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TRAFFIC IMPACT ASSESSMENT

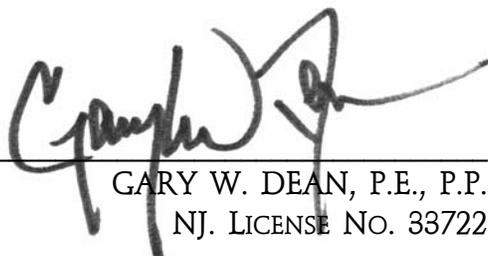
FOR

ADVANCE REALTY CENTER OF EXCELLENCE

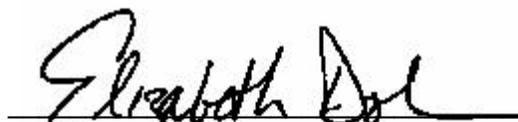
PROPOSED
MIXED-USE DEVELOPMENT

ROUTE 202/206 SOUTHBOUND, MP 28.10
BLOCK 483; LOTS 17, 18, & 19
BRIDGEWATER TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

MAY 9, 2018



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



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INTRODUCTION

Dolan & Dean Consulting Engineers, LLC (D&D) has been commissioned by the applicant to prepare this Traffic Impact Assessment for submission to Bridgewater Township for the proposed mixed-use, redevelopment of the Center of Excellence. While the pending application consists of only the first, commercial phase, this study considers the impacts of the total site development which will include a subsequent site plan application for a residential component.

The access points to the overall development will be via the existing traffic-signal controlled site driveway access across from Muirfield Lane along Route 202/206 and the second site access at 4th Street. As required under the Redevelopment Ordinance, the 4th Street access will be upgraded to include a traffic signal, if permitted by NJDOT.

This traffic impact study evaluates the anticipated changes in traffic activity associated with the redevelopment proposal at select study locations that were determined in both the Township Redevelopment Agreement as well as a Scope of Study dated December 12, 2016, and approved by NJDOT on March 7, 2017, pursuant to the parameters of the State Highway Access Management Code.

In 2002, a Highway Access Permit (A-202-C-C273-2000) was issued by NJDOT for the site to allow up to 1,217,400 square feet of research/development and office space, which has been historically occupied by Sanofi Aventis and now is occupied by other, multiple smaller tenants. The redevelopment proposal includes demolition of certain buildings primarily used for office space to be replaced with a mixed-use development.



The redevelopment proposes the following uses and sizes:

Phase I (current application):

- Retail/commercial shopping center 142,900 square feet
- Hotel 124 rooms
- Medical Office/Wellness Center 30,433 square feet
- Office 67,501 square feet

Phase II (subsequent application)

- Residential 400 apartments

As noted, the residential portion of the development is not included in the subject application. However, this report addresses the aggregated traffic impacts of the full development, including the residential units.

These new site components will replace a large portion of the approved research & development space with 732,438 square feet to remain.

The intersections studied in this analysis are listed below, from south to north along the Route 202/206 corridor:

- Route 202/206 and Talamini Road (Saturday only)
- Route 202/206 and Foothill Road (evening and Saturday)
- Route 202/206 and Site Access (4th Street) (evening and Saturday)
- Route 202/206 and Muirfield Lane/Site Access (evening and Saturday)
- Route 202/206 and Brown Road (evening and Saturday)
- Route 202/206 and Old Farm Road (Saturday only)

The peak hours of study were determined as required under the NJDOT Access Code due to the net traffic impacts between the elimination of existing space and replacement with the proposed mixed-uses.



EXISTING CONDITIONS

The subject property is located along southbound Route 202/206, at MP 28.10, directly across from Muirfield Lane. The following is a brief description of the roadways and intersection configuration of each location studied.

US Route 202/206 is under the jurisdiction of the New Jersey Department of Transportation as is classified as an urban principal arterial in the site vicinity. It has a general north-south orientation and provides access to other major highways including Route 22, I-287, and I-78. One lane of undivided travel is provided for each direction and the legal speed limit is 50 miles per hour in the immediate site vicinity.

Talamini Road intersects Route 202/206 from the west to form a T-shaped signalized intersection. The intersection operates with a three-phase traffic signal, with a northbound advance left-turn phase. The eastbound Talamini Road approach to the intersection provides separate left-turn and right-turn lanes. The northbound Route 202/206 approach provides an exclusive left-turn lane and an exclusive through lane. The southbound Route 202/206 approach provides one lane for through movements and right-turn movements.

West Foothill Road and Foothill Road intersect Route 202/206 from the west and east, respectively and are approximately 150 feet apart. The West Foothill Road approach provides one lane for left and right turns. The northbound Route 202/206 approach at West Foothill Road provides one lane for through and turning movements. The southbound approach provides one through/right-turn lane and a dedicated left-turn lane for turns onto eastbound Foothill Road.

Foothill Road approaches Route 202/206 from the east to intersect at an unsignalized T-shaped intersection. The northbound Route 202/206 approach provide one lanes for through and right-turn movements. The southbound approach has an exclusive left-turn and an



exclusive through lane. Foothill Road has one lane for left and right turns onto Route 202/206.

Fourth Street operates as a secondary, unsignalized access from the subject property. It approaches Route 202/206 from the west to form a T-shaped intersection with separate lanes provided for left and right turns. Route 202/206 southbound provides one shared lane for through movements and right-turns into Fourth Street. The northbound approach provides a dedicated left-turn lane and an exclusive through lane.

Muirfield Lane intersects Route 202/206 from the east directly opposite the driveway for the subject property. The site access, Muirfield Lane, and Route 202/206 form a four-leg signalized intersection. The eastbound site access provides a shared left-turn/through lane and an exclusive right-turn lane. Muirfield Lane provides one lane for all turning movements. The northbound Route 202/206 approach provides one exclusive left-turn lane and one shared through/right-turn lane. Southbound Route 202/206 provides exclusive lanes for left-turns, through movements, and right-turns.

Brown Road intersects Route 202/206 from the east directly across from an access to a Temple. The roadways intersect to form a four-leg signalized intersection. The northbound and southbound Route 202/206 approaches both provide exclusive left-turn lanes and shared through/right-turn lanes. The Brown Road approach provides one-lane for all turning movements. The Temple driveway provides a shared left-turn/through lane and an exclusive right-turn lane, which is yield controlled.

Old Farm Road intersects Route 202/206 from the east directly across from a residential development access. The roadways form a four-leg unsignalized intersection with Old Farm Road and the residential development access STOP controlled. The eastbound, westbound, and northbound approaches all provide one lane for all turning movements. The southbound Route 202/206 approach provides an exclusive left-turn lane and a shared through/right-turn lane.



EXISTING TRAFFIC VOLUMES

As prescribed under the NJDOT Access Code, certain intersections must be evaluated if the projected site traffic impacts exceed a defined level that could lead to changes in operating conditions or Levels of Service. Furthermore, the Township Redevelopment Agreement also specified locations to be studied and/or improved, regardless of any additional requirements by NJDOT.

Consequently, the analysis of site traffic impacts is required at various intersections along the Route 202/206 corridor. Accordingly, D&D performed the following traffic counts:

Route 202/206 and Talamini Road

- Saturday, April 1, 2017 from 10:30 a.m. to 2:00 p.m.

Route 202/206 and Foothill Road/West Foothill Road

- Saturday, March 18, 2017 from 10:30 a.m. to 2:00 p.m.
- Tuesday, March 21, 2017 from 4:30 p.m. to 6:30 p.m.

Route 202/206 and Southern Access (4th Street)

- Tuesday, April 4, 2017 from 4:00 p.m. to 6:30 p.m.

Route 202/206 and Site Access/Muirfield Lane

- Thursday, March 30, 2017 from 4:00 p.m. to 6:30 p.m.
- Saturday, April 1, 2017 from 10:30 a.m. to 2:00 p.m.

Route 202/206 and Brown Road

- Saturday, March 18, 2017 from 10:30 a.m. to 2:00 p.m.
- Tuesday, March 21, 2017 from 4:30 p.m. to 6:30 p.m.

Route 202/206 and Old Farm Road

- Saturday, April 8, 2017 from 10:30 a.m. to 2:00 p.m.

The counts are contained in Appendix A, along with the NJDOT signal timing directives, which reflect the programming for the intersection operations.



TRIP GENERATION

A detailed trip generation analysis was performed for the current development yield using industry standard data compiled by the Institute of Transportation Engineers (ITE) in the 10th Edition of the Trip Generation Manual, 2017. Table I summarizes the individual component trip generation for each of the proposed uses based on ITE data.

TABLE I
PROJECTED TRAFFIC GENERATION
PROPOSED CENTER OF EXCELLENCE REDEVELOPMENT

Land Use	Evening Peak Hour		Saturday Peak Hour	
	Enter	Exit	Enter	Exit
Phase I				
30,433 SF Wellness	29	76	57	43
124 Room Hotel	43	45	52	52
142,900 SF Shopping Center	340	368	426	395
67,501 SF Office	13	65	19	17
Phase II				
400 Residential Units	141	83	137	143

For the mixed-use site at full development, it is expected that there will internal synergy among the components with some of the traffic remaining on-site or at least linked between uses. For example, at the end of a business day, some office employees may remain on-site and visit a restaurant or the wellness center before leaving outside the peak hour. Other employees may first stop at the proposed food market prior to exiting. Site residents may stop at the food market before arriving home. Each of these “internal” trips must be considered to evaluate the actual, net traffic impacts on the roads surrounding the site.

Therefore, once the individual trip generation associated with each site component is calculated, internal, “linked” volumes that would travel among the uses and remain on-site are then determined using the ITE methodology for a multi-use development for the evening peak hour. Internal trip credits were taken using both the 2nd and 3rd Edition’s of ITE’s Trip



Generation Handbook. The calculations resulted in a 21% internal credit among the different uses during the evening peak hour.

A 15% internal credit has been applied to the Saturday peak hour as no data is available but internal trips would obviously occur. The 15% follows past practices allowed by NJDOT for other comparable mixed use sites. The resultant external trips that would be used for analysis purposes at each site access are summarized below. It should be noted that no internal credits were considered for the proposed office and the existing research & development buildings. Therefore the external volumes illustrated in Table II below can be considered conservative and vehicle activity at the site driveways will be lower.

TABLE II
EXTERNAL TRIPS
PROPOSED REDEVELOPMENT

Land Use	Evening Peak Hour		Saturday Peak Hour	
	Enter	Exit	Enter	Exit
Phase I				
30,433 SF Wellness	21	56	49	37
124 Room Hotel	32	38	44	44
142,900 SF Shopping Center	288	309	362	336
67,501 SF Office	13	65	19	17
Phase II				
400 Residential Units	92	49	117	122
Total	446	517	591	556

In addition to the land uses proposed, there is a portion of the existing research & development space that is currently unoccupied. Approximately 125,000 square feet of the 732,438 square feet R&D space (to remain) was unoccupied during the site driveway counts. In addition, 20,000 square feet of the existing is currently space was occupied by Advance Realty's offices, the occupancy of which will cease to facilitate the redevelopment. Consequently, this existing traffic will be eliminated from the site. Table III shows the evening R&D trip generation for the vacant space. Additional Saturday trip generation for



the vacant space was not considered as currently the existing R&D space experiences very little activity.

TABLE III
VACANT R&D TRIP GENERATION ADJUSTMENTS

Land Use	Evening Peak Hour	
	Enter	Exit
Existing 20,000 SF – Advance Realty Office – ITE 10 th Edition	-4	-21
Existing Site Volumes 607,438 R&D & Advance Realty	14	153
607,438 R&D without Advance Realty Office	10	132
Approximately 125,000 SF Vacant R&D	2	27

In addition to the internal trips that are inherent within a mixed-use site, certain other site visits will be made as a matter of convenience by ambient traffic that will find the site to be a convenient stop enroute to another, primary-purpose trip (e.g., a commuting or other errand-type trip). This type of traffic movement would simply be diverted from (primarily) Route 202/206 and would exist irrespective of the site redevelopment.

Pass-by trips were calculated by applying 34% and 26% to only the external retail volumes, during the evening and Saturday peak hours, respectively. Table IV shows the new and pass-by trips, associated with the combined redevelopment components.

TABLE IV
PASS-BY TRIPS
PROPOSED REDEVELOPMENT

Trip Type	Evening Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Pass-by	98	98	196	88	88	176
New	350	446	796	503	468	971
Total	448	544	992	591	556	1,147

Site generated traffic was then distributed according to a Gravity Model Analysis following the projected market area for retail trips and using NJDOT and ITE guidelines. The Gravity Model summary, Trip Generation and traffic volume worksheets are contained in Appendix B.



FUTURE TRAFFIC CONDITIONS

For this scenario, a six-year development build out horizon has been assumed, allowing for agency approvals and permitting, construction, occupancy and absorption. As such, existing traffic counts were expanded by the NJDOT required 1.0% annual background traffic growth rate for a six-year period to create a 2023 “no-build” traffic condition. There are no other approved or pending major developments that would affect the evening or Saturday peak hour conditions on Route 202/206. The existing site traffic at the driveways was then reduced by 38% to account for the removal of existing operating facilities on-site. Site generated traffic was then added to these volumes to establish the 2023 “build” volumes.

TRAFFIC ANALYSIS

The results of the Level of Service calculations are discussed below and illustrated in Figures 11, 12 and 13. The Highway Capacity Software summary worksheets are contained in Appendix C.

Route 202/206 and Talamini Road The additional site traffic will have no impacts on the Levels of Service at this intersection during the Saturday peak hour.

Route 202/206 and Foothill Road During the evening peak hour, the movements from Foothill Road to the highway will continue to operate at Level of Service “F” with or without the additional site traffic. Because it is anticipated that site traffic will impact this intersection and as requested by the Township, a traffic signal is proposed at this location. Along with the signal, the Foothill Road approach would be widened to provide separate lanes for left and right turns. Under signal control, movements at this intersection can be significantly improved to operate at Level of Service “C” or better during both peak hours.

Route 202/206 and West Foothill Road The additional site traffic will have minimal impacts on the Levels of Service at this intersection during the evening and Saturday peak hours. All movements will operate at Level of Service “C” or better.



Route 202/206 and Site Access (4th Street) As required by the Redevelopment Agreement, a form of traffic signal control is desired at this intersection, subject to NJDOT review and approval. The intent of the signal is to improve overall safety, enhance the highway operations and accommodate the new site traffic. To meet the NJDOT LOS and delay standards for new traffic signal operations, it would be appropriate to widen the highway to provide the southbound Route 202/206 approach with an exclusive through lane and a shared through/right-turn lane. Under signal control, movements at this intersection will operate at Level of Service “C” or better during both peak hours.

Route 202/206 and Site Access/Muirfield Road The southbound through movement at this intersection will operate with delays at Level of Service “F” with or without the proposed redevelopment. To improve traffic flow in this direction, the southbound exclusive right-turn lane would be converted to allow a second lane for southbound through movements as well. This change would also require a second southbound receiving lane continuing along the site frontage through the intersection and continuing to 4th Street. With this lane conversion, all traffic movements can operate at Level of Service “C” or better during both peak hours, thus substantially improving traffic operations on the highway and eliminating an existing point of congestion.

Route 202/206 and Brown Road The subject intersection and its relative location to the proposed development will accommodate a fair percentage of new site traffic. However, based upon the analysis, minimal degradations in Levels of Service are projected to occur. With the proposed redevelopment, all movements will operate at Levels of Service “D” or better during both peak hours.

Route 202/206 and Old Farm Road The subject intersection and its relative location to the proposed development will also accommodate a fair percentage of new site traffic. However, based upon the analysis, minimal degradations in Levels of Service will occur. With the proposed redevelopment, all movements will operate at Levels of Service “D” or better during the studied peak hour.

Finally, as stipulated in the Redevelopment Agreement, the applicant is obligated to implement other, off-tract highway improvements. Specifically, the highway pavement section is required to be improved (again, subject to NJDOT approval) to accommodate full



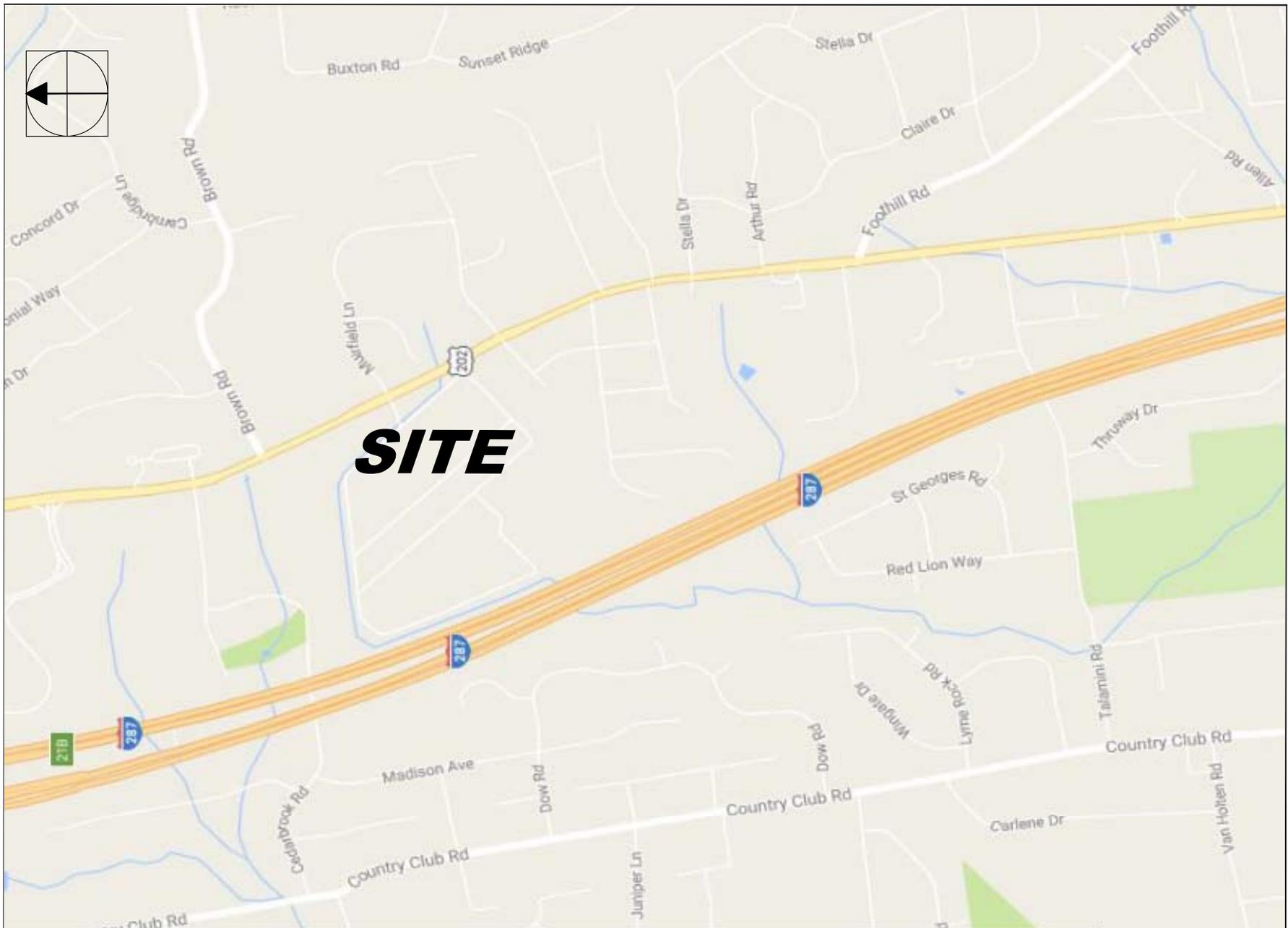
paved shoulders at each of the local street intersections along US Route 202/206 between Foothill Road and the Southern Center of Excellence driveway (4th Street) as well as such other traffic improvements as may be required by the Township Planning Board. These could include striped, dedicated left turn lanes at certain, higher-volume locations that do not have (nor are proposed) for traffic signal controlled operations. These locations include:

- Heather Hill Way
- Byrd Avenue
- Bluestone Lane
- Harding Road
- Carnousie Drive
- Stella Drive
- Arthur Road

While the highway corridor improvements are specified in the Redevelopment Ordinance and will be implemented as a condition of approval, conceptual illustrations/renderings for each location are featured on the following pages. Design engineering would be completed for these concepts once any local approvals are granted as part of the applicant's obligation to mitigate off-tract traffic impacts. Without approval of the subject application, the design effort for the highway enhancements would be premature.

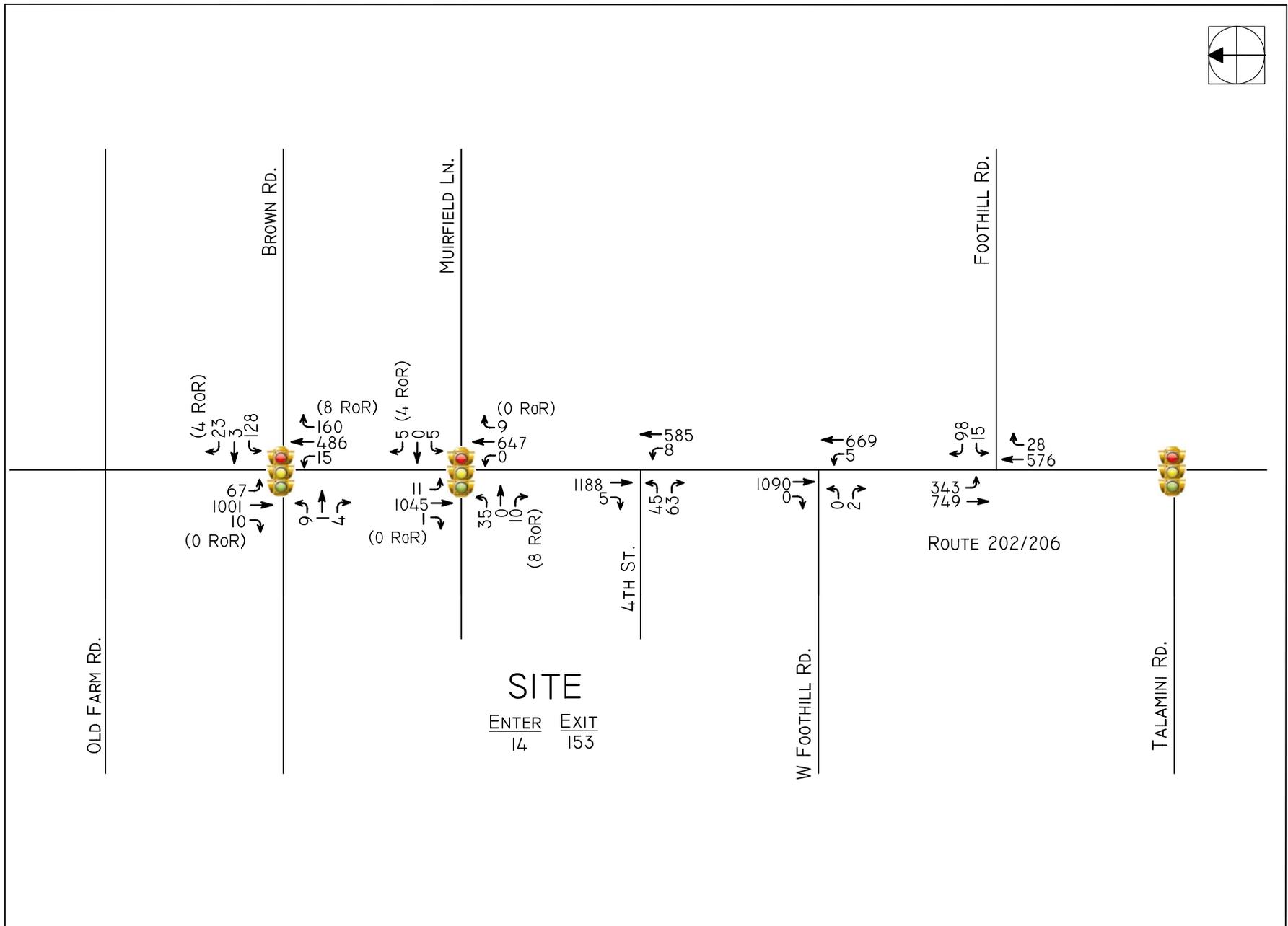
As part of the NJDOT review and permitting process, the existing construction plans will be reviewed and/or core sample taken to ascertain the existing shoulder sections along Route 202/206. Following this design review and where required, the shoulder sections will be reconstructed or widened (within the existing right-of-way and subject to avoiding any structural obstructions or requiring utility relocations), these intersections will be upgraded for improved safety and operation conditions along the highway.





CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE 1

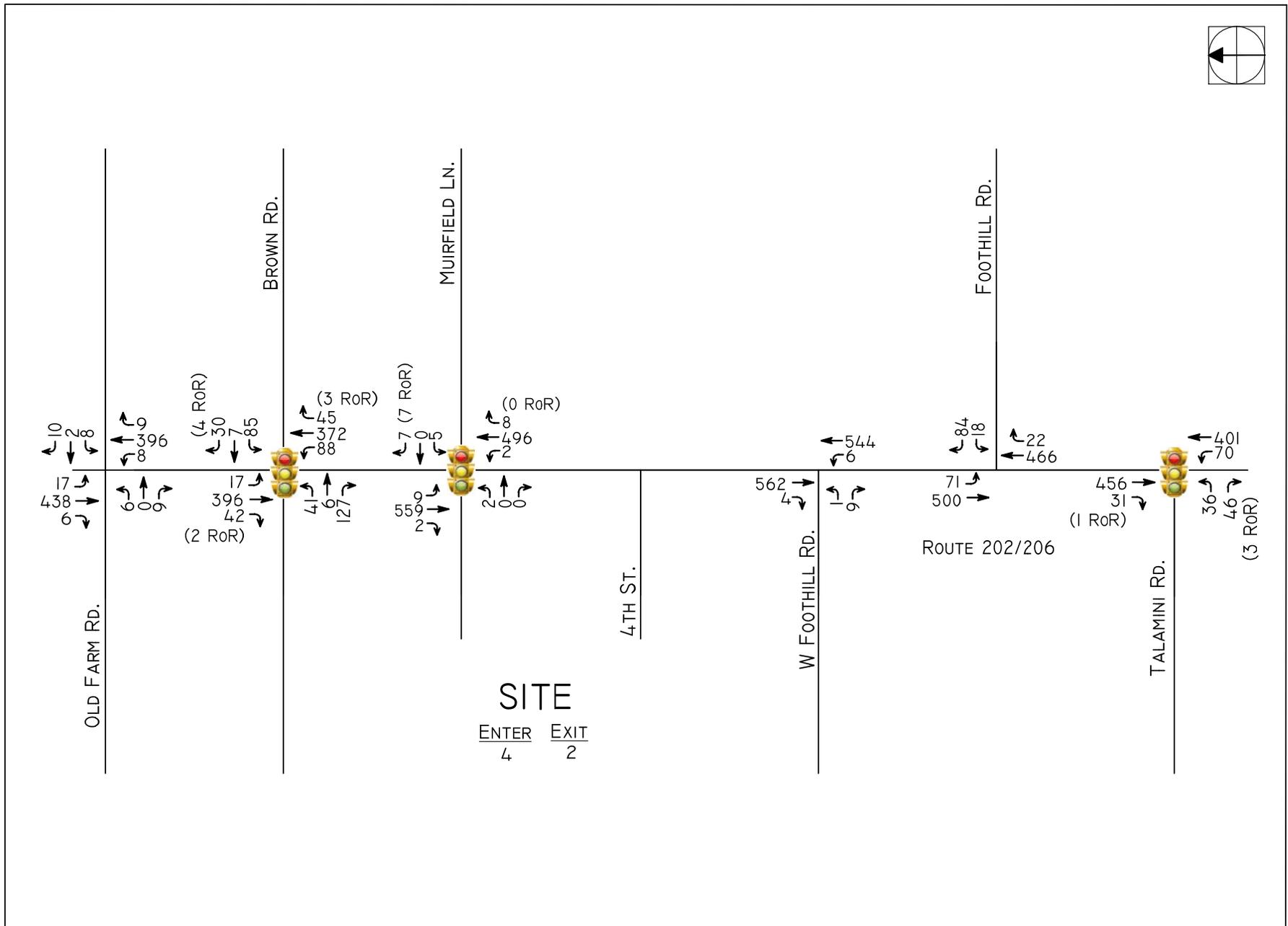


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 2



2017 EXISTING TRAFFIC VOLUMES
 EVENING PEAK HOUR (5:00 PM TO 6:00 PM)

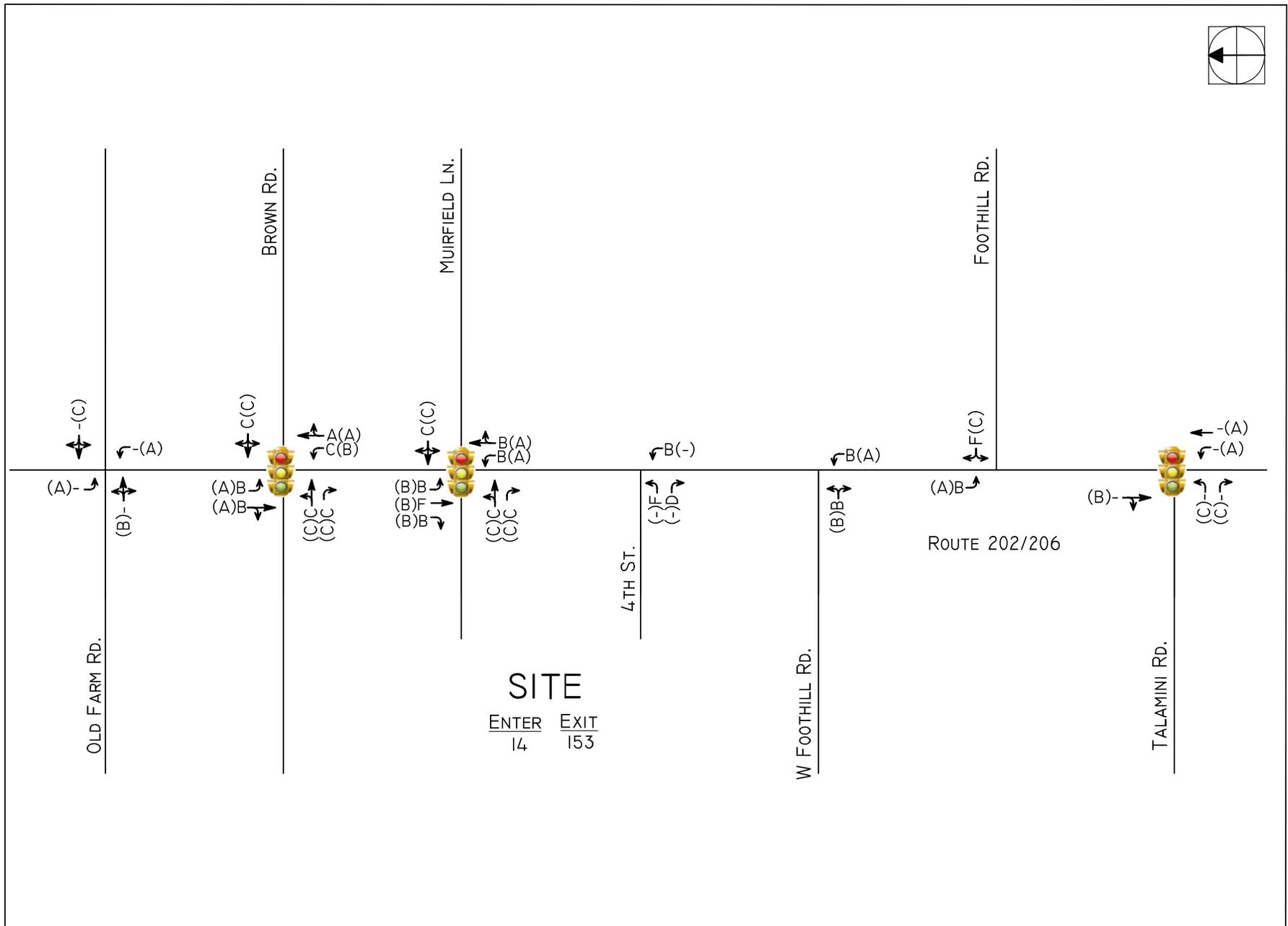


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 3



2017 EXISTING TRAFFIC VOLUMES
 SATURDAY (12:30 PM TO 1:30 PM)

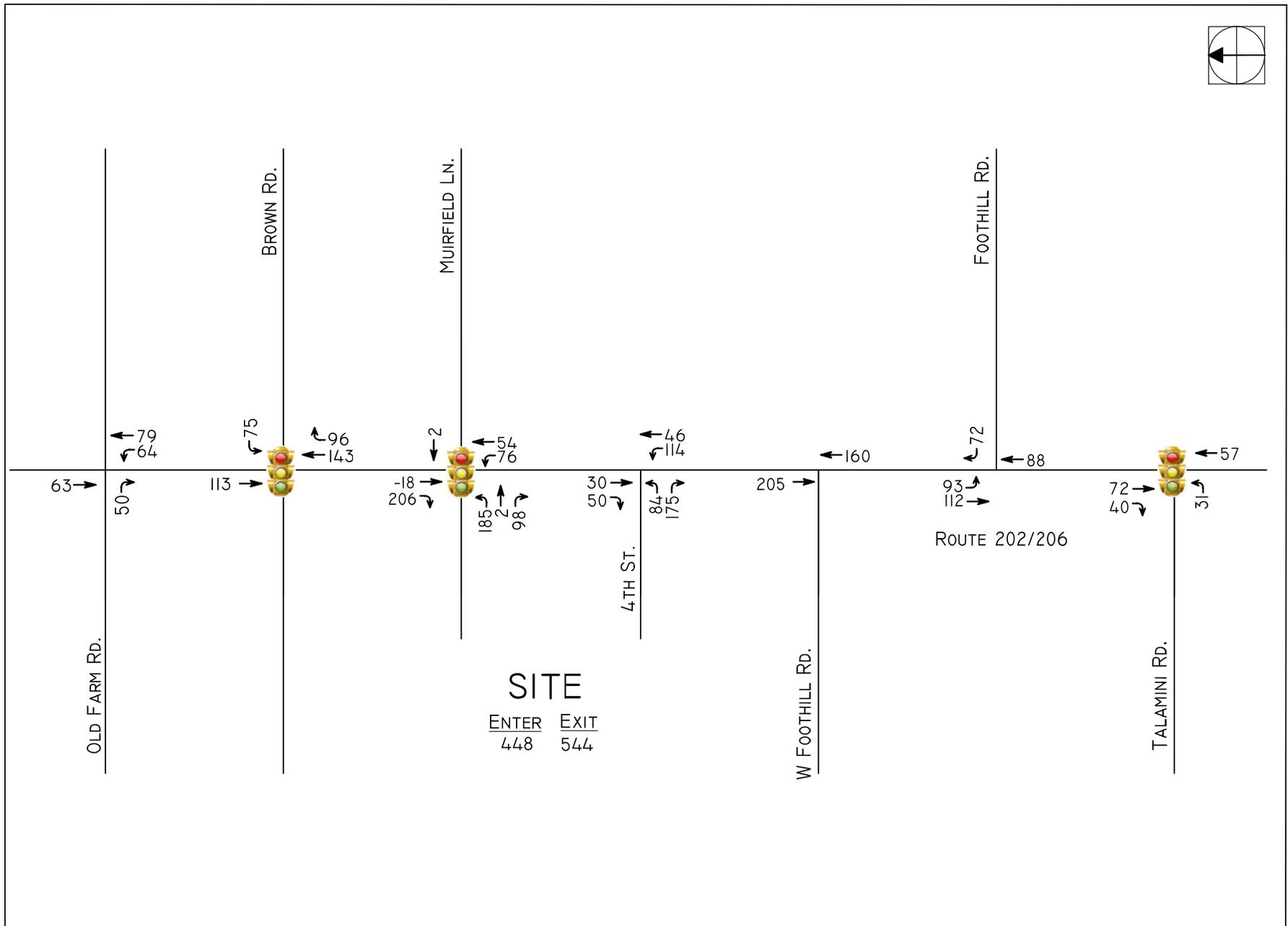


CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE 4

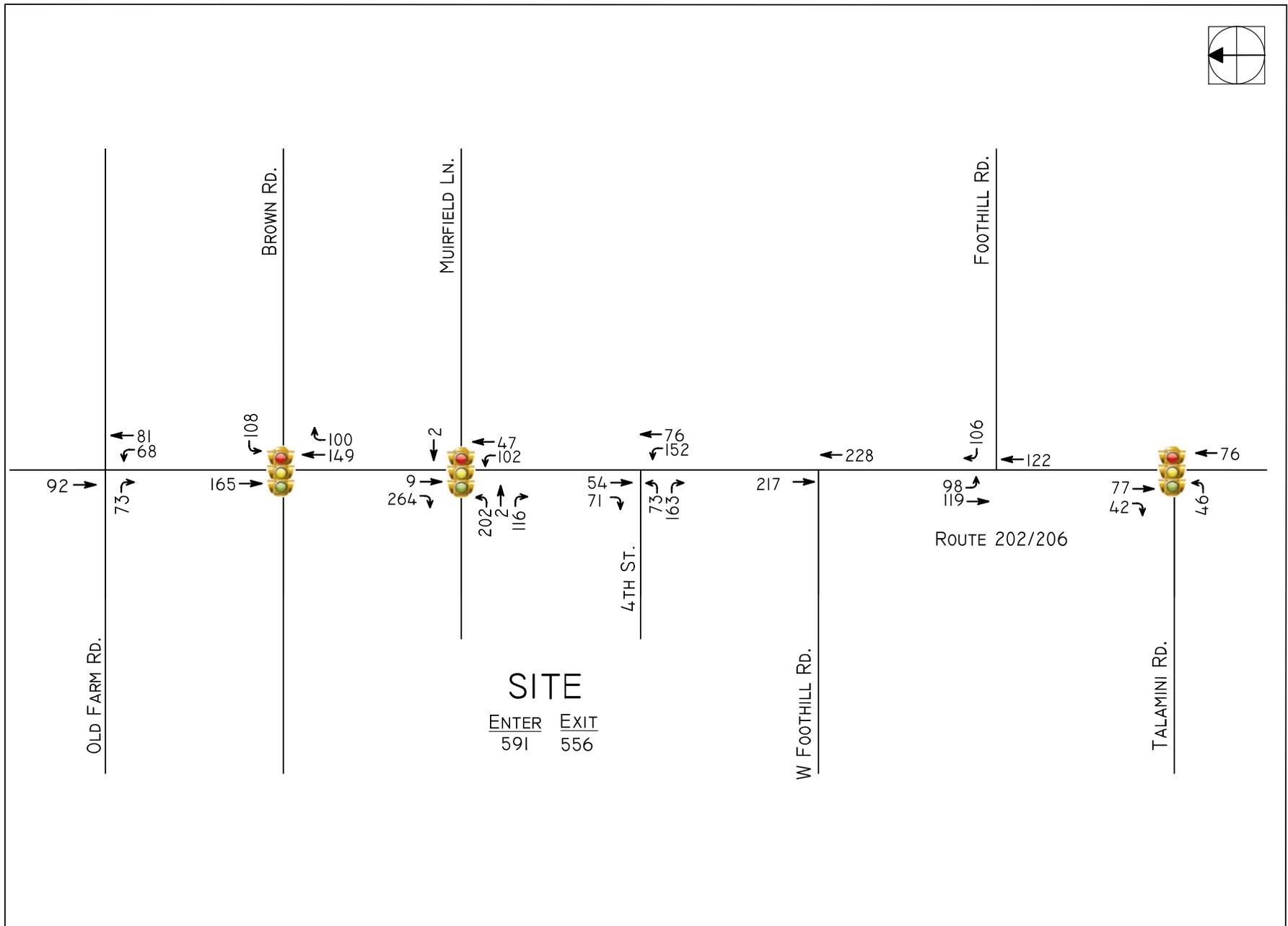


2017 EXISTING LEVELS OF SERVICE
EVENING (SATURDAY) PEAK HOURS



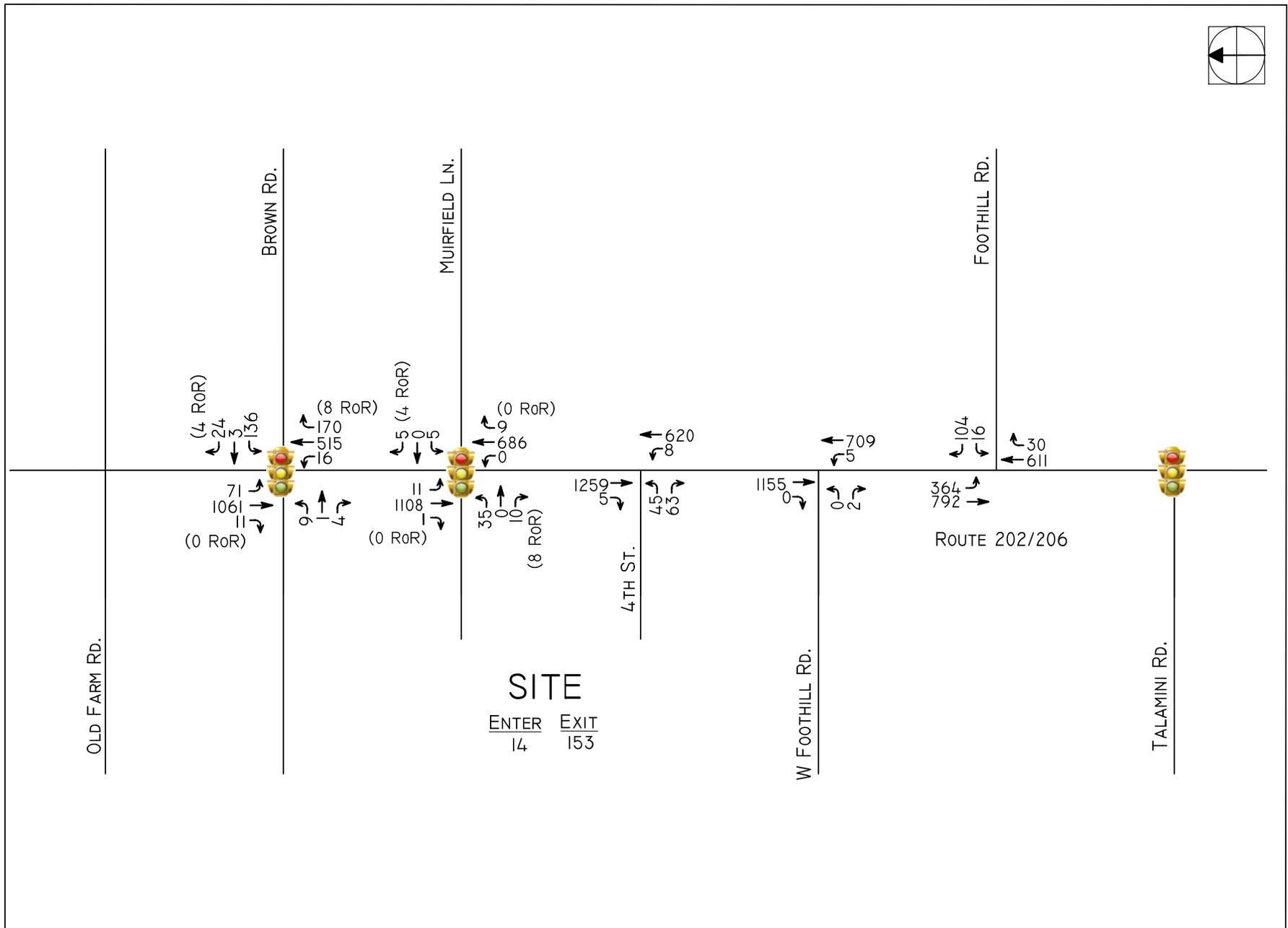
CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 5



CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE 6

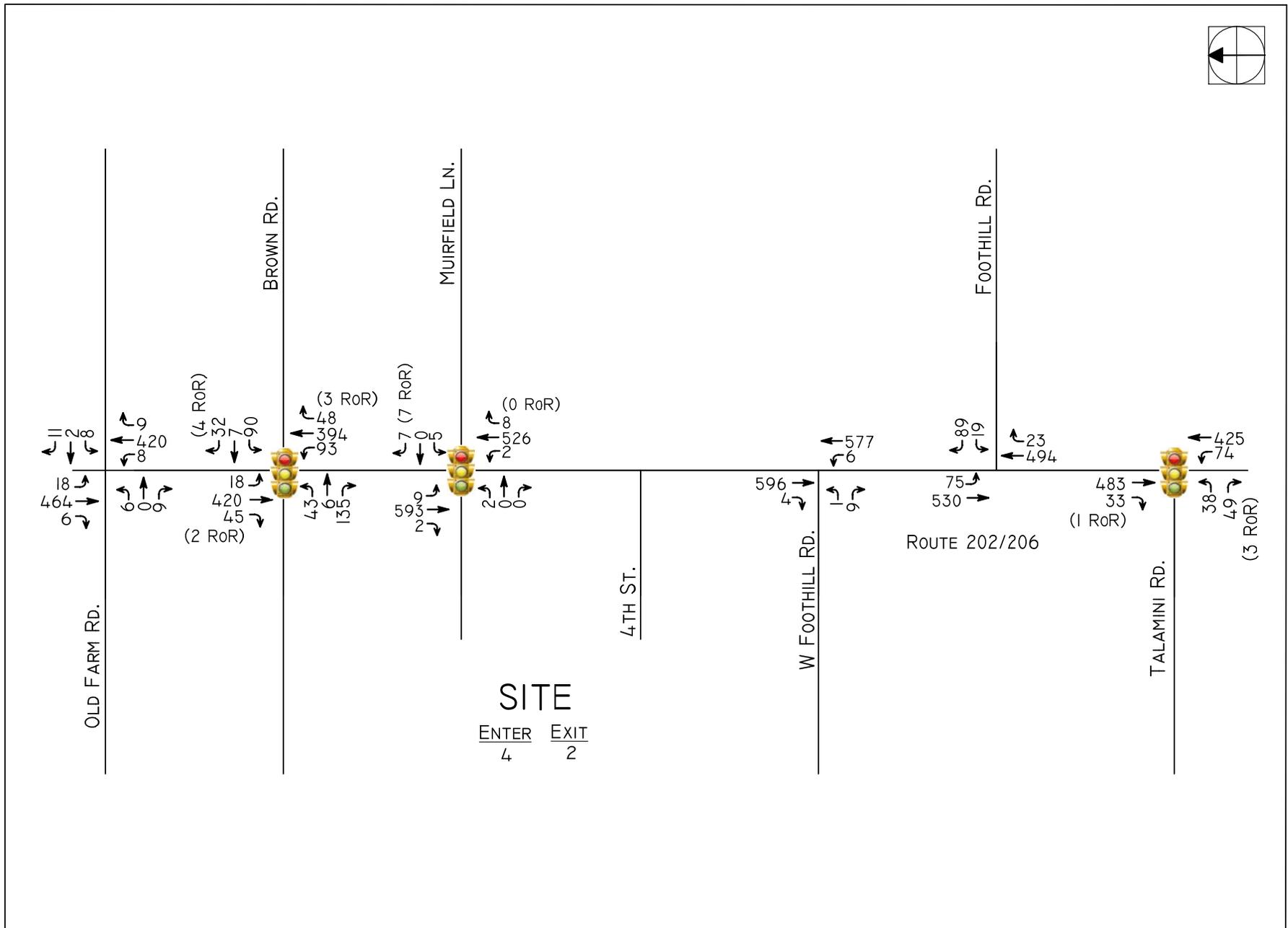


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 7



2023 No-BUILD TRAFFIC VOLUMES
 EVENING PEAK HOUR (5:00 PM TO 6:00 PM)

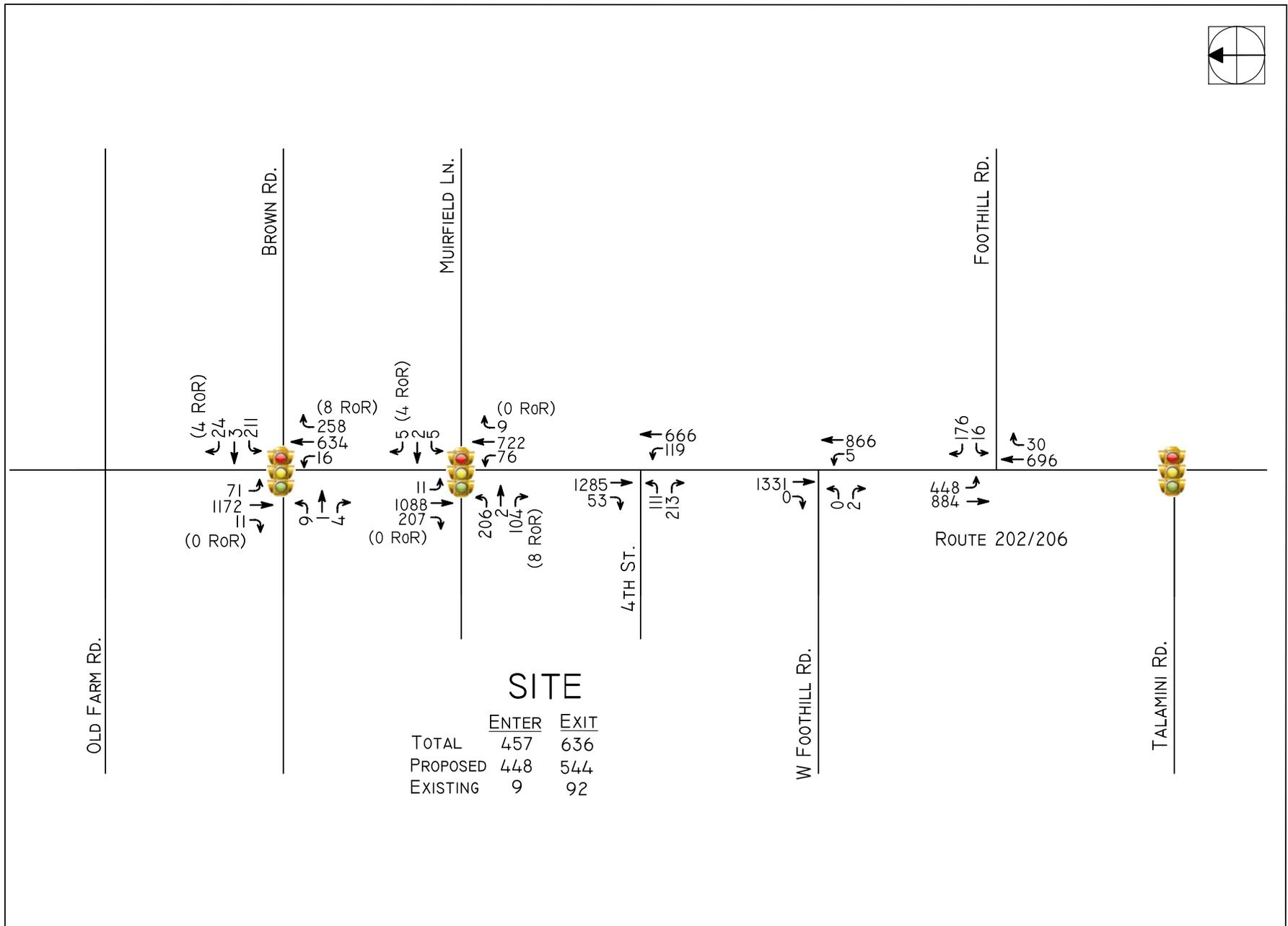


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 8



2023 No-BUILD TRAFFIC VOLUMES
 SATURDAY (12:30 PM TO 1:30 PM)

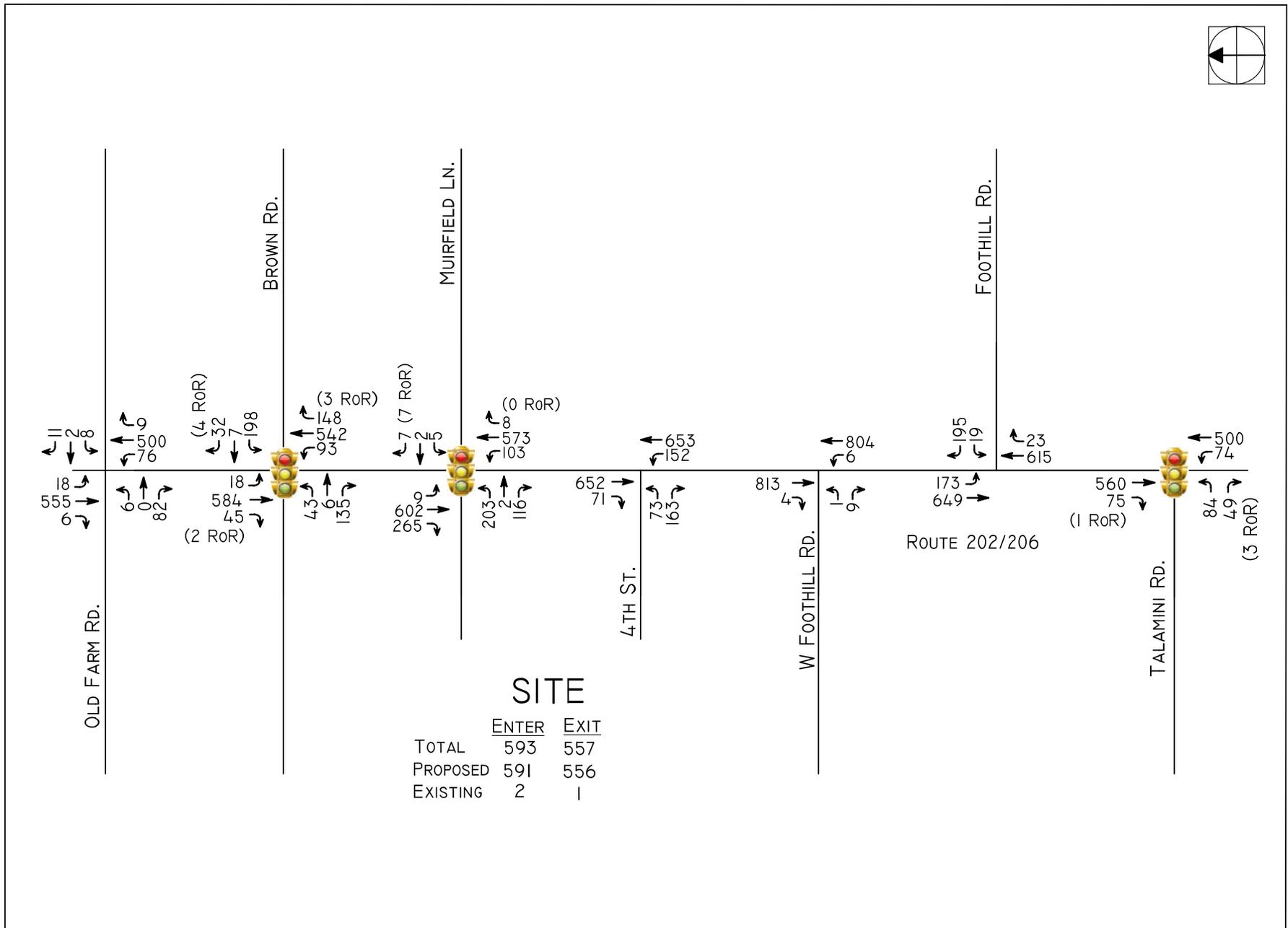


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 9



2023 BUILD TRAFFIC VOLUMES
 EVENING PEAK HOUR (5:00 PM TO 6:00 PM)

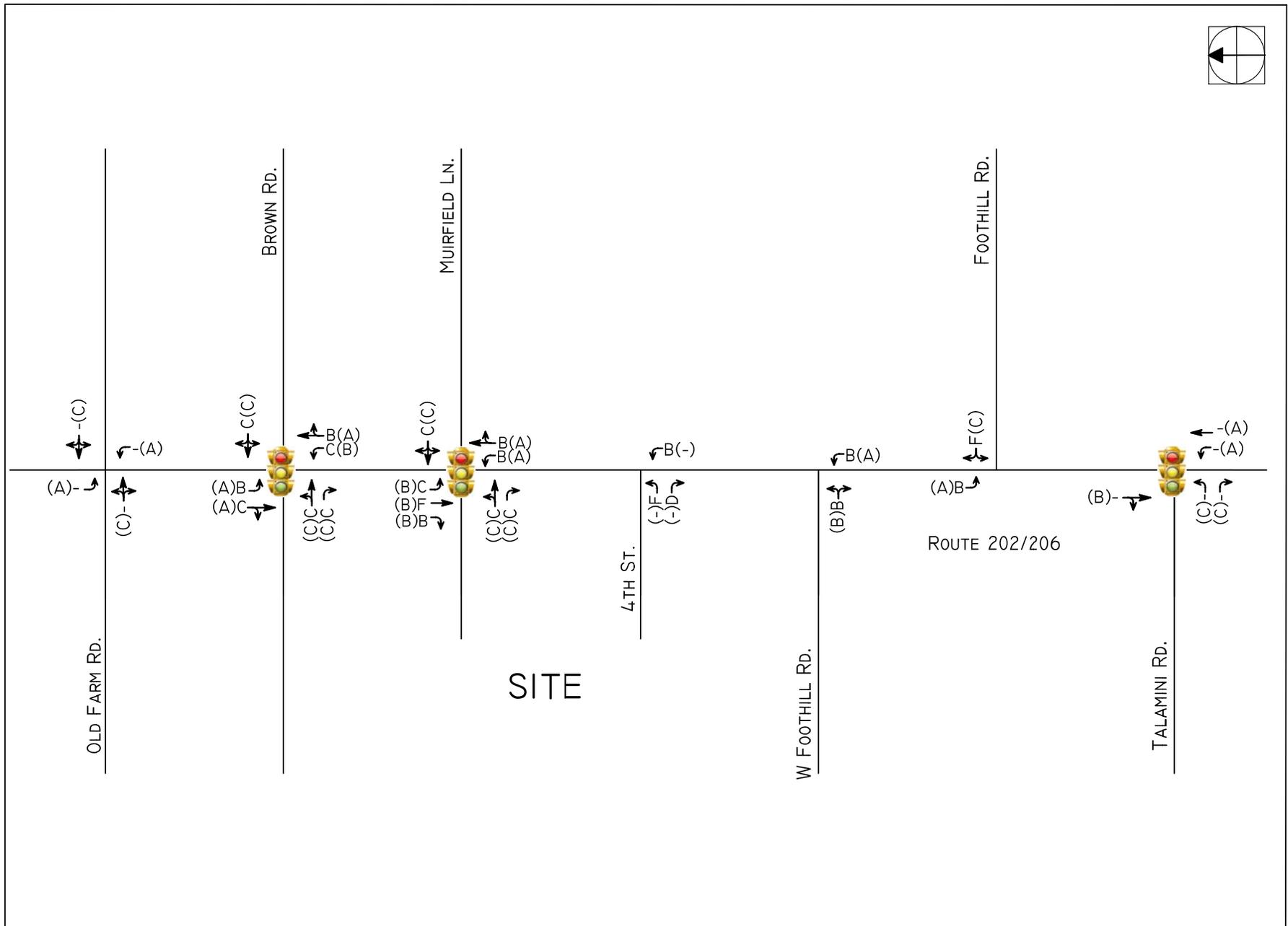


CENTER OF EXCELLENCE
 TOWNSHIP OF BRIDGEWATER
 SOMERSET COUNTY, NEW JERSEY

FIGURE 10



2023 BUILD TRAFFIC VOLUMES
 SATURDAY (12:30 PM TO 1:30 PM)

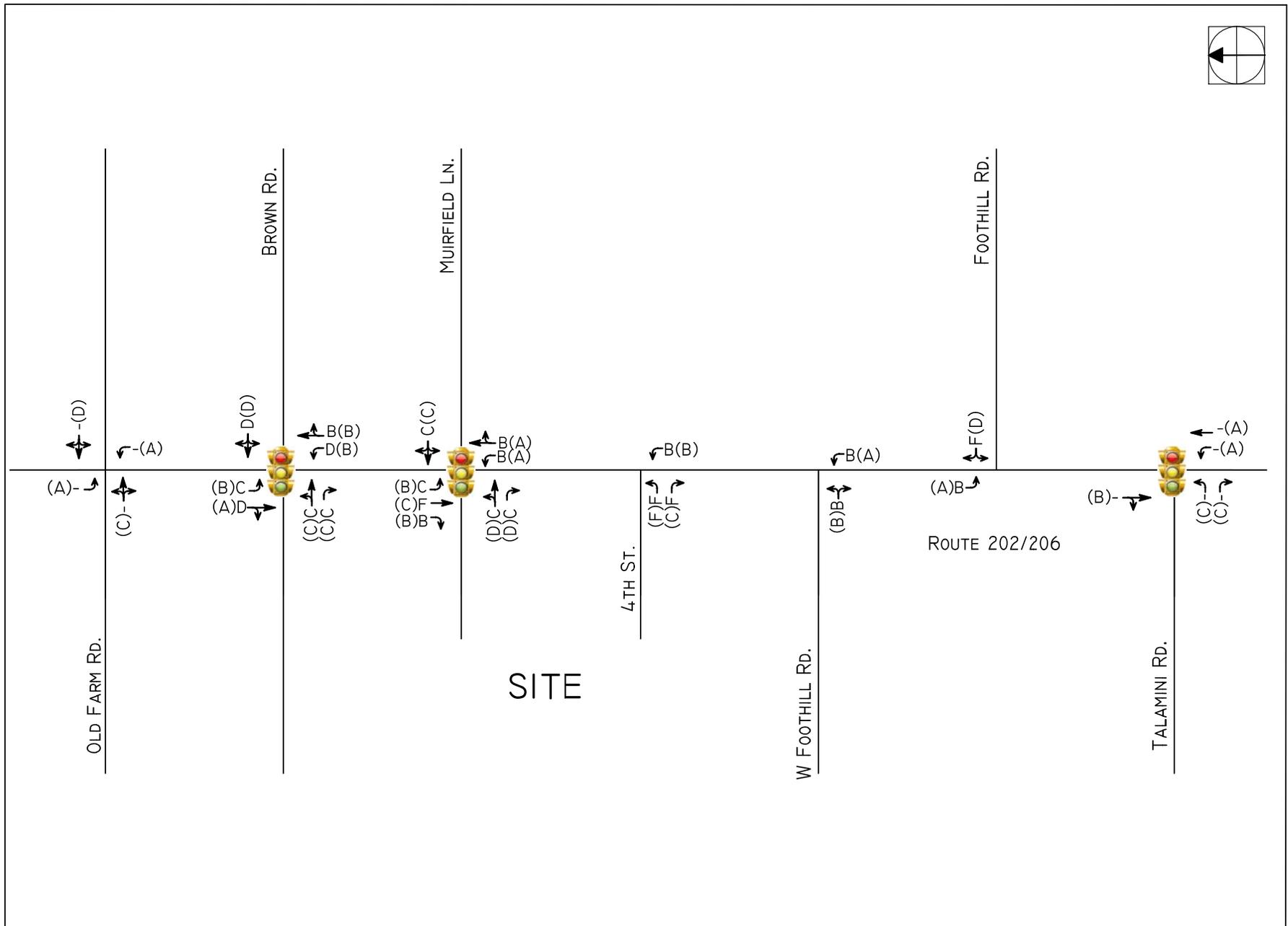


CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE II

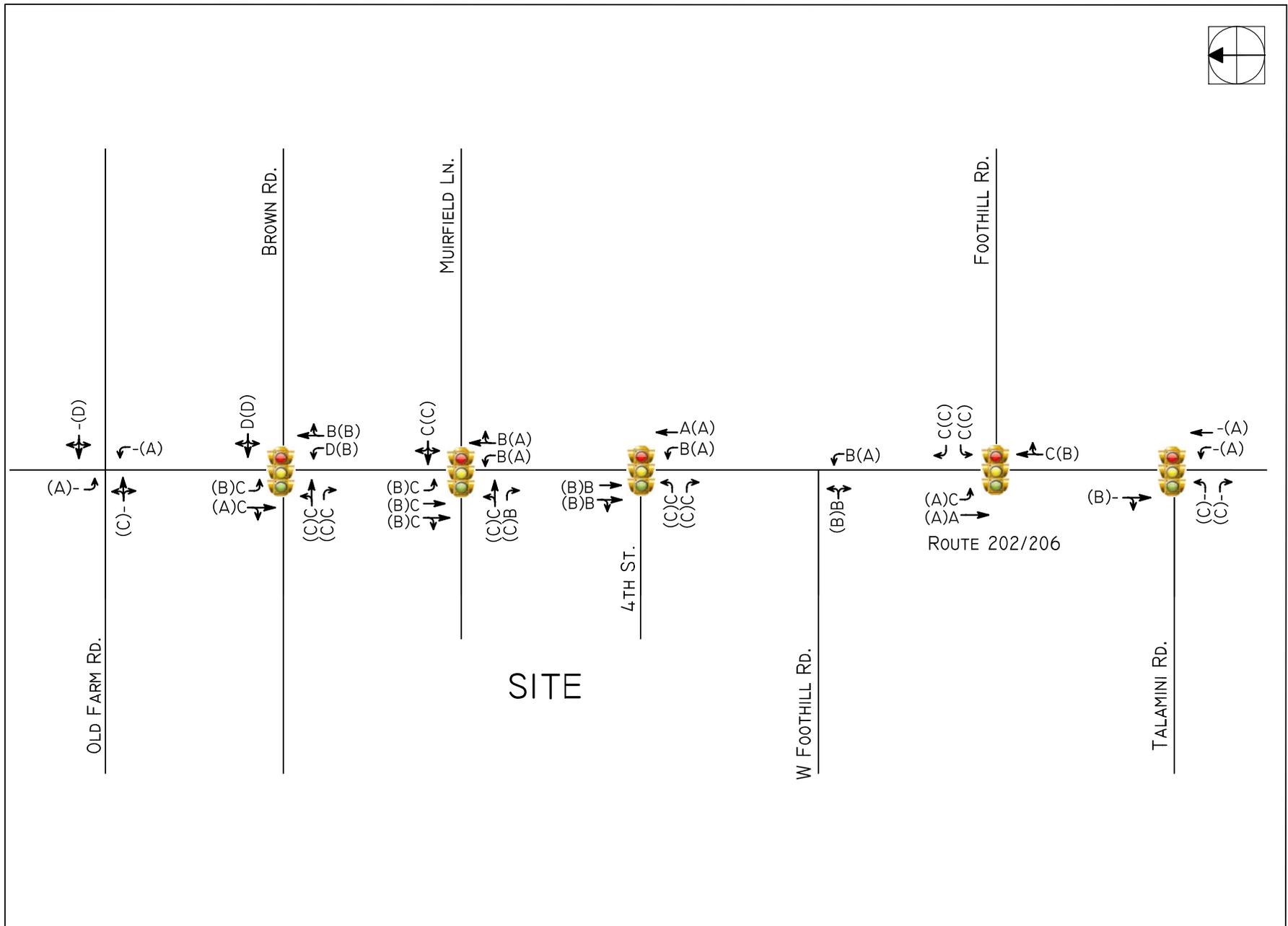


2023 No-BUILD LEVELS OF SERVICE
EVENING (SATURDAY) PEAK HOURS



CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE 12



CENTER OF EXCELLENCE
TOWNSHIP OF BRIDGEWATER
SOMERSET COUNTY, NEW JERSEY

FIGURE 13



2023 BUILD LEVELS OF SERVICE-WITH IMPROVEMENTS
EVENING (SATURDAY) PEAK HOURS

APPENDIX A
TRAFFIC COUNTS AND SIGNAL TIMINGS

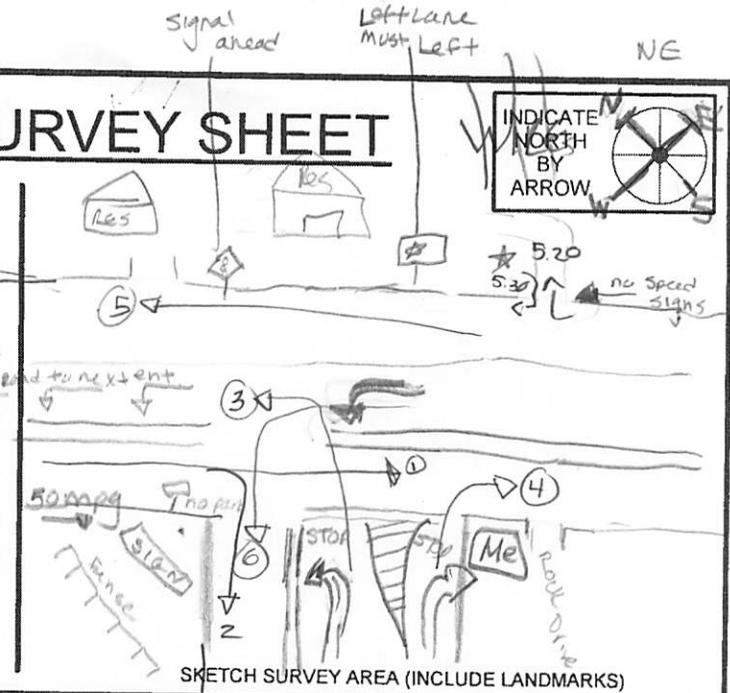
TRAFFIC SURVEY SHEET



792 Chimney Rock Road
Suite B
Martinsville, NJ 08836
(732) 469-0600
(732) 469-0663 fax



PROJECT #: 13081 CLIENT: Advance
INTERSECTION: Rt 702 + Advance Realty Driveway
MUNICIPALITY: Bridgewater
COUNT BY: MCA Date: 4/4/17
TIME from 4 pm to 6:30 S M T W T F S
(CIRCLE DAY)



SKETCH SURVEY AREA (INCLUDE LANDMARKS)

START TIME	MOVEMENT NUMBER						TOTAL
	1	2	3	4	5	6	
4-	206	1	14	11	108	0	340
T+B	9	0	0	0	0	1	10
4:15	229	2	11	10	120	2	374
T+B	5	0	0	1	1	0	7
4:30	211	1	9	19	133	4	377
T+B	8	0	0	0	4	0	12
4:45	245	1	5	15	132	4	402
T+B	2	0	0	0	2	0	4
5-	305	0	14	16	134	4	473
T+B	2	0	0	0	5	0	7
5:15	303	3	16	18	162	0	502
T+B	1	0	0	0	2	0	3
5:30	298	0	9	16	136	0	459
T+B	2	0	0	0	2	0	4
5:45	275	2	6	13	144	1	441
T+B	2	0	0	0	0	0	2
6-	213	0	6	17	144	2	382
T+B	1	0	0	0	0	1	2
6:15	196	0	6	14	118	1	335
T+B	0	0	0	0	0	0	0
PEAK HOUR TOTAL	2481 32	10 0	96 0	149 1	1331 16	18 2	4085 51

No Pedestrians
1 school bus stopped south east of intersection @ 4:46 at side street
1 car entered 5:20 residential driveway as noted + exited 5:30.

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Saturday Trucks 13081
 Site Code : 00013081
 Start Date : 03/18/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound				Brown Rd Westbound				Rt. 202 Northbound				Balaji Temple Dr Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Left 3	Right On Red 4	Right 4	Thru 5	Left 6	Right On Red 7	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	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	0	1
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
01:45 PM	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	1	0	0	0	0	1
Grand Total	0	2	0	0	0	0	0	0	0	0	1	1	1	0	0	5
Apprch %	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	100.0	0.0	0.0	
Total %	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Saturday Cars 13081
 Site Code : 00013081
 Start Date : 03/18/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound				Brown Rd Westbound				Rt. 202 Northbound				Balaji Temple Dr Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Left 3	Right On Red 4	Right 4	Thru 5	Left 6	Right On Red 7	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	1	5	65	6	0	6	0	27	0	11	64	20	11	1	3	220
10:45 AM	2	7	80	7	1	1	1	15	4	7	54	23	15	2	7	226
Total	3	12	145	13	1	7	1	42	4	18	118	43	26	3	10	446
11:00 AM	2	7	65	5	0	4	0	24	2	15	66	27	15	0	5	237
11:15 AM	1	17	75	8	1	2	2	29	0	14	64	32	16	0	5	266
11:30 AM	1	2	75	4	1	1	0	25	0	10	62	15	32	2	7	237
11:45 AM	0	8	76	2	0	0	0	10	0	10	63	14	11	0	4	198
Total	4	34	291	19	2	7	2	88	2	49	255	88	74	2	21	938
12:00 PM	2	10	69	6	1	1	0	11	2	16	66	14	12	2	4	216
12:15 PM	0	8	90	5	3	5	0	15	2	11	57	24	11	1	6	238
12:30 PM	1	10	78	8	2	13	3	30	0	10	65	29	44	1	15	309
12:45 PM	0	9	59	2	0	5	0	20	0	10	50	23	23	1	5	207
Total	3	37	296	21	6	24	3	76	4	47	238	90	90	5	30	970
01:00 PM	1	12	49	3	2	4	2	17	1	8	45	22	29	2	12	209
01:15 PM	0	9	78	4	0	4	2	18	2	14	60	14	31	2	9	247
01:30 PM	0	9	76	2	1	1	0	17	0	8	64	20	31	1	11	241
01:45 PM	0	9	69	4	0	1	0	17	0	19	63	19	21	3	7	232
Total	1	39	272	13	3	10	4	69	3	49	232	75	112	8	39	929
Grand Total	11	122	1004	66	12	48	10	275	13	163	843	296	302	18	100	3283
Apprch %	0.9	10.1	83.5	5.5	3.5	13.9	2.9	79.7	1.0	12.4	64.1	22.5	71.9	4.3	23.8	
Total %	0.3	3.7	30.6	2.0	0.4	1.5	0.3	8.4	0.4	5.0	25.7	9.0	9.2	0.5	3.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : PM Trucks 13081
 Site Code : 00013081
 Start Date : 03/21/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound				Brown Rd Westbound				Rt. 202 Northbound				Balaji Temple Dr Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Left 3	Right On Red 4	Right 4	Thru 5	Left 6	Right On Red 7	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
04:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
Total	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	
05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
05:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	2	1	0	0	0	0	0	0	2	0	0	0	0	
06:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
06:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	5	1	0	0	0	1	0	0	4	0	0	0	0	
Approch %	0.0	0.0	83.3	16.7	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	45.5	9.1	0.0	0.0	0.0	9.1	0.0	0.0	36.4	0.0	0.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : PM Cars 13081
 Site Code : 00013081
 Start Date : 03/21/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound				Brown Rd Westbound				Rt. 202 Northbound				Balaji Temple Dr Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Left 3	Right On Red 4	Right 4	Thru 5	Left 6	Right On Red 7	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:30 PM	0	4	199	15	0	3	1	26	0	27	111	1	2	1	1	391
04:45 PM	0	3	187	12	0	3	0	34	2	36	120	3	2	0	0	402
Total	0	7	386	27	0	6	1	60	2	63	231	4	4	1	1	793
05:00 PM	0	4	249	27	3	3	1	17	1	40	114	2	0	0	0	461
05:15 PM	0	1	259	11	0	7	1	37	0	32	123	2	1	1	2	477
05:30 PM	0	5	256	13	0	3	0	36	1	44	124	6	3	0	4	495
05:45 PM	0	0	235	15	1	6	1	38	6	36	123	5	0	0	3	469
Total	0	10	999	66	4	19	3	128	8	152	484	15	4	1	9	1902
06:00 PM	0	2	202	14	1	1	1	26	3	33	94	3	2	0	2	384
06:15 PM	0	2	185	14	2	9	1	25	2	28	82	1	3	1	1	356
Grand Total	0	21	1772	121	7	35	6	239	15	276	891	23	13	3	13	3435
Approch %	0.0	1.1	92.6	6.3	2.4	12.2	2.1	83.3	1.2	22.9	73.9	1.9	44.8	10.3	44.8	
Total %	0.0	0.6	51.6	3.5	0.2	1.0	0.2	7.0	0.4	8.0	25.9	0.7	0.4	0.1	0.4	

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Foothill Rd Westbound		Rt. 202 Northbound			Foothill Rd Eastbound		Int. Total
	Right 1	Thru 2	Left 3	Right 4	Left 5	Right 6	Thru 7	Left 8	Right 9	Left 10	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	1	0	0	0	2
Total	0	1	0	0	0	0	1	0	0	0	2
11:00 AM	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	0	1	0	0	0	3
Total	0	2	0	0	0	0	1	0	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	1
01:00 PM	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	2	0	0	0	0	0	0	0	0	2
01:30 PM	0	1	0	0	0	0	0	0	0	0	1
01:45 PM	0	0	0	0	0	0	1	0	0	0	1
Total	0	3	0	0	0	0	1	0	0	0	4
Grand Total	0	7	0	0	0	0	3	0	0	0	10
Apprch %	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	
Total %	0.0	70.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Sat Cars 13081 Foothill Rd
 Site Code : 00013081
 Start Date : 03/18/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Foothill Rd Westbound		Rt. 202 Northbound			Foothill Rd Eastbound		Int. Total
	Right 1	Thru 2	Left 3	Right 4	Left 5	Right 6	Thru 7	Left 8	Right 9	Left 10	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	1	88	11	18	4	2	99	0	2	0	225
10:45 AM	2	101	21	22	4	1	11	1	0	1	164
Total	3	189	32	40	8	3	110	1	2	1	389
11:00 AM	0	98	19	21	3	3	119	0	1	0	264
11:15 AM	1	113	29	15	6	1	125	0	0	0	290
11:30 AM	1	138	14	30	2	5	104	1	0	1	296
11:45 AM	1	122	16	26	4	1	126	1	1	0	298
Total	3	471	78	92	15	10	474	2	2	1	1148
12:00 PM	0	119	21	19	5	3	90	0	1	1	259
12:15 PM	1	99	17	22	6	6	114	1	1	0	267
12:30 PM	0	127	14	17	2	4	117	0	1	0	282
12:45 PM	1	126	15	15	4	7	119	3	2	1	293
Total	2	471	67	73	17	20	440	4	5	2	1101
01:00 PM	1	129	22	30	9	5	115	0	2	0	313
01:15 PM	2	106	20	22	3	6	115	3	4	0	281
01:30 PM	2	113	17	32	6	4	108	1	4	0	287
01:45 PM	2	86	16	12	0	4	68	0	1	0	189
Total	7	434	75	96	18	19	406	4	11	0	1070
Grand Total	15	1565	252	301	58	52	1430	11	20	4	3708
Apprch %	0.8	85.4	13.8	83.8	16.2	3.5	95.8	0.7	83.3	16.7	
Total %	0.4	42.2	6.8	8.1	1.6	1.4	38.6	0.3	0.5	0.1	

Groups PrintedUnshifted

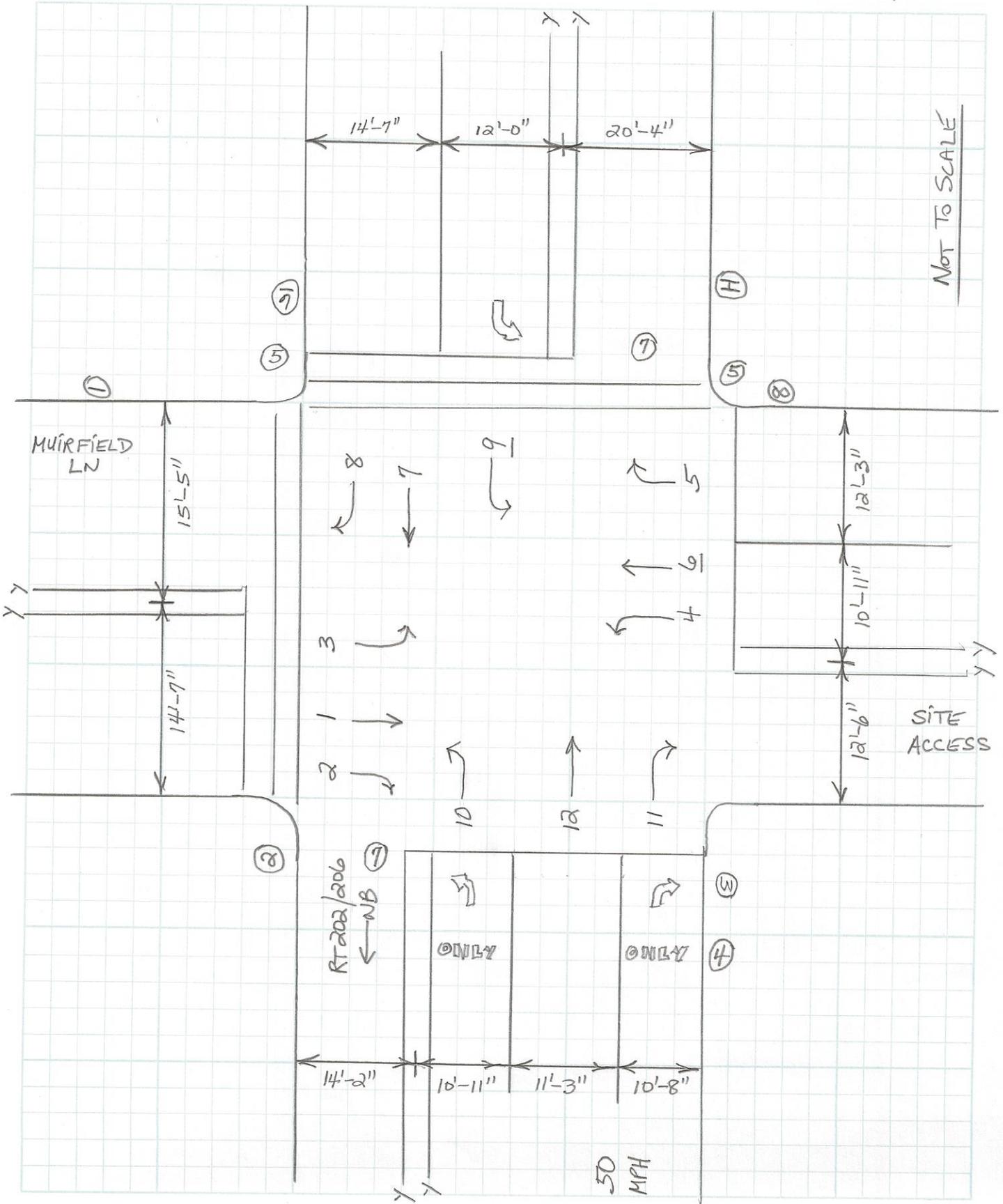
Start Time	Rt. 202 Southbound			Foot Hill Rd Westbound		Rt. 202 Northbound			Foot Hill Rd Eastbound		Int. Total
	Right 1	Thru 2	Left 3	Right 4	Left 5	Right 6	Thru 7	Left 8	Right 9	Left 10	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:30 PM	0	0	2	0	0	0	0	0	0	0	2
04:45 PM	0	1	1	0	0	1	0	0	0	0	3
Total	0	1	3	0	0	1	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	1
06:00 PM	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	1	0	0	0	1
Grand Total	0	1	3	0	0	1	2	0	0	0	7
Apprch %	0.0	25.0	75.0	0.0	0.0	33.3	66.7	0.0	0.0	0.0	
Total %	0.0	14.3	42.9	0.0	0.0	14.3	28.6	0.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : PM Cars 13081 Foothill Rd
 Site Code : 00013081
 Start Date : 03/21/2017
 Page No : 1

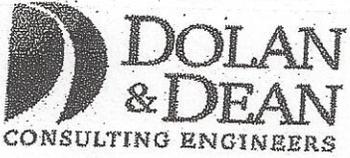
Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Foot Hill Rd Westbound		Rt. 202 Northbound			Foot Hill Rd Eastbound		Int. Total
	Right 1	Thru 2	Left 3	Right 4	Left 5	Right 6	Thru 7	Left 8	Right 9	Left 10	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:30 PM	0	178	70	26	2	8	103	3	0	0	390
04:45 PM	1	166	83	22	1	7	119	0	0	0	399
Total	1	344	153	48	3	15	222	3	0	0	789
05:00 PM	0	170	76	26	5	7	131	2	1	0	418
05:15 PM	0	185	94	23	4	8	144	2	0	0	460
05:30 PM	0	206	103	27	2	4	165	0	0	0	507
05:45 PM	0	186	70	22	4	9	135	1	1	0	428
Total	0	747	343	98	15	28	575	5	2	0	1813
06:00 PM	0	154	81	14	1	9	140	4	0	0	403
06:15 PM	1	147	56	17	2	5	130	1	1	0	360
Grand Total	2	1392	633	177	21	57	1067	13	3	0	3365
Apprch %	0.1	68.7	31.2	89.4	10.6	5.0	93.8	1.1	100.0	0.0	
Total %	0.1	41.4	18.8	5.3	0.6	1.7	31.7	0.4	0.1	0.0	



(5) TRAFFIC SURVEY SHEET

INDICATE NORTH BY ARROW



792 Chimney Rock Road
Suite B
Martinsville, NJ 08836
(732) 469-0600
(732) 469-0663 fax

PROJECT #: 13081 CLIENT: ADVANCE

INTERSECTION: RT202/SITE ACCESS/MUIRFIELD

MUNICIPALITY: BRIDGEWATER

COUNT BY: K. DONATELLI DATE: 4/1/17

TIME from 12¹⁵ P to 2⁰⁰ P S M T W T F S
(CIRCLE DAY) (5)

SKETCH SURVEY AREA (INCLUDE LANDMARKS)

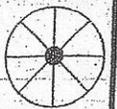
START TIME	ON RED		ON RED		MOVEMENT NUMBER		ON RED		ON RED		TOTAL				
	1	2	3	4	5	6	7	8	9	10		11	12		
12 ¹⁵	—	1	1	2	—	—	—	119	2	—	—	1	—	—	108
12 ³⁰	—	—	1	2	—	—	—	112	3	—	—	4	—	2	120
12 ⁴⁵	—	—	3	3	2	—	—	129	4	—	2	3	—	—	157
1 ⁰⁰	—	—	1	—	—	—	—	127	—	—	—	1	—	—	139
1 ¹⁵	—	—	2	—	—	—	—	122	1	—	—	1	—	—	140
1 ³⁰	—	—	1	1	—	—	—	115	1	—	—	1	—	—	138
1 ⁴⁵	—	—	—	3	1	—	—	143	3	—	—	1	—	—	178
TRUCKS															
12 ¹⁵	—	—	—	—	—	—	—	2	—	—	—	—	—	—	3
12 ³⁰	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
12 ⁴⁵	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
1 ⁰⁰	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2
1 ¹⁵	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1
1 ³⁰	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1 ⁴⁵	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1

PEAK HOUR

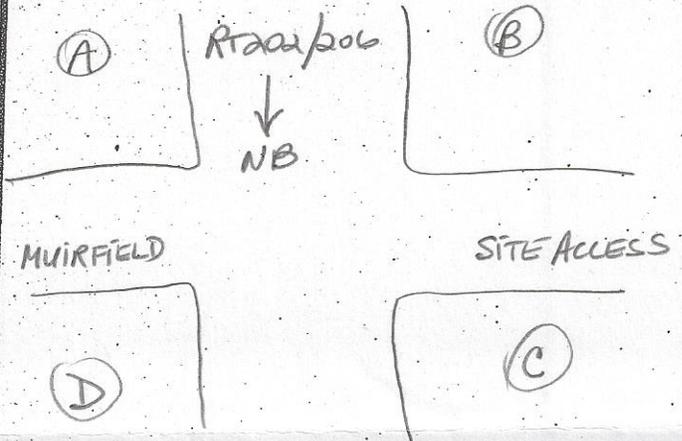
6

TRAFFIC SURVEY SHEET

INDICATE NORTH BY ARROW



792 Chimney Rock Road
Suite B
Martinsville, NJ 08836
(732) 469-0600
(732) 469-0663 fax



PROJECT #: 13081 CLIENT: ADVANCE

INTERSECTION: RT202/SITE ACCESS/MUIRFIELD

MUNICIPALITY: BRIDGEWATER

COUNT BY: K. DONATELLI DATE: 4/1/17

TIME from 10³⁰ a to 2⁰⁰ p S M T W T F (S)
(CIRCLE DAY)

SKETCH SURVEY AREA (INCLUDE LANDMARKS)

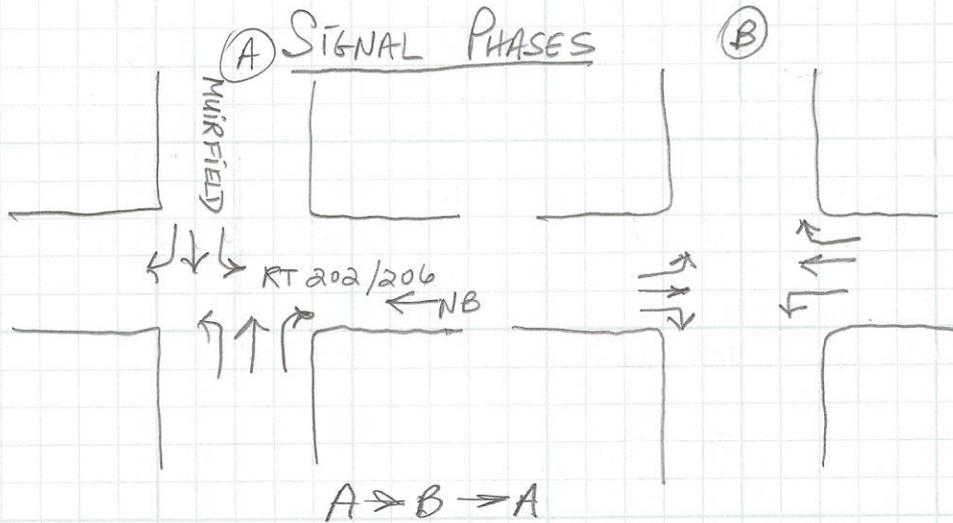
PEDESTRIANS MOVEMENT NUMBER

START TIME	PEDESTRIANS MOVEMENT NUMBER								TOTAL
	A→B	B→A	B→C	C→B	C→D	D→C	D→A	A→D	
10 ³⁰	—	—	—	—	—	—	—	—	
10 ⁴⁵	—	—	—	—	1	—	1	—	
11 ⁰⁰	—	—	—	—	—	—	—	—	
11 ¹⁵	—	—	—	—	—	—	—	—	
11 ³⁰	—	—	—	—	—	—	—	—	
11 ⁴⁵	—	—	—	—	—	—	—	—	
12 ⁰⁰	—	—	—	—	—	—	—	—	
12 ¹⁵	—	—	—	—	—	—	—	—	
12 ³⁰	—	—	—	—	—	—	—	—	
12 ⁴⁵	—	—	—	1	—	1	—	—	
1 ⁰⁰	—	—	—	—	—	—	—	—	
1 ¹⁵	—	—	—	—	—	—	—	—	
1 ³⁰	—	—	—	—	—	—	—	—	
1 ⁴⁵	—	—	—	—	—	—	—	—	

PEAK HOUR

SIGNAL TIMING, SEC

	RT 202/206 NB	SB	MUIRFIELD LN	SITE ACCESS
GREEN			15	7, 12
AMBER		5	3	3
AMB → AMB				
LEFT GREEN				
" AMBER				



NOTES

- MOTION SENSORS FACE MUIRFIELD LN, SITE ACCESS AND LEFT TURN LANE RT 202/206 NB.
- IF VEH. IN LEFT TURN LANE RT 202/206 NB, SB TRAFFIC HAS DELAYED GREEN.
- MUIRFIELD LN 15 SEC. GREEN OBTAINED BY SITTING @ INT. IN MY VEH. AND WAITING FOR GREEN TO CHANGE TO AMBER.
- MUIRFIELD LN HAS NO POSTED SPEED LIMIT.

SIGN LEGEND

① NO STOPPING OR STANDING
↔

② NO PEDESTRIAN CROSSING
USE →
CROSSWALK

③ NO PEDESTRIAN CROSSING
← USE
CROSSWALK

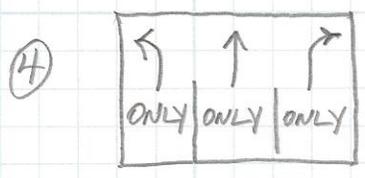
⑤ PUSH BUTTON FOR GREEN LIGHT

⑥ LEFT LANE MUST TURN LEFT

⑦ DELAYED GREEN
(ON SIGNAL LIGHT ARM)

⑧ RIGHT LANE MUST TURN RIGHT

⑨ HYDRANT



Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Sat Trucks Talamini
 Site Code : 00013081
 Start Date : 04/01/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Westbound			Rt. 202 Northbound		Talamini Rd Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Right	Thru	Left	Thru 3	Left 4	Right On Red 5	Right 5	Left 6	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	0	0	0	0	0	0	1	0	0	0	0	1
10:45 AM	0	0	1	0	0	0	1	0	0	0	0	2
Total	0	0	1	0	0	0	2	0	0	0	0	3
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	1
12:00 PM	0	0	1	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	3	0	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	0	0	0	0	0	0	0	0	4
01:00 PM	0	0	3	0	0	0	2	0	0	0	0	5
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	0	0	0	2	0	0	0	0	5
Grand Total	0	0	8	0	0	0	5	0	0	0	0	13
Apprch %	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	61.5	0.0	0.0	0.0	38.5	0.0	0.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Sat cars Talamini
 Site Code : 00013081
 Start Date : 04/01/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Westbound			Rt. 202 Northbound		Talamini Rd Eastbound			Int. Total
	Right On Red 1	Right 1	Thru 2	Right	Thru	Left	Thru 3	Left 4	Right On Red 5	Right 5	Left 6	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	1	7	92	0	0	0	88	12	8	2	2	212
10:45 AM	1	8	107	0	0	0	83	15	11	0	4	229
Total	2	15	199	0	0	0	171	27	19	2	6	441
11:00 AM	0	8	114	0	0	0	103	11	12	3	6	257
11:15 AM	2	12	96	0	0	0	115	19	4	2	12	262
11:30 AM	0	11	113	0	0	0	117	18	14	0	8	281
11:45 AM	0	7	106	0	0	0	98	14	14	6	8	253
Total	2	38	429	0	0	0	433	62	44	11	34	1053
12:00 PM	1	8	89	0	0	0	90	11	10	0	10	219
12:15 PM	0	7	107	0	0	0	99	9	11	0	4	237
12:30 PM	0	5	107	0	0	0	89	12	10	1	9	233
12:45 PM	1	13	121	0	0	0	117	13	15	1	11	292
Total	2	33	424	0	0	0	395	45	46	2	34	981
01:00 PM	0	8	113	0	0	0	100	22	10	1	8	262
01:15 PM	0	4	112	0	0	0	93	23	8	0	8	248
01:30 PM	2	7	101	0	0	0	104	20	12	1	6	253
01:45 PM	2	12	131	0	0	0	117	21	5	1	9	298
Total	4	31	457	0	0	0	414	86	35	3	31	1061
Grand Total	10	117	1509	0	0	0	1413	220	144	18	105	3536
Apprch %	0.6	7.2	92.2	0.0	0.0	0.0	86.5	13.5	53.9	6.7	39.3	
Total %	0.3	3.3	42.7	0.0	0.0	0.0	40.0	6.2	4.1	0.5	3.0	

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Old Farm Rd Westbound			Rt. 202 Northbound			Old Farm Rd Eastbound			Int. Total
	Right 1	Thru 2	Left 3	Right 4	Thru 5	Left 6	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
10:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	1	0	0	0	0	0	2	0	0	0	0	3
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	2	0	0	0	0	0	2	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	0	0	0	0	3	0	0	0	0	7
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	3	0	0	0	0	0	1	0	0	0	0	4
01:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
01:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	4	0	0	0	0	0	1	0	0	0	0	5
Grand Total	0	12	0	0	0	0	0	7	0	0	0	0	19
Apprch %	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Total %	0.0	63.2	0.0	0.0	0.0	0.0	0.0	36.8	0.0	0.0	0.0	0.0	

Dolan & Dean Consulting Engineers
 792 Chimney Rock Rd.
 Martinsville, NJ 08836

File Name : Sat cars 13081 Old Farm
 Site Code : 00013081
 Start Date : 04/08/2017
 Page No : 1

Groups PrintedUnshifted

Start Time	Rt. 202 Southbound			Old Farm Rd Westbound			Rt. 202 Northbound			Old Farm Rd Eastbound			Int. Total
	Right 1	Thru 2	Left 3	Right 4	Thru 5	Left 6	Right 7	Thru 8	Left 9	Right 10	Thru 11	Left 12	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10:30 AM	6	95	4	1	1	3	0	58	4	5	0	0	177
10:45 AM	2	101	3	4	0	2	1	91	6	5	0	5	220
Total	8	196	7	5	1	5	1	149	10	10	0	5	397
11:00 AM	0	0	0	2	1	2	2	101	4	2	1	2	117
11:15 AM	1	121	4	2	1	2	1	99	2	3	2	3	241
11:30 AM	1	116	1	2	0	2	2	91	4	5	0	4	228
11:45 AM	2	97	3	4	2	2	2	100	3	12	0	0	227
Total	4	334	8	10	4	8	7	391	13	22	3	9	813
12:00 PM	6	107	1	3	0	3	0	78	4	4	0	3	209
12:15 PM	2	106	6	2	1	0	3	82	9	3	0	2	216
12:30 PM	2	119	5	3	1	1	2	96	3	2	0	2	236
12:45 PM	1	109	2	2	0	2	2	101	2	2	0	0	223
Total	11	441	14	10	2	6	7	357	18	11	0	7	884
01:00 PM	2	107	5	3	0	2	3	100	1	3	0	2	228
01:15 PM	1	99	5	2	1	3	2	98	2	2	0	2	217
01:30 PM	2	110	4	2	2	1	2	101	2	4	0	0	230
01:45 PM	1	91	3	3	0	0	3	89	2	4	0	1	197
Total	6	407	17	10	3	6	10	388	7	13	0	5	872
Grand Total	29	1378	46	35	10	25	25	1285	48	56	3	26	2966
Apprch %	2.0	94.8	3.2	50.0	14.3	35.7	1.8	94.6	3.5	65.9	3.5	30.6	
Total %	1.0	46.5	1.6	1.2	0.3	0.8	0.8	43.3	1.6	1.9	0.1	0.9	

13081



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
TRENTON, NEW JERSEY 08625-0600

CHRIS CHRISTIE
Governor

JAMES S. SIMPSON
Commissioner

KIM GUADAGNO
Lt. Governor

October 1, 2013

RECEIVED

OCT 09 2013

Douglas J. Poyniak
Dolan & Dean Consulting Engineers, LLC
792 Chimney Rock Road
Martinsville, New Jersey 08836

DOLAN & DEAN
CONSULTING ENGINEERS, LLC

Dear Mr. Poyniak:

This is in reference to your letter requesting traffic signal plan and the timings for the following intersection:

- Route 202/206 and Northerly Aventus Driveway (American Hoechst)/Muirfield Lane, Bridgewater Township, Somerset County

Attached is the requested information. If you have any questions, please feel free to call me at 609-530-3729.

Sincerely,

Douglas F. Dillon
Principal Engineer, Traffic
Bureau of Traffic Engineering

Enclosure

**Route US 202/206 and Northerly Aventis
Driveway (American Hoechst) – Muirfield Lane
Bridgewater Twp., Somerset Co.**

<u>Phase</u>	<u>Signal Indications</u>				<u>Schedule</u>	<u>Schedule</u>	<u>Schedule</u>
	<u>1-3,14</u>	<u>4,5</u>	<u>6-8</u>	<u>9-13</u>	<u>I</u>	<u>II</u>	<u>III</u>
A) Route US 202/206 ROW	G	G	G	R	63-45	63-41	29
Change	Y	Y	Y	R	5*	5*	3
Clearance	R	R	R	R	2	2	2
B) Aventis Driveway/Muirfield Lane ROW	R	R	R	G	7-15	7-25	7-15
Change	R	R	R	Y	3	3	3
Clearance	R	R	R	R	2	2	2
C) Route US 202/206 N/B Lead	R	G	G/<G-	R	5-15	5-9	5-29
Lead Clearance	R	G	G/<Y-	R	3	3	3
Emergency Flash	Y	Y	Y	R	-	-	-

Notes:

*An offset of 0 seconds is to be measured from the beginning of yellow to Route US 202/206 traffic at this intersection.

1. Pedestrian actuation is to provide a minimum green of 12 seconds to Phase B.
2. Memory circuit is to be disconnected.
3. Recall is to be "Off" for Phases B and C.
4. Vehicle extension is to be set at 2 seconds for Phases B and C.
5. The manual cord is to be disconnected.
6. A 10-second delay shall be employed on the Aventis Driveway right-turn lane.

Hours of Operation:

Timing Schedule III	/	8:00 P.M. – 6:00 A.M. (Variable Cycle)
Timing Schedule II	/	Monday – Friday – 4:00 P.M. – 6:00 P.M. (90-Second Background Cycle)
Timing Schedule I	/	All Other Times (90-Second Background Cycle)