUST BE DISPLAYED AND INSPECTED PRIOR TO ANY GRADING ON SITE. THE CONTRACTOR MUST CALL FOR AN INSPECTION TO OBTAIN A PERMIT TO GRADE. PLEASE CALL WITH ENOUGH LEAD-TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
8. SEDIMENT/EROSION CONTROL DEVICES MUST BE INSPECTED ACCORDING TO LOCAL AND STATE REQUIREMENTS AND AS STIPULATED IN THE STORMWATER POLLUTION PREVENTION PLAN. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES AND NEW CHANNELS HAVE DEVELOPED.
9. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
10. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
11. CONTRACTOR SHALL REVIEW SITE GEOTECHNICAL REPORT BEFORE COMMENCING GRADING OPERATIONS.
12. SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED AS PART OF THIS CONTRACT. REFER TO LANDSCAPING PLANS FOR AREAS TO RECEIVE SOD.
13. INSTALL SOD OR RIPRAP IN SWALES AS INDICATED ON GRADING PLANS AND EROSION CONTROL PLANS
14. TOPSOIL ON SITE TO BE STRIPPED AND STOCKPILED FOR REUSE IN LAWN AREAS.
15. ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
16. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, DESIGNER, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL ONE CALL--811 OR 1-800-752-6007
17. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.

STORM SEWER NOTES

1. REINFORCED CONCRETE PIPE SHALL BE RCP CLASS III UNLESS OTHERWISE NOTED WITH BELL-AND-SPIGOT AND GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS.
2. ALL RCP PIPE SHALL BE WATER TIGHT AND INSTALLED ACCORDING TO TDOT STANDARDS FOR ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION).
3. FILL HEIGHTS OVER 13' REQUIRE CLASS IV RCP STORM PIPE.
4. STORM INLETS SHALL BE PRECAST IN ACCORDANCE WITH METRO NASHVILLE PUBLIC WORKS SPECIFICATIONS WHICH MEET OR EXCEED ASTM C 478.
5. ALL MANHOLE FRAMES AND COVERS ARE TO BE PER METRO NASHVILLE STANDARD DETAIL FOR DIMENSIONS AND MATERIALS AND AS BELOW IF NOT OTHERWISE INDICATED. FERROUS; 24-INCH (610-MM) ID BY 7- TO 9-INCH (175- TO 225-MM) RISER WITH 4-INCH- (102-MM-) MINIMUM WIDTH FLANGE AND 26-INCH- (660-MM-) DIAMETER COVER. INCLUDE INDENTED TOP DESIGN WITH LETTERING CAST INTO COVER, USING WORDING EQUIVALENT TO "STORM SEWER."
6. MATERIAL: GRAY IRON ASTM A48 CLASS 30 UNLESS OTHERWISE INDICATED.
7. FOLLOW CONSTRUCTION PLANS AND MANUFACTURER DETAILS, SPECIFICATIONS, AND INSTALLATION INSTRUCTION AS INCLUDED WITHIN THE PLANS AND PROVIDED BY MANUFACTURER FOR THE INSTALLATION OF WATER QUALITY AND DETENTION SYSTEMS.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STORM SEWER PIPE, STRUCTURES, WATER QUALITY STRUCTURES, AND DETENTION STRUCTURES FOR ENGINEER AND OWNER APPROVAL PRIOR TO ORDERING MATERIALS.
9. ALL HDPE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE. HDPE PIPE SHALL CONFORM TO ASTM D3350 WITH WATER TIGHT JOINTS.
10. ALL HDPE SHALL BE INSTALLED PER MANUFACTURE'S RECOMMENDATIONS AND AASHTO SECTION 30.
11. CONTRACTOR TO PROVIDE AND INSTALL MANUFACTURER RECOMMENDED FITTINGS ON RCP CONNECTIONS TO HDPE STRUCTURES.
12. ADS INLINE DRAINS AND DRAIN BASINS TO BE SIZED TO ACCOMMODATE INLET AND OUTLET PIPES PER MANUFACTURER'S SPECIFICATIONS.
13. REFER TO PIPE CHART FOR CASTING TYPES. INSTALL REDUCERS AS NECESSARY PER MANUFACTURER'S SPECIFICATIONS TO ACCOMMODATE LARGER INLET SIZES.
14. REFER TO DETAILS SHEETS FOR ADDITIONAL INFORMATION ON STORM STRUCTURES AND GRATES.

METRO STORMWATER NOTES

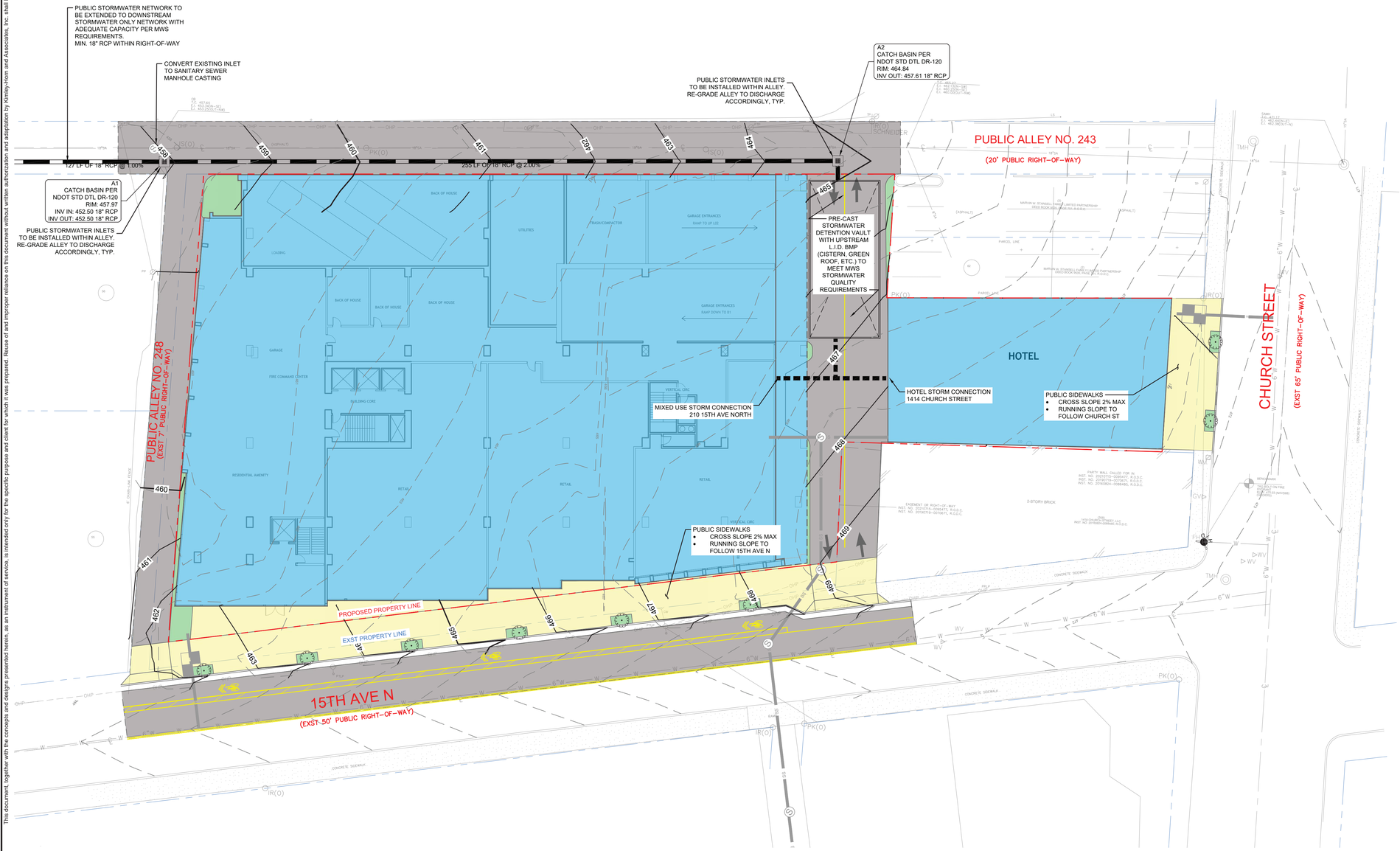
FEMA NOTE:
THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP #47037C0241H, EFFECTIVE 04/05/2017. ZONE "X"

CONSTRUCTION SCHEDULE:
1. PRE-CONSTRUCTION MEETING
2. INSTALLATION OF EROSION CONTROL MEASURES
3. EROSION INSPECTION BY EPSC AND METRO
4. ISSUANCE OF GRADING PERMIT
5. CONSTRUCTION

CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.

TDEC NOTICE OF COVERAGE NOTE:
THIS PROJECT **DOES** DISTURB MORE THAN 1 ACRE AND **IS** REQUIRED TO APPLY FOR A NOTICE OF COVERAGE UNDER THE TENNESSEE GENERAL CONSTRUCTION PERMIT FROM TDEC.
THIS SITE DISCHARGES TO THE CUMBERLAND RIVER.

THE TOTAL DISTURBED AREA IS ±1.6 ACRES.



TN STATE PLANE

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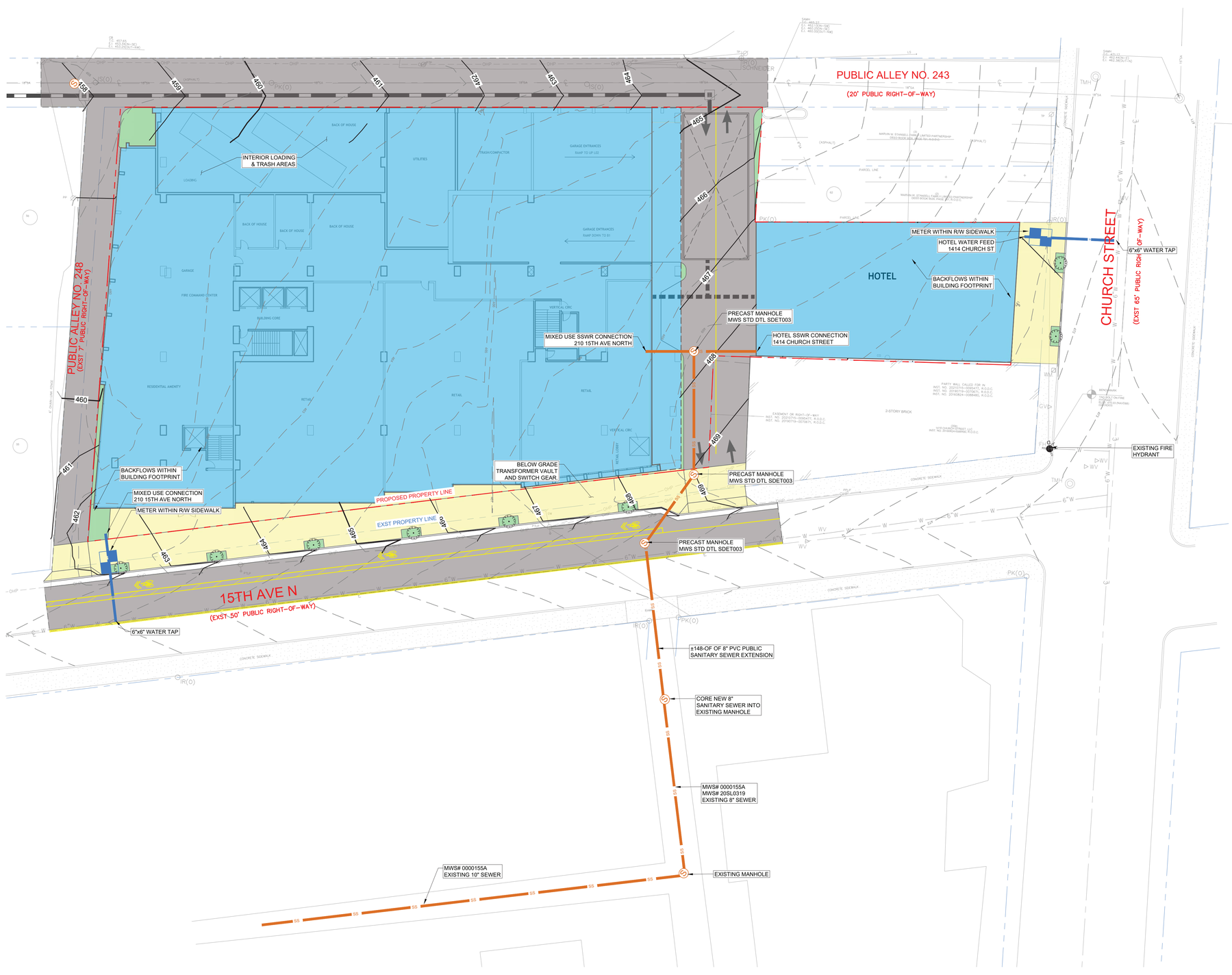
GRADING & DRAINAGE PLAN

SHEET NUMBER
C4-00



MWS STANDARD PUBLIC UTILITY PLAN NOTES

1. ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO WATER SERVICES.
2. THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE METRO WATER SERVICES THE COST OF INSPECTION.
3. THE CONTRACTOR IS TO PROVIDE AND MAINTAIN THE CONSTRUCTION IDENTIFICATION SIGN FOR PRIVATE DEVELOPMENT APPROVED.
4. AFTER COMPLETION OF THE SANITARY SEWER, THE DEVELOPER IS RESPONSIBLE FOR THE TELEVISING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEOTAPING MUST BE COORDINATED WITH THE METRO WATER SERVICES INSPECTION SECTION. ALL COSTS WILL BE BORNE BY THE DEVELOPER.
5. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
6. REDUCED PRESSURE BACKFLOW PREVENTION DEVICES (RPBP) OR DUAL CHECK VALVE WILL BE REQUIRED ON ALL TEST AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE METRO WATER SERVICES.
7. ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
8. UPON COMPLETION OF CONSTRUCTION OF WATER AND/OR SEWER, THE ENGINEER SHALL PROVIDE THE DEPARTMENT WITH A COMPLETE SET OF AS-BUILT PLANS IN DIGITAL (DWG AND PDF) FORMAT. ALL DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS OR WATER MAINS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS BEING MADE.
   a. SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TEE LOCATIONS, THE DISTANCE OF THE END OF THE SERVICE LINE TO PROPERTY COMERS AND LINES AND/OR STATION AND OFFSET FROM SEWER CENTERLINE TO END OF SERVICE LINE, THE DEPTH TO THE TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES.
   b. WATER LINE PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND/OR A REGISTERED LAND SURVEYOR AND SHALL INCLUDE OFFSET DISTANCE FROM THE ROADWAY CENTERLINE, OR PROPERTY LINE RIGHT OF WAY, LINE DEPTH, LOCATIONS OF HYDRANTS, VALVES, REDUCERS, TEES AND PRESSURE REDUCING DEVICES WHERE APPLICABLE.
9. PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE CUSTOMER SIDE OF THE METER WHEN PRESSURES EXCEED 100 PSI.
10. PRESSURE REGULATING DEVICES WILL BE REQUIRED ON THE STREET SIDE OF THE METER WHEN PRESSURES EXCEED 150 PSI.
11. ALL WATER MAINS MUST BE LOCATED WITHIN THE PAVED AREA INCLUDING ALL BLOW-OFF ASSEMBLIES.
12. ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
13. DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
14. SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.

MWS STANDARD PRIVATE UTILITY PLAN NOTES

1. ALL WATER AND/OR SEWER SERVICES, ALONG WITH APPURTENANCES, SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF THE METRO WATER SERVICES.
2. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING AND RESILIENT CONNECTOR METHOD.
3. VERTICAL DOUBLE CHECK VALVE ASSEMBLIES, THAT ARE LOCATED IN INTERIOR ROOMS, CAN ONLY BE USED FOR FIRE SERVICES.
4. ALL WATER METERS SHALL BE A MINIMUM OF 24" NOT TO EXCEED A MAXIMUM OF 28" BELOW FINISHED GRADE.
5. IRRIGATION LINE SHALL BE COPPER FROM THE METER TO THE BACKFLOW PREVENTER.
6. THE MINIMUM FEES OUTLINED IN THE CAPACITY LETTER MUST BE PAID BEFORE COMMERCIAL CONSTRUCTION PLANS CAN BE REVIEWED.
7. ALL SEWER SERVICES SHALL BE MINIMUM 6 INCHES IN DIAMETER, FROM CONNECTION AT THE MAIN UNTIL THE FIRST CLEAN OUT ASSEMBLY.
8. BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
9. PLAN SIZE SHALL BE 24" X 36", AND SHALL SHOW CONTOURS AROUND METER BOXES.
10. ANY UNUSED EXISTING WATER METERS MUST BE CUT AND CAPPED AT THE PUBLIC MAIN.
11. ALL LEAD OR GALVANIZED WATER SERVICE LINES ENCOUNTERED WITH THIS PROJECT SHALL BE REINSTATED WITH COPPER OF LIKE SIZE FROM THE WATER MAIN TO THE METER BOX.
12. DOMESTIC AND IRRIGATION WATER METERS AND ASSOCIATED APPURTENANCES SHALL NOT BE PLACED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION OF THE SERVICE LOCATED WITHIN THE RIGHT OF WAY.
13. SANITARY SEWER TAPS SHALL BE PLACED AT THE LOWEST ADJACENT SEWER MAIN ELEVATION FOR EACH PREMISES AND SHALL NOT BE LOCATED IN OR UNDER A PAVED OR IMPROVED SURFACE OTHER THAN THE PORTION WITHIN THE RIGHT OF WAY.

FRANCHISE UTILITY NOTES

1. TELEPHONE UTILITY CONSTRUCTION SHALL COMPLY WITH AT&T STANDARD SPECIFICATIONS.
2. UNDERGROUND ELECTRICAL INSTALLATION SHALL COMPLY WITH NASHVILLE ELECTRIC SERVICE (NES) STANDARD SPECIFICATIONS.
3. NATURAL GAS CONSTRUCTION & INSTALLATION SHALL COMPLY WITH PIEDMONT NATURAL GAS STANDARD SPECIFICATIONS.

EXISTING UTILITIES NOTE

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.

IRRIGATION METER NOTE

CONTRACTOR TO VERIFY IRRIGATION METER SIZE WITH IRRIGATION DESIGNER.

BACKFLOW NOTE

ALL BACKFLOW PREVENTION DEVICES TO BE INSTALLED INSIDE THE BUILDING.

VALVE NOTE

ALL VALVES SHALL BE INSTALLED IN METRO NASHVILLE WATER SERVICES APPROVED VALVE BOX AND COVER. COVER TO BE MARKED WITH "WATER".

TN STATE PLANE

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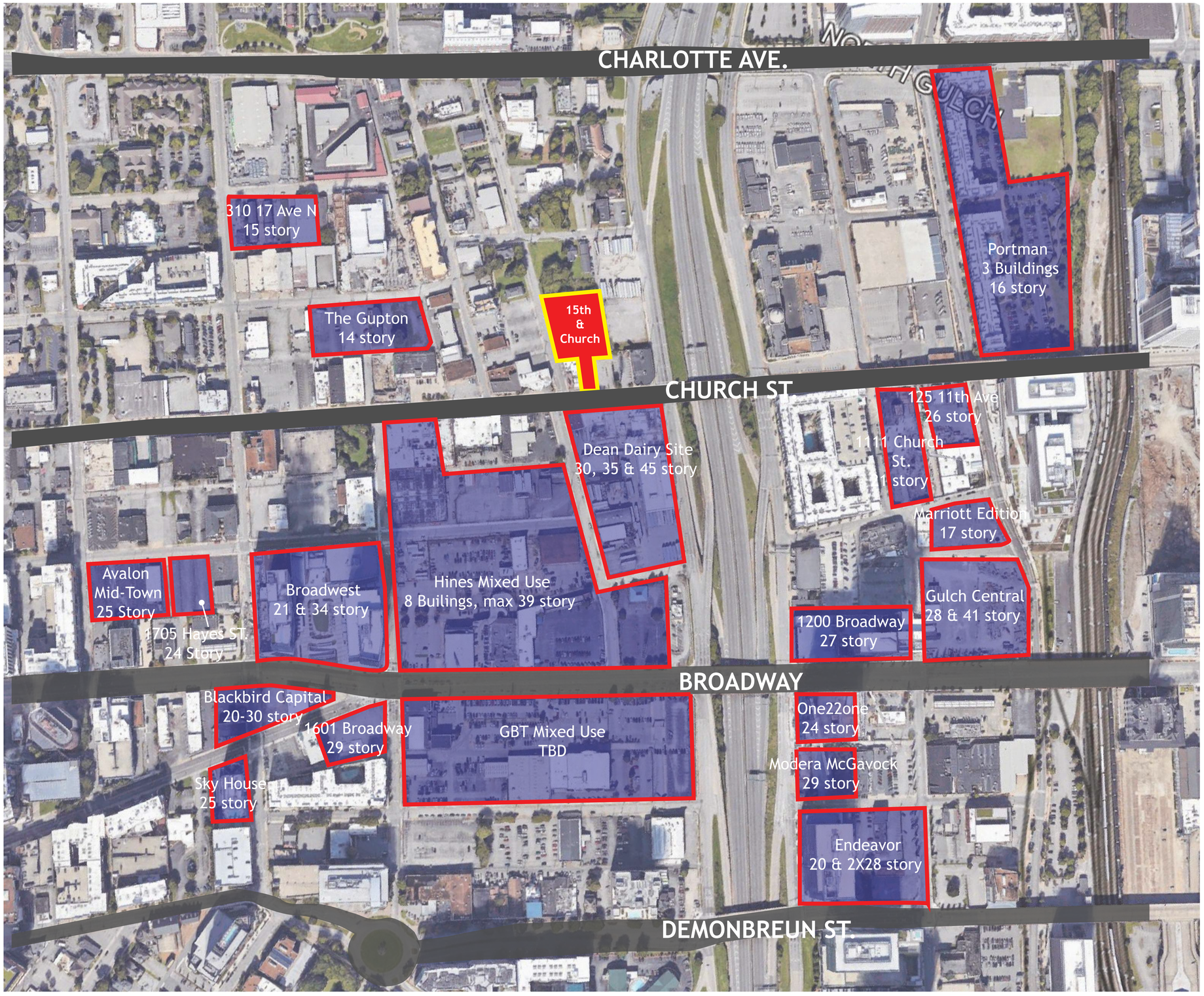
SITE UTILITY PLAN

SHEET NUMBER
C6-00



VICINITY HIGH RISE DEVELOPMENT MAP

STG DESIGN

www.stgdesign.com

STG Design, Inc.
211 Union Street
Nashville, TN 37201
615.248.4400

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10/13/22
Not for regulatory approval, permitting, or construction.
Registrant's Name: Daniel Raymond Tansey
Tennessee Registration Number: 103966

CONSULTANT LOGO

CITY OF NASHVILLE - SPECIFIC PLAN
210-220 15th Avenue
Nashville, TN

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WEST - 15TH AVE. N. - ELEVATION

MATERIAL PALETTE IS FOR ARCHITECTURAL INTENT PURPOSE AND IS SUBJECT TO CHANGE IN FINAL SP

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ELEVATION

12

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EAST - ALLEY 243 - ELEVATION

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ELEVATION

NORTH - ALLEY 248 - ELEVATION

SOUTH - CHURCH ST. - ELEVATION

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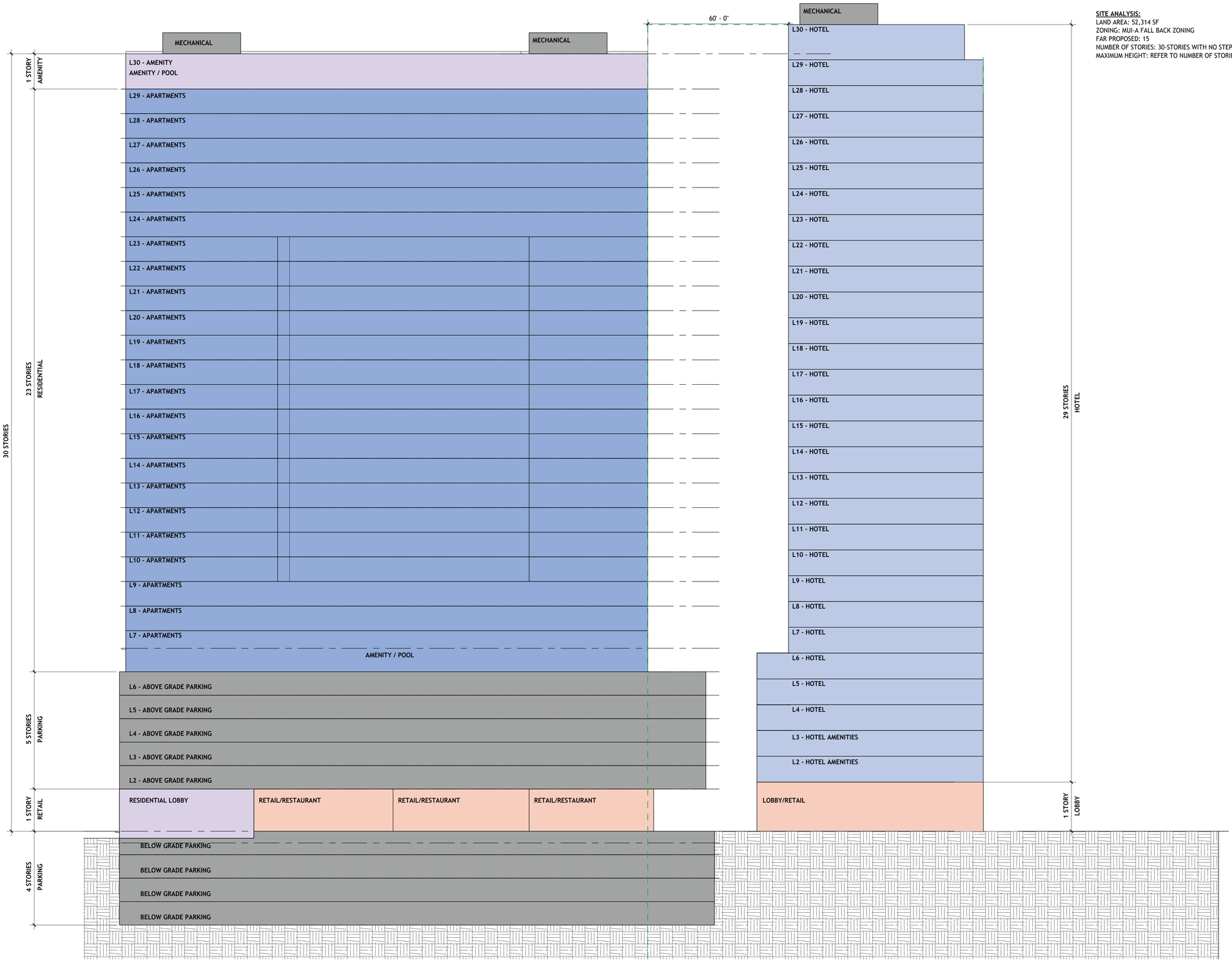
STREETSCAPE ELEVATION



STACKING DIAGRAM

SITE ANALYSIS:
LAND AREA: 52,314 SF
ZONING: MUI-A FALL BACK ZONING
FAR PROPOSED: 15
NUMBER OF STORIES: 30-STORIES WITH NO STEPBACK REQUIREMENTS
MAXIMUM HEIGHT: REFER TO NUMBER OF STORIES (NO MAXIMUM HEIGHT)

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0 4' 8' 16'

15th AVE N & CHURCH STREET MIXED-USE DEVELOPMENT

TYPICAL RESIDENTIAL LEVEL

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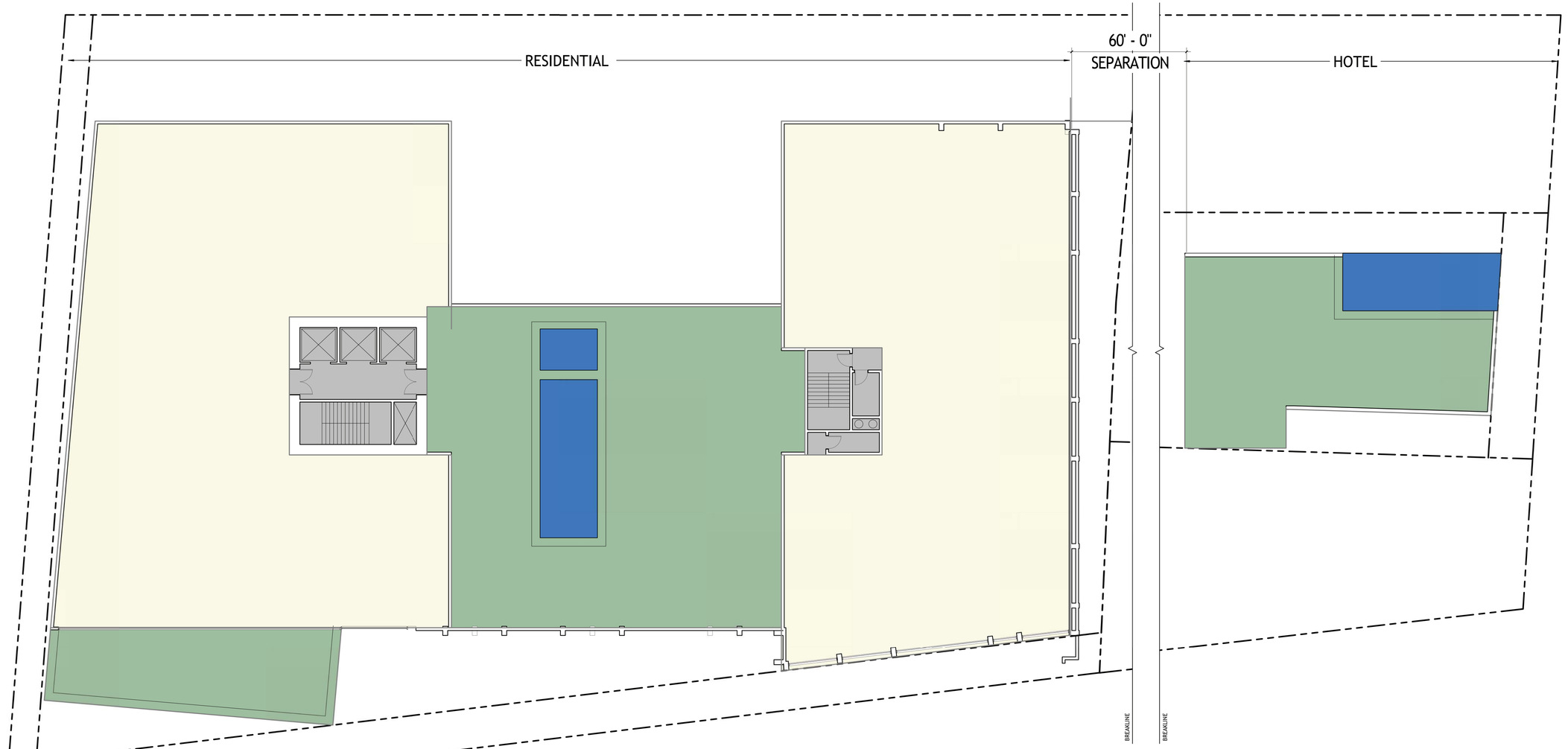

0 4' 8' 16'

15th AVE N & CHURCH STREET MIXED-USE DEVELOPMENT
ROOF AMENITY LEVEL

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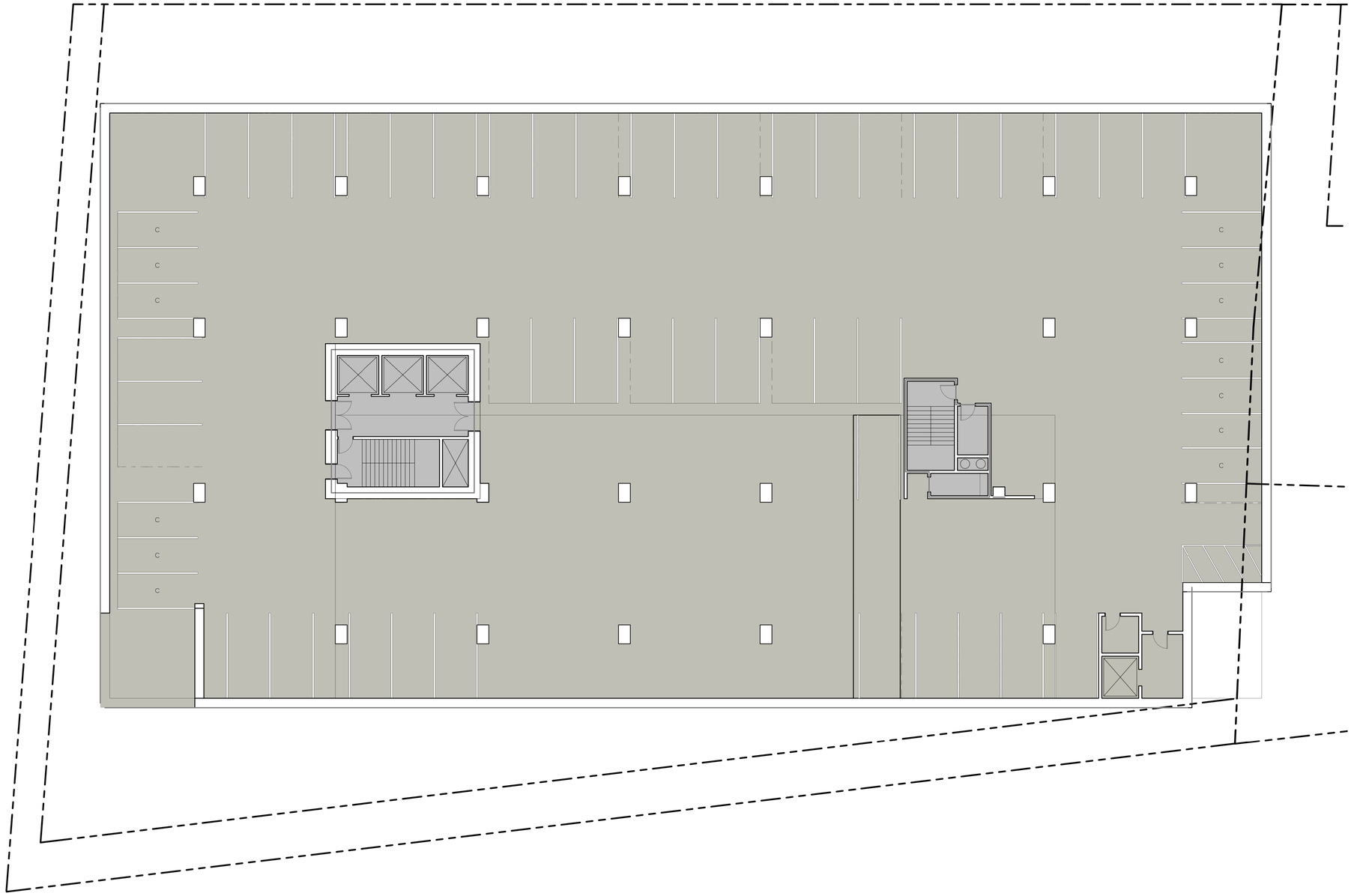

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15th AVE N & CHURCH STREET MIXED-USE DEVELOPMENT

BELOW GRADE PARKING

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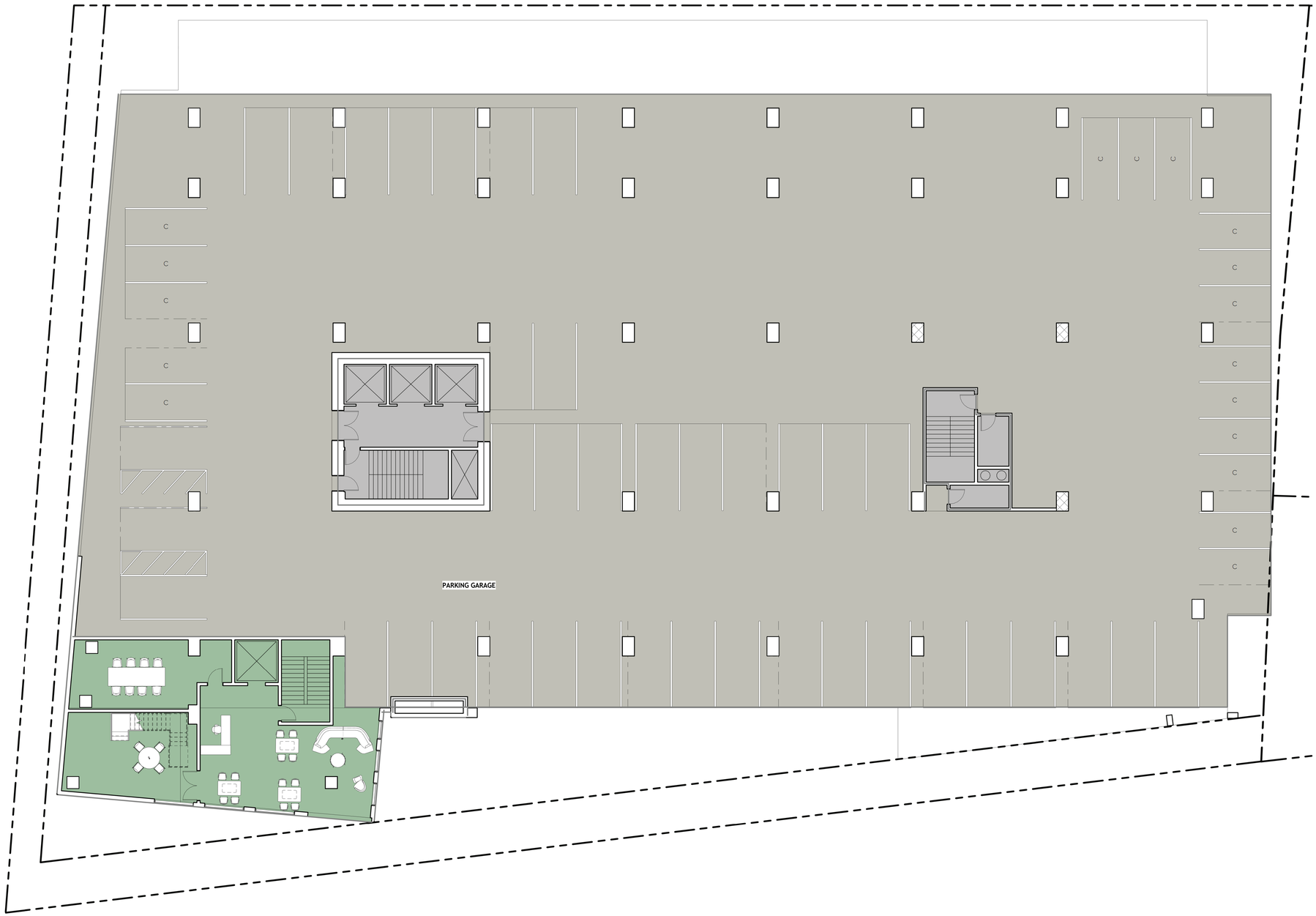

0 4' 8' 16'

15th AVE N & CHURCH STREET MIXED-USE DEVELOPMENT

ABOVE GRADE PARKING

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STANDARD SP NOTES

The purpose of this SP is to receive preliminary approval to permit the development of the 1.2 acres of mixed-use development as shown.

The final site plan / building permit site plan shall depict the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.

Required parking consistent with the parking requirements of the Metro Zoning Code shall not be counted as floor area.

Permitted Uses: Permitted uses shall be the uses listed in the MUI-A zone.

ARCHITECTURAL STANDARDS:

- Buildings shall avoid continuous uninterrupted blank facades and at a minimum, the facade plane shall be interrupted by one of the following for every thirty-five linear feet of street frontage:
  - A change in building material
  - A horizontal undulation in the building facade of three feet or greater
  - A porch, stoop or balcony; porches shall be a minimum six feet in depth
- Refuse collection, recycling and mechanical equipment shall be fully screened from public view by the combination of fences, walls or landscaping.
- HVAC units shall be located at the rear half of the side of unit, behind the unit, or on the roof of each building. HVAC units on roof must be screened from view along Primary and Secondary Frontages
- Where feasible due to site elevations and conditions, ground floor residential units fronting a public street may provide an active entrance point from the public sidewalk in the form of a stoop.
- All ground level porches accessed directly from a public sidewalk shall provide a minimum of six (6) feet of depth.
- EIFS, vinyl siding and untreated wood shall be prohibited on facades facing public R.O.W and public open space (vinyl soffits shall be permitted).
- Building facades fronting a street shall provide a minimum of one principal entrance (doorway). Windows shall be vertically oriented at a ratio of 1.5:1 or greater, except for dormers. All internal sidewalks must be a minimum of five (5) feet wide.
- All ROW dedication will occur prior to the issuance of building permits.

PARKING STANDARDS

- Parking shall be provided within designated parking areas and private garages internal to the development and meet the minimum parking set forth by this SP application.
- Bicycle parking shall be provided per Metro Standards.

FEDERAL COMPLIANCE

- All development within the boundaries of this plan will meet the requirements of the Americans with Disabilities Act and the Fair Housing Act.

STORMWATER NOTES

- Metro Water Services shall be provided sufficient and unencumbered ingress and egress at all times in order to maintain, repair, replace, and inspect any storm water facilities within the property.
- Any excavation, fill or disturbance of the existing ground elevation must be done in accordance with storm water management ordinance NO.78-840 and approved by The Metropolitan Department of Water Service.
- Size driveway culverts per the design criteria set forth by the Metro Stormwater Management Manual (Minimum driveway culvert in Metro ROW is 15' RCP)
- Drawing is to indicate the basic development, as it pertains to Stormwater approval / comments only. The final lot count and details of the plan shall be governed by the appropriate stormwater regulations at the time of final application.
- The site is within the combined sewer. Additional requirements will be required and that it is advised to contact MWS staff.
- Properties contain no FEMA designated floodplain per map 47037C0234H, dated April 5, 2017.

LANDSCAPE STANDARDS

- The development of this project shall comply with the street tree, tree density, and tree replacement requirements of Metro Nashville. Landscape plan to be submitted in Final SP Submittal.
- Street trees shall be provided along all street frontages at an average of fifty (50) linear feet on center and be 3.5" caliper minimum.
- All landscaping shall be properly irrigated and maintained.
- Where trees are planted in rows, they shall be uniform in size and shape.
- Reference Metro L.I.D. Manual for design and planting materials for LID measures.
- Ornamental trees may be used as street trees where existing conflicts with overhead utilities occur.
- Metro tree density and tree replacement worksheets shall be utilized to calculate required planting.

NASHVILLE DEPT OF TRANSPORTATION:

- The final site plan/building permit site plan shall depict the required public sidewalks, any required grass strip or frontage zone and the location of all existing and proposed vertical obstructions within the required sidewalk and grass strip or frontage zone. Prior to the issuance of use and occupancy permits, existing vertical obstructions shall be relocated outside of the required sidewalk. Vertical obstructions are only permitted within the required grass strip or frontage zone.
- Any required right-of-way within the project site that is identified as necessary to meet the adopted roadway plans shall be dedicated or provided through appropriate easements.
  - Developer will ensure bike lanes are continuous through intersections.
  - The developer's final construction drawings shall comply with the design regulations established by the Department of Public Works, in effect at the time of the approval of the preliminary development plan
  - or final development plan or building permit, as applicable. Final design may vary based on field conditions.
  - All construction within the right of way shall comply with ADA and Metro Public Works Standards and Specifications.
  - Developer should coordinate with WeGo to up-grade the nearby bus stops on Dickerson Pike.
  - If sidewalks are required, then they should be shown on the plans per MCSP and MPW standards and specs.
  - Submit copy of ROW dedications prior to bldg. permit sign off.
  - An appropriately sized dumpster and recycling container(s), shall be provided on site by a private hauler.

FIRE MARSHAL NOTES:

- New commercial developments shall be protected by a fire hydrant that complies with the 2006 edition of NFPA 1 Table H.
- No part of any building shall be more than 500 ft. from a fire hydrant via a hard surface road. Metro Ordinance 095-1541 Sec. 1568.020 B
- All fire department access roads shall be 20 feet minimum width and shall have an unobstructed vertical clearance of 13.5 feet.
- All dead-end roads over 150 ft. in length require a 100-ft. diameter turnaround, this includes temporary turnarounds.
- Temporary T-type turnarounds that last no more than one year shall be approved by the Fire Marshal's Office.
- If more than three stories above grade, Class I standpipe system shall be installed.
- If more than one story below grade, Class I standpipe system shall be installed.
- When a bridge is required to be used as part of a fire department access road, it shall be constructed and maintained in accordance with nationally recognized standards.
- A fire hydrant shall be provided within 100 ft. of the fire department connection.
- Fire hydrants shall be in-service before any combustible material is brought on site.

NES NOTES

- Where feasible, this development will be served with underground power, pad-mounted transformers.
- NES facilities will not be allowed to sit in or to pass through retention areas including rain gardens, bio-retention, bioswales and the like. This includes primary duct between pad mounted equipment, as well as service duct to a meter.

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Project Lead: [Initials]

Traffic Impact Study

15th Avenue & Church Street

August 2022

FOR SUBMITTAL TO:

Metropolitan Government of Nashville and Davidson County, Tennessee

PREPARED FOR:

Roers Companies

Kimley»Horn

Traffic Impact Study

15th Avenue & Church Street

FOR SUBMITTAL TO:

Metropolitan Government of Nashville and Davidson County, Tennessee

PREPARED FOR:

Roers Companies

PREPARED BY:

Kimley»Horn

10 Lea Avenue, Suite 400

Nashville, Tennessee 37210

615.564.2701

August 2022

Project Number 118447000

08/10/2022

Kimley»Horn

CONTENTS

FIGURES

TABLES

APPENDICES

1.0 EXECUTIVE SUMMARY

This traffic study evaluated the anticipated traffic impacts associated with the *15th Avenue & Church Street* development, which is expected to be completed in 2025 (referred to herein as build-out year). As currently envisioned, the development will consist of approximately 570 multifamily units, 375 hotel rooms, and a 26,000 square foot (sq. ft.) strip retail plaza. The approximate 1.2-acre site is located north of Church Street and east of 15th Avenue within the Metropolitan Government of Nashville and Davidson County, Tennessee.

This following scenarios were considered in this analysis:

- Existing 2022 Conditions
- Projected 2025 No-Build Conditions
- Projected 2025 Build Conditions

The study network for this analysis includes the following intersections:

1. Hynes Street at 14th Avenue
2. 14th Avenue at Church Street
3. Church Street at 15th Avenue
4. 15th Avenue at Hynes Street
5. Charlotte Avenue at 15th Avenue
6. Charlotte Avenue at 14th Avenue

The proposed development will be served by two full-movement driveways that will operate under two-way stop control (TWSC). One driveway will include improved alley access between the site and Hynes Street and one driveway will be located along 15th Avenue.

The results of the analyses show that all study intersections currently operate at an acceptable overall LOS during the AM and PM peak hours. Under the projected 2025 No-Build and Build conditions, all study intersections are projected to continue to operate at an acceptable overall LOS during the AM and PM peak hours.

1.1 DEVELOPMENT IMPROVEMENT RECOMMENDATIONS

The following site-access improvements are recommended to serve the Projected 2025 Build traffic conditions (Note: this would be the improvements needed to serve the traffic associated with the *15th Avenue & Church Street* development).

- Intersection 6 – Hynes Street at Site Driveway 1 (via improved alley access)
    - Construct one (1) ingress lane entering the site and one (1) egress lane exiting the site.
- Intersection 7 – 15th Avenue at Site Driveway 2
    - Construct one (1) ingress lane entering the site and one (1) egress lane exiting the site.
- Complete the sidewalk network along the eastern leg of Hynes Street (dependent upon ROW)
- As previously discussed with Metro Planning, provide bicycle lanes along 15th Avenue between Charlotte Avenue and Church Street by removing the on-street parking

2.0 INTRODUCTION

This report presents the analysis of the anticipated traffic impacts associated with the *15th Avenue & Church Street* development, which is expected to be completed in 2025 (referred to herein as build-out year). As currently envisioned, the development will consist of approximately 570 multifamily units, 375 hotel rooms, and a 26,000 square foot (sq. ft.) strip retail plaza. The approximate 0.9-acre site is located north of Church Street and east of 15th Avenue within the Metropolitan Government of Nashville and Davidson County, Tennessee.

This report will summarize the analyses of the following scenarios:

- Existing 2022 Conditions
- Projected 2025 No-Build Conditions
- Projected 2025 Build Conditions

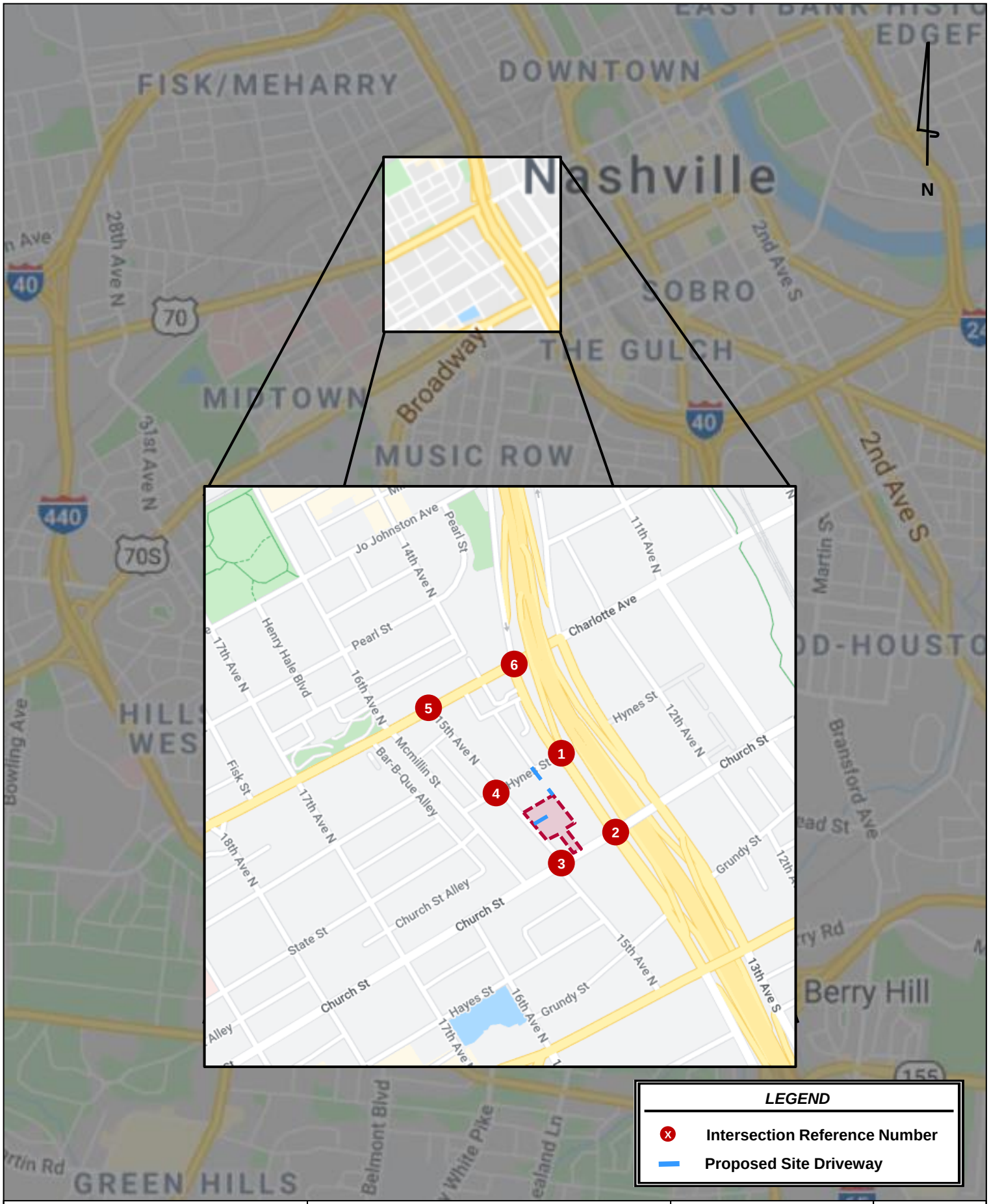
The study network for this analysis includes the following intersections:

1. Hynes Street at 14th Avenue
2. 14th Avenue at Church Street
3. Church Street at 15th Avenue
4. 15th Avenue at Hynes Street
5. Charlotte Avenue at 15th Avenue
6. Charlotte Avenue at 14th Avenue

For the purposes of this traffic impact study, Church Street, Charlotte Avenue, and Site Driveway 2 are considered to have an east-west orientation. 14th Avenue, 15th Avenue, and Site Driveway 1 are considered to have a north-south orientation.

Figure 1 provides a location map of the project site. **Figure 2** provides an aerial image of the project site.

A site plan is also included in **Appendix A**.



Kimley»Horn	*15TH Avenue & Church Street* Traffic Impact Study	Site Location Map	Figure 1
			Page 3

Kimley»Horn	*15TH Avenue & Church Street* Traffic Impact Study	Site Aerial	Figure 2
			Page 4

3.0 EXISTING CONDITIONS

3.1 MULTIMODAL NETWORK

Pedestrian facilities (sidewalks) are currently provided along both sides of Church Street, the west side of 14th Avenue (east side of 14th Avenue not appropriate for sidewalks due to interstate frontage), the west side of 15th Avenue, and mostly along the east side of 15th Avenue with some gaps in the network. Minimal pedestrian facilities are provided along Hynes Street in the vicinity of the site. There are also a variety of retail/restaurant businesses, educational and healthcare institutions, and other employment locations within walking distance of the site. It should be noted that the Nashville Major Collector Street Plan (MSCP) has identified sidewalk gaps along Hynes Street along the site frontage.

Shared bike facilities are provided along Church Street through shared pavement markings ("sharrows"). Dedicated bike lanes are provided along Charlotte Avenue west of 15th Avenue. The bike lanes transition to shared facilities east of 15th Avenue.

WeGo transit stop shelters are provided along Charlotte Avenue at the intersection of Charlotte Avenue and 17th Avenue. near the intersection with 17th Avenue. The transit stops along Charlotte Avenue are served by bus route 50.

Service for bus route 50 is provided on weekdays and weekends from approximately 5 AM to 12 PM with 15 minute headways during peak periods. In addition to Charlotte Avenue in the vicinity of the site, route 50 provides access between West Nashville and Downtown including but not limited to the Nations, The Parthenon/Centennial Medical, and the Tennessee State Capitol.

3.2 VEHICULAR NETWORK

Characteristics for the roadways within the study are summarized in **Table 1**.

Table 1: Roadway Network

Roadway	Number of Lanes	Posted Speed Limit (mph)	Metro Nashville Classification	2022 TDOT AADT
Church Street	4+TWTL	30	Arterial-Boulevard	22,540
14th Avenue	3	30	N/A	3,000
15th Avenue	2	N/A	Collector-Avenue	N/A
Charlotte Avenue	4+TWTL	40	Arterial-Boulevard	34,980
Hynes Street	2	N/A	N/A	N/A

The existing road geometry is illustrated in **Figure 3.**

3.3 VEHICULAR VOLUMES

Vehicle peak hour turning movement counts (TMCs) were performed at each study intersection. The TMCs were collected during the AM period (7:00 AM – 9:00 AM) and the PM period (4:00 PM – 6:00 PM) on Thursday, March 3, 2022 for intersections 1-5 and on Wednesday, August 3, 2022 for intersection 6. Peak hours for the study intersection are shown in **Table 2**.

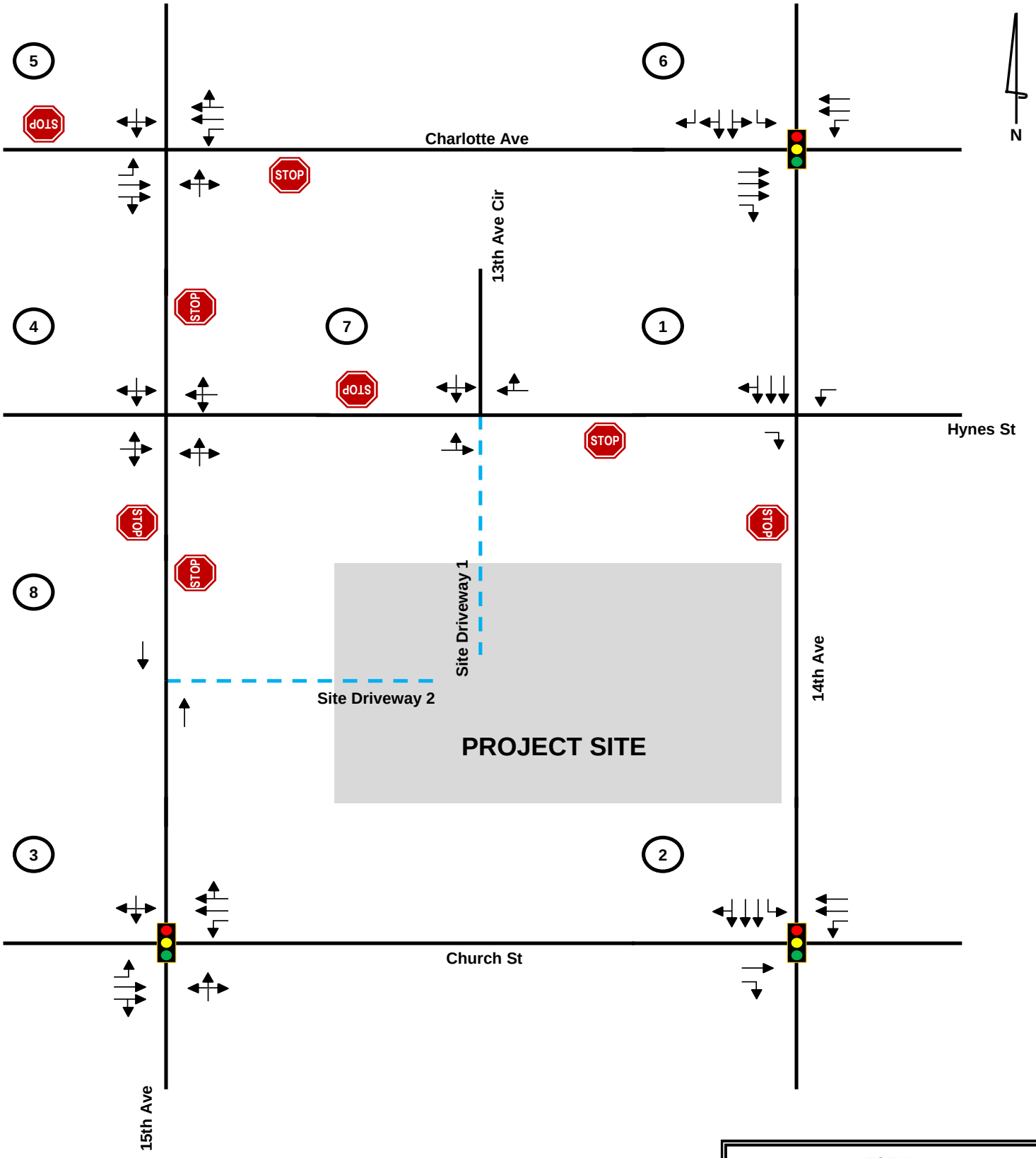
Table 2: Intersection Peak Hours

Intersection	AM Peak Hour	PM Peak Hour
1. Hynes Street at 14th Avenue	7:15 AM – 8:15 AM	4:15 PM – 5:15 PM
2. 14th Avenue at Church Street	7:15 AM – 8:15 AM	4:15 PM – 5:15 PM
3. Church Street at 15th Avenue	7:15 AM – 8:15 AM	4:15 PM – 5:15 PM
4. 15th Avenue at Hynes Street	7:15 AM – 8:15 AM	4:45 PM – 5:45 PM
5. Charlotte Avenue at 15th Avenue	7:15 AM – 8:15 AM	4:00 PM – 5:00 PM
6. Charlotte Avenue at 14th Avenue	7:15 AM – 8:15 AM	4:00 PM – 5:00 PM

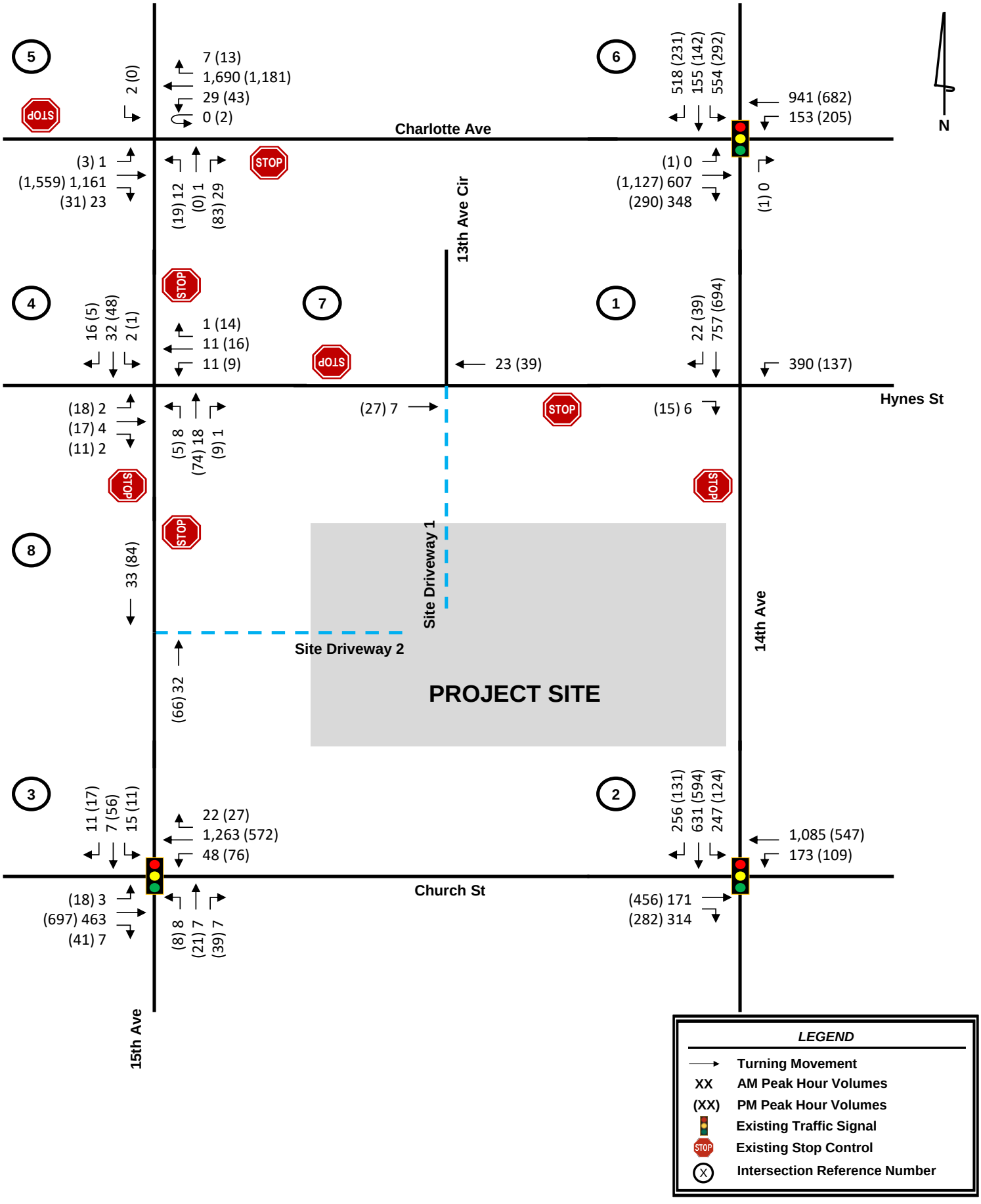
In addition to the TMCs, a 24-hour average daily traffic (ADT) count was also collected at the following location:

- Church Street west of 15th Avenue (23,000 daily vehicles – 10,000 EB, 13,000 WB)

The Existing 2022 peak hour traffic volumes are shown in **Figure 4**. The complete traffic count data is provided in **Appendix B**.



Kimley»Horn	15th & Church Transportation Analysis	Existing 2022 Intersection Laneage	Figure 3
			Page 9



Kimley»Horn	15th & Church Transportation Analysis	Existing 2022 Traffic Volumes	Figure 4 Page 10

4.0 NO-BUILD CONDITIONS

Background traffic is defined as expected traffic on the roadway in future year(s) absent the construction and opening of the proposed project. Background traffic can include a base growth rate based on historical count data as well as population growth data and estimates.

To account for background traffic, the Existing 2022 traffic volumes were increased by 4.0% per year for three years to account for the expected background growth through year 2025. Additionally, project trips associated with the following developments were included in the Projected 2025 No-Build Traffic volumes:

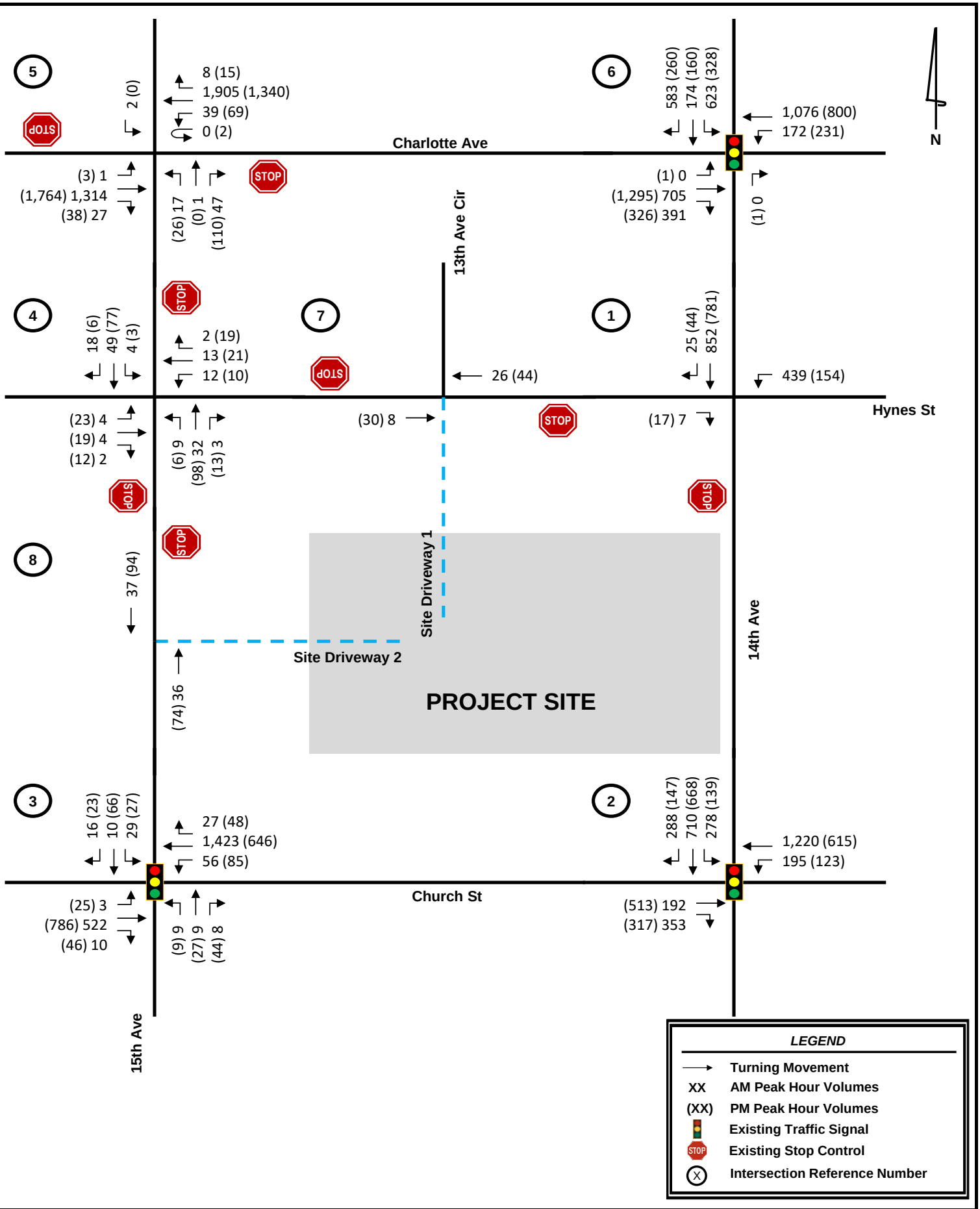
- 215 15th Avenue
- 301 15th Avenue

Figure 5 illustrates the Projected 2025 No-Build traffic volumes.

4.1 FUTURE TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS

The Metro Nashville Capital Improvements Budget (CIB), Greater Nashville Regional Commission (GNRC), and Tennessee Department of Transportation (TDOT) transportation projects were researched for currently planned/programmed transportation projects within the vicinity of the study area.

No improvements were identified to be included in the capacity analyses.



Kimley»Horn	15th & Church Transportation Analysis	Projected 2025 No-Build Traffic Volumes	Figure 5
			Page 12

5.0 BUILD CONDITIONS

5.1 SITE ACCESS AND CIRCULATION

Access to the proposed site will be provided at two locations. Intersection sight distance measurements and calculations were performed for all site access points using methodology provided in *A Policy on Geometric Design of Highways and Streets, 6th Edition (2011)*, published by the American Association of State Highways and Transportation Officials (AASHTO).

A brief description of the site access is as follows:

- Site Driveway 1
    - Proposed full-movement, unsignalized driveway along Hynes Street aligned with 13th Avenue Circle approximately 240' east of 15th Avenue. The intersection is proposed to operate under side street stop control and have one (1) ingress lane entering the site and one (1) egress lane exiting the site. Although the site is not located along Hynes Street, the existing alley is proposed to be improved to provide access between the site and Hynes Street.
    - Hynes Street is a relatively straight roadway with minimal grade changes. Sight distance is anticipated to be adequate at this driveway location.
- Site Driveway 2
    - Proposed full-movement, unsignalized driveway along 15th Avenue approximately 240' south of Hynes Street. The intersection is proposed to operate under side street stop control and have one (1) ingress lane entering the site and one (1) egress lane exiting the site.
    - 15th Avenue is a relatively straight roadway with minimal grade changes. Sight distance is anticipated to be adequate at this driveway location.

Refer to the site plan in **Appendix A** for a visual representation of vehicular access and circulation throughout the proposed development.

5.2 MULTIMODAL CONSIDERATIONS

The development proposes to address not only existing multimodal infrastructure needs but also implement transportation demand management (TDM) strategies to reduce vehicular demand and encourage increased use of alternative transportation modes.

The following multimodal improvements should be considered with the development of the overall site:

Pedestrian Infrastructure Amenities

- Construct/improve sidewalks along the site frontage on 15th Avenue
- As right-of-way (ROW) allows, complete the sidewalk network along 15th Avenue north of the site which has been identified as a discontinuous network by the MCSP
- Provide crosswalk striping for all approaches at the intersection of 15th Avenue and Hynes Street

Bicycle / Electric Scooter Infrastructure Amenities

- Provide designated parking area(s) for bicycles
- Provide an electric scooter corral (or designated scooter parking area)

Rideshare/Car Share

- Designate taxi / ride hailing pick-up and drop-off points internal to the proposed development
- Provide car share services (i.e. ZipCar, Turo, etc.) to provide vehicle access for residents to encourage reduced vehicle ownership

Parking

- Provide electric vehicle charging stations
    - Although this does not reduce the vehicular demand, it does provide environmental mitigation efforts for vehicular use

Service Loading

- Develop loading / service vehicle plans for off-peak hours
- Install wayfinding to designated areas for loading/service vehicles

5.3 TRIP GENERATION

Traffic for the proposed development was calculated using equations contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, *11th Edition*, using equations where available.

Internal capture (or mixed-use) reductions represent the concept that trips generated by individual land uses within a site may remain internal to the site. Mixed-use vehicle trip reductions are calculated using guidance from the *ITE Trip Generation Handbook, 3rd Edition*.

Alternative modes of transportation include pedestrians, bicyclists, and transit users. Alternate mode reductions account for the notion that some site-generated trips will occur by a means other than automobile.

A pass-by trip occurs when a proposed development diverts traffic that is already traveling on a street adjacent to the site. Pass-by reductions are calculated using guidance from the *ITE Trip Generation Handbook, 3rd Edition*.

Table 3 summarizes the project trip generation. **Appendix C** provides a detailed trip generation worksheet for the proposed development.

Table 3: Trip Generation

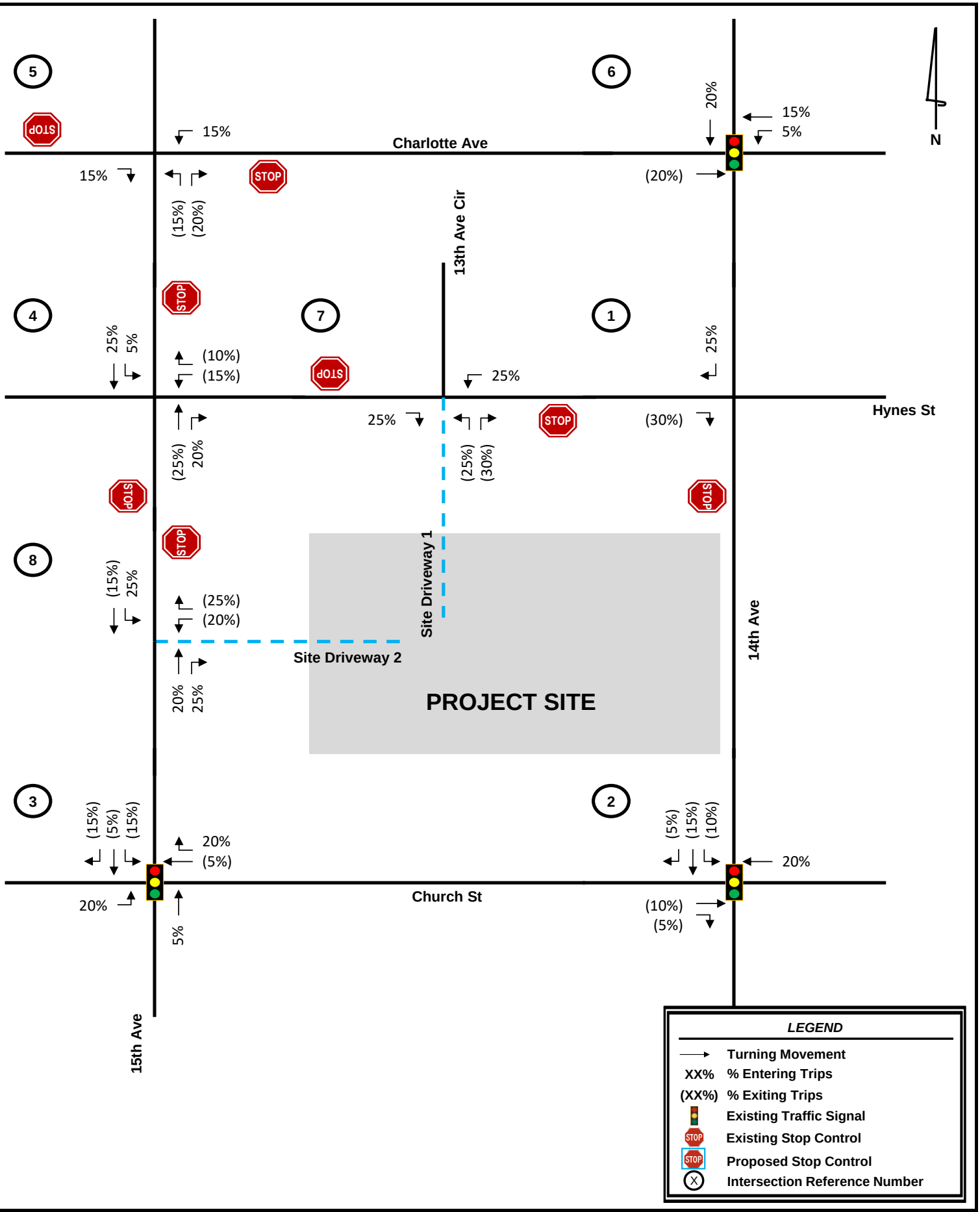
ITE Code	Land Use	Density	Daily		AM Peak Hour		PM Peak Hour	
			Enter	Exit	Enter	Exit	Enter	Exit
222	Multifamily Housing (High-Rise)	570 units	1,260	1,260	49	95	96	75
310	Hotel	375 rooms	1,821	1,821	101	79	128	122
822	Strip Retail Plaza (<40k)	26,000 sf	663	663	32	22	77	76
Gross Trips			**3,744**	**3,744**	**182**	**196**	**301**	**273**
Mixed-Use Reductions			*-132*	*-132*	*-3*	*-3*	*-36*	*-36*
Alternative Mode Reductions			*-904*	*-903*	*-45*	*-49*	*-67*	*-59*
Pass-By Reductions			*-179*	*-179*	*-0*	*-0*	*-18*	*-18*
New Trips			**2,529**	**2,530**	**134**	**144**	**180**	**160**
Driveway Volumes			**2,708**	**2,709**	**134**	**144**	**198**	**178**

5.4 TRIP DISTRIBUTION AND ASSIGNMENT

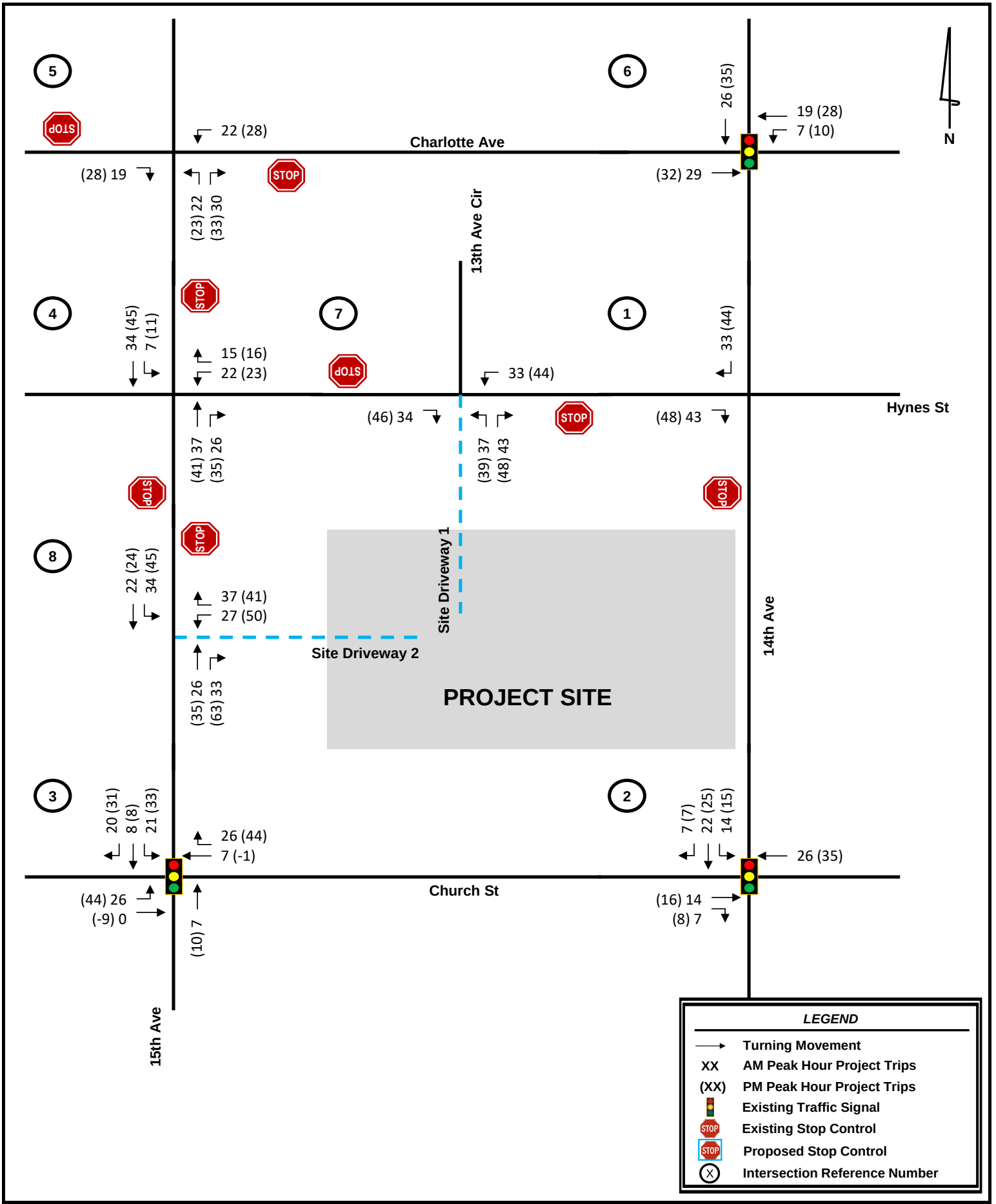
The directional distribution and assignment of new project trips was based on a review of land uses and population densities in the area and the existing peak hour turning movement counts.

Figure 6 provides the directional distribution and assignment of new project trips. **Figure 7** illustrates the assignment of project trips to the study network. The Projected 2025 Build peak hour volumes are shown in **Figure 8**.

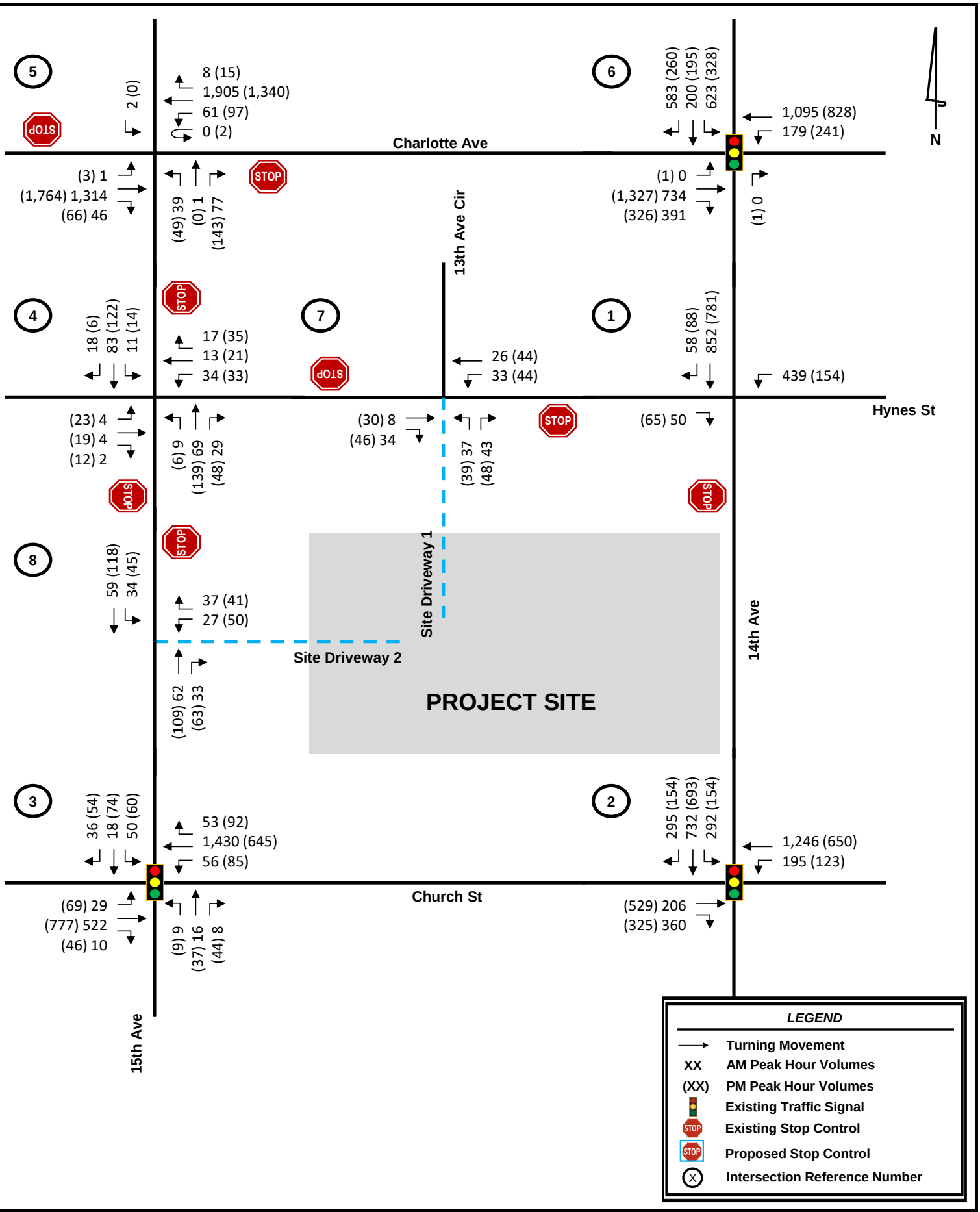
Appendix C provides intersection volume worksheets for all intersections and driveways within the study network.



Kimley»Horn	15th & Church Transportation Analysis	Trip Distribution & Assignment	Figure 6
			Page 17



Kimley»Horn	15th & Church Transportation Analysis	Project Trips	Figure 7
			Page 18



Kimley»Horn	15th & Church Transportation Analysis	Projected 2025 Build Traffic Volumes	Figure 8
			Page 19

6.0 CAPACITY ANALYSES

6.1 LEVEL-OF-SERVICE ANALYSES

Level-of-service (LOS) determinations were made for the weekday AM and PM peak hours for the study network intersections using *Synchro, Version 11.0. Synchro* software uses methodologies contained in the *Highway Capacity Manual, 6th Edition* to determine the operating characteristics of an intersection. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions.

LOS is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions of a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F the worst.

Levels-of-service for unsignalized intersections, with stop control on the minor street only, are reported for the side-street approaches and major street left-turns. Low levels-of-service for side street approaches are not uncommon, as vehicles may experience significant delay turning onto a major roadway.

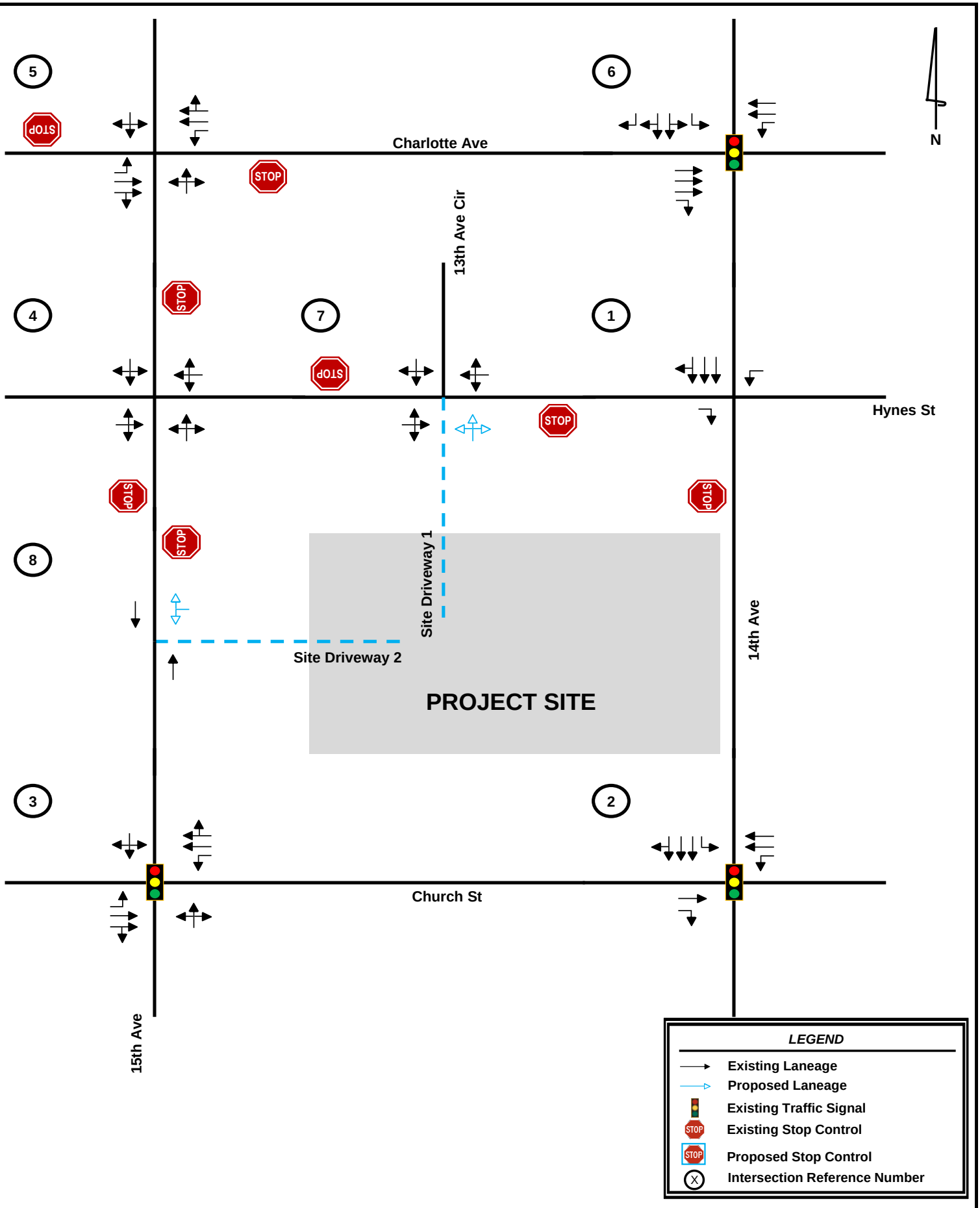
Levels-of-service for signalized and all-way stop controlled (AWSC) intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

Capacity analyses were performed for the AM and PM peak hours under the Existing 2022, Projected 2025 No-Build, and Projected 2025 Build traffic conditions. The results of the capacity analyses are summarized in **Table 4**. The *Synchro* analyses reports are included in **Appendix D**.

Table 4: Level-of-Service Summary *LOS (Delay in Seconds)*							
Intersection	**Approach/ Movement**	**Existing 2022**		**Projected 2025 No-Build**		**Projected 2025 Build**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
1. Hynes Street at 14th Avenue	EB	B (12.6)	B (12.1)	B (13.3)	B (12.6)	B (14.6)	B (13.9)
2. 14th Avenue at Church Street	Overall	C (23.2)	C (21.5)	C (24.7)	C (22.0)	C (25.1)	C (22.2)
3. Church Street at 15th Avenue	Overall	A (2.5)	A (7.0)	A (3.1)	A (7.8)	A (4.6)	A (9.9)
4. 15th Avenue at Hynes Street	EB	A (9.3)	B (10.0)	A (9.6)	B (10.5)	B (10.5)	B (12.0)
	WB	A (9.6)	A (9.8)	A (9.9)	B (10.2)	B (10.7)	B (11.7)
	NBL	A (7.3)	A (7.4)	A (7.4)	A (7.4)	A (7.5)	A (7.5)
	SBL	A (7.3)	A (7.4)	A (7.3)	A (7.5)	A (7.5)	A (7.7)
5. Charlotte Avenue at 15th Avenue	NB	C (15.5)	C (18.8)	C (18.3)	D (27.1)	C (24.4)	E (44.1)
	SB	C (22.6)	A (0.0)	D (27.8)	A (0.0)	D (29.0)	A (0.0)
	EBL	B (11.3)	A (9.0)	B (13.4)	A (9.5)	B (13.4)	A (9.5)
	WBL	A (9.1)	B (11.0)	A (9.5)	B (12.7)	A (9.8)	B (13.2)
6. Charlotte Avenue at 14th Avenue	Overall	C (24.5)	B (18.7)	C (25.9)	B (19.5)	C (26.2)	B (20.0)
7. Hynes Street at Site Driveway 1	NB	--	--	--	--	A (9.4)	A (9.7)
	WBL	--	--	--	--	A (7.4)	A (7.4)
8. 15th Avenue at Site Driveway 2	WB	--	--	--	--	A (9.4)	B (10.7)
	SBL	--	--	--	--	A (7.4)	A (7.6)

All of the study intersections currently operate and are projected to operate at an acceptable overall LOS during both the AM and PM peak hours. It should be noted that low LOS for side street approaches are not uncommon, as vehicles may experience significant delay turning onto a major roadway. It should also be noted that although the southbound approach at Intersection 5 experiences delay during the AM peak hour, there is no volume during the PM peak hour which creates no delay for the approach.

Although no improvements were identified in the capacity analyses, the recommended lane configuration for site driveways is shown visually in **Figure 9**.



Kimley»Horn	15th & Church Transportation Analysis	Build 2025 Intersection Laneage	Figure 9
			Page 22

7.0 CONCLUSION

This traffic study evaluated the traffic impacts associated with the *15th Avenue & Church Street* development located north of Church Street and east of 15th Avenue within Metropolitan Government of Nashville and Davidson County, Tennessee. The development, which is approximately 0.9-acres in size, will include approximately 570 multifamily units, 375 hotel rooms, and a 26,000 square foot (sq. ft.) strip retail plaza.

The study network, which consists of six intersections, was analyzed for the weekday AM and PM peak hours under Existing 2022 conditions, Projected 2025 No-Build conditions (one year of background traffic growth plus project traffic associated with the *215 15th Ave* and *301 15th Ave* developments), and Projected 2025 Build conditions (Projected 2025 No-Build conditions plus traffic generated by the proposed *15th Avenue & Church Street* development).

Based on the results of this study, all study intersections currently operate at an acceptable overall LOS during the AM and PM peak hours. Under the projected 2025 No-Build and Build conditions, all study intersections are projected to continue to operate at an acceptable overall LOS during the AM and PM peak hours.

Kimley-Horn and Associates, Inc. does not recommend system improvements, but does recommend site access improvements based on the results of this study. System Improvements, or "No-Build" recommendations, are needed to serve background road network traffic (not required by the proposed development. Instead this is an improvement that may already be planned by the City, County, or State or is needed to serve other background traffic). Site Access Improvements, or "Build" recommendations, are needed to serve the *15th Avenue & Church Street* development traffic.

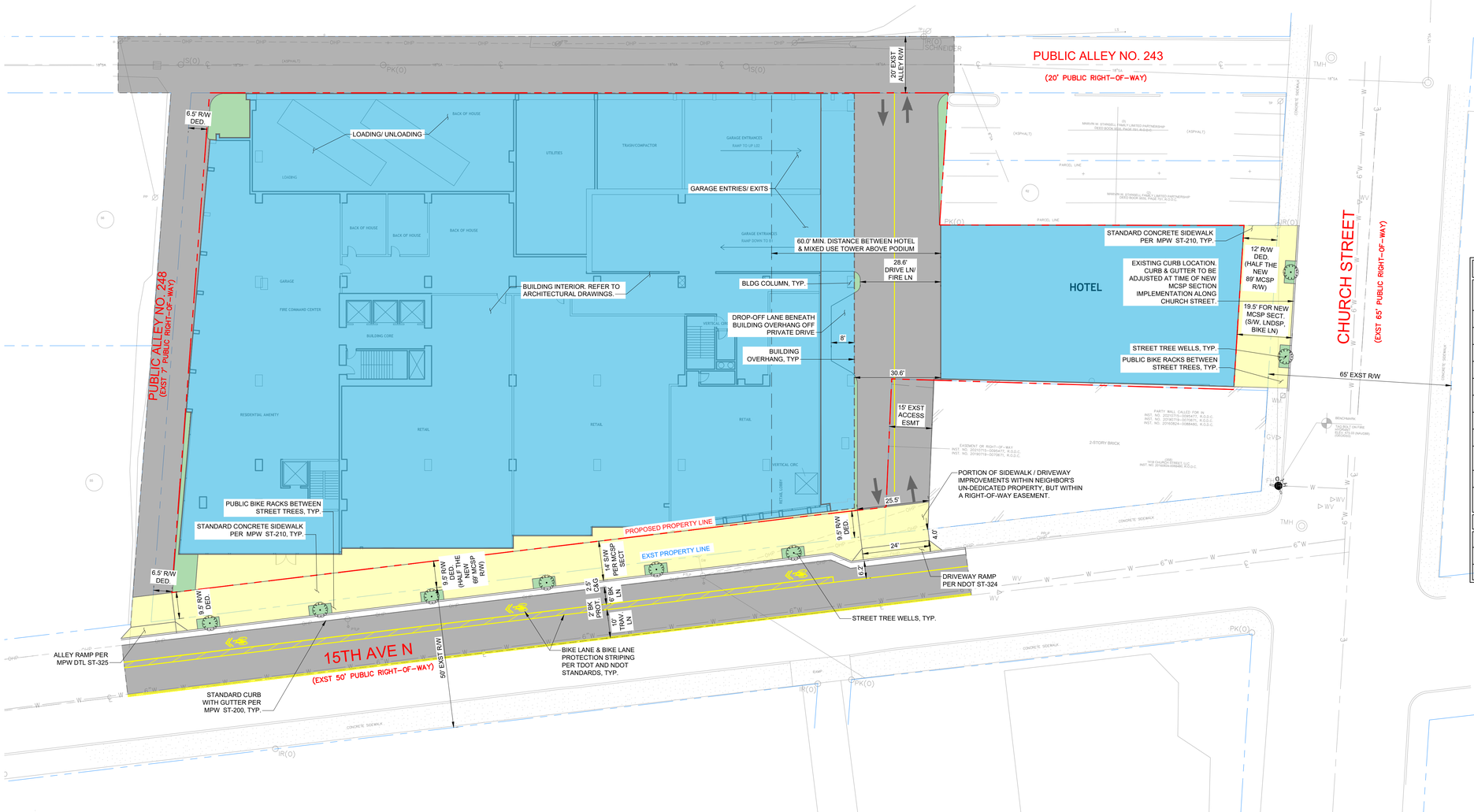
7.1 DEVELOPMENT IMPROVEMENT RECOMMENDATIONS

Based on the results of this traffic impact study, Kimley-Horn and Associates, Inc. recommends the following site-access improvements to serve the Projected 2025 Build traffic conditions (Note: this would be the improvements needed to serve the traffic associated with the *15th Avenue & Church Street* development).

- Intersection 6 – Hynes Street at Site Driveway 1 (via improved alley access)
    - Construct one (1) ingress lane entering the site and one (1) egress lane exiting the site.
- Intersection 7 – 15th Avenue at Site Driveway 2
    - Construct one (1) ingress lane entering the site and one (1) egress lane exiting the site.
- Complete the sidewalk network along the eastern leg of Hynes Street (dependent upon ROW)
- As previously discussed with Metro Planning, provide bicycle lanes along 15th Avenue between Charlotte Avenue and Church Street by removing the on-street parking

APPENDIX A

Site Plan



HATCH LEGEND

- HEAVY DUTY CONCRETE (PER MPW ST-325)
- CONCRETE SIDEWALK (PER MPW ST-210)
- MILL & OVERLAY
- HEAVY DUTY ASPHALT (PER MPW ST-261)
- BUILDING INTERIOR (REFER TO ARCHITECTURAL DRAWINGS)
- LANDSCAPE SPACE

SITE LAYOUT NOTES

1. INSTALL CONCRETE JOINTS WHERE SHOWN ON PLANS AND DETAILS. ALIGN ON WALLS, BUILDINGS, RADII, ETC. EVENLY SPACE BETWEEN ELEMENTS AS SHOWN. PROVIDE EXPANSION JOINTS BETWEEN CONCRETE PAVEMENT AND ALL VERTICAL ELEMENTS (WALLS, CURBS, ETC.).
2. LAYOUT ALL CURVES SMOOTHLY WITH NO ABRUPT CHANGES AT TANGENT POINTS.
3. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
4. LAYOUT ALL ELEMENTS IN FIELD AND CONTACT OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE BEGINNING ANY CONSTRUCTION.
5. CONTRACTOR TO TAKE ALL PRECAUTIONS TO FIND AND AVOID SITE UTILITIES. ALL UTILITIES ARE NOT SHOWN ON DRAWING. VERIFY LOCATIONS AND CONSIDER SUCH WHEN ESTIMATING.
6. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
7. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE INSTALLED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
8. ALL SIDEWALK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED PER MPW STANDARD DWG NO. ST-210.
9. SAW CUT LINES SHALL BE DONE IN A STRAIGHT NEAT LINE A MINIMUM OF 18" FROM THE EXISTING EDGE OF PAVEMENT.
10. REFER TO ARCHITECTURAL PLAN FOR STRIPING WITHIN THE GARAGE.
11. ALL TREE GRATES SHALL BE ADA COMPLIANT AND H20 TRAFFIC RATED.

SITE DATA TABLE

SITE ADDRESS	210, 212, 216, 218, 220 15TH AVE N 1414 CHURCH STREET NASHVILLE, TN 37203
TAX MAP	MAP 09-12-0, PARCEL 35-357, 359
EXISTING ZONING	MUI-A, UZO
PROPOSED ZONING	SP
PERMITTED USES	ALL USES PERMITTED WITHIN MUI-A BASE ZONING
MAXIMUM FAR	16.0
MAXIMUM BUILDING HEIGHT	30 STORIES
BUILDING STEP-BACK	NO STEP-BACK
MAXIMUM HEIGHT IN BUILD-TO-ZONE	30 STORIES
MIXED USE DENSITY	MULTI-FAMILY: 570 UNITS HOTEL: 375 KEYS RETAIL/ RESTAURANT: 26,000 SF
PARKING REQUIREMENTS	NONE
PARKING MAXIMUMS	MULTI-FAMILY: 1 SPACE/ UNIT HOTEL: 1 SPACE/ 4 KEYS RETAIL & RESTAURANT: 80 SPACES TOTAL

OVERALL AREA	EXISTING	PROPOSED
SITE AREA	1.20 AC	1.10 AC
DISTURBED AREA	N/A	TBD
DEDICATED R.O.W. AREA	N/A	0.10 AC

SP NOTES

1. MODIFICATIONS TO ALLOW EXPANSIONS AND CONNECTIONS OF FLOOR AND PARKING PLATES ABOVE AND BELOW GRADE ACROSS ALLEY 243 MAY BE APPROVED ADMINISTRATIVELY IF THE METROPOLITAN COUNCIL APPROVES AERIAL OR SUBTERRANEAN ENCROACHMENTS.
2. RELIEF IN MASSING TO ACHIEVE EXPOSED AMENITY SPACE WITHIN THE TOWER MAY BE APPROVED ADMINISTRATIVELY.
3. FLUCTUATION IN PARKING DEMANDS MAY OCCUR WITH ADJUSTMENTS IN USES. REDUCTIONS SHOULD OCCUR AT A 1:1 RATE FOR PARKING ABOVE AND BELOW GRADE.

TN STATE PLANE

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

Kimley»Horn
10 Lea Avenue, Nashville, TN 37210
Main: 615.564.2701 | www.kimley-horn.com

15th AVE N & CHURCH ST MIXED-USE DEVELOPMENT

NASHVILLE, TENNESSEE

METRO CASE # 2022SP-049-001

DRAFT
PRELIMINARY PLANS
FOR REVIEW ONLY

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY:	MEH
DRAWN BY:	MEH
CHECKED BY:	RM
DATE:	09/12/2022
KIMLEY-HORN PROJECT NO.	118447000

SITE LAYOUT

SHEET NUMBER
C2-00

APPENDIX B

Traffic Count Data

Bi-Directional Class Count || Volume Summary 15min

Nashville, TN

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Site 6
Church St,
west of 15th Ave S

Date
Thursday, March 3, 2022

Weather
Fair
63°F

Lat/Long
36.157210°, -86.793074°

0000 - 2400 (24h Session) (03-03-2022)

Volume Summary 15min

TIME	Volume Summary 15min EB	WB	15min Total	60min Total
0000 - 0015	22	20	**42**	
0015 - 0030	43	26	**69**	
0030 - 0045	35	18	**53**	
0045 - 0100	31	11	**42**	**206**
0100 - 0115	14	16	**30**	
0115 - 0130	20	16	**36**	
0130 - 0145	17	5	**22**	
0145 - 0200	14	7	**21**	**109**
0200 - 0215	12	11	**23**	
0215 - 0230	7	11	**18**	
0230 - 0245	7	8	**15**	
0245 - 0300	7	8	**15**	**71**
0300 - 0315	10	11	**21**	
0315 - 0330	9	10	**19**	
0330 - 0345	7	5	**12**	
0345 - 0400	4	8	**12**	**64**
0400 - 0415	5	13	**18**	
0415 - 0430	6	15	**21**	
0430 - 0445	12	36	**48**	
0445 - 0500	9	55	**64**	**151**
0500 - 0515	10	60	**70**	
0515 - 0530	11	105	**116**	
0530 - 0545	19	142	**161**	
0545 - 0600	12	258	**270**	**617**
0600 - 0615	22	266	**288**	
0615 - 0630	47	364	**411**	
0630 - 0645	38	284	**322**	
0645 - 0700	54	311	**365**	**1386**
0700 - 0715	106	252	**358**	
0715 - 0730	119	324	**443**	
0730 - 0745	127	306	**433**	
0745 - 0800	113	336	**449**	**1683**
0800 - 0815	116	316	**432**	
0815 - 0830	117	305	**422**	
0830 - 0845	119	296	**415**	
0845 - 0900	113	285	**398**	**1667**
0900 - 0915	113	238	**351**	
0915 - 0930	121	256	**377**	
0930 - 0945	142	240	**382**	
0945 - 1000	122	239	**361**	**1471**
1000 - 1015	150	190	**340**	
1015 - 1030	144	196	**340**	
1030 - 1045	145	173	**318**	
1045 - 1100	158	197	**355**	**1353**
1100 - 1115	152	178	**330**	
1115 - 1130	188	183	**371**	
1130 - 1145	183	176	**359**	
1145 - 1200	172	193	**365**	**1425**

Time	Volume Summary 15min EB	WB	15min Total	60min Total
1200 - 1215	200	180	**380**	
1215 - 1230	184	223	**407**	
1230 - 1245	166	191	**357**	
1245 - 1300	162	212	**374**	**1518**
1300 - 1315	163	192	**355**	
1315 - 1330	171	164	**335**	
1330 - 1345	171	209	**380**	
1345 - 1400	195	211	**406**	**1476**
1400 - 1415	200	154	**354**	
1415 - 1430	187	190	**377**	
1430 - 1445	191	149	**340**	
1445 - 1500	180	182	**362**	**1433**
1500 - 1515	216	137	**353**	
1515 - 1530	221	136	**357**	
1530 - 1545	195	136	**331**	
1545 - 1600	200	131	**331**	**1372**
1600 - 1615	212	136	**348**	
1615 - 1630	187	160	**347**	
1630 - 1645	163	146	**309**	
1645 - 1700	203	144	**347**	**1351**
1700 - 1715	199	149	**348**	
1715 - 1730	188	148	**336**	
1730 - 1745	198	117	**315**	
1745 - 1800	178	175	**353**	**1352**
1800 - 1815	153	188	**341**	
1815 - 1830	142	192	**334**	
1830 - 1845	143	167	**310**	
1845 - 1900	146	160	**306**	**1291**
1900 - 1915	191	118	**309**	
1915 - 1930	199	140	**339**	
1930 - 1945	155	96	**251**	
1945 - 2000	117	84	**201**	**1100**
2000 - 2015	102	94	**196**	
2015 - 2030	100	78	**178**	
2030 - 2045	85	82	**167**	
2045 - 2100	95	59	**154**	**695**
2100 - 2115	77	61	**138**	
2115 - 2130	76	60	**136**	
2130 - 2145	58	71	**129**	
2145 - 2200	56	68	**124**	**527**
2200 - 2215	45	53	**98**	
2215 - 2230	48	56	**104**	
2230 - 2245	39	47	**86**	
2245 - 2300	47	35	**82**	**370**
2300 - 2315	60	43	**103**	
2315 - 2330	38	36	**74**	
2330 - 2345	45	26	**71**	
2345 - 0000	30	36	**66**	**314**

Session Total	10001	13001	**23002**
Session Average	104.18	135.43	**239.60**
Session Percentage	43.48	56.52	

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, March 3, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
0715 - 0730	-	-	-	-	0	-	162	4	-	166	-	-	0	0	0	99	0	-	-	99	265
0730 - 0745	-	-	-	-	0	-	213	7	-	220	-	-	0	0	0	113	0	-	-	113	333
0745 - 0800	-	-	-	-	0	-	196	4	-	200	-	-	3	0	3	114	0	-	-	114	317
0800 - 0815	-	-	-	-	0	-	186	7	-	193	-	-	3	0	3	64	0	-	-	64	260
Total	0	0	0	0	0	0	757	22	0	779	0	0	6	0	6	390	0	0	0	390	1175
Approach %	0.00	0.00	0.00	0.00	-	0.00	97.18	2.82	0.00	-	0.00	0.00	100.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.89	0.79	0.00	**0.89**	0.00	0.00	0.50	0.00	**0.50**	0.86	0.00	0.00	0.00	**0.86**	**0.88**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
0715 - 0730	-	-	-	-	0	-	153	4	-	157	-	-	0	0	0	98	0	-	-	98	255
0730 - 0745	-	-	-	-	0	-	206	7	-	213	-	-	0	0	0	113	0	-	-	113	326
0745 - 0800	-	-	-	-	0	-	190	4	-	194	-	-	3	0	3	113	0	-	-	113	310
0800 - 0815	-	-	-	-	0	-	181	6	-	187	-	-	3	0	3	63	0	-	-	63	253
Total	0	0	0	0	0	0	730	21	0	751	0	0	6	0	6	387	0	0	0	387	1144
Approach %	0.00	0.00	0.00	0.00	-	0.00	97.20	2.80	0.00	-	0.00	0.00	100.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.89	0.75	0.00	**0.88**	0.00	0.00	0.50	0.00	**0.50**	0.86	0.00	0.00	0.00	**0.86**	**0.88**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
0715 - 0730	-	-	-	-	0	-	7	0	-	7	-	-	0	0	0	1	0	-	-	1	8
0730 - 0745	-	-	-	-	0	-	6	0	-	6	-	-	0	0	0	0	0	-	-	0	6
0745 - 0800	-	-	-	-	0	-	4	0	-	4	-	-	0	0	0	0	0	-	-	0	4
0800 - 0815	-	-	-	-	0	-	3	0	-	3	-	-	0	0	0	0	0	-	-	0	3
Total	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	1	0	0	0	1	21
Approach %	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.71	0.00	0.00	**0.71**	0.00	0.00	0.00	0.00	**0.00**	0.25	0.00	0.00	0.00	**0.25**	**0.66**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
0715 - 0730	-	-	-	-	0	-	2	0	-	2	-	-	0	0	0	0	0	-	-	0	2
0730 - 0745	-	-	-	-	0	-	1	0	-	1	-	-	0	0	0	0	0	-	-	0	1
0745 - 0800	-	-	-	-	0	-	2	0	-	2	-	-	0	0	0	1	0	-	-	1	3
0800 - 0815	-	-	-	-	0	-	2	1	-	3	-	-	0	0	0	1	0	-	-	1	4
Total	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	2	0	0	0	2	10
Approach %	0.00	0.00	0.00	0.00	-	0.00	87.50	12.50	0.00	-	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.88	0.25	0.00	**0.67**	0.00	0.00	0.00	0.00	**0.00**	0.50	0.00	0.00	0.00	**0.50**	**0.63**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
0715 - 0730	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
0730 - 0745	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
0745 - 0800	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
0800 - 0815	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time	EB 1a	WB 1b			App Total	EB 1c	WB 1d			App Total	NB 1e	SB 1f			App Total	NB 1g	SB 1h			App Total	Int Total
0715 - 0730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0730 - 0745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0745 - 0800	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0800 - 0815	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, March 3, 2022	
Period	1600 - 1800
Peak Hour	1615 - 1715

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
1615 - 1630	-	-	-	-	0	-	176	14	-	190	-	-	2	0	2	38	0	-	-	38	230
1630 - 1645	-	-	-	-	0	-	181	9	-	190	-	-	5	0	5	28	0	-	-	28	223
1645 - 1700	-	-	-	-	0	-	158	8	-	166	-	-	2	0	2	38	0	-	-	38	206
1700 - 1715	-	-	-	-	0	-	179	8	-	187	-	-	6	0	6	33	0	-	-	33	226
Total	0	0	0	0	0	0	694	39	0	733	0	0	15	0	15	137	0	0	0	137	885
Approach %	0.00	0.00	0.00	0.00	-	0.00	94.68	5.32	0.00	-	0.00	0.00	100.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.96	0.70	0.00	**0.96**	0.00	0.00	0.63	0.00	**0.63**	0.90	0.00	0.00	0.00	**0.90**	**0.96**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
1615 - 1630	-	-	-	-	0	-	171	14	-	185	-	-	2	0	2	38	0	-	-	38	225
1630 - 1645	-	-	-	-	0	-	177	9	-	186	-	-	5	0	5	27	0	-	-	27	218
1645 - 1700	-	-	-	-	0	-	154	8	-	162	-	-	2	0	2	38	0	-	-	38	202
1700 - 1715	-	-	-	-	0	-	174	8	-	182	-	-	6	0	6	33	0	-	-	33	221
Total	0	0	0	0	0	0	676	39	0	715	0	0	15	0	15	136	0	0	0	136	866
Approach %	0.00	0.00	0.00	0.00	-	0.00	94.55	5.45	0.00	-	0.00	0.00	100.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.95	0.70	0.00	**0.96**	0.00	0.00	0.63	0.00	**0.63**	0.89	0.00	0.00	0.00	**0.89**	**0.96**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
1615 - 1630	-	-	-	-	0	-	5	0	-	5	-	-	0	0	0	0	0	-	-	0	5
1630 - 1645	-	-	-	-	0	-	3	0	-	3	-	-	0	0	0	1	0	-	-	1	4
1645 - 1700	-	-	-	-	0	-	3	0	-	3	-	-	0	0	0	0	0	-	-	0	3
1700 - 1715	-	-	-	-	0	-	5	0	-	5	-	-	0	0	0	0	0	-	-	0	5
Total	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	1	0	0	0	1	17
Approach %	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.80	0.00	0.00	**0.80**	0.00	0.00	0.00	0.00	**0.00**	0.25	0.00	0.00	0.00	**0.25**	**0.85**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
1615 - 1630	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
1630 - 1645	-	-	-	-	0	-	1	0	-	1	-	-	0	0	0	0	0	-	-	0	1
1645 - 1700	-	-	-	-	0	-	1	0	-	1	-	-	0	0	0	0	0	-	-	0	1
1700 - 1715	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.50**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time					App Total		Thru 1.1	Right 1.2		App Total			Right 1.3	U-Turn 1.4	App Total	Left 1.5	Thru 1.6			App Total	Int Total
1615 - 1630	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
1630 - 1645	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
1645 - 1700	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
1700 - 1715	-	-	-	-	0	-	0	0	-	0	-	-	0	0	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Hynes St					I-40 S/Bound Off-Ramp					
Time	EB 1a	WB 1b			App Total	EB 1c	WB 1d			App Total	NB 1e	SB 1f			App Total	NB 1g	SB 1h			App Total	Int Total
1615 - 1630	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1630 - 1645	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1645 - 1700	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1700 - 1715	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	57	128	54	-	239	-	43	79	0	122	37	284	-	0	321	682
0730 - 0745	-	-	-	-	0	77	178	70	-	325	-	36	90	0	126	45	250	-	0	295	746
0745 - 0800	-	-	-	-	0	64	158	69	-	291	-	41	74	0	115	47	277	-	0	324	730
0800 - 0815	-	-	-	-	0	49	167	63	-	279	-	51	71	0	122	44	274	-	0	318	719
Total	0	0	0	0	0	247	631	256	0	1134	0	171	314	0	485	173	1085	0	0	1258	2877
Approach %	0.00	0.00	0.00	0.00	-	21.78	55.64	22.57	0.00	-	0.00	35.26	64.74	0.00	-	13.75	86.25	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.80	0.89	0.91	0.00	**0.87**	0.00	0.84	0.87	0.00	**0.96**	0.92	0.96	0.00	0.00	**0.97**	**0.96**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	57	121	53	-	231	-	43	76	0	119	37	281	-	0	318	668
0730 - 0745	-	-	-	-	0	77	170	70	-	317	-	35	90	0	125	45	248	-	0	293	735
0745 - 0800	-	-	-	-	0	64	154	68	-	286	-	41	73	0	114	47	274	-	0	321	721
0800 - 0815	-	-	-	-	0	48	161	63	-	272	-	50	68	0	118	43	269	-	0	312	702
Total	0	0	0	0	0	246	606	254	0	1106	0	169	307	0	476	172	1072	0	0	1244	2826
Approach %	0.00	0.00	0.00	0.00	-	22.24	54.79	22.97	0.00	-	0.00	35.50	64.50	0.00	-	13.83	86.17	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.80	0.89	0.91	0.00	**0.87**	0.00	0.85	0.85	0.00	**0.95**	0.91	0.95	0.00	0.00	**0.97**	**0.96**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	6	1	-	7	-	0	3	0	3	0	3	-	0	3	13
0730 - 0745	-	-	-	-	0	0	7	0	-	7	-	1	0	0	1	0	2	-	0	2	10
0745 - 0800	-	-	-	-	0	0	2	1	-	3	-	0	1	0	1	0	3	-	0	3	7
0800 - 0815	-	-	-	-	0	0	4	0	-	4	-	1	3	0	4	1	5	-	0	6	14
Total	0	0	0	0	0	0	19	2	0	21	0	2	7	0	9	1	13	0	0	14	44
Approach %	0.00	0.00	0.00	0.00	-	0.00	90.48	9.52	0.00	-	0.00	22.22	77.78	0.00	-	7.14	92.86	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.68	0.50	0.00	**0.75**	0.00	0.50	0.58	0.00	**0.56**	0.25	0.65	0.00	0.00	**0.58**	**0.79**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	1	0	-	1	-	0	0	0	0	0	0	-	0	0	1
0730 - 0745	-	-	-	-	0	0	1	0	-	1	-	0	0	0	0	0	0	-	0	0	1
0745 - 0800	-	-	-	-	0	0	2	0	-	2	-	0	0	0	0	0	0	-	0	0	2
0800 - 0815	-	-	-	-	0	1	2	0	-	3	-	0	0	0	0	0	0	-	0	0	3
Total	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Approach %	0.00	0.00	0.00	0.00	-	14.29	85.71	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.25	0.75	0.00	0.00	**0.58**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.58**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
0715 - 0730	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
0730 - 0745	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
0745 - 0800	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
0800 - 0815	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time	EB 2a	WB 2b			App Total	EB 2c	WB 2d			App Total	NB 2e	SB 2f			App Total	NB 2g	SB 2h			App Total	Int Total
0715 - 0730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0730 - 0745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0745 - 0800	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0800 - 0815	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	1600 - 1800
Peak Hour	1615 - 1715

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
1615 - 1630	-	-	-	-	0	18	146	39	-	203	-	103	86	0	189	25	135	-	0	160	552
1630 - 1645	-	-	-	-	0	28	149	27	-	204	-	108	54	0	162	24	146	-	0	170	536
1645 - 1700	-	-	-	-	0	39	142	29	-	210	-	127	71	0	198	30	136	-	0	166	574
1700 - 1715	-	-	-	-	0	39	157	36	-	232	-	118	71	0	189	30	130	-	0	160	581
Total	0	0	0	0	0	124	594	131	0	849	0	456	282	0	738	109	547	0	0	656	2243
Approach %	0.00	0.00	0.00	0.00	-	14.61	69.96	15.43	0.00	-	0.00	61.79	38.21	0.00	-	16.62	83.38	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.79	0.95	0.84	0.00	**0.91**	0.00	0.90	0.82	0.00	**0.93**	0.91	0.94	0.00	0.00	**0.96**	**0.97**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
1615 - 1630	-	-	-	-	0	18	141	39	-	198	-	102	84	0	186	25	133	-	0	158	542
1630 - 1645	-	-	-	-	0	28	143	27	-	198	-	108	54	0	162	24	145	-	0	169	529
1645 - 1700	-	-	-	-	0	39	140	29	-	208	-	127	71	0	198	30	135	-	0	165	571
1700 - 1715	-	-	-	-	0	39	155	33	-	227	-	118	71	0	189	30	128	-	0	158	574
Total	0	0	0	0	0	124	579	128	0	831	0	455	280	0	735	109	541	0	0	650	2216
Approach %	0.00	0.00	0.00	0.00	-	14.92	69.68	15.40	0.00	-	0.00	61.90	38.10	0.00	-	16.77	83.23	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.79	0.93	0.82	0.00	**0.92**	0.00	0.90	0.83	0.00	**0.93**	0.91	0.93	0.00	0.00	**0.96**	**0.97**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
1615 - 1630	-	-	-	-	0	0	5	0	-	5	-	1	2	0	3	0	2	-	0	2	10
1630 - 1645	-	-	-	-	0	0	6	0	-	6	-	0	0	0	0	0	1	-	0	1	7
1645 - 1700	-	-	-	-	0	0	1	0	-	1	-	0	0	0	0	0	1	-	0	1	2
1700 - 1715	-	-	-	-	0	0	1	3	-	4	-	0	0	0	0	0	1	-	0	1	5
Total	0	0	0	0	0	0	13	3	0	16	0	1	2	0	3	0	5	0	0	5	24
Approach %	0.00	0.00	0.00	0.00	-	0.00	81.25	18.75	0.00	-	0.00	33.33	66.67	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.54	0.25	0.00	**0.67**	0.00	0.25	0.25	0.00	**0.25**	0.00	0.63	0.00	0.00	**0.63**	**0.60**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
1615 - 1630	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
1630 - 1645	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
1645 - 1700	-	-	-	-	0	0	1	0	-	1	-	0	0	0	0	0	0	-	0	0	1
1700 - 1715	-	-	-	-	0	0	1	0	-	1	-	0	0	0	0	0	1	-	0	1	2
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
Approach %	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	**0.38**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time					App Total	Left 2.1	Thru 2.2	Right 2.3		App Total		Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Thru 2.8		U-Turn 2.9	App Total	Int Total
1615 - 1630	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
1630 - 1645	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
1645 - 1700	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
1700 - 1715	-	-	-	-	0	0	0	0	-	0	-	0	0	0	0	0	0	-	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	TN-24 14th Ave N (South)					TN-24 14th Ave N (North)					Church St (West)					Church St (East)					
Time	EB 2a	WB 2b			App Total	EB 2c	WB 2d			App Total	NB 2e	SB 2f			App Total	NB 2g	SB 2h			App Total	Int Total
1615 - 1630	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1630 - 1645	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1645 - 1700	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1700 - 1715	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0715 - 0730	2	2	1	0	5	1	2	3	0	6	1	118	1	0	120	11	320	7	0	338	469
0730 - 0745	2	0	1	0	3	4	1	3	0	8	1	124	2	0	127	11	300	4	0	315	453
0745 - 0800	1	3	4	0	8	6	3	2	0	11	1	109	2	0	112	12	334	5	0	351	482
0800 - 0815	3	2	1	0	6	4	1	3	0	8	0	112	2	0	114	14	309	6	0	329	457
Total	8	7	7	0	22	15	7	11	0	33	3	463	7	0	473	48	1263	22	0	1333	1861
Approach %	36.36	31.82	31.82	0.00	-	45.45	21.21	33.33	0.00	-	0.63	97.89	1.48	0.00	-	3.60	94.75	1.65	0.00	-	
PHF	0.67	0.58	0.44	0.00	**0.69**	0.63	0.58	0.92	0.00	**0.75**	0.75	0.93	0.88	0.00	**0.93**	0.86	0.95	0.79	0.00	**0.95**	**0.97**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0715 - 0730	2	2	1	0	5	1	2	3	0	6	1	114	1	0	116	11	316	7	0	334	461
0730 - 0745	2	0	1	0	3	4	1	3	0	8	1	122	2	0	125	10	298	4	0	312	448
0745 - 0800	1	3	4	0	8	6	3	2	0	11	1	107	2	0	110	12	330	5	0	347	476
0800 - 0815	3	2	1	0	6	4	1	3	0	8	0	108	2	0	110	14	306	5	0	325	449
Total	8	7	7	0	22	15	7	11	0	33	3	451	7	0	461	47	1250	21	0	1318	1834
Approach %	36.36	31.82	31.82	0.00	-	45.45	21.21	33.33	0.00	-	0.65	97.83	1.52	0.00	-	3.57	94.84	1.59	0.00	-	
PHF	0.67	0.58	0.44	0.00	**0.69**	0.63	0.58	0.92	0.00	**0.75**	0.75	0.92	0.88	0.00	**0.92**	0.84	0.95	0.75	0.00	**0.95**	**0.96**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	0	0	4	8
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	0	0	3	4
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	3	1	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	1	13	1	0	15	26
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	6.67	86.67	6.67	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.69	0.00	0.00	**0.69**	0.25	0.81	0.25	0.00	**0.94**	**0.81**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	**0.25**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	3a	3b			Total	3c	3d			Total	3e	3f			Total	3g	3h			Total	Total
0715 - 0730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0730 - 0745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0745 - 0800	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0800 - 0815	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

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Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	1600 - 1800
Peak Hour	1615 - 1715

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1615 - 1630	3	4	10	0	17	2	13	5	0	20	3	177	12	0	192	16	152	5	0	173	402
1630 - 1645	1	7	15	0	23	2	12	1	0	15	2	145	15	0	162	20	143	8	0	171	371
1645 - 1700	0	4	7	0	11	5	20	4	0	29	9	188	5	0	202	19	140	4	0	163	405
1700 - 1715	4	6	7	0	17	2	11	7	0	20	4	187	9	0	200	21	137	10	0	168	405
Total	8	21	39	0	68	11	56	17	0	84	18	697	41	0	756	76	572	27	0	675	1583
Approach %	11.76	30.88	57.35	0.00	-	13.10	66.67	20.24	0.00	-	2.38	92.20	5.42	0.00	-	11.26	84.74	4.00	0.00	-	
PHF	0.50	0.75	0.65	0.00	**0.74**	0.55	0.70	0.61	0.00	**0.72**	0.50	0.93	0.68	0.00	**0.94**	0.90	0.94	0.68	0.00	**0.98**	**0.98**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1615 - 1630	3	4	10	0	17	2	12	5	0	19	3	176	12	0	191	16	150	5	0	171	398
1630 - 1645	1	7	14	0	22	2	12	1	0	15	2	145	15	0	162	20	143	8	0	171	370
1645 - 1700	0	4	7	0	11	5	20	4	0	29	9	187	5	0	201	19	138	4	0	161	402
1700 - 1715	4	6	7	0	17	2	11	7	0	20	4	187	9	0	200	20	133	10	0	163	400
Total	8	21	38	0	67	11	55	17	0	83	18	695	41	0	754	75	564	27	0	666	1570
Approach %	11.94	31.34	56.72	0.00	-	13.25	66.27	20.48	0.00	-	2.39	92.18	5.44	0.00	-	11.26	84.68	4.05	0.00	-	
PHF	0.50	0.75	0.68	0.00	**0.76**	0.55	0.69	0.61	0.00	**0.72**	0.50	0.93	0.68	0.00	**0.94**	0.94	0.94	0.68	0.00	**0.97**	**0.98**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1615 - 1630	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	4
1630 - 1645	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	4
Total	0	0	1	0	1	0	1	0	0	1	0	2	0	0	2	1	7	0	0	8	12
Approach %	0.00	0.00	100.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	12.50	87.50	0.00	0.00	-	
PHF	0.00	0.00	0.25	0.00	**0.25**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.50	0.00	0.00	**0.50**	0.25	0.58	0.00	0.00	**0.50**	**0.75**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	**0.25**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Church St (West)					Church St (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	3a	3b			Total	3c	3d			Total	3e	3f			Total	3g	3h			Total	Total
1615 - 1630	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1630 - 1645	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1645 - 1700	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1700 - 1715	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

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Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	3	5	0	0	8	0	8	5	0	13	1	0	0	0	1	4	1	0	0	5	27
0730 - 0745	1	4	0	0	5	0	6	5	0	11	1	0	1	0	2	3	4	0	0	7	25
0745 - 0800	4	4	1	0	9	2	12	3	0	17	0	1	1	0	2	3	1	1	0	5	33
0800 - 0815	0	5	0	0	5	0	6	3	0	9	0	3	0	0	3	1	5	0	0	6	23
Total	8	18	1	0	27	2	32	16	0	50	2	4	2	0	8	11	11	1	0	23	108
Approach %	29.63	66.67	3.70	0.00	-	4.00	64.00	32.00	0.00	-	25.00	50.00	25.00	0.00	-	47.83	47.83	4.35	0.00	-	
PHF	0.50	0.90	0.25	0.00	**0.75**	0.25	0.67	0.80	0.00	**0.74**	0.50	0.33	0.50	0.00	**0.67**	0.69	0.55	0.25	0.00	**0.82**	**0.82**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	3	5	0	0	8	0	8	5	0	13	1	0	0	0	1	4	1	0	0	5	27
0730 - 0745	1	4	0	0	5	0	6	5	0	11	1	0	1	0	2	3	4	0	0	7	25
0745 - 0800	4	4	1	0	9	2	12	3	0	17	0	1	1	0	2	3	1	1	0	5	33
0800 - 0815	0	4	0	0	4	0	6	3	0	9	0	3	0	0	3	1	4	0	0	5	21
Total	8	17	1	0	26	2	32	16	0	50	2	4	2	0	8	11	10	1	0	22	106
Approach %	30.77	65.38	3.85	0.00	-	4.00	64.00	32.00	0.00	-	25.00	50.00	25.00	0.00	-	50.00	45.45	4.55	0.00	-	
PHF	0.50	0.85	0.25	0.00	**0.72**	0.25	0.67	0.80	0.00	**0.74**	0.50	0.33	0.50	0.00	**0.67**	0.69	0.63	0.25	0.00	**0.79**	**0.80**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.25	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.25**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	**0.25**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	4a	4b			Total	4c	4d			Total	4e	4f			Total	4g	4h			Total	Total
0715 - 0730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0730 - 0745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0745 - 0800	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0800 - 0815	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	1600 - 1800
Peak Hour	1645 - 1745

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	2	19	1	0	22	0	13	1	0	14	4	1	5	0	10	2	3	2	0	7	53
1700 - 1715	2	17	2	0	21	1	16	1	0	18	9	4	1	0	14	3	2	5	0	10	63
1715 - 1730	0	20	3	0	23	0	5	0	0	5	5	7	4	0	16	2	4	3	0	9	53
1730 - 1745	1	18	3	0	22	0	14	3	0	17	0	5	1	0	6	2	7	4	0	13	58
Total	5	74	9	0	88	1	48	5	0	54	18	17	11	0	46	9	16	14	0	39	227
Approach %	5.68	84.09	10.23	0.00	-	1.85	88.89	9.26	0.00	-	39.13	36.96	23.91	0.00	-	23.08	41.03	35.90	0.00	-	
PHF	0.63	0.93	0.75	0.00	**0.96**	0.25	0.75	0.42	0.00	**0.75**	0.50	0.61	0.55	0.00	**0.72**	0.75	0.57	0.70	0.00	**0.75**	**0.90**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	2	19	1	0	22	0	13	1	0	14	4	1	5	0	10	2	3	2	0	7	53
1700 - 1715	2	17	2	0	21	1	16	1	0	18	9	4	1	0	14	3	2	5	0	10	63
1715 - 1730	0	20	3	0	23	0	5	0	0	5	5	7	4	0	16	2	4	3	0	9	53
1730 - 1745	1	18	3	0	22	0	14	3	0	17	0	5	1	0	6	2	7	4	0	13	58
Total	5	74	9	0	88	1	48	5	0	54	18	17	11	0	46	9	16	14	0	39	227
Approach %	5.68	84.09	10.23	0.00	-	1.85	88.89	9.26	0.00	-	39.13	36.96	23.91	0.00	-	23.08	41.03	35.90	0.00	-	
PHF	0.63	0.93	0.75	0.00	**0.96**	0.25	0.75	0.42	0.00	**0.75**	0.50	0.61	0.55	0.00	**0.72**	0.75	0.57	0.70	0.00	**0.75**	**0.90**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave N (South)					15th Ave N (North)					Hynes St (West)					Hynes St (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	4a	4b			Total	4c	4d			Total	4e	4f			Total	4g	4h			Total	Total
1645 - 1700	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1700 - 1715	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1715 - 1730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1730 - 1745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

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Thursday, March 3, 2022	
Period	0700 - 0900
Peak Hour	0715 - 0815

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
0715 - 0730	2	0	3	0	5	0	0	0	0	0	0	271	5	0	276	4	455	4	0	463	744
0730 - 0745	3	0	5	0	8	2	0	0	0	2	0	292	6	0	298	7	455	2	0	464	772
0745 - 0800	2	1	11	0	14	0	0	0	0	0	1	305	8	0	314	9	420	0	0	429	757
0800 - 0815	5	0	10	0	15	0	0	0	0	0	0	293	4	0	297	9	360	1	0	370	682
Total	12	1	29	0	42	2	0	0	0	2	1	1161	23	0	1185	29	1690	7	0	1726	2955
Approach %	28.57	2.38	69.05	0.00	-	100.00	0.00	0.00	0.00	-	0.08	97.97	1.94	0.00	-	1.68	97.91	0.41	0.00	-	
PHF	0.60	0.25	0.66	0.00	**0.70**	0.25	0.00	0.00	0.00	**0.25**	0.25	0.95	0.72	0.00	**0.94**	0.81	0.93	0.44	0.00	**0.93**	**0.96**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
0715 - 0730	2	0	3	0	5	0	0	0	0	0	0	260	5	0	265	4	447	4	0	455	725
0730 - 0745	3	0	5	0	8	2	0	0	0	2	0	284	6	0	290	7	445	2	0	454	754
0745 - 0800	2	1	11	0	14	0	0	0	0	0	1	298	8	0	307	9	412	0	0	421	742
0800 - 0815	4	0	10	0	14	0	0	0	0	0	0	281	4	0	285	9	348	1	0	358	657
Total	11	1	29	0	41	2	0	0	0	2	1	1123	23	0	1147	29	1652	7	0	1688	2878
Approach %	26.83	2.44	70.73	0.00	-	100.00	0.00	0.00	0.00	-	0.09	97.91	2.01	0.00	-	1.72	97.87	0.41	0.00	-	
PHF	0.69	0.25	0.66	0.00	**0.73**	0.25	0.00	0.00	0.00	**0.25**	0.25	0.94	0.72	0.00	**0.93**	0.81	0.92	0.44	0.00	**0.93**	**0.95**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	8	0	0	8	17
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	9	0	0	9	17
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	7	0	0	7	12
0800 - 0815	1	0	0	0	1	0	0	0	0	0	0	7	0	0	7	0	9	0	0	9	17
Total	1	0	0	0	1	0	0	0	0	0	0	29	0	0	29	0	33	0	0	33	63
Approach %	100.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.25	0.00	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.81	0.00	0.00	**0.81**	0.00	0.92	0.00	0.00	**0.92**	**0.93**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6
Total	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	4	0	0	4	12
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.50	0.00	0.00	**0.50**	0.00	0.50	0.00	0.00	**0.50**	**0.50**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	0.00	0.25	0.00	0.00	**0.25**	**0.25**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	5a	5b			Total	5c	5d			Total	5e	5f			Total	5g	5h			Total	Total
0715 - 0730	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0730 - 0745	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0745 - 0800	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
0800 - 0815	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

Peak Hour Turning Movement Count

Nashville, TN

Click here for Map

Marr Traffic DATA COLLECTION

www.marrtraffic.com

Thursday, March 3, 2022	
Period	1600 - 1800
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes

Session Parameters

(Drop Down Menu)

Peak Hour

Volume

All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
1600 - 1615	5	0	10	0	15	0	0	0	0	0	0	380	12	0	392	13	283	2	0	298	705
1615 - 1630	4	0	22	0	26	0	0	0	0	0	0	402	4	0	406	9	285	1	0	295	727
1630 - 1645	7	0	25	0	32	0	0	0	0	0	1	399	6	0	406	10	275	6	1	292	730
1645 - 1700	3	0	26	0	29	0	0	0	0	0	2	378	9	0	389	11	338	4	1	354	772
Total	19	0	83	0	102	0	0	0	0	0	3	1559	31	0	1593	43	1181	13	2	1239	2934
Approach %	18.63	0.00	81.37	0.00	-	0.00	0.00	0.00	0.00	-	0.19	97.87	1.95	0.00	-	3.47	95.32	1.05	0.16	-	
PHF	0.68	0.00	0.80	0.00	**0.80**	0.00	0.00	0.00	0.00	**0.00**	0.38	0.97	0.65	0.00	**0.98**	0.83	0.87	0.54	0.50	**0.88**	**0.95**

Passenger Vehicles (1-3)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
1600 - 1615	5	0	10	0	15	0	0	0	0	0	0	374	12	0	386	12	279	2	0	293	694
1615 - 1630	4	0	22	0	26	0	0	0	0	0	0	394	4	0	398	9	278	1	0	288	712
1630 - 1645	7	0	25	0	32	0	0	0	0	0	1	395	6	0	402	10	269	6	1	286	720
1645 - 1700	3	0	26	0	29	0	0	0	0	0	2	372	9	0	383	11	332	4	1	348	760
Total	19	0	83	0	102	0	0	0	0	0	3	1535	31	0	1569	42	1158	13	2	1215	2886
Approach %	18.63	0.00	81.37	0.00	-	0.00	0.00	0.00	0.00	-	0.19	97.83	1.98	0.00	-	3.46	95.31	1.07	0.16	-	
PHF	0.68	0.00	0.80	0.00	**0.80**	0.00	0.00	0.00	0.00	**0.00**	0.38	0.97	0.65	0.00	**0.98**	0.88	0.87	0.54	0.50	**0.87**	**0.95**

Single Unit Trucks (4-7)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	3	0	0	4	10
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	6	0	0	6	14
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	0	0	4	7
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	6	0	0	6	10
Total	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	1	19	0	0	20	41
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	5.00	95.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.66	0.00	0.00	**0.66**	0.25	0.79	0.00	0.00	**0.83**	**0.73**

Combination Trucks (8-13)

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	0	3	6
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.38	0.00	0.00	**0.38**	0.00	0.75	0.00	0.00	**0.75**	**0.75**

Bikes

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	5.1	5.2	5.3	5.4	Total	5.5	5.6	5.7	5.8	Total	5.9	5.10	5.11	5.12	Total	5.13	5.14	5.15	5.16	Total	Total
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.25	0.00	0.00	**0.25**	**0.25**

Pedestrians

	Northbound					Southbound					Eastbound					Westbound					
	15th Ave					Driveway					TN-24 Charlotte Ave (West)					TN-24 Charlotte Ave (East)					
	EB	WB			App	EB	WB			App	NB	SB			App	NB	SB			App	Int
Time	5a	5b			Total	5c	5d			Total	5e	5f			Total	5g	5h			Total	Total
1600 - 1615	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1615 - 1630	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1630 - 1645	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
1645 - 1700	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0	0	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	
PHF	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00	**0.00**	**0.00**

APPENDIX C

Volume Development

Trip Generation Analysis (10th Ed. With *2nd Edition Handbook* Daily IC & *3rd Edition* AM/PM IC)
15th & Church
Davidson, TN

Land Use		Setting	Density		Daily Trips			AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out	Total	In	Out
Proposed Project Trips													
222	Multifamily Housing (High-Rise)	Dense Multi-Use Urban	465	dwelling units	878	439	439	-	-	-	-	-	-
232	High-Rise Residential with Ground Floor Commercial	Dense Multi-Use Urban	465	dwelling units	-	-	-	144	59	85	98	49	49
310	Hotel	General Urban/Suburban	195	rooms	1,690	845	845	90	50	40	116	59	57
Gross Project Trips					**2,568**	**1,284**	**1,284**	**234**	**109**	**125**	**214**	**108**	**106**
Residential Trips					878	439	439	144	59	85	98	49	49
Mixed-Use Reductions					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Adjusted Residential Trips					878	439	439	144	59	85	98	49	49
Hotel Trips					1,690	845	845	90	50	40	116	59	57
Mixed-Use Reductions					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Adjusted Hotel Trips					1,690	845	845	90	50	40	116	59	57
Mixed-Use Reductions - TOTAL					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions - TOTAL					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pass-By Reductions - TOTAL					*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
New Trips					**2,568**	**1,284**	**1,284**	**234**	**109**	**125**	**214**	**108**	**106**

Growth Rate Considerations

NDOT Recommended Growth Rate	4.0%

Nearby Developments

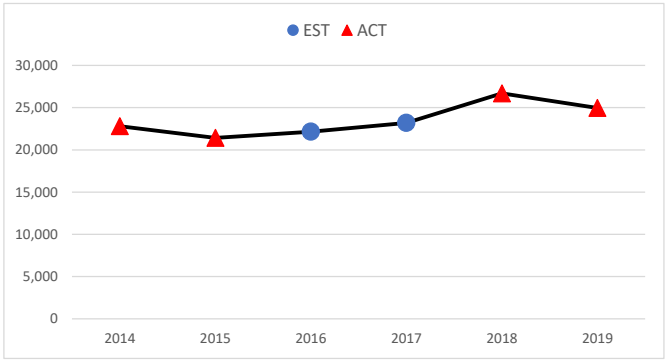
No nearby developments with known growth rates were identified.

Historical ADT Count Data

Source:	TDOT
Location:	Church St
	w/o 15th Ave
Route #:	
Route Type:	Minor Arterial
Station:	19000324

Count Type	Count Year	Volume	Growth Rate
ACT	2014	22,815	
ACT	2015	21,419	-6.12%
EST	2016	22,143	3.38%
EST	2017	23,193	4.74%
ACT	2018	26,692	15.09%
ACT	2019	24,964	-6.47%

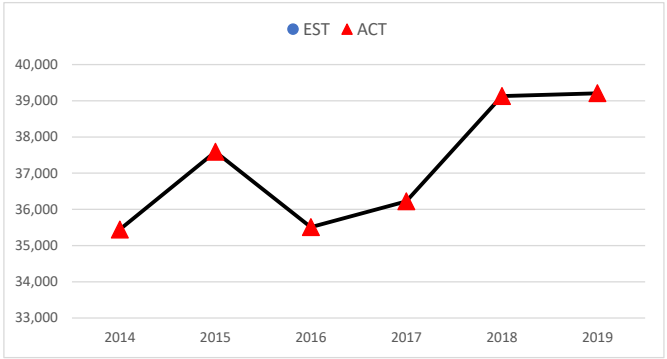
5 Year Growth Rate	**1.82%**
Avg. 1 Year Growth Rate	**2.12%**
Most Recent Actual Count Growth Rate	**-6.47%**



Source:	TDOT
Location:	Charlotte Ave
	e/o 15th Ave
Route #:	
Route Type:	Other Principal Arterial
Station:	19000323

Count Type	Count Year	Volume	Growth Rate
ACT	2014	35,444	
ACT	2015	37,589	6.05%
ACT	2016	35,509	-5.53%
ACT	2017	36,220	2.00%
ACT	2018	39,129	8.03%
ACT	2019	39,206	0.20%

5 Year Growth Rate	**2.04%**
Avg. 1 Year Growth Rate	**2.15%**
Most Recent Actual Count Growth Rate	**0.20%**



INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #1

Hynes St/I-40 SB Exit Ramp at 14th Ave

AM PEAK HOUR

	14th Ave Northbound				14th Ave Southbound				Hynes St Eastbound				I-40 SB Exit Ramp Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	757	22	0	0	0	6	0	390	0	0
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	0	0	0	0	27	1	0	0	0	0	0	3	0	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	4%	5%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor	0.88				0.88				0.88				0.88			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**757**	**22**	**0**	**0**	**0**	**6**	**0**	**390**	**0**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**852**	**25**	**0**	**0**	**0**	**7**	**0**	**439**	**0**	**0**
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Residential Trips	0	0	0	0	0	0	0	9	0	0	0	21	0	0	0	0
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Hotel Trips	0	0	0	0	0	0	0	19	0	0	0	17	0	0	0	0
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Retail Trips	0	0	0	0	0	0	0	6	0	0	0	5	0	0	0	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	0	0	34	0	0	0	43	0	0	0	0
Balancing Adjustment								-1								
Total Primary Site Trips	0	0	0	0	0	0	0	33	0	0	0	43	0	0	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	0	0	33	0	0	0	43	0	0	0	0
2025 Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**852**	**58**	**0**	**0**	**0**	**50**	**0**	**439**	**0**	**0**

PM PEAK HOUR

	14th Ave Northbound				14th Ave Southbound				Hynes St Eastbound				I-40 SB Exit Ramp Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	694	39	0	0	0	15	0	137	0	0
Conflicting Pedestrians		1		0		0		1		0		3		3		0
Heavy Vehicles	0	0	0	0	0	0	18	0	0	0	0	0	0	1	0	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor	0.96				0.96				0.96				0.96			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**694**	**39**	**0**	**0**	**0**	**15**	**0**	**137**	**0**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**781**	**44**	**0**	**0**	**0**	**17**	**0**	**154**	**0**	**0**
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Residential Trips	0	0	0	0	0	0	0	14	0	0	0	15	0	0	0	0
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Hotel Trips	0	0	0	0	0	0	0	23	0	0	0	27	0	0	0	0
Trip Distribution IN								25%								
Trip Distribution OUT												(30%)				
Retail Trips	0	0	0	0	0	0	0	8	0	0	0	6	0	0	0	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	0	0	45	0	0	0	48	0	0	0	0
Balancing Adjustment								-1								
Total Primary Site Trips	0	0	0	0	0	0	0	44	0	0	0	48	0	0	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	0	0	44	0	0	0	48	0	0	0	0
2025 Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**781**	**88**	**0**	**0**	**0**	**65**	**0**	**154**	**0**	**0**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #2

Church St at 14th Ave

AM PEAK HOUR

	14th Ave Northbound				14th Ave Southbound				Church St Eastbound				Church St Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	247	631	256	0	0	171	314	0	173	1,085	0
Conflicting Pedestrians		0		0		0		0		7		1		1		7
Heavy Vehicles	0	0	0	0	0	1	25	2	0	0	2	7	0	1	13	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor		0.96				0.96				0.96				0.96		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**247**	**631**	**256**	**0**	**0**	**171**	**314**	**0**	**173**	**1,085**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**278**	**710**	**288**	**0**	**0**	**192**	**353**	**0**	**195**	**1,220**	**0**
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Residential Trips	0	0	0	0	0	7	11	4	0	0	7	4	0	0	7	0
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Hotel Trips	0	0	0	0	0	6	9	3	0	0	6	3	0	0	15	0
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Retail Trips	0	0	0	0	0	2	2	1	0	0	2	1	0	0	4	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	15	22	8	0	0	15	8	0	0	26	0
Balancing Adjustment						-1		-1			-1	-1				
Total Primary Site Trips	0	0	0	0	0	14	22	7	0	0	14	7	0	0	26	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	14	22	7	0	0	14	7	0	0	26	0
2025 Build Traffic	**0**	**0**	**0**	**0**	**0**	**292**	**732**	**295**	**0**	**0**	**206**	**360**	**0**	**195**	**1,246**	**0**

PM PEAK HOUR

	14th Ave Northbound				14th Ave Southbound				Church St Eastbound				Church St Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	124	594	131	0	0	456	282	0	109	547	0
Conflicting Pedestrians		1		0		0		1		15		8		8		15
Heavy Vehicles	0	0	0	0	0	0	15	3	0	0	1	2	0	0	6	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor		0.97				0.97				0.97				0.97		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**124**	**594**	**131**	**0**	**0**	**456**	**282**	**0**	**109**	**547**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**139**	**668**	**147**	**0**	**0**	**513**	**317**	**0**	**123**	**615**	**0**
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Residential Trips	0	0	0	0	0	5	7	2	0	0	5	2	0	0	11	0
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Hotel Trips	0	0	0	0	0	9	14	5	0	0	9	5	0	0	18	0
Trip Distribution IN															20%	
Trip Distribution OUT						(10%)	(15%)	(5%)			(10%)	(5%)				
Retail Trips	0	0	0	0	0	2	3	1	0	0	2	1	0	0	6	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	16	24	8	0	0	16	8	0	0	35	0
Balancing Adjustment						-1	1	-1								
Total Primary Site Trips	0	0	0	0	0	15	25	7	0	0	16	8	0	0	35	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	15	25	7	0	0	16	8	0	0	35	0
2025 Build Traffic	**0**	**0**	**0**	**0**	**0**	**154**	**693**	**154**	**0**	**0**	**529**	**325**	**0**	**123**	**650**	**0**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #3

Church St at 15th Ave

AM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				Church St Eastbound				Church St Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	8	7	7	0	15	7	11	0	3	463	7	0	48	1,263	22
Conflicting Pedestrians		0		0		0		0		3		0		0		3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	12	0	0	1	13	1
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	5%
Peak Hour Factor		0.97				0.97				0.97				0.97		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**8**	**7**	**7**	**0**	**15**	**7**	**11**	**0**	**3**	**463**	**7**	**0**	**48**	**1,263**	**22**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	1	1	1	0	2	1	1	0	0	58	1	0	6	158	3
215 15th Ave Trips			1			6	2									2
301 15th Ave Trips						6		4			1	2		2	2	
Total Approved Development Trips	0	0	1	0	0	12	2	4	0	0	1	2	0	2	2	2
2025 No-Build Traffic	**0**	**9**	**9**	**8**	**0**	**29**	**10**	**16**	**0**	**3**	**522**	**10**	**0**	**56**	**1,423**	**27**
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Residential Trips	0	0	2	0	0	11	4	11	0	7	0	0	0	0	4	7
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Hotel Trips	0	0	4	0	0	9	3	9	0	15	0	0	0	0	3	15
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Retail Trips	0	0	1	0	0	2	1	2	0	4	0	0	0	0	1	4
Primary Site Traffic (Unbalanced)	0	0	7	0	0	22	8	22	0	26	0	0	0	0	8	26
Balancing Adjustment						-1		-2							-1	
Total Primary Site Trips	0	0	7	0	0	21	8	20	0	26	0	0	0	0	7	26
Pass-By Distribution REDUCTION											-50%				-50%	
Pass-By Distribution IN										50%						50%
Pass-By Distribution OUT						(50%)		(50%)								
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	7	0	0	21	8	20	0	26	0	0	0	0	7	26
2025 Build Traffic	**0**	**9**	**16**	**8**	**0**	**50**	**18**	**36**	**0**	**29**	**522**	**10**	**0**	**56**	**1,430**	**53**

PM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				Church St Eastbound				Church St Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	8	21	39	0	11	56	17	0	18	697	41	0	76	572	27
Conflicting Pedestrians		5		2		2		5		14		6		6		14
Heavy Vehicles	0	0	0	1	0	0	1	0	0	0	2	0	0	1	8	0
Heavy Vehicle %	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor		0.98				0.98				0.98				0.98		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**8**	**21**	**39**	**0**	**11**	**56**	**17**	**0**	**18**	**697**	**41**	**0**	**76**	**572**	**27**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	1	3	5	0	1	7	2	0	2	87	5	0	9	71	3
215 15th Ave Trips			3			9	3									10
301 15th Ave Trips						6		4		5	2				3	8
Total Approved Development Trips	0	0	3	0	0	15	3	4	0	5	2	0	0	0	3	18
2025 No-Build Traffic	**0**	**9**	**27**	**44**	**0**	**27**	**66**	**23**	**0**	**25**	**786**	**46**	**0**	**85**	**646**	**48**
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Residential Trips	0	0	3	0	0	7	2	7	0	11	0	0	0	0	2	11
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Hotel Trips	0	0	5	0	0	14	5	14	0	18	0	0	0	0	5	18
Trip Distribution IN			5%							20%						20%
Trip Distribution OUT						(15%)	(5%)	(15%)							(5%)	
Retail Trips	0	0	2	0	0	3	1	3	0	6	0	0	0	0	1	6
Primary Site Traffic (Unbalanced)	0	0	10	0	0	24	8	24	0	35	0	0	0	0	8	35
Balancing Adjustment								-2								
Total Primary Site Trips	0	0	10	0	0	24	8	22	0	35	0	0	0	0	8	35
Pass-By Distribution REDUCTION											-50%				-50%	
Pass-By Distribution IN										50%						50%
Pass-By Distribution OUT						(50%)		(50%)								
Balancing Adjustment																
Pass-By Trips		0	0	0	0	9	0	9	0	9	-9	0	0	0	-9	9
Total Vehicular Project Trips		0	10	0	0	33	8	31	0	44	-9	0	0	0	-1	44
2025 Build Traffic	**0**	**9**	**37**	**44**	**0**	**60**	**74**	**54**	**0**	**69**	**777**	**46**	**0**	**85**	**645**	**92**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #4

Hynes St/Hynes St' at 15th Ave

AM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				Hynes St Eastbound				Hynes St' Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	8	18	1	0	2	32	16	0	2	4	2	0	11	11	1
Conflicting Pedestrians		0		1		1		0		0		1		1		0
Heavy Vehicles	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Heavy Vehicle %	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	9%	2%
Peak Hour Factor	0.82				0.82				0.82				0.82			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**8**	**18**	**1**	**0**	**2**	**32**	**16**	**0**	**2**	**4**	**2**	**0**	**11**	**11**	**1**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	1	2	0	0	0	4	2	0	0	0	0	0	1	1	0
215 15th Ave Trips			8	2			3			2					1	
301 15th Ave Trips			4			2	10									1
Total Approved Development Trips	0	0	12	2	0	2	13	0	0	2	0	0	0	0	1	1
2025 No-Build Traffic	**0**	**9**	**32**	**3**	**0**	**4**	**49**	**18**	**0**	**4**	**4**	**2**	**0**	**12**	**13**	**2**
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Residential Trips	0	0	18	7	0	2	9	0	0	0	0	0	0	11	0	7
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Hotel Trips	0	0	15	15	0	4	19	0	0	0	0	0	0	9	0	6
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Retail Trips	0	0	4	4	0	1	6	0	0	0	0	0	0	2	0	2
Primary Site Traffic (Unbalanced)	0	0	37	26	0	7	34	0	0	0	0	0	0	22	0	15
Balancing Adjustment																
Total Primary Site Trips	0	0	37	26	0	7	34	0	0	0	0	0	0	22	0	15
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	37	26	0	7	34	0	0	0	0	0	0	22	0	15
2025 Build Traffic	**0**	**9**	**69**	**29**	**0**	**11**	**83**	**18**	**0**	**4**	**4**	**2**	**0**	**34**	**13**	**17**

PM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				Hynes St Eastbound				Hynes St' Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	5	74	9	0	1	48	5	0	18	17	11	0	9	16	14
Conflicting Pedestrians		10		4		4		10		1		4		4		1
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor	0.90				0.90				0.90				0.90			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**5**	**74**	**9**	**0**	**1**	**48**	**5**	**0**	**18**	**17**	**11**	**0**	**9**	**16**	**14**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	1	9	1	0	0	6	1	0	2	2	1	0	1	2	2
215 15th Ave Trips			12	3			13			3					3	
301 15th Ave Trips			3			2	10									3
Total Approved Development Trips	0	0	15	3	0	2	23	0	0	3	0	0	0	0	3	3
2025 No-Build Traffic	**0**	**6**	**98**	**13**	**0**	**3**	**77**	**6**	**0**	**23**	**19**	**12**	**0**	**10**	**21**	**19**
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Residential Trips	0	0	12	11	0	3	14	0	0	0	0	0	0	7	0	5
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Hotel Trips	0	0	23	18	0	5	23	0	0	0	0	0	0	14	0	9
Trip Distribution IN				20%		5%	25%									
Trip Distribution OUT			(25%)											(15%)		(10%)
Retail Trips	0	0	5	6	0	2	8	0	0	0	0	0	0	3	0	2
Primary Site Traffic (Unbalanced)	0	0	40	35	0	10	45	0	0	0	0	0	0	24	0	16
Balancing Adjustment			1			1								-1		
Total Primary Site Trips	0	0	41	35	0	11	45	0	0	0	0	0	0	23	0	16
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	41	35	0	11	45	0	0	0	0	0	0	23	0	16
2025 Build Traffic	**0**	**6**	**139**	**48**	**0**	**14**	**122**	**6**	**0**	**23**	**19**	**12**	**0**	**33**	**21**	**35**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #5

Charlotte Ave at 15th Ave/Towneplace Suites Dwy

AM PEAK HOUR

	15th Ave Northbound				Towneplace Suites Dwy Southbound				Charlotte Ave Eastbound				Charlotte Ave Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	12	1	29	0	2	0	0	0	1	1,161	23	0	29	1,690	7
Conflicting Pedestrians		0		3		3		0		15		2		2		15
Heavy Vehicles	0	1	0	0	0	0	0	0	0	0	37	0	0	0	37	0
Heavy Vehicle %	2%	8%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Peak Hour Factor		0.96				0.96				0.96				0.96		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**12**	**1**	**29**	**0**	**2**	**0**	**0**	**0**	**1**	**1,161**	**23**	**0**	**29**	**1,690**	**7**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	1	0	4	0	0	0	0	0	0	145	3	0	4	211	1
215 15th Ave Trips		2		8							4			3	2	
301 15th Ave Trips		2		6							4	1		3	2	
Total Approved Development Trips	0	4	0	14	0	0	0	0	0	0	8	1	0	6	4	0
2025 No-Build Traffic	**0**	**17**	**1**	**47**	**0**	**2**	**0**	**0**	**0**	**1**	**1,314**	**27**	**0**	**39**	**1,905**	**8**
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Residential Trips	0	11	0	14	0	0	0	0	0	0	0	5	0	5	0	0
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Hotel Trips	0	9	0	12	0	0	0	0	0	0	0	11	0	11	0	0
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Retail Trips	0	2	0	3	0	0	0	0	0	0	0	3	0	3	0	0
Primary Site Traffic (Unbalanced)	0	22	0	29	0	0	0	0	0	0	0	19	0	19	0	0
Balancing Adjustment				1										3		
Total Primary Site Trips	0	22	0	30	0	0	0	0	0	0	0	19	0	22	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	22	0	30	0	0	0	0	0	0	0	19	0	22	0	0
2025 Build Traffic	**0**	**39**	**1**	**77**	**0**	**2**	**0**	**0**	**0**	**1**	**1,314**	**46**	**0**	**61**	**1,905**	**8**

PM PEAK HOUR

	15th Ave Northbound				Towneplace Suites Dwy Southbound				Charlotte Ave Eastbound				Charlotte Ave Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	19	0	83	0	0	0	0	0	3	1,559	31	2	43	1,181	13
Conflicting Pedestrians		3		2		2		3		12		9		9		12
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	24	0	0	1	22	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor		0.95				0.95				0.95				0.95		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**19**	**0**	**83**	**0**	**0**	**0**	**0**	**0**	**3**	**1,559**	**31**	**2**	**43**	**1,181**	**13**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	2	0	10	0	0	0	0	0	0	195	4	0	5	147	2
215 15th Ave Trips		3		12							6			13	7	
301 15th Ave Trips		2		5							4	3		8	5	
Total Approved Development Trips	0	5	0	17	0	0	0	0	0	0	10	3	0	21	12	0
2025 No-Build Traffic	**0**	**26**	**0**	**110**	**0**	**0**	**0**	**0**	**0**	**3**	**1,764**	**38**	**2**	**69**	**1,340**	**15**
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Residential Trips	0	7	0	10	0	0	0	0	0	0	0	9	0	9	0	0
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Hotel Trips	0	14	0	18	0	0	0	0	0	0	0	14	0	14	0	0
Trip Distribution IN												15%		15%		
Trip Distribution OUT		(15%)		(20%)												
Retail Trips	0	3	0	4	0	0	0	0	0	0	0	5	0	5	0	0
Primary Site Traffic (Unbalanced)	0	24	0	32	0	0	0	0	0	0	0	28	0	28	0	0
Balancing Adjustment		-1		1												
Total Primary Site Trips	0	23	0	33	0	0	0	0	0	0	0	28	0	28	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		23	0	33	0	0	0	0	0	0	0	28	0	28	0	0
2025 Build Traffic	**0**	**49**	**0**	**143**	**0**	**0**	**0**	**0**	**0**	**3**	**1,764**	**66**	**2**	**97**	**1,340**	**15**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #6

Charlotte Ave at 14th Ave N

AM PEAK HOUR

	14th Ave N Northbound				14th Ave N Southbound				Charlotte Ave Eastbound				Charlotte Ave Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	554	155	518	0	0	607	348	0	153	941	0
Conflicting Pedestrians		0		0		0		0		4		3		3		4
Heavy Vehicles	0	0	0	0	0	14	5	6	0	0	14	16	0	3	30	0
Heavy Vehicle %	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%	2%	5%	2%	2%	3%	2%
Peak Hour Factor		0.93				0.93				0.93				0.93		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**554**	**155**	**518**	**0**	**0**	**607**	**348**	**0**	**153**	**941**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	0	0	0	0	69	19	65	0	0	76	43	0	19	117	0
215 15th Ave Trips											12				5	
301 15th Ave Trips											10				13	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	22	0	0	0	18	0
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**623**	**174**	**583**	**0**	**0**	**705**	**391**	**0**	**172**	**1,076**	**0**
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Residential Trips	0	0	0	0	0	0	7	0	0	0	14	0	0	2	5	0
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Hotel Trips	0	0	0	0	0	0	15	0	0	0	12	0	0	4	11	0
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Retail Trips	0	0	0	0	0	0	4	0	0	0	3	0	0	1	3	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	0	26	0	0	0	29	0	0	7	19	0
Balancing Adjustment																
Total Primary Site Trips	0	0	0	0	0	0	26	0	0	0	29	0	0	7	19	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	0	26	0	0	0	29	0	0	7	19	0
2025 Build Traffic	**0**	**0**	**0**	**0**	**0**	**623**	**200**	**583**	**0**	**0**	**734**	**391**	**0**	**179**	**1,095**	**0**

PM PEAK HOUR

	14th Ave N Northbound				14th Ave N Southbound				Charlotte Ave Eastbound				Charlotte Ave Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	1	0	292	142	231	0	1	1,127	290	0	205	682	0
Conflicting Pedestrians		0		0		0		0		0		1		1		0
Heavy Vehicles	0	0	0	0	0	4	1	2	0	0	16	9	0	2	13	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Peak Hour Factor		0.94				0.94				0.94				0.94		
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**1**	**0**	**292**	**142**	**231**	**0**	**1**	**1,127**	**290**	**0**	**205**	**682**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
Background Growth Trips	0	0	0	0	0	36	18	29	0	0	141	36	0	26	85	0
215 15th Ave Trips											18				20	
301 15th Ave Trips											9				13	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	27	0	0	0	33	0
2025 No-Build Traffic	**0**	**0**	**0**	**1**	**0**	**328**	**160**	**260**	**0**	**1**	**1,295**	**326**	**0**	**231**	**800**	**0**
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Residential Trips	0	0	0	0	0	0	11	0	0	0	10	0	0	3	9	0
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Hotel Trips	0	0	0	0	0	0	18	0	0	0	18	0	0	5	14	0
Trip Distribution IN							20%							5%	15%	
Trip Distribution OUT											(20%)					
Retail Trips	0	0	0	0	0	0	6	0	0	0	4	0	0	2	5	0
Primary Site Traffic (Unbalanced)	0	0	0	0	0	0	35	0	0	0	32	0	0	10	28	0
Balancing Adjustment																
Total Primary Site Trips		0	0	0	0	0	35	0	0	0	32	0	0	10	28	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	0	35	0	0	0	32	0	0	10	28	0
2025 Build Traffic	**0**	**0**	**0**	**1**	**0**	**328**	**195**	**260**	**0**	**1**	**1,327**	**326**	**0**	**241**	**828**	**0**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #7

Hynes Street at Site Driveway 1/13th Ave Circle

AM PEAK HOUR

	Site Driveway 1 Northbound				13th Ave Circle Southbound				Hynes Street Eastbound				Hynes Street Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	0	0	0	0	7	0	0	0	23	0
Conflicting Pedestrians																
Heavy Vehicles											0				1	
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Peak Hour Factor	0.82				0.82				0.82				0.82			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**23**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**26**	**0**
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Residential Trips	0	18	0	21	0	0	0	0	0	0	0	9	0	9	0	0
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Hotel Trips	0	15	0	17	0	0	0	0	0	0	0	19	0	19	0	0
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Retail Trips	0	4	0	5	0	0	0	0	0	0	0	6	0	6	0	0
Primary Site Traffic (Unbalanced)	0	37	0	43	0	0	0	0	0	0	0	34	0	34	0	0
Balancing Adjustment														-1		
Total Primary Site Trips	0	37	0	43	0	0	0	0	0	0	0	34	0	33	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	37	0	43	0	0	0	0	0	0	0	34	0	33	0	0
2025 Build Traffic	**0**	**37**	**0**	**43**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**34**	**0**	**33**	**26**	**0**

PM PEAK HOUR

	Site Driveway 1 Northbound				13th Ave Circle Southbound				Hynes Street Eastbound				Hynes Street Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	0	0	0	0	27	0	0	0	39	0
Conflicting Pedestrians																
Heavy Vehicles											0				0	
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor	0.90				0.90				0.90				0.90			
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**0**	**0**	**39**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**44**	**0**
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Residential Trips	0	12	0	15	0	0	0	0	0	0	0	14	0	14	0	0
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Hotel Trips	0	23	0	27	0	0	0	0	0	0	0	23	0	23	0	0
Trip Distribution IN												25%		25%		
Trip Distribution OUT		(25%)		(30%)												
Retail Trips	0	5	0	6	0	0	0	0	0	0	0	8	0	8	0	0
Primary Site Traffic (Unbalanced)	0	40	0	48	0	0	0	0	0	0	0	45	0	45	0	0
Balancing Adjustment		-1										1		-1		
Total Primary Site Trips	0	39	0	48	0	0	0	0	0	0	0	46	0	44	0	0
Pass-By Distribution REDUCTION																
Pass-By Distribution IN																
Pass-By Distribution OUT																
Balancing Adjustment																
Pass-By Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		39	0	48	0	0	0	0	0	0	0	46	0	44	0	0
2025 Build Traffic	**0**	**39**	**0**	**48**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**46**	**0**	**44**	**44**	**0**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #8

Site Driveway 2 at 15th Ave

AM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				0 Eastbound				Site Driveway 2 Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	32	0	0	0	33	0	0	0	0	0	0	0	0	0
Conflicting Pedestrians																
Heavy Vehicles			1				0									
Heavy Vehicle %	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor			0.97				0.97				0.97				0.97	
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**32**	**0**	**0**	**0**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**36**	**0**	**0**	**0**	**37**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Residential Trips	0	0	7	9	0	9	11	0	0	0	0	0	0	14	0	18
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Hotel Trips	0	0	15	19	0	19	9	0	0	0	0	0	0	12	0	15
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Retail Trips	0	0	4	6	0	6	2	0	0	0	0	0	0	3	0	4
Primary Site Traffic (Unbalanced)	0	0	26	34	0	34	22	0	0	0	0	0	0	29	0	37
Balancing Adjustment				-1										-2		
Total Primary Site Trips	0	0	26	33	0	34	22	0	0	0	0	0	0	27	0	37
Pass-By Distribution REDUCTION																
Pass-By Distribution IN				100%												
Pass-By Distribution OUT														(100%)		
Balancing Adjustment																
Pass-By Trips	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	26	33	0	34	22	0	0	0	0	0	0	27	0	37
2025 Build Traffic	**0**	**0**	**62**	**33**	**0**	**34**	**59**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**37**

PM PEAK HOUR

	15th Ave Northbound				15th Ave Southbound				0 Eastbound				Site Driveway 2 Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	66	0	0	0	84	0	0	0	0	0	0	0	0	0
Conflicting Pedestrians																
Heavy Vehicles			0				1									
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor			0.98				0.98				0.98				0.98	
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**66**	**0**	**0**	**0**	**84**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Growth Factor	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
2025 No-Build Traffic	**0**	**0**	**74**	**0**	**0**	**0**	**94**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Residential Trips	0	0	11	14	0	14	7	0	0	0	0	0	0	10	0	12
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Hotel Trips	0	0	18	23	0	23	14	0	0	0	0	0	0	18	0	23
Trip Distribution IN			20%	25%		25%										
Trip Distribution OUT							(15%)							(20%)		(25%)
Retail Trips	0	0	6	8	0	8	3	0	0	0	0	0	0	4	0	5
Primary Site Traffic (Unbalanced)	0	0	35	45	0	45	24	0	0	0	0	0	0	32	0	40
Balancing Adjustment																1
Total Primary Site Trips	0	0	35	45	0	45	24	0	0	0	0	0	0	32	0	41
Pass-By Distribution REDUCTION																
Pass-By Distribution IN				100%												
Pass-By Distribution OUT														(100%)		
Balancing Adjustment																
Pass-By Trips		0	0	18	0	0	0	0	0	0	0	0	0	18	0	0
Total Vehicular Project Trips		0	35	63	0	45	24	0	0	0	0	0	0	50	0	41
2025 Build Traffic	**0**	**0**	**109**	**63**	**0**	**45**	**118**	**0**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**41**

APPENDIX D

Synchro Reports

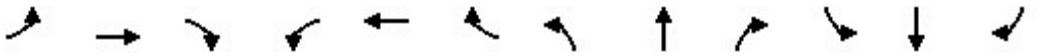
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	6	390	0	0	0	0	0	0	757	22
Future Vol, veh/h	0	0	6	390	0	0	0	0	0	0	757	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	4	5
Mvmt Flow	0	0	7	443	0	0	0	0	0	0	860	25

Major/Minor	Minor2						Major1				Major2	
Conflicting Flow All	-	-	443				-	0	-	-	-	0
Stage 1	-	-	-				-	-	-	-	-	-
Stage 2	-	-	-				-	-	-	-	-	-
Critical Hdwy	-	-	7.13				-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-				-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919				-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	482				0	-	0	0	-	-
Stage 1	0	0	-				0	-	0	0	-	-
Stage 2	0	0	-				0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	0	482				-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-				-	-	-	-	-	-
Stage 1	-	0	-				-	-	-	-	-	-
Stage 2	-	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	482	-	-
HCM Lane V/C Ratio	-	0.014	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	171	314	173	1085	0	0	0	0	247	631	256
Future Volume (veh/h)	0	171	314	173	1085	0	0	0	0	247	631	256
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1841	1870
Adj Flow Rate, veh/h	0	178	327	180	1130	0				257	657	267
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	0				2	4	2
Cap, veh/h	0	1062	899	664	2399	0				408	809	323
Arrive On Green	0.00	0.95	0.95	0.06	0.67	0.00				0.23	0.23	0.23
Sat Flow, veh/h	0	1870	1584	1781	3647	0				1781	3529	1409
Grp Volume(v), veh/h	0	178	327	180	1130	0				257	623	301
Grp Sat Flow(s),veh/h/ln	0	1870	1584	1781	1777	0				1781	1675	1587
Q Serve(g_s), s	0.0	0.7	2.0	4.8	18.2	0.0				15.6	21.1	21.6
Cycle Q Clear(g_c), s	0.0	0.7	2.0	4.8	18.2	0.0				15.6	21.1	21.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.89
Lane Grp Cap(c), veh/h	0	1062	899	664	2399	0				408	768	364
V/C Ratio(X)	0.00	0.17	0.36	0.27	0.47	0.00				0.63	0.81	0.83
Avail Cap(c_a), veh/h	0	1062	899	681	2399	0				527	991	470
HCM Platoon Ratio	1.00	1.67	1.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	1.4	1.4	8.6	9.3	0.0				41.7	43.8	44.0
Incr Delay (d2), s/veh	0.0	0.3	1.1	0.1	0.7	0.0				0.6	3.1	7.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.7	1.8	6.8	0.0				6.9	9.1	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.7	2.5	8.7	10.0	0.0				42.3	46.9	51.3
LnGrp LOS	A	A	A	A	A	A				D	D	D
Approach Vol, veh/h		505			1310						1181	
Approach Delay, s/veh		2.2			9.8						47.0	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		87.0		33.0	12.9	74.1						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		73.0		35.5	8.0	59.0						
Max Q Clear Time (g_c+I1), s		20.2		23.6	6.8	4.0						
Green Ext Time (p_c), s		6.9		3.9	0.0	1.3						

Intersection Summary												
HCM 6th Ctrl Delay			23.2									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	463	7	48	1263	22	8	7	7	15	7	11
Future Volume (veh/h)	3	463	7	48	1263	22	8	7	7	15	7	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	477	7	49	1302	23	8	7	7	15	7	11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	2	5	2	2	2	2	2	2
Cap, veh/h	412	3023	44	813	3037	54	61	46	31	73	33	31
Arrive On Green	0.85	0.85	0.85	1.00	1.00	1.00	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h	414	3557	52	911	3573	63	347	783	527	499	571	535
Grp Volume(v), veh/h	3	236	248	49	647	678	22	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	414	1763	1846	911	1777	1859	1657	0	0	1606	0	0
Q Serve(g_s), s	0.1	2.8	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	2.8	2.8	3.0	0.0	0.0	1.4	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.03	0.36		0.32	0.45		0.33
Lane Grp Cap(c), veh/h	412	1498	1569	813	1510	1580	138	0	0	137	0	0
V/C Ratio(X)	0.01	0.16	0.16	0.06	0.43	0.43	0.16	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	412	1498	1569	813	1510	1580	355	0	0	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.4	1.6	1.6	0.0	0.0	0.0	53.9	0.0	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.8	0.7	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.7	0.0	0.3	0.3	0.6	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.4	1.8	1.8	0.2	0.8	0.7	54.1	0.0	0.0	54.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		487			1374			22			33	
Approach Delay, s/veh		1.8			0.7			54.1			54.6	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	107.5	12.5	107.5	12.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	85.5	23.5	85.5	23.5
Max Q Clear Time (g_c+I1), s	4.8	3.4	5.0	4.2
Green Ext Time (p_c), s	2.0	0.0	7.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	2.5
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	4	2	11	11	1	8	18	1	2	32	16
Future Vol, veh/h	2	4	2	11	11	1	8	18	1	2	32	16
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	9	2	2	6	2	2	2	2
Mvmt Flow	2	5	2	13	13	1	10	22	1	2	39	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	103	97	50	102	107	24	59	0	0	24	0	0
Stage 1	53	53	-	44	44	-	-	-	-	-	-	-
Stage 2	50	44	-	58	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.59	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.081	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	877	793	1018	879	770	1052	1545	-	-	1591	-	-
Stage 1	960	851	-	970	845	-	-	-	-	-	-	-
Stage 2	963	858	-	954	829	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	859	786	1017	866	763	1051	1545	-	-	1589	-	-
Mov Cap-2 Maneuver	859	786	-	866	763	-	-	-	-	-	-	-
Stage 1	953	850	-	962	838	-	-	-	-	-	-	-
Stage 2	940	851	-	944	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9.6	2.2	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1545	-	-	853	819	1589	-	-
HCM Lane V/C Ratio	0.006	-	-	0.011	0.034	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.3	9.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.4

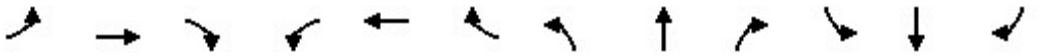
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1161	23	29	1690	7	12	1	29	2	0	0
Future Vol, veh/h	1	1161	23	29	1690	7	12	1	29	2	0	0
Conflicting Peds, #/hr	15	0	2	2	0	15	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	3	2	2	2	2	8	2	2	2	2	2
Mvmt Flow	1	1209	24	30	1760	7	13	1	30	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1782	0	0	1235	0	0	2165	3067	622	2449	3076	899
Stage 1	-	-	-	-	-	-	1225	1225	-	1839	1839	-
Stage 2	-	-	-	-	-	-	940	1842	-	610	1237	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.66	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.58	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*582	-	-	906	-	-	*24	*12	*660	*16	*12	*389
Stage 1	-	-	-	-	-	-	*544	*501	-	*367	*321	-
Stage 2	-	-	-	-	-	-	*361	*321	-	*622	*491	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*574	-	-	904	-	-	*23	*11	*657	*15	*11	*383
Mov Cap-2 Maneuver	-	-	-	-	-	-	*203	*178	-	*207	*172	-
Stage 1	-	-	-	-	-	-	*542	*499	-	*361	*306	-
Stage 2	-	-	-	-	-	-	*349	*306	-	*590	*489	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	15.5	22.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	386	* 574	-	-	904	-	-	207
HCM Lane V/C Ratio	0.113	0.002	-	-	0.033	-	-	0.01
HCM Control Delay (s)	15.5	11.3	-	-	9.1	-	-	22.6
HCM Lane LOS	C	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	607	348	153	941	0	0	0	0	554	155	518
Future Volume (veh/h)	0	607	348	153	941	0	0	0	0	554	155	518
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1826	1870	1856	0				1856	1856	1870
Adj Flow Rate, veh/h	0	653	374	165	1012	0				651	0	617
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	5	2	3	0				3	3	2
Cap, veh/h	0	2067	624	432	1807	0				1458	0	1962
Arrive On Green	0.00	0.40	0.40	0.07	0.51	0.00				0.41	0.00	0.41
Sat Flow, veh/h	0	5274	1542	1781	3618	0				3534	0	4755
Grp Volume(v), veh/h	0	653	374	165	1012	0				651	0	617
Grp Sat Flow(s),veh/h/ln	0	1702	1542	1781	1763	0				1767	0	1585
Q Serve(g_s), s	0.0	10.5	22.9	6.2	23.6	0.0				15.9	0.0	10.5
Cycle Q Clear(g_c), s	0.0	10.5	22.9	6.2	23.6	0.0				15.9	0.0	10.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2067	624	432	1807	0				1458	0	1962
V/C Ratio(X)	0.00	0.32	0.60	0.38	0.56	0.00				0.45	0.00	0.31
Avail Cap(c_a), veh/h	0	2067	624	538	1807	0				1458	0	1962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.4	28.1	17.9	20.0	0.0				25.4	0.0	23.8
Incr Delay (d2), s/veh	0.0	0.4	4.2	0.6	1.3	0.0				1.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	8.9	2.5	9.5	0.0				6.9	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.8	32.3	18.5	21.3	0.0				26.4	0.0	24.2
LnGrp LOS	A	C	C	B	C	A				C	A	C
Approach Vol, veh/h		1027			1177						1268	
Approach Delay, s/veh		27.5			20.9						25.3	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		66.0		54.0	12.9	53.1						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		61.5		49.5	15.5	41.5						
Max Q Clear Time (g_c+I1), s		25.6		17.9	8.2	24.9						
Green Ext Time (p_c), s		8.2		5.9	0.2	5.2						

Intersection Summary												
HCM 6th Ctrl Delay			24.5									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	7	0	0	23	0	0	0	0	0	0	0
Future Vol, veh/h	0	7	0	0	23	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	2	2
Mvmt Flow	0	9	0	0	28	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	9	0	0	37	37	9	37	37	28
Stage 1	-	-	-	-	-	-	9	9	-	28	28	-
Stage 2	-	-	-	-	-	-	28	28	-	9	9	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1585	-	-	1611	-	-	968	855	1073	968	855	1047
Stage 1	-	-	-	-	-	-	1012	888	-	989	872	-
Stage 2	-	-	-	-	-	-	989	872	-	1012	888	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1585	-	-	1611	-	-	968	855	1073	968	855	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	968	855	-	968	855	-
Stage 1	-	-	-	-	-	-	1012	888	-	989	872	-
Stage 2	-	-	-	-	-	-	989	872	-	1012	888	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1585	-	-	1611	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	32	0	0	33
Future Vol, veh/h	0	0	32	0	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	0	33	0	0	34

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	67	33	0	0	33	0
Stage 1	33	-	-	-	-	-
Stage 2	34	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	938	1041	-	-	1579	-
Stage 1	989	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	938	1041	-	-	1579	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	988	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1579	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

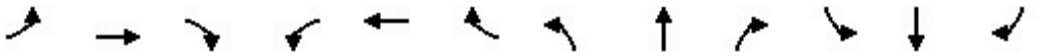
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	137	0	0	0	0	0	0	694	39
Future Vol, veh/h	0	0	15	137	0	0	0	0	0	0	694	39
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	16	143	0	0	0	0	0	0	723	41

Major/Minor	Minor2						Major1				Major2	
Conflicting Flow All	-	-	386				-	0	-	-	-	0
Stage 1	-	-	-				-	-	-	-	-	-
Stage 2	-	-	-				-	-	-	-	-	-
Critical Hdwy	-	-	7.13				-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-				-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919				-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	524				0	-	0	0	-	-
Stage 1	0	0	-				0	-	0	0	-	-
Stage 2	0	0	-				0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	0	522				-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-				-	-	-	-	-	-
Stage 1	-	0	-				-	-	-	-	-	-
Stage 2	-	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	522	-	-
HCM Lane V/C Ratio	-	0.03	-	-
HCM Control Delay (s)	-	12.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	456	282	109	547	0	0	0	0	124	594	131
Future Volume (veh/h)	0	456	282	109	547	0	0	0	0	124	594	131
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1856	1870
Adj Flow Rate, veh/h	0	470	291	112	564	0				128	612	135
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	3	2
Cap, veh/h	0	1206	1016	574	2584	0				328	767	166
Arrive On Green	0.00	1.00	1.00	0.04	0.73	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1870	1575	1781	3647	0				1781	4164	903
Grp Volume(v), veh/h	0	470	291	112	564	0				128	494	253
Grp Sat Flow(s),veh/h/ln	0	1870	1575	1781	1777	0				1781	1689	1690
Q Serve(g_s), s	0.0	0.0	0.0	2.6	6.7	0.0				8.2	18.2	18.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6	6.7	0.0				8.2	18.2	18.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.53
Lane Grp Cap(c), veh/h	0	1206	1016	574	2584	0				328	622	311
V/C Ratio(X)	0.00	0.39	0.29	0.20	0.22	0.00				0.39	0.79	0.81
Avail Cap(c_a), veh/h	0	1206	1016	701	2584	0				514	974	488
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	6.4	5.7	0.0				46.6	50.7	50.9
Incr Delay (d2), s/veh	0.0	0.9	0.7	0.1	0.2	0.0				0.3	1.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.2	1.0	2.4	0.0				3.7	7.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.9	0.7	6.5	5.9	0.0				46.9	51.7	53.6
LnGrp LOS	A	A	A	A	A	A				D	D	D
Approach Vol, veh/h		761			676						875	
Approach Delay, s/veh		0.8			6.0						51.5	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		100.5		29.5	10.7	89.8						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		81.0		37.5	14.0	61.0						
Max Q Clear Time (g_c+I1), s		8.7		20.6	4.6	2.0						
Green Ext Time (p_c), s		2.8		3.3	0.1	2.6						

Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	697	41	76	572	27	8	21	39	11	56	17
Future Volume (veh/h)	18	697	41	76	572	27	8	21	39	11	56	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	18	711	42	78	584	28	8	21	40	11	57	17
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	3	2	2	2
Cap, veh/h	743	2902	171	631	2939	141	38	38	63	40	81	23
Arrive On Green	0.85	0.85	0.85	1.00	1.00	1.00	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h	807	3408	201	708	3451	165	114	603	988	142	1278	355
Grp Volume(v), veh/h	18	371	382	78	300	312	69	0	0	85	0	0
Grp Sat Flow(s),veh/h/ln	807	1777	1832	708	1777	1839	1705	0	0	1775	0	0
Q Serve(g_s), s	0.4	5.1	5.1	0.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	5.1	5.1	5.8	0.0	0.0	5.1	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.09	0.12		0.58	0.13		0.20
Lane Grp Cap(c), veh/h	743	1513	1560	631	1513	1566	140	0	0	144	0	0
V/C Ratio(X)	0.02	0.24	0.25	0.12	0.20	0.20	0.49	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	743	1513	1560	631	1513	1566	437	0	0	462	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.5	1.8	1.8	0.1	0.0	0.0	59.4	0.0	0.0	59.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.4	0.3	0.3	1.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.4	0.1	0.1	0.1	2.3	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.5	2.2	2.2	0.5	0.3	0.3	60.4	0.0	0.0	61.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h		771			690			69			85	
Approach Delay, s/veh		2.2			0.3			60.4			61.2	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	116.2	13.8	116.2	13.8
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	86.5	32.5	86.5	32.5
Max Q Clear Time (g_c+I1), s	7.1	7.1	7.8	8.0
Green Ext Time (p_c), s	3.4	0.2	3.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	18	17	11	9	16	14	5	74	9	1	48	5
Future Vol, veh/h	18	17	11	9	16	14	5	74	9	1	48	5
Conflicting Peds, #/hr	1	0	4	4	0	1	10	0	4	4	0	10
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	19	12	10	18	16	6	82	10	1	53	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	185	176	70	181	174	92	69	0	0	96	0	0
Stage 1	68	68	-	103	103	-	-	-	-	-	-	-
Stage 2	117	108	-	78	71	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	776	717	993	781	719	965	1532	-	-	1498	-	-
Stage 1	942	838	-	903	810	-	-	-	-	-	-	-
Stage 2	888	806	-	931	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	738	703	980	747	705	960	1517	-	-	1492	-	-
Mov Cap-2 Maneuver	738	703	-	747	705	-	-	-	-	-	-	-
Stage 1	930	829	-	896	804	-	-	-	-	-	-	-
Stage 2	850	800	-	894	827	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.8	0.4	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1517	-	-	769	791	1492	-	-
HCM Lane V/C Ratio	0.004	-	-	0.066	0.055	0.001	-	-
HCM Control Delay (s)	7.4	0	-	10	9.8	7.4	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.8

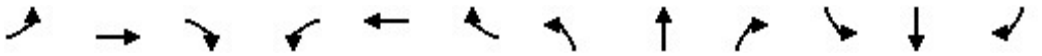
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1559	31	45	1181	13	19	0	83	0	0	0
Future Vol, veh/h	3	1559	31	45	1181	13	19	0	83	0	0	0
Conflicting Peds, #/hr	12	0	9	9	0	12	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1641	33	47	1243	14	20	0	87	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1269	0	0	1683	0	0	2392	3036	848	2185	3045	644
Stage 1	-	-	-	-	-	-	1673	1673	-	1356	1356	-
Stage 2	-	-	-	-	-	-	719	1363	-	829	1689	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*908	-	-	*658	-	-	*~ 18	*13	*440	*25	*12	*607
Stage 1	-	-	-	-	-	-	*415	*364	-	*524	*470	-
Stage 2	-	-	-	-	-	-	*572	*464	-	*415	*364	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*898	-	-	*652	-	-	*~ 17	*12	*435	*19	*11	*598
Mov Cap-2 Maneuver	-	-	-	-	-	-	*218	*183	-	*175	*170	-
Stage 1	-	-	-	-	-	-	*410	*359	-	*516	*431	-
Stage 2	-	-	-	-	-	-	*530	*426	-	*330	*359	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	18.8	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	367	* 898	-	-	* 652	-	-	-
HCM Lane V/C Ratio	0.293	0.004	-	-	0.073	-	-	-
HCM Control Delay (s)	18.8	9	-	-	11	-	-	0
HCM Lane LOS	C	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	1.2	0	-	-	0.2	-	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1127	290	205	682	0	0	0	0	292	142	231
Future Volume (veh/h)	0	1127	290	205	682	0	0	0	0	292	142	231
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1856	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1199	309	218	726	0				207	419	164
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	3	2	2	0				2	2	2
Cap, veh/h	0	3513	1081	427	2759	0				275	578	245
Arrive On Green	0.00	0.69	0.69	0.05	0.78	0.00				0.15	0.15	0.15
Sat Flow, veh/h	0	5274	1571	1781	3647	0				1781	3741	1585
Grp Volume(v), veh/h	0	1199	309	218	726	0				207	419	164
Grp Sat Flow(s),veh/h/ln	0	1702	1571	1781	1777	0				1781	1870	1585
Q Serve(g_s), s	0.0	12.4	9.9	4.4	7.5	0.0				14.5	13.9	12.7
Cycle Q Clear(g_c), s	0.0	12.4	9.9	4.4	7.5	0.0				14.5	13.9	12.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3513	1081	427	2759	0				275	578	245
V/C Ratio(X)	0.00	0.34	0.29	0.51	0.26	0.00				0.75	0.73	0.67
Avail Cap(c_a), veh/h	0	3513	1081	722	2759	0				445	935	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.3	7.9	5.9	4.1	0.0				52.6	52.3	51.8
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.9	0.2	0.0				4.1	1.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.1	3.1	1.5	2.2	0.0				6.8	6.7	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.3	8.0	6.8	4.3	0.0				56.7	54.1	55.0
LnGrp LOS	A	A	A	A	A	A				E	D	D
Approach Vol, veh/h		1508			944						790	
Approach Delay, s/veh		8.3			4.9						55.0	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		105.4		24.6	11.5	93.9						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		88.5		32.5	28.5	55.5						
Max Q Clear Time (g_c+I1), s		9.5		16.5	6.4	14.4						
Green Ext Time (p_c), s		5.5		3.6	0.6	12.3						

Intersection Summary												
HCM 6th Ctrl Delay			18.7									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	27	0	0	39	0	0	0	0	0	0	0
Future Vol, veh/h	0	27	0	0	39	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	0	0	43	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	30	0	0	73	73	30	73	73	43
Stage 1	-	-	-	-	-	-	30	30	-	43	43	-
Stage 2	-	-	-	-	-	-	43	43	-	30	30	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1566	-	-	1583	-	-	918	817	1044	918	817	1027
Stage 1	-	-	-	-	-	-	987	870	-	971	859	-
Stage 2	-	-	-	-	-	-	971	859	-	987	870	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1566	-	-	1583	-	-	918	817	1044	918	817	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	918	817	-	918	817	-
Stage 1	-	-	-	-	-	-	987	870	-	971	859	-
Stage 2	-	-	-	-	-	-	971	859	-	987	870	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1566	-	-	1583	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	66	0	0	84
Future Vol, veh/h	0	0	66	0	0	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	67	0	0	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	67	0	0	67	0
Stage 1	67	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	839	997	-	-	1535	-
Stage 1	956	-	-	-	-	-
Stage 2	937	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	839	997	-	-	1535	-
Mov Cap-2 Maneuver	839	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	937	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1535	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

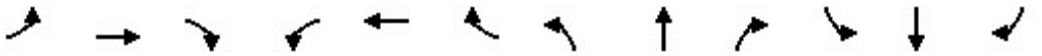
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	7	439	0	0	0	0	0	0	852	25
Future Vol, veh/h	0	0	7	439	0	0	0	0	0	0	852	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	4	5
Mvmt Flow	0	0	8	499	0	0	0	0	0	0	968	28

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	-	-	498	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.13	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	444	0	-	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	-	0	444	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	444	-	-
HCM Lane V/C Ratio	-	0.018	-	-
HCM Control Delay (s)	-	13.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	192	353	195	1220	0	0	0	0	278	710	288
Future Volume (veh/h)	0	192	353	195	1220	0	0	0	0	278	710	288
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1841	1870
Adj Flow Rate, veh/h	0	200	368	203	1271	0				290	740	300
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	0				2	4	2
Cap, veh/h	0	1006	853	619	2322	0				447	883	354
Arrive On Green	0.00	0.90	0.90	0.07	0.65	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	1870	1585	1781	3647	0				1781	3524	1413
Grp Volume(v), veh/h	0	200	368	203	1271	0				290	703	337
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1777	0				1781	1675	1586
Q Serve(g_s), s	0.0	1.6	4.6	5.9	23.2	0.0				17.5	23.9	24.2
Cycle Q Clear(g_c), s	0.0	1.6	4.6	5.9	23.2	0.0				17.5	23.9	24.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.89
Lane Grp Cap(c), veh/h	0	1006	853	619	2322	0				447	840	398
V/C Ratio(X)	0.00	0.20	0.43	0.33	0.55	0.00				0.65	0.84	0.85
Avail Cap(c_a), veh/h	0	1006	853	621	2322	0				527	991	469
HCM Platoon Ratio	1.00	1.67	1.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	2.9	3.1	9.8	11.2	0.0				40.2	42.6	42.8
Incr Delay (d2), s/veh	0.0	0.4	1.6	0.1	0.9	0.0				1.3	4.8	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	1.4	2.3	8.9	0.0				7.8	10.4	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.3	4.6	10.0	12.2	0.0				41.5	47.5	53.2
LnGrp LOS	A	A	A	A	B	A				D	D	D
Approach Vol, veh/h		568			1474						1330	
Approach Delay, s/veh		4.2			11.8						47.6	
Approach LOS		A			B						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		84.4		35.6	13.9	70.5						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		73.0		35.5	8.0	59.0						
Max Q Clear Time (g_c+I1), s		25.2		26.2	7.9	6.6						
Green Ext Time (p_c), s		8.2		3.8	0.0	1.4						

Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	522	10	56	1423	27	9	9	8	29	10	16
Future Volume (veh/h)	3	522	10	56	1423	27	9	9	8	29	10	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	538	10	58	1467	28	9	9	8	30	10	16
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	2	5	2	2	2	2	2	2
Cap, veh/h	359	3010	56	767	3032	58	61	48	31	88	24	26
Arrive On Green	0.85	0.85	0.85	1.00	1.00	1.00	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h	352	3541	66	859	3567	68	356	825	525	717	414	453
Grp Volume(v), veh/h	3	268	280	58	730	765	26	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	352	1763	1844	859	1777	1858	1707	0	0	1584	0	0
Q Serve(g_s), s	0.2	3.2	3.2	0.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	0.2	3.2	3.2	3.5	0.0	0.0	1.7	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.04	0.35		0.31	0.54		0.29
Lane Grp Cap(c), veh/h	359	1498	1567	767	1510	1579	140	0	0	138	0	0
V/C Ratio(X)	0.01	0.18	0.18	0.08	0.48	0.48	0.19	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	359	1498	1567	767	1510	1579	358	0	0	347	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.4	1.6	1.6	0.1	0.0	0.0	54.0	0.0	0.0	55.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.2	0.9	0.9	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.8	0.0	0.4	0.4	0.8	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.4	1.9	1.8	0.2	0.9	0.9	54.2	0.0	0.0	55.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	E	A	A
Approach Vol, veh/h		551			1553			26			56	
Approach Delay, s/veh		1.8			0.8			54.2			55.7	
Approach LOS		A			A			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	107.5	12.5	107.5	12.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	85.5	23.5	85.5	23.5
Max Q Clear Time (g_c+I1), s	5.2	3.7	5.5	6.0
Green Ext Time (p_c), s	2.3	0.0	9.9	0.1

Intersection Summary	
HCM 6th Ctrl Delay	3.1
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	2	12	13	2	9	32	3	4	49	18
Future Vol, veh/h	4	4	2	12	13	2	9	32	3	4	49	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	9	2	2	6	2	2	2	2
Mvmt Flow	5	5	2	15	16	2	11	39	4	5	60	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	153	146	71	148	155	41	82	0	0	43	0	0
Stage 1	81	81	-	63	63	-	-	-	-	-	-	-
Stage 2	72	65	-	85	92	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.59	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.081	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	814	745	991	820	724	1030	1515	-	-	1566	-	-
Stage 1	927	828	-	948	829	-	-	-	-	-	-	-
Stage 2	938	841	-	923	805	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	792	738	991	808	717	1030	1515	-	-	1566	-	-
Mov Cap-2 Maneuver	792	738	-	808	717	-	-	-	-	-	-	-
Stage 1	921	826	-	941	823	-	-	-	-	-	-	-
Stage 2	911	835	-	913	803	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.9	1.5	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	801	773	1566	-	-
HCM Lane V/C Ratio	0.007	-	-	0.015	0.043	0.003	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

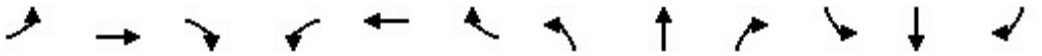
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1314	27	39	1905	8	17	1	47	2	0	0
Future Vol, veh/h	1	1314	27	39	1905	8	17	1	47	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	3	2	2	2	2	8	2	2	2	2	2
Mvmt Flow	1	1369	28	41	1984	8	18	1	49	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1992	0	0	1397	0	0	2459	3459	699	2757	3469	996
Stage 1	-	-	-	-	-	-	1385	1385	-	2070	2070	-
Stage 2	-	-	-	-	-	-	1074	2074	-	687	1399	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.66	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.58	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*429	-	-	837	-	-	*~ 14	*7	*592	*9	*6	*287
Stage 1	-	-	-	-	-	-	*517	*468	-	*271	*237	-
Stage 2	-	-	-	-	-	-	*266	*237	-	*558	*456	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*429	-	-	837	-	-	*~ 13	*7	*592	*8	*6	*287
Mov Cap-2 Maneuver	-	-	-	-	-	-	*160	*141	-	*160	*136	-
Stage 1	-	-	-	-	-	-	*516	*467	-	*270	*226	-
Stage 2	-	-	-	-	-	-	*253	*226	-	*510	*456	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	18.3	27.8
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	337	* 429	-	-	837	-	-	160
HCM Lane V/C Ratio	0.201	0.002	-	-	0.049	-	-	0.013
HCM Control Delay (s)	18.3	13.4	-	-	9.5	-	-	27.8
HCM Lane LOS	C	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	705	391	172	1076	0	0	0	0	623	174	583
Future Volume (veh/h)	0	705	391	172	1076	0	0	0	0	623	174	583
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1826	1870	1856	0				1856	1856	1870
Adj Flow Rate, veh/h	0	758	420	185	1157	0				732	0	694
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	5	2	3	0				3	3	2
Cap, veh/h	0	2030	613	405	1807	0				1458	0	1962
Arrive On Green	0.00	0.40	0.40	0.08	0.51	0.00				0.41	0.00	0.41
Sat Flow, veh/h	0	5274	1542	1781	3618	0				3534	0	4755
Grp Volume(v), veh/h	0	758	420	185	1157	0				732	0	694
Grp Sat Flow(s),veh/h/ln	0	1702	1542	1781	1763	0				1767	0	1585
Q Serve(g_s), s	0.0	12.6	27.1	7.1	28.6	0.0				18.4	0.0	12.0
Cycle Q Clear(g_c), s	0.0	12.6	27.1	7.1	28.6	0.0				18.4	0.0	12.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2030	613	405	1807	0				1458	0	1962
V/C Ratio(X)	0.00	0.37	0.69	0.46	0.64	0.00				0.50	0.00	0.35
Avail Cap(c_a), veh/h	0	2030	613	497	1807	0				1458	0	1962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.6	29.9	18.5	21.2	0.0				26.1	0.0	24.2
Incr Delay (d2), s/veh	0.0	0.5	6.1	0.8	1.8	0.0				1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.1	10.7	2.9	11.5	0.0				7.9	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.1	36.1	19.3	23.0	0.0				27.4	0.0	24.7
LnGrp LOS	A	C	D	B	C	A				C	A	C
Approach Vol, veh/h		1178			1342						1426	
Approach Delay, s/veh		29.7			22.5						26.1	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		66.0		54.0	13.8	52.2						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		61.5		49.5	15.5	41.5						
Max Q Clear Time (g_c+I1), s		30.6		20.4	9.1	29.1						
Green Ext Time (p_c), s		9.6		6.8	0.2	5.2						

Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	8	0	0	26	0	0	0	0	0	0	0
Future Vol, veh/h	0	8	0	0	26	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	0	32	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	10	0	0	42	42	10	42	42	32
Stage 1	-	-	-	-	-	-	10	10	-	32	32	-
Stage 2	-	-	-	-	-	-	32	32	-	10	10	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1610	-	-	961	850	1071	961	850	1042
Stage 1	-	-	-	-	-	-	1011	887	-	984	868	-
Stage 2	-	-	-	-	-	-	984	868	-	1011	887	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1610	-	-	961	850	1071	961	850	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	961	850	-	961	850	-
Stage 1	-	-	-	-	-	-	1011	887	-	984	868	-
Stage 2	-	-	-	-	-	-	984	868	-	1011	887	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1580	-	-	1610	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	36	0	0	37
Future Vol, veh/h	0	0	36	0	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	0	37	0	0	38

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	75	37	0	0	37	0
Stage 1	37	-	-	-	-	-
Stage 2	38	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	928	1035	-	-	1574	-
Stage 1	985	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	928	1035	-	-	1574	-
Mov Cap-2 Maneuver	928	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	984	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1574	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

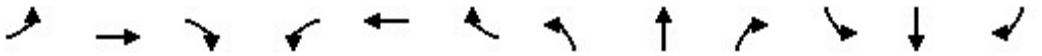
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	17	154	0	0	0	0	0	0	781	44
Future Vol, veh/h	0	0	17	154	0	0	0	0	0	0	781	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	18	160	0	0	0	0	0	0	814	46

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	-	-	430	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.13	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	491	0	-	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	-	0	491	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

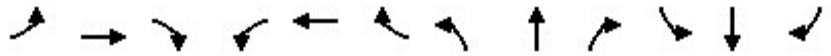
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	491	-	-
HCM Lane V/C Ratio	-	0.036	-	-
HCM Control Delay (s)	-	12.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	513	317	123	615	0	0	0	0	139	668	147
Future Volume (veh/h)	0	513	317	123	615	0	0	0	0	139	668	147
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1856	1870
Adj Flow Rate, veh/h	0	529	327	127	634	0				143	689	152
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	3	2
Cap, veh/h	0	1161	984	529	2516	0				363	847	185
Arrive On Green	0.00	1.00	1.00	0.04	0.71	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	1870	1585	1781	3647	0				1781	4163	907
Grp Volume(v), veh/h	0	529	327	127	634	0				143	557	284
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1777	0				1781	1689	1692
Q Serve(g_s), s	0.0	0.0	0.0	3.2	8.2	0.0				9.0	20.5	20.9
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.2	8.2	0.0				9.0	20.5	20.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.54
Lane Grp Cap(c), veh/h	0	1161	984	529	2516	0				363	688	345
V/C Ratio(X)	0.00	0.46	0.33	0.24	0.25	0.00				0.39	0.81	0.82
Avail Cap(c_a), veh/h	0	1161	984	648	2516	0				514	974	488
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.97	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	7.3	6.7	0.0				44.8	49.4	49.5
Incr Delay (d2), s/veh	0.0	1.3	0.9	0.1	0.2	0.0				0.3	2.3	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.2	1.2	3.0	0.0				4.0	8.9	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.3	0.9	7.4	7.0	0.0				45.1	51.7	54.8
LnGrp LOS	A	A	A	A	A	A				D	D	D
Approach Vol, veh/h		856			761						984	
Approach Delay, s/veh		1.1			7.1						51.6	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		98.0		32.0	11.3	86.7						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		81.0		37.5	14.0	61.0						
Max Q Clear Time (g_c+I1), s		10.2		22.9	5.2	2.0						
Green Ext Time (p_c), s		3.2		3.6	0.1	3.0						

Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	786	46	85	646	48	9	27	44	27	66	23
Future Volume (veh/h)	25	786	46	85	646	48	9	27	44	27	66	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	26	802	47	87	659	49	9	28	45	28	67	23
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	3	2	2	2
Cap, veh/h	672	2838	166	562	2790	207	39	57	79	60	91	28
Arrive On Green	0.83	0.83	0.83	1.00	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	741	3411	200	649	3353	249	103	681	953	314	1095	341
Grp Volume(v), veh/h	26	418	431	87	349	359	82	0	0	118	0	0
Grp Sat Flow(s),veh/h/ln	741	1777	1834	649	1777	1826	1736	0	0	1750	0	0
Q Serve(g_s), s	0.8	6.7	6.7	1.3	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	0.8	6.7	6.7	8.0	0.0	0.0	5.9	0.0	0.0	8.5	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.14	0.11		0.55	0.24		0.19
Lane Grp Cap(c), veh/h	672	1478	1526	562	1478	1519	176	0	0	180	0	0
V/C Ratio(X)	0.04	0.28	0.28	0.15	0.24	0.24	0.47	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	672	1478	1526	562	1478	1519	447	0	0	455	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.9	2.4	2.4	0.2	0.0	0.0	57.4	0.0	0.0	58.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.6	0.4	0.4	0.7	0.0	0.0	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.9	2.0	0.1	0.2	0.2	2.6	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.0	2.9	2.9	0.8	0.4	0.4	58.1	0.0	0.0	59.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h		875			795			82			118	
Approach Delay, s/veh		2.8			0.4			58.1			59.9	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	113.7	16.3	113.7	16.3
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	86.5	32.5	86.5	32.5
Max Q Clear Time (g_c+I1), s	8.7	7.9	10.0	10.5
Green Ext Time (p_c), s	4.1	0.3	3.8	0.4

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	23	19	12	10	21	19	6	98	13	3	77	6
Future Vol, veh/h	23	19	12	10	21	19	6	98	13	3	77	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	21	13	11	23	21	7	109	14	3	86	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	248	233	90	243	229	116	93	0	0	123	0	0
Stage 1	96	96	-	130	130	-	-	-	-	-	-	-
Stage 2	152	137	-	113	99	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	706	667	968	711	671	936	1501	-	-	1464	-	-
Stage 1	911	815	-	874	789	-	-	-	-	-	-	-
Stage 2	850	783	-	892	813	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	668	662	968	680	666	936	1501	-	-	1464	-	-
Mov Cap-2 Maneuver	668	662	-	680	666	-	-	-	-	-	-	-
Stage 1	906	813	-	870	785	-	-	-	-	-	-	-
Stage 2	802	779	-	855	811	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.2	0.4	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1501	-	-	715	751	1464	-	-
HCM Lane V/C Ratio	0.004	-	-	0.084	0.074	0.002	-	-
HCM Control Delay (s)	7.4	0	-	10.5	10.2	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.3

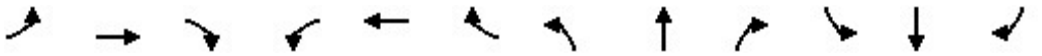
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1764	38	71	1340	15	26	0	110	0	0	0
Future Vol, veh/h	3	1764	38	71	1340	15	26	0	110	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1857	40	75	1411	16	27	0	116	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1427	0	0	1897	0	0	2739	3460	949	2504	3472	714
Stage 1	-	-	-	-	-	-	1883	1883	-	1569	1569	-
Stage 2	-	-	-	-	-	-	856	1577	-	935	1903	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*803	-	-	*544	-	-	*~ 9	*7	*363	*14	*6	*537
Stage 1	-	-	-	-	-	-	*343	*300	-	*437	*397	-
Stage 2	-	-	-	-	-	-	*506	*391	-	*343	*300	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*803	-	-	*544	-	-	*~ 8	*6	*363	*8	*5	*537
Mov Cap-2 Maneuver	-	-	-	-	-	-	*178	*147	-	*108	*126	-
Stage 1	-	-	-	-	-	-	*341	*299	-	*435	*342	-
Stage 2	-	-	-	-	-	-	*436	*337	-	*232	*299	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	27.1	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	* 803	-	-	* 544	-	-	-
HCM Lane V/C Ratio	0.472	0.004	-	-	0.137	-	-	-
HCM Control Delay (s)	27.1	9.5	-	-	12.7	-	-	0
HCM Lane LOS	D	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	2.4	0	-	-	0.5	-	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1295	326	231	800	0	0	0	0	328	160	260
Future Volume (veh/h)	0	1295	326	231	800	0	0	0	0	328	160	260
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1856	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1378	347	246	851	0				233	471	185
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	3	2	2	0				2	2	2
Cap, veh/h	0	3388	1043	378	2702	0				304	638	270
Arrive On Green	0.00	0.66	0.66	0.06	0.76	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	5274	1571	1781	3647	0				1781	3741	1585
Grp Volume(v), veh/h	0	1378	347	246	851	0				233	471	185
Grp Sat Flow(s),veh/h/ln	0	1702	1571	1781	1777	0				1781	1870	1585
Q Serve(g_s), s	0.0	16.2	12.4	5.4	9.8	0.0				16.2	15.5	14.2
Cycle Q Clear(g_c), s	0.0	16.2	12.4	5.4	9.8	0.0				16.2	15.5	14.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3388	1043	378	2702	0				304	638	270
V/C Ratio(X)	0.00	0.41	0.33	0.65	0.32	0.00				0.77	0.74	0.68
Avail Cap(c_a), veh/h	0	3388	1043	658	2702	0				445	935	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.1	9.4	8.4	4.9	0.0				51.4	51.2	50.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	1.9	0.3	0.0				4.7	1.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.9	4.2	2.0	3.3	0.0				7.7	7.4	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.2	9.6	10.3	5.2	0.0				56.2	52.9	53.7
LnGrp LOS	A	B	A	B	A	A				E	D	D
Approach Vol, veh/h		1725			1097						889	
Approach Delay, s/veh		10.1			6.4						53.9	
Approach LOS		B			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		103.3		26.7	12.6	90.8						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		88.5		32.5	28.5	55.5						
Max Q Clear Time (g_c+I1), s		11.8		18.2	7.4	18.2						
Green Ext Time (p_c), s		7.6		3.9	0.7	15.9						

Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	30	0	0	44	0	0	0	0	0	0	0
Future Vol, veh/h	0	30	0	0	44	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	0	0	49	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	33	0	0	82	82	33	82	82	49
Stage 1	-	-	-	-	-	-	33	33	-	49	49	-
Stage 2	-	-	-	-	-	-	49	49	-	33	33	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1579	-	-	905	808	1041	905	808	1020
Stage 1	-	-	-	-	-	-	983	868	-	964	854	-
Stage 2	-	-	-	-	-	-	964	854	-	983	868	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1579	-	-	905	808	1041	905	808	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	905	808	-	905	808	-
Stage 1	-	-	-	-	-	-	983	868	-	964	854	-
Stage 2	-	-	-	-	-	-	964	854	-	983	868	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1558	-	-	1579	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	74	0	0	94
Future Vol, veh/h	0	0	74	0	0	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	76	0	0	96

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	172	76	0	0	76	0
Stage 1	76	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	818	985	-	-	1523	-
Stage 1	947	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	818	985	-	-	1523	-
Mov Cap-2 Maneuver	818	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1523	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

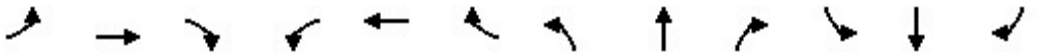
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	50	439	0	0	0	0	0	0	852	58
Future Vol, veh/h	0	0	50	439	0	0	0	0	0	0	852	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	4	2
Mvmt Flow	0	0	57	499	0	0	0	0	0	0	968	66

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	-	-	517	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.13	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	431	0	-	0	0	-	-
Stage 1	0	0	-	0	-	0	0	-	-
Stage 2	0	0	-	0	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	-	0	431	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-	-
Stage 1	-	0	-	-	-	-	-	-	-
Stage 2	-	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

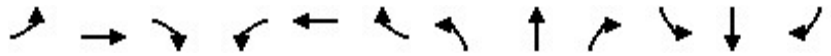
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	431	-	-
HCM Lane V/C Ratio	-	0.132	-	-
HCM Control Delay (s)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	206	360	195	1246	0	0	0	0	292	732	295
Future Volume (veh/h)	0	206	360	195	1246	0	0	0	0	292	732	295
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1841	1870
Adj Flow Rate, veh/h	0	215	375	203	1298	0				304	762	307
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	0				2	4	2
Cap, veh/h	0	996	844	605	2304	0				455	902	360
Arrive On Green	0.00	0.89	0.89	0.07	0.65	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	1870	1585	1781	3647	0				1781	3529	1408
Grp Volume(v), veh/h	0	215	375	203	1298	0				304	723	346
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1777	0				1781	1675	1587
Q Serve(g_s), s	0.0	1.9	5.2	5.9	24.3	0.0				18.4	24.6	24.9
Cycle Q Clear(g_c), s	0.0	1.9	5.2	5.9	24.3	0.0				18.4	24.6	24.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.89
Lane Grp Cap(c), veh/h	0	996	844	605	2304	0				455	857	406
V/C Ratio(X)	0.00	0.22	0.44	0.34	0.56	0.00				0.67	0.84	0.85
Avail Cap(c_a), veh/h	0	996	844	606	2304	0				527	991	470
HCM Platoon Ratio	1.00	1.67	1.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	3.2	3.4	10.1	11.7	0.0				40.1	42.4	42.5
Incr Delay (d2), s/veh	0.0	0.5	1.7	0.1	1.0	0.0				1.7	5.3	11.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	1.6	2.3	9.3	0.0				8.3	10.7	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.7	5.1	10.2	12.7	0.0				41.8	47.7	53.8
LnGrp LOS	A	A	A	B	B	A				D	D	D
Approach Vol, veh/h		590			1501						1373	
Approach Delay, s/veh		4.6			12.4						47.9	
Approach LOS		A			B						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		83.8		36.2	13.9	69.9						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		73.0		35.5	8.0	59.0						
Max Q Clear Time (g_c+I1), s		26.3		26.9	7.9	7.2						
Green Ext Time (p_c), s		8.5		3.8	0.0	1.5						

Intersection Summary												
HCM 6th Ctrl Delay			25.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	522	10	56	1430	53	9	16	8	50	18	36
Future Volume (veh/h)	29	522	10	56	1430	53	9	16	8	50	18	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	538	10	58	1474	55	9	16	8	52	19	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	2914	54	740	2875	107	62	91	37	102	31	46
Arrive On Green	0.82	0.82	0.82	1.00	1.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	340	3541	66	859	3494	130	279	1065	430	673	363	540
Grp Volume(v), veh/h	30	268	280	58	748	781	33	0	0	108	0	0
Grp Sat Flow(s),veh/h/ln	340	1763	1844	859	1777	1847	1775	0	0	1576	0	0
Q Serve(g_s), s	2.1	3.8	3.8	0.3	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear(g_c), s	2.1	3.8	3.8	4.2	0.0	0.0	2.1	0.0	0.0	8.0	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.27		0.24	0.48		0.34
Lane Grp Cap(c), veh/h	340	1451	1517	740	1462	1520	190	0	0	179	0	0
V/C Ratio(X)	0.09	0.18	0.18	0.08	0.51	0.51	0.17	0.00	0.00	0.60	0.00	0.00
Avail Cap(c_a), veh/h	340	1451	1517	740	1462	1520	369	0	0	347	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.1	2.2	2.2	0.1	0.0	0.0	51.1	0.0	0.0	53.7	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.3	0.3	0.2	1.0	1.0	0.2	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	1.1	0.0	0.4	0.4	0.9	0.0	0.0	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.6	2.5	2.5	0.2	1.0	1.0	51.3	0.0	0.0	54.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		578			1587			33			108	
Approach Delay, s/veh		2.5			1.0			51.3			54.9	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	104.2	15.8	104.2	15.8
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	85.5	23.5	85.5	23.5
Max Q Clear Time (g_c+I1), s	5.8	4.1	6.2	10.0
Green Ext Time (p_c), s	2.8	0.1	10.4	0.3

Intersection Summary	
HCM 6th Ctrl Delay	4.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	4	2	34	13	17	9	69	29	11	83	18
Future Vol, veh/h	4	4	2	34	13	17	9	69	29	11	83	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	9	2	2	2	2	2	2	2
Mvmt Flow	5	5	2	41	16	21	11	84	35	13	101	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	279	112	266	273	102	123	0	0	119	0	0
Stage 1	138	138	-	124	124	-	-	-	-	-	-	-
Stage 2	142	141	-	142	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.59	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.59	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.081	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	672	629	941	687	622	953	1464	-	-	1469	-	-
Stage 1	865	782	-	880	780	-	-	-	-	-	-	-
Stage 2	861	780	-	861	761	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	636	618	941	672	611	953	1464	-	-	1469	-	-
Mov Cap-2 Maneuver	636	618	-	672	611	-	-	-	-	-	-	-
Stage 1	858	774	-	873	774	-	-	-	-	-	-	-
Stage 2	818	774	-	845	753	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.7	0.6	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	672	713	1469	-	-
HCM Lane V/C Ratio	0.007	-	-	0.018	0.109	0.009	-	-
HCM Control Delay (s)	7.5	0	-	10.5	10.7	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	1

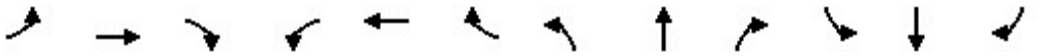
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1314	46	61	1905	8	39	1	77	2	0	0
Future Vol, veh/h	1	1314	46	61	1905	8	39	1	77	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	3	2	2	2	2	3	2	2	2	2	2
Mvmt Flow	1	1369	48	64	1984	8	41	1	80	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1992	0	0	1417	0	0	2515	3515	709	2803	3535	996
Stage 1	-	-	-	-	-	-	1395	1395	-	2116	2116	-
Stage 2	-	-	-	-	-	-	1120	2120	-	687	1419	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.56	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.53	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*429	-	-	812	-	-	*~ 14	*6	*592	*8	*6	*287
Stage 1	-	-	-	-	-	-	*512	*460	-	*271	*237	-
Stage 2	-	-	-	-	-	-	*270	*237	-	*558	*440	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*429	-	-	812	-	-	*~ 13	*6	*592	*6	*6	*287
Mov Cap-2 Maneuver	-	-	-	-	-	-	*158	*137	-	*152	*128	-
Stage 1	-	-	-	-	-	-	*511	*459	-	*270	*218	-
Stage 2	-	-	-	-	-	-	*249	*218	-	*480	*439	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	24.4	29
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	305	* 429	-	-	812	-	-	152
HCM Lane V/C Ratio	0.4	0.002	-	-	0.078	-	-	0.014
HCM Control Delay (s)	24.4	13.4	-	-	9.8	-	-	29
HCM Lane LOS	C	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.8	0	-	-	0.3	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	734	391	179	1095	0	0	0	0	623	200	583
Future Volume (veh/h)	0	734	391	179	1095	0	0	0	0	623	200	583
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1826	1870	1856	0				1856	1856	1870
Adj Flow Rate, veh/h	0	789	420	192	1177	0				742	0	703
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	5	2	3	0				3	3	2
Cap, veh/h	0	2017	609	334	1807	0				1458	0	1962
Arrive On Green	0.00	0.39	0.39	0.08	0.51	0.00				0.41	0.00	0.41
Sat Flow, veh/h	0	5274	1541	1781	3618	0				3534	0	4755
Grp Volume(v), veh/h	0	789	420	192	1177	0				742	0	703
Grp Sat Flow(s),veh/h/ln	0	1702	1541	1781	1763	0				1767	0	1585
Q Serve(g_s), s	0.0	13.3	27.2	7.4	29.3	0.0				18.7	0.0	12.2
Cycle Q Clear(g_c), s	0.0	13.3	27.2	7.4	29.3	0.0				18.7	0.0	12.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2017	609	334	1807	0				1458	0	1962
V/C Ratio(X)	0.00	0.39	0.69	0.57	0.65	0.00				0.51	0.00	0.36
Avail Cap(c_a), veh/h	0	2017	609	422	1807	0				1458	0	1962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.0	30.2	19.0	21.4	0.0				26.2	0.0	24.3
Incr Delay (d2), s/veh	0.0	0.6	6.3	1.6	1.8	0.0				1.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	10.8	3.1	11.9	0.0				8.1	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.6	36.5	20.6	23.2	0.0				27.5	0.0	24.8
LnGrp LOS	A	C	D	C	C	A				C	A	C
Approach Vol, veh/h		1209			1369						1445	
Approach Delay, s/veh		30.0			22.9						26.2	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		66.0		54.0	14.1	51.9						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		61.5		49.5	15.5	41.5						
Max Q Clear Time (g_c+I1), s		31.3		20.7	9.4	29.2						
Green Ext Time (p_c), s		9.7		6.9	0.3	5.3						

Intersection Summary		
HCM 6th Ctrl Delay		26.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	8	34	33	26	0	37	0	43	0	0	0
Future Vol, veh/h	0	8	34	33	26	0	37	0	43	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	0	0	4	2	0	2	0	2	2	2
Mvmt Flow	0	10	41	40	32	0	45	0	52	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	51	0	0	143	143	31	169	163	32
Stage 1	-	-	-	-	-	-	31	31	-	112	112	-
Stage 2	-	-	-	-	-	-	112	112	-	57	51	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1568	-	-	831	748	1049	795	729	1042
Stage 1	-	-	-	-	-	-	991	869	-	893	803	-
Stage 2	-	-	-	-	-	-	898	803	-	955	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1568	-	-	814	729	1049	740	710	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	814	729	-	740	710	-
Stage 1	-	-	-	-	-	-	991	869	-	893	782	-
Stage 2	-	-	-	-	-	-	875	782	-	907	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.1	9.4	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1580	-	-	1568	-	-	-
HCM Lane V/C Ratio	0.105	-	-	-	0.026	-	-	-
HCM Control Delay (s)	9.4	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	37	62	33	34	59
Future Vol, veh/h	27	37	62	33	34	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	28	38	64	34	35	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	212	81	0	0	98	0
Stage 1	81	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	781	985	-	-	1508	-
Stage 1	947	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	762	985	-	-	1508	-
Mov Cap-2 Maneuver	762	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	877	1508	-
HCM Lane V/C Ratio	-	-	0.075	0.023	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

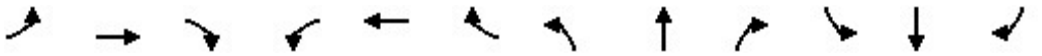
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	65	154	0	0	0	0	0	0	781	88
Future Vol, veh/h	0	0	65	154	0	0	0	0	0	0	781	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Yield	Yield	Yield	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	3	2
Mvmt Flow	0	0	68	160	0	0	0	0	0	0	814	92

Major/Minor	Minor2						Major1				Major2	
Conflicting Flow All	-	-	453				-	0	-	-	-	0
Stage 1	-	-	-				-	-	-	-	-	-
Stage 2	-	-	-				-	-	-	-	-	-
Critical Hdwy	-	-	7.13				-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-				-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-				-	-	-	-	-	-
Follow-up Hdwy	-	-	3.919				-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	474				0	-	0	0	-	-
Stage 1	0	0	-				0	-	0	0	-	-
Stage 2	0	0	-				0	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	0	474				-	-	-	-	-	-
Mov Cap-2 Maneuver	-	0	-				-	-	-	-	-	-
Stage 1	-	0	-				-	-	-	-	-	-
Stage 2	-	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

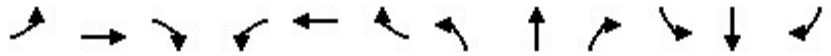
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	474	-	-
HCM Lane V/C Ratio	-	0.143	-	-
HCM Control Delay (s)	-	13.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	529	325	123	650	0	0	0	0	154	693	154
Future Volume (veh/h)	0	529	325	123	650	0	0	0	0	154	693	154
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	545	335	127	670	0				159	714	159
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1151	975	517	2497	0				372	875	193
Arrive On Green	0.00	1.00	1.00	0.04	0.70	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	1870	1585	1781	3647	0				1781	4187	922
Grp Volume(v), veh/h	0	545	335	127	670	0				159	579	294
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	1777	0				1781	1702	1704
Q Serve(g_s), s	0.0	0.0	0.0	3.3	9.0	0.0				10.1	21.1	21.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.3	9.0	0.0				10.1	21.1	21.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.54
Lane Grp Cap(c), veh/h	0	1151	975	517	2497	0				372	711	356
V/C Ratio(X)	0.00	0.47	0.34	0.25	0.27	0.00				0.43	0.81	0.83
Avail Cap(c_a), veh/h	0	1151	975	635	2497	0				514	982	492
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	7.6	7.1	0.0				44.7	49.0	49.2
Incr Delay (d2), s/veh	0.0	1.3	0.9	0.1	0.3	0.0				0.3	2.6	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.3	1.2	3.3	0.0				4.5	9.2	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.3	0.9	7.6	7.3	0.0				45.0	51.6	55.0
LnGrp LOS	A	A	A	A	A	A				D	D	D
Approach Vol, veh/h		880			797						1032	
Approach Delay, s/veh		1.2			7.4						51.6	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		97.3		32.7	11.4	86.0						
Change Period (Y+Rc), s		6.0		5.5	6.0	6.0						
Max Green Setting (Gmax), s		81.0		37.5	14.0	61.0						
Max Q Clear Time (g_c+I1), s		11.0		23.4	5.3	2.0						
Green Ext Time (p_c), s		3.4		3.7	0.1	3.1						

Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	777	46	85	645	92	9	37	44	60	74	54
Future Volume (veh/h)	69	777	46	85	645	92	9	37	44	60	74	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870
Adj Flow Rate, veh/h	70	793	47	87	658	94	9	38	45	61	76	55
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	3	2	2	2
Cap, veh/h	612	2667	158	524	2442	348	41	107	113	97	97	63
Arrive On Green	0.78	0.78	0.78	1.00	1.00	1.00	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	711	3409	202	655	3122	445	79	807	849	453	727	474
Grp Volume(v), veh/h	70	413	427	87	374	378	92	0	0	192	0	0
Grp Sat Flow(s),veh/h/ln	711	1777	1834	655	1777	1790	1735	0	0	1653	0	0
Q Serve(g_s), s	3.1	8.6	8.6	1.8	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0
Cycle Q Clear(g_c), s	3.1	8.6	8.6	10.3	0.0	0.0	6.4	0.0	0.0	14.7	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.25	0.10		0.49	0.32		0.29
Lane Grp Cap(c), veh/h	612	1390	1435	524	1390	1401	261	0	0	256	0	0
V/C Ratio(X)	0.11	0.30	0.30	0.17	0.27	0.27	0.35	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	612	1390	1435	524	1390	1401	454	0	0	441	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.4	4.0	4.0	0.4	0.0	0.0	51.6	0.0	0.0	55.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.5	0.5	0.7	0.5	0.5	0.3	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.9	3.0	0.1	0.2	0.2	2.8	0.0	0.0	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.8	4.6	4.5	1.1	0.5	0.5	51.9	0.0	0.0	56.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	E	A	A
Approach Vol, veh/h		910			839			92			192	
Approach Delay, s/veh		4.5			0.5			51.9			56.7	
Approach LOS		A			A			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	107.2	22.8	107.2	22.8
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	86.5	32.5	86.5	32.5
Max Q Clear Time (g_c+I1), s	10.6	8.4	12.3	16.7
Green Ext Time (p_c), s	4.3	0.3	4.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	23	19	12	33	21	35	6	139	48	14	122	6
Future Vol, veh/h	23	19	12	33	21	35	6	139	48	14	122	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	21	13	37	23	39	7	154	53	16	136	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	393	140	384	370	181	143	0	0	207	0	0
Stage 1	172	172	-	195	195	-	-	-	-	-	-	-
Stage 2	226	221	-	189	175	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	562	543	908	574	560	862	1440	-	-	1364	-	-
Stage 1	830	756	-	807	739	-	-	-	-	-	-	-
Stage 2	777	720	-	813	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	512	533	908	541	549	862	1440	-	-	1364	-	-
Mov Cap-2 Maneuver	512	533	-	541	549	-	-	-	-	-	-	-
Stage 1	825	746	-	802	735	-	-	-	-	-	-	-
Stage 2	714	716	-	768	744	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	11.7	0.2	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1440	-	-	576	636	1364	-	-
HCM Lane V/C Ratio	0.005	-	-	0.104	0.155	0.011	-	-
HCM Control Delay (s)	7.5	0	-	12	11.7	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-

Intersection	
Int Delay, s/veh	2.8

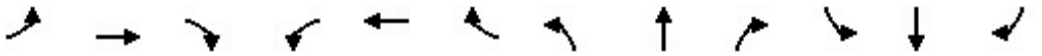
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1764	66	99	1340	15	49	0	143	0	0	0
Future Vol, veh/h	3	1764	66	99	1340	15	49	0	143	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1857	69	104	1411	16	52	0	151	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1427	0	0	1926	0	0	2812	3533	963	2562	3559	714
Stage 1	-	-	-	-	-	-	1898	1898	-	1627	1627	-
Stage 2	-	-	-	-	-	-	914	1635	-	935	1932	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*803	-	-	*544	-	-	*~ 8	*6	*363	*13	*6	*537
Stage 1	-	-	-	-	-	-	*343	*300	-	*374	*354	-
Stage 2	-	-	-	-	-	-	*506	*348	-	*343	*300	-
Platoon blocked, %	1	-	-	1	-	-			1			1
Mov Cap-1 Maneuver	*803	-	-	*544	-	-	*~ 7	*5	*363	*6	*5	*537
Mov Cap-2 Maneuver	-	-	-	-	-	-	*172	*134	-	*71	*108	-
Stage 1	-	-	-	-	-	-	*341	*299	-	*372	*286	-
Stage 2	-	-	-	-	-	-	*409	*281	-	*200	*299	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	44.1	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	283	* 803	-	-	* 544	-	-	-
HCM Lane V/C Ratio	0.714	0.004	-	-	0.192	-	-	-
HCM Control Delay (s)	44.1	9.5	-	-	13.2	-	-	0
HCM Lane LOS	E	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	5	0	-	-	0.7	-	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1327	326	241	828	0	0	0	0	328	195	260
Future Volume (veh/h)	0	1327	326	241	828	0	0	0	0	328	195	260
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1856	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1412	347	256	881	0				233	508	185
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	3	2	2	0				2	2	2
Cap, veh/h	0	3343	1029	370	2681	0				314	660	279
Arrive On Green	0.00	0.65	0.65	0.07	0.75	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	5274	1571	1781	3647	0				1781	3741	1585
Grp Volume(v), veh/h	0	1412	347	256	881	0				233	508	185
Grp Sat Flow(s),veh/h/ln	0	1702	1571	1781	1777	0				1781	1870	1585
Q Serve(g_s), s	0.0	17.2	12.7	5.8	10.5	0.0				16.1	16.8	14.1
Cycle Q Clear(g_c), s	0.0	17.2	12.7	5.8	10.5	0.0				16.1	16.8	14.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3343	1029	370	2681	0				314	660	279
V/C Ratio(X)	0.00	0.42	0.34	0.69	0.33	0.00				0.74	0.77	0.66
Avail Cap(c_a), veh/h	0	3343	1029	645	2681	0				445	935	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.7	9.9	9.6	5.2	0.0				50.7	51.0	49.9
Incr Delay (d2), s/veh	0.0	0.1	0.2	2.3	0.3	0.0				4.0	2.5	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.9	4.1	2.1	3.4	0.0				7.5	8.1	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.8	10.1	11.9	5.5	0.0				54.8	53.6	52.6
LnGrp LOS	A	B	B	B	A	A				D	D	D
Approach Vol, veh/h		1759			1137						926	
Approach Delay, s/veh		10.7			7.0						53.7	
Approach LOS		B			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		102.6		27.4	13.0	89.6						
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5						
Max Green Setting (Gmax), s		88.5		32.5	28.5	55.5						
Max Q Clear Time (g_c+I1), s		12.5		18.8	7.8	19.2						
Green Ext Time (p_c), s		7.1		4.1	0.7	14.9						

Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	30	46	44	44	0	39	0	48	0	0	0
Future Vol, veh/h	0	30	46	44	44	0	39	0	48	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	0	0	2	2	0	2	0	2	2	2
Mvmt Flow	0	33	51	49	49	0	43	0	53	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	84	0	0	206	206	59	232	231	49
Stage 1	-	-	-	-	-	-	59	59	-	147	147	-
Stage 2	-	-	-	-	-	-	147	147	-	85	84	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1526	-	-	756	691	1012	723	669	1020
Stage 1	-	-	-	-	-	-	958	846	-	856	775	-
Stage 2	-	-	-	-	-	-	860	775	-	923	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1526	-	-	737	668	1012	667	647	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	737	668	-	667	647	-
Stage 1	-	-	-	-	-	-	958	846	-	856	749	-
Stage 2	-	-	-	-	-	-	832	749	-	874	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.7	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	867	1558	-	-	1526	-	-	-
HCM Lane V/C Ratio	0.111	-	-	-	0.032	-	-	-
HCM Control Delay (s)	9.7	0	-	-	7.4	0	-	0
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	41	109	63	45	118
Future Vol, veh/h	50	41	109	63	45	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	51	42	111	64	46	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	355	143	0	0	175	0
Stage 1	143	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	647	910	-	-	1414	-
Stage 1	889	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	624	910	-	-	1414	-
Mov Cap-2 Maneuver	624	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	727	1414	-
HCM Lane V/C Ratio	-	-	0.128	0.032	-
HCM Control Delay (s)	-	-	10.7	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-