



SCOPE FOR TRAFFIC STUDY

Project Name:	Boron Beyond Food Mart Project (P2019-00052)
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This Scope for Traffic Study acknowledges San Bernardino County Department of Public Works, Traffic Division requirements of traffic impact analysis for the project and is subject to change:

Project Address:	40808 W US-395 Highway Boron, CA		
Project Description:	Renovate existing site; removing existing buildings and constructing service station - convenience market with drive-thru window.		
City:	Unincorporated Area of Boron, CA		
Project Buildout Year:	2021	Ambient Growth Rate per Year:	SBTAM
Closest Intersection (Xtn) to the Project			
Xtn N/S Street Name:	US-395 Highway (west side of roadway)		
Xtn E/W Street Name:	SR-58 Highway (south of new alignment)		
Thomas Guide Pg+Grid:	34.994/- 117.542	County Supervisorial District:	1

	Engineer	Developer
Company:	GANDDINI GROUP, INC.	BORON OIL, INC.
Name:	Ms. Perrie Ilercil, P.E., (AZ)	Mr. Michael Ramirez,
Address:	550 Parkcenter Drive, Suite 202	4300 Edison Avenue
City, State, Zip Code:	Santa Ana, CA 92705	Chino, CA
Phone #:	714-795-3100 EXT 103	760-810-8548
CELL:	949-257-3126 cell	
Email:	perrie@ganddini.com	mramirez@beyondfoodmart.com

By:

Reviewed By: _____

Print Name: Perrie Ilercil 2020.01.08
2020.02.19

Print Name: _____

Consultant/Developer's Representative **Date**

Traffic Division Representative **Date**



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1. Traffic Distribution: Please insert or attach Figure(s) illustrating project trip distribution in percentages and volumes at the study intersections analyzed.

See Figures:

- Figure 1/2 Project Location Map,
- Figure 3 Site Plan
- Figures 4 Project Trip Distribution

2. Trip Credit: Exact amount of credit subject to approval by Traffic Division.

Transportation Demand Management (TDM)	Yes/no	NO
Existing Active Land Use	Yes/no	NO
Previous Land Use	Yes/no	YES
Internal Trip Reduction	Yes/no	NO
Pass-by Trip Reduction	Yes/no	YES

3. Related Projects: Consultant should check with Planning in the San Bernardino County Department of Land Use Services and planning departments of adjoining Cities. Documentation of the consultation from these agencies shall be included in the traffic study. Related projects list shall be submitted to Traffic Division for our review and approval before being incorporated in the study.

4. Freeway Analysis: The potential traffic impact on the following Freeway(s) must be considered.

US-395 Highway & SR-58 Highway

The applicant shall consult with the State of California Department of Transportation (Caltrans) to determine the California Environmental Quality Act levels of significance with regard to traffic impacts on Caltrans' freeway facilities. This consultation shall also include a determination of Caltrans requirements for the study of traffic impacts to its facilities and the mitigation of any such impacts. This analysis must follow the most current Caltrans' Guide for the Preparation of Traffic Impact Studies (December 2002) and can be obtained from <http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tiguide.pdf>. If Caltrans finds that the project has a significant impact on the freeway, Caltrans shall be requested to include the basis for this finding in their response. If fees are proposed to mitigate the freeway impact, Caltrans shall be requested to identify the specific project to which the fees will apply. These written comments from Caltrans shall be included with the traffic study and submitted to Public Works for review and approval. If a documented good faith effort is made to consult with Caltrans and written comments cannot be obtained from within a reasonable amount of time, an analysis of the freeway impact shall be made using HCM procedures. Appendix A of the SANBAG CMP outlines allowable modifications to these procedures. The SANBAG CMP can be viewed online at: http://www.sanbag.ca.gov/planning/subr_congestion.html



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5. Trip Generation

Trip Generation Rate(s) Source: ITE Trip Generation		I – Institute of Transportation Engineers; S – San Diego Traffic Generators; C – County; O – Other:						Edition:		10 th 2017	
Land Use Code	Land Use	Rate Based on	Qty ¹	Average Vehicle Trip Ends vs	ADT ²	Weekday a.m. peak		Weekday p.m. peak		Weekend peak hour	
						In	Out	In	Out	In	Out
ITE	Super Convenience Market with Gas Pumps	960	5.800		6,072	301	302	251	251	231	232
ITE	Pass-by Convenience Market with Service Station	945 ³			-655	-187	-187	-141	-140	-	-

For ITE Land Uses provide number and name of Land Use. e.g. LU 814 - Variety Store

1. Source: Drawing A1.01 Site Plan for Project: Food Mart and Fuel Station with Drive-Thru., received January 2, 2020.
2. Pass-by rates obtained from ITE Trip Generation Handbook (3rd Edition, 2017). Daily pass-by values are a sum of the peak hour values when no rate is available.
3. Pass-by rates for Super Convenience Market with Gas Station are based on Convenience Market with Service Station ITE 945.



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7. Other:

Traffic counts may be conducted immediately per the following:
<ul style="list-style-type: none"> • Must be taken on Tuesdays, Wednesdays or Thursdays.
<ul style="list-style-type: none"> • Must exclude holidays, and the first weekdays before and after the holiday.
<ul style="list-style-type: none"> • Must be taken on days when local schools or colleges are in session.
<ul style="list-style-type: none"> • Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
<ul style="list-style-type: none"> • Traffic counts used for other traffic studies in the area shall NOT be reused again, unless 25% of the counts conducted for that particular traffic study are validated with new counts. The difference in volumes between the old and new counts at each corresponding movement should not be more than 10%.
<ul style="list-style-type: none"> • New traffic counts shall be checked to ensure the difference in volumes at corresponding approaches, if applicable, between two adjacent intersections is no more than 10% unless the difference can be justified.
<ul style="list-style-type: none"> • For all proposed mitigation measures, a conceptual plan for the improvements shall be submitted to our Traffic Studies section for review and approval prior to the approval of the Traffic Impact Analysis. All proposed improvements shall be within the right-of-way.
<ul style="list-style-type: none"> • For all cumulative mitigation measures, a cost estimate for the improvement shall be submitted.

This analysis must follow the most current Traffic Impact Study Guidelines for the County as stated in the County's Road Planning and Design Standards.

8. Fees

The County charges on an actual cost basis for review of traffic studies. An initial deposit of \$3400 is required at the time that a land use application is filed with the Department of Land Use Services. If the review costs exceed the initial deposit, the applicant will be expected to provide additional funds and the review will be suspended until the additional funds are deposited.



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9. Contact Information:

Please submit a signed copy of this scope for approval by the Traffic Division. Draft scopes may be sent electronically. Final scope with signature should be submitted in person or by US Mail to:

County of San Bernardino
Dept. of Public Works, Traffic Division
825 E. 3rd Street, Rm 115
San Bernardino, CA 92415-0835

909-387-8239

Anthony Pham

Anthony.Pham@lus.sbcounty.gov

Jeremy Johnson

Jeremy.Johnson@dpw.sbcounty.gov

**Table 1
Project Trip Generation**

Trip Generation Rates												
Land Use	Source ¹	Units ²	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Midday Peak Hour		
			% In	% Out	Rate	% In	% Out	Rate		% In	% Out	Rate
Super Convenience Market with Gas Pumps	ITE 960	TSF	50%	50%	83.14	50%	50%	69.28	837.58	50%	50%	63.80

Trips Generated												
Land Use	Quantity	Units ²	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Midday Peak Hour		
			In	Out	Total	In	Out	Total		In	Out	Total
Proposed Uses³												
Super Convenience Market with Gas Pumps	7.250	TSF	301	302	603	251	251	502	6,072	231	232	463
Pass-by ⁴ Convenience Service Station ⁵			-187	-187	-374	-141	-140	-281	-655	-	-	-
NET PROJECT TRIPS GENERATED			114	115	229	110	111	221	5,417	231	232	463

Notes:

- (1) Source: ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code(s).
- (2) TSF = Thousand of Square Feet
- (3) Source: Drawing A1.01 Site Plan for Project: Food Mart and Fuel Station with Drive-Thru., received January 2, 2020
- (4) Pass-by rates obtained from ITE Trip Generation Handbook (3rd Edition, 2017). Daily pass-by values are a sum of the peak hour values when no daily rate is available.
- (5) Pass-by rates for Convenience Market with Gas Station are based on ITE 945 rates.

Table 2
Previous Land Use Trip Generation Comparison

Trip Generation Rates												
Land Use	Source ¹	Units ²	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Midday Peak Hour		
			% In	% Out	Rate	% In	% Out	Rate		% In	% Out	Rate
General Light Industrial	ITE 110	TSF	88%	12%	0.70	13%	87%	0.63	4.96	47%	53%	0.41
Single-Family Detached Housing	ITE 210	DU	25%	75%	0.74	63%	37%	0.99	9.44	54%	46%	0.93
Fast Food with Drive-Thru	ITE 934	TSF	51%	49%	40.19	52%	48%	32.67	470.95	51%	49%	54.86
Automobile Care Center	ITE 942[a]	BAY	68%	32%	1.52	48%	52%	2.17	17.90	47%	53%	1.34
Gasoline/Service Station	ITE 944	FP	50%	50%	10.28	50%	50%	14.03	172.01	50%	50%	12.77
Super Convenience Market with Gas Pumps	ITE 960	TSF	50%	50%	83.14	50%	50%	69.28	837.58	50%	50%	63.80

Trips Generated												
Land Use	Quantity ³	Units ²	AM Peak Hour			PM Peak Hour			Weekday Daily	Saturday Midday Peak Hour		
			In	Out	Total	In	Out	Total		In	Out	Total
Previous Uses To Be Displaced												
General Light Industrial	-11.825	TSF	-7	-1	-8	-1	-6	-7	-59	-2	-3	-5
Single-Family Detached Housing	-1	DU	0	-1	-1	-1	0	-1	-9	-1	0	-1
Automobile Care Center	-1	BAY	-1	-1	-2	-1	-1	-2	-18	-1	0	-1
Gasoline/Service Station	-4	FP	-21	-20	-41	-28	-28	-56	-688	-26	-25	-51
Fast Food with Drive-Thru	-1.450	TSF	-30	-28	-58	-25	-22	-47	-683	-41	-39	-80
Pass-by ⁴ Gas Station ⁵			12	12	24	12	12	24	48	-	-	-
Pass-by ⁴ Fast Food with Drive-Thru ⁶			15	13	28	13	11	24	52	-	-	-
Subtotal - Existing Trips Generated			-32	-26	-58	-31	-34	-65	-1,357	-71	-67	-138
Proposed Uses												
Super Convenience Market with Gas Pumps	7.250	TSF	301	302	603	251	251	502	6,072	231	232	463
Pass-by ⁴ Convenience Service Station ⁷			-187	-187	-374	-141	-140	-281	-655	-	-	-
NET PROJECT TRIPS GENERATED			82	89	171	79	77	156	4,060	160	165	325

Notes:

- (1) Source: ITE = Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017; ### = Land Use Code(s).
[a] = Automobile care center PM inbound and outbound rates based on ITE942(TSF), and daily rate based on proportion of ITE941(BAY) daily rate in comparison to PM rates.
- (2) TSF = Thousand of Square Feet; DU = Dwelling Units; BAY = Service Bays; FP = Fuel Position.
- (3) Source: Drawing A1.01 Site Plan for Project: Food Mart and Fuel Station with Drive-Thru., received January 2, 2020
- (4) Pass-by rates obtained from ITE Trip Generation Handbook (3rd Edition, 2017). Daily pass-by values are a sum of the peak hour values when no daily rate is available.
- (5) Pass-by rates for Gas Station are based on ITE 944 rates.
- (6) Pass-by rates for Fast Food with Drive-thru are based on ITE 934 rates.
- (7) Pass-by rates for Convenience Market with Gas Station are based on ITE 945 rates.

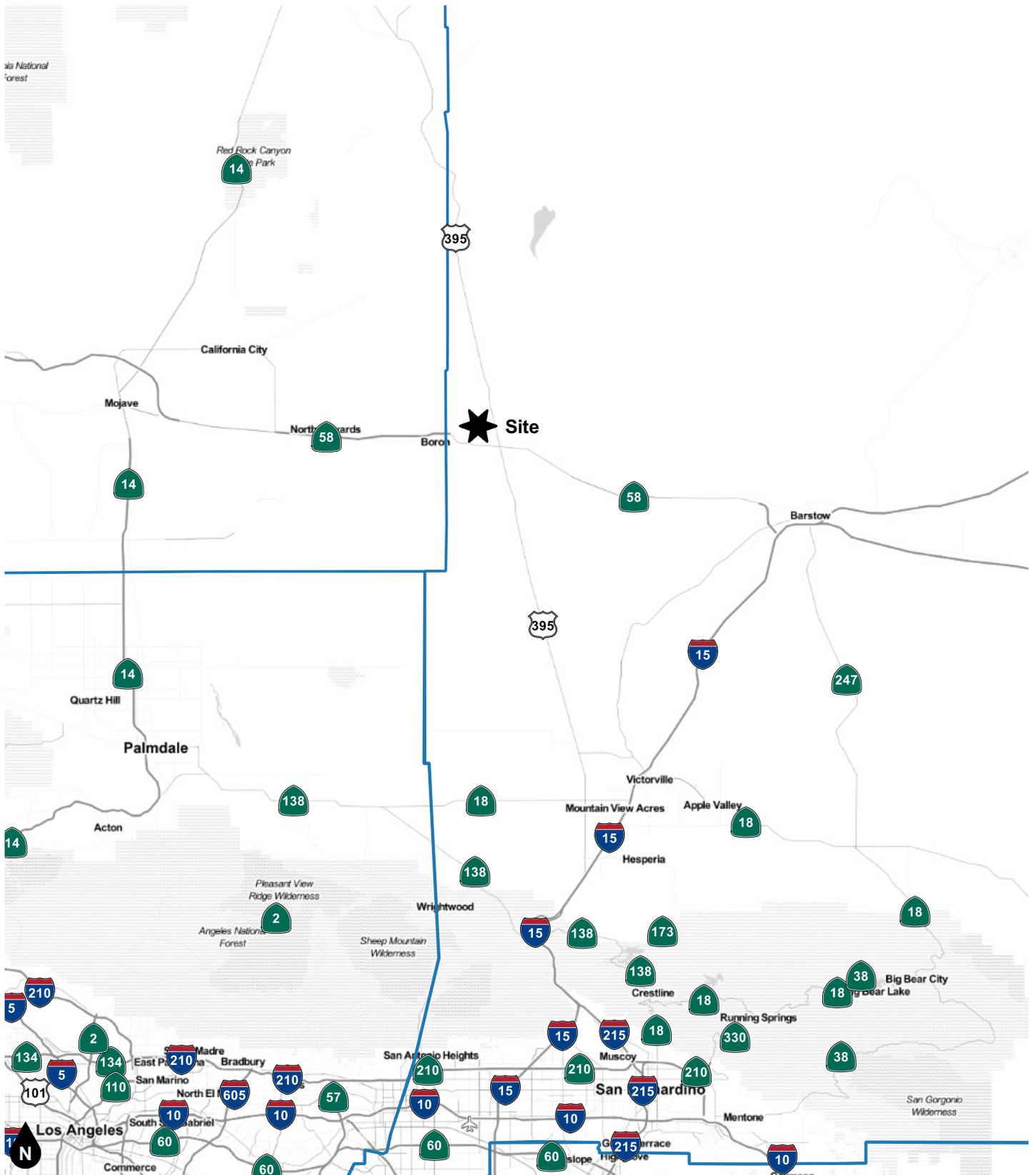
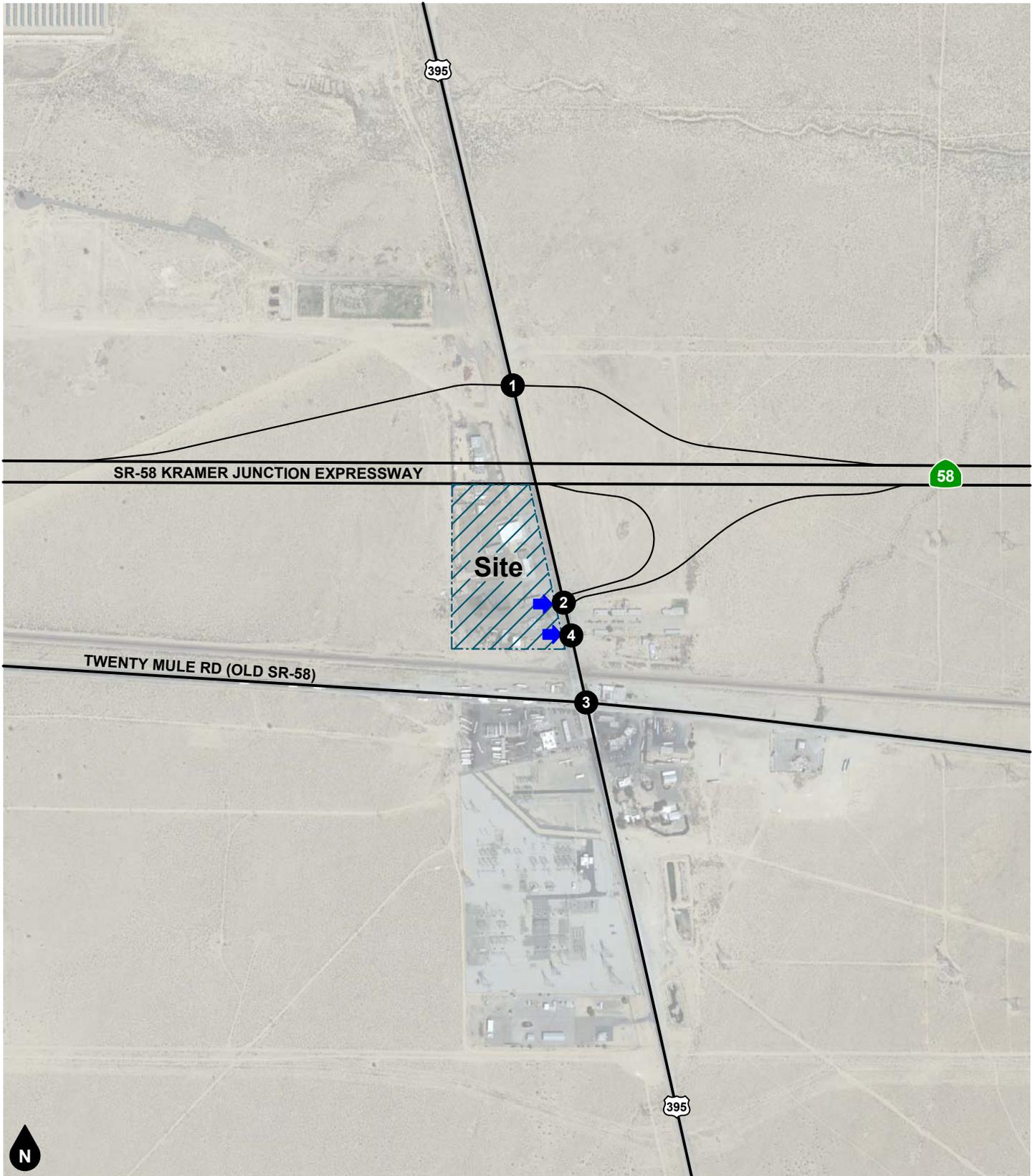


Figure 1
Project Regional Map



Legend

- # Study Intersection
- ➡ Project Access

Figure 2
Project Location Map

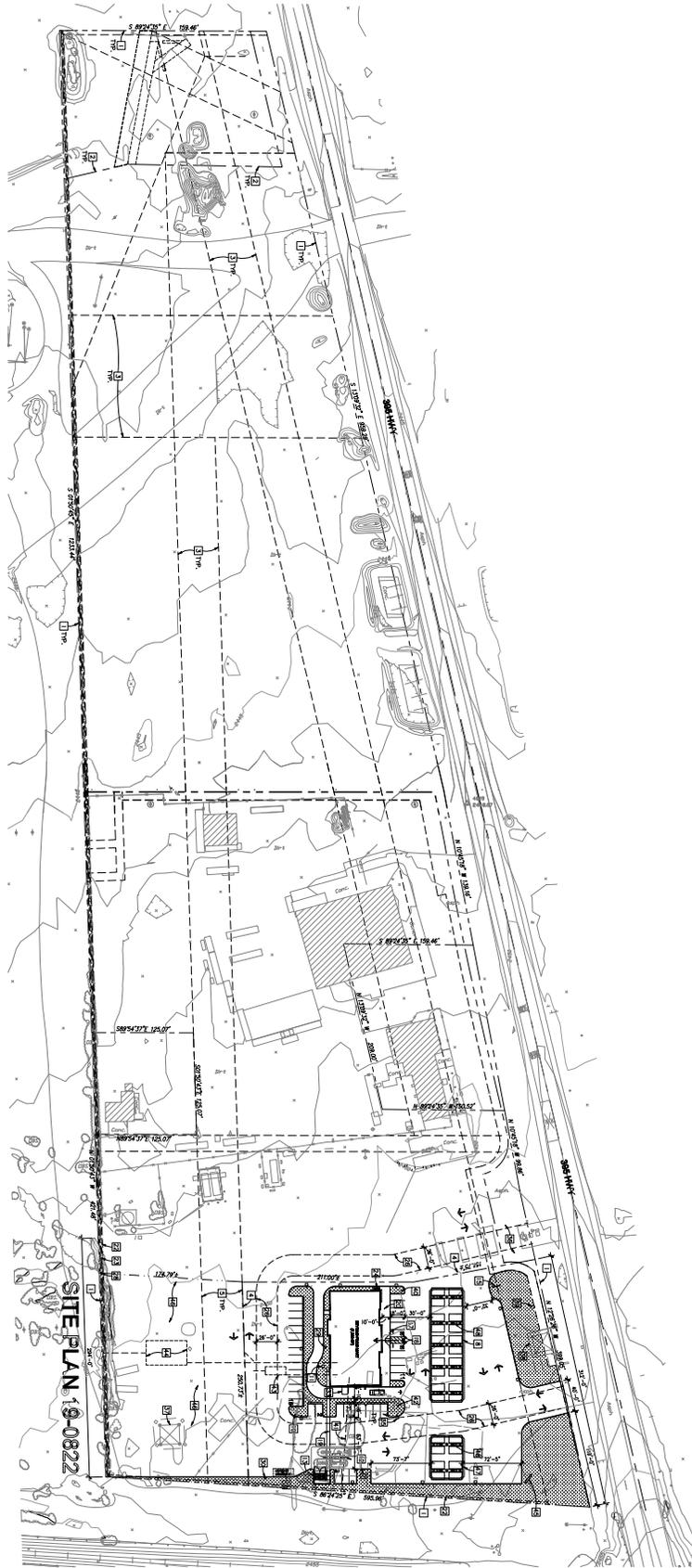
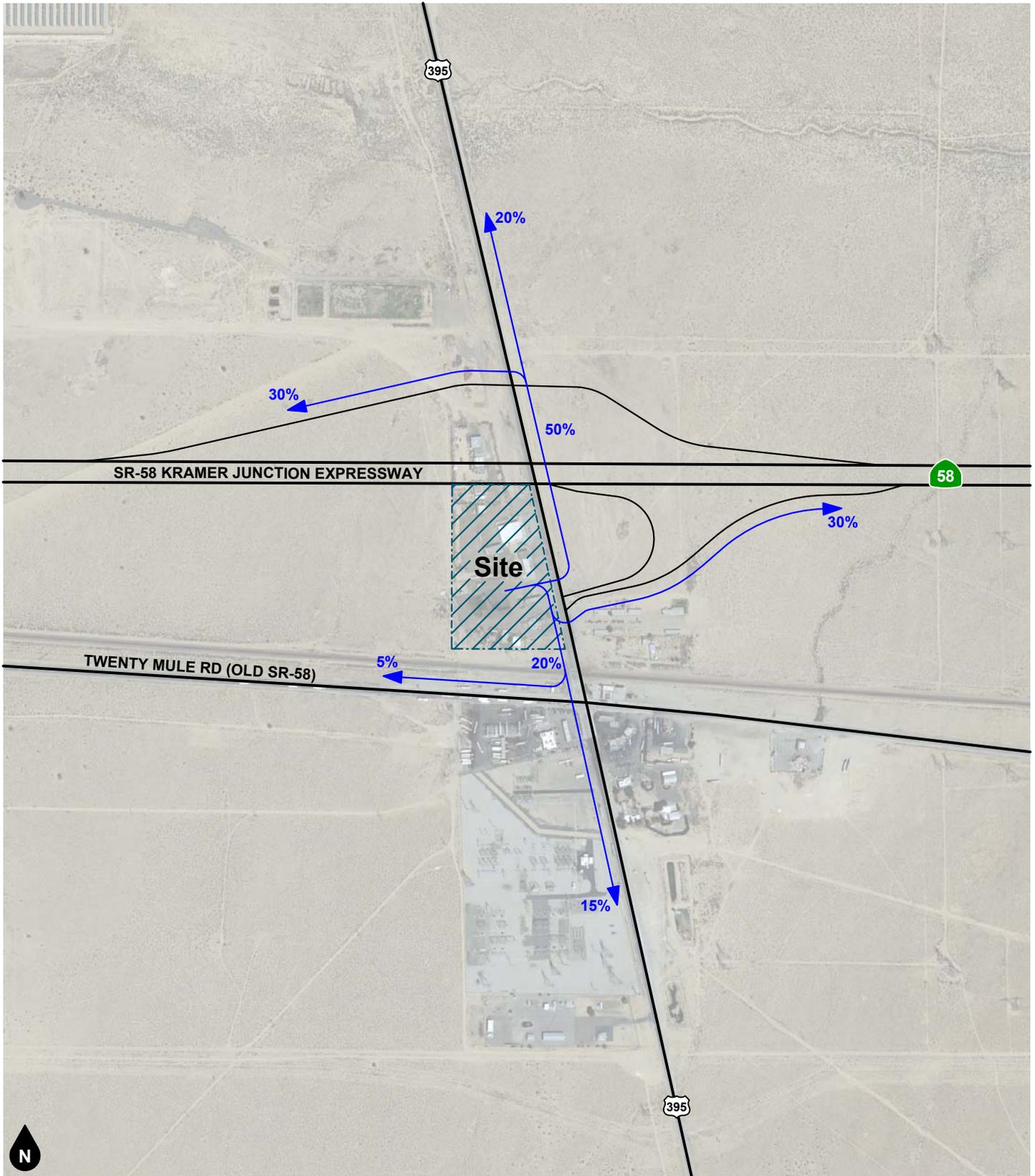


Figure 3
Site Plan



Legend
 ← 10% Percent To/From Project

Figure 4
Project Trip Distribution