



181 WEST HIGH STREET
SOMERVILLE, NJ 08876

908 927 0100 p
908 927 0181 f

TRAFFIC IMPACT STUDY
FOR
SAI DATTA MANDIR, INC.

BLOCK 36.01, LOT 6.03
SOUTH MIDDLEBUSH ROAD
TOWNSHIP OF FRANKLIN, SOMERSET COUNTY

NOVEMBER 5, 2019

A handwritten signature in black ink, appearing to read "Gary W. Dean", written over a horizontal line.

GARY W. DEAN, P.E., P.P.
NJ LICENSE No. 33722

A handwritten signature in black ink, appearing to read "Elizabeth Dolan", written over a horizontal line.

ELIZABETH DOLAN, P.E.
NJ LICENSE No. 37071

TRAFFIC ENGINEERING
PARKING STUDIES
HIGHWAY DESIGN
DOT ACCESS PERMITS
MUNICIPAL CONSULTING

INTRODUCTION

A site plan application has been filed with Franklin Township for the construction of 28,400 square foot temple along South Middlebush Road. This traffic impact study has been prepared as part of the application to address the current and projected traffic conditions in the immediate site vicinity.

Dolan & Dean Consulting Engineers, LLC (D&D) has been commissioned by the applicant to prepare this Traffic Impact Study to determine the anticipated increase in traffic activity associated with the development proposal. This study evaluates the impacts of new site traffic on South Middlebush Road, and assess the driveway operations during periods of peak site activity.



EXISTING CONDITIONS

The subject property is located along southbound South Middlebush Road, south of Cortelyous Lane as shown on Figure 1. The site is designated as Lot 6.03, Block 36.01 in Franklin Township, Somerset County, and is currently undeveloped.

EXISTING ROADWAY CONDITIONS

South Middlebush Road has a north/south orientation and provides travel between Amwell Road to the north and Route 27 to the south. Within the general site vicinity, the roadway provides one travel lane in each direction with a posted speed limit of 45 miles per hour. South Middlebush Road is under Somerset County jurisdiction and is designated Route 615. NJDOT's Straight Line Diagram classifies South Middlebush Road as an urban minor arterial.



TRAFFIC CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

Modest activity is expected during the traditional weekday morning and evening peak hours. On weekdays between 7:00 a.m. and 9:00 a.m. fewer than 10 devotees may visit the temple on their way to work. With the exception of Thursdays, similar activity is expected between 4:00 p.m. and 6:00 p.m. Because the site will hold a service on Thursday nights, approximately 30 people may come to the site during the evening peak hour.

Maximum activity will occur on Thursday evenings with peak arrival between 7:00 p.m. and 8:00 p.m. The maximum temple occupancy is 587. Assuming three people per vehicle (as is used in the Township's parking calculation) 196 cars could conceivably enter the site from 7:00 p.m. to 8:00 p.m. At the end of the service, 196 vehicles could theoretically exit during the 9:00 p.m. to 10:00 p.m. hour.

Traffic volumes at the site driveway, using a 50/50 split to/from the north and to/from the south. Appended Figure 2 shows projected driveway volumes for the following peak hours:

- Weekday evening peak hour, 5:00 p.m. to 6:00 p.m.
- Thursday evening peak arrival hour, 7:00 p.m. to 8:00 p.m.
- Thursday evening peak departure hour, 9:00 p.m. to 10:00 p.m.

During the evening peak and Thursday peak arrival hours, little exiting traffic is expected. Figure 2 shows nominal exiting volumes for the purposes of analyzing the site driveway intersection with South Middlebush Road.



TRAFFIC VOLUMES

EXISTING TRAFFIC VOLUMES

D&D performed the automatic traffic counts on South Middlebush Road from Thursday, April 4, 2019 through Wednesday, April 10, 2019. Hourly counts were performed along northbound and southbound South Middlebush Road. The weekday volumes were averaged for use in evaluating future site driveway operations. The traffic counts are appended.

FUTURE TRAFFIC VOLUMES

Using the hourly count data combined with the peak hour trip generation, future traffic volumes were projected for the site driveway intersection with South Middlebush Road. NJDOT's 2019-2021 Somerset County growth rate of 1.0% for urban minor arterials was applied to the through volumes on South Middlebush Road, for a two-year build-out period. Future traffic volumes are shown on Figure 3.

Using the Highway Capacity Software, driveway analyses were performed and are appended. During the evening peak hour – when volumes are highest on South Middlebush Road - any vehicles waiting to leave the site will encounter delay as Level of Service “E” is calculated for the driveway egress. The left-turn into the site is calculated to operate at Level of Service “B.”

During the peak arrival hour on Thursday nights, Level of Service “D” is calculated for vehicles exiting the site. Level of Service “B” is calculated for the left-turn into the site.



For the peak departure hour, Level of Service “C” is calculated for vehicles leaving the site due to the lower volumes on South Middlebush Road during the later hour. Vehicles are not expected to enter the site during this hour.

Based on this analysis, ample capacity is available on South Middlebush Road to process peak Thursday night traffic volumes. Any delay exiting the site will be stored in the 580 foot long driveway without impacting on-site circulation and parking maneuvers.



SITE ACCESS, CIRCULATION & PARKING

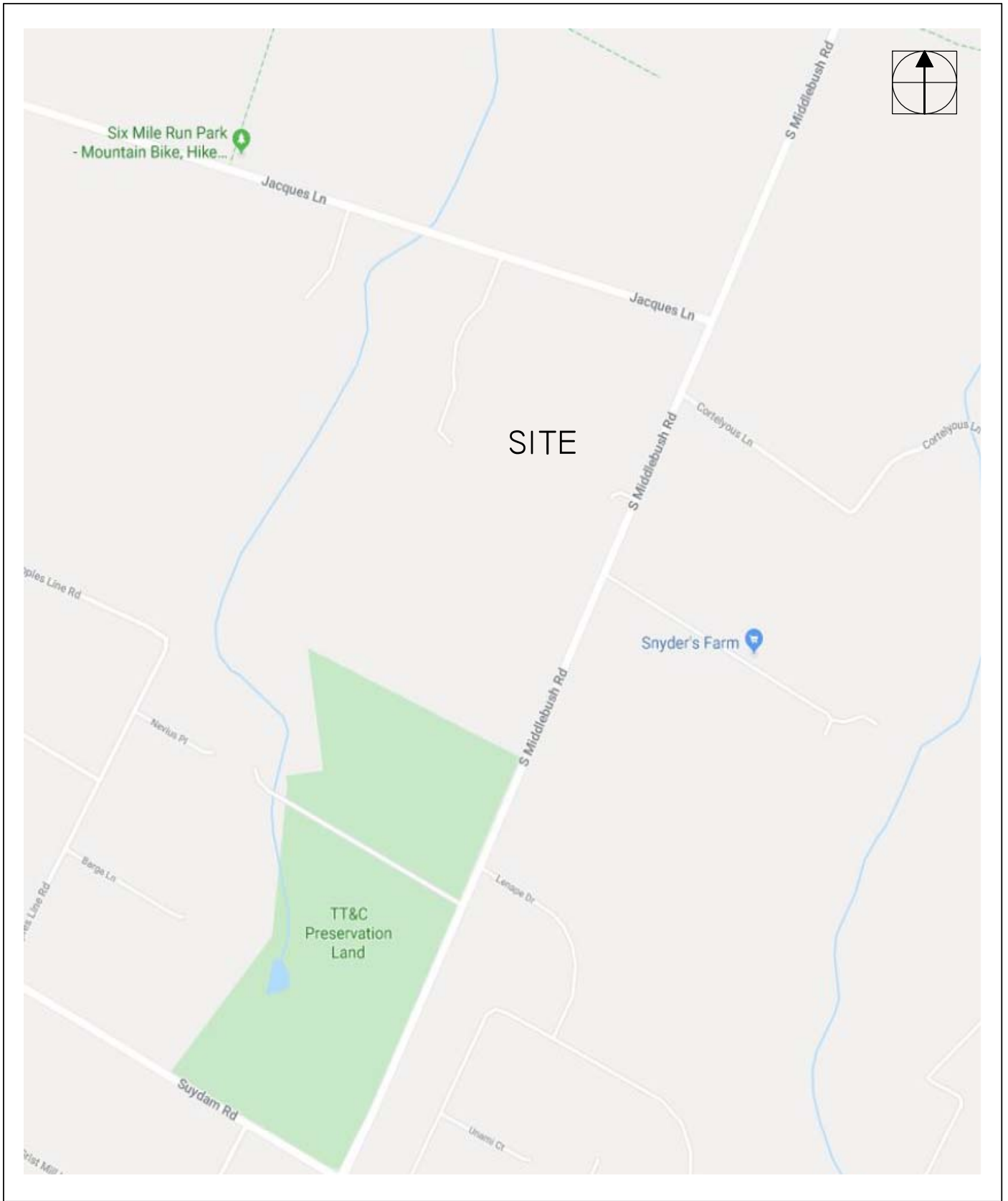
A traffic engineering review has been made of the Site Plan prepared by Crest Engineering Associates Inc. with particular attention focused on the site circulation scheme and overall site access. The following items address our review:

- Site access will be provided via one full-movement driveway, located along South Middlebush Road.
- 203 parking spaces are proposed on site, north of the temple, of which 8 will be handicap spaces. Conventional spaces will measure 9 feet by 18 feet, and handicap spaces are designed in accordance with ADA requirements.
- The driveway and two-way circulation aisles in the parking lot will be 25 feet wide. One-way circulation aisles will measure 16 feet in width.
- A 15-foot emergency access drive will allow access around the south side of the temple.

The site plan has been designed in accordance with recognized design guidelines to promote safe and efficient traffic flow, with ample room for parking maneuvers.



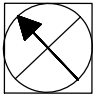
TECHNICAL APPENDIX



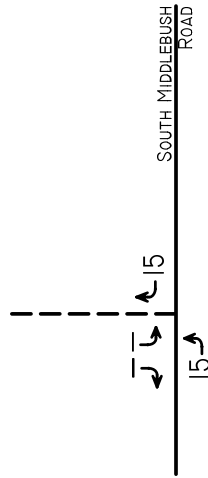
SAI DATTA MANDIR, INC.
TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

FIGURE 1



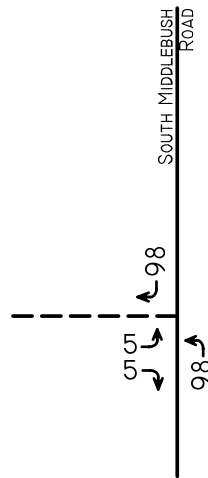


SITE



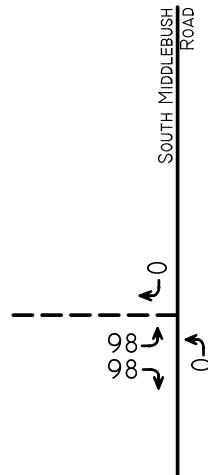
EVENING PEAK HOUR
5:00 P.M. TO 6:00 P.M.

SITE



THURSDAY ARRIVAL PEAK HOUR
7:00 P.M. TO 8:00 P.M.

SITE



THURSDAY DEPARTURE PEAK HOUR
9:00 P.M. TO 10:00 P.M.

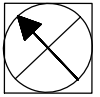
Legend

- = Existing Roadway
- = Proposed Driveway

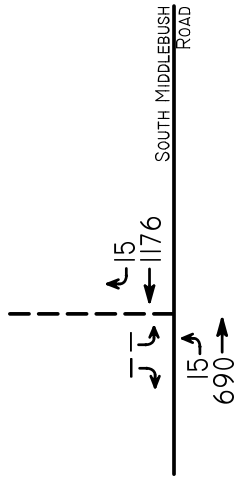
SAI DATTA MANDIR, INC.
TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

FIGURE 2



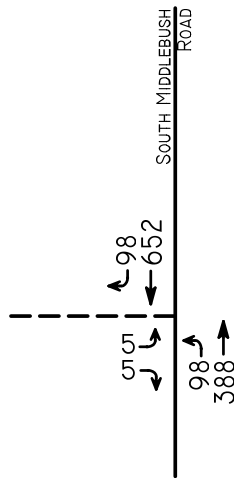


SITE



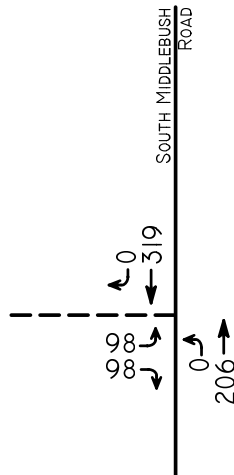
EVENING PEAK HOUR
5:00 P.M. TO 6:00 P.M.

SITE



THURSDAY ARRIVAL PEAK HOUR
7:00 P.M. TO 8:00 P.M.

SITE



THURSDAY DEPARTURE PEAK HOUR
9:00 P.M. TO 10:00 P.M.

Legend

- = Existing Roadway
- = Proposed Driveway

SAI DATTA MANDIR, INC.
TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

FIGURE 3



| START TIME | THURS 4/4/2019 | | | FRI 4/5/2019 | | | MON 4/8/2019 | | | TUES 4/9/2019 | | | WED 4/10/2019 | | | AVERAGE WEEKDAY | | |
|------------|----------------|-------|-------|--------------|-------|-------|--------------|-------|-------|---------------|------|-------|---------------|-------|-------|-----------------|-------|-------|
| | NB | SB | TOTAL | NB | SB | TOTAL | NB | SB | TOTAL | NB | SB | TOTAL | NB | SB | TOTAL | NB | SB | TOTAL |
| 12:00 AM | 31 | 56 | 87 | 48 | 63 | 111 | 33 | 44 | 77 | 17 | 59 | 76 | 28 | 45 | 73 | 31 | 53 | 85 |
| 1:00 AM | 19 | 31 | 50 | 20 | 27 | 47 | 16 | 24 | 40 | 18 | 32 | 50 | 10 | 21 | 31 | 17 | 27 | 44 |
| 2:00 AM | 13 | 15 | 28 | 12 | 22 | 34 | 10 | 15 | 25 | 7 | 16 | 23 | 16 | 18 | 34 | 12 | 17 | 29 |
| 3:00 AM | 11 | 17 | 28 | 20 | 30 | 50 | 8 | 18 | 26 | 13 | 14 | 27 | 17 | 10 | 27 | 14 | 18 | 32 |
| 4:00 AM | 35 | 33 | 68 | 40 | 32 | 72 | 42 | 23 | 65 | 41 | 33 | 74 | 46 | 31 | 77 | 41 | 30 | 71 |
| 5:00 AM | 201 | 84 | 285 | 195 | 78 | 273 | 185 | 89 | 274 | 220 | 84 | 304 | 200 | 92 | 292 | 200 | 85 | 286 |
| 6:00 AM | 727 | 313 | 1040 | 675 | 290 | 965 | 728 | 292 | 1020 | 752 | 316 | 1068 | 758 | 347 | 1105 | 728 | 312 | 1040 |
| 7:00 AM | 1290 | 604 | 1894 | 1186 | 594 | 1780 | 1231 | 634 | 1865 | 1234 | 637 | 1871 | 1230 | 653 | 1883 | 1234 | 624 | 1859 |
| 8:00 AM | 1210 | 643 | 1853 | 1114 | 609 | 1723 | 1215 | 619 | 1834 | 1275 | 593 | 1868 | 1159 | 635 | 1794 | 1195 | 620 | 1814 |
| 9:00 AM | 806 | 428 | 1234 | 680 | 446 | 1126 | 832 | 430 | 1262 | 791 | 431 | 1222 | 793 | 459 | 1252 | 780 | 439 | 1219 |
| 10:00 AM | 466 | 340 | 806 | 433 | 342 | 775 | 501 | 310 | 811 | 469 | 342 | 811 | 491 | 396 | 887 | 472 | 346 | 818 |
| 11:00 AM | 408 | 387 | 795 | 409 | 341 | 750 | 367 | 375 | 742 | 374 | 337 | 711 | 407 | 372 | 779 | 393 | 362 | 755 |
| 12:00 PM | 423 | 401 | 824 | 404 | 441 | 845 | 383 | 372 | 755 | 383 | 396 | 779 | 372 | 428 | 800 | 393 | 408 | 801 |
| 1:00 PM | 404 | 450 | 854 | 465 | 454 | 919 | 432 | 410 | 842 | 369 | 436 | 805 | 432 | 472 | 904 | 420 | 444 | 865 |
| 2:00 PM | 544 | 601 | 1145 | 558 | 670 | 1228 | 432 | 634 | 1066 | 514 | 575 | 1089 | 510 | 620 | 1130 | 512 | 620 | 1132 |
| 3:00 PM | 570 | 874 | 1444 | 536 | 964 | 1500 | 554 | 857 | 1411 | 562 | 865 | 1427 | 537 | 825 | 1362 | 552 | 877 | 1429 |
| 4:00 PM | 712 | 1094 | 1806 | 700 | 1048 | 1748 | 682 | 1087 | 1769 | 697 | 1132 | 1829 | 641 | 1143 | 1784 | 686 | 1101 | 1787 |
| 5:00 PM | 674 | 1218 | 1892 | 669 | 1123 | 1792 | 676 | 1158 | 1834 | 691 | 1123 | 1814 | 675 | 1144 | 1819 | 677 | 1153 | 1830 |
| 6:00 PM | 613 | 1033 | 1646 | 590 | 923 | 1513 | 533 | 1043 | 1576 | 596 | 982 | 1578 | 611 | 1013 | 1624 | 589 | 999 | 1587 |
| 7:00 PM | 364 | 751 | 1115 | 434 | 579 | 1013 | 344 | 630 | 974 | 351 | 591 | 942 | 408 | 645 | 1053 | 380 | 639 | 1019 |
| 8:00 PM | 271 | 536 | 807 | 251 | 367 | 618 | 220 | 438 | 658 | 233 | 403 | 636 | 263 | 398 | 661 | 248 | 428 | 676 |
| 9:00 PM | 198 | 409 | 607 | 237 | 340 | 577 | 192 | 275 | 467 | 187 | 271 | 458 | 195 | 270 | 465 | 202 | 313 | 515 |
| 10:00 PM | 140 | 213 | 353 | 205 | 317 | 522 | 110 | 145 | 255 | 117 | 139 | 256 | 116 | 130 | 246 | 138 | 189 | 326 |
| 11:00 PM | 65 | 118 | 183 | 110 | 209 | 319 | 55 | 103 | 158 | 78 | 85 | 163 | 53 | 85 | 138 | 72 | 120 | 192 |
| 24 HOUR | 10195 | 10649 | 20844 | 9991 | 10309 | 20300 | 9781 | 10025 | 19806 | 9989 | 9892 | 19881 | 9968 | 10252 | 20220 | 9985 | 10225 | 20210 |

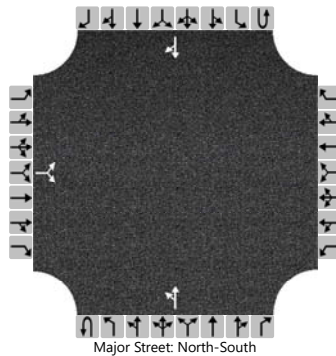
| START TIME | SAT 4/6/2019 | | | SUN 4/7/2019 | | |
|------------|--------------|------|-------|--------------|------|-------|
| | NB | SB | TOTAL | NB | SB | TOTAL |
| 12:00 AM | 63 | 122 | 185 | 85 | 125 | 210 |
| 1:00 AM | 23 | 56 | 79 | 59 | 95 | 154 |
| 2:00 AM | 18 | 32 | 50 | 24 | 45 | 69 |
| 3:00 AM | 17 | 18 | 35 | 13 | 20 | 33 |
| 4:00 AM | 35 | 26 | 61 | 11 | 13 | 24 |
| 5:00 AM | 78 | 35 | 113 | 44 | 19 | 63 |
| 6:00 AM | 155 | 95 | 250 | 98 | 66 | 164 |
| 7:00 AM | 299 | 208 | 507 | 194 | 108 | 302 |
| 8:00 AM | 517 | 298 | 815 | 338 | 162 | 500 |
| 9:00 AM | 633 | 426 | 1059 | 488 | 293 | 781 |
| 10:00 AM | 555 | 468 | 1023 | 475 | 365 | 840 |
| 11:00 AM | 587 | 578 | 1165 | 510 | 1026 | 1536 |
| 12:00 PM | 673 | 705 | 1378 | 494 | 571 | 1065 |
| 1:00 PM | 606 | 669 | 1275 | 535 | 551 | 1086 |
| 2:00 PM | 635 | 627 | 1262 | 571 | 598 | 1169 |
| 3:00 PM | 630 | 630 | 1260 | 487 | 594 | 1081 |
| 4:00 PM | 552 | 642 | 1194 | 509 | 597 | 1106 |
| 5:00 PM | 603 | 640 | 1243 | 434 | 517 | 951 |
| 6:00 PM | 529 | 514 | 1043 | 339 | 533 | 872 |
| 7:00 PM | 353 | 466 | 819 | 325 | 399 | 724 |
| 8:00 PM | 244 | 379 | 623 | 280 | 315 | 595 |
| 9:00 PM | 233 | 309 | 543 | 145 | 230 | 375 |
| 10:00 PM | 233 | 299 | 532 | 117 | 147 | 264 |
| 11:00 PM | 174 | 263 | 437 | 62 | 88 | 150 |
| 24 HOUR | 8446 | 8505 | 16951 | 6637 | 6967 | 13604 |



HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|----------------------------|------------------------|------------------|--|--|--|
| Analyst | D&D | Intersection | South Middlebush & Dwy | | | | |
| Agency/Co. | | Jurisdiction | | | | | |
| Date Performed | NOV 2019 | East/West Street | Site Driveway | | | | |
| Analysis Year | 2019 | North/South Street | South Middlebush Road | | | | |
| Time Analyzed | PM Peak Hour | Peak Hour Factor | 0.92 | | | | |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | Sai Datta Mandir | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|------|----|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 1 | | 1 | | | | | | 15 | 690 | | | | 1176 | 15 |
| Percent Heavy Vehicles (%) | | 0 | | 0 | | | | | | 0 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.40 | | 6.20 | | | | | | 4.10 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.50 | | 3.30 | | | | | | 2.20 | | | | | | |

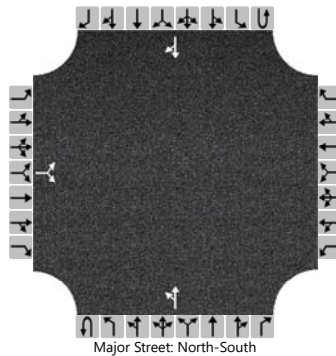
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 2 | | | | | | | 16 | | | | | | |
| Capacity, c (veh/h) | | | 89 | | | | | | | 542 | | | | | | |
| v/c Ratio | | | 0.02 | | | | | | | 0.03 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | | | | 0.1 | | | | | | |
| Control Delay (s/veh) | | | 46.3 | | | | | | | 11.8 | | | | | | |
| Level of Service (LOS) | | | E | | | | | | | B | | | | | | |
| Approach Delay (s/veh) | 46.3 | | | | | | | | 0.8 | | | | | | | |
| Approach LOS | E | | | | | | | | | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | D&D | | | Intersection | South Middlebush & Dwy | | |
| Agency/Co. | | | | Jurisdiction | | | |
| Date Performed | NOV 2019 | | | East/West Street | Site Driveway | | |
| Analysis Year | 2019 | | | North/South Street | South Middlebush Road | | |
| Time Analyzed | Arrival Peak Hour | | | Peak Hour Factor | 0.80 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Sai Datta Mandir | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 5 | | 5 | | | | | | 98 | 388 | | | | 652 | 98 |
| Percent Heavy Vehicles (%) | | 0 | | 0 | | | | | | 0 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.40 | | 6.20 | | | | | | 4.10 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.50 | | 3.30 | | | | | | 2.20 | | | | | | |

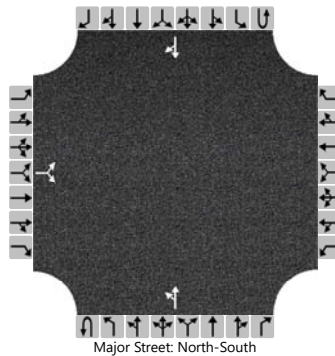
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|--|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 13 | | | | | | | 123 | | | | | | |
| Capacity, c (veh/h) | | | 144 | | | | | | | 739 | | | | | | |
| v/c Ratio | | | 0.09 | | | | | | | 0.17 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.3 | | | | | | | 0.6 | | | | | | |
| Control Delay (s/veh) | | | 32.4 | | | | | | | 10.8 | | | | | | |
| Level of Service (LOS) | | | D | | | | | | | B | | | | | | |
| Approach Delay (s/veh) | 32.4 | | | | | | | | 4.1 | | | | | | | |
| Approach LOS | D | | | | | | | | | | | | | | | |

HCS7 Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|---------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | D&D | | | Intersection | South Middlebush & Dwy | | |
| Agency/Co. | | | | Jurisdiction | | | |
| Date Performed | NOV 2019 | | | East/West Street | Site Driveway | | |
| Analysis Year | 2019 | | | North/South Street | South Middlebush Road | | |
| Time Analyzed | Departure Peak Hour | | | Peak Hour Factor | 0.80 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Sai Datta Mandir | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 98 | | 98 | | | | | | 0 | 206 | | | | 319 | 0 |
| Percent Heavy Vehicles (%) | | 0 | | 0 | | | | | | 0 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|--|------|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | | 4.1 | | | | | |
| Critical Headway (sec) | | 6.40 | | 6.20 | | | | | | | 4.10 | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | | 2.2 | | | | | |
| Follow-Up Headway (sec) | | 3.50 | | 3.30 | | | | | | | 2.20 | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|--|------|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 245 | | | | | | | | 0 | | | | | |
| Capacity, c (veh/h) | | | 522 | | | | | | | | 1171 | | | | | |
| v/c Ratio | | | 0.47 | | | | | | | | 0.00 | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 2.5 | | | | | | | | 0.0 | | | | | |
| Control Delay (s/veh) | | | 17.9 | | | | | | | | 8.1 | | | | | |
| Level of Service (LOS) | | | C | | | | | | | | A | | | | | |
| Approach Delay (s/veh) | 17.9 | | | | | | | | 0.0 | | | | | | | |
| Approach LOS | C | | | | | | | | | | | | | | | |