DOLAN&DEAN
CONSULTING ENGINEERS, LLC

181 WEST HIGH STREET
SOMERVILLE, NJ 08876

908 927 0100 p
908 927 0181 f

TRAFFIC IMPACT ANALYSIS

FOR

400 COTTONTAIL LANE

PROPOSED WAREHOUSE EXPANSION

BLOCK 517.06, LOT 15.11
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

FEBRUARY 22, 2023

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

RIANNA KIRCHHOF, P.E.
NJ LICENSE NO. 54558

STATE OF NEW JERSEY
ELIZABETH DOLAN
No. GE37071
LICENSED
PROFESSIONAL ENGINEER

23026
EIC/RLK
Somerset\Franklin\HSU Holdings\Documents\2023-02-22\TIA

TRAFFIC ENGINEERING
PARKING STUDIES
HIGHWAY DESIGN
DOT ACCESS PERMITS
MUNICIPAL CONSULTING

INTRODUCTION

Dolan & Dean Consulting Engineers, LLC (D&D) has been commissioned to prepare this Traffic Impact Study in support of the site plan application for a proposed 64,515 SF expansion of an existing warehouse located on Block 517.06, Lot 15.11 in Franklin Township, Somerset County. The site is located at 400 Cottontail Lane and is currently occupied by an approximately 55,000 square foot building comprised of 30,000 SF of warehouse space and almost 25,000 total SF on two floors for office use.

Site access is currently provided via two full-movement driveways along Cottontail Lane. The southernmost access serves truck traffic for the warehouse, while the northern access is for passenger vehicles. Access to/from Cottontail Lane would remain unchanged for the proposed expansion.

While any additional site development could result in traffic changes, both the volume and characteristics of that traffic are of important consideration in the evaluation of this application. As will be demonstrated, the traffic characteristics of the existing site use are very low and will not be materially changed with the proposed expansion. D&D has been retained by the applicant to conduct this Traffic Impact Analysis for the proposed development and to evaluate the adequacy of the roadway system to accommodate the new traffic generated by the warehouse expansion.

This traffic impact study identifies the projected traffic increases on the adjacent roadway system that could occur from the proposed development and has further examined the ability of the roadway system to efficiently accommodate the new traffic demand. Accordingly, this analysis includes the following information:

- A review of the existing roadway and traffic conditions in the site vicinity including roadway configuration, traffic volumes and operations, roadway capacities and surrounding land uses;

- A projection of traffic volumes that could be generated by the new warehouse space, and analysis of future operating conditions at the site driveways.
- Site plan review for site access, circulation, and parking
- Recommendations and conclusions.

EXISTING CONDITIONS

The site is located at 400 Cottontail Lane, designated as Lot 15.11 in Block 517.06 in Franklin Township as shown on appended Figure 1 and noted on the photograph. The site is currently developed with a 55,000 square foot building for warehouse and office use with an underused parking area and a significant portion of vacant area.

EXISTING ROADWAY CONDITIONS

Cottontail Lane is a local roadway under township jurisdiction that runs between Weston Canal Road (County Route 623) to the north, and School House Road to the south for approximately 1.6 miles. The roadway provides one lane in each travel direction and has a non-posted, statutory speed limit of 35 miles per hour.

The site is served by exceptional regional highway access to/from Interstate 287 via Weston Canal Road, making the site location ideal for a warehousing type land use. A new approximately 100,000 square-foot warehouse has just completed construction at 401 Cottontail Lane located opposite the subject development property. In addition, the office complex located north of the stie at 200 Cottontail Lane was recently demolished and the property is now vacant.

EXISTING TRAFFIC VOLUMES

To examine the existing traffic conditions that could be affected by new site traffic, manual turning movement traffic volume counts were recently conducted during peak weekday morning and evening periods, when area traffic is typically at peak levels. Vehicular traffic counts were performed at the site driveway along Cottontail Lane on Tuesday February 7, 2023 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:30 p.m. Local schools were in session and the traffic counts are believed to be representative of typical conditions on the local street system and as associated

with site operations. Copies of the turning movement counts are provided in the Technical Appendix.

Through the conduct of the traffic counts, minimal traffic was noted at the southern site driveway intended for shipping/receiving. Only one vehicle was observed turning left into this driveway during the morning peak hour, and no vehicles were observed exiting. During the evening peak hour, the driveway was not used. As such, for analysis purposes only this study conservatively assumes one location of access along Cottontail Lane, serving all traffic.

Appended Figure 2 shows the weekday morning and evening peak hour volumes.

EXISTING TRAFFIC OPERATIONS

While traffic volumes provide a measure of activity on the area roadway system, it is also important to evaluate how well that system can accommodate those volumes – i.e., a comparison of peak hour traffic volumes with available roadway capacity. Capacity represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, environment, traffic characteristics, and controls. Intersections are usually the critical point in any road network since it is at such points that conflicts exist between through, crossing, and turning traffic. It is at these locations where congestion is most likely to occur. A description of intersection Levels of Service is noted below:

INTERSECTION LEVELS OF SERVICE AND DELAY

Level of Service	Signalized Delay per Vehicle (seconds)	Unsignalized Delay per Vehicle (seconds)
A	< 10.0	<0-10
B	>10 and <20	>10 to <15
C	>20 and < 35	>15 to <25
D	>35 and < 55	> 25 to <35
E	>55 and < 80	> 35 to <50
F	> 80	>50

A volume/capacity Level of Service analysis[1] was conducted for the existing peak hour traffic volumes at the subject intersections using the updated Highway Capacity Manual (HCM) and

[1] See Technical Appendix for volume/capacity analysis and Level of Service descriptions.

Highway Capacity Software (HCS) that follows the HCM procedures. This type of analysis is performed to assess intersection operations and to identify any areas of excessive delay or congestion.

From the analyses, all movements at the site driveways currently operate at favorable Levels of Service "B" or better during both peak hours. Observed delays during the traffic counts confirm this assessment with very short delays noted. The driveways operated efficiently with no queuing or constraints due to the low traffic volumes.

TRAFFIC CHARACTERISTICS OF THE PROPOSED USE

PROJECTED TRIP GENERATION

Data compiled by the Institute of Transportation Engineers (ITE) is typically used to forecast trip generation for new development. Based on a review of the 11th Edition of the ITE Trip Generation Manual, Land Use 150 – "Warehousing" is applicable to the development proposal. When possible, for a known site or end user the preferred ITE methodology to predict future traffic (as noted in the ITE Trip Generation Manual Handbook) is to collect site-specific data for the end user as the more accurate means to predict future traffic characteristics for a given development.

Therefore, the observed counts and rates as determined through the actual site traffic counts will govern the calculation of trips for the proposed warehouse expansion. Table I summarizes the peak hour site trips for the existing 55,000 square foot building. Weekday morning and evening peak hour trip rates were established per 1,000 SF of building area based on the existing volumes.

TABLE I
EXISTING TRIP GENERATION
55,000 SF WAREHOUSE

Vehicle Type	Morning Peak Hour			Evening Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Cars	14	2	15	0	20	20
Trucks	1	0	1	0	0	0
Total	15	2	16	0	20	20
Rate	0.29			0.36		

As shown, trip activity for the peak hours is similar, resulting in approximately only 1 vehicle trip every three to four minutes on average during the peak hours.

The actual trip rates presented above are actually higher than the ITE average trip rates for a warehousing use. This could be attributed to the higher than typical amount of office space provided for the existing facility. Through the development proposal, a significantly higher proportion of warehouse space is proposed, thus the overall percentage of office space will be reduced. Nonetheless, the higher trip rates found through the conduct of the traffic counts were used in order to perform a conservative analysis.

The development proposal includes an expansion of 64,515 square feet. As the proposed use is similar to the current, a simple extrapolation of traffic that is proportional to the building area was used to forecast the additional traffic demand using the observed rates shown in Table I. Table II summarizes the traffic associated with the expansion.

TABLE II
PROJECTED TRIP GENERATION
64,515 SF EXPANSION

Vehicle Type	Morning Peak Hour			Evening Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Cars	21	3	24	0	32	32
Trucks	2	0	2	0	0	0
Total	23	3	26	0	32	32

As shown in Table II, the expansion will also generate a minimal level of additional traffic activity and will continue to have limited traffic impact on the area roadway system. This increase in traffic equates to approximately one new trip added to the network every 2 minutes. From a traffic or roadway capacity perspective, the impacts are virtually immeasurable and are not typically considered "significant", which is defined by ITE and NJDOT as an additional 100 or more trips in one hour.

The site generated volumes associated with the proposed warehouse expansion are shown on appended Figure 4 and are assumed to follow the current existing traffic patterns identified form the traffic counts.

FUTURE TRAFFIC CONDITIONS

FUTURE TRAFFIC VOLUMES

The existing traffic volumes were conservatively increased by a background growth factor of 1.00% per year along Cottontail Lane over a projected two-year development build-out horizon to create a projection of future conditions that would exist if the site were to remain unchanged. This background traffic growth rate is consistent with the current estimate for Local Roadways in Somerset County as published by the NJDOT in April 2019 and is typically used to develop the future base "no-build" traffic volumes.

In addition to background growth, traffic projections for the 100,125 square foot warehouse development located opposite the site along Cottontail Lane were included to develop the future "no-build" volumes shown on appended Figure 5.

Future "build" traffic volumes were established by surcharging the site-generated traffic volumes onto the future "no-build" traffic volumes. The resulting future "build" traffic volumes are shown on Figure 6.

ANALYSIS OF FUTURE TRAFFIC VOLUMES

Level of Service analyses were conducted for the future "no-build" and "build" weekday morning and evening peak hour traffic volumes at the site driveway intersections. The Level of Service results are summarized on Figures 7 and 8 in the technical appendix.

Under the "no-build" and "build" condition, all movements at the site driveways are projected to be consistent with those in the existing condition and continue to operate at Level of Service "B" or better during the study peak hours with no changes in Level of Service .

This study therefore demonstrates that the proposed warehouse expansion will not have a negative or perceptible impact on operating conditions at the site access or along Cottontail Lane.

SITE ACCESS, CIRCULATION AND PARKING

As part of this study, an evaluation of the plan prepared Stires Associates, PA was conducted. The following comments address access and parking as shown on the plans:

- Access is currently provided via two full-movement driveways along Cottontail Lane. The northernmost driveway serves passenger vehicles for employee and visitor parking, while the southern driveway is intended for truck use. The existing access system will be maintained.

- The Ordinance requires one parking stall per 1,000 square feet of warehouse space for the first 5,000 square feet and 1 space per every 2,500 square feet thereafter, equating to a requirement of 36 parking stalls for the total 89,514 SF warehouse area. The office component requires 1 space/250 SF and for the existing 24,674 SF to remain, 99 spaces are required for a total requirement for the building of 135 spaces.

  The site plan provides 137 passenger car parking spaces located along the north side of the building served by a 26-foot, two-way travel aisle. Ten tractor trailer loading docks are proposed along the southern side of the building, served by a 26-foot, two-way travel aisle and a 70-foot paved area (130+ feet total) for vehicle backing and maneuverability. These dimensions will provide efficient traffic flow and parking maneuvers, especially for larger trucks that may frequent the site.

Based on this review, it is concluded that safe and efficient access and circulation can be provided to the site with reasonable and prudent driver behavior. Consequently, from a traffic engineering perspective, the site is particularly well suited for the proposed development and will have no detrimental impact on traffic conditions on the roads surrounding the site.

CONCLUSIONS

In summary, it is evident from this study of existing site traffic operations and detailed analysis of projected future traffic conditions, that the proposed site development for a warehouse expansion would generate minimal traffic increases and will not create a negative impact on the local roadway network.

With only minor traffic increases associated with the application, adequate roadway capacity will continue to exist to accommodate future site traffic. All movements to and from the site will operate safely and efficiently with reasonable and prudent driver behavior.

Based on these findings, it is concluded that the site is particularly well suited for the proposed development. Such an operation will not negatively impact the traffic in the surrounding area or along the adjacent streets as adequate roadway capacity exists to accommodate the increases. The traffic characteristics of the uses will be consistently minimal and will not result in any additional off tract congestion or unfavorable conditions.

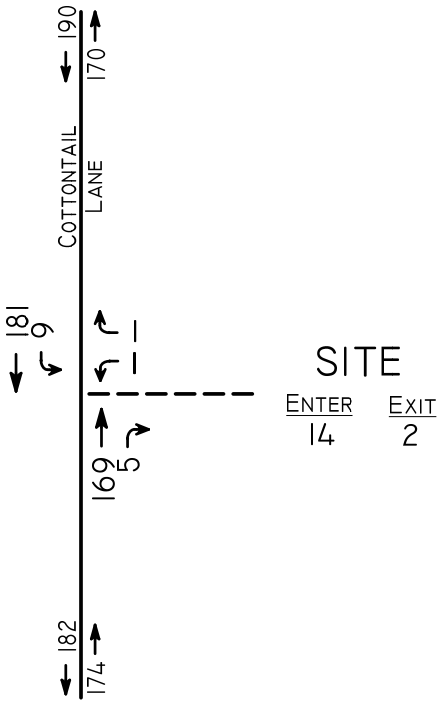
Technical Appendix

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

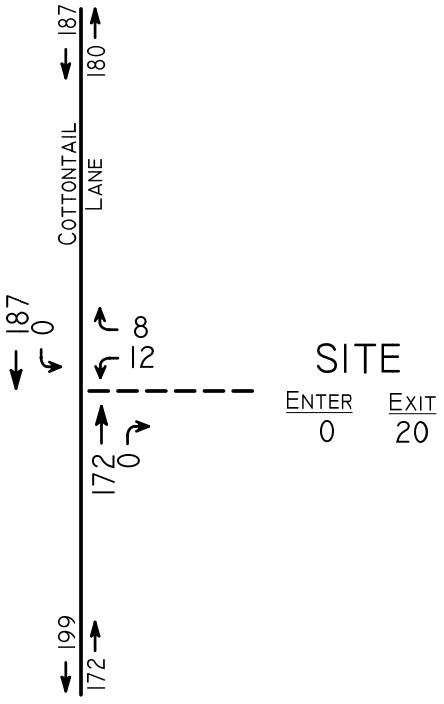
FIGURE 1

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

EXISTING TRAFFIC VOLUMES



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

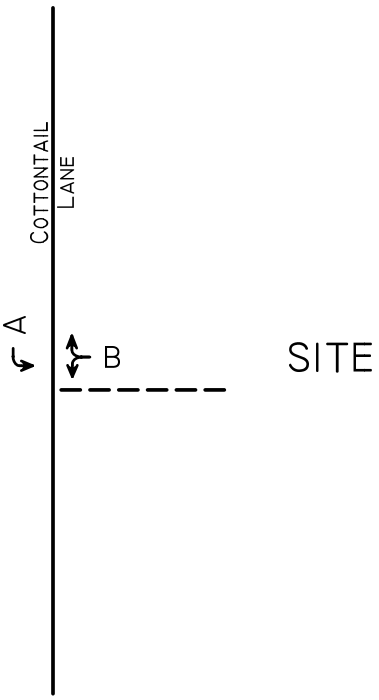
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

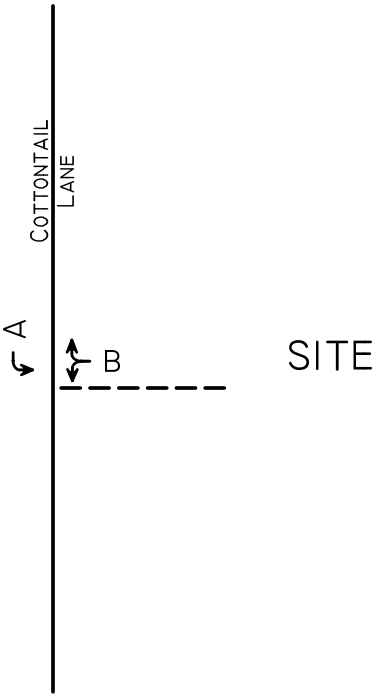
FIGURE 2

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

EXISTING TRAFFIC VOLUMES



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

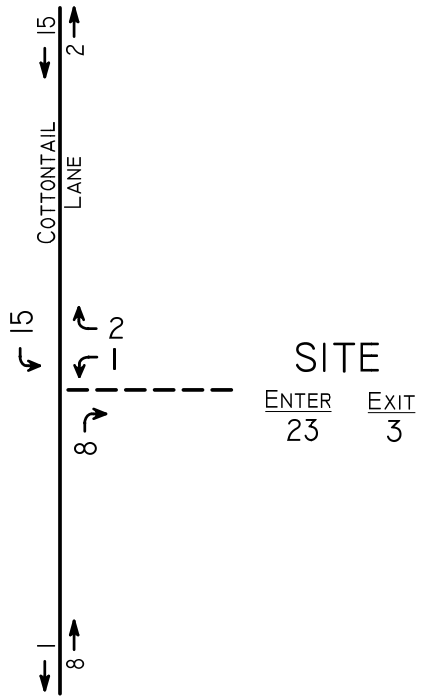
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

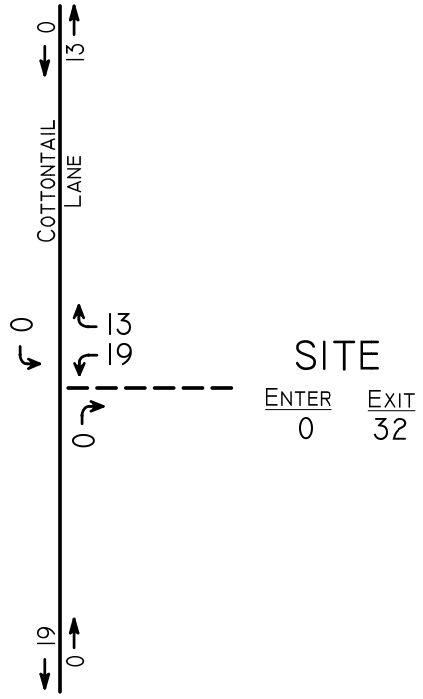
FIGURE 3

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

EXISTING LEVELS OF SERVICE



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

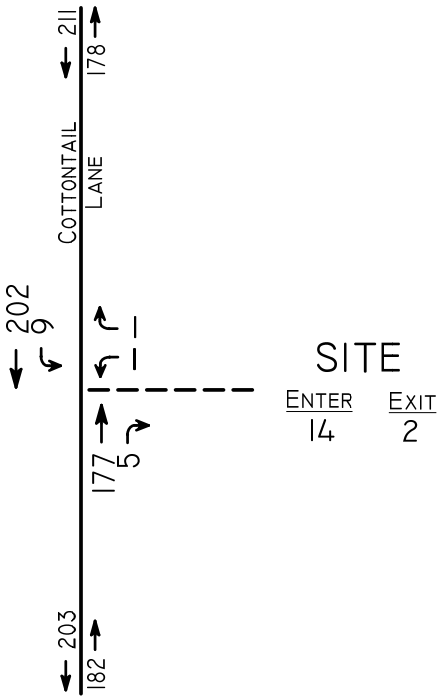
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

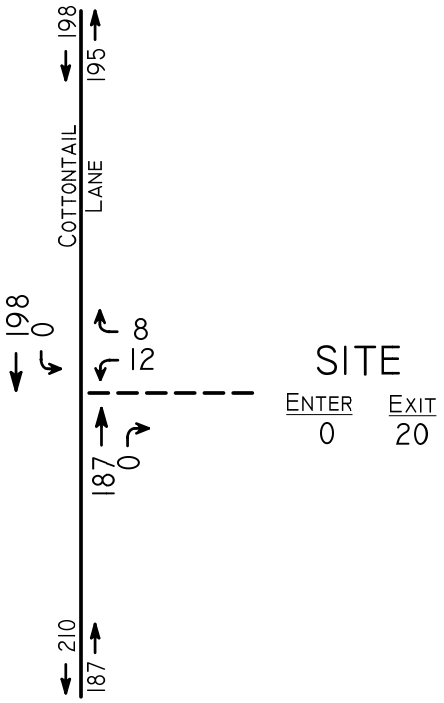
FIGURE 4

DOLAN&DEAN CONSULTING ENGINEERS, LLC

SITE GENERATED TRAFFIC VOLUMES



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

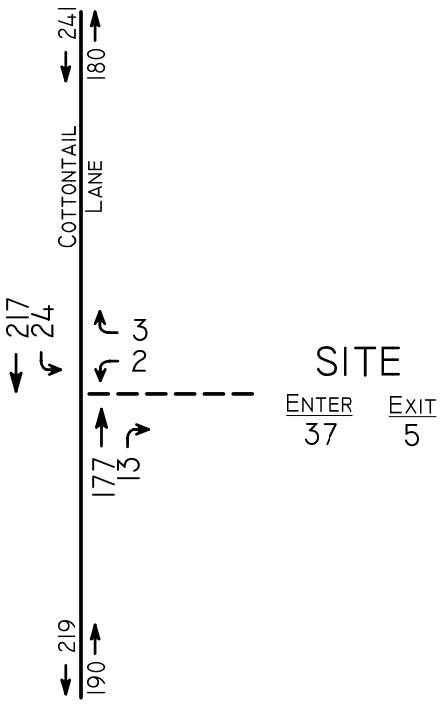
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

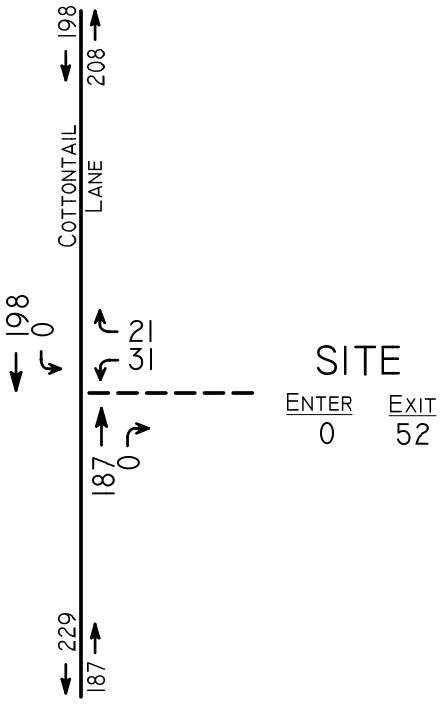
FIGURE 5

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

NO BUILD TRAFFIC VOLUMES



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

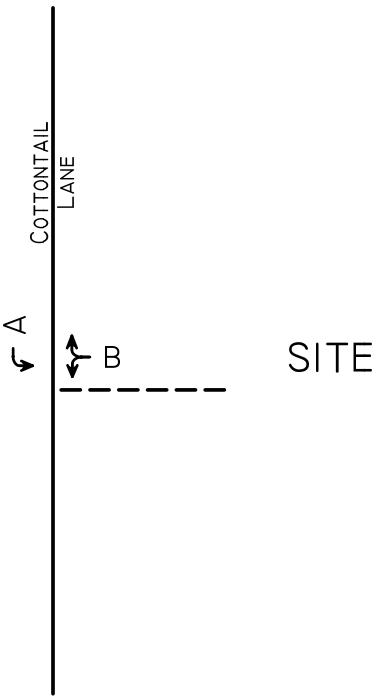
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

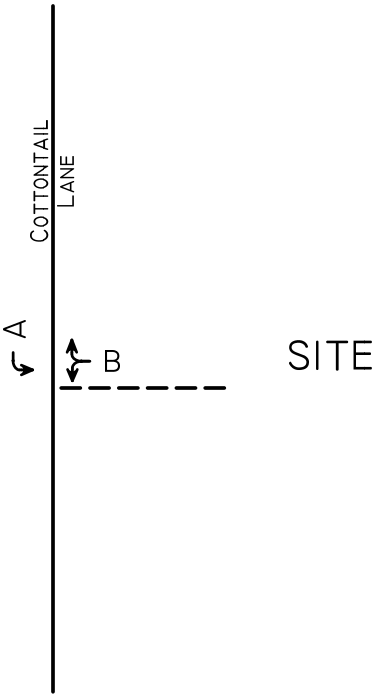
FIGURE 6

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

BUILD TRAFFIC VOLUMES



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

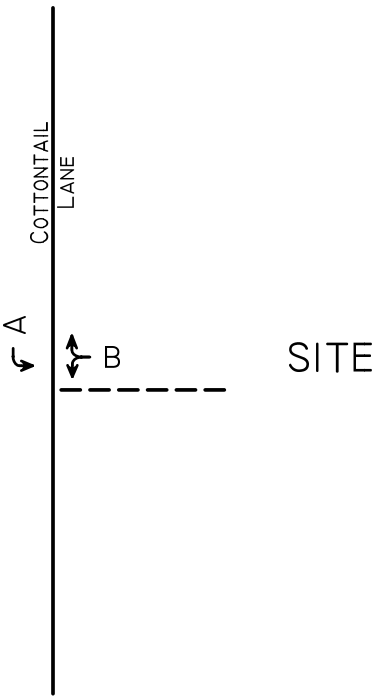
EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

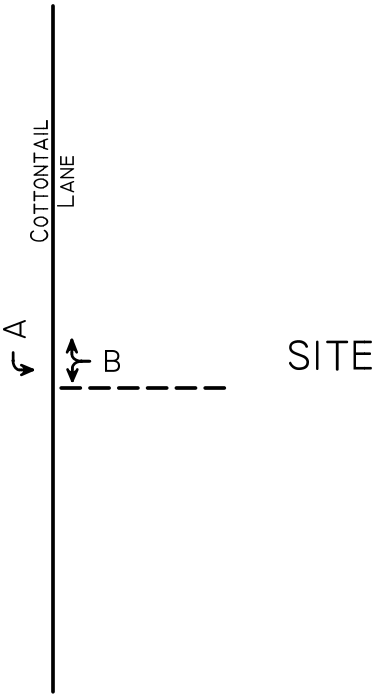
FIGURE 7

DOLAN&DEAN
CONSULTING ENGINEERS, LLC

NO BUILD LEVELS OF SERVICE



MORNING PEAK HOUR
7:00 A.M. TO 8:00 A.M.



Legend
— = Existing Roadway
-- = Existing/Proposed Driveway

EVENING PEAK HOUR
4:45 P.M. TO 5:45 P.M.

PROPOSED WAREHOSUE EXPANSION
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

FIGURE 8

DOLAN&DEAN CONSULTING ENGINEERS, LLC

BUILD LEVELS OF SERVICE

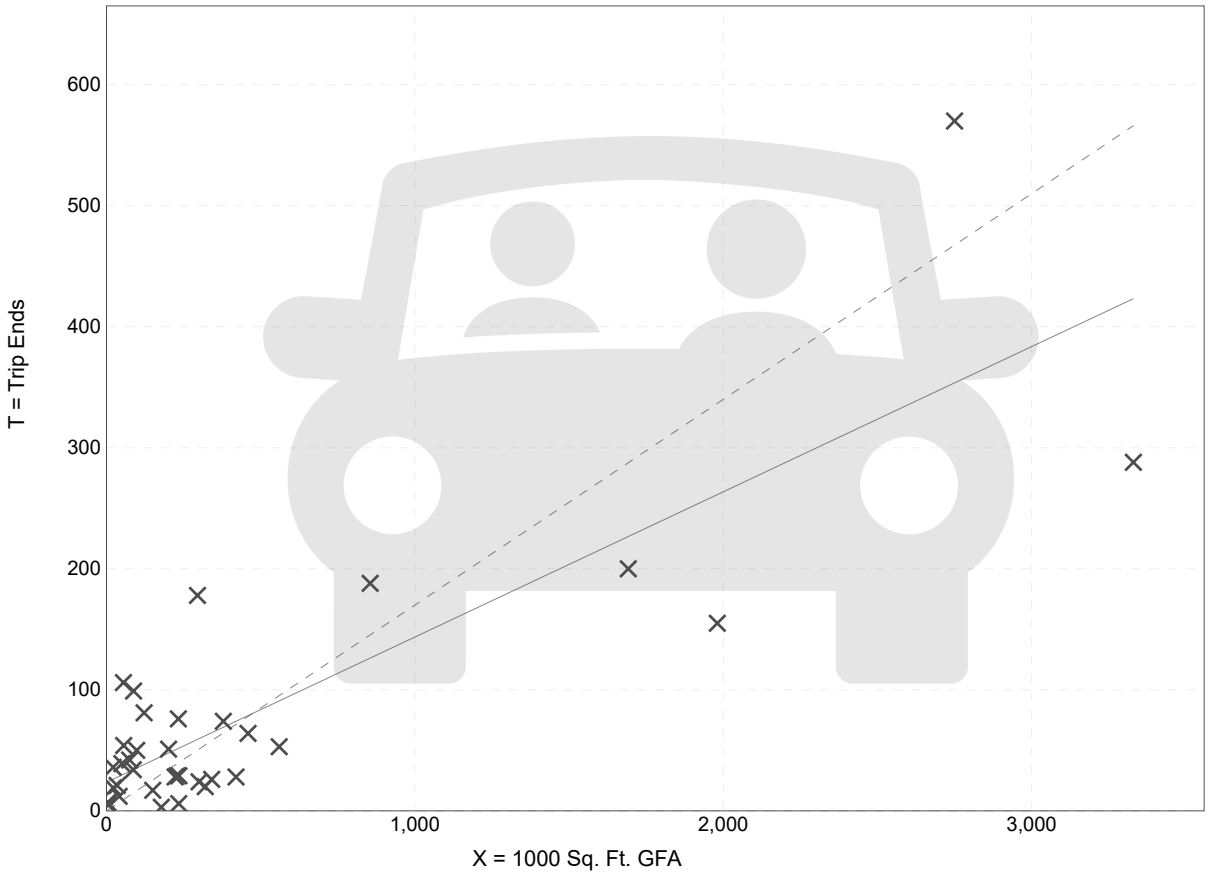
Warehousing
(150)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 23.62

R^2= 0.69

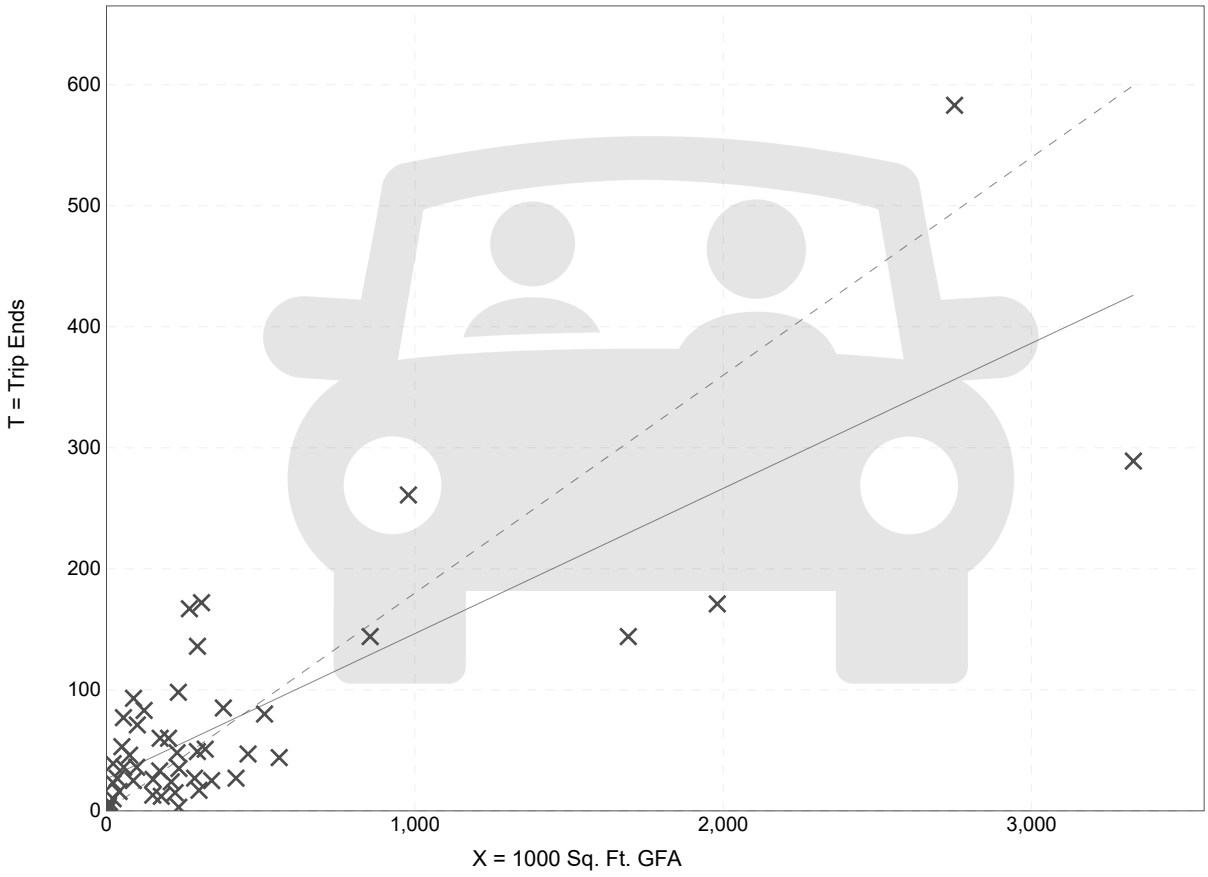
Warehousing
(150)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Fitted Curve Equation: T = 0.12(X) + 26.48

R^2= 0.65

National Data & Surveying Services Intersection Turning Movement Count

Location: Cottontail Ln & Raritan Dwy
City: Somerset
Control: 1-Way Stop(WB)

Project ID: 23-340023-001
Date: 2/7/2023

Data - Total

NS/EW Streets:	Cottontail Ln				Cottontail Ln				Raritan Dwy				Raritan Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	65	1	0	0	67	0	0	0	0	0	0	0	0	0	0	133
7:15 AM	0	44	0	0	4	44	0	0	0	0	0	0	0	0	0	0	92
7:30 AM	0	25	2	0	2	28	0	0	0	0	0	0	1	0	0	0	58
7:45 AM	0	35	2	0	2	42	0	0	0	0	0	0	0	0	1	0	82
8:00 AM	0	30	3	0	4	44	0	0	0	0	0	0	1	0	0	0	82
8:15 AM	0	28	3	0	1	48	0	0	0	0	0	0	0	0	0	0	80
8:30 AM	0	30	2	0	2	46	0	0	0	0	0	0	0	0	1	0	81
8:45 AM	0	43	1	0	0	47	0	0	0	0	0	0	0	0	0	0	91
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	300	14	0	15	366	0	0	0	0	0	0	2	0	2	0	699
APPROACH %'s :	0.00%	95.54%	4.46%	0.00%	3.94%	96.06%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	169	5	0	8	181	0	0	0	0	0	0	1	0	1	0	365
PEAK HR FACTOR :	0.000	0.650	0.625	0.000	0.500	0.675	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.686
		0.659				0.705								0.500			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	62	0	0	0	28	0	0	0	0	0	0	1	0	1	0	92
4:15 PM	0	33	0	0	0	32	0	0	0	0	0	0	1	0	1	0	67
4:30 PM	0	56	0	0	0	27	0	0	0	0	0	0	1	0	1	0	85
4:45 PM	0	44	0	0	0	70	0	0	0	0	0	0	2	0	1	0	117
5:00 PM	0	50	0	0	0	40	0	0	0	0	0	0	3	0	3	0	96
5:15 PM	0	26	0	0	0	43	0	0	0	0	0	0	3	0	3	0	75
5:30 PM	0	52	0	0	0	34	0	0	0	0	0	0	4	0	1	0	91
5:45 PM	0	38	0	0	0	48	0	0	0	0	0	0	0	0	3	0	89
6:00 PM	0	75	0	0	0	38	0	0	0	0	0	0	0	0	0	0	113
6:15 PM	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0	0	41
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	458	0	0	0	379	0	0	0	0	0	0	15	0	14	0	866
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					51.72%	0.00%	48.28%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	172	0	0	0	187	0	0	0	0	0	0	12	0	8	0	379
PEAK HR FACTOR :	0.000	0.827	0.000	0.000	0.000	0.668	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.667	0.000	0.810
		0.827				0.668								0.833			

National Data & Surveying Services Intersection Turning Movement Count

Location: Cottontail Ln & Raritan Dwy
City: Somerset
Control: 1-Way Stop(WB)

Project ID: 23-340023-001
Date: 2/7/2023

Data - Cars

NS/EW Streets:	Cottontail Ln				Cottontail Ln				Raritan Dwy				Raritan Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	48	1	0	0	62	0	0	0	0	0	0	0	0	0	0	111
7:15 AM	0	25	0	0	4	38	0	0	0	0	0	0	0	0	0	0	67
7:30 AM	0	18	2	0	2	21	0	0	0	0	0	0	1	0	0	0	44
7:45 AM	0	29	2	0	1	38	0	0	0	0	0	0	0	0	1	0	71
8:00 AM	0	22	3	0	4	36	0	0	0	0	0	0	1	0	0	0	66
8:15 AM	0	23	3	0	1	36	0	0	0	0	0	0	0	0	0	0	63
8:30 AM	0	23	2	0	2	37	0	0	0	0	0	0	0	0	1	0	65
8:45 AM	0	32	1	0	0	39	0	0	0	0	0	0	0	0	0	0	72
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	220	14	0	14	307	0	0	0	0	0	0	2	0	2	0	559
APPROACH %'s :	0.00%	94.02%	5.98%	0.00%	4.36%	95.64%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	120	5	0	7	159	0	0	0	0	0	0	1	0	1	0	293
PEAK HR FACTOR :	0.000	0.625	0.625	0.000	0.438	0.641	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.660
		0.638				0.669								0.500			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	57	0	0	0	20	0	0	0	0	0	0	1	0	1	0	79
4:15 PM	0	28	0	0	0	21	0	0	0	0	0	0	1	0	1	0	51
4:30 PM	0	53	0	0	0	21	0	0	0	0	0	0	1	0	1	0	76
4:45 PM	0	38	0	0	0	65	0	0	0	0	0	0	2	0	1	0	106
5:00 PM	0	47	0	0	0	36	0	0	0	0	0	0	3	0	3	0	89
5:15 PM	0	24	0	0	0	36	0	0	0	0	0	0	3	0	3	0	66
5:30 PM	0	46	0	0	0	31	0	0	0	0	0	0	4	0	1	0	82
5:45 PM	0	35	0	0	0	42	0	0	0	0	0	0	0	0	3	0	80
6:00 PM	0	72	0	0	0	32	0	0	0	0	0	0	0	0	0	0	104
6:15 PM	0	21	0	0	0	17	0	0	0	0	0	0	0	0	0	0	38
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	421	0	0	0	321	0	0	0	0	0	0	15	0	14	0	771
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					51.72%	0.00%	48.28%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	155	0	0	0	168	0	0	0	0	0	0	12	0	8	0	343
PEAK HR FACTOR :	0.000	0.824	0.000	0.000	0.000	0.646	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.667	0.000	0.809
		0.824				0.646								0.833			

National Data & Surveying Services Intersection Turning Movement Count

Location: Cottontail Ln & Raritan Dwy
City: Somerset
Control: 1-Way Stop(WB)

Project ID: 23-340023-001
Date: 2/7/2023

Data - HT

NS/EW Streets:	Cottontail Ln				Cottontail Ln				Raritan Dwy				Raritan Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	17	0	0	0	5	0	0	0	0	0	0	0	0	0	0	22
7:15 AM	0	19	0	0	0	6	0	0	0	0	0	0	0	0	0	0	25
7:30 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	14
7:45 AM	0	6	0	0	1	4	0	0	0	0	0	0	0	0	0	0	11
8:00 AM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	16
8:15 AM	0	5	0	0	0	12	0	0	0	0	0	0	0	0	0	0	17
8:30 AM	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	16
8:45 AM	0	11	0	0	0	8	0	0	0	0	0	0	0	0	0	0	19
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	80	0	0	1	59	0	0	0	0	0	0	0	0	0	0	140
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	1.67%	98.33%	0.00%	0.00%									
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	49	0	0	1	22	0	0	0	0	0	0	0	0	0	0	72
PEAK HR FACTOR :	0.000	0.645	0.000	0.000	0.250	0.786	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.720
	0.645				0.821												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13
4:15 PM	0	5	0	0	0	11	0	0	0	0	0	0	0	0	0	0	16
4:30 PM	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9
4:45 PM	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	11
5:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
5:15 PM	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	9
5:30 PM	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9
5:45 PM	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9
6:00 PM	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	9
6:15 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	37	0	0	0	58	0	0	0	0	0	0	0	0	0	0	95
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	17	0	0	0	19	0	0	0	0	0	0	0	0	0	0	36
PEAK HR FACTOR :	0.000	0.708	0.000	0.000	0.000	0.679	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.818
	0.708				0.679												

National Data & Surveying Services Intersection Turning Movement Count

Location: Cottontail Ln & Raritan Dwy
City: Somerset
Control: 1-Way Stop(WB)

Project ID: 23-340023-001
Date: 2/7/2023

Data - Bikes

NS/EW Streets:	Cottontail Ln				Cottontail Ln				Raritan Dwy				Raritan Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Cottontail Ln & Raritan Dwy
City: Somerset
Project ID: 23-340023-001
Date: 2/7/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Cottontail Ln		Cottontail Ln		Raritan Dwy		Raritan Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	1
APPROACH %'s :					0.00%	100.00%			
PEAK HR :	**07:00 AM - 08:00 AM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Cottontail Ln & Raritan Dwy

Peak Hour Turning Movement Count

ID: 23-340023-001
City: Somerset

Day: Tuesday
Date: 2/7/2023

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:30 PM

SOUTHBOUND (Cottontail Ln)

AM	0	181	8	0	170	AM
NOON	0	0	0	0	0	NOON
PM	0	187	0	0	180	PM

EASTBOUND (Raritan Dwy)

AM	NOON	PM	
0	0	0	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
0	0	0	↴ 0
AM	NOON	PM	

WESTBOUND (Raritan Dwy)

PM	NOON	AM	
8	0	1	↰ 0
0	0	0	← 1
12	0	1	↰ 0
0	0	0	↶ 0
0	0	13	⇨
PM	NOON	AM	

NORTHBOUND (Cottontail Ln)

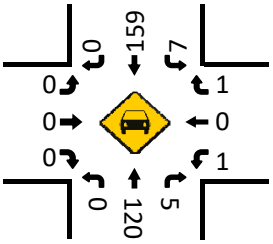
PM	199	0	0	172	0	PM
NOON	0	0	0	0	0	NOON
AM	182	0	0	169	5	AM

CONTROL

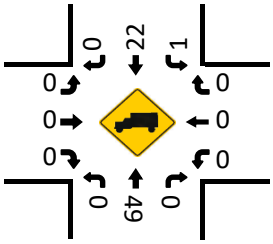
1-Way Stop(WB)

TEV	365 AM	0 NOON	379 PM
PHF	0.69		0.81

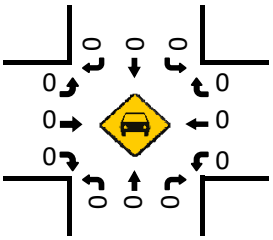
Cars (AM)



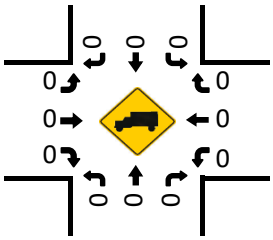
HT (AM)



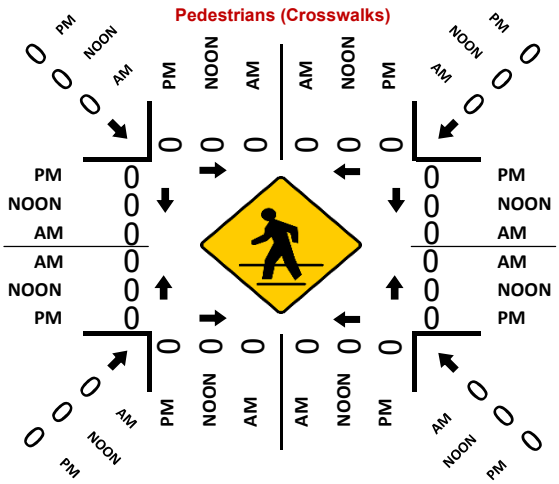
Cars (NOON)



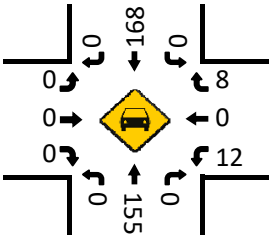
HT (NOON)



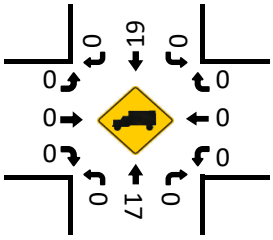
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



HCS7 Two-Way Stop-Control Report

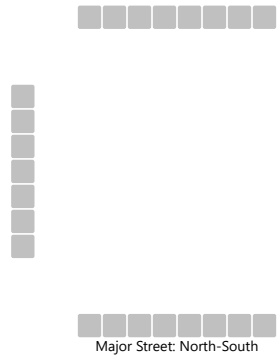
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Pm Nb
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.81
Analysis Time Period (hrs)	0.25

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						12		8			187	0		0	198	
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)							25							0		
Capacity, c (veh/h)							633							1349		
v/c Ratio							0.04							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							10.9							7.7		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						10.9								0.0		
Approach LOS						B										

Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

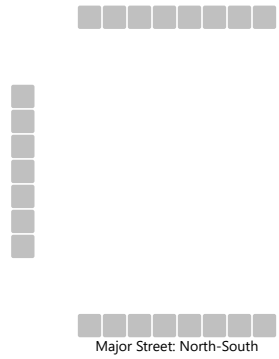
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Pm Ex
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.81
Analysis Time Period (hrs)	0.25

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						12		8			172	0		0	187	
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)							25							0		
Capacity, c (veh/h)							657							1370		
v/c Ratio							0.04							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							10.7							7.6		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						10.7								0.0		
Approach LOS						B										

Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

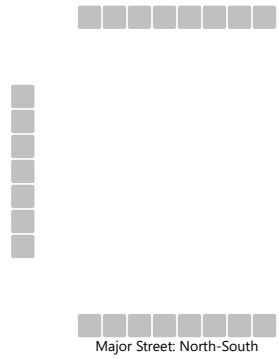
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Pm B
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.81
Analysis Time Period (hrs)	0.25

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						31		21			187	0		0	198	
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)							64							0		
Capacity, c (veh/h)							634							1349		
v/c Ratio							0.10							0.00		
95% Queue Length, Q_{95} (veh)							0.3							0.0		
Control Delay (s/veh)							11.3							7.7		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						11.3								0.0		
Approach LOS						B										

Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

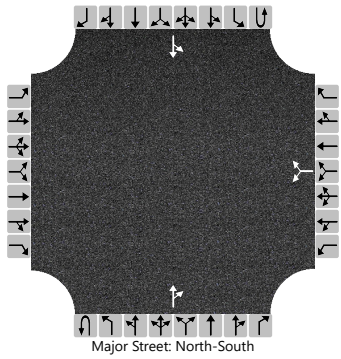
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Am Nb
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.69
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						1		1			177	5		9	202	
Percent Heavy Vehicles (%)						0		0						11		
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						4.21		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.30		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							3							13		
Capacity, c (veh/h)							591							1250		
v/c Ratio							0.00							0.01		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							11.1							7.9		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)							11.1							0.4		
Approach LOS							B									

Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

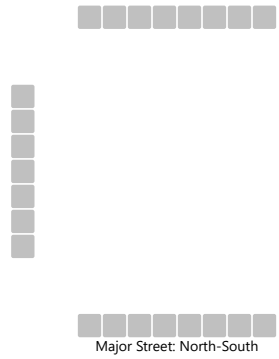
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Am Ex
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.69
Analysis Time Period (hrs)	0.25

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						1		1			169	5		9	181	
Percent Heavy Vehicles (%)						0		0						11		
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						4.21		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.30		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							3							13		
Capacity, c (veh/h)							616							1262		
v/c Ratio							0.00							0.01		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							10.9							7.9		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)					10.9								0.5			
Approach LOS					B											

Copyright © 2023 University of Florida. All Rights Reserved.

HCS7 Two-Way Stop-Control Report

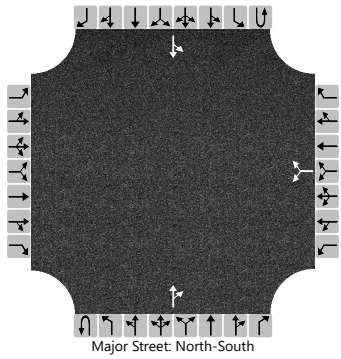
General Information

Analyst	EIC
Agency/Co.	DD
Date Performed	2/22/2023
Analysis Year	2023
Time Analyzed	Am B
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Site Driveway
Jurisdiction	
East/West Street	Site Driveway
North/South Street	Cottontail Lane
Peak Hour Factor	0.69
Analysis Time Period (hrs)	0.25

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	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						2		3			177	13		24	202	
Percent Heavy Vehicles (%)						0		0						11		
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						4.21		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.30		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							7							35		
Capacity, c (veh/h)							591							1237		
v/c Ratio							0.01							0.03		
95% Queue Length, Q_{95} (veh)							0.0							0.1		
Control Delay (s/veh)							11.2							8.0		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)							11.2							1.1		
Approach LOS							B									

Copyright © 2023 University of Florida. All Rights Reserved.