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July 28, 2020

Arturo Acosta
ARACO Enterprises
7470 Southmoor Drive
Fountain, CO 80817

RE: ARACO Concrete
El Paso County, CO
Transportation Memorandum
LSC # 194560
PCE File No. PPR1950

Dear Mr. Acosta,

LSC Transportation Consultants, Inc. has prepared this Transportation Memorandum for the ARACO Concrete site. The site is located at 7470 Southmoor Drive in unincorporated El Paso County, Colorado. Access is proposed to Southmoor Drive. This report has been prepared for submittal to the El Paso County Planning and Community Development Department.

This memorandum has been prepared primarily to address the existing roadway and traffic conditions, the existing trip generation, and the projected trip generation following the completion of the proposed site improvements, as well as to evaluate the access plan with respect to the criteria in the Engineering Criteria Manual.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on the adjacent and nearby roadway system, including surface conditions, functional classification, jurisdictional control, widths, pavement markings, traffic control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes;
- The proposed site improvement plan and access plan;
- Estimated peak-hour and average daily traffic (ADT) volumes adjacent to the proposed ARACO Concrete site on Southmoor Drive;
- Evaluation of access sight distances and comparison to El Paso County *Engineering Criteria Manual* (*ECM)* criteria for stopping sight distance and entering/intersection sight distance;

- Evaluation of the access points with respect to the *ECM* Criteria contained in Section 2.4.1.; and
- Pedestrian & bicycle facilities.

LAND USE AND ACCESS

The 4.2-acre ARACO Concrete subdivision is located at 7470 Southmoor Drive in unincorporated El Paso County, Colorado. Access is to the adjacent Southmoor Drive. The proposed site improvements plan showing the proposed building, on-site circulation, and proposed access points is attached.

The current concrete services business operates out of the 2,000 square foot building on the site. The company employs eight office staff members and approximately 10-16 field employees who will travel to/from the site for work via private vehicle. Crews then travel to job sites in company vehicles. This site is not a concrete batch plant and no concrete mixer trucks are dispatched from this site.

The proposed site plan shows the addition of a 6,000 square foot building. Although this will increase the building square footage on-site from 2,000 to 8,000 square feet, the new building is planned to be used for storage and as a shop. It will not contain business offices. There is also outside storage for contractor equipment, which will remain. The parking area south of the building will be formalized and access to this lot will be better defined. The head-in parking in front of the existing building is proposed to remain.

A 97-space RV & vehicle storage lot is also proposed on the north side of the site.

ROAD AND TRAFFIC CONDITIONS

The attached site plan shows the streets adjacent to and in the vicinity of the site. Adjacent streets serving the site are identified below, followed by a brief description of each:

US Highway 85/87 (US Hwy 85/87) is classified as NR-A (Non-Rural Principal Highway) extending north from I-25 in Fountain to the City of Colorado Springs. In the vicinity of the site, US Hwy 85/87 has a posted speed limit of 50 miles per hour (mph) and is a four-lane urban section with curb and gutter. The T-intersection of US Hwy 85-87/Southmoor Drive is stop sign-controlled with auxiliary turn lanes.

Southmoor Drive is classified as a two-lane Collector roadway adjacent to the site by the El Paso County road inventory. The county section only extends between 425 feet south of River Drive to the point where the street turns to the east (from which point it extends east to US Highway 85). The posted speed limit on Southmoor Drive is 25 mph, and the paved roadway width is about 22 feet. The section north of the County portion is in the City of Fountain. The City of Fountain Traffic Master Plan shows the “Collector” portion of Southmoor Drive beginning at Carson Boulevard and extending north. There is another County-owned/maintained section north of Lovitt Lane.

Existing Traffic Volumes

Vehicular turning-movement counts were conducted at the intersection of Southmoor Drive/Araco Concrete parking access/Southmoor Lane on Wednesday, August 14, 2019 from 6:30-8:30 a.m. and from 4:00-6:00 p.m. Count data is attached in Appendix Table 2 and is shown in Figure 2. The current volumes on the adjacent section of Southmoor Drive are light.

TRIP GENERATION

Estimates of the existing vehicle-trip generation and trip generation following the implementation of the site plan have been made using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Corresponding trip generation rates from ITE Land Use Category "180 – Specialty Trade Contractor" have been used to develop the trip-generation estimates for exiting business and following the site improvements.

Proposed land uses include: recreational vehicle, automobile, and boat storage; contractor's equipment yard; light manufacturing (pre-fabricated concrete components); general office; outside storage; parking lots; vehicle repair garage; and commercial warehouse.

Table 2 and Figure 3 (attached) present estimates of projected site trip generation. The site plan (attached) shows the specifics of the proposed site improvements. Existing count data have also been used in the trip estimate. The table shows estimates of the existing trip generation of the business, based on traffic count data and ITE rates with "building square footage" as the predictor variable.

The entire site is expected to generate about 102 vehicle-trips on the average weekday (one half entering and one half exiting in a 24-hour period) following expansion. During the morning peak hour, 12 vehicles are projected to enter the site while 5 are projected to exit. Approximately 7 vehicles would enter and 14 vehicles would exit the site during the evening peak hour.

The table shows estimates of the post-project trip generation. The estimate based on ITE rates with "building square footage" as the predictor variable (the typical method) is presented. However, based on the existing counts ("snapshot" of the trip generation), this estimate may be low for this particular operation. The potential increase in the number of employees is not known. However, any increase in employees is not anticipated to be proportionate to the increase in total site building square footage. The building being added is for shop and storage space rather than office space.

LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 1 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 1: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle)[1]
A	≤ 10.0	≤ 10.0
B	10.1 – 20.0	10.1 – 15.0
C	20.1 – 35.0	15.1 – 25.0
D	35.1 – 55.0	25.1 – 35.0
E	55.1 – 80.0	35.1 – 50.0
F	≥ 80.1	≥ 50.1

[1] For unsignalized intersections, if V/C is > 1.00, then LOS is LOS F regardless of the projected average control delay per vehicle

All approaches at both site access points currently operate at and are projected to remain at LOS A or better following site buildout. Please refer to the detailed Synchro reports (attached) for additional details. Figure 4 contains the short-term total traffic volumes and LOS results for each study area intersection, which consists of existing background traffic (from Figure 2) plus projected site-generated traffic (from Figure 3).

The northeast-bound left-turn at the intersection of US Hwy 85-87/Southmoor Drive is projected to remain LOS F during the afternoon peak hour. However, analysis results show a volume-to-capacity (v/c) ratio to be well below 1.00 for the eastbound through turning movement during all short-term traffic scenarios. This is not uncommon for minor street approaches on arterial streets to operate at levels of service E or even F during peak periods, as signal timings would be adjusted to favor heavier northbound and southbound through volumes on US Hwy 85-87. Despite Synchro's reported LOS F (HCM methodology) for the northeast-bound left-turning movement during the afternoon peak hour, gaps created from the nearby signal at US Hwy 85-87/Mesa Ridge Parkway would allow side street vehicles to turn left onto US Hwy 85-87.

It is our understanding that the intersection of US Hwy 85/87 with Carson Avenue has been identified as a future signalized intersection (Destination 2025 Priority Project #186) on the City of Fountain's *Major Thoroughfare Plan*. As such, northbound vehicles exiting the site may decide to travel north via Southmoor Drive to access US Hwy 85/87 via the future signal at Carson Avenue rather than turning from the stop sign-controlled Southmoor Drive intersection with US Hwy 85/87.

SITE ACCESS PLAN

ECM Criteria for Access Design

Two site access points will be allowed from the adjacent Southmoor Drive (Collector roadway). The following summarizes *Engineering Criteria Manual* Section 2.4.1 access criteria, which states the following five access design guidelines:

- Adequate spacing
- Proper alignments
- Clear sight distances
- Coordinated widths with its intended use
- Clearances from intersections

The following sections address each of these criteria for access-point design throughout the site.

Adequate Spacing

Southmoor Drive is a Collector roadway. The *ECM* indicates that accesses shall be separated by a distance equal to the entering sight-distance values in Table 2-35. Based on a posted speed limit of 25 mph, the prescribed spacing would be 425 feet. The distance between the two site access points is 480 feet, which meets *ECM* criteria.

Access Alignment

All proposed site access points should be aligned at 90 degrees to the adjacent roadway centerline. The adjacent roadway grades are essentially level. The vertical alignment criteria in ECM Section 2.4.1.C.2 shall be met for the driveways. The access points are shown to intersect Southmoor Drive at 90 degrees.

Access Sight Distances

The access sight distance criteria in section 2.4.1.D would apply:

> *"Any potentially obstructing objects, such as but not limited to advertising signs, structures, trees, and bushes, shall be designed, placed, and maintained at a height not to interfere with the sight distance needed by any vehicle using the access."*

Southmoor Drive has a straight horizontal alignment with no significant vertical curvature that would limit access sight distance. Site improvements, such as signs, on-street parking, and landscaping, should not impede the required sight-distance lines of sight. The sight distance from the south access to the 90-degree corner to the southeast would be acceptable, given the design speed of that corner and the distance from the driver's eye at the access.

Based on a 25-mph posted speed limit, sight distances for both approaches from both proposed site access locations exceed the required 425-foot requirement for multi-unit trucks, per *ECM* Table 2-35, with one exception – the sight distance to the south from the south access point. The following analysis corresponds to sight distances for the proposed site-access intersections with Southmoor Drive.

Proposed Southmoor Drive/North Site Access Intersection

Sight distances are as follows:

- To the northwest: greater than 1/4-mile
- To the southeast: 730 feet (unobstructed to L-corner turn on Southmoor Drive)

Proposed Southmoor Drive/South Site-Access Intersection

Sight distances are as follows:

- To the northwest: greater than 1/4-mile
- To the southeast: 290 feet (unobstructed to L-corner turn on Southmoor Drive). Although this is short of the 425-foot *ECM* minimum criteria, the design speed for traffic arriving from the south around the tight horizontal curve in Southmoor Drive is about 13 to 14 mph (the curve warning sign indicates an advisory speed of 10 mph). Based on the speed of the approaching vehicle as it turns the corner and is seen by possible, but infrequent, multi-unit trucks, the intersection sight distance, based on the AASHTO formula, is 236 feet. As 290 feet is available, the sight distance is acceptable.

Access Width

The *ECM* requires a minimum of 25-foot width for a commercial access point on a Non-Residential Collector roadway. The south access drive (30 feet wide) would meet this criterium, while the north (gated) access drive (24 feet wide) would be just short of *ECM* criteria. The existing head-in parking adjacent to the existing building is proposed to remain.

For the north access, LSC recommends a 65-foot stacking distance between the entry gate and the west edge of Southmoor Drive. This would allow for a Class A RV, 30-foot-long single-unit truck or a 35-foot-long U-Haul truck (largest size) plus an additional 30 feet to allow for a towed utility trailer, moving trailer, or following passenger vehicle.

Clearances from Intersections

Regarding access clearance from intersection criteria outlined in Section 2.4.1.F of the *ECM*:

> *Access to commercial or industrial properties fronting collector or local roads shall be located a minimum of 50 feet from the point of curvature or point of tangency of the curb line at the intersection. Access to commercial or industrial parcels fronting Nonresidential Collector roadways shall be located a minimum of 115 –*

> *480 feet from the point of curvature or point of tangency of the curb line at the intersection, depending on the sight distance and location with respect to the intersection, intersection control, and posted speed.*
>
> *In all cases, a minimum corner clearance of 50 feet shall be provided. If the minimum corner clearance cannot be attained, the ECM Administrator may require investigation to determine if left turns should be prohibited into or out of the access point. For proposed access points near stop or signalized intersections, the ECM Administrator will require studies to determine if stopping queues will block the access point and if left turns should be prohibited into or out of the access point.*

Based on the proposed driveway locations shown in the site plan, the south access point would have a centerline offset of about 60 feet from the nearest intersection (Southmoor Drive/Southmoor Lane), which meets the aforementioned *ECM* criteria. This is a minor intersection with low through volumes and low turning volumes to/from Southmoor Lane.

PEDESTRIAN & BICYCLE FACILITIES

Sidewalks exist within the City of Fountain just to the north of the site (at the River Drive/Southmoor intersection). The existing drainage structure just to the north appears to have limited width and future sidewalk installation may not be feasible. There is an existing trail located just north of the site – the Crews Gulch Trail. The section of Southmoor connecting to US Hwy 85/87 has curb & gutter, but no sidewalk. Sidewalk exists along the west side of US Hwy 85/87. Southmoor lane, which exists directly across from this site, extends east to US Hwy 85. Although Southmoor Lane does not have a sidewalk, the roadway is gravel and narrow, limiting vehicle speeds, and carries low traffic volumes.

ACCESS AUTOTURN VEHICLE TURNING ANALYSIS

AutoTurn analysis was run at the request of staff and to assist with the planning and design of the proposed north site access. Detailed AutoTurn analysis exhibits depicting entering and exiting B-40 (simulating a Class A RV) vehicle-movement wheel paths are attached as “AutoTurn Exhibits 1-4.”

CONCLUSIONS/RECOMMENDATIONS

Access Evaluation

- The site access points meet *ECM* Criteria, or the intent of the *ECM* Criteria (in the case of the sight distance to the south at the south access point). Please refer to this section of the report for details.

Level of Service Analysis

- The site access points would operate at an acceptable LOS. The intersection of Southmoor Drive/US Hwy 85 has been analyzed and results indicate a LOS F for side street left-turn movements during peak hours. This is not likely to be signalized or converted to a right-in/right-out intersection. Alternatives to the eastbound left-turn movement at this intersection are available. Please refer to this section of the report for details.

County Road Impact Fee Program

<u>South portion of the site</u>

This project will be required to participate in the El Paso County Road Improvement Fee Program. The preliminary indication from the applicant is to opt out of the PID option. The applicable building permit is $3,651 per thousand square feet. Based on 6,000 additional square feet, the opt-out building permit fee would be $21,906 plus the amount for the RV storage.

<u>North Portion of the site (RV Storage)</u>

Per our understanding of recent correspondence received from the County Principal Transportation Planner on another proposed RV Storage use, the roadway impact fee shall be calculated based on:

- The total square footage of RV storage parking spaces (not including drive aisles, landscaping islands, etc.) and
- The mini warehouse fee rate of $725 per 1,000 square feet.
- The latest site plan indicates that the RV storage parking spaces would cover about 24,700 square feet (24.7 KSF)
- Therefore, the calculated County Roadway Impact Fee for the RV storage use is $17,908.
- This amount paid should be taken into account in the future upon any redevelopment of the RV storage area, so fees are not paid twice for the same lot.

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* * * * *

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH:JAB

Enclosures: Table 2
Figure 1 - Figure 4
Appendix Table: Traffic Count Data
Levels of Service
AutoTurn Exhibits 1-4
Site Plan Exhibit

Tables and Figures

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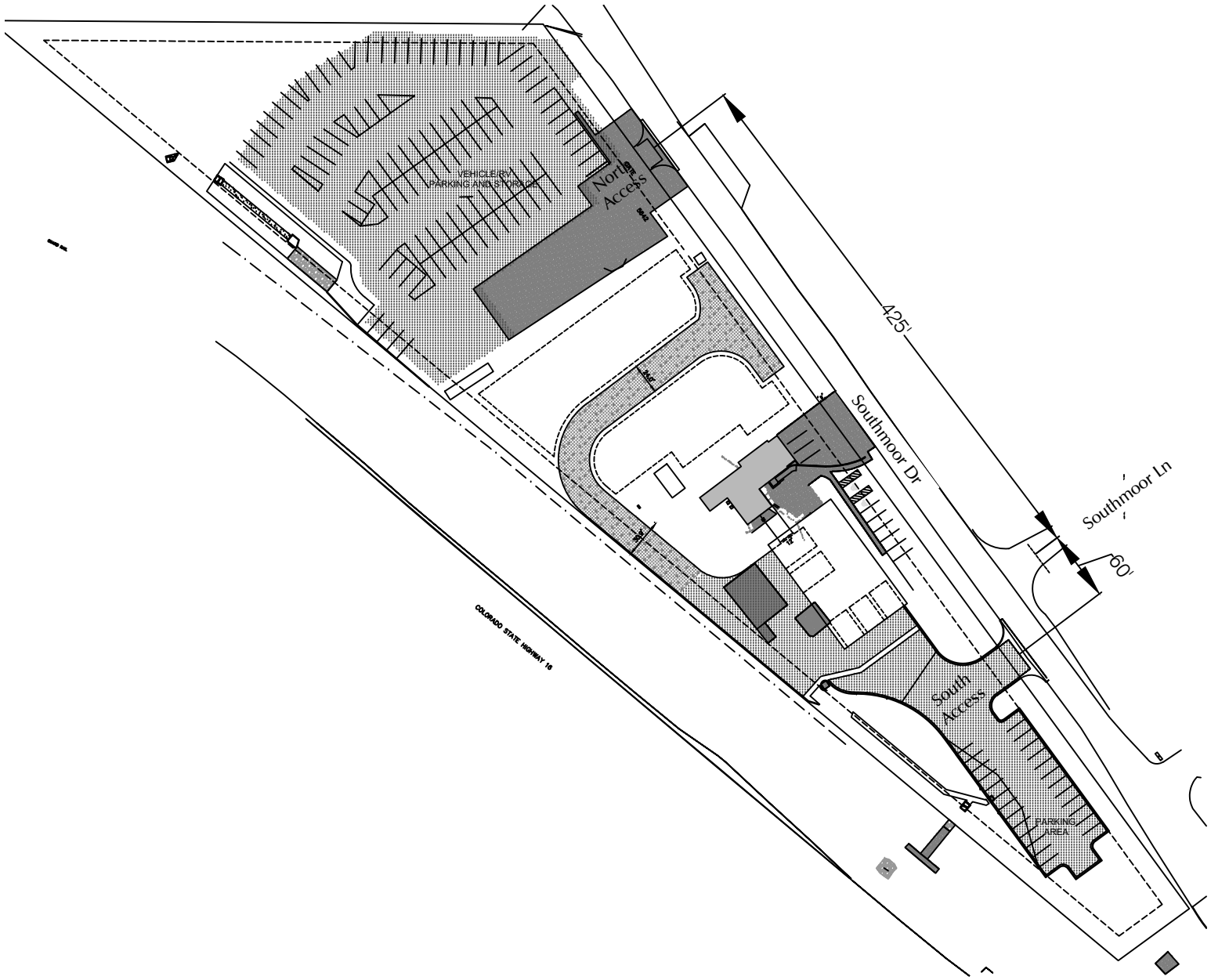
Table 2: Trip Generation Estimate

ITE		Value	Units [1]	Trip Generation Rates [2]					Total Trips Generated				
				Average	A.M.		P.M.		Average	A.M.		P.M.	
Code	Description			Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
Existing Trip Generation "Snapshot" (from an Actual Count)													
180	Specialty Trade Contractor	2.062	KSF	-	-	-	-	-	N/A	5	3	5	7
Estimate Based on Building Square Footage (Based on ITE Rates)													
180	Specialty Trade Contractor	2.062	KSF	10.22	1.21	0.45	0.63	1.34	21	2	1	1	3
	Difference: Existing (Based on Counts) Minus Existing (Based on ITE Rates)								-	3	2	4	4
Estimate of Trips Following Site Improvements (Based on ITE Fitted Rates)													
180	Specialty Trade Contractor	8.062	KSF	10.22	1.21	0.45	0.63	1.34	82	10	4	5	11
416	RV/Vehicle Storage	0.97	HOC	20.00	2.28	1.37	1.98	2.81	19	2	1	2	3
								Total	**102**	**12**	**5**	**7**	**14**

[1] KSF = 1,000 square feet of gross floor area, HOC = hundred occupied spaces

[2] Source: *Trip Generation* , 10th Edition, 2017, by the Institute of Transportation Engineers (ITE)

Note: "RV/Vehicle Storage" rates based on RV storage facility turning movement counts conducted by LSC in El Paso County (2018)



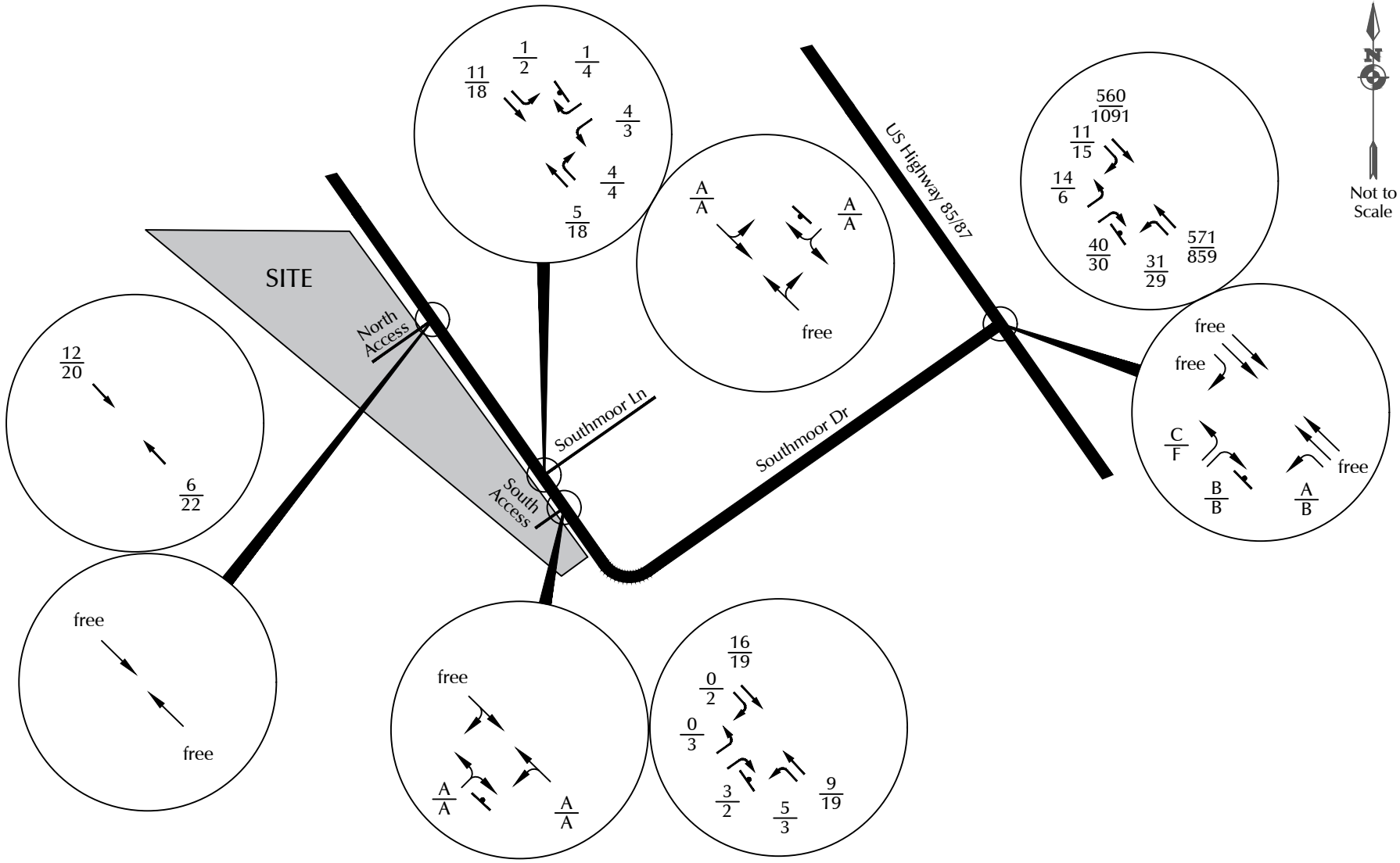
Not to Scale

Figure 1

Site Plan

ARACO Concrete (LSC #194560)

LSC TRANSPORTATION CONSULTANTS, INC.



$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Daily Traffic (vehicles per day)

$\frac{X}{X}$ = $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$

= Stop Sign

Counts by LSC (July 2020)

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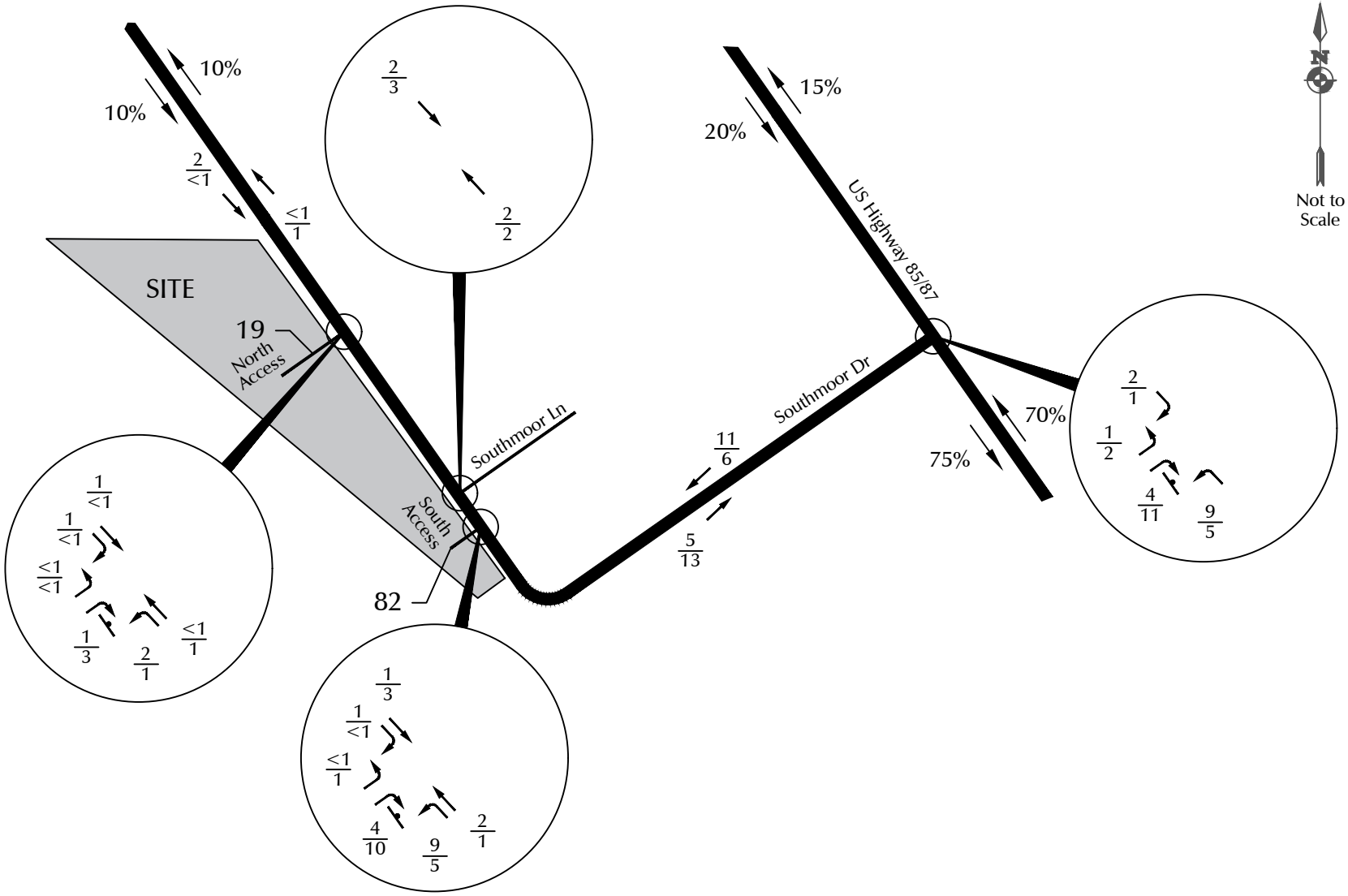
Figure 2

Existing Traffic, Lane Geometry, Traffic Control, and LOS

ARACO Concrete (LSC #194560)



XX% / XX% = A.M. Peak Hour % Distribution / P.M. Peak Hour % Distribution

XX / XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX = Average Daily Traffic (vehicles per day)

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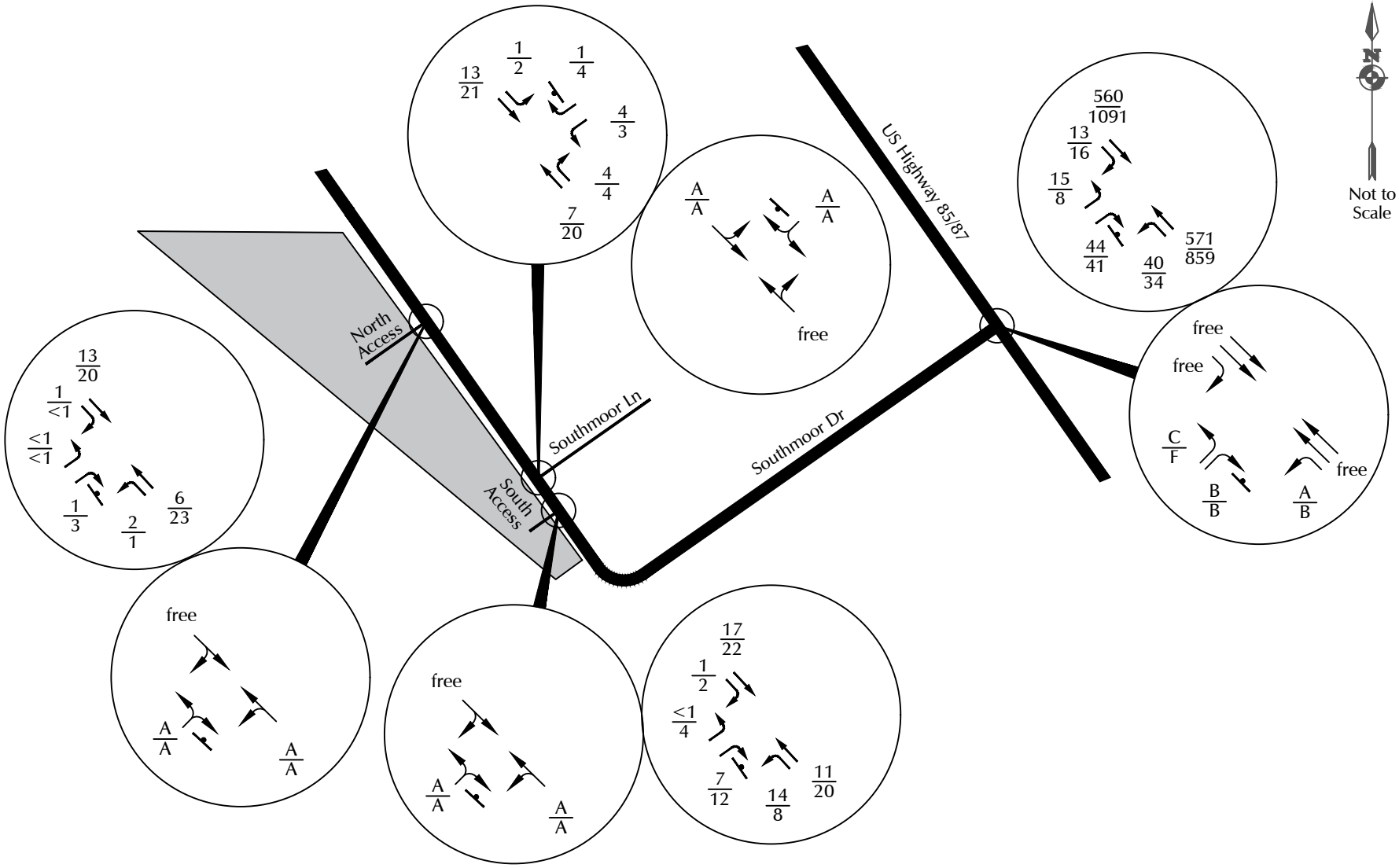
Figure 3

Site-Generated Traffic

ARACO Concrete (LSC #194560)



= Stop Sign

XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

X,XXX = Average Daily Traffic (vehicles per day)

X/X = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS

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Figure 4

Existing + Site-Generated Traffic, Lane Geometry, Traffic Control, and LOS

ARACO Concrete (LSC #194560)

Appendix Table: Traffic Count Data

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Appendix Table: Traffic Count Data

Southmoor Drive/Southmoor Lane/Existing Araco Access

Volume	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL
AM / PM	0 / 2	11 / 16	1 / 2	1 / 4	0 / 0	4 / 3	4 / 4	5 / 15	5 / 3	3 / 2	0 / 2	0 / 3
PHF	1.00 / 1.00			0.63 / 0.58			0.7 / 0.55			0.75 / 1.00		

AM

Time		SB					WB					NB					EB					Total	
		SBL	SBT	SBR	SBU	SB Total	WBL	WBT	WBR	WBU	WB Total	NBL	NBT	NBR	NBU	NB Total	EBL	EBT	EBR	EBU	EB Total		
7:00	AM	0	3	0	0	3	0	0	0	0	0	3	0	2	0	5	0	0	0	0	**0**	**8**	
7:15	AM	1	1	0	0	2	1	0	1	0	2	2	1	0	0	3	0	0	0	0	**0**	**7**	
7:30	AM	0	5	0	0	5	1	0	0	0	1	0	0	1	0	1	0	0	2	0	**2**	**9**	
7:45	AM	0	2	0	0	2	2	0	0	0	2	0	4	1	0	5	0	0	1	0	**1**	**10**	Peak 15
TOTAL		**1**	**11**	**0**	**0**	**12**	**4**	**0**	**1**	**0**	**5**	**5**	**5**	**4**	**0**	**14**	**0**	**0**	**3**	**0**	**3**	**34**	
Peak-15		2					2					5					1						
4x Peak-15		8					8					20					4						
60 Total		12					5					14					3						
PHF		**1.50**					**0.63**					**0.70**					**0.75**						
Approach		**SB**					**WB**					**NB**					**EB**						
PHF – USE		**1.00**					**0.63**					**0.70**					**0.75**						

PM

Time		SB					WB					NB					EB					Total	
		SBL	SBT	SBR	SBU	SB Total	WBL	WBT	WBR	WBU	WB Total	NBL	NBT	NBR	NBU	NB Total	EBL	EBT	EBR	EBU	EB Total		
4:45	PM	0	5	2	0	7	0	0	1	0	1	0	3	0	0	3	1	1	0	0	**2**	**13**	
5:00	PM	1	2	0	0	3	0	0	2	0	2	0	4	0	0	4	1	0	0	0	**1**	**10**	
5:15	PM	0	6	0	0	6	0	0	1	0	1	2	2	1	0	5	0	1	2	0	**3**	**15**	
5:30	PM	1	3	0	0	4	3	0	0	0	3	1	6	3	0	10	1	0	0	0	**1**	**18**	Peak 15
TOTAL		**2**	**16**	**2**	**0**	**20**	**3**	**0**	**4**	**0**	**7**	**3**	**15**	**4**	**0**	**22**	**3**	**2**	**2**	**0**	**7**	**56**	
Peak-15		4					3					10					1						
4x Peak-15		16					12					40					4						
60 Total		20					7					22					7						
PHF		**1.25**					**0.58**					**0.55**					**1.75**						
Approach		**SB**					**WB**					**NB**					**EB**						
PHF – USE		**1.00**					**0.58**					**0.55**					**1.00**						

AM	1.00	0.63	0.70	0.75
PM	1.00	0.58	0.55	1.00

Levels of Service

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Intersection	
Int Delay, s/veh	0.9

Movement	SET	SER	NWU	NWL	NWT	NEL	NER
Lane Configurations							
Traffic Vol, veh/h	560	11	4	27	571	14	40
Future Vol, veh/h	560	11	4	27	571	14	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Signal
Storage Length	-	0	-	250	-	100	0
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	602	12	4	29	614	17	48

Major/Minor	Major1		Major2			Minor1	
Conflicting Flow All	0	0	602	614	0	975	301
Stage 1	-	-	-	-	-	602	-
Stage 2	-	-	-	-	-	373	-
Critical Hdwy	-	-	6.44	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.52	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	596	961	-	249	695
Stage 1	-	-	-	-	-	510	-
Stage 2	-	-	-	-	-	666	-
Platoon blocked, %	-	-			-		
Mov Cap-1 Maneuver	-	-	880	880	-	240	695
Mov Cap-2 Maneuver	-	-	-	-	-	240	-
Stage 1	-	-	-	-	-	510	-
Stage 2	-	-	-	-	-	641	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.5	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	240	695	880	-	-	-
HCM Lane V/C Ratio	0.07	0.069	0.038	-	-	-
HCM Control Delay (s)	21.1	10.6	9.2	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	0.2	0.2	0.1	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	15	0	5	9	0	3
Future Vol, veh/h	15	0	5	9	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	0	6	12	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	19	0	43	19
Stage 1	-	-	-	-	19	-
Stage 2	-	-	-	-	24	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1597	-	968	1059
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	999	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1597	-	964	1059
Mov Cap-2 Maneuver	-	-	-	-	964	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	995	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.6	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	1059	1597	-	-	-
HCM Lane V/C Ratio	0.004	0.004	-	-	-
HCM Control Delay (s)	8.4	7.3	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	11	5	4	1	6
Future Vol, veh/h	1	11	5	4	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	14	6	5	1	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	25	9
Stage 1	-	-	-	-	9	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	991	1073
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	990	1073
Mov Cap-2 Maneuver	-	-	-	-	990	-
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	1007	-

Approach	SE	NW	SW
HCM Control Delay, s	0.6	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1608	-	1060
HCM Lane V/C Ratio	-	-	0.001	-	0.008
HCM Control Delay (s)	-	-	7.2	0	8.4
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	SET	SER	NWU	NWL	NWT	NEL	NER
Lane Configurations							
Traffic Vol, veh/h	1091	15	1	28	859	6	30
Future Vol, veh/h	1091	15	1	28	859	6	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Signal
Storage Length	-	0	-	250	-	100	0
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	95	95	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1148	16	1	30	924	7	36

Major/Minor	Major1		Major2			Minor1	
Conflicting Flow All	0	0	1148	1164	0	1672	574
Stage 1	-	-	-	-	-	1148	-
Stage 2	-	-	-	-	-	524	-
Critical Hdwy	-	-	6.44	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.52	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	267	596	-	87	462
Stage 1	-	-	-	-	-	264	-
Stage 2	-	-	-	-	-	559	-
Platoon blocked, %	-	-			-		
Mov Cap-1 Maneuver	-	-	569	569	-	82	462
Mov Cap-2 Maneuver	-	-	-	-	-	82	-
Stage 1	-	-	-	-	-	264	-
Stage 2	-	-	-	-	-	529	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	82	462	569	-	-	-
HCM Lane V/C Ratio	0.088	0.078	0.055	-	-	-
HCM Control Delay (s)	53.1	13.5	11.7	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	0.3	0.3	0.2	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	19	2	3	19	3	2
Future Vol, veh/h	19	2	3	19	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	3	4	24	4	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	27	0	58	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1587	-	949	1050
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	991	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1587	-	946	1050
Mov Cap-2 Maneuver	-	-	-	-	946	-
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	988	-

Approach	SE	NW	NE
HCM Control Delay, s	0	1	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	985	1587	-	-	-
HCM Lane V/C Ratio	0.007	0.002	-	-	-
HCM Control Delay (s)	8.7	7.3	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	2	18	18	4	3	4
Future Vol, veh/h	2	18	18	4	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	23	23	5	4	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	28	0	-	0	55	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	29	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1585	-	-	-	953	1050
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	994	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1585	-	-	-	951	1050
Mov Cap-2 Maneuver	-	-	-	-	951	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	994	-

Approach	SE	NW	SW
HCM Control Delay, s	0.7	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1585	-	1005
HCM Lane V/C Ratio	-	-	0.002	-	0.009
HCM Control Delay (s)	-	-	7.3	0	8.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	SET	SER	NWU	NWL	NWT	NEL	NER
Lane Configurations							
Traffic Vol, veh/h	560	13	4	40	571	15	44
Future Vol, veh/h	560	13	4	40	571	15	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Signal
Storage Length	-	0	-	250	-	100	0
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	602	14	4	43	614	18	53

Major/Minor	Major1		Major2			Minor1	
Conflicting Flow All	0	0	602	616	0	1003	301
Stage 1	-	-	-	-	-	602	-
Stage 2	-	-	-	-	-	401	-
Critical Hdwy	-	-	6.44	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.52	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	596	960	-	239	695
Stage 1	-	-	-	-	-	510	-
Stage 2	-	-	-	-	-	645	-
Platoon blocked, %	-	-			-		
Mov Cap-1 Maneuver	-	-	901	901	-	227	695
Mov Cap-2 Maneuver	-	-	-	-	-	227	-
Stage 1	-	-	-	-	-	510	-
Stage 2	-	-	-	-	-	611	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.7	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	227	695	901	-	-	-
HCM Lane V/C Ratio	0.08	0.076	0.053	-	-	-
HCM Control Delay (s)	22.2	10.6	9.2	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	0.3	0.2	0.2	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	17	1	14	11	1	7
Future Vol, veh/h	17	1	14	11	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	1	18	14	1	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	23	0	73	23
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1592	-	931	1054
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	972	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1592	-	921	1054
Mov Cap-2 Maneuver	-	-	-	-	921	-
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	961	-

Approach	SE	NW	NE
HCM Control Delay, s	0	4.1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	1035	1592	-	-	-
HCM Lane V/C Ratio	0.01	0.011	-	-	-
HCM Control Delay (s)	8.5	7.3	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	13	7	4	4	1
Future Vol, veh/h	1	13	7	4	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	17	9	5	5	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	14	0	-	0	31	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	19	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1604	-	-	-	983	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1004	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1604	-	-	-	982	1069
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1004	-

Approach	SE	NW	SW
HCM Control Delay, s	0.5	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SETSWLn1	
Capacity (veh/h)	-	-	1604	-	998
HCM Lane V/C Ratio	-	-	0.001	-	0.006
HCM Control Delay (s)	-	-	7.2	0	8.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	SET	SER	NWU	NWL	NWT	NEL	NER
Lane Configurations							
Traffic Vol, veh/h	1091	16	1	34	859	8	41
Future Vol, veh/h	1091	16	1	34	859	8	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Signal
Storage Length	-	0	-	250	-	100	0
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	95	95	93	93	93	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1148	17	1	37	924	10	49

Major/Minor	Major1		Major2			Minor1	
Conflicting Flow All	0	0	1148	1165	0	1686	574
Stage 1	-	-	-	-	-	1148	-
Stage 2	-	-	-	-	-	538	-
Critical Hdwy	-	-	6.44	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.52	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	267	595	-	85	462
Stage 1	-	-	-	-	-	264	-
Stage 2	-	-	-	-	-	549	-
Platoon blocked, %	-	-			-		
Mov Cap-1 Maneuver	-	-	571	571	-	79	462
Mov Cap-2 Maneuver	-	-	-	-	-	79	-
Stage 1	-	-	-	-	-	264	-
Stage 2	-	-	-	-	-	512	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.5	20.7
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	SET	SER
Capacity (veh/h)	79	462	571	-	-	-
HCM Lane V/C Ratio	0.122	0.107	0.066	-	-	-
HCM Control Delay (s)	56.8	13.7	11.7	-	-	-
HCM Lane LOS	F	B	B	-	-	-
HCM 95th %tile Q(veh)	0.4	0.4	0.2	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	22	2	8	20	4	12
Future Vol, veh/h	22	2	8	20	4	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	3	10	26	5	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	31	0	76	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1582	-	927	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1582	-	921	1044
Mov Cap-2 Maneuver	-	-	-	-	921	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	970	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	1010	1582	-	-	-
HCM Lane V/C Ratio	0.02	0.006	-	-	-
HCM Control Delay (s)	8.6	7.3	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	20	1	1	23	1	3
Future Vol, veh/h	20	1	1	23	1	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	10	50	50	10	50	50
Mvmt Flow	26	1	1	29	1	4

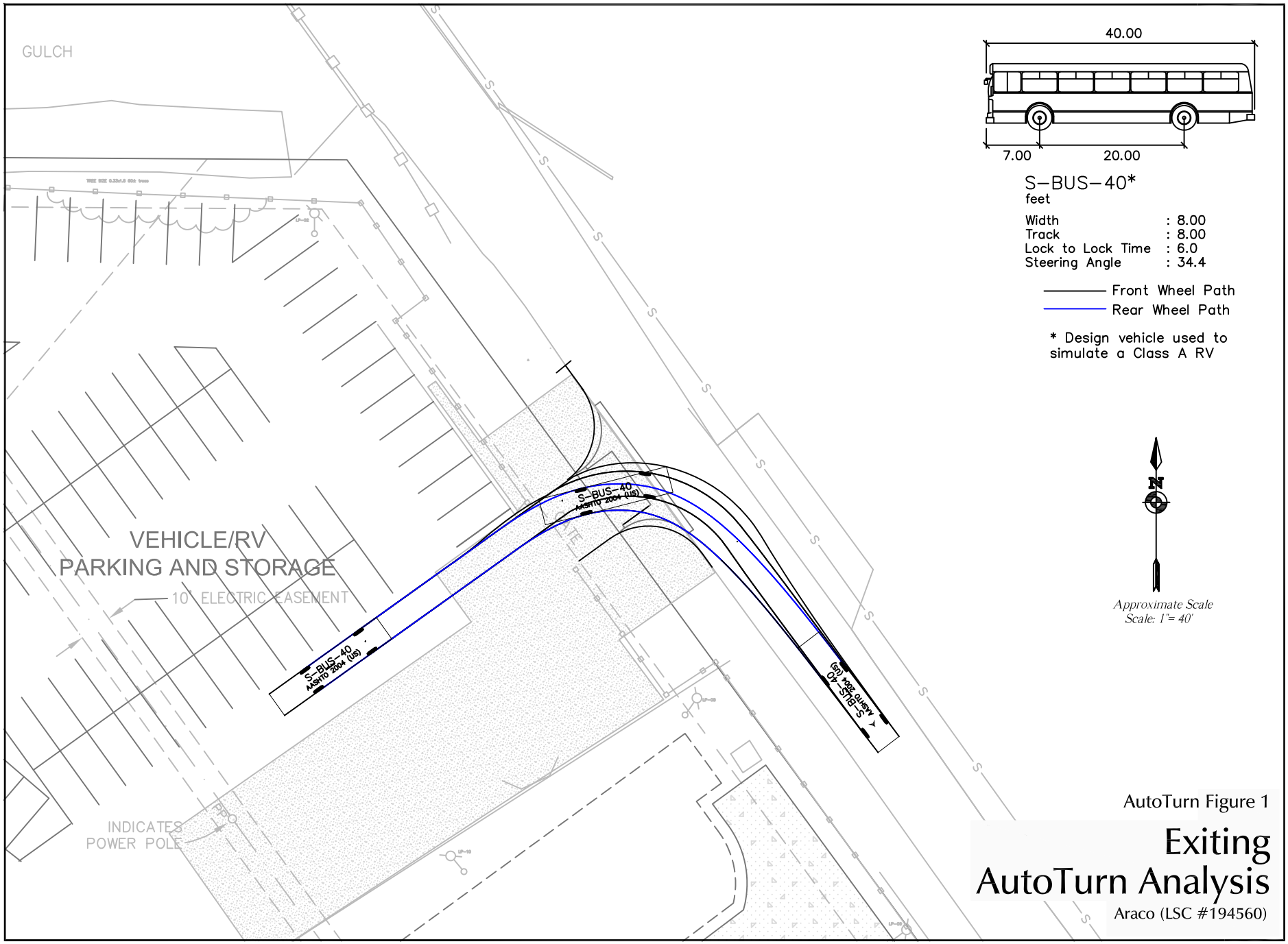
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	27	0	58	27
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	31	-
Critical Hdwy	-	-	4.6	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.65	-	3.95	3.75
Pot Cap-1 Maneuver	-	-	1326	-	842	926
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1326	-	841	926
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	880	-

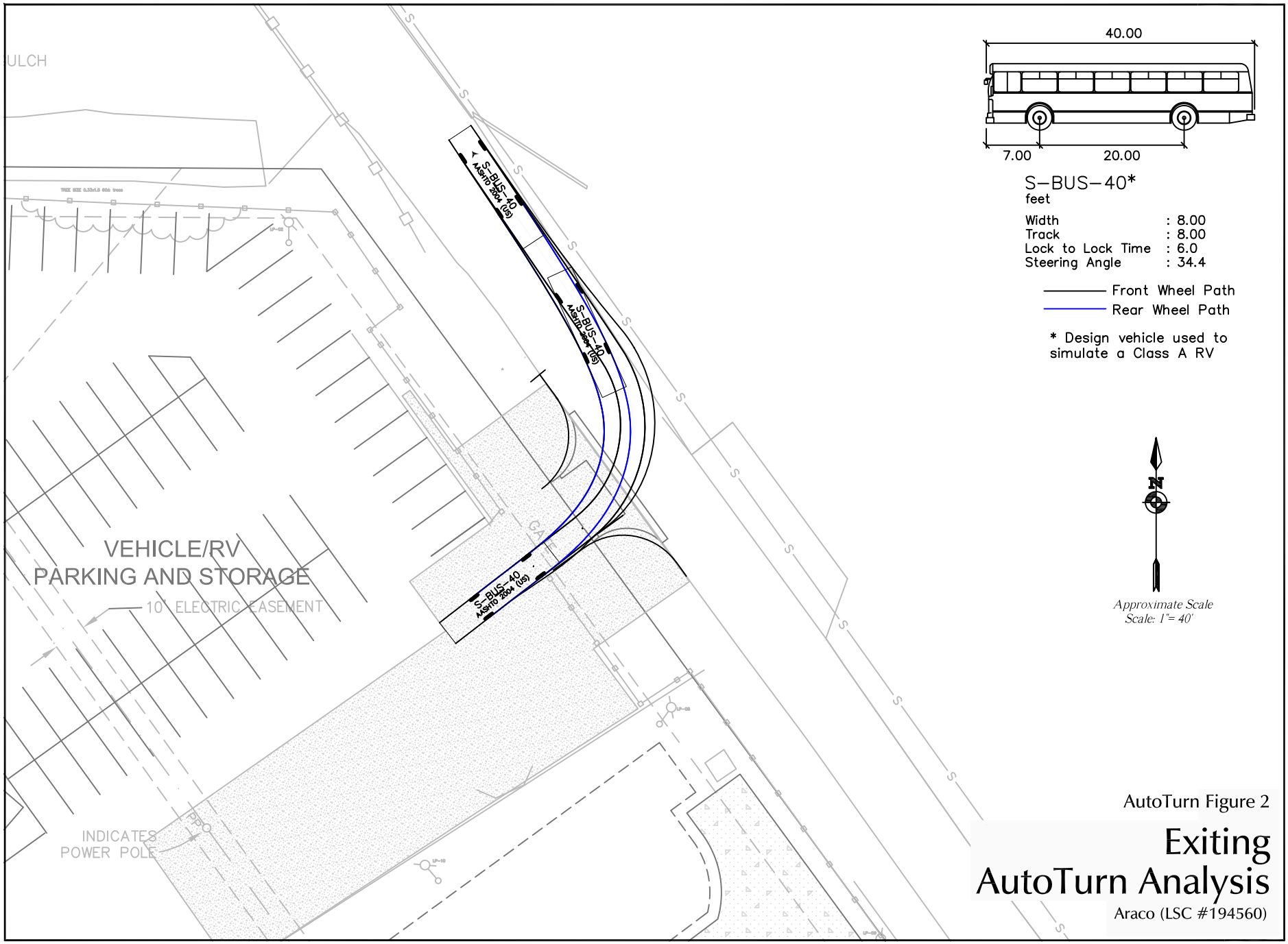
Approach	SE	NW	NE
HCM Control Delay, s	0	0.3	9
HCM LOS			A

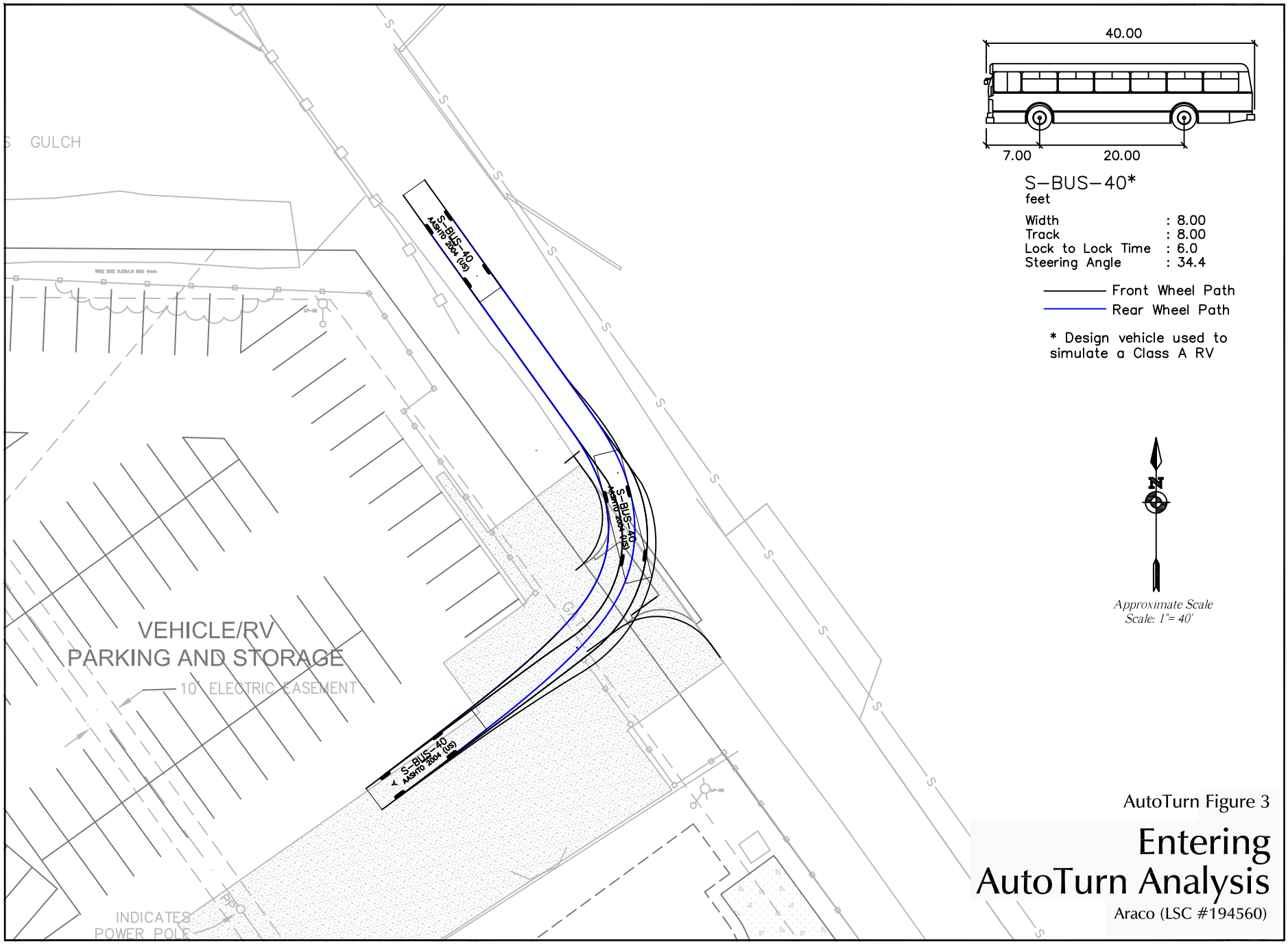
Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	903	1326	-	-	-
HCM Lane V/C Ratio	0.006	0.001	-	-	-
HCM Control Delay (s)	9	7.7	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

AutoTurn Exhibits 1-4

TRANSPORTATION
CONSULTANTS, INC.


GULCH
VEHICLE/RV
PARKING AND STORAGE
10' ELECTRIC EASEMENT
INDICATES
POWER POLE
S-BUS-40
AASHTO 2004 (US)
S-BUS-40
AASHTO 2004 (US)
S-BUS-40
AASHTO 2004 (US)
40.00
7.00
20.00
S-BUS-40*
feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 34.4
Front Wheel Path
Rear Wheel Path
* Design vehicle used to simulate a Class A RV
N
Approximate Scale
Scale: 1"= 40'
AutoTurn Figure 1
Exiting
AutoTurn Analysis
Araco (LSC #194560)

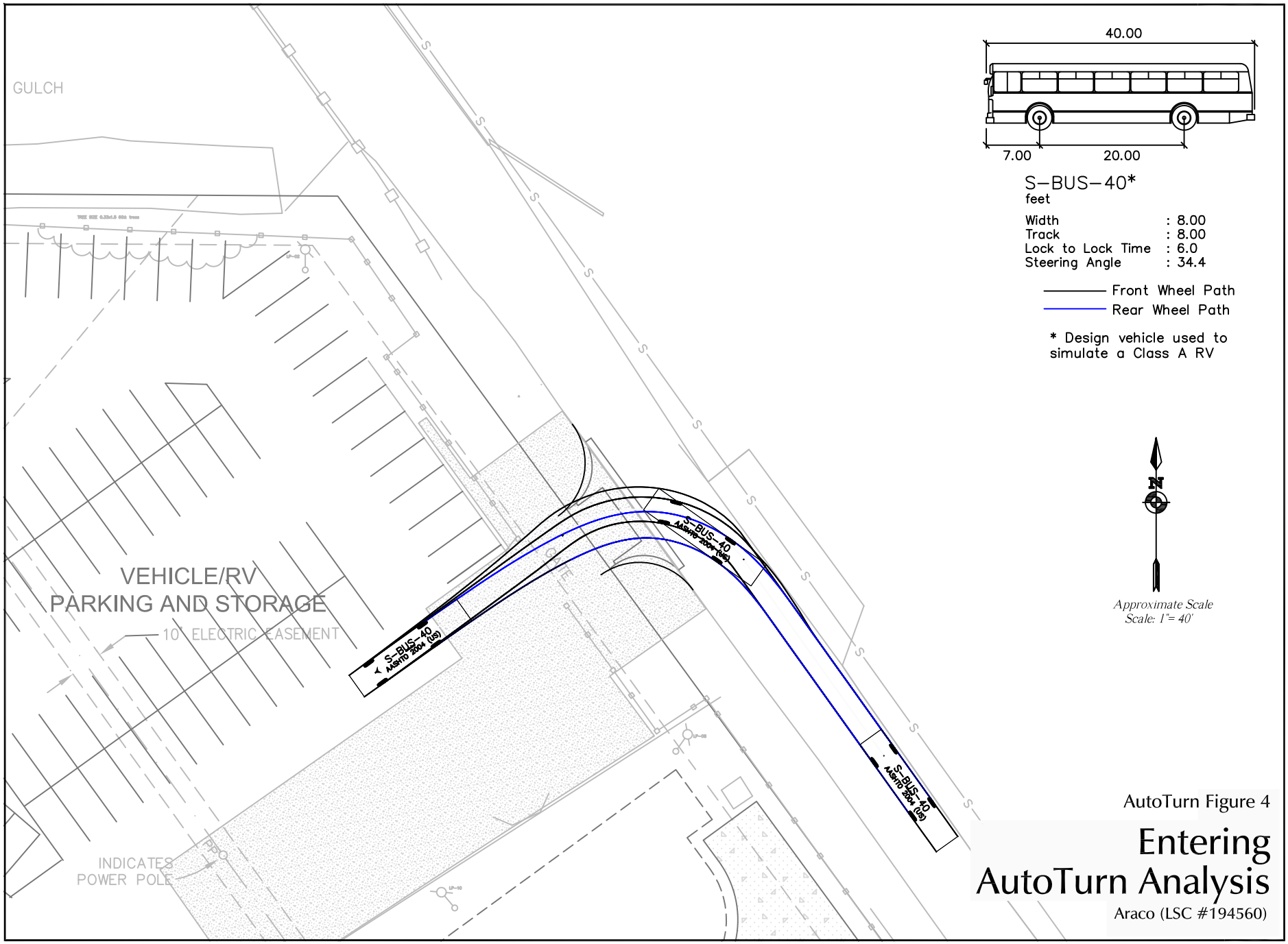

ULCH
VEHICLE/RV
PARKING AND STORAGE
10' ELECTRIC EASEMENT
INDICATES
POWER POLE
S-BUS-40
AASHTO 2004 (US)
S-BUS-40
AASHTO 2004 (US)
S-BUS-40
AASHTO 2004 (US)
40.00
7.00
20.00
S-BUS-40*
feet
Width : 8.00
Track : 8.00
Lock to Lock Time : 6.0
Steering Angle : 34.4
Front Wheel Path
Rear Wheel Path
* Design vehicle used to simulate a Class A RV
N
Approximate Scale
Scale: 1"= 40'
AutoTurn Figure 2
Exiting
AutoTurn Analysis
Araco (LSC #194560)



AutoTurn Figure 3

Entering AutoTurn Analysis

Araco (LSC #194560)



AutoTurn Figure 4

Entering AutoTurn Analysis

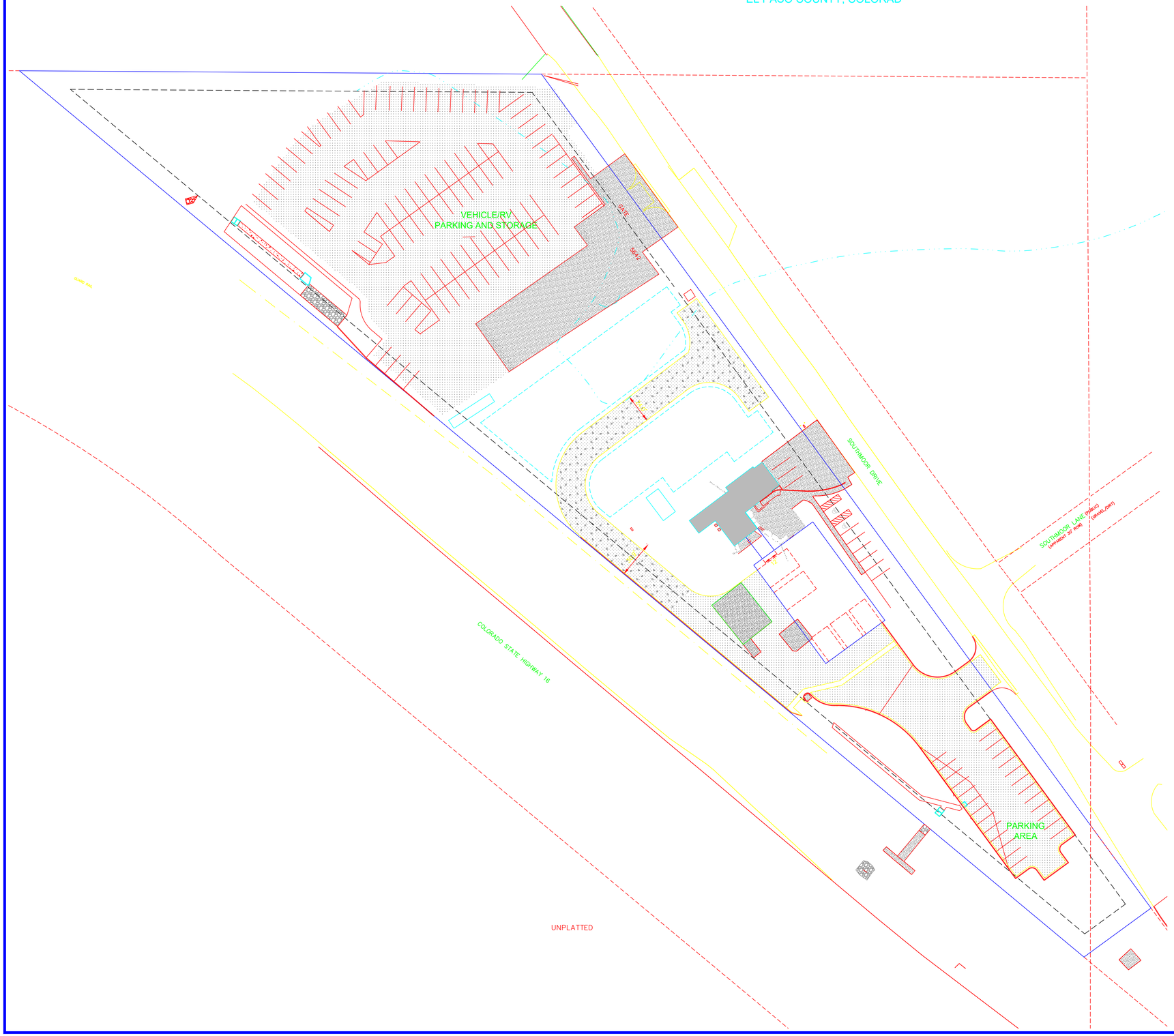
Araco (LSC #194560)

Site Plan

TRANSPORTATION
CONSULTANTS, INC.

ARACO CONCRETE

SITE DEVELOPMENT PLAN
EL PASO COUNTY, COLORAD



No.	Description	By	Date
1	DATA CLARIFICATION	DVH	02/27/18
2	LANDSCAPE DATA	BRH	05/08/19
3	UPDATE	BRH	10/24/19
4	COUNTY COMMENTS	BRH	05/22/20

REVISIONS

H Scale: 1" = 40'
V Scale: N/A
Designed By: N/A
Drawn By: SLG
Checked By: DVH
Date: 08/14/17

Land Development Consultants, Inc.
www.ldc-inc.com TEL (719) 528-6133 FAX (719) 528-6848
3898 MAIZELAND ROAD COLORADO SPRINGS, CO 80909

ARACO CONCRETE
SITE DEVELOPMENT PLAN
A PORTION OF THE SOUTHEAST QUARTER OF SECTION 24,
TOWNSHIP 15 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,
ELPASO COUNTY, COLORADO

Project No.: 17033

Sheet: 1 of 1