

Appendix L.2

VMT Report
LLG Engineers

TECHNICAL MEMORANDUM



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To: Mr. Corey Harpole
BH Properties

Date: May 16, 2024

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LLG Ref: 2.22.4567.1

Subject: ***Vehicle Miles Traveled (VMT) Analysis for the BH Properties The Oasis at Indio Project (Project Option A), Indio***

As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Vehicle Miles Traveled (VMT) Analysis Technical Memorandum for the proposed BH Properties The Oasis at Indio Project (Project Option A) (herein after referred to as “Project Option A”) located in the City of Indio, Riverside County, California. This Technical Memorandum presents the VMT screening criteria, analysis methodology, impact thresholds, analysis, findings, and conclusions. It should be noted that the approach and methodology outlined in this Technical Memorandum are consistent with the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, which provides additional detail on the language and analysis procedures described in this Technical Memorandum. It should be noted that this Project is a General Plan Amendment that would prepare a Specific Plan.

The following sections of this Technical Memorandum summarize the Project description, County of Riverside VMT screening criteria, analysis methodology, VMT impact thresholds, VMT analysis, and conclusion.

PROJECT DESCRIPTION

The Project site is located on the southwest quadrant of Monroe Street and Avenue 42 in the City of Indio, California, Riverside County, California. Project Option A of the Specific Plan will consist of an 859,610 square-foot (SF) high cube fulfillment center warehouse (Non-Sort), a 946,680 SF high cube fulfillment center warehouse (Sort), 3,240 multifamily housing dwelling units, and 20,000 SF of retail. For the purposes of the Specific Plan (SP), the following describes the Planning Areas.

- SP Planning Area #1 (Mixed-Use): 3,240 multifamily housing dwelling units
- SP Planning Area #2 and #3 (Mixed-Use): 20,000 SF of retail
- SP Planning Area #4 (Industrial): 859,610 SF high cube fulfillment center warehouse (Non-Sort) and 946,680 SF high cube fulfillment center warehouse (Sort)

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Access to the proposed Project Option A will be provided via seven (7) unsignalized right-turn in/right-turn out only driveways located along Avenue 42 and via one (1) signalized full-access driveway at Clinton Street located along Avenue 42. It should be noted that all project access provided along Avenue 42 will be for access to SP Planning Area #1 only (i.e. the residential project component). One (1) full access driveway located along Monroe Street, directly opposite Showcase Parkway will connect to the project's internal roadway and will provide SP Planning Area #4 access (i.e. industrial), SP Planning Area #2 and #3 access (i.e. commercial), and limited SP Planning Area #1 access (i.e. residential).

Figure 1 presents the vicinity map that illustrates the general location of the Project site and surrounding street system while **Figure 2** displays the existing site aerial of the current site layout. **Figure 3** presents the conceptual site plan for the Project, prepared by MSA Consulting, Inc.

PROJECT SCREENING CRITERIA

Under the VMT methodology, screening is used to determine if a project will be required to conduct a detailed VMT analysis. The following section discusses the various screening methods outlined in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, and outlines whether the Project will screen-out, either in its entirety, or partially based on individual land uses.

Small Projects Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* states:

“This applies to projects with low trip generation per existing CEQA exemptions or based on the County Greenhouse Gas Emissions Screening Tables, resulting in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}) per year screening level threshold. Presumed to cause a less-than-significant impact:

- *Single Family Housing projects less than or equal to 110 Dwelling Units; or*
- *Multi Family (low rise) Housing projects less than or equal to 147 Dwelling Units; or*
- *Multi Family (mid-rise) Housing projects less than or equal to 194 Dwelling Units; or*
- *General Office Building with area less than or equal to 165,000 SF; or*



- *Retail buildings with area less than or equal to 60,000 SF; or*
- *Warehouse (unrefrigerated) buildings with area less than or equal to 208,000 SF; or*
- *General Light Industrial buildings with area less than or equal to 179,000 SF; or*
- *Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}) as determined by a methodology acceptable to the Transportation Department; or*
- *Unless specified above, project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by Riverside County.”*

*Based on the above and as presented in **Table 1**, the proposed Project in its entirety will not screen-out under this screening criteria, since it is not listed in any of the small projects’ categories listed above, except for the 20,000 SF retail component of the proposed Project Option A.*

Projects Near High Quality Transit Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT. Presumed to cause a less-than-significant impact:

- *Within a ½ mile of an existing major transit stop; and*
- *Maintains a service internal frequency of 15 minutes or less during the morning and afternoon peak commute periods.”*

Based on the above, the proposed Project will not screen-out since it is not near high quality transit.

Local-Serving Retail Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“The introduction of new Local-serving retail has been determined to reduce VMT by shortening trips that will occur. Presumed to cause a less-than-significant impact:

- *No single store on site exceeds 50,000 SF; and*

- *Project is local-serving as determined by the Transportation Department.”*

Based on the above, only the 20,000 SF retail component of the proposed Project Option A will screen-out. The remaining components of the proposed Project (i.e. industrial and residential) will not screen-out since they are not a Local-Serving retail use.

Affordable Housing Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“Lower-income residents make fewer trips on average, resulting in lower VMT overall. Presumed to cause a less-than-significant impact:

- *A high percentage of affordable housing is provided as determined by the Riverside County Planning and Transportation Departments.”*

Based on the above, the proposed Project will not screen-out since it is not an affordable housing project.

Local Essential Service Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“As with Local-Serving Retail, the introduction of new Local Essential Service shortens non-discretionary trips by putting those goods and services closer to residents, resulting in an overall reduction in VMT. Presumed to cause a less-than-significant impact if:

- *Project is local-serving as determined by the Transportation Department; and*
- *Local-serving and Day care center; or*
- *Police or Fire facility; or*
- *Medical/Dental office building under 50,000 square feet; or*
- *Government offices (in-person services such as post office, library, and utilities); or*
- *Local or Community Parks.”*

Based on the above, the proposed Project will not screen-out since it is not a local essential service project.



Map-Based Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020) states:

“This method eliminates the need for complex analyses, by following existing VMT data to serve as a basis for screening smaller developments. Note that screening is limited to residential and office projects. Presumed to cause a less-than-significant impact:

- *Area of development is under threshold as shown on screening map as allowed by the Transportation Department.”*

Based on the above, the proposed Project will not screen-out since map-based screening is not available for the proposed Project site.

Redevelopment Projects Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020) states:

“Projects with lower VMT than existing on-site uses, can under limited circumstances, be presumed to have a non-significant impact. In the event this screening does not apply, projects should be analyzed as though there is no existing uses on site (project analysis cannot take credit for existing VMT). Presumed to cause a less-than-significant impact:

- *Project replaces an existing VMT-generating land use and does not result in a net overall increase in VMT. ”*

Based on the above, the proposed Project will not screen-out since it is a new development project and not a redevelopment project.

Projects Screening Determination

Based on the above VMT screening criteria, the proposed Project in its entirety will not screen-out, thus requiring a full VMT analysis. It should be noted that only the 20,000 SF retail component of the proposed Project Option A will screen-out.

VEHICLE MILES TRAVELED (VMT) ANALYSIS METHODOLOGY

As required by the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020), projects not screened out through the steps above should complete VMT analysis and forecasting through the RIVCOM model to determine if they have a significant VMT impact. This analysis shall include both “Project-generated VMT” and “Project’s effect on VMT” estimates under the four scenarios listed below:



- Baseline Conditions
- Baseline Plus Project
- Cumulative No Project
- Cumulative Plus Project

The following section is to determine the VMT measure and threshold of significance for application to a land use project. Significance thresholds are based on land use type, broadly categorized as efficiency and net change metrics. **Table 2** presents the threshold basis that will be presented in this Technical Memorandum.

Table 2. Threshold Basis

Threshold Basis	Efficiency	Net Change
Example Land Use	Residential, Office, Industrial	Retail, Medical Office, Sports Venue
Measure for VMT Threshold	Per capita, per employee	Regional VMT change
Customer Component	No	Yes

Efficiency metrics include VMT/Capita and Work VMT/employee. “Net Change” refers to the net change in regional VMT and it is used for elements that include a significant customer base, such as commercial uses.

Based on the above, a VMT analysis for the proposed Project was conducted utilizing RIVCOM to determine the County of Riverside average and Project’s residential VMT and office (industrial) VMT, and the following:

- VMT per Capita
- VMT per Employee

It should be noted that according to *Appendix E* as contained in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, it can be presumed that a land development project will not have a significant impact under Cumulative conditions if it is determined not to have one under Baseline conditions unless there are known circumstances, as determined by Transportation Department, that might alter this outcome. Unless specifically required by the Transportation Department, Project analysis for Cumulative conditions is only required if there is a finding of a significant impact under the Baseline Plus Project conditions.

Additionally, for Specific Plans and Community Plans, Riverside County requires that Cumulative analysis be completed irrespective of the findings of the Baseline



Plus Project conditions. Further, No Project and Plus Project conditions under both the Baseline and Cumulative must provide total Regional VMT values. Since this Project is a Specific Plan, a Cumulative analysis has also been conducted.

VEHICLE MILES TRAVELED (VMT) IMPACT THRESHOLDS

As previously discussed, a project that does not meet the screening criteria will require the preparation of a detailed transportation analysis. The project VMT will be evaluated in order to determine if the project is expected to cause a significant transportation impact. The VMT significance criteria as stated in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* is detailed below:

The County adopted the County-wide average VMT as the threshold of significance. The thresholds of significance are summarized in **Table 3**.

Table 3. VMT Threshold of Significance

Land Use	Threshold of Significance
Residential	Existing county-wide average VMT per capita
Office	Existing county-wide average VMT per employee
Retail	Net increase in total VMT

Please note a project would result in a significant project-generated VMT impact if its VMT exceeds the VMT threshold based on its respective land use.

VEHICLE MILES TRAVELED (VMT) ANALYSIS

Summarized in the section below are the average VMT per Capita and VMT per Employee values utilizing RIVCOM for the County of Riverside and the proposed Project. It should be noted that the Project is located in Traffic Analysis Zone (TAZ) 806. Project development totals were converted into Socio-Economic Data (SED) and inputted into RIVCOM. **Figure 4** presents the RIVCOM TAZ Map for the proposed Project.

1) Residential Land Uses

Baseline Project-Generated VMT – As shown on the following page, the proposed Project average baseline Project-generated VMT per Capita is **35.26%** less than the County of Riverside baseline VMT per Capita threshold:



Baseline Project-Generated VMT per Capita	
Baseline County of Riverside VMT/Capita (Threshold)	14.88
Baseline Project-Generated VMT/Capita	9.63
Compared to the County of Riverside Threshold	35.26% Lower

Based on the criteria outlined in this report, the proposed Project’s Option A residential land uses will not exceed the County of Riverside baseline threshold and thus will not have a significant VMT impact for the baseline conditions for the residential land uses.

Cumulative Project-Generated VMT – As shown below, the proposed Project average cumulative Project-generated VMT per Capita is **42.32%** less than the County of Riverside cumulative VMT per Capita threshold:

Cumulative Project-Generated VMT per Capita	
Cumulative County of Riverside VMT/Capita (Threshold)	15.84
Cumulative Project-Generated VMT/Capita	9.14
Compared to the County of Riverside Threshold	42.32% Lower

Based on the criteria outlined in this report, the proposed Project’s Option A residential land uses will not exceed the County of Riverside cumulative threshold and thus will not have a significant VMT impact for the cumulative conditions for the residential land uses.

2) Office (Industrial) Land Uses

Baseline Project-Generated VMT – As shown below, the proposed Project average baseline Project-generated VMT per Employee is **0.90%** less than the County of Riverside baseline VMT per Employee threshold:

Baseline Project-Generated VMT per Employee	
Baseline County of Riverside VMT/Employee (Threshold)	18.30
Baseline Project-Generated VMT/Employee	18.13
Compared to the County of Riverside Threshold	0.90% Lower

Based on the criteria outlined in this report, the proposed Project’s Option A office (industrial) land uses will not exceed the County of Riverside baseline threshold and thus will not have a significant VMT impact for the baseline conditions for the office (industrial) land uses.



Cumulative Project-Generated VMT – As shown below, the proposed Project average cumulative Project-generated VMT per Employee is **14.32%** less than the County of Riverside cumulative VMT per Employee threshold:

Cumulative Project-Generated VMT per Employee	
Cumulative County of Riverside VMT/Employee (Threshold)	17.30
Cumulative Project-Generated VMT/Employee	14.82
Compared to the County of Riverside Threshold	14.32% Lower

Based on the criteria outlined in this report, the proposed Project’s Option A office (industrial) land uses will not exceed the County of Riverside cumulative threshold and thus will not have a significant VMT impact for the cumulative conditions for the office (industrial) land uses.

CONCLUSION

Based on the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* and the VMT methodology, criteria, analysis, thresholds and results outlined in this Technical Memorandum, the proposed Project Option A will not have a significant VMT impact for both the baseline condition and the cumulative condition. Therefore, the proposed Project is to be presumed to have a less than significant CEQA related transportation impact.

* * * * *

We appreciate the opportunity to provide this Technical Memorandum. Should you have any questions regarding the memorandum, please contact us at (949) 825-6175.

Attachments

cc: File



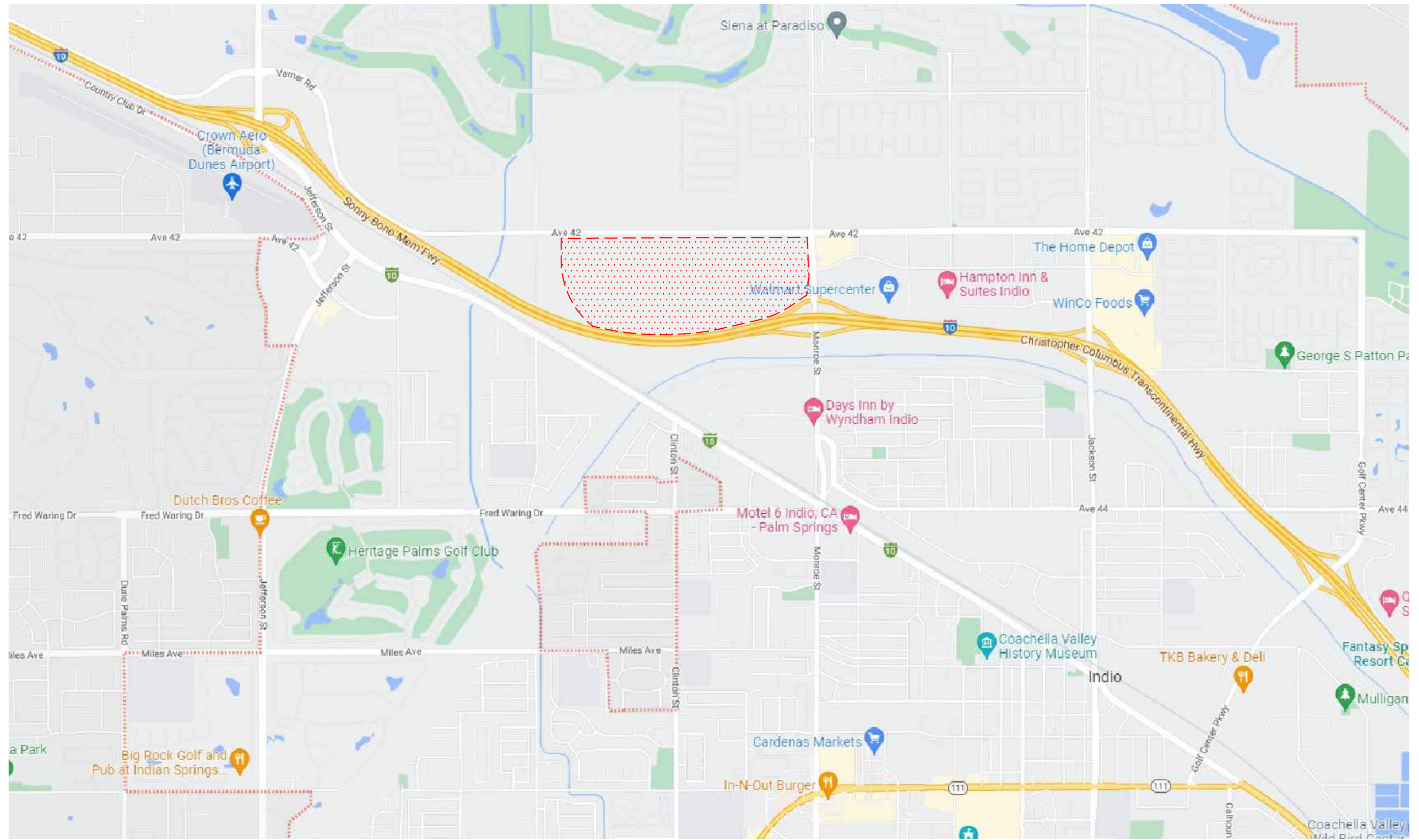


TABLE 1
 PROJECT OPTION A TRIP GENERATION FORECAST

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<u>Proposed Project Generation Forecast:</u>							
▪ Building 1 High Cube Fulfillment Center Warehouse (Non-Sort) (859,610 SF)							
<input type="checkbox"/> Passenger Cars	1,410	103	26	129	52	86	138
<input type="checkbox"/> 2 Axle Trucks	39	0	0	0	0	0	0
<input type="checkbox"/> 3 Axle Trucks	69	0	0	0	0	0	0
<input type="checkbox"/> 4+ Axle Trucks	<u>258</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<i>Building 1 High Cube Fulfillment Center (Non-Sort) Total</i>	<i>1,776</i>	<i>103</i>	<i>26</i>	<i>129</i>	<i>52</i>	<i>86</i>	<i>138</i>
▪ Building 2 High Cube Fulfillment Center Warehouse (Sort) (946,680 SF)							
<input type="checkbox"/> Passenger Cars	5,557	644	161	805	445	682	1,127
<input type="checkbox"/> 2 Axle Trucks	142	0	0	0	0	0	0
<input type="checkbox"/> 3 Axle Trucks	246	19	0	19	0	0	0
<input type="checkbox"/> 4+ Axle Trucks	<u>966</u>	<u>28</u>	<u>0</u>	<u>28</u>	<u>0</u>	<u>28</u>	<u>28</u>
<i>Building 2 High Cube Fulfillment Center (Sort) Total</i>	<i>6,911</i>	<i>691</i>	<i>161</i>	<i>852</i>	<i>445</i>	<i>710</i>	<i>1,155</i>
▪ Multifamily Housing (3,240 DU)	21,838	311	985	1,296	1,041	611	1,652
▪ Retail (20,000 SF)	1,089	28	19	47	66	66	132
Pass-by Trips (Daily: 10%; AM: 10%; PM: 40%) ¹	<u>-109</u>	<u>-3</u>	<u>-2</u>	<u>-5</u>	<u>-26</u>	<u>-27</u>	<u>-53</u>
<i>Retail Subtotal</i>	<i>980</i>	<i>25</i>	<i>17</i>	<i>42</i>	<i>40</i>	<i>39</i>	<i>79</i>
Total Project Option A Trip Generation	31,505	1,130	1,189	2,319	1,578	1,446	3,024

¹ Pass-By Trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation Manual, 11th Edition*, ITE 2021):

- 822: Strip Retail Plaza: Daily/AM peak hour/PM peak hour = 10% (assumed)/10% (assumed)/40% (assumed)



SOURCE: GOOGLE

KEY

 = PROJECT SITE

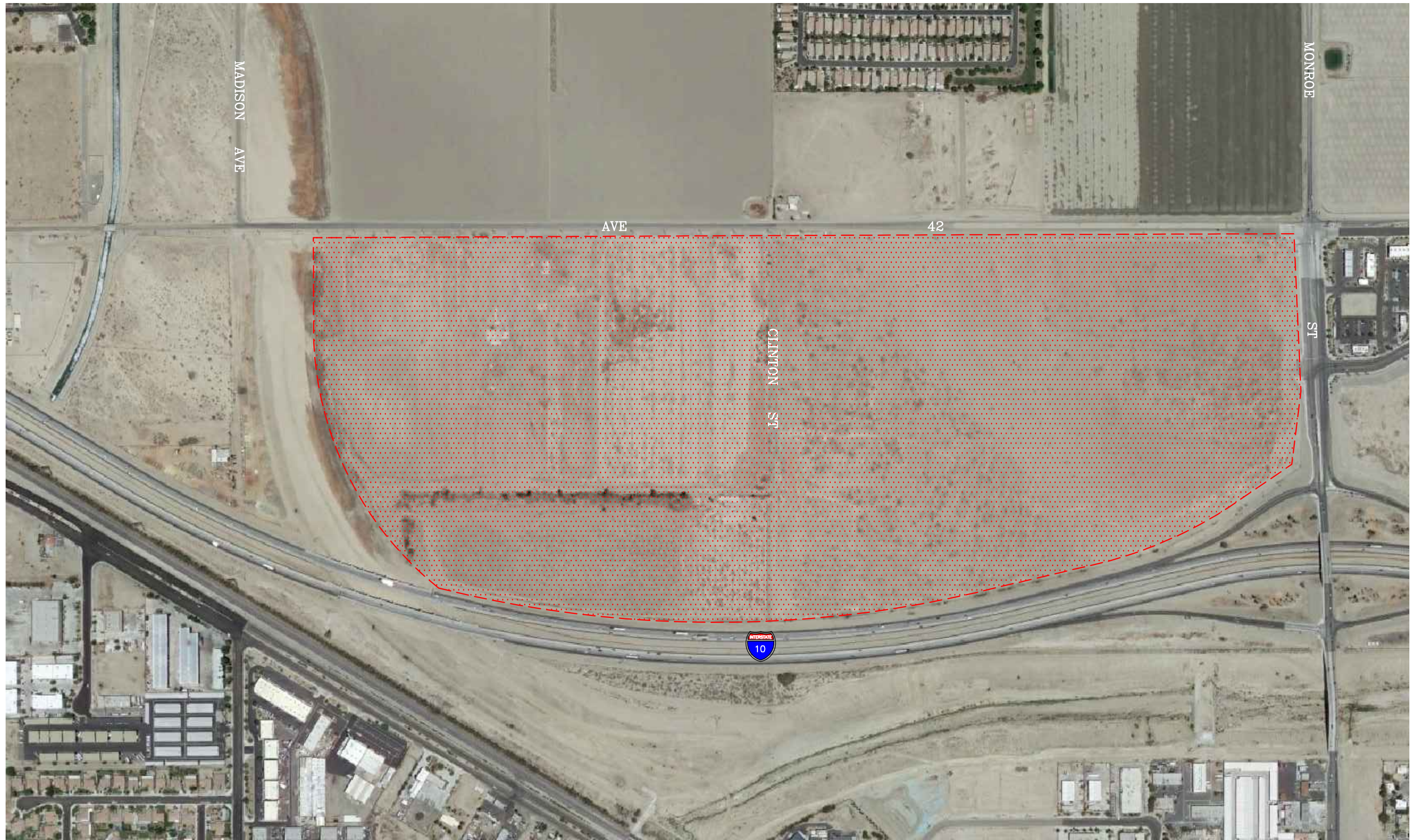


FIGURE 1

VICINITY MAP

BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIR

n:\4500\2224567 - bh properties industrial and commercial project, indio\ymt\6 - dwg\4567 f-1.dwg LDP 08:28:06 06-19-2023 gjuic



n:\4500\2224567 - bh properties industrial and commercial project, indio\ymt\6 - dwg\4567 f-2.dwg LDP 09:40:52 05-15-2024 gjuil

SOURCE: GOOGLE

KEY

 = PROJECT SITE



FIGURE 2

EXISTING SITE AERIAL
BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIO



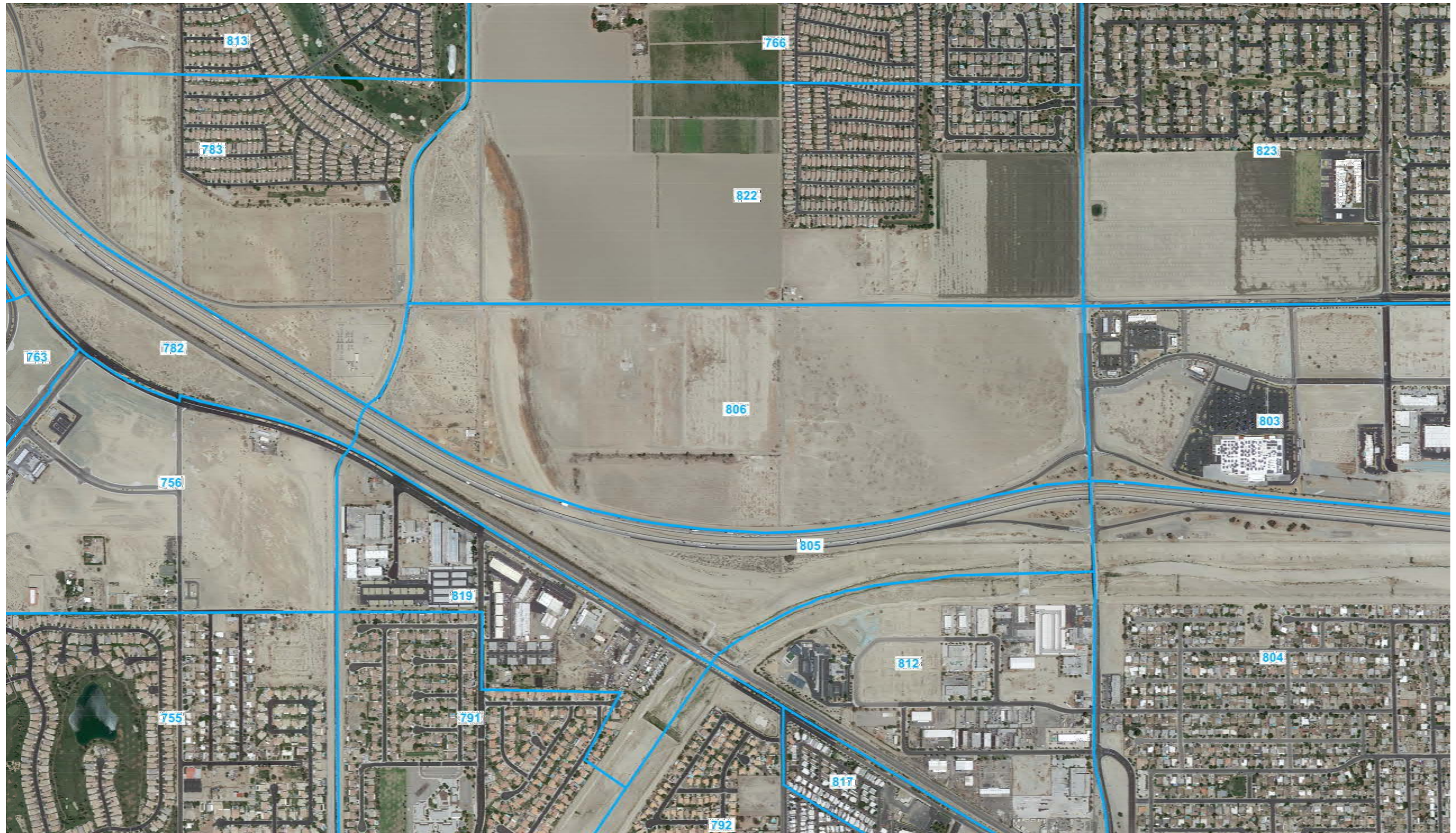
n:\4500\2224567 - bh properties industrial and commercial project, indio\vmt\6 - dwg\4567 f-3a.dwg LDP 17:19:32 05-15-2024 mempin

SOURCE: MSA CONSULTING, INC.



FIGURE 3

PROPOSED OPTION A SITE PLAN
BH PROPERTIES THE OASIS AT INDO, INDO



n:\4500\2224567 - bh properties industrial and commercial project, indio\vmt\6 - dwg\4567 f-4.dwg LDP 08:37:31 06-19-2023 agular

SOURCE: RIVCOM



FIGURE 4

TAZ MAP
BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIO



TECHNICAL MEMORANDUM

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Linscott, Law and Greenspan, Engineers
LLG Ref: 2.22.4567.1

Subject: ***Vehicle Miles Traveled (VMT) Analysis for the BH Properties The Oasis at Indio Project (Project Option B), Indio***

As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Vehicle Miles Traveled (VMT) Analysis Technical Memorandum for the proposed BH Properties The Oasis at Indio Project (Project Option B) (herein after referred to as “Project Option B”) located in the City of Indio, Riverside County, California. This Technical Memorandum presents the VMT screening criteria, analysis methodology, impact thresholds, analysis, findings, and conclusions. It should be noted that the approach and methodology outlined in this Technical Memorandum are consistent with the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, which provides additional detail on the language and analysis procedures described in this Technical Memorandum. It should be noted that this Project is a General Plan Amendment that would prepare a Specific Plan.

The following sections of this Technical Memorandum summarize the Project description, County of Riverside VMT screening criteria, analysis methodology, VMT impact thresholds, VMT analysis, and conclusion.

PROJECT DESCRIPTION

The Project site is located on the southwest quadrant of Monroe Street and Avenue 42 in the City of Indio, California, Riverside County, California. Project Option B proposes to construct an 859,610 SF high cube fulfillment center warehouse (Non-Sort), a 946,680 SF high cube fulfillment center warehouse (Sort), 1,237 multifamily housing dwelling units, 71,600 SF of commercial/retail and a 128 room hotel. The 71,600 SF of commercial/retail will consist of 12,100 SF of fast-food restaurant with drive throughs, a 49,500 SF supermarket, a gas station with 16 vehicle fueling positions and a 5,000 SF convenience store, and a 5,000 SF automated car wash. The proposed Project Option B is expected to be constructed and fully occupied by the Year 2033. For the purposes of the Specific Plan (SP), the following describes the Planning Areas:

- SP Planning Area #1 (Mixed-Use): 1,237 multifamily housing dwelling units
- SP Planning Area #2 and #3 (Mixed-Use): 71,600 SF of commercial/retail

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- SP Planning Area #4 (Industrial): 859,610 SF high cube fulfillment center warehouse (Non-Sort) and 946,680 SF high cube fulfillment center warehouse (Sort)

Access to SP Planning Area #1 (i.e. the residential component) of proposed Project Option B will be provided via four (4) unsignalized left-turn in/right-turn in/right-turn out only access driveways located along Avenue 42. One (1) unsignalized right-turn in/right-turn out only driveway located along Avenue 42 and two (2) unsignalized right-turn in/right-turn out only driveways located along Monroe Street will provide access to SP Planning Area #2 and #3 (i.e. the commercial/retail component). One (1) full access driveway located along Monroe Street, directly opposite Showcase Parkway will connect to the project's internal roadway and will provide SP Planning Area #4 access (i.e. industrial) and SP Planning Area #2 and #3 access (i.e. commercial).

Figure 1 presents the vicinity map that illustrates the general location of the Project site and surrounding street system while **Figure 2** displays the existing site aerial of the current site layout. **Figure 3** presents the conceptual site plan for Project Option B, prepared by MSA Consulting, Inc.

PROJECT SCREENING CRITERIA

Under the VMT methodology, screening is used to determine if a project will be required to conduct a detailed VMT analysis. The following section discusses the various screening methods outlined in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, and outlines whether the Project will screen-out, either in its entirety, or partially based on individual land uses.

Small Projects Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* states:

“This applies to projects with low trip generation per existing CEQA exemptions or based on the County Greenhouse Gas Emissions Screening Tables, resulting in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}) per year screening level threshold. Presumed to cause a less-than-significant impact:

- *Single Family Housing projects less than or equal to 110 Dwelling Units; or*

- *Multi Family (low rise) Housing projects less than or equal to 147 Dwelling Units; or*
- *Multi Family (mid-rise) Housing projects less than or equal to 194 Dwelling Units; or*
- *General Office Building with area less than or equal to 165,000 SF; or*
- *Retail buildings with area less than or equal to 60,000 SF; or*
- *Warehouse (unrefrigerated) buildings with area less than or equal to 208,000 SF; or*
- *General Light Industrial buildings with area less than or equal to 179,000 SF; or*
- *Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}) as determined by a methodology acceptable to the Transportation Department; or*
- *Unless specified above, project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by Riverside County.”*

*Based on the above and as presented in **Table 1**, the proposed Project in its entirety will not screen-out under this screening criteria, since it is not listed in any of the small projects’ categories listed above, except for the 12,100 SF of fast-food restaurant with drive throughs, 49,500 SF supermarket, gas station with 5,000 SF convenience store and 5,000 SF car wash components of the proposed Project Option B.*

Projects Near High Quality Transit Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT. Presumed to cause a less-than-significant impact:

- *Within a ½ mile of an existing major transit stop; and*
- *Maintains a service internal frequency of 15 minutes or less during the morning and afternoon peak commute periods.”*

Based on the above, the proposed Project will not screen-out since it is not near high quality transit.

Local-Serving Retail Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020) states:

“The introduction of new Local-serving retail has been determined to reduce VMT by shortening trips that will occur. Presumed to cause a less-than-significant impact:

- *No single store on site exceeds 50,000 SF; and*
- *Project is local-serving as determined by the Transportation Department.”*

Based on the above, only the 128 room hotel, 12,100 SF of fast-food restaurant with drive throughs, 49,500 SF supermarket, gas station with 5,000 SF convenience store and 5,000 SF car wash components of the proposed Project Option B will screen-out. The remaining components of the proposed Project (i.e. industrial and residential) will not screen-out since they are not a Local-Serving retail use.

Affordable Housing Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020) states:

“Lower-income residents make fewer trips on average, resulting in lower VMT overall. Presumed to cause a less-than-significant impact:

- *A high percentage of affordable housing is provided as determined by the Riverside County Planning and Transportation Departments.”*

Based on the above, the proposed Project will not screen-out since it is not an affordable housing project.

Local Essential Service Screening

The *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled* (dated December 2020) states:

“As with Local-Serving Retail, the introduction of new Local Essential Service shortens non-discretionary trips by putting those goods and services closer to residents, resulting in an overall reduction in VMT. Presumed to cause a less-than-significant impact if:

- *Project is local-serving as determined by the Transportation Department; and*
- *Local-serving and Day care center; or*

- *Police or Fire facility; or*
- *Medical/Dental office building under 50,000 square feet; or*
- *Government offices (in-person services such as post office, library, and utilities); or*
- *Local or Community Parks.”*

Based on the above, the proposed Project will not screen-out since it is not a local essential service project.

Map-Based Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“This method eliminates the need for complex analyses, by following existing VMT data to serve as a basis for screening smaller developments. Note that screening is limited to residential and office projects. Presumed to cause a less-than-significant impact:

- *Area of development is under threshold as shown on screening map as allowed by the Transportation Department.”*

Based on the above, the proposed Project will not screen-out since map-based screening is not available for the proposed Project site.

Redevelopment Projects Screening

The County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020) states:

“Projects with lower VMT than existing on-site uses, can under limited circumstances, be presumed to have a non-significant impact. In the event this screening does not apply, projects should be analyzed as though there is no existing uses on site (project analysis cannot take credit for existing VMT). Presumed to cause a less-than-significant impact:

- *Project replaces an existing VMT-generating land use and does not result in a net overall increase in VMT. ”*

Based on the above, the proposed Project will not screen-out since it is a new development project and not a redevelopment project.



Projects Screening Determination

Based on the above VMT screening criteria, the proposed Project in its entirety will not screen-out, thus requiring a full VMT analysis. It should be noted that the 128 room hotel, 12,100 SF of fast-food restaurant with drive throughs, 49,500 SF supermarket, gas station with 5,000 SF convenience store and 5,000 car wash components of the proposed Project Option B will screen-out.

VEHICLE MILES TRAVELED (VMT) ANALYSIS METHODOLOGY

As required by the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, projects not screened out through the steps above should complete VMT analysis and forecasting through the RIVCOM model to determine if they have a significant VMT impact. This analysis shall include both “Project-generated VMT” and “Project’s effect on VMT” estimates under the four scenarios listed below:

- Baseline Conditions
- Baseline Plus Project
- Cumulative No Project
- Cumulative Plus Project

The following section is to determine the VMT measure and threshold of significance for application to a land use project. Significance thresholds are based on land use type, broadly categorized as efficiency and net change metrics. **Table 2** presents the threshold basis that will be presented in this Technical Memorandum.

Table 2. Threshold Basis

Threshold Basis	Efficiency	Net Change
Example Land Use	Residential, Office, Industrial	Retail, Medical Office, Sports Venue
Measure for VMT Threshold	Per capita, per employee	Regional VMT change
Customer Component	No	Yes

Efficiency metrics include VMT/Capita and Work VMT/employee. “Net Change” refers to the net change in regional VMT and it is used for elements that include a significant customer base, such as commercial uses.

Based on the above, a VMT analysis for the proposed Project was conducted utilizing RIVCOM to determine the County of Riverside average and Project’s residential VMT and office (industrial and commercial) VMT, and the following:



- VMT per Capita
- VMT per Employee

It should be noted that according to *Appendix E* as contained in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)*, it can be presumed that a land development project will not have a significant impact under Cumulative conditions if it is determined not to have one under Baseline conditions unless there are known circumstances, as determined by Transportation Department, that might alter this outcome. Unless specifically required by the Transportation Department, Project analysis for Cumulative conditions is only required if there is a finding of a significant impact under the Baseline Plus Project conditions.

Additionally, for Specific Plans and Community Plans, Riverside County requires that Cumulative analysis be completed irrespective of the findings of the Baseline Plus Project conditions. Further, No Project and Plus Project conditions under both the Baseline and Cumulative must provide total Regional VMT values. Since this Project is a Specific Plan, a Cumulative analysis has also been conducted.

VEHICLE MILES TRAVELED (VMT) IMPACT THRESHOLDS

As previously discussed, a project that does not meet the screening criteria will require the preparation of a detailed transportation analysis. The project VMT will be evaluated in order to determine if the project is expected to cause a significant transportation impact. The VMT significance criteria as stated in the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* is detailed below:

The County adopted the County-wide average VMT as the threshold of significance. The thresholds of significance are summarized in *Table 3*.

Table 3. VMT Threshold of Significance

Land Use	Threshold of Significance
Residential	Existing county-wide average VMT per capita
Office	Existing county-wide average VMT per employee
Retail	Net increase in total VMT

Please note a project would result in a significant project-generated VMT impact if its VMT exceeds the VMT threshold based on its respective land use.



VEHICLE MILES TRAVELED (VMT) ANALYSIS

Summarized in the section below are the average VMT per Capita and VMT per Employee values utilizing RIVCOM for the County of Riverside and the proposed Project. It should be noted that the Project is located in Traffic Analysis Zone (TAZ) 806. Project development totals were converted into Socio-Economic Data (SED) and inputted into RIVCOM. *Figure 4* presents the RIVCOM TAZ Map for the proposed Project.

1) Residential Land Uses

Baseline Project-Generated VMT – As shown below, the proposed Project average baseline Project-generated VMT per Capita is **36.42%** less than the County of Riverside baseline VMT per Capita threshold:

Baseline Project-Generated VMT per Capita	
Baseline County of Riverside VMT/Capita (Threshold)	14.88
Baseline Project-Generated VMT/Capita	9.46
Compared to the County of Riverside Threshold	36.42% Lower

Based on the criteria outlined in this report, the proposed Project’s Option B residential land uses will not exceed the County of Riverside baseline threshold and thus will not have a significant VMT impact for the baseline conditions for the residential land uses.

Cumulative Project-Generated VMT – As shown below, the proposed Project average cumulative Project-generated VMT per Capita is **43.43%** less than the County of Riverside cumulative VMT per Capita threshold:

Cumulative Project-Generated VMT per Capita	
Cumulative County of Riverside VMT/Capita (Threshold)	15.84
Cumulative Project-Generated VMT/Capita	8.96
Compared to the County of Riverside Threshold	43.43% Lower

Based on the criteria outlined in this report, the proposed Project’s Option B residential land uses will not exceed the County of Riverside cumulative threshold and thus will not have a significant VMT impact for the cumulative conditions for the residential land uses.



2) Office (Industrial and Commercial) Land Uses

Baseline Project-Generated VMT – As shown below, the proposed Project average baseline Project-generated VMT per Employee needs a **6.11%** reduction to meet the County of Riverside baseline VMT per Employee threshold:

Baseline Project-Generated VMT per Employee	
Baseline County of Riverside VMT/Employee (Threshold)	18.30
Baseline Project-Generated VMT/Employee	19.49
Compared to the County of Riverside Threshold	6.11% Reduction Needed

Based on the criteria outlined in this report, the proposed Project’s Option B office (industrial and commercial) land uses will exceed the County of Riverside baseline threshold and thus will have a significant VMT impact for the baseline conditions for the office (industrial and commercial) land uses. The baseline conditions are reflective of the number of employees assumed under Option B, including 1,204 employees associated with planned future industrial uses.

Cumulative Project-Generated VMT – As shown below, the proposed Project average cumulative Project-generated VMT per Employee is **10.92%** less than the County of Riverside cumulative VMT per Employee threshold:

Cumulative Project-Generated VMT per Employee	
Cumulative County of Riverside VMT/Employee (Threshold)	17.30
Cumulative Project-Generated VMT/Employee	15.41
Compared to the County of Riverside Threshold	10.92% Lower

Based on the criteria outlined in this report, the proposed Project’s Option B office (industrial and commercial) land uses will not exceed the County of Riverside cumulative threshold and thus will not have a significant VMT impact for the cumulative conditions for the office (industrial) land uses.

VMT MITIGATION MEASURES

If a significant VMT impact is identified, measures to reduce the Project’s VMT impact should be identified to reduce the VMT levels to a level at or below the City’s thresholds. To mitigate VMT impacts, the following choices are available to the applicant:

1. Modify the project’s built environment characteristics to reduce VMT generated by the project.

2. Implement Transportation Demand Management (TDM) measures to reduce VMT generated by the project.

Evaluation of VMT reductions should be evaluated using state-of-the-practice methodologies recognizing that many of the TDM strategies are dependent on building tenant performance over time.

As referenced in the *OPR Technical Advisory*, the California Air Pollution Control Officers Association's *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, Designed for Local Government, Communities, and Project Developers* Report, Chapters 3 - Transportation, December 2021, (CAPCOA Report) quantifies the reduction in vehicle miles traveled (VMT) associated with a particular mitigation measure. The CAPCOA VMT reduction strategies include built environment changes and transportation demand management (TDM) actions.

The Transportation Demand Management (TDM) strategies are sub-categorized into the following:

- 1) Land Use
- 2) Trip Reduction Program
- 3) Parking or Road Pricing/Management
- 4) Neighborhood Design
- 5) Transit
- 6) Clean Vehicles and Fuels

It may be noted that there are rules and combined maximums for calculating the VMT reduction when applying multiple mitigation measures. To safeguard the accuracy and reliability of the methods while maintaining their case of use, the following rules should be followed when considering reductions achieved by transportation measures.

Combining Measures Across Scales

According to the CAPCOA, there are sixteen (16) quantified measures at the Project/Site scale that can be combined with each other and seventeen (17) quantified measures at the Plan/Community scale that can be combined with each other.

Combining Measures Within a Subsector

Effectiveness levels for multiple measures within a subsector may be multiplied to determine a combined effectiveness level. The CAPCOA recommends that measures reductions within a subsector be multiplied. This will take the following form:



$$Reduction_{subsector} = 1 - [(1 - A) * (1 - B) * (1 - C)]$$

Where A, B, and C are the individual measures reduction percentages for the measures to be combined in each subsector. In addition, each subsector has a maximum allowable reduction.

Combining Measures Across Subsectors

The CAPCOA report adopts 70 percent as a maximum for the combined VMT impact from the following four subsectors: Land Use, Neighborhood Design, Parking or Road Pricing/Management, and Transit:

$$Reduction_{multi-subsector} = 1 - [(1 - Land) * (1 - Design) * (1 - Parking) * (1 - Transit)] \leq 70\%$$

Please note that this multi-subsector maximum purposefully excludes the Trip Reduction Program subsector.

CAPCOA identifies TDM strategies and quantifies potential VMT reductions by implementing each approach. It should be noted that not all TDM strategies will be applicable to the Project. One or a combination of these mitigation measures could be utilized to offset the impact, fully or partially.

Indio Municipal Code Chapter 160: Transportation Demand Management

The Indio Municipal Code (IMC) requires that all non-residential developments that employ 100 or more persons prepare and submit a Transportation Demand Management Plan to reduce employee transportation associated with the development. The plan shall include specific strategies and guidelines to reduce the amount of trips and increase the amount of non-vehicular transportation. (IMC § 160.06.). The plan shall reduce work related vehicle trips by a minimum of 10% from the expected number of trips related to the development through the use of specific measures, such as on-site and off-site transit facilities, bicycle facilities, rideshare facilities, alternate work schedules, employee shuttles, preferential parking for carpools, information on transportation alternatives, vanpool accessibility, rideshare loading areas, and/or incentives for mass transit usage, among other things.

The project's future compliance with IMC Chapter 160 and the measures to be implemented are consistent with CAPCOA's recommended VMT mitigation measures, specifically T-7 and T-8:

- T-7 (Implement Commute Trip Reduction Marketing): up to 4% maximum VMT reduction.



- T-8 (Providing Ridesharing Program): up to 8% maximum VMT reduction.

Per the CAPCOA methodology, future implementation of T-7 (Commute Trip Reduction Marketing) and T-8 (Provide Ridesharing Program) would result in reductions to VMT from large employment uses (such as future industrial uses).

T-7. Implement Commute Trip Reduction Marketing

This measure will implement a marketing strategy to promote the project site employer's Commute Trip Reduction (CTR) Marketing program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions. It should be noted that 100% of the industrial employees, which equates to 85% of the total Project employment, will be eligible for the program. The CAPCOA T-7 formula was applied accordingly, as shown on the following page:

$$VMT\ Reduction = 85\% * -4.0\% * 1 = 3.4\%$$

Based on the above, the Project's VMT could reasonably be reduced by **3.4%** (less than CAPCOA's maximum VMT reduction of 4%).

T-8. Provide Ridesharing Program

This measure will implement a ridesharing program and establish a permanent transportation management association with funding requirements for employees. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT and GHG emissions. Consistent with T-7, 100% of the industrial employees, which equates to 85% of the total Project employment, will be eligible for the program. The CAPCOA T-8 formula was applied accordingly, as shown below:

$$VMT\ Reduction = 85\% * -4.0\% = 3.4\%$$

Based on the above, the Project's VMT could reasonably be reduced by **3.4%** (less than CAPCOA's maximum VMT reduction of 8%).

$$Total\ VMT\ Reduction = 1 - (1 - (1 - T7) * (1 - T8))$$

$$Total\ VMT\ Reduction = 1 - (1 - (1 - 3.4\%) * (1 - 3.4\%)) = \mathbf{6.68\%}$$



Mitigation Measures

The analysis above shows that implementation of T-7 and T-8 to future industrial uses (as a large generator or employees) would be sufficient to reduce Option B VMT to a less than significant level. T-7 and T-8 are measures that may be implemented to ensure compliance with IMC Chapter 160, which requires a TDM program that reduces vehicular trips by a minimum of 10%.

To ensure that the reductions associated with T-7 and T-8 are realized through compliance with IMC Chapter 160, the following mitigation measure is recommended:

- Any future use subject to IMC Chapter 160 shall implement, as part of its TDM program, (1) commute trip reduction marketing and (2) a ridesharing program, among the other measures that may be required to achieve a 10% reduction in overall employee trips.

CONCLUSION

Based on the *County of Riverside Transportation Analysis Guidelines for Level of Service, Vehicle Miles Traveled (dated December 2020)* and the VMT methodology, criteria, analysis, thresholds and results outlined in this Technical Memorandum, the proposed Project Option B will not have a significant Project-generated VMT impact for either the baseline or cumulative conditions after implementation of the recommended VMT mitigation measures outlined in this memorandum. Therefore, the proposed Project is presumed to have a less than significant CEQA related transportation impact.

* * * * *

We appreciate the opportunity to provide this Technical Memorandum. Should you have any questions regarding the memorandum, please contact us at (949) 825-6175.





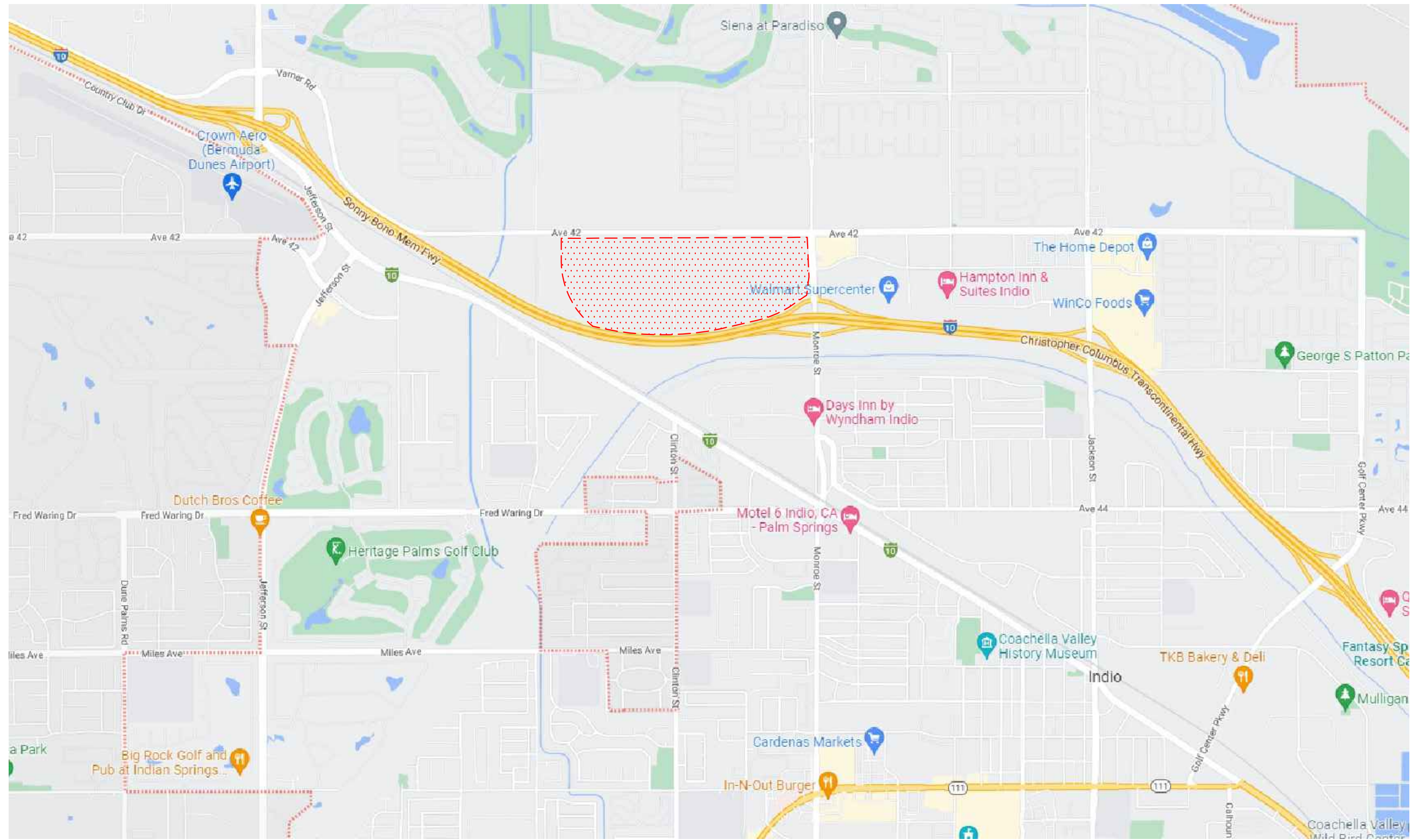
TABLE 1
 PROJECT OPTION B TRIP GENERATION FORECAST

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i>Proposed Project Generation Forecast:</i>							
▪ Building 1 High Cube Fulfillment Center Warehouse (Non-Sort) (859,610 SF)							
☐ Passenger Cars	1,410	103	26	129	52	86	138
☐ 2 Axle Trucks	39	0	0	0	0	0	0
☐ 3 Axle Trucks	69	0	0	0	0	0	0
☐ 4+ Axle Trucks	258	0	0	0	0	0	0
<i>Building 1 High Cube Fulfillment Center (Non-Sort) Subtotal</i>	1,776	103	26	129	52	86	138
Internal Capture ¹	-170	-15	-16	-31	-4	-2	-6
<i>Building 1 High Cube Fulfillment Center (Non-Sort) Total</i>	1,606	88	10	98	48	84	132
▪ Building 2 High Cube Fulfillment Center Warehouse (Sort) (946,680 SF)							
☐ Passenger Cars	5,557	644	161	805	445	682	1,127
☐ 2 Axle Trucks	142	0	0	0	0	0	0
☐ 3 Axle Trucks	246	19	0	19	0	0	0
☐ 4+ Axle Trucks	966	28	0	28	0	28	28
<i>Building 2 High Cube Fulfillment Center (Sort) Total</i>	6,911	691	161	852	445	710	1,155
Internal Capture ¹	-597	-101	-100	-201	-15	-45	-60
<i>Building 2 High Cube Fulfillment Center (Sort) Total</i>	6,314	590	61	651	430	665	1,095
▪ Multifamily Housing (1,237 DU)	8,337	119	376	495	398	233	631
Internal Capture ¹	-2,313	-4	-43	-47	-132	-72	-204
<i>Multifamily Housing Total</i>	6,024	115	333	448	266	161	427
▪ Fast Food Restaurant with Drive-Through (12,100 SF)	5,657	275	265	540	208	192	400
Internal Capture ¹	-2,851	-140	-112	-252	-89	-117	-206
<i>Fast Food Restaurant Subtotal</i>	2,806	135	153	288	119	75	194
Pass-by Trips (Daily: 25%; AM: 50%; PM: 55%) ²	-702	-68	-76	-144	-65	-42	-107
<i>Fast Food Restaurant Total</i>	2,104	67	77	144	54	33	87
▪ Supermarket (49,500 SF)	4,645	84	58	142	222	221	443
Internal Capture ¹	-1,909	-20	-13	-33	-81	-82	-163
<i>Supermarket Subtotal</i>	2,736	64	45	109	141	139	280
Pass-by Trips (Daily: 10%; AM: 10%; PM: 24%) ²	-274	-6	-5	-11	-34	-33	-67
<i>Supermarket Total</i>	2,462	58	40	98	107	106	213
▪ Hotel (128 Rooms)	1,023	33	26	59	39	37	76
▪ Gas Station with Convenience Store (16 VFP)	4,114	217	216	433	182	182	364
Internal Capture ¹	-1,657	-53	-49	-102	-64	-66	-130
<i>Gas Station Subtotal</i>	2,457	164	167	331	118	116	234
Pass-by Trips (Daily: 25%; AM: 76%; PM: 75%) ²	-614	-125	-127	-252	-89	-87	-176
<i>Gas Station Total</i>	1,843	39	40	79	29	29	58
▪ Car Wash (5,000 SF)	710	36	35	71	36	35	71
Internal Capture ¹	-319	-8	-9	-17	-13	-13	-26
<i>Car Wash Subtotal</i>	391	28	26	54	23	22	45
Pass-by Trips (Daily: 25%; AM: 25%; PM: 25%) ²	-98	-7	-7	-14	-6	-5	-11
<i>Car Wash Total</i>	293	21	19	40	17	17	34
Total Project Option B Trip Generation	21,669	1,011	606	1,617	990	1,132	2,122

¹ Internal capture trip reduction is consistent with the *Trip Generation Handbook, 3rd Edition*, published by ITE (September 2017). Project trip generation was adjusted to account for internal capture between the warehouse employee, retail, restaurant, and residential components of the Project.

² Pass-By Trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation Manual, 11th Edition*, ITE 2021):

- 850: Supermarket: Daily/AM peak hour/PM peak hour = 10% (assumed)/10% (assumed)/24%
- 934: Fast Food Restaurant With Drive-Through Window: Daily/AM peak hour/PM peak hour = 25% (assumed)/50%/55%
- 945: Gas Station With Convenience Store (9 – 20 VFP): Daily/AM peak hour/PM peak hour = 25% (assumed)/76%/75%
- 948: Automated Car Wash: Daily/AM peak hour/PM peak hour = 25% (assumed)/25% (assumed)/25% (assumed)



SOURCE: GOOGLE

KEY

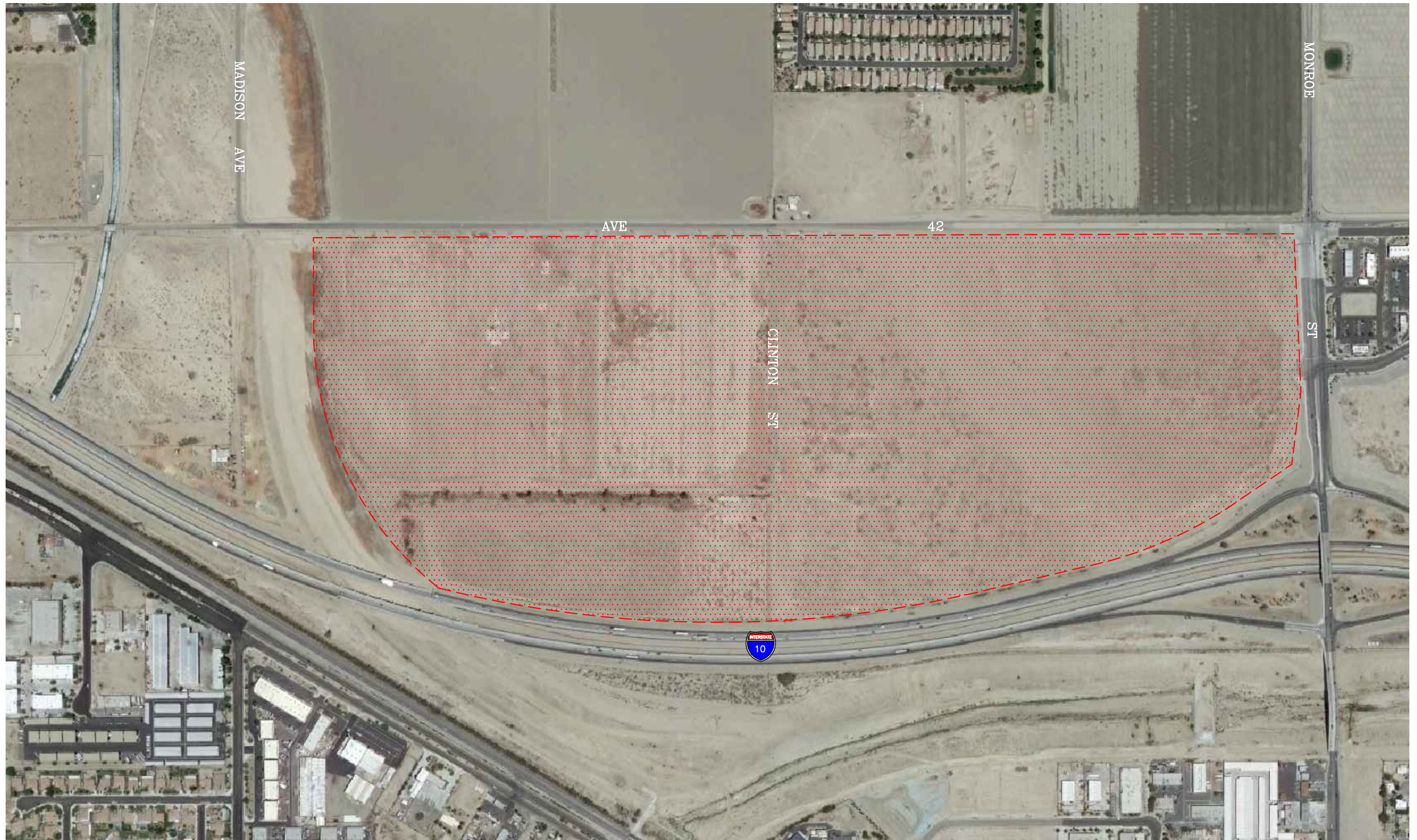
= PROJECT SITE



FIGURE 1

VICINITY MAP

BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIRIO



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SOURCE: GOOGLE

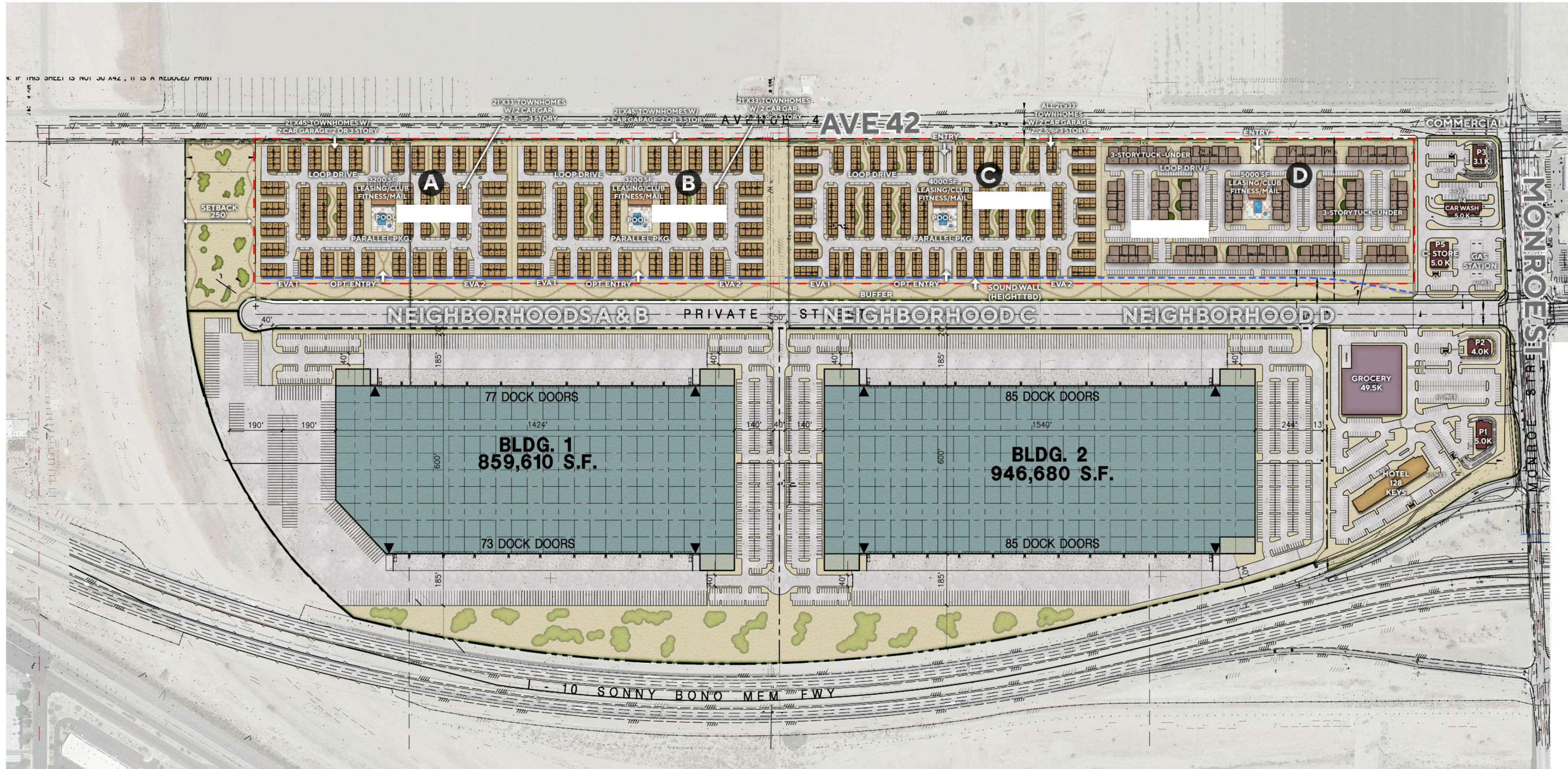
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 = PROJECT SITE



FIGURE 2

EXISTING SITE AERIAL
BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIO



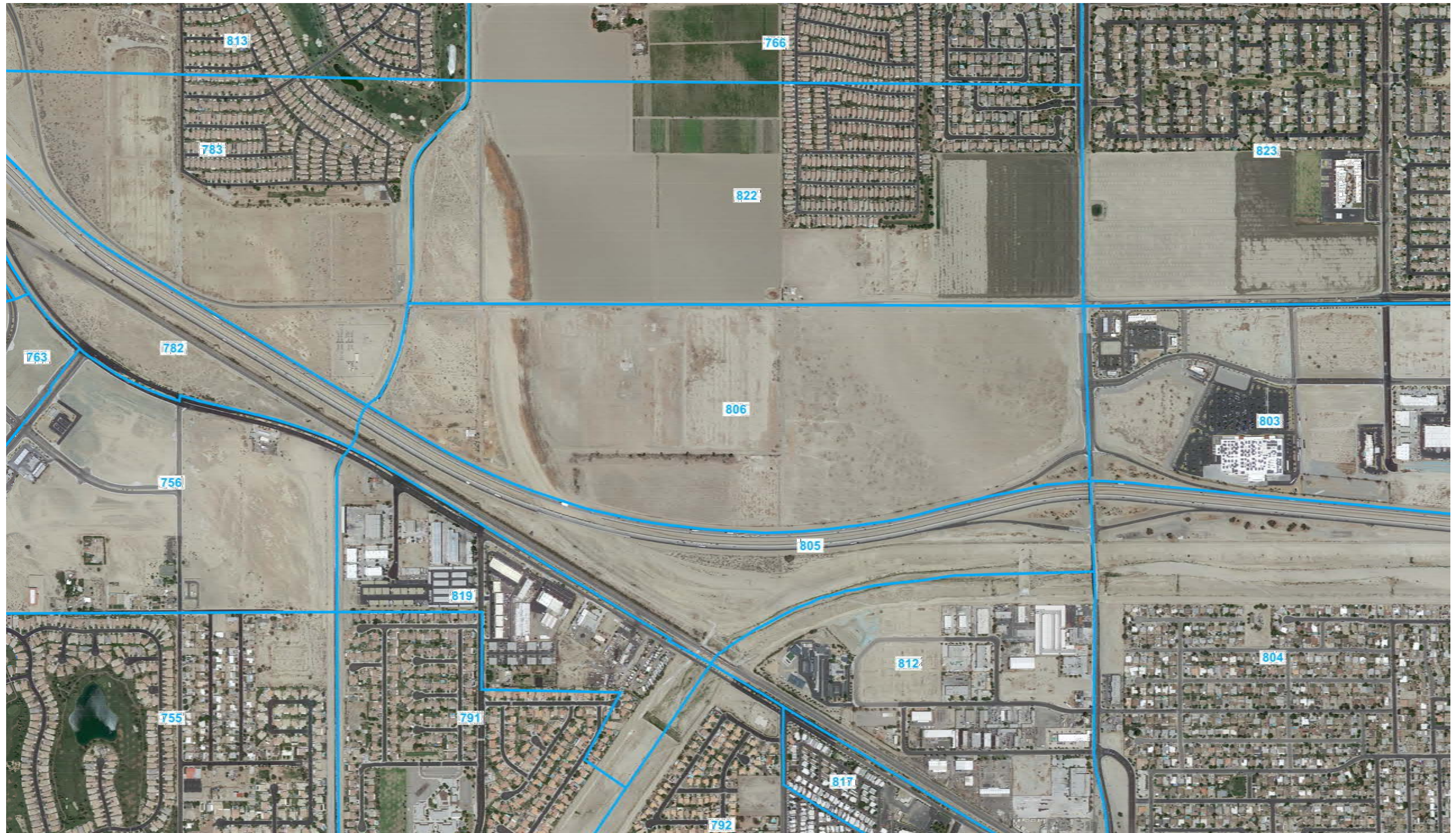
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SOURCE: MSA CONSULTING, INC.



FIGURE 3

PROPOSED OPTION B SITE PLAN
BH PROPERTIES THE OASIS AT INUDIO, INUDIO



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SOURCE: RIVCOM



FIGURE 4

TAZ MAP
BH PROPERTIES INDUSTRIAL COMMERCIAL PROJECT, INDIO