



## Prepared For:

City of Burbank  
Community Development Department  
Planning and Transportation Division  
150 North Third Street  
Burbank, California 91502

# Empire Center Planned Development *Supplemental Environmental Impact Report* SCH No. 1997101035



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Supplemental Environmental Impact Report  
(SCH No. 1997101035)**

**Prepared for:**

City of Burbank  
Community Development Department  
Planning and Transportation Division  
150 North Third Street  
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## 1.0 SUMMARY

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The City of Burbank (“Lead Agency”) has prepared this Draft Supplemental Environmental Impact Report (SEIR) to update the traffic analysis contained in the Empire Center Planned Development Final Environmental Impact Report (FEIR)<sup>1</sup> to determine the need for, and feasibility of, the mitigation measures identified for the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue.

The Empire Center Project includes approximately 101 acres located within the central portion of the City of Burbank, approved for development of a mix of office, retail, automobile sales, and hotel uses. A vacant building located at the eastern edge of the Empire Center is currently undergoing renovations for occupancy by Walmart.

The Empire Center Planned Development FEIR determined the Project would contribute to significant cumulative traffic impacts at several intersections, including Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue. The following mitigation measures, consisting of improvements to these two intersections, were identified to mitigate the cumulative impacts at these study intersections to a less than significant level:

- **MM 7.2** for the intersection of Buena Vista Street at Victory Boulevard: Provide two left turn lanes on the eastbound and southbound approaches
- **MM-7.6** for the intersection of Buena Vista Street at Empire Avenue: Provide three left turn lanes on the westbound approach (and three southbound departure lanes), and two left turn lanes on all other approaches, and an exclusive right turn lane on all approaches.

These improvements have been partially completed. There is insufficient right-of-way to fully implement the identified improvements at these intersections.

Since completion of the Empire Planned Development FEIR, the City updated its General Plan (now titled Burbank2035), which includes goals, policies, and growth projections through the year 2035. The feasibility of these intersection improvements was evaluated based on consistency with Burbank2035 goals and policies. The screening analysis used in the Burbank2035 FEIR and in the updated traffic analysis in this SEIR relies on the following four overarching City policy groups that support Burbank2035: Any transportation improvement should (1) be achievable within the existing right-of-way; (2) be in conformity with the existing scale and design of the location they serve; (3) allow for complete streets; and (4) maintain pedestrian opportunities.

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1 The FEIR (State Clearinghouse [SCH] No. 1997101035) was certified by the City of Burbank Council in June 2000 (Resolution No. 25,768).

## 1.1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND ALTERNATIVES CONSIDERED

The updated traffic study analyzes full buildout of the Empire Center to determine the need for the unconstructed portions of **MM 7.2** and **MM 7.6** at the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue.

When considering all the future traffic generated by Empire Center, there is a reasonable possibility that cumulative traffic conditions in 2035 could have potentially significant cumulative impacts to both study intersections if the remaining portions of **MM 7.2** and **MM 7.6** are not built. However, implementation of these mitigation measures would have significant land use impacts because they would conflict with Burbank2035 Mobility Element policies related to right-of-way conflicts, disruption of adjacent land uses, and cost feasibility.

Alternative improvements to reduce potentially significant cumulative impacts at each study intersection were analyzed. These alternatives considered different lane configurations, adjacent property right-of-way dedications, and encroachments to pedestrian access.

The alternate improvement considered at the intersection of Buena Vista Street and Victory Boulevard would restripe the westbound approach to add one left turn lane (for a total of two left turn lanes, two through lanes, and one exclusive right turn lane). This improvement could be implemented within the existing street right-of-way and would only require striping modifications. Implementation of this alternate improvement would reduce the cumulative traffic impacts at this intersection to less than significant and would not require right-of-way acquisition, nor would it conflict with the goals and policies of Burbank2035. As such, this alternate improvement is considered feasible.

The alternative improvement at the intersection of Buena Vista Street and Empire Avenue would only require the addition of one left turn lane in the westbound approach, for a total of three left turn lanes, one through lane, and one through-right lane and three southbound receiving lanes (already completed). Similar to **MM 7.6**, this alternative mitigation would be inconsistent with Burbank2035 and could not be accommodated within the existing right-of-way.

A second alternative improvement considered for the intersection of Buena Vista Street and Empire Avenue applies an additional 0.03 Burbank's Citywide Signal Controller System (CSCS) capacity credit to this intersection to account for the additional citywide traffic signal timing measures that could be applied to both this intersection and the overall corridor it is a part of. This would improve intersection operations in both peak hours and result in less than significant impacts. However, the timing for the full implementation of these operational measures citywide is not known at this time. Therefore, because

no physical mitigation is feasible for the intersection of Buena Vista Street at Empire Avenue, a significant impact would remain at this intersection with full occupancy of the Empire Center.

## **1.2 ITEMS TO BE RESOLVED**

The item to be resolved by the City based on the analysis in this SEIR includes the following:

- Should the adopted mitigation measures be fully implemented or modified?

## 2.0 INTRODUCTION

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The City of Burbank (“Lead Agency”) has prepared this Supplemental Environmental Impact Report (SEIR) to update the traffic impact analysis contained in the Empire Center Planned Development Final Environmental Impact Report (FEIR), which was certified by the City of Burbank Council in June 2000 (Resolution No. 25,768). The environmental effects of the Empire Center Planned Development (PD 97-3) were evaluated in this FEIR (State Clearinghouse [SCH] No. 1997101035). The FEIR included analysis of potential traffic impacts at 27 intersections and identified mitigation measures for 11 intersections where significant impacts were identified, including the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue.

This SEIR provides an updated traffic impact analysis at the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue to (1) determine the need for the mitigation measures identified for these intersections in the FEIR; and (2) evaluate the impacts to traffic should the remaining portions of these measures not be constructed. Specifically, proposed revisions to **Mitigation Measures (MM) 7.2** and **MM 7.6** identified in the FEIR, involving improvements to widen these intersections, are evaluated. To analyze the effects of these proposed revisions, the SEIR assumes full buildout of the portion of the Empire Center containing a retail store that has been vacant since May 2011. This vacant building currently contains 141,635 square feet that was previously occupied by the Great Indoors, a retail furniture and home goods store. The owner and tenant for this space is Walmart.

### 2.1 PURPOSE OF THIS SUPPLEMENTAL EIR

When an FEIR has been certified for a project, the California Environmental Quality Act (CEQA) defines standards and the procedure for additional environmental review in Sections 15162–15164 of the State CEQA Guidelines.

When it is determined that the proposed changes to a project, or changes in the circumstances under which the Project will be undertaken, would result in new significant impacts not identified in the FEIR, or cause a substantial increase in the severity of significant impacts identified in the FEIR, preparation of an SEIR is required.

CEQA Guidelines Section 15163 states a Supplemental EIR may be prepared if:

- (a)(1) substantial changes would occur with respect to the circumstances under which the project is undertaken due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (pursuant to Section 15162(a)(2) of the State CEQA Guidelines), and

- (a)(2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The following provisions of Section 15163 also apply:

- (b) The supplement to the EIR need only contain the information necessary to make the previous EIR adequate for the project as revised.
- (c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.
- (d) A supplement to an EIR may be circulated by itself without recirculating the previous draft of an FEIR.
- (e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

Since the certification of the Empire Center Planned Development FEIR, the City updated the City's General Plan, which is now titled Burbank2035. Burbank2035, adopted by the Burbank City Council in February 2013, includes goals, policies, and growth projections through the year 2035. The Burbank2035 FEIR analyzed the environmental impacts of implementation of Burbank2035. Information from Burbank2035, the Burbank2035 FEIR, and related technical background reports were incorporated into this SEIR, as appropriate, to update the existing environmental conditions and discuss any new regulatory policies that apply to this Project.

The Empire Center Planned Development FEIR determined the development would contribute to significant cumulative traffic impacts at several intersections, including the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue. Mitigation measures, consisting of improvements to these intersections, were identified to mitigate the cumulative impacts at these intersections to a less than significant level. These measures were identified as **MM 7.2** in the FEIR for the intersection of Buena Vista Street at Victory Boulevard and **MM-7.6** for the intersection of Buena Vista Street at Empire Avenue.

However, since the Burbank City Council certified the FEIR for the Empire Center Planned Development, several factors have been identified that require the City Council to reevaluate the feasibility of these mitigation measures. **MM 7.2** and **MM 7.6** have not been completely implemented because insufficient right-of-way exists to fully implement the identified improvements at these intersections. Prior to the opening of Empire Center, the City constructed as many components of the improvements as could be built within existing right-of-way. In addition, ongoing mitigation monitoring at these intersections since the Empire Center opened in 2001 indicates full implementation of **MM 7.2** and **MM 7.6** is not necessary. Finally, Burbank2035 includes several new Land Use and Mobility goals and policies that

guide how transportation improvements should be built in Burbank, and the remaining improvements included in **MM 7.2** and **MM 7.6** are not consistent with these General Plan goals and policies.

In September 2013, a trial court ruled in the case of *Shanna Ingalsbee, et. al. v. City of Burbank, et. al* (Walmart—Real Party in Interest) that the City must either fully implement **MM 7.2** and **MM 7.6** or conduct additional CEQA analysis to show that these improvements are not needed and can be removed from the Empire Center Planned Development FEIR. The case was appealed by Walmart, and the Court of Appeal reversed in part and upheld in part the trial court’s decision. Thereafter, in July 2015, the trial court issued an Amended Peremptory Writ of Mandamus commanding the City to:

*Implement Mitigation measures 7.2 and 7.6 fully, or to otherwise act in accord with the law by commencing appropriate CEQA review processes to rescind or modified the subject traffic mitigation measures enacted in PD 97-3. Nothing in this Writ shall limit or control in any way the discretion legally vested in you [City].*

Therefore, this SEIR has been prepared to analyze the traffic impacts of full buildout and occupancy of the Empire Center, as allowed by the Development Agreement, at the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue to determine if the implementation of the remaining portions of **MM 7.2** and **MM 7.6** is necessary. There are no other changes to the Empire Center Project or environmental circumstances that require additional environmental review under CEQA.

## 2.2 DESCRIPTION OF THE EMPIRE CENTER PLANNED DEVELOPMENT

The Empire Center includes approximately 101 acres located within the central portion of the City of Burbank, as shown in **Figure 1, Regional Location Map**. As shown in **Figure 2, Local Location Map**, the Empire Center is composed of two areas divided by the Coast Line of the Metrolink/Union Pacific Railroad. The portion of the Empire Center located north of the Coast Line is bound by Empire Avenue to the north, Buena Vista Street to the west, Victory Place to the east, and the Coast Line to the south. The portion located south of the Coast Line is bound by Victory Boulevard to the west, Burbank Boulevard to the south, and Victory Boulevard to the east.

As shown in **Figure 3, Empire Center Site Location**, there is a mixture of commercial, office, industrial, broadcast studio, and postproduction land uses surrounding the Empire Center to the north and west, and low-density residential uses to the south (south of the Coast Line). In addition, a mix of uses lies adjacent to the two intersections affected by **MM 7.2** and **MM 7.6**. The intersection of Buena Vista Street and Victory Boulevard is surrounded by neighborhood-serving commercial shopping centers and a gas station, as well as by single-family residences. The intersection of Buena Vista Street and Empire Avenue is surrounded by an office for a local construction firm, postproduction and industrial tenant

spaces, a neighborhood restaurant, a large multifamily residential development, single-family residences, and the northwest corner of the Empire Center.

The City evaluated various development options for the Empire Center site during the preparation of the original EIR. Upon certification of the FEIR, the Development Agreement for the Empire Center was approved which established specific development standards and defined the type and intensity of land uses allowed. The Development Agreement permits the development of neighborhood retail, commercial retail, office, auto sales, hotel, restaurants, and entertainment uses.

The Empire Center has been developed in accordance with the Development Agreement approved as part of the project, which defines five Sub Areas within Empire Center, as illustrated in **Figure 4, Empire Center Planned Development Sub Areas**. The Development Agreement allows for maximums of 600,000 square feet of office uses in Sub Area A, 350 hotel rooms in Sub Area B, 600,000 gross square feet of retail uses in Sub Area C, 160,000 gross square feet of retail or automobile sales uses in Sub Area D, and 160,000 square feet of retail or automobile sales uses in Sub Area E. Therefore, the Development Agreement allows for a maximum of 1.52 million square feet of office, retail, and restaurant uses, and 350 hotel rooms within the Empire Center site. The Empire Center is currently developed with approximately 1.5 million square feet of total building space.

The vacant 141,635-square-foot building proposed for reoccupancy is in Sub Area D, located at the eastern edge of the Empire Center. The vacant building is undergoing renovations for occupancy by Walmart. For purposes of analysis, the updated traffic analysis assumes Sub Area D contains all 160,000 square feet of development permitted in Sub Area D as a retail “big box” store, which would account for the reoccupancy of the existing 141,635-square-foot building by Walmart.

## **2.3 EXISTING UNBUILT TRAFFIC MITIGATION MEASURES**

As described above, two of the adopted traffic mitigation measures identified as needed to eliminate significant cumulative traffic impacts caused by development of the Empire Center Planned Development were not fully implemented. The current status of these mitigation measures is described more fully below.

### ***MM 7.2: Buena Vista Street and Victory Boulevard***

The Empire Center Planned Development FEIR identified a widening improvement to this intersection that would add double left turn lanes in the eastbound and southbound directions, while maintaining two through lanes and a right turn lane on each of these approaches. While the eastbound Victory Boulevard approach was widened, the double left turn lanes on southbound Buena Vista Street were

not implemented because there is insufficient right-of-way to implement the double left turn lanes while maintaining two through lanes and one right turn lane.

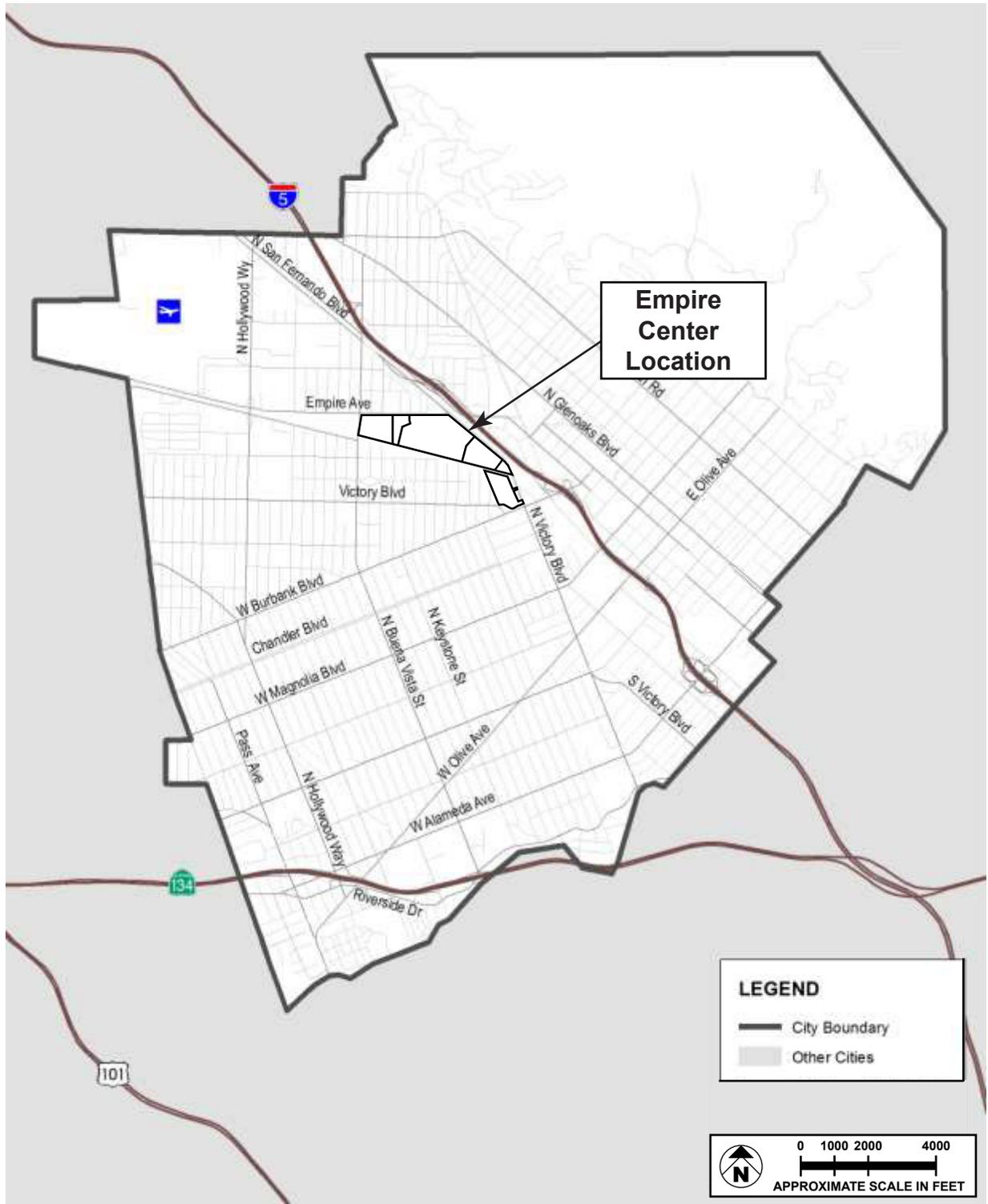
Implementing the remaining portion of **MM 7.2** would require right-of-way acquisition that would affect several properties. As illustrated in **Figure 5, MM 7.2—Buena Vista Street and Victory Boulevard**, acquisition and partial building demolition would be required on the northwest corner of Buena Vista Street and Victory Boulevard. A portion of an existing convenience store would need to be demolished, along with off-street parking, to accommodate the improvement. In addition, a portion of the front yard of a single-family residence just behind the convenience store would need to be removed to widen the street. Finally, removal of several hundred feet of on-street parking on Buena Vista Street would be required in front of single- and multifamily properties north and south of Victory Boulevard.

### ***MM 7.6: Buena Vista Street and Empire Avenue***

The Empire Center Planned Development FEIR identified a substantial widening improvement to the Buena Vista Street and Empire Avenue intersection to provide a triple left turn lane in the westbound direction, along with three southbound departure lanes to receive traffic from the triple left turn lane, two left turn lanes on all other approaches, and an exclusive right turn lane on all approaches. Prior to the opening of the Empire Center, this intersection was widened to provide double left turn lanes in all approaches and an exclusive right turn lane in the northbound direction. However, the triple left turn lanes, as well as exclusive right turn lanes in the eastbound, westbound, and southbound directions, were not built at that time. Subsequent to the opening of the Empire Center, additional right-of-way was acquired from the Empire Landing multifamily residential development and the intersection was further widened to provide an eastbound right turn lane and the three southbound departure lanes (for the future triple lefts). However, the westbound triple left turn lane, westbound right turn lane, and southbound right turn lane have not yet been completed.

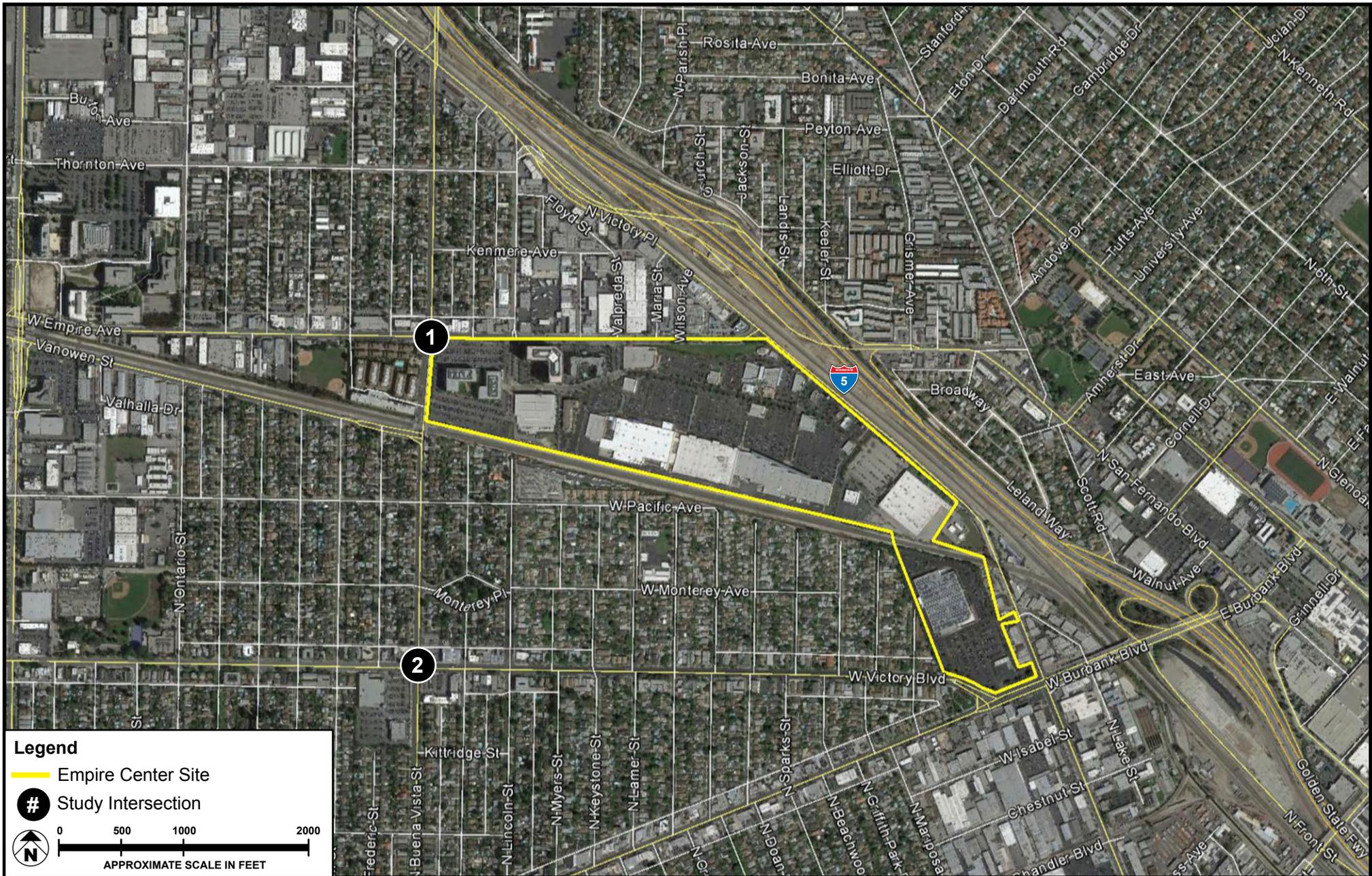
Implementing the remaining portion of **MM 7.6** would require right-of-way acquisition that would affect several properties. As shown in **Figure 6, MM 7.6—Buena Vista Street and Empire Avenue**, full property acquisition and building demolition would be required for nearly three blocks on the north side of Empire Avenue between just west of Lincoln Street and just west of Buena Vista Street. This acquisition would displace several industrial and postproduction businesses and a neighborhood restaurant. It would also affect the off-street parking for a construction firm. The improvement would leave small, shallow remnant parcels along the north side of Empire Avenue that would likely not be developable. On the south side of Empire Avenue, the improvement would require street widening that would encroach into the existing landscaped buffer of the Empire Center office development between just west of Lincoln Street and Buena Vista Street, requiring the removal of mature landscaping and several trees.





SOURCE: City of Burbank, Burbank2035, Draft EIR, February 2013

FIGURE 2

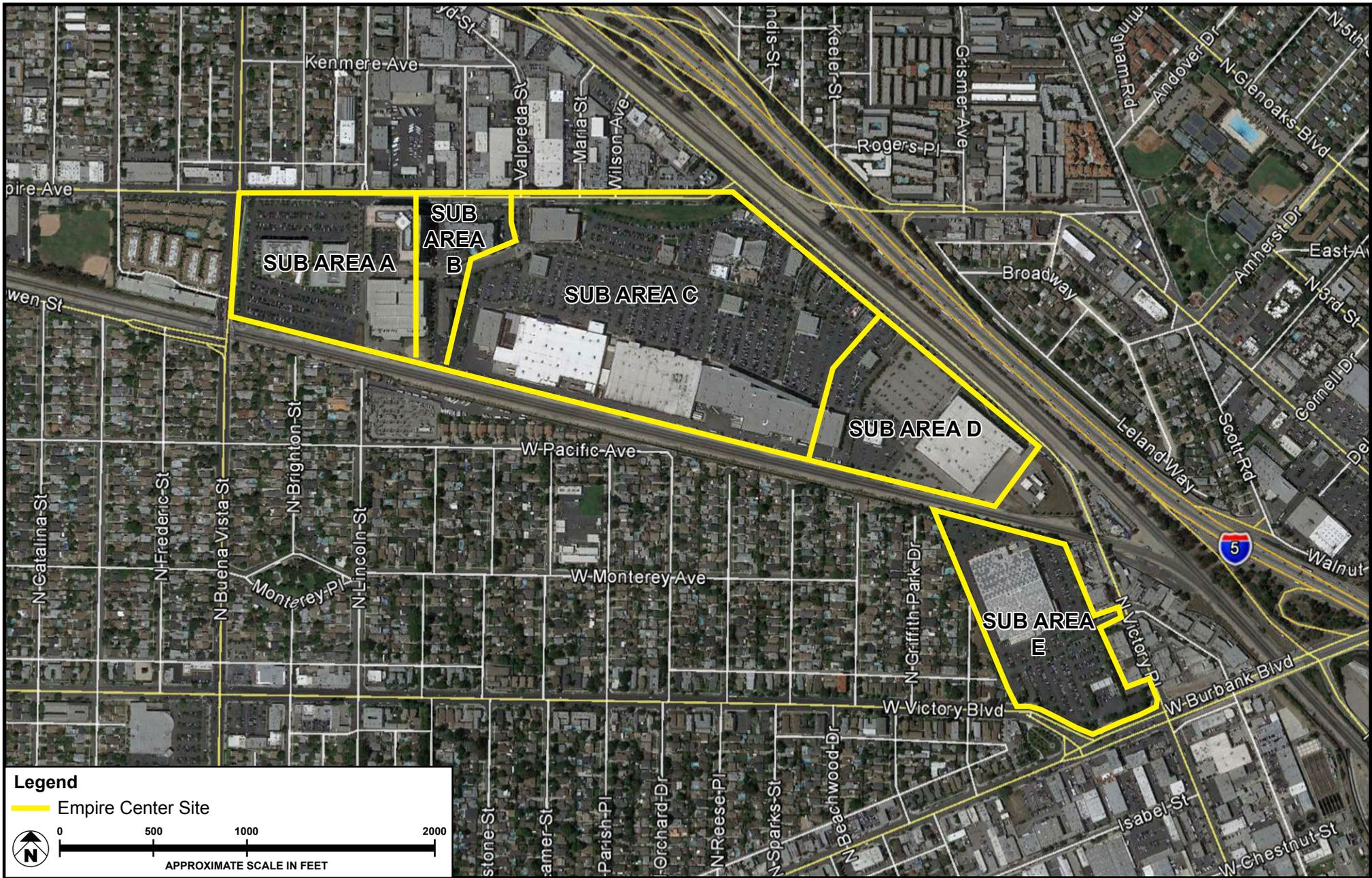


SOURCE: Google Earth - 2015; Meridian Consultants - August 2015

FIGURE 3

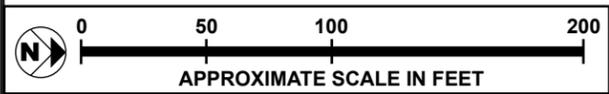
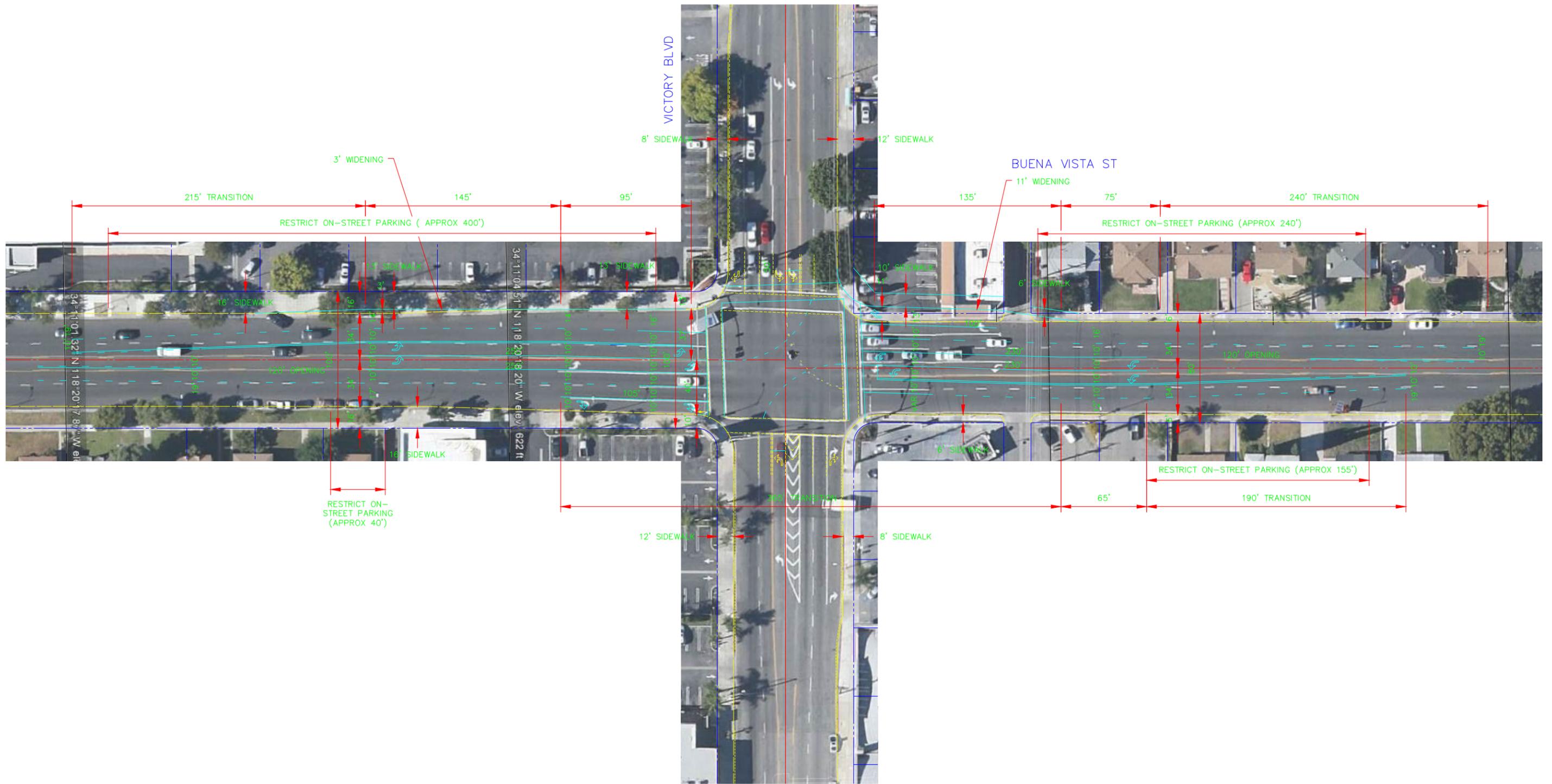


# Empire Center Site Location



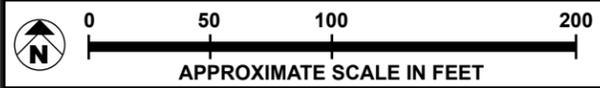
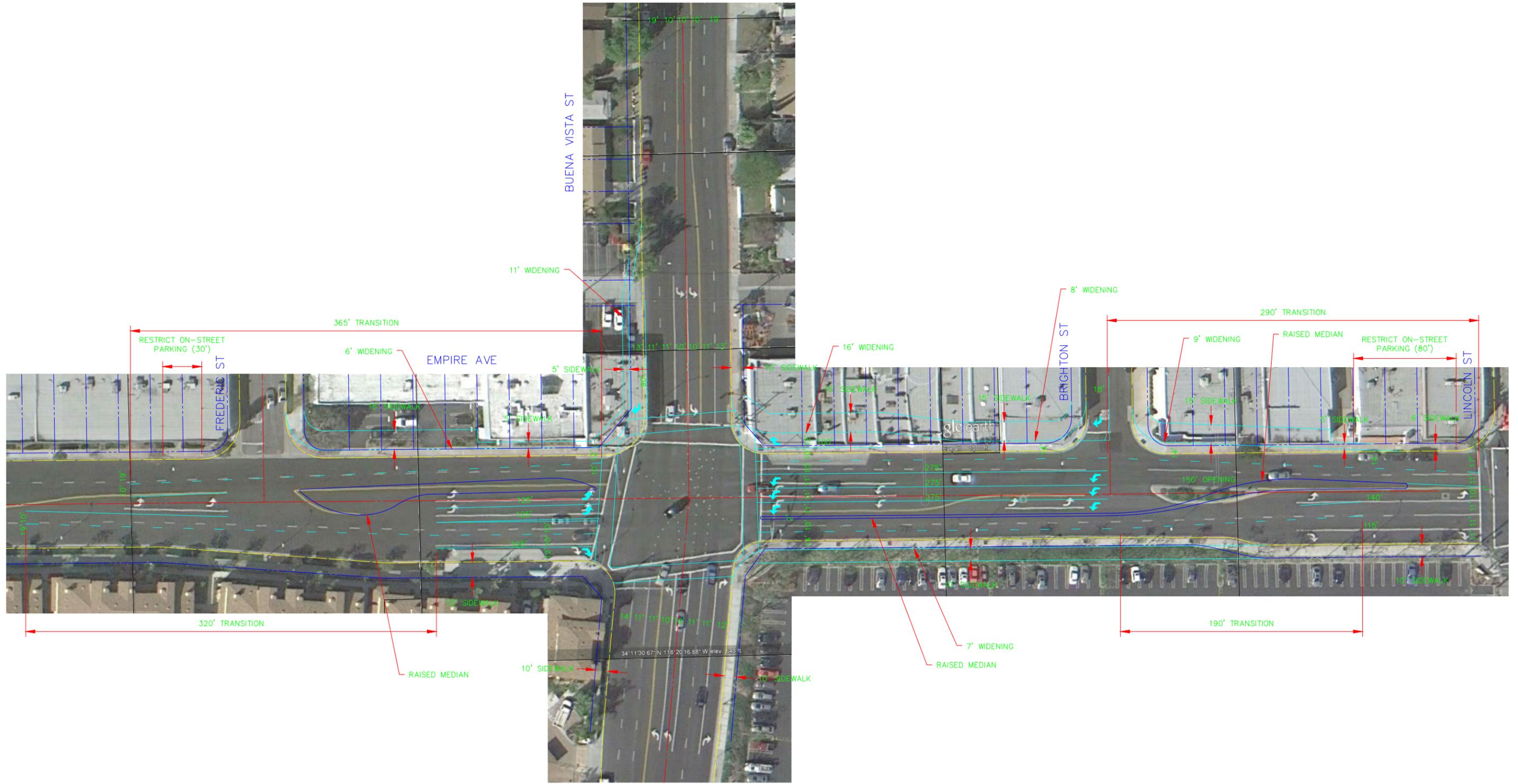
SOURCE: Google Earth - 2015; Meridian Consultants - December 2014

FIGURE 4



SOURCE: City of Burbank, Public Works Department - January 2015

FIGURE 5



SOURCE: City of Burbank, Public Works Department - January 2015

FIGURE 6

### 3.1 TRAFFIC AND CIRCULATION

Updated information on existing traffic conditions at the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Boulevard is presented, along with an assessment of the traffic impacts of the full buildout and occupancy of Empire Center Sub Area D on these two intersections. The analysis includes information from the updated traffic study (**Appendix A**) as well as information from Burbank2035.

#### 3.1.1 Summary of Analysis in the FEIR

##### ***Methodology***

A traffic study (June 1998, revised October 1998) and a Supplemental Report (June 1999, revised July 1999, and second revision December 1999) were prepared for the original Empire Center EIR. The study evaluated existing traffic conditions with 1996 traffic count data at 27 intersections near the Empire Center. Estimates of traffic generated by the Empire Center were based upon factors documented in the Institute of Transportation Engineering (ITE) *Trip Generation Manual*, 5th edition. The final and supplemental traffic studies analyzed existing traffic conditions with traffic count data provided by the City of Burbank. Future traffic conditions were evaluated for year 2008 because the Empire Center was anticipated to be completed by year 2007. The traffic analysis determined the level of service (LOS) during the AM and PM peak traffic periods, considering programmed improvements, existing conditions, and future traffic growth with and without the addition of traffic from the Empire Center. The FEIR also considered the future development of the Interstate 5 (I-5) Interchange improvements along Empire Avenue, as well as future conditions with full development of the land uses allowed by the City's General Plan.

##### ***FEIR Baseline Conditions***

The traffic study for the FEIR showed that the existing intersection of Buena Vista Street at Victory Boulevard operated at a LOS B during the AM peak hour and LOS D during the PM peak hour; and Buena Vista Street at Empire Avenue operated at a LOS C during the AM peak hour and LOS B during the PM peak hour.

##### ***FEIR Empire Center Impacts***

The FEIR determined that the addition of traffic generated by the Empire Center (without any mitigation) would contribute to significant impacts to the study intersections of Buena Vista Street at Victory Boulevard during the PM peak hour and Buena Vista Street at Empire Avenue during both the

AM and PM peak hours. A comparison of the operating conditions with and without the Empire Center is shown in **Table 1, Original Empire Center Planned Development FEIR Cumulative Impacts without Mitigation.**

**Table 1**  
**Original Empire Center Planned Development Cumulative Impacts without Mitigation**

No.	Intersection	Peak Hour	Original Existing		Original w/o Project and w/Buildout of Previous General Plan		Original w/Project	
			V/C	LOS	V/C	LOS	V/C	LOS
17	Buena Vista Street & Victory Boulevard	AM	0.695	B	0.852	D	0.870	D
		PM	0.832	D	0.901	E	0.981	E
19	Buena Vista Street & Empire Avenue	AM	0.734	C	0.992	E	1.101	F
		PM	0.695	B	1.245	F	1.486	F

Source: City of Burbank, "Burbank Empire Center EIR Analysis for Development Option D1-D" (April 2000).

Notes: V/C = volume to capacity ratio; LOS = level of service; w/ = with; w/o = without.

### Mitigation Measures

The FEIR identified **MM 7.2 and MM 7.6** to reduce significant impacts associated with implementation of the Empire Center to these two study intersections to a less than significant level of (see description above). As identified in the FEIR and described in **Section 2.3** above, these mitigation measures are as follows:

**MM 7.2** Buena Vista Street at Victory Boulevard (Intersection No. 17)

The City shall provide two left turn lanes on the eastbound and southbound approaches.

**MM 7.6** Buena Vista Street at Empire Avenue (Intersection No. 19)

The City shall provide three left turn lanes on the westbound approach (and three southbound departure lanes), two left turn lanes on all other approaches, and an exclusive right turn lane on all approaches).

### Residual Impacts After Mitigation

**MM 7.2 and MM 7.6** were identified to provide capacity improvements to the two study intersections in order to reduce significant traffic and circulation impacts.

As shown in **Table 2, Original Empire Center Planned Development Cumulative Impacts with Mitigation**, it was determined that traffic impacts to the two study intersections would be mitigated to a less than significant level through implementation of **MM 7.2** and **MM 7.6**. Cumulative impacts to the

two study intersections in conjunction with the growth projections of the City's General Plan and regional growth in through traffic for the year 2008 were identified as significant. However, the improvements identified with **MM 7.2** and **MM 7.6** would mitigate these impacts to a less than significant level.

**Table 2**  
**Original Empire Center Planned Development Cumulative Impacts with Mitigation**

No.	Intersection	Peak Hour	Original Existing		Original w/o Project and w/ Buildout of Previous General Plan		Original w/ Project	
			V/C	LOS	V/C	LOS	V/C	LOS
17	Buena Vista Street & Victory Boulevard	AM	0.695	B	0.852	D	0.755	C
		PM	0.832	D	0.901	E	0.843	D
19	Buena Vista Street & Empire Avenue	AM	0.734	C	0.992	E	0.777	C
		PM	0.695	B	1.245	F	0.952	E

Source: City of Burbank, "Burbank Empire Center EIR Analysis for Development Option D1-D" (April 2000).

Notes: V/C = volume to capacity ratio; LOS = level of service; w/ = with; w/o = without.

### Feasibility of MM 7.2 and MM 7.6

The Empire Center Planned Development FEIR identified **MM 7.2** for the intersection of Buena Vista Street at Victory Boulevard and **MM 7.6** for the intersection of Buena Vista Street at Empire Avenue to reduce cumulative impacts to a less than significant level. However, the FEIR did not address the potential infeasibility of implementing these improvements because of the need to acquire substantial rights-of-way affecting several businesses and a single-family residence. Further, Burbank2035 introduced new goals and policies that may conflict with the implementation of **MM 7.2** and **MM 7.6**. Because of this, additional traffic analysis was conducted to assess current traffic conditions and forecast future traffic conditions with implementation of Burbank2035, while accounting for the full buildout of Sub Area D in the Empire Center. The purpose of this analysis is to determine if **MM 7.2** and **MM 7.6** are still needed to mitigate impacts of the Empire Center Planned Development and, if so, to determine whether the implementation of **MM 7.2** and **MM 7.6** conflicts with the goals and policies of Burbank2035.

### 3.1.2 Impacts of Full Occupancy of Empire Center on the Need for MM 7.2 and MM 7.6

#### Methodology

The updated traffic study was prepared in February 2014 to determine if full buildout of Sub Area D requires the need for the unconstructed portions of **MM 7.2** and **MM 7.6**. The study was conducted to determine the effect of traffic generated by the full buildout of Sub Area D on the intersections of Buena

Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue and whether the mitigation measures adopted to mitigate the impacts identified in the FEIR for the Empire Center Planned Development are still necessary.

The updated traffic study prepared for this SEIR used a set of assumptions to assess the traffic impacts of removing mitigation measures **MM 7.2** and **MM 7.6**. The vast majority of the assumptions included in the FEIR for the Empire Center are still appropriate because the total number of uses included in the Development Agreement has not changed, and the Empire Center was built to be consistent with the approved project. The updated traffic study focused on documenting the existing operating conditions on the streets around the Empire Center; updating the cumulative traffic analysis to incorporate land use changes and forecasts included in Burbank2035; updating regional land use and transportation assumptions; and accounting for the full buildout of Sub Area D with a big box retail component.

The updated analysis utilizes new data and assumptions from several sources. First, new traffic count data from 2014 was collected for both intersections to understand current intersection turn movements and volumes in the AM and PM peak hours. To compare operating conditions for the two study intersections with and without the full buildout of Sub Area D, trip generation estimates were developed using the most recent (9th edition) of the ITE *Trip Generation Manual*, per the City of Burbank Traffic Study Guidelines. Trip generation rates from ITE Code 813 (Free Standing Discount Superstore) were used to develop trip generation estimates for the full buildout of Sub Area D. This rate was applied to the full 160,000 square feet allowed under the Empire Center Development Agreement for Sub Area D and includes the existing vacant building expected to be occupied as a full-service Walmart store with grocery. Also, to ensure that the trip generation estimate captures all reasonable possibilities for the amount of traffic generated by buildout of Sub Area D, no trip generation credits were taken for pass-by trips, internal capture, or transit trips, even though the location of the Empire Center within this relatively urban area of Burbank with connections to transit would suggest actual trip generation could be lower than the ITE trip generation rate. In addition, since the Walmart store would be located in the Empire Center, some of the trips to the new store would be combined with trips to the other existing businesses within the Empire Center. This assumption would further suggest that actual trip generation could be reduced in comparison to the ITE rate for this use; however, no trip credit for these combined trips was taken.

To account for both the expected trip distribution of trips generated by full buildout of Sub Area D, as well as to update the future, cumulative project conditions, the Burbank2035 traffic model was used in the updated traffic analysis. The Burbank2035 traffic model incorporates all the land use assumptions included in Burbank2035, and also updates the assumptions for regional growth and transportation improvements that the Southern California Association of Governments (SCAG) includes in its Regional

Transportation Plan, both of which are different from the assumptions used for the Empire Center FEIR. Also, the cumulative analysis assumes that the I-5 HOV/Empire Interchange project is complete and that the Bob Hope Airport Terminal remains in its current location. Both of these assumptions result in more traffic using the two study intersections under projected future conditions and, therefore, represent a reasonable representation of cumulative conditions.

### Level of Service Analysis

Level of Service (LOS) is a qualitative measure used to represent the ability of a roadway or intersection to accommodate traffic.<sup>2</sup> As shown in **Table 3, Level of Service Definitions for Signalized Intersections**, LOS values range from excellent traffic conditions at LOS A to overloaded and failed traffic conditions at LOS F. LOS D is established by the City of Burbank as the minimum acceptable LOS during the AM or PM peak hours.<sup>3</sup>

**Table 3**  
**Level of Service Definitions for Signalized Intersections**

Level of Service	V/C Ratio	Definition
A	0.000–0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601–0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701–0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801–0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901–1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

*Source: Transportation Research Board, "Transportation Research Circular No. 212, Interim Materials on Highway Capacity" (1980).  
Note: V/C Ratio = volume to capacity ratio.*

As required for use by the City, the Critical Movement Analysis (CMA) methodology was utilized to evaluate operations of intersections, such as critical turning movements, intersection volume to capacity (V/C) ratio, and corresponding LOS for turning movements and intersection characteristics at signalized

<sup>2</sup> City of Burbank, *Burbank2035 General Plan, "Mobility Element"* (2013).

<sup>3</sup> City of Burbank, *Burbank2035 General Plan, "Mobility Element"* (2013).

intersections.<sup>4</sup> Furthermore, per the City’s Traffic Impact Study Guidelines, an additional 0.02 V/C credit was applied to the existing 2014 scenario to account for optimization of the Burbank’s Citywide Signal Controller System (CSCS) at the two study intersections.

For 2035 conditions, an additional 0.08 traffic capacity adjustment was applied to the intersection of Buena Vista Street at Empire Avenue to account for the influence of the at-grade rail crossing on Buena Vista Street south of Empire Avenue. The capacity reduction was calculated based on the anticipated corridor traffic growth, the increase in train frequency at this rail crossing per 2013 California State Rail Plan, and the typical train preemption time. Under future conditions, the rail crossing is assumed to remain at grade.

### **Trip Generation**

As previously discussed, the ITE Trip Generation Manual, 9th Edition was used to determine the amount of traffic that the full buildout of Sub Area D would generate. To develop this estimate, trip generation rates from ITE Code 813 (Free Standing Discount Store) were applied to 162,000 square feet of development on Sub Area D (slightly more than the 160,000 square feet permitted) to provide a conservative estimate. As shown in **Table 4, Full Occupancy/Buildout Trip Generation Estimates**, the development of 160,000 square feet of big box retail store (including a Walmart with grocery) is expected to generate approximately 8,222 daily vehicle trips, including 300 and 705 vehicle trips during the AM and PM peak hours, respectively.

**Table 4**  
**Full Occupancy/Buildout Trip Generation Estimates**

ITE Code	Size	Units	Daily			AM Peak Hour			PM Peak Hour			
			Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
813	162	KSF	50.75	8,222	1.85	56%	44%	100%	4.35	49%	51%	100%
						168	132	300		345	360	705

Source: Fehr & Peers (November 2015).

Note: KSF = thousand square feet.

### **Trip Distribution**

The distribution of these trips was determined based upon the City’s Travel Demand Model (TDM). The TDM was utilized to analyze trip distributions for both existing 2014 and foreseeable 2035 traffic conditions and the amount of traffic that would be affecting each study intersection with the additional trips resulting from full buildout of Sub Area D. The future 2035 traffic conditions also considered the

4 Transportation Research Board, “Transportation Research Circular No. 212, Interim Materials on Highway Capacity” (1980).

improvements to the I-5 Empire Interchange project that is currently under construction. Of these two trip distribution choices, the distribution that caused the most Empire Center traffic to travel through the two study intersections was utilized for both the existing and future 2035 scenarios.

### 2014 Existing Conditions

The traffic data for the intersections of Buena Vista Street at Victory Boulevard and Buena Vista Street at Empire Avenue was collected prior to the start of construction of the I-5 Interchange project that began in May 2014.

The existing lane configurations of the two intersections studies with their associated traffic counts are illustrated in **Figure 7, Peak-Hour Traffic Volumes and Lane Configurations—2014 Existing before Empire Center Sub Area D Buildout**. As shown in **Table 5, 2014 Existing Conditions before Empire Center Sub Area D Buildout**, without the improvements to the I-5 Empire Interchange, the intersection of Buena Vista Street at Victory Boulevard currently operates at a LOS D during the AM and PM peak hours. The intersection of Buena Vista Street at Empire Avenue currently operates at LOS A during the AM peak hour and LOS B during the PM peak hour

**Table 5**  
**2014 Existing Conditions before Empire Center Sub Area D Buildout**

No.	Intersection	Peak Hour	Existing (2014)	
			V/C	LOS
17	Buena Vista Street & Victory Boulevard	AM	0.805	D
		PM	0.801	D
19	Buena Vista Street & Empire Avenue	AM	0.586	A
		PM	0.607	B

Source, Fehr & Peers (November 2015)

Notes: Per the City's Traffic Impact Study Guidelines, a V/C credit of 0.02 was credited to each of the intersections to account for CSCS measures.

V/C = volume to capacity ratio; LOS = level of service.

### Burbank2035 General Plan

Burbank2035 provides the City with a framework for determining the feasibility of intersection improvements based upon right-of-way constraints or instances where the physical layout of intersection improvements causes a conflict between Burbank2035 Goals and Policies and the City's LOS D standard. Burbank2035 includes the following policies, which provide criteria for determining the feasibility of intersection improvements based on whether or not they conflict with general plan goals and policies. This policy-based screening framework is documented in **Appendix A** and can also be found

in the Transportation Analysis Report included in the Burbank2035 EIR.<sup>5</sup> The screening analysis used in Burbank2035 and in the updated traffic analysis for the Empire Center SEIR relies on the following four overarching City policy groups that support Burbank2035: Any transportation improvement should (1) be achievable within the existing right-of-way; (2) be in conformity with the existing scale and design of the location they serve; (3) allow for complete streets; and (4) maintain pedestrian opportunities. These four overarching policies are supported by Burbank2035 through several Land Use and Mobility Element Policies. The relationship between the policy-based screening framework and the Burbank2035 Goals and Policies is further described below.

### (1) Right-of-Way Needs

A policy conflict is triggered if any right-of-way acquisition is needed to implement the proposed mitigation, assuming lane width minimum and 6-foot sidewalks.

*Supporting Burbank2035 Policies*

#### **Mobility Element**

- **Policy 1.2:** Recognize that Burbank is a built-out city and wholesale changes to street rights-of-way are infeasible.
- **Policy 3.4:** All street improvements should be implemented within the existing right-of-way. Consider street widening and right-of-way acquisition as a method of last resort.

### (2) Scale and Design

A policy conflict is triggered if the scale and design goes beyond the Maximum Acceptable Mitigations 'template' identified in the Burbank2035 FEIR, or if the mitigation needed increases the existing travel-way width (measured from curb-to-curb) along a "residential/mixed-use" area.

*Supporting Burbank2035 Policies*

#### **Mobility Element**

- **Policy 1.5** Design transportation improvements to be compatible with the scale and design of existing infrastructure.

### (3) Complete Streets

A conflict is triggered if the mitigation increases the travel-way width along the intersection so as to narrow existing sidewalks, decrease bike lane widths, or greatly disturb transit/bus stop locations.

*Supporting Burbank2035 Policies*

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5 City of Burbank, *Burbank2035 Environmental Impact Report* (2012), Appendix F, "Transportation Analysis Report: Burbank2035 General Plan," 43–45.

**Mobility Element**

- **Policy 3.2:** Complete city streets by providing facilities for all transportation modes.

**Land Use Element**

- **Policy 4.1:** Maintain complete streets that create functional places meeting the needs of pedestrians, bicyclists, wheelchair users, equestrians, and motorists.

**(4) Pedestrian Opportunities**

A conflict is triggered if the proposed mitigation requires sidewalks to go below the minimum sidewalk width standards specified in Table M-2 of the Mobility Element.

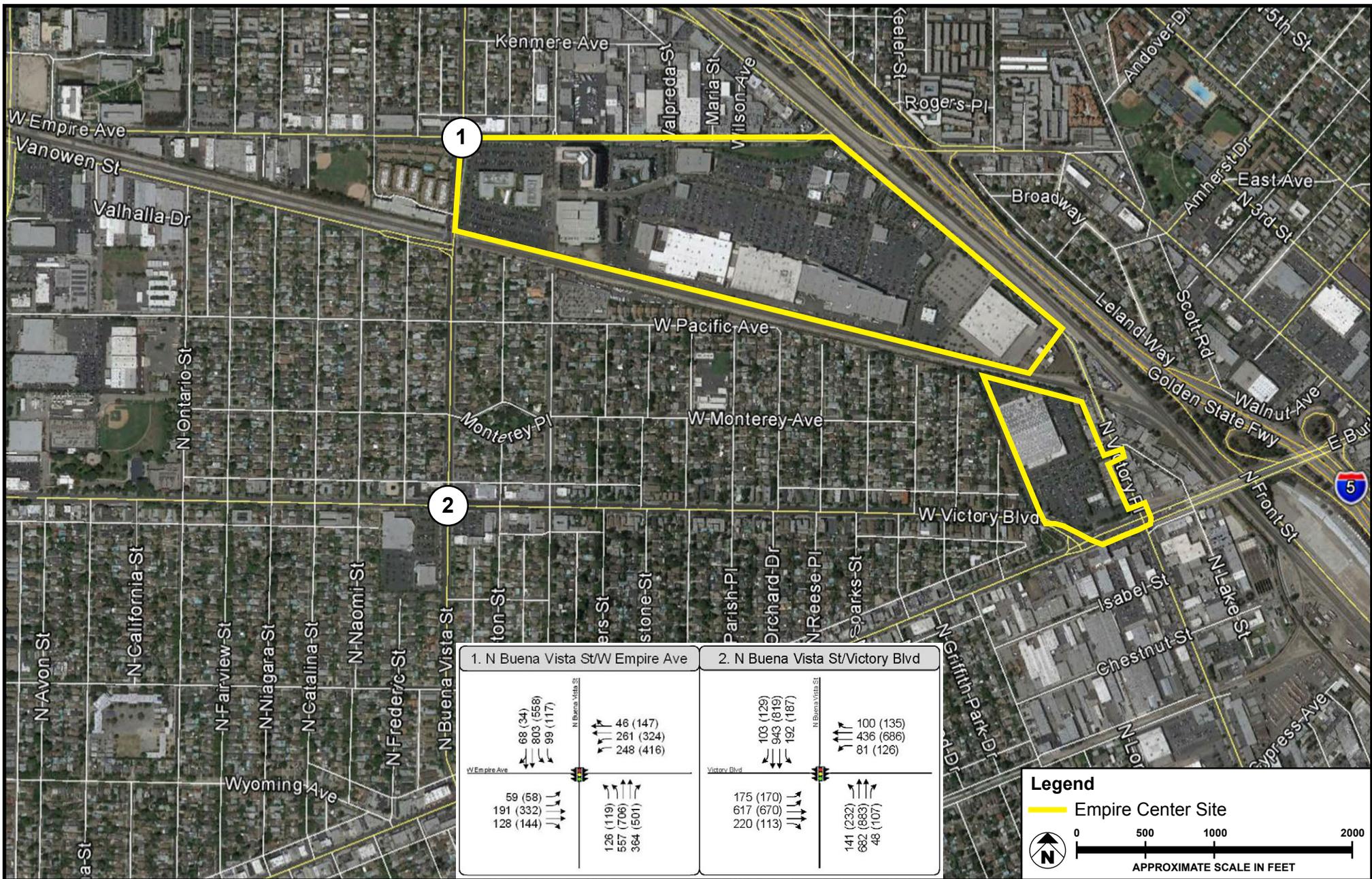
*Supporting Burbank2035 Policies*

**Mobility Element**

- **Policy 3.3:** Provide attractive, safe street designs that improve transit, bicycle, pedestrian, and equestrian connections between homes and other destinations
- **Policy 5.5:** Require new development to provide land necessary to accommodate pedestrian infrastructure, including sidewalks at the standard widths specified in Table M-2 (15-feet for sidewalks adjacent to the Buena Vista St./Empire Ave. and Buena Vista St./Victory Blvd. intersections).

**Land Use Element**

- **Policy 4.5:** Require pedestrian-oriented areas to include amenities such as sidewalks of adequate width, benches, street trees and landscaping, decorative paving, art, kiosks, and restrooms.



SOURCE: Google Earth - 2015; Fehr & Peers - November 2015

FIGURE 7

Under Burbank2035, a mitigation measure is considered to have significant land use impacts when the proposed improvement conflicts with the “Right-of-Way Needs” policies or with two or more of the “Scale and Design,” “Complete Streets,” or “Pedestrian Opportunities” policies.

### ***Thresholds of Significance***

The City of Burbank recognizes a LOS D as the minimum acceptable LOS at its major intersections during the AM and PM peak hours. According to the City’s intersection significant traffic impact criteria, a significant impact is triggered when one of the following is met:

- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.020 or more with the intersection operation at a LOS D after the addition of project traffic, or;
- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.010 or more with the intersection operating at LOS E after the addition of project traffic, or;
- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.005 or more with the intersection operating at LOS F after the addition of project traffic.

The City of Burbank’s Traffic Study Guidelines indicate that an intersection is affected when the increase in the V/C ratio from future base conditions to future base plus project conditions is 0.040 or more, with the intersection operation at LOS C after the addition of project traffic, but this condition does not trigger an impact.

The purpose of the updated traffic analysis is to determine the necessity and feasibility of constructing the unbuilt portions of **MM 7.2** and **MM 7.6**, in light of full buildout of Sub Area D. Thus, the traffic generated by this full buildout is not “project traffic” per se, as it is in a typical traffic analysis of a new development project. Nonetheless, to help the City Council determine the need for the remaining portions of **MM 7.2** and **MM 7.6** in light of the incremental increase in traffic caused by this full buildout of Sub Area D under both current and forecasted 2035 conditions, this incremental increase in traffic is considered “project traffic” for the purpose of applying the City’s traffic impact thresholds of significance.

### ***Impact Analysis***

#### **Project Impacts**

The existing 2014 lane configurations of the two intersections with the distribution of the generated trips from the full buildout of Sub Area D are illustrated in **Figure 8, Peak-Hour Traffic Volumes and Lane Configurations—2014 Existing with Empire Center Sub Area D Full Buildout**. With additional trips generated by full buildout of Sub Area D, the existing conditions at the Buena Vista Street at Victory Boulevard intersection would maintain operation at a LOS D during the AM and PM peak hours as

compared to existing conditions. Similarly, the Buena Vista Street at Empire Avenue intersection would continue to operate at a LOS A during the AM peak hour and LOS B during the PM peak hour. A comparison of existing conditions with and without the addition of generated trips from the full buildout of Sub Area D is shown in **Table 6, 2014 Existing Conditions with Empire Center Sub Area D Full Buildout Traffic Impacts.**

**Table 6**  
**2014 Existing Conditions with Empire Center Sub Area D Full Buildout Traffic Impacts**

No.	Intersection	Peak Hour	Existing (2014)		Existing (2014) w/Empire Center Sub Area D Buildout		Change in V/C
			V/C	LOS	V/C	LOS	
17	Buena Vista Street & Victory Boulevard	AM	0.805	D	0.807	D	0.002
		PM	0.801	D	0.804	D	0.003
19	Buena Vista Street & Empire Avenue	AM	0.586	A	0.590	A	0.004
		PM	0.607	B	0.622	B	0.015

*Source, Fehr & Peers (November 2015)*

*Notes: Per the City's Traffic Impact Study Guidelines, a V/C credit of 0.02 was credited to each of the intersections to account for CSCS measures.*

*V/C = volume to capacity ratio; LOS = level of service; w/ = with.*

Neither of these two intersections would operate below a LOS D with the addition of generated traffic from the full buildout of Sub Area D, thus meeting the City's minimum LOS D requirement during AM and PM peak-hour operations. Thus, based upon the City's significant traffic criteria, the estimated increase in traffic as a result of the traffic by full buildout of Sub Area D without construction of the unbuilt portions of **MM 7.2** and **MM 7.6** is not anticipated to result in significant impacts at either of the two study intersections under existing 2014 conditions. Impacts would be less than significant.

### Cumulative Impacts

Cumulative impact analysis was conducted for the year 2035 using the Burbank2035 TDM. The future conditions of the two study intersections take into account the growth projections of Burbank2035, as well as the improvements to the I-5 Interchange improvements along Empire Avenue. The future lane configurations of the two intersections with the distribution of the trips projected upon full implementation of Burbank2035, but without full buildout of Sub Area D, are illustrated in **Figure 9, Peak-Hour Traffic Volumes and Lane Configurations—Burbank2035 Cumulative without Empire Center Sub Area D Full Buildout.**

The future lane configurations of the two intersections with the distribution of the cumulative trips of the full buildout of Sub Area D with the Burbank2035 are illustrated in **Figure 10, Peak-Hour Traffic**

**Volumes and Lane Configurations—Burbank2035 Cumulative with Empire Center Sub Area D Full Buildout.** As shown in **Table 7, Burbank2035 Cumulative Traffic Impacts without Mitigation**, the LOS operations for the two study intersections degrade in 2035, without the full buildout of Sub Area D, as both intersections operate at LOS D in the AM and LOS E in the PM peak hour. When traffic from the full buildout of Sub Area D is added to 2035 conditions, the operating conditions of these intersections degrade further.

**Table 7**  
**Burbank2035 Cumulative Traffic Impacts without Mitigation**

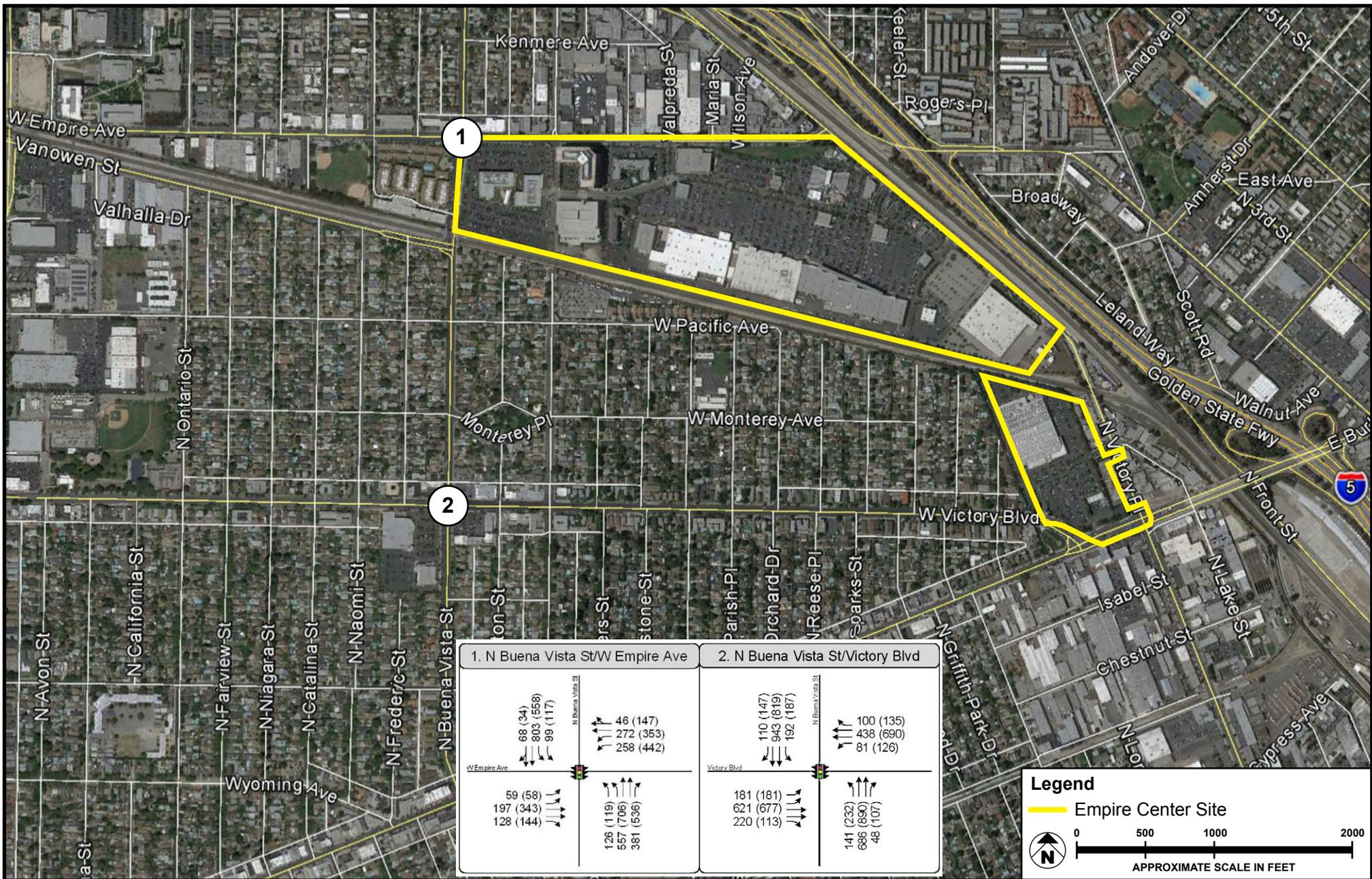
No.	Intersection	Peak Hour	Future (2035)		Future (2035) w/Empire Center Sub Area D Full Buildout		Change in V/C
			V/C	LOS	V/C	LOS	
17	Buena Vista Street & Victory Boulevard	AM	0.852	D	0.853	D	0.001
		PM	0.922	E	0.927	E	0.005
19	Buena Vista Street & Empire Avenue	AM	0.899	D	0.904	E	0.005
		PM	0.923	E	0.939	E	0.016

*Source: Fehr & Peers (November 2015)*

*Notes: Per the City's Traffic Impact Study Guidelines, a V/C credit of 0.02 was credited to each of the intersections to account for CSCS measures. V/C = volume to capacity ratio; LOS = level of service; w/ = with.*

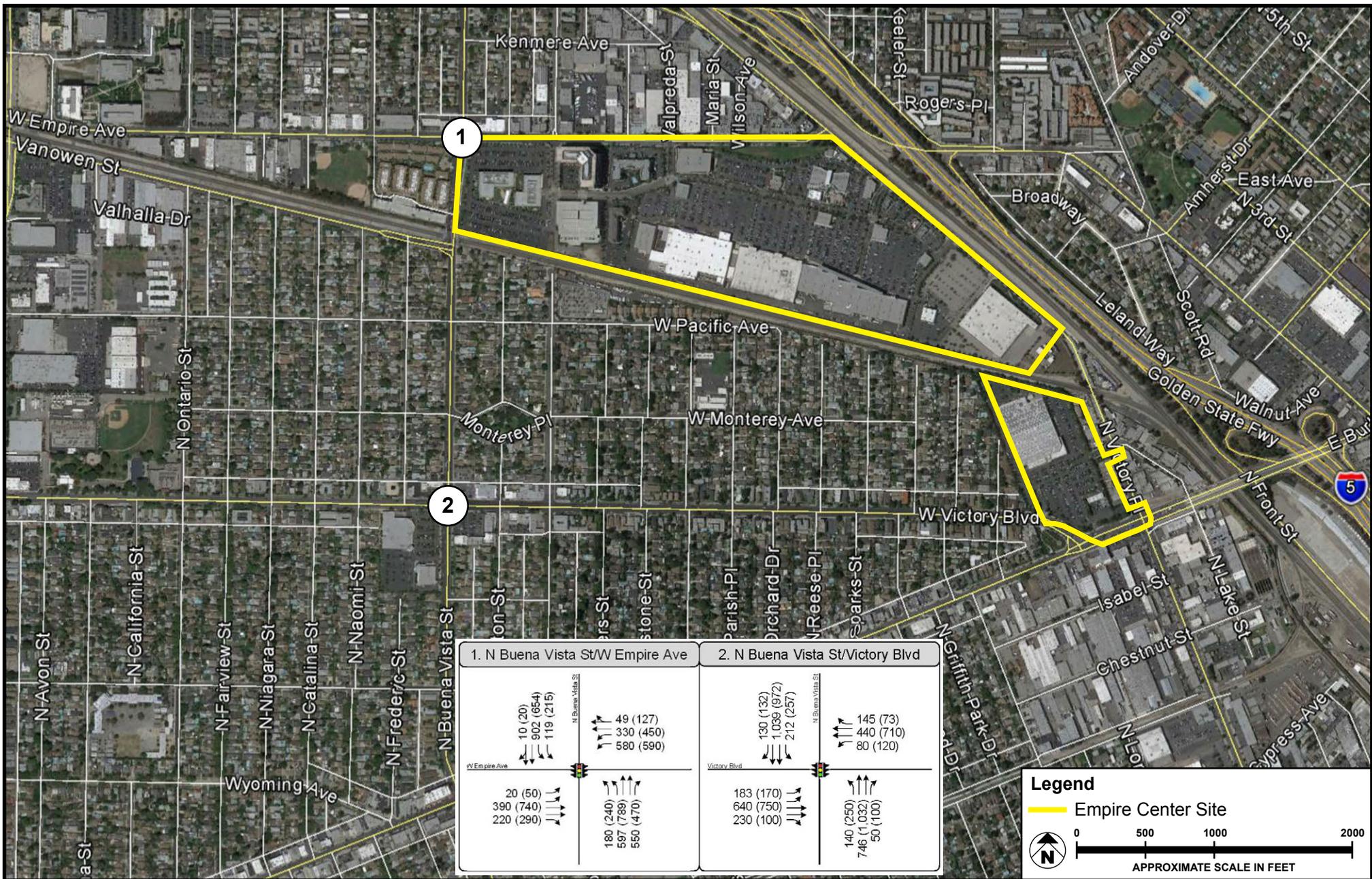
With the addition of full buildout of Sub Area D, the intersection of Buena Vista Street and Victory Boulevard would remain at LOS D in the AM and LOS E in the PM, even though the volume to capacity ratio would increase due to the added traffic. The resulting conditions in 2035 with full buildout of Sub Area D would be LOS E (which is worse than the City's LOS D standard), but the additional traffic caused by the full buildout of Sub Area D would not increase the volume to capacity ratio of the intersection enough to cause a significant impact based on the City's impact criteria, because the volume to capacity increase that would result from the project is less than 0.010 at LOS E.

The intersection of Buena Vista Street and Empire Avenue would degrade to LOS E from LOS D in the AM and remain at LOS E in the PM peak hours (which is worse than the City's LOS D standard) with the addition of traffic from the full buildout of Sub Area D on top of 2035 cumulative traffic conditions. Furthermore, the volume to capacity ratio of the intersection would also increase above the City's significant impact criteria (more than 0.010 volume to capacity increase at LOS E) as a result of the project. For this reason, the cumulative impact of the project is considered significant at this intersection.



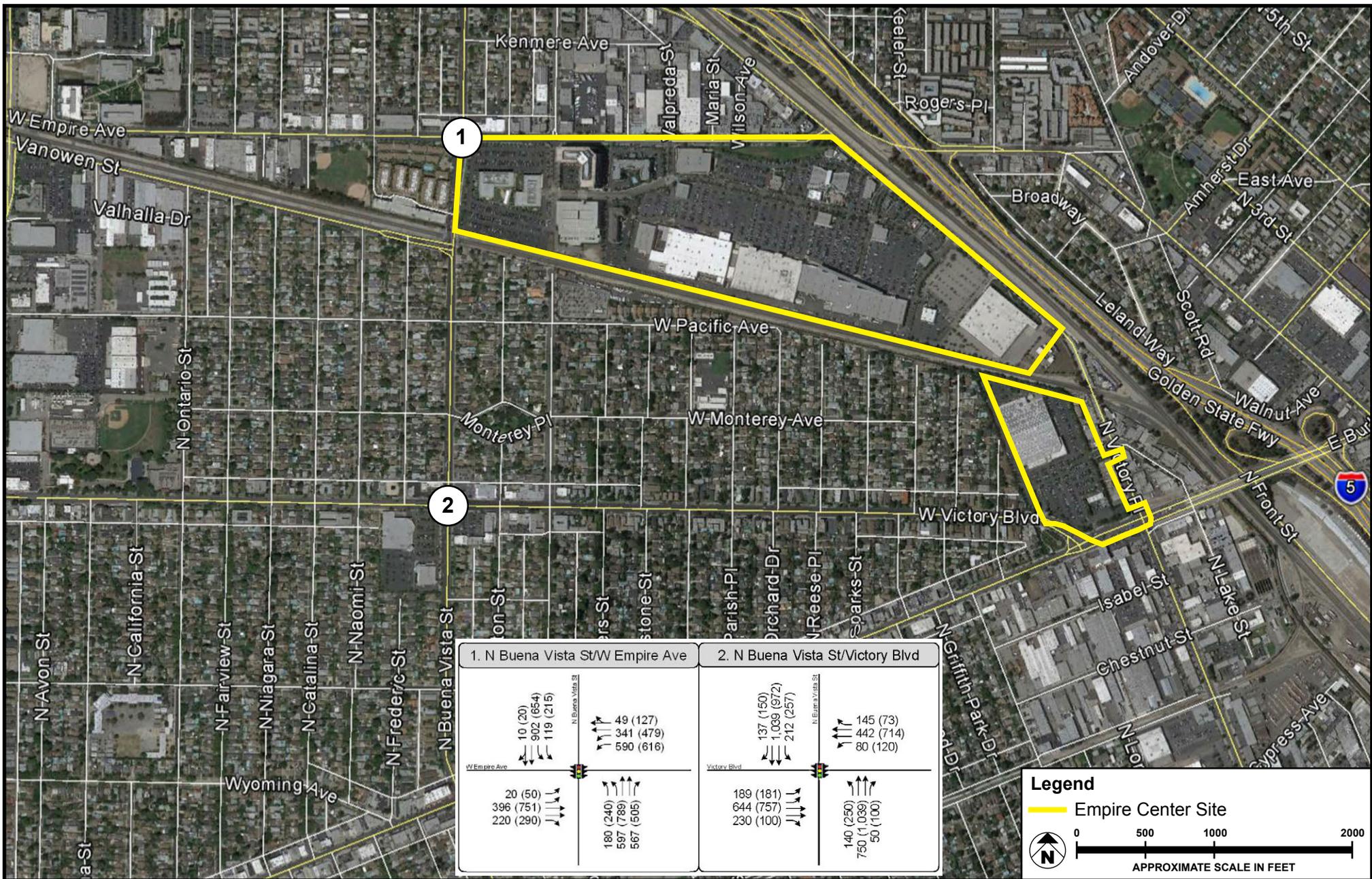
SOURCE: Google Earth - 2015; Fehr & Peers - November 2015

FIGURE 8



SOURCE: Google Earth - 2015; Fehr & Peers - November 2015

FIGURE 9



SOURCE: Google Earth - 2015; Fehr & Peers - November 2015

FIGURE 10

At both intersections, the traffic generated from the full buildout of Sub Area D, along with additional cumulative traffic expected by 2035, would result in LOS E operations, which is worse than the City's LOS D standard. At Buena Vista Street and Victory Boulevard, the additional traffic from the full buildout of Sub Area D would not be enough to cause a significant impact, while at Buena Vista Street and Empire Avenue, the addition of traffic from the full buildout of Sub Area-D would result in a significant cumulative impact. However, the Empire Center as currently developed is also generating traffic that is likely traveling through both of these intersections, although there is no reasonable way to quantify how much. Because the Empire Center Planned Development FEIR considered the cumulative traffic impact of the entire center (and not just the full buildout of Sub Area D), it is possible that the incremental traffic caused by full buildout of Sub Area D, plus the traffic from the rest of the Empire Center without construction of the unbuilt portions of **MM 7.2** and **MM 7.6**, could cause a cumulative traffic impact at either location, even if the calculations above show a cumulative traffic impact only at Buena Vista Street and Empire Avenue. Thus, it is possible that when considering all the future traffic generated by Empire Center, there is a reasonable possibility that cumulative traffic conditions in 2035 at both of these intersections could be significant if the remaining unbuilt portions of **MM 7.2** and **MM 7.6** are not constructed.

### Mitigation Measures

**Table 8, Burbank2035 Cumulative Traffic Impacts with Mitigation**, identifies the cumulative traffic impacts of the Project with the applied mitigation scenarios in combination with implementation of Burbank2035. As discussed above, Burbank2035 provides the City with a policy-based screening approach to determine the feasibility of intersection improvements. These City policy groups include right-of-way needs, scale and design, complete streets, and pedestrian opportunities. The policy-based screening was applied to both **MM 7.2** and **MM 7.6** to determine compatibility with Burbank2035. The results of this screening are described in more detail for each mitigation measure below.

**Table 8**  
**Burbank2035 Cumulative Traffic Impacts with Mitigation**

No.	Intersection	Peak Hour	Future (2035) w/o Empire Center Buildout		Future (2035) w/Empire Center Sub Area D Full Buildout + MM 7.2 and MM 7.6		Change in V/C	Future (2035) w/Empire Center Sub Area D Full Buildout + Alternate Improvements		Change in V/C	Future (2035) w/Empire Center Sub Area D Full Buildout + 3% CSCS Capacity Credit		Change in V/C
			V/C	LOS	V/C	LOS		V/C	LOS		V/C	LOS	
17	Buena Vista Street & Victory Boulevard	AM	0.852	D	0.853	D	0.001	0.824	D	- 0.028	0.829	D	- 0.023
		PM	0.922	E	0.897	D	- 0.025	0.896	D	- 0.026	0.900	D	- 0.022
19	Buena Vista Street & Empire Avenue	AM	0.899	D	0.810	D	- 0.089	0.814	D	- 0.085	0.878	D	- 0.021
		PM	0.923	E	0.847	D	- 0.076	0.847	D	- 0.076	0.912	E	- 0.011

Source: Fehr & Peers (November 2015)

Notes: Per the City's Traffic Impact Study Guidelines, a V/C credit of 0.02 was credited to each of the intersections to account for CSCS measures.

V/C = volume to capacity ratio; LOS = level of service; w/ = with, CSCS = Citywide Signal Controller System.

**MM 7.2 (Buena Vista Street at Victory Boulevard)**

As described above, the updated traffic analysis did not identify a significant cumulative traffic impact at the intersection of Buena Vista Street and Victory Boulevard when considering only traffic from the full buildout of Sub Area D. However, an impact could result when this traffic is considered along with the contribution of traffic caused by the existing Empire Center. Because of this, the updated traffic analysis for the applied the improvements of **MM 7.2** to the intersection of Buena Vista Street and Victory Boulevard. As described in **Section 2.3** and illustrated in **Figure 5**, **MM 7.2** included the provision of two left turn lanes, two through lanes, and one exclusive right turn lane in the eastbound and southbound approaches. To fully implement **MM 7.2**, one additional left turn lane would need to be constructed in the southbound direction.

As identified in **Table 8**, implementing the remainder of **MM 7.2** to the intersection could result in the intersection operations improving from LOS E in the PM peak hour to LOS D (the AM peak hour remains at D), which is consistent with the City's LOS D standard. The increase in intersection capacity from this improvement offsets the increase in the volume to capacity ratio from the traffic generated from full buildout of Sub Area D, and also likely accounts for some or all of the traffic generated by the existing Empire Center. For this reason, not constructing the remaining portion of **MM 7.2** would likely result in a significant cumulative traffic impact at Buena Vista Street and Victory Boulevard.

Implementing the remainder of **MM 7.2** would require the dedication of a right-of-way on the northwest corner of the intersection, which would necessitate the partial demolition of a convenience store and required off-street parking, and the partial removal of the front yard of a single-family residence, including a large mature tree. The improvement would also require the removal of several hundred feet of on-street parking on Buena Vista Street north and south of Victory Boulevard. It is estimated that the approximate cost of land acquisition (not including relocation, goodwill, or other considerations) plus engineering, design, and construction costs could be approximately \$1 million. Because the right-of-way required would disrupt a neighborhood business and single-family residence, this improvement would be inconsistent with Burbank2035 Mobility Element Policies 1.2 and 3.4, which concern constructing improvements within existing street rights-of-way.

In summary, fully implementing **MM 7.2** to the intersection of Buena Vista Street and Victory Boulevard would improve the intersection LOS in 2035 from LOS E to LOS D; therefore, if the remaining improvements identified in this mitigation measure are not built, a significant cumulative traffic impact at this location is likely to result. However, implementing this improvement would have a significant land use impact because it conflicts with Burbank2035 Mobility Element policies related to right-of-way conflicts.

### **MM 7.6 (Buena Vista Street at Empire Avenue)**

As described above, the updated traffic analysis for this SEIR identified a significant cumulative traffic impact at the intersection of Buena Vista Street and Empire Avenue with the addition of traffic from the full buildout of Sub Area D along with 2035 traffic. **MM 7.6**, as identified by the FEIR for the Empire Center Planned Development, was considered to reduce potential cumulative impacts to a level of less than significance. As described in **Section 2.3** and illustrated in **Figure 6**, **MM 7.6** included the provision of three left turn lanes in the westbound approach and three southbound departure lanes, two left turn lanes on all other approaches, and an exclusive right turn lane on all approaches. To fully implement **MM 7.6**, proposed improvements to the intersection would require that one additional left turn lane and right turn lane in the westbound approach and one additional right turn lane in the southbound approach be constructed.

As shown in **Table 8**, implementing the remainder of **MM 7.6** would result in the intersection operations improving from LOS E to LOS D in both peak hours, which is consistent with the City's LOS D standard. The increase in intersection capacity from this improvement offsets the increased volume to capacity ratio caused by the traffic from full buildout of Sub Area D, and also likely accounts for some or all of the traffic generated by the existing Empire Center. Thus, not constructing the remaining improvements identified in **MM 7.6** would likely result in a significant cumulative traffic impact at Buena Vista Street and Empire Avenue.

Implementing the remainder of **MM 7.6** would require the dedication of a right-of-way, including the demolition of several buildings and businesses on the north side of Empire Avenue. Full property acquisition and building demolition would be required on the north side of Empire Avenue between just west of Lincoln Street and just west of Buena Vista Street. This acquisition would displace several industrial and postproduction businesses and a neighborhood restaurant. It would also affect the off-street parking for a construction firm. It is estimated that the approximate cost of land acquisition (not including relocation, goodwill, or other considerations) plus engineering, design, and construction costs could be approximately \$14 million. The improvement would leave small, shallow remnant parcels along the north side of Empire Avenue that would likely not be developable. On the south side of Empire Avenue, the improvement would require street widening that would encroach into the existing landscaped buffer of the Empire Center office development between just west of Lincoln Street and Buena Vista Street, requiring the removal of mature landscaping and several trees on public and private property, although street trees could be replaced on the reconstructed street.

Because of the substantial rights-of-way required, this improvement would be inconsistent with Burbank2035 Mobility Element Policies 1.2 and 3.4, which call for constructing improvements within existing street rights of way.

Further, implementing **MM 7.6** also conflicts with the “Scale and Design” group of general plan policies. The improvement would require the curb-to-curb width of Empire Avenue to be widened to nearly 90 feet, which would create an excessively wide street in a residential or mixed-use area as well as create a street wider than what is contemplated in Burbank2035. Thus, the improvement would be inconsistent with Mobility Element Policy 1.5, which concerns designing street improvements to be compatible with the scale and design of existing infrastructure. Because this improvement conflicts with Burbank2035 right-of-way policies, implementing this mitigation measure would have a significant land use impact with Burbank2035. Refer to Table 5 located in **Appendix A** for the full policy-based screening applied to **MM 7.6**.

In summary, applying mitigation measure **MM 7.6** to the intersection of Buena Vista Street and Empire Avenue would improve the intersection LOS in 2035 from LOS E to LOS D in both peak hours; therefore, if not fully implemented, a significant cumulative traffic impact would likely result at this location. However, implementing this improvement would have a significant land use impact because it conflicts with Burbank2035 Mobility Element policies related to right-of-way conflicts. Further, because the scale of right-of-way acquisition displaces several local businesses, results in undevelopable remnant parcels, causes significant disruption to the adjacent land uses, and would likely be cost-prohibitive, this improvement is considered to be infeasible.

### ***Alternative Improvements***

Consistent with CEQA Guidelines Section 15126.4, this SEIR evaluates alternative improvements that may be available to mitigate significant traffic impacts to Buena Vista Street/Victory Boulevard and Buena Vista Street/Empire Avenue.

#### Buena Vista Street/Victory Boulevard Alternatives

At the Buena Vista Street/Victory Boulevard intersection, an alternative improvement was evaluated to mitigate the potentially significant cumulative impacts for this intersection. As illustrated in **Figure 11, Alternate to MM 7.2—Buena Vista Street and Victory Boulevard**, the alternative improvement would restripe the westbound approach to add one left turn lane (for a total of two left turn lanes, two through lanes, and one exclusive right turn lane). This improvement could be implemented within the existing street curb-to-curb width and would only require striping modifications. Implementation of this improvement would reduce potentially significant cumulative impacts to less than significant. As identified in **Table 8**, implementing the alternative improvement would result in the intersection operations improving from LOS E to LOS D in the PM peak hour, which is consistent with the City’s LOS D standard. The increase in intersection capacity from this improvement offsets the increased volume to capacity ratio caused by the traffic from full buildout of Sub Area D, and also likely accounts for some or

all of the traffic generated by the existing Empire Center. Thus, implementation of the alternate improvement in lieu of the remainder of **MM 7.2** would likely mitigate cumulative traffic impacts at this intersection to a less than significant level. Because the improvement only requires a striping modification to add the additional left turn lane, the cost to implement this improvement is expected to cost \$25,000 or less. The improvement would also not cause a policy conflict and would therefore be consistent with Burbank2035.

An operational improvement was also considered that applies an additional 0.03 CSCS capacity credit to this intersection to account for the additional traffic signal timing measures that could be applied to this intersection and the overall corridor it is a part of. As shown in **Table 8**, applying the 0.03 CSCS capacity credit would result in intersection operation improvements in both peak hours, which is consistent with the improvements planned for and assumed in Burbank2035. Further, the improvement provided by this additional traffic signal timing measure would mitigate the projected cumulative impact at this intersection to a less than significant level in the PM peak hour by improving the LOS at the intersection to LOS D. However, the timing for the full implementation of these CSCS measures is not known at this time because they involve installation and improvement of traffic signal infrastructure citywide. Therefore, this alternative improvement is not considered to be feasible due to the uncertainty of the timing of these citywide signal measures. Notwithstanding the uncertainty of their timing, these CSCS improvements will eventually be made over time as an implementation of Burbank2035; therefore, the intersection of Buena Vista Street and Empire Avenue would likely benefit even if this SEIR does not assume they can be used as an alternative improvement.

#### Buena Vista Street/Empire Avenue Alternatives

At the Buena Vista Street/Empire Avenue Intersection, an alternative improvement was evaluated to mitigate the potentially significant cumulative impacts for this intersection. This alternative improvement would provide for three left turn lanes in the westbound approach and three southbound receiving lanes as included in **MM 7.6**, but would omit the westbound right turn lane and southbound right turn lane included in the unconstructed portion of **MM 7.6**. To implement the alternate improvement, the addition of only one additional left turn lane in the westbound approach is required. Implementation of the alternate improvement would reduce potentially significant cumulative impacts to less than significant.

As identified in **Table 8**, implementing the alternate improvement would also result in the improvement of intersection operations from LOS E to LOS D in both peak hours, which is consistent with the City's LOS D standard. The increase in intersection capacity from this improvement offsets the increased volume to capacity ratio caused by the traffic from full buildout of Sub Area D, and also likely accounts

for some or all of the traffic generated by the existing Empire Center. Thus, implementation of the alternate improvement in lieu of the remainder of **MM 7.6** would likely mitigate cumulative traffic impacts at this intersection to a less than significant level.

As illustrated in **Figure 12, Alternate to MM 7.6—Buena Vista Street and Empire Avenue**, this alternate improvement would also require acquisition of right-of-way from adjacent properties, although the right-of-way needed would be less than **MM 7.6** and would not require the demolition of any existing structures. The alternate improvement would not require the demolition of buildings and businesses on the north side of Empire Avenue between west of Lincoln Street and west of Buena Vista Street. The improvement would require street widening on the south side of Empire Avenue that would encroach into the existing landscaped buffer of the Empire Center office development between just west of Lincoln Street and Buena Vista Street, requiring the removal of mature landscaping and several trees. It would require construction of a very narrow, 5-foot sidewalk on the south side of Empire Avenue wedged between the Empire Avenue roadway and the Empire Center office development parking lot. The narrow sidewalk width would preclude replacement of street trees on the remaining public right-of-way and private property. It is estimated that the approximate cost of land acquisition (not including relocation, goodwill, or other considerations) plus engineering design and construction costs could be approximately \$900,000.

Similar to **MM 7.6**, the alternative mitigation would be inconsistent with Burbank2035 Mobility Element Policies 1.2 and 3.4, which concern constructing improvements within existing street rights of way.

In addition, it would also conflict with the “Scale and Design” group of Burbank2035 policies. The alternate improvement would still require Empire Avenue to be widened to just over 80 feet, which would create an excessively wide street in a residential or mixed-use area as well as create a street wider than what is contemplated in Burbank2035. Thus, the improvement would be inconsistent with Mobility Element Policy 1.5, which concerns designing street improvements to be compatible with the scale and design of existing infrastructure.

Finally, the alternate improvement would conflict with the “Pedestrian Opportunities” group of general plan policies. Although the alternate improvement was developed to avoid demolishing existing buildings, it would require sidewalk widths to be maintained at only 5 feet, which is well below the minimum widths set in Burbank2035, and precludes the City from widening sidewalks in the future. Thus, the alternate improvement would be inconsistent with Mobility Element Policy 3.3, which concerns complete streets, and Mobility Element Policy 5.5 and Land Use Element Policy 4.5, which concern constructing/maintaining sidewalk widths as prescribed in Burbank2035. Because the alternate improvement conflicts with the right-of-way policies in Burbank2035, as well as two of the remaining

three policy categories of “Scale and Design” and “Pedestrian Opportunities,” this improvement would create a significant land use impact with Burbank2035. This land use impact and inconsistency with Burbank2305 could complicate or preclude the property acquisition required for the alternate improvement. Refer to Table 5 located in **Appendix A** for the full policy-based screening applied to the alternate improvement.

In summary, applying the alternate improvement in lieu of the remainder of **MM 7.6** to the intersection of Buena Vista Street and Empire Avenue would improve the intersection LOS in 2035 from LOS E to LOS D in both peak hours; therefore, doing so would likely mitigate the significant cumulative traffic impact at this location. However, implementing this improvement would have a significant land use impact because it conflicts with Burbank2035 Mobility Element and Land Use Element policies related to right-of-way conflicts (although to a lesser extent than **MM 7.6**), “scale and design,” and “pedestrian opportunities.”

An operational improvement was also considered that applies an additional 0.03 CSCS capacity credit to this intersection to account for the additional traffic signal timing measures that could be applied to both this intersection and the overall corridor it is a part of. As shown in **Table 8**, applying the 0.03 CSCS capacity credit would result in intersection operation improvements in both peak hours, which is consistent with the improvements planned for and assumed in Burbank2035. The improvement provided by this additional traffic signal timing measure would mitigate the projected cumulative impact at this intersection to a less than significant level. The timing for the full implementation of these CSCS measures is not known at this time because they involve installation and improvement of traffic signal infrastructure citywide. Therefore, this alternate improvement is not considered feasible at this time due to the uncertainty of the timing of these citywide signal improvements. Notwithstanding the uncertainty of their timing, these CSCS improvements would eventually be made as an implementation of Burbank2035; therefore, the intersection of Buena Vista Street and Empire Avenue would likely benefit, even if this SEIR does not assume they can be used as an alternate improvement.

### **Residual Impacts after Mitigation**

For the Buena Vista Street at Victory Boulevard intersection, if the remainder of **MM 7.2** were implemented, the intersection would improve from LOS E to LOS D under projected year 2035 conditions plus Sub Area D buildout (and therefore be within the City’s standard in 2035), but full construction of **MM 7.2** would require right-of-way acquisition involving building demolition and the partial removal of the front yard of a single-family residence. Thus, implementation of the remainder of **MM 7.2** would have a significant land use impact because it would conflict with the policies of Burbank2035.

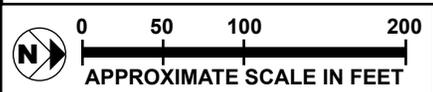
Alternatively, removing the remainder of **MM 7.2** would result in a significant cumulative traffic impact but would avoid land use impacts.

Constructing the alternate improvement at the intersection of Buena Vista Street and Victory Boulevard would improve the intersection from LOS E to LOS D under projected year 2035 conditions plus Sub Area D buildout (and therefore be within the City's standard in 2035). It would involve a striping modification that would not require right-of-way acquisition, nor would the improvement conflict with the goals and policies of Burbank2035. Thus, the alternate improvement would reduce the cumulative traffic impact at this location to less than significant and would not result in a land use impact. As such, this alternate improvement is considered feasible to implement.

For the Buena Vista Street at Empire Avenue intersection, if either the remainder of **MM 7.6** was implemented, or the alternate improvement was constructed instead, the intersection would improve from LOS E to LOS D under projected year 2035 conditions plus Sub Area D buildout (and therefore be within the City's standard in 2035). However, constructing either of these improvements would create significant land use impacts with Burbank2035. Construction of the remainder of **MM 7.6** would require extensive right-of-way acquisition involving the demolition of several occupied buildings and relocation of businesses. Constructing the alternate improvement would still require right-of-way acquisition in conflict with Burbank2035, but the right-of-way required would be less than that required for **MM 7.6**, and would not require the demolition of buildings and displacement of businesses. Thus, while the alternative improvement would still create a significant land use impact, it would do so to a lesser degree than implementing the remainder of **MM 7.6**. Also, because the scale of right-of-way acquisition for **MM 7.6** would displace several local businesses, result in undevelopable remnant parcels, cause significant disruption to the adjacent land uses, and likely be cost-prohibitive, **MM 7.6** is also considered to be infeasible.

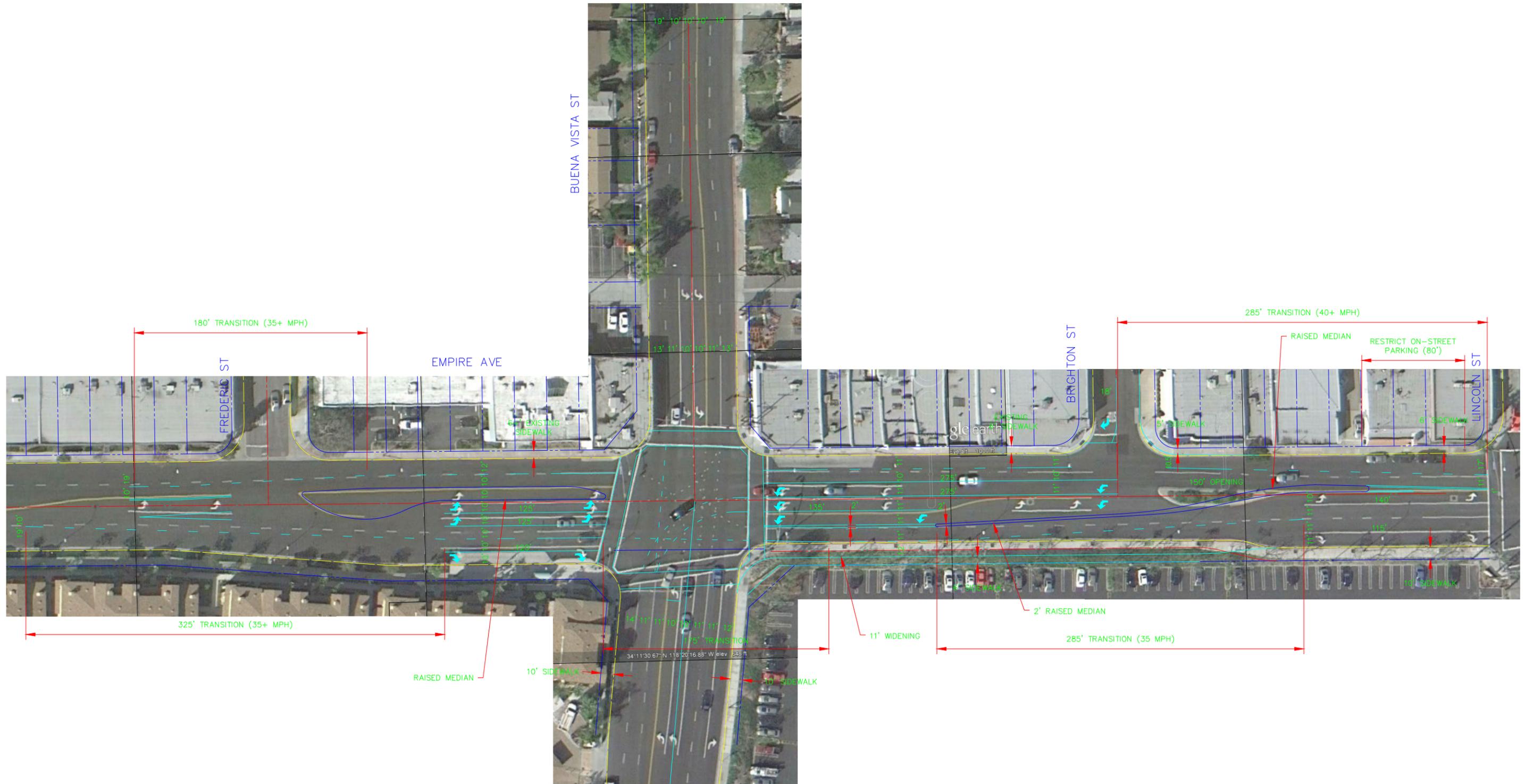
Alternatively, removing the remainder of **MM 7.6** would result in a significant cumulative traffic impact but would avoid land use impacts.

Therefore, because no physical mitigations are feasible for the Buena Vista Street at Empire Avenue intersection, a significant impact would remain at this intersection with full occupancy of the Empire Center.



SOURCE: City of Burbank, Public Works Department - January 2015

FIGURE 11



SOURCE: City of Burbank, Public Works Department - January 2015

FIGURE 12

## 4.0 REFERENCES

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The following documents and information were used in the preparation of this Supplemental EIR:

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Shanna Ingalsebee, et. al. v. City of Burbank, et. al. (Cal. Ct. App. 2015)

Transportation Research Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* (1980).

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**APPENDIX A**

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**Traffic Analysis Technical Memorandum**

## MEMORANDUM

Date: November 24, 2015  
To: Tony Locacciato, Meridian Consultants, LLC  
CC: David Kriske, City of Burbank  
From: John Muggridge and Jeff Pierson, Fehr & Peers  
**Subject: Empire Center SEIR Traffic Analysis**

LA14-2696

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This technical memorandum summarizes a traffic assessment conducted to determine the need for two mitigation measures identified in the *Empire Center Planned Development Final Environmental Impact Report* (FEIR), and to evaluate the impacts to traffic should the remaining portions of these measures not be constructed. To analyze the need for these improvements, the analysis assumes full buildout of the portion of the Empire Center containing a retail store that has been vacant since May 2011. This vacant building currently contains 141,635 square feet that was previously occupied by the Great Indoors, a retail furniture and home goods store. The owner and tenant for this space is Walmart. This traffic analysis assumes that the full 162,000 square feet of entitlement for this portion of the Empire Center would be developed as a Big Box superstore.

The analysis summarizes the effect of full occupancy and buildout of the Empire Center traffic (project) on two intersections near the proposed site:

- Buena Vista Street & Empire Avenue
- Buena Vista Street & Victory Boulevard

The project site and study intersections are shown in Figure 1. The goal of the analysis is to evaluate and confirm the need for two specific traffic mitigation measures at these intersections that were recommended as part of the Empire Center FEIR Mitigation Monitoring Program.



The two traffic improvements are:

- Mitigation Measure 7.2 (MM 7.2) for Buena Vista Street & Victory Boulevard: Provide two left-turn lanes on the eastbound and southbound approaches
- Mitigation Measure 7.6 (MM 7.6) for Buena Vista Street & Empire Avenue: Provide three left-turn lanes on the westbound approach (and three southbound departure lanes), and two left-turn lanes on all other approaches, and an exclusive right-turn lane on all approaches.

The following sections describe our study methodologies, assumptions and findings.

## ANALYSIS ASSUMPTIONS AND METHODOLOGY

### Baseline Assumptions

The previous tenant Great Indoors has not occupied the building since May 2011. This study utilizes AM and PM peak hour traffic count data from February 2014 for the two study intersections. The data was collected at the two study intersections prior to the start of the construction for the Interstate 5 HOV/Empire Interchange project.

This memorandum includes traffic analysis for the following four scenarios:

- Existing (year 2014) conditions without full occupancy and buildout of the Empire Center
- Existing (year 2014) conditions with full occupancy and buildout of the Empire Center
- Future (year 2035) without full occupancy and buildout of the Empire Center
- Future (year 2035) with full occupancy and buildout of the Empire Center Conditions

For future (2035) without full occupancy and buildout of the Empire Center conditions, it is assumed that the adjacent Bob Hope Airport Terminal remains in its current location and adjacent parcels to the north are fully developed to the land use assumptions included in the *Burbank2035* General Plan. The Interstate 5 (I-5) HOV/Empire Interchange project is scheduled to be constructed and operational in 2017 and is assumed as part of future 2035 background conditions in the intersection analysis.



### Trip Generation

The proposed full occupancy and build out of the Empire Center project, approximately 162,000 square feet (i.e., 162 KSF), would occupy the currently vacant Great Indoors building. Traffic generation estimates, directly attributable to the land use, were determined using the most recent *Trip Generation, 9<sup>th</sup> Edition*, (Institute of Transportation Engineering [ITE], 2012) per the City of Burbank Traffic Study Guidelines. Trip generation rates from ITE Code 813 (Free Standing Discount Superstore) were used to develop trip generation estimates for the proposed project. The results are summarized in Table 1. The proposed project is expected to generate approximately 8,120 net daily vehicle trips, including 300 and 705 vehicle trips in the AM and PM peak hours, respectively. To present a worst-case analysis of the project, no trip generation credits were taken for pass-by trips, internal capture or transit trips.

**TABLE 1 – PROJECT TRIP GENERATION**

ITE Code	Size	Units	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total
813	162	KSF	50.75	8,222	1.85	56%	44%	100%	4.35	49%	51%	100%
						168	132	300		345	360	705

Source: *Trip Generation, 9th Edition*, Institute of Transportation Engineers, 2012.

### Trip Distribution

The City of Burbank maintains a citywide travel demand model developed as part of Burbank2035. The City’s model is based on the TransCAD software. The model simulates traffic levels and travel patterns for the City of Burbank. The model consists of input files that summarize the area’s land uses, street network, travel characteristics, and other key factors. Using this data, the model performs a series of calculations to determine the number of trips generated, the beginning and ending location of each trip, and the route taken by the trip. The City of Burbank’s Travel Demand Model was used to determine the project trip distribution and the amount of traffic traversing each study intersection.

To determine the project trip distribution, a select zone analysis was conducted for the Empire Center project site traffic analysis zone (TAZ) under existing conditions and future year 2035 with the new I-5 Empire Interchange.



Existing and future trip distribution patterns and assignment data from the travel model runs were reviewed and then used to determine trip distribution at the study intersections. The City's travel model indicated that there would be a slightly different traffic distribution for the Empire Center project patrons between existing and future 2035 conditions, primarily due to the changes of land use patterns and roadway network in the City of Burbank and the surrounding jurisdictions. Based on information from the City's model trip distribution data, the most conservative trip distribution patterns of the project trips passing through the two study intersections were applied to both existing and future scenarios for the project.

## LEVEL OF SERVICE ANALYSIS

The traffic count data, trip distribution patterns and trip generation using the ITE 9<sup>th</sup> Edition was used to determine the intersection level of service (LOS) estimates under existing and future conditions.

LOS is a measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. The City of Burbank recognizes LOS D as the minimum acceptable level of service at its major intersections. Level of service definitions for signalized intersections are shown in Table 2.

The City of Burbank requires the use of Critical Movement Analysis (CMA) methodology (Transportation Research Circular No. 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980) to evaluate the operations of intersections. The CMA method of intersection capacity analysis determines the critical intersection turning movements, intersection volume-to-capacity (V/C) ratio and corresponding LOS for turning movements and intersection characteristics at signalized intersections. For the stop-controlled intersections, Highway Capacity Manual (HCM) (Transportation Research Board, 2000) methodology was used to evaluate capacity and performance.

Traffic for Windows was selected as the software to calculate the intersection LOS for this analysis. Traffic for Windows is an interactive computer software program that evaluates and forecasts traffic operating conditions.

Consistent with the City's traffic impact study guidelines, a 2% volume-to-capacity (V/C) credit was applied to both existing 2014 scenario and future 2035 analysis to account for current optimization of Burbank's citywide Signal Controller System (CSCS) at the two study intersections.



LOS results for existing and future 2035 scenarios are summarized in Table 3 and Table 4, respectively. Peak hour traffic volumes for the analyzed scenarios are illustrated in Figures 2A-D.

### **Intersection Significant Traffic Impact Criteria**

According to the City of Burbank's impact criteria, a significant project impact is triggered when one of the following criteria is met:

- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.020 or more with the intersection operating at LOS D after the addition of project traffic, or;
- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.010 or more with the intersection operating at LOS E after the addition of project traffic, or;
- The increase in the V/C ratio from future base conditions to future base plus project conditions is 0.005 or more with the intersection operating at LOS F after the addition of project traffic.

The City of Burbank's Traffic Study Guidelines indicate that an intersection is affected when the increase in the V/C ratio from future base conditions to future base plus project conditions 0.040 or more, with the intersection operation at LOS C after the addition of project traffic

Affected intersections are not considered impacted for the purposes of environmental review (i.e., not a CEQA EIR impact); however, affected intersections are reviewed to determine if project traffic may substantially influence traffic operations at an affected intersection (*City of Burbank Traffic Study Guidelines*, City of Burbank, updated June 2014).

As adopted in Burbank2035, the City's level of service standard for intersections is LOS D. This threshold will also be used to evaluate impacts under the future 2035 scenarios.

### **Existing Conditions (2014)**

The traffic data for the Buena Vista Street & Victory Boulevard and Buena Vista Street & Empire Avenue intersections was collected prior to the start of construction of the I-5 Interchange project that began in May 2014. The existing lane configurations of the two intersections studies with their associated traffic counts are illustrated in Figure 2A. As indicated in Table 3, under existing conditions, without the I-5 Empire Interchange, the Buena Vista Street & Empire Avenue



intersection currently operates at LOS A in the AM peak hour and LOS B in the PM peak hour. The Buena Vista Street & Victory Boulevard intersection currently operates at LOS D in both peak hours.

### **Existing plus Project Impact Analysis**

The addition of the proposed project trips would result in an increase in the intersection V/C ratio (Table 3). The Buena Vista Street & Empire Avenue intersection is projected to continue operating at similar conditions, with LOS A in the AM hour and LOS B in the PM peak hour with full occupancy and build out of the Empire Center traffic. The Buena Vista Street & Victory Boulevard intersection is projected to continue operating at the same LOS D in both the AM and PM peak hours with full occupancy and buildout of the Empire Center.

Both intersections are projected to operate at LOS D or better and using the City of Burbank's significant impact criteria, the project is not expected to result in a significant impact at either study intersection under existing conditions.

### **Future Conditions (2035)**

The Burbank 2035 model was used to identify increases in traffic volumes caused by cumulative projects, regional growth, and expected growth under the General Plan. The development of future 2035 forecast volumes for this analysis followed the accepted professional standard and approach presented in the National Cooperative Highway Research Program (NCHRP) Report 255 (Transportation Research Board, 1082). The NCHRP Report 255 approach involves post-processing the forecasted model volume data and applying the estimated growth to existing intersection counts to represent future without full occupancy and buildout of the Empire Center conditions.

Additional traffic capacity adjustment was applied to Buena Vista Street & Empire Avenue intersection to account for the influence of the at-grade rail crossing in year 2035 conditions. The capacity reduction was estimated to be approximately 8% and was calculated based on the anticipated corridor traffic growth, the increase in train frequency at this rail crossing per 2013 California State Rail Plan<sup>1</sup> and the typical train preemption time. Under future conditions, the rail crossing is assumed to remain at-grade.

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<sup>1</sup> [http://californiastaterailplan.dot.ca.gov/docs/Final\\_Copy\\_2013\\_CSRP.pdf](http://californiastaterailplan.dot.ca.gov/docs/Final_Copy_2013_CSRP.pdf)



Table 4 summarizes the results of this analysis indicating the projected morning and afternoon peak hour V/C ratios and corresponding LOS at each of the analyzed intersections under future (2035) conditions. Under the future 2035 without full occupancy and buildout of the Empire Center conditions, Buena Vista Street & Empire Avenue is projected to operate at LOS D in AM peak hour and LOS E in the PM peak hour. Similarly, Buena Vista Street & Victory Boulevard is expected to operate at LOS D in the AM peak hour and LOS E in the PM peak hour.

### **Future plus Project Impact Analysis**

Under future (2035) conditions, full occupancy and buildout of the Empire Center would result in increases in intersection V/C ratios at both intersections. At Buena Vista Street & Empire Avenue, the intersection is expected to change from LOS D to LOS E in the AM peak hour, while the LOS in the PM peak hour is expected to remain at LOS E. Buena Vista Street & Victory Boulevard is projected to continue operating at LOS D in the AM hour and at LOS E in the PM peak hour with full occupancy and buildout of the Empire Center.

According to City of Burbank significant project impact criteria, the estimated increase in traffic as a result of full occupancy and buildout of the Empire Center could result in a significant PM peak hour traffic impact at the intersection of Buena Vista Street & Empire Avenue under future (2035) conditions. No significant impact was found at Buena Vista Street & Victory Boulevard under 2035 conditions. However, both intersections would operate at LOS E, which exceeds the City's LOS threshold, during at least one of the peak hours with the addition of the project.

## **MITIGATION ANALYSIS**

### **Mitigation Measures for Buena Vista Street & Empire Avenue**

The intersection of Buena Vista Street & Empire Avenue is projected to be significantly impacted during the weekday PM peak hour with full occupancy and buildout of the Empire Center. To mitigate the project impact at this location, the specific traffic MM 7.6 as proposed in the Empire Center Planned Development FEIR was evaluated. MM 7.6 includes provision of three left-turn lanes on the westbound approach (and three southbound departure lanes), and two left-turn lanes on all other approaches, and an exclusive right-turn lane on all approaches at Buena Vista Street & Empire Avenue. To construct this improvement, one additional left turn lane and right turn lane in the westbound direction would be required, and one additional right turn lane in the southbound direction would be needed.



With full implementation of MM 7.6, the project's significant impact in the PM peak hour can be reduced to be less-than-significant levels at Buena Vista Street & Empire Avenue (Table 4). As the intersection will operate at LOS D after mitigation, this meets the City of Burbank's threshold of LOS D or better.

However, the proposed MM 7.6 would require dedication of right-of-way from the adjacent properties, which is incompatible with *Burbank2035* General Plan Mobility Element Policy 1.2 and 3.4 related to avoiding right-of-way acquisition for street widening purposes. Therefore, the proposed Measure 7.6 is infeasible and the PM peak hour impact at the Buena Vista Street & Empire Avenue would remain significant and unavoidable under 2035 conditions with full occupancy and buildout of the Empire Center.

An alternative improvement was investigated at Buena Vista Street & Empire Avenue. The alternative improvement would only require the addition of one left turn lane in the westbound approach (for a total of three left turn lanes, one through lane, and one through-right lane) and three southbound receiving lanes (already completed). The alternative mitigation would also be effective in fully mitigating the project's significant impact at Buena Vista Street & Empire Avenue during the PM peak hour. As the intersection will operate at LOS D after mitigation, this meets the City's threshold of LOS D or better.

However, neither the proposed MM 7.6 nor the alternative mitigation can be accommodated within existing right-of-way and would require dedication of right-of-way from the adjacent properties, which is incompatible with *Burbank* General Plan Mobility Element Policy 1.2 and 3.4 related to avoiding right-of-way acquisition for street widening purposes. A policy-based screening (Table 5) was conducted to identify where physical mitigations conflicted with the goals and policies identified in *Burbank2035*. The policy-based screening analysis relied on four overarching city policies that support *Burbank2035*: a) any transportation improvement should be achievable with the existing right-of-way, b) should be in conformity with the existing scale and design of the location they serve, c) allow for complete streets, and d) maintain pedestrian opportunities.

Both MM 7.6 and the alternative improvement would require dedication of right-of-way from the adjacent properties and not be consistent with the intersection scale and design template identified in the *Burbank2035* FEIR. The alternative mitigation would preclude the ability to widen sidewalks in the future and therefore would conflict with the City's policy of maintaining



pedestrian opportunities. Therefore, the mitigation measures are infeasible and the PM peak hour impact at the Buena Vista Street & Empire Avenue would remain significant and unavoidable under 2035 conditions with full occupancy and buildout of the Empire Center. The intersection LOS would also continue to exceed the City's threshold of LOS D.

Because neither MM 7.6 nor the alternate improvement could be accommodated within existing right of way, a third measure was tested that involved applying an additional three percent CSCS capacity credit to this intersection to represent additional traffic signal timing measures that could be applied to the intersection and surrounding corridor (bringing the total CSCS credit to five percent). This additional CSCS credit is consistent with the improvements assumed as part of the Burbank2035 General Plan. When this capacity credit was applied, the project's impact is reduced to less than significant during the PM peak hour however, the intersection LOS would continue to exceed the City's threshold of LOS D.

The total five percent CSCS credit assumes that traffic signal system improvements are made through the City of Burbank's signal system, and that streets and corridors throughout the city are optimized between now and 2035. While this is an appropriate assumption for a program-level environmental analysis, it was not considered feasible for this project-level analysis, as the exact timeframe for implementation of these citywide signal improvements is not known. Therefore, because no physical mitigations are feasible, a significant impact would remain at this intersection with full occupancy and buildout of the Empire Center. The intersection LOS would also continue to exceed the City's threshold of LOS D.

### **Mitigation Measures for Buena Vista Street & Victory Boulevard**

No significant impact was found at Buena Vista Street & Victory Boulevard under current or 2035 conditions. However, the intersection would operate at LOS E, which exceeds the City's LOS D threshold in the future. Additional traffic analysis was conducted to evaluate the effectiveness of the widening improvement MM 7.2 identified in the original Empire Center FEIR. MM 7.2 would add double left turn lanes in the eastbound and southbound directions, while maintaining two through lanes and a right turn lane on each of these approaches.

If MM 7.2 was fully implemented at Buena Vista Street and Victory Boulevard, the intersection LOS is forecast to change from LOS E to LOS D in the PM peak hour (Table 4). This would meet the City of Burbank's threshold of LOS D. A policy-based screening (Table 5) was conducted to identify if MM 7.2 would conflict with the goals and policies identified in *Burbank2035*. It was



determined that MM 7.2 would require dedication of right-of-way from the adjacent properties, which is incompatible with *Burbank2035* General Plan Mobility Element Policy 1.2 and 3.4. Therefore, the proposed MM 7.2 is infeasible.

An alternative improvement was investigated at Buena Vista Street & Victory Boulevard. The alternative improvement would restripe the westbound approach to add one left turn lane (for a total of two left turn lanes, two through lanes, and one exclusive right turn lane). The alternative mitigation is forecast to change from LOS E to LOS D in the PM peak hour under future 2035 conditions. This would meet the City of Burbank's threshold of LOS D. A policy-based screening was conducted to identify if this alternative mitigation would conflict with the goals and policies identified in *Burbank2035*. It was determined that it would not.

A third measure was tested that involved applying an additional three percent CSCS capacity credit to this intersection to represent additional traffic signal timing measures that could be applied to the intersection and surrounding corridor (bringing the total CSCS credit to five percent). This additional CSCS credit is consistent with the improvements assumed as part of the *Burbank2035* General Plan. When this capacity credit was applied, the LOS changes from LOS E to LOS D in the PM peak hour and the intersection operates within the City of Burbank's threshold of LOS D. However, the timing for the full implementation of these CSCS measures is not known because they involve installation and improvement of traffic signal infrastructure citywide to achieve the full three percent credit. Therefore, this third mitigation measure is not considered to be feasible due to the uncertainty of the timing of the necessary citywide signal improvements.

Of the three mitigations tested at this intersection, only the second does not conflict with the goals and policies of *Burbank2035*, results in intersection operations that meet the City's threshold of LOS D or better, and is considered feasible to implement.

## ATTACHMENTS

Attachment A contains the LOS worksheets for the mitigation analysis and Attachment B contains the existing AM and PM peak hour intersection counts for the two study intersections.

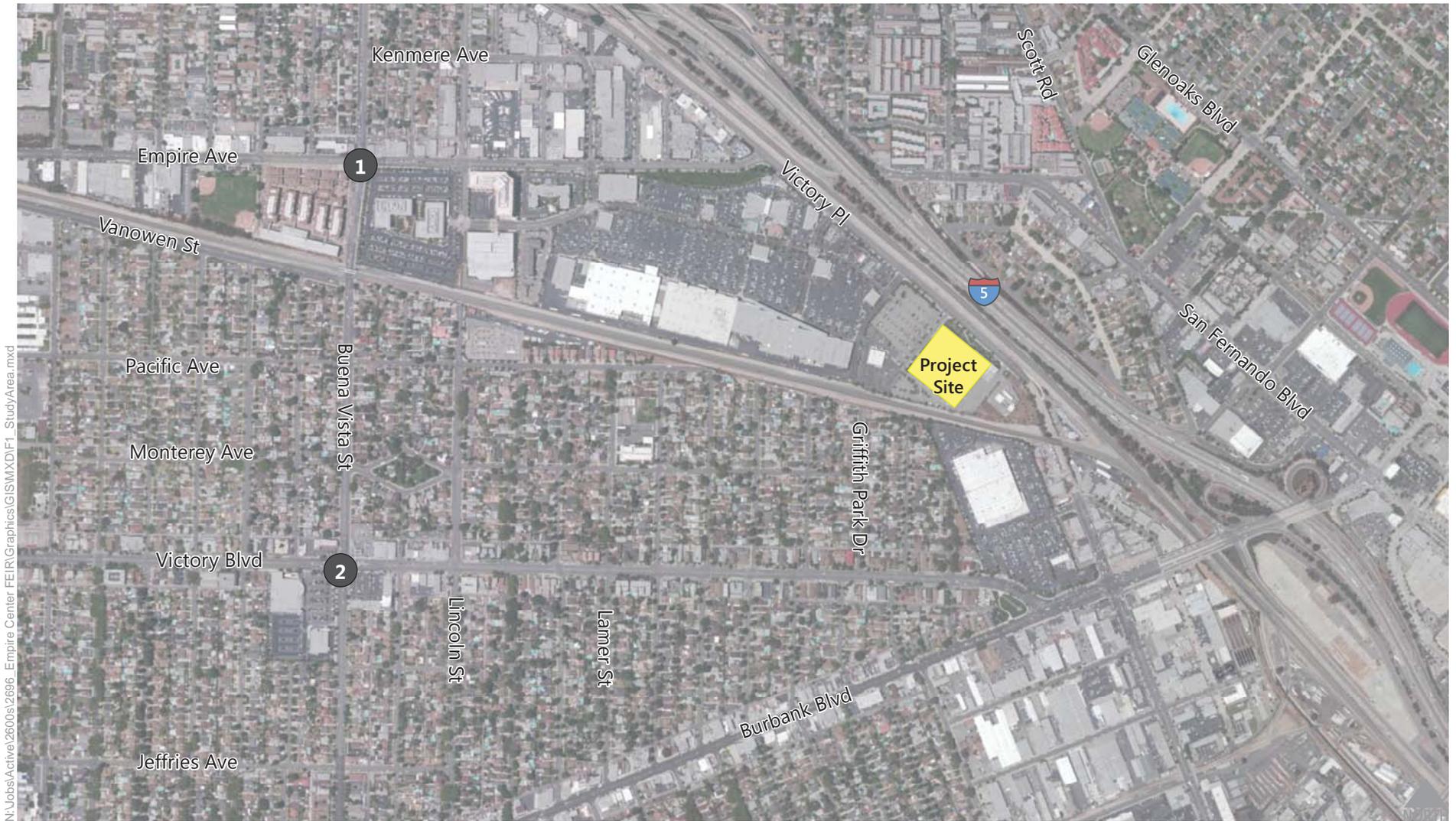
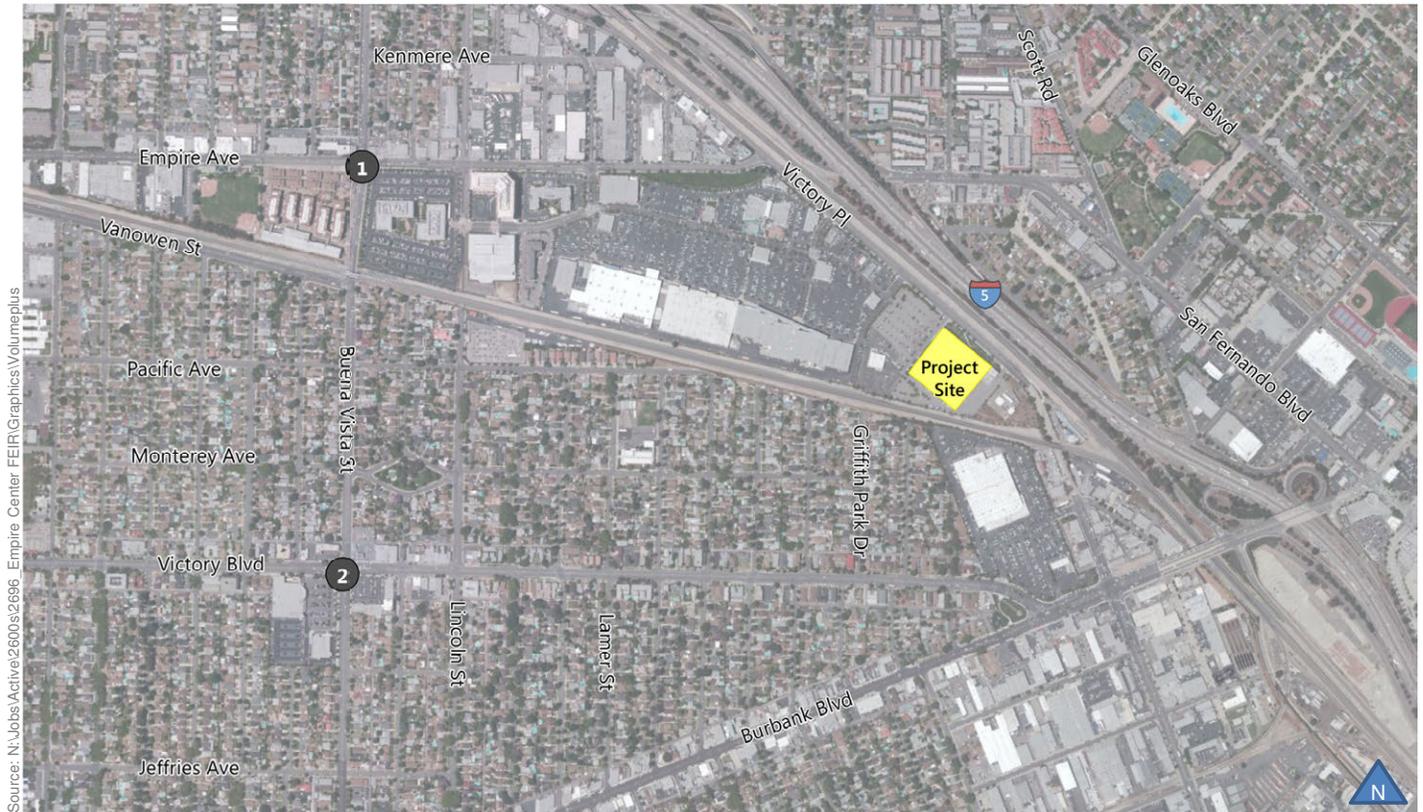


Figure 1  
Study Area and Analyzed Intersections



Source: N:\Jobs\Active\2600s\2696\_Empire\_Center\_FEIR\Graphics\Volumeplus

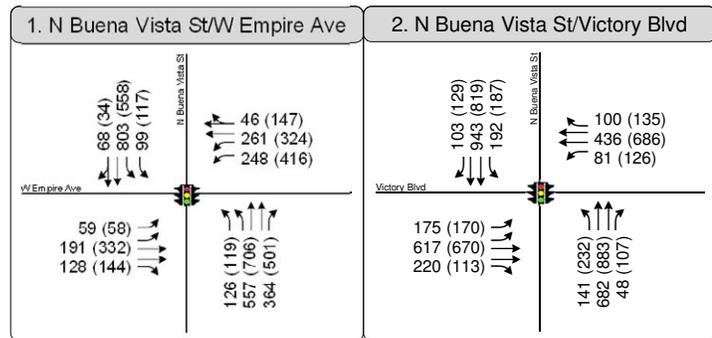


Figure 2A  
 Peak Hour Traffic Volumes  
 and Lane Configurations -  
 Existing (Year 2014) without Walmart



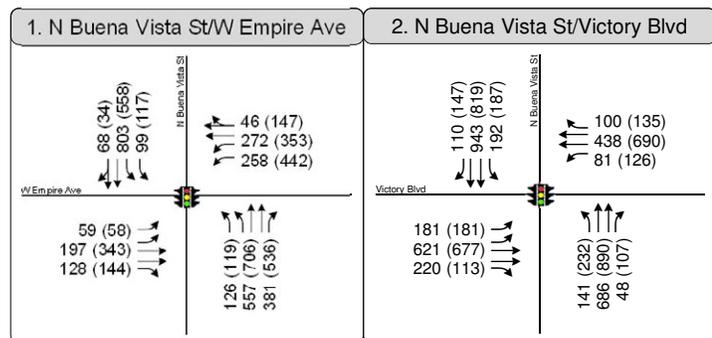
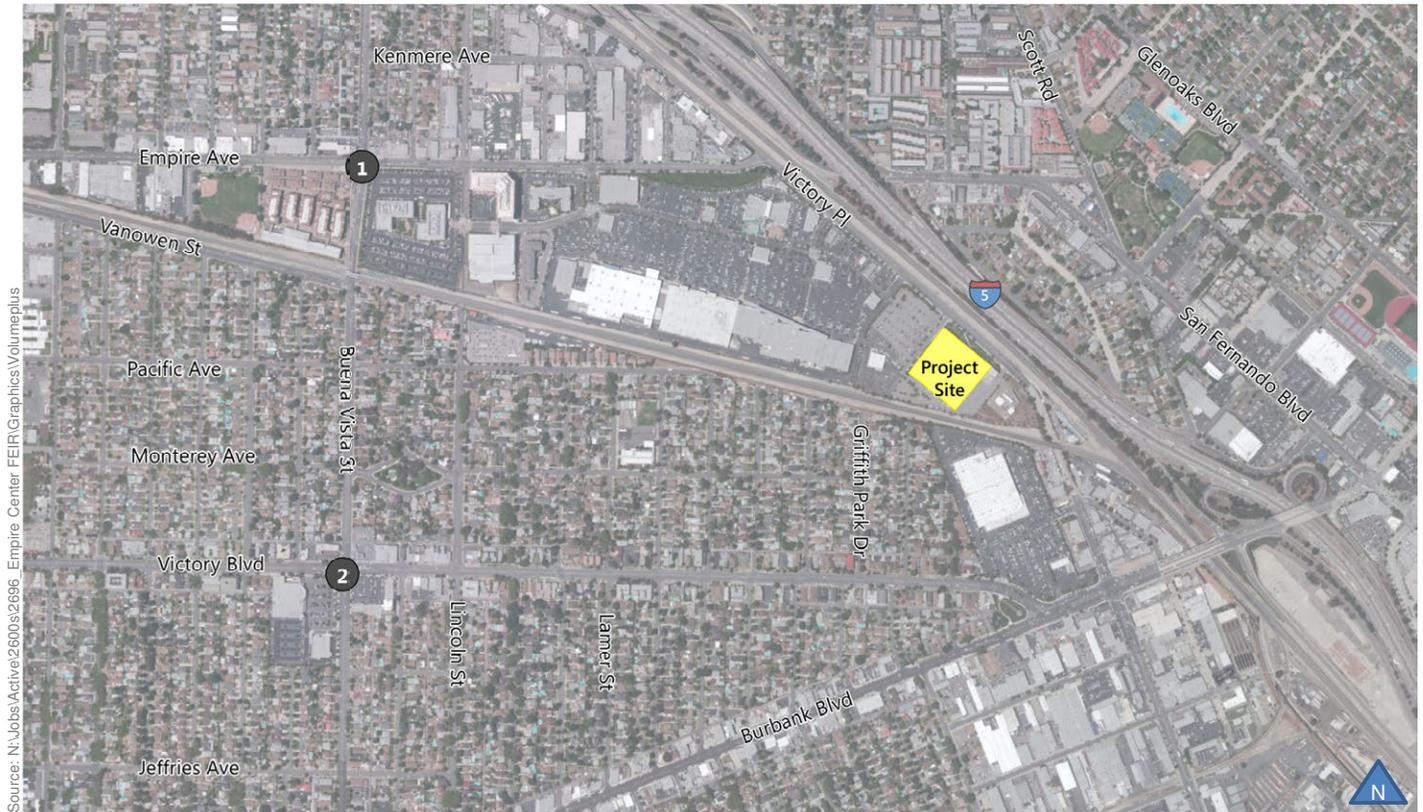
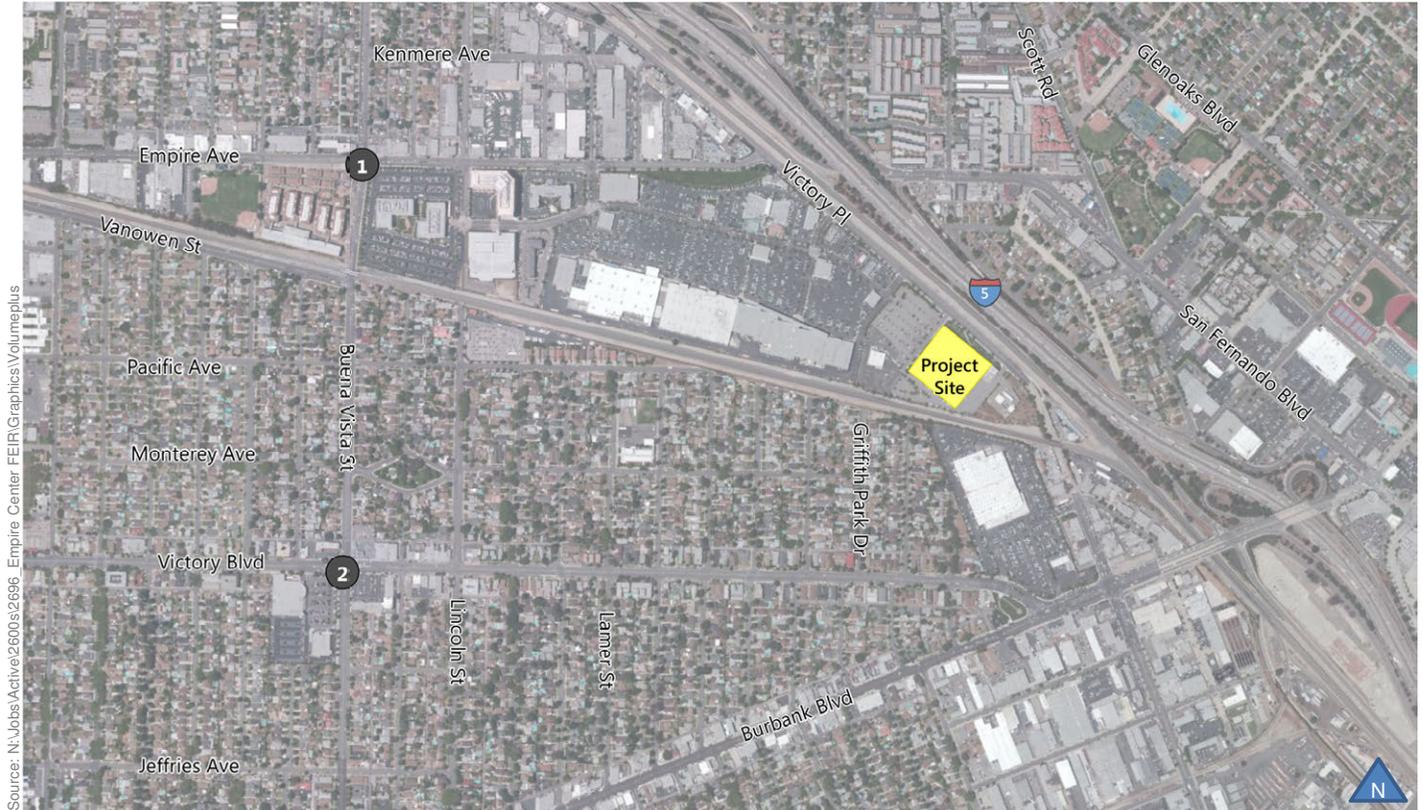


Figure 2B  
 Peak Hour Traffic Volumes  
 and Lane Configurations -  
 Existing (Year 2014) with Walmart





Source: N:\Jobs\Active\2600s\2696\_Empire\_Center\_FEIR\Graphics\Volumeplus

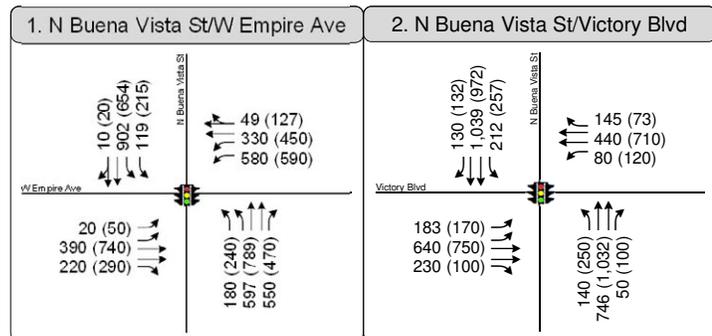


Figure 2C  
Peak Hour Traffic Volumes  
and Lane Configurations -  
Future (Year 2035) without Full Occupancy and Buildout of Empire Center



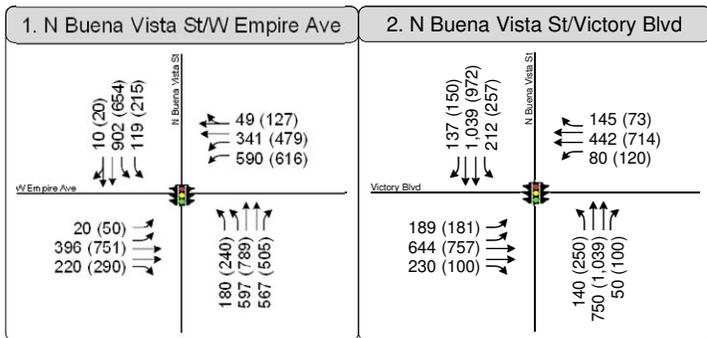
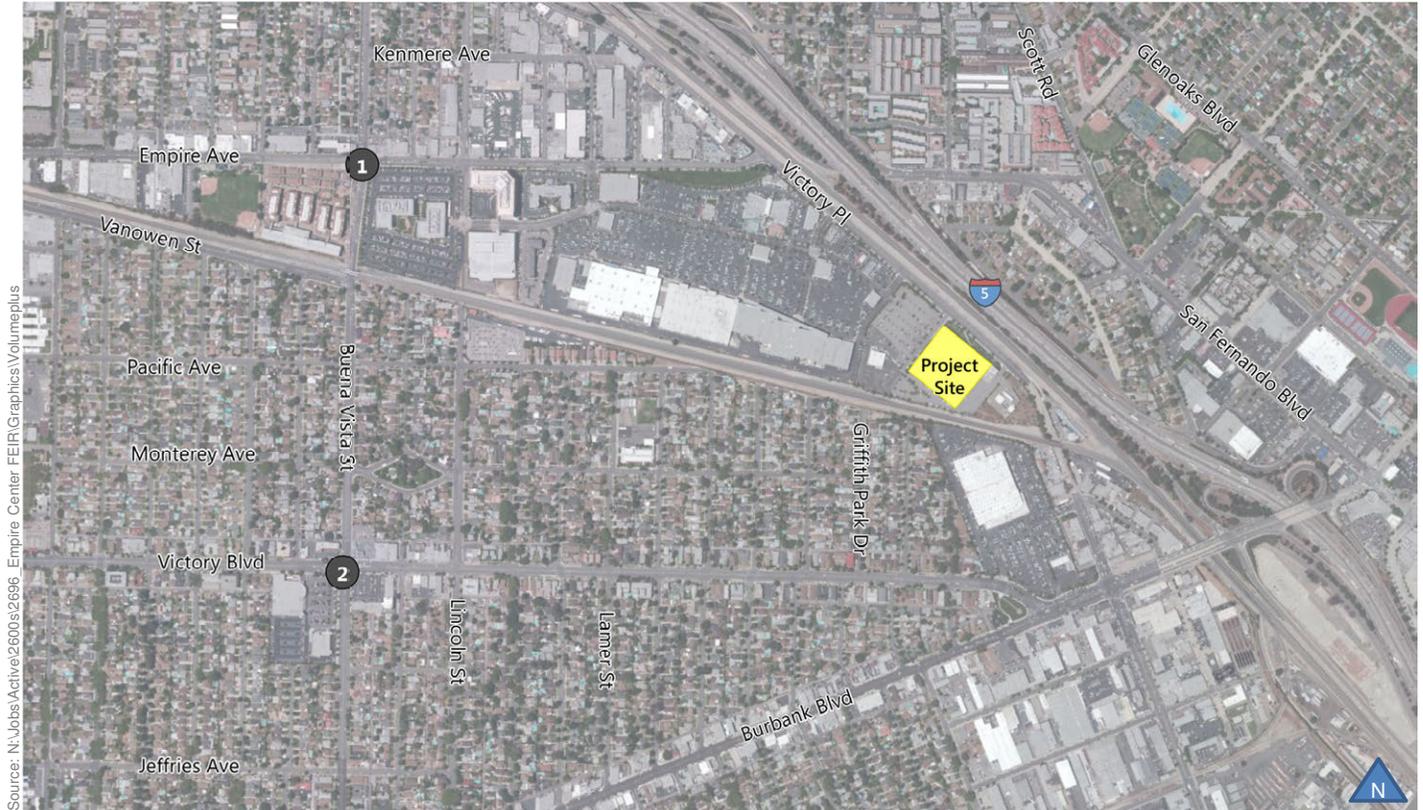


Figure 2D  
 Peak Hour Traffic Volumes  
 and Lane Configurations -  
 Future (Year 2035) with Full Occupancy and Buildout of Empire Center



**TABLE 2  
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS**

<b>Level of Service</b>	<b>Volume-to-Capacity Ratio</b>	<b>Definition</b>
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity.*  
Transportation Research Board, 1980.

**TABLE 3  
EXISTING (2014) PLUS PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS**

No.	Intersection	Peak Hour	Existing (2014)		Existing (2014) plus Walmart [a]		Increase in V/C	Significant Impact?
			V/C	LOS	V/C	LOS		
1.	Buena Vista Street & Empire Avenue	A.M.	0.586	A	0.590	A	0.004	No
		P.M.	0.607	A	0.622	B	0.015	No
2.	Buena Vista Street & Victory Boulevard	A.M.	0.805	D	0.807	D	0.002	No
		P.M.	0.801	C	0.804	D	0.003	No

Note:

[a] To be consistent with the Burbank General Plan EIR, a capacity credit of 2% was assumed in the intersection analysis to account for the benefit of the Citywide Signal Controller System (CSCS).

**TABLE 4  
FUTURE (2035) PLUS PROJECT CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS**

No.	Intersection	Peak Hour	Future 2035 [a][b]		Future 2035 with Empire Center Buildout [a][b]		Change in V/C	Significant Impact?	Exceeds LOS D?	Future 2035 with Empire Center Buildout plus Mitigation Measures 7.6 and 7.2 [a][b][c][d]		Change in V/C	Residual Impact?	Exceeds LOS D?	Future 2035 with Empire Center Buildout plus alternative mitigations [a][b][e][f]		Change in V/C	Residual Impact?	Exceeds LOS D?	Future 2035 with Empire Center Buildout plus additional 3% CSCS capacity credit [a][b][g]		Change in V/C	Residual Impact?	Exceeds LOS D?
			V/C	LOS	V/C	LOS				V/C	LOS				V/C	LOS				V/C	LOS			
			1.	Buena Vista Street & Empire Avenue	A.M. P.M.	0.899 0.923				D E	0.904 0.939				E E	0.005 0.016				No Yes	Yes Yes			
2.	Buena Vista Street & Victory Boulevard	A.M. P.M.	0.852 0.922	D E	0.853 0.927	D E	0.001 0.005	No No	No Yes	0.853 0.897	D D	0.001 -0.025	No No	No No	0.824 0.896	D D	-0.028 -0.026	No No	No No	0.829 0.900	D D	-0.023 -0.022	No No	No No

Notes:

[a] To be consistent with the Burbank General Plan EIR, a capacity credit of 2% was assumed in the intersection analysis to account for the benefit of the Citywide Signal Controller System (CSCS). For future (2035) without Walmart conditions, it is assumed that the adjacent Bob Hope Airport Terminal remains in its current location and adjacent parcels to the north are fully developed.

[b] Additional traffic capacity adjustment was applied to Buena Vista Street & Empire Avenue intersection to account for the influence of the at-grade rail crossing on Buena Vista Street south of Empire Avenue in year 2035 conditions. The capacity reduction was estimated to be approximately 8% and was calculated based on the anticipated corridor traffic growth, the increase in train frequency at this rail crossing per 2013 California State Rail Plan and the typical train preemption time.

[c] Mitigation Measure 7.6 for Buena Vista Street & Empire Avenue: Provide three left-turn lanes on the westbound approach (and three southbound departure lanes), and two left-turn lanes on all other approaches, and an exclusive right-turn lane on all approaches.

[d] Mitigation Measure 7.2 for Buena Vista Street & Victory Boulevard: Provide two left-turn lanes on the eastbound and southbound approaches.

[e] Alternative mitigation for Buena Vista Street & Empire Avenue: The alternative improvement would only require the addition of one left turn lane in the westbound approach (for a total of three left turn lanes, one through lane, and one through-right lane) and three southbound receiving lanes (already completed).

[f] Alternative mitigation for Buena Vista Street & Victory Boulevard: The alternative improvement would restripe an additional left turn lane in the westbound approach (for a total of two left turn lanes, two through lanes, and one exclusive right turn lane).

[g] An additional 3% CSCS capacity credit was added to represent additional traffic signal timing measures that could be applied along the corridor (bringing the total CSCS credit to 5%).

**TABLE 5  
PROPOSED PROJECT INTERSECTION MITIGATION  
BURBANK2035 POLICY-BASED SCREENING ANALYSIS**

No.	Intersection	Peak Hour	Future 2035 [a][b]		Future 2035 with Empire Center Buildout [a][b]		Change in V/C	Significant Impact?	Screening Analysis for Mitigation Measures 7.2 and 7.6 Physical Mitigation Conflicts with General Plan Policies [a][b][c][d]				Conflicts with ROW or 2 Policies	Screening Analysis for Alternative Mitigations Physical Mitigation Conflicts with General Plan Policies [a][b][e][f]				Conflicts with ROW or 2 Policies
			V/C	LOS	V/C	LOS			ROW [g]	Scale & Design [h]	Complete Street [i]	Pedestrian [j]		ROW [g]	Scale & Design [h]	Complete Street [i]	Pedestrian [j]	
1.	Buena Vista Street & Empire Avenue	A.M. P.M.	0.899 0.923	D E	0.904 0.939	E E	0.005 0.016	No Yes	Yes Yes	Yes Yes	No No	Yes Yes	Yes Yes	Yes Yes	Yes Yes	No No	Yes Yes	Yes Yes
2.	Buena Vista Street & Victory Boulevard	A.M. P.M.	0.852 0.922	D E	0.853 0.927	D E	0.001 0.005	No No	Yes Yes	No No	No No	Yes Yes	Yes Yes	No No	No No	No No	No No	No No

Notes:

- [a] To be consistent with the Burbank General Plan EIR, a capacity credit of 2% was assumed in the intersection analysis to account for the benefit of the Citywide Signal Controller System (CSCS). For future (2035) without Walmart conditions, it is assumed that the adjacent Bob Hope Airport Terminal remains in its current location and adjacent parcels to the north are fully developed.
- [b] Additional traffic capacity adjustment was applied to Buena Vista Street & Empire Avenue intersection to account for the influence of the at-grade rail crossing on Buena Vista Street south of Empire Avenue in year 2035 conditions. The capacity reduction was estimated to be approximately 8% and was calculated based on the anticipated corridor traffic growth, the increase in train frequency at this rail crossing per 2013 California State Rail Plan and the typical train preemption time.
- [c] Mitigation Measure 7.6 for Buena Vista Street & Empire Avenue: Provide three left-turn lanes on the westbound approach (and three southbound departure lanes), and two left-turn lanes on all other approaches, and an exclusive right-turn lane on all approaches.
- [d] Mitigation Measure 7.2 for Buena Vista Street & Victory Boulevard: Provide two left-turn lanes on the eastbound and southbound approaches.
- [e] Alternative mitigation for Buena Vista Street & Empire Avenue: The alternative improvement would only require the addition of one left turn lane in the westbound approach (for a total of three left turn lanes, one through lane, and one through-right lane) and three southbound receiving lanes (already completed).
- [f] Alternative mitigation for Buena Vista Street & Victory Boulevard: The alternative improvement would restripe an additional left turn lane in the westbound approach (for a total of two left turn lanes, two through lanes, and one exclusive right turn lane).

- Burbank2035 provides the City with a framework to determine if intersection improvements are infeasible due to right-of-way constraints or conflict with community values.
- [g] Right-of-Way (ROW) needs: A policy conflict is triggered if any ROW acquisition is needed to implement the proposed mitigation, assuming lane width minimums and 6' sidewalks.
  - Mobility Element (Policy 1.2): Recognize that Burbank is a built-out city and wholesale changes to street ROW are infeasible; and
  - Mobility Element (Policy 3.4): All street improvements should be implemented within the existing ROW. Consider street widening and ROW acquisition as a method of last resort.
- [h] Scale & Design: A policy conflict is triggered if the scale and design goes beyond the Maximum Acceptable Mitigations 'template' identified in the Burbank2035 FEIR, or if the mitigation needed increases the existing travel-way width (measured from curb-to-curb) along a "residential/mixed use" area.
  - Mobility Element (Policy 1.5): Design transportation improvements to be compatible with the scale and design of existing infrastructure.
- [i] Complete Streets: A conflict is triggered if the mitigation increases the travel-way width along the intersection so as to narrow existing sidewalks, decrease bike lanes widths, or greatly disturb transit/bus stop locations.
  - Mobility Element (Policy 3.2): Complete city street by providing facilities for all transportation modes; and
  - Land Use Element (Policy 4.1): Maintain complete streets that create functional place meeting the needs of pedestrians, bicyclists, wheelchair users, equestrian, and motorists.
- [j] Pedestrian Opportunities: A conflict is triggered if the proposed mitigation requires sidewalks to go below the minimum sidewalk width standards specified in Table M-2 of the Mobility Element.
  - Mobility Element (Policy 3.3): Provide attractive, safe street designs that improve transit, bicycle, pedestrian, and equestrian connections between homes and other destinations; and
  - Mobility Element (Policy 5.5): Require new development to provide land necessary to accommodate pedestrian infrastructure, including sidewalks at the standard widths specified in Table M-2; and
  - Land Use Element (Policy 4.5): Require pedestrian-oriented areas to include amenities such as sidewalks of adequate width, benches, street trees/landscaping, decorative paving, art, kiosks, and restrooms.

**ATTACHMENT A**  
**INTERSECTION ANALYSIS WORKSHEETS**

**EXISTING (YEAR 2014) NO PROJECT**

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

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Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: A

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Buena Vista St and Empire Ave with North, South, East, and West bounds.

Volume Module:

Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module:

Table showing saturation flow data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis data including Vol/Sat, Crit Volume, and Crit Moves.

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec):           100                           Critical Vol./Cap.(X):           0.805  
 Loss Time (sec):       0                           Average Delay (sec/veh):       xxxxxx  
 Optimal Cycle:         117                        Level Of Service:               D

\*\*\*\*\*

Street Name:	Buena Vista St						Victory Blvd								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Prot+Permit			Prot+Permit			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	0	1	1	0	2	0	1	2	0	2	0	1

Volume Module:

Base Vol:	141	682	48	192	943	103	175	617	220	81	436	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	141	682	48	192	943	103	175	617	220	81	436	100
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	682	48	192	943	103	175	617	220	81	436	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	159	769	54	216	1063	116	197	696	248	91	492	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	769	54	216	1063	116	197	696	248	91	492	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	769	54	216	1063	116	217	696	248	91	492	113

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.11	0.27	0.04	0.15	0.38	0.08	0.08	0.25	0.18	0.07	0.18	0.08
Crit Volume:	159			532			348			91		
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

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Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.607
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: B

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Empire Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

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Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

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Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.801
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

**EXISTING (YEAR 2014) WITH PROJECT**

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #17 Buena Vista St & Empire Ave  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.590  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 56 Level Of Service: A  
 \*\*\*\*\*

Street Name:	Buena Vista St						Empire Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	2	0

Volume Module:

Base Vol:	126	557	381	99	803	68	59	197	128	258	272	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	557	381	99	803	68	59	197	128	258	272	46
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	557	381	99	803	68	59	197	128	258	272	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	135	595	407	106	858	73	63	210	137	276	291	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	595	407	106	858	73	63	210	137	276	291	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00
FinalVolume:	148	595	407	116	858	73	69	210	137	303	291	49

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	2.00	2.00	1.00	2.00	1.84	0.16	2.00	2.00	1.00	2.00	1.71	0.29
Final Sat.:	2805	2805	1403	2805	2586	219	2805	2805	1403	2805	2399	406

Capacity Analysis Module:

Vol/Sat:	0.05	0.21	0.29	0.04	0.33	0.33	0.02	0.08	0.10	0.11	0.12	0.12
Crit Volume:	74						465			137 152		
Crit Moves:	****						****			**** ****		

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 -----  
 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
 \*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.807  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 118 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Buena Vista St						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	141	686	48	192	943	110	181	621	220	81	438	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	141	686	48	192	943	110	181	621	220	81	438	100
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	686	48	192	943	110	181	621	220	81	438	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	159	773	54	216	1063	124	204	700	248	91	494	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	773	54	216	1063	124	204	700	248	91	494	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	773	54	216	1063	124	224	700	248	91	494	113

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.11	0.28	0.04	0.15	0.38	0.09	0.08	0.25	0.18	0.07	0.18	0.08
Crit Volume:	159			532			350			91		
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #17 Buena Vista St & Empire Ave  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.622  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 60 Level Of Service: B  
 \*\*\*\*\*

Street Name:	Buena Vista St						Empire Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	2	0

Volume Module:

Base Vol:	119	706	536	117	558	34	58	343	144	442	353	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	706	536	117	558	34	58	343	144	442	353	147
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	119	706	536	117	558	34	58	343	144	442	353	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	125	740	562	123	585	36	61	360	151	463	370	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	125	740	562	123	585	36	61	360	151	463	370	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00
FinalVolume:	137	740	562	135	585	36	67	360	151	510	370	154

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	2.00	2.00	1.00	2.00	1.89	0.11	2.00	2.00	1.00	2.00	1.41	0.59
Final Sat.:	2805	2805	1403	2805	2644	161	2805	2805	1403	2805	1980	825

Capacity Analysis Module:

Vol/Sat:	0.05	0.26	0.40	0.05	0.22	0.22	0.02	0.13	0.11	0.18	0.19	0.19
Crit Volume:	370			67			180			255		
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #19 Buena Vista St & Victory Blvd  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.804  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 116 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Buena Vista St						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	232	890	107	187	819	147	181	677	113	126	690	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	232	890	107	187	819	147	181	677	113	126	690	135
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	232	890	107	187	819	147	181	677	113	126	690	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	236	907	109	191	835	150	185	690	115	128	703	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	907	109	191	835	150	185	690	115	128	703	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	236	907	109	191	835	150	203	690	115	128	703	138

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.17	0.32	0.08	0.14	0.30	0.11	0.07	0.25	0.08	0.09	0.25	0.10
Crit Volume:	236			417			345			128		
Crit Moves:	****			****			****			****		

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**FUTURE (YEAR 2035) NO PROJECT**

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #17 Buena Vista St & Empire Ave  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.899  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: D  
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Street Name:	Buena Vista St						Empire Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	2	0

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Volume Module:

Base Vol:	180	597	550	119	902	10	20	390	220	580	330	49
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	180	597	550	119	902	10	20	390	220	580	330	49
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	597	550	119	902	10	20	390	220	580	330	49
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	192	638	588	127	964	11	21	417	235	620	353	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	638	588	127	964	11	21	417	235	620	353	52
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00
FinalVolume:	212	638	588	140	964	11	24	417	235	682	353	52

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Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	0.94	1.02	1.02	1.02	0.94	0.94	1.02	1.02
Lanes:	2.00	2.00	1.00	2.00	1.98	0.02	2.00	2.00	1.00	2.00	1.74	0.26
Final Sat.:	2805	2805	1403	2805	2552	31	2805	2805	1290	2581	2442	363

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Capacity Analysis Module:

Vol/Sat:	0.08	0.23	0.42	0.05	0.38	0.35	0.01	0.15	0.18	0.26	0.14	0.14
Crit Volume:	106			487			235			341		
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #19 Buena Vista St & Victory Blvd  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.852  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 154 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Buena Vista St						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	140	746	50	212	1039	130	183	640	230	80	440	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	746	50	212	1039	130	183	640	230	80	440	145
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	746	50	212	1039	130	183	640	230	80	440	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	158	841	56	239	1171	147	206	722	259	90	496	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	841	56	239	1171	147	206	722	259	90	496	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	841	56	239	1171	147	227	722	259	90	496	163

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.11	0.30	0.04	0.17	0.42	0.10	0.08	0.26	0.18	0.06	0.18	0.12
Crit Volume:	158			586			361			90		
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #17 Buena Vista St & Empire Ave  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.923  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: E  
 \*\*\*\*\*

Street Name:	Buena Vista St						Empire Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	1	1	0	2	0	1	2	0

Volume Module:

Base Vol:	240	789	470	215	654	20	50	740	290	590	450	127
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	789	470	215	654	20	50	740	290	590	450	127
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	240	789	470	215	654	20	50	740	290	590	450	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	252	827	493	225	686	21	52	776	304	618	472	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	252	827	493	225	686	21	52	776	304	618	472	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.10	1.00	1.00
FinalVolume:	277	827	493	248	686	21	58	776	304	680	472	133

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	0.94	1.02	1.02	1.02	0.94	0.94	1.02	1.02
Lanes:	2.00	2.00	1.00	2.00	1.94	0.06	2.00	2.00	1.00	2.00	1.56	0.44
Final Sat.:	2805	2805	1403	2805	2504	83	2805	2805	1290	2581	2188	617

Capacity Analysis Module:

Vol/Sat:	0.10	0.29	0.35	0.09	0.27	0.25	0.02	0.28	0.24	0.26	0.22	0.22
Crit Volume:	414			124			388			340		
Crit Moves:	****			****			****			****		

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #19 Buena Vista St & Victory Blvd  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.922  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: E  
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Street Name:	Buena Vista St						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	250	1032	100	257	972	132	170	750	100	120	710	73
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	250	1032	100	257	972	132	170	750	100	120	710	73
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	1032	100	257	972	132	170	750	100	120	710	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	255	1052	102	262	991	135	173	765	102	122	724	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	1052	102	262	991	135	173	765	102	122	724	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	255	1052	102	262	991	135	191	765	102	122	724	74

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.18	0.38	0.07	0.19	0.35	0.10	0.07	0.27	0.07	0.09	0.26	0.05
Crit Volume:	526			262			382			122		
Crit Moves:	****			****			****			****		

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**FUTURE (YEAR 2035) WITH PROJECT**

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

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Intersection #17 Buena Vista St & Empire Ave

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.904
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

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Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Buena Vista St and Empire Ave with North, South, East, and West bounds.

Volume Module:

Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:

Table showing saturation flow data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis data including Vol/Sat, Crit Volume, and Crit Moves.

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 Level Of Service Computation Report  
 Circular 212 Planning Method (Future Volume Alternative)  
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Intersection #19 Buena Vista St & Victory Blvd  
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Cycle (sec): 100 Critical Vol./Cap.(X): 0.853  
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 155 Level Of Service: D  
 \*\*\*\*\*

Street Name:	Buena Vista St						Victory Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	2	0	2	0	1	1

Volume Module:

Base Vol:	140	750	50	212	1039	137	189	644	230	80	442	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	750	50	212	1039	137	189	644	230	80	442	145
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	750	50	212	1039	137	189	644	230	80	442	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	158	846	56	239	1171	154	213	726	259	90	498	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	846	56	239	1171	154	213	726	259	90	498	163
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	846	56	239	1171	154	234	726	259	90	498	163

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1403	2805	1403	1403	2805	1403	2805	2805	1403	1403	2805	1403

Capacity Analysis Module:

Vol/Sat:	0.11	0.30	0.04	0.17	0.42	0.11	0.08	0.26	0.18	0.06	0.18	0.12
Crit Volume:	158			586			363			90		
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.939
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Buena Vista St and Empire Ave with North, South, East, and West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.927
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

**FUTURE (YEAR 2035) WITH PROJECT  
WITH MITIGATION MEASURES 7.2 AND 7.6**

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.810
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 120 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Buena Vista St and Empire Ave with North, South, East, and West bounds.

Volume Module:

Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:

Table showing saturation flow data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table showing capacity analysis data including Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.853
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 155 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.847
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 149 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows include Buena Vista St and Empire Ave with North, South, East, and West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.897
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, and Lanes. Rows include Buena Vista St and Victory Blvd with North, South, East, and West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, and Crit Moves.

\*\*\*\*\*

**FUTURE (YEAR 2035) WITH PROJECT  
WITH ALTERNATIVE MITIGATION MEASURES**

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.814
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 123 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Empire Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various traffic metrics like Min. Green, Y+R, Lanes.

Volume Module: Table showing traffic volume metrics such as Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different approaches.

Saturation Flow Module: Table showing saturation flow metrics like Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module: Table showing capacity analysis metrics such as Vol/Sat, Crit Volume, and Crit Moves for each approach.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 130 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.847
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 149 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Empire Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various traffic metrics like Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.896
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

**FUTURE (YEAR 2035) WITH PROJECT  
WITH ADDITIONAL 3% CSCS CAPACITY CREDIT**

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Empire Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various traffic metrics like Min. Green, Y+R, Lanes.

Volume Module table with columns for various traffic metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.829
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 133 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #17 Buena Vista St & Empire Ave

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.912
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Empire Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl, Include), and various traffic metrics like Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #19 Buena Vista St & Victory Blvd

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name (Buena Vista St, Victory Blvd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Volume, Crit Moves.

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**ATTACHMENT B  
TRAFFIC COUNT DATA**

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: 14-5062-019

Day: Tuesday

City: Burbank

Date: 2/11/2014

AM

NS/EW Streets:	Buena Vista St			Buena Vista St			Empire Ave			Empire Ave			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	2	0	2	2	1	2	2	0	
7:00 AM	13	79	46	9	128	13	7	23	12	25	29	4	388
7:15 AM	7	84	59	11	163	12	8	40	13	31	39	7	474
7:30 AM	8	111	72	19	205	19	12	60	15	52	49	10	632
7:45 AM	21	155	91	20	199	21	16	48	28	72	62	7	740
8:00 AM	19	161	113	29	199	19	21	47	32	63	70	7	780
8:15 AM	30	145	84	23	207	11	11	51	40	51	53	12	718
8:30 AM	28	96	76	27	198	17	11	45	25	62	76	20	681
8:45 AM	21	105	90	32	227	21	14	50	23	63	59	11	716
9:00 AM	12	76	82	23	173	22	15	53	24	63	81	18	642
9:15 AM	27	120	96	16	158	22	9	32	17	53	47	9	606
9:30 AM	14	89	105	22	160	12	17	56	27	56	52	9	619
9:45 AM	17	101	91	19	140	10	10	46	15	67	46	16	578
<b>TOTAL VOLUMES :</b>	217	1322	1005	250	2157	199	151	551	271	658	663	130	7574
<b>APPROACH %'s :</b>	8.53%	51.97%	39.50%	9.59%	82.77%	7.64%	15.52%	56.63%	27.85%	45.35%	45.69%	8.96%	
<b>PEAK HR START TIME :</b>	745 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	98	557	364	99	803	68	59	191	125	248	261	46	2919
<b>PEAK HR FACTOR :</b>	0.869			0.982			0.919			0.878			0.936

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: 14-5062-019

Day: Tuesday

City: Burbank

Date: 2/11/2014

PM

NS/EW Streets:	Buena Vista St			Buena Vista St			Empire Ave			Empire Ave			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	1	2	2	0	2	2	1	2	2	0	
4:00 PM	18	186	128	32	161	14	13	58	37	101	65	35	848
4:15 PM	20	119	101	25	120	10	9	69	22	110	79	35	719
4:30 PM	24	174	119	21	141	12	28	85	23	87	82	35	831
4:45 PM	18	158	113	23	120	15	14	87	26	94	77	26	771
5:00 PM	30	219	111	26	134	12	23	93	33	93	73	39	886
5:15 PM	22	175	128	31	157	7	10	75	34	101	75	29	844
5:30 PM	26	204	132	32	150	10	14	95	22	92	79	32	888
5:45 PM	20	144	110	20	141	6	14	75	12	107	83	34	766
6:00 PM	20	192	134	37	145	12	17	71	33	104	74	42	881
6:15 PM	28	166	125	28	122	6	13	91	35	113	88	39	854
6:30 PM	20	177	106	21	119	17	20	71	18	95	79	36	779
6:45 PM	28	151	94	20	103	11	11	58	26	101	88	38	729
<b>TOTAL VOLUMES :</b>	274	2065	1401	316	1613	132	186	928	321	1198	942	420	9796
<b>APPROACH %'s :</b>	7.33%	55.21%	37.46%	15.33%	78.26%	6.40%	12.96%	64.67%	22.37%	46.80%	36.80%	16.41%	
<b>PEAK HR START TIME :</b>	530 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	94	706	501	117	558	34	58	332	102	416	324	147	3389
<b>PEAK HR FACTOR :</b>	0.898			0.914			0.885			0.924			0.954

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: 14-5062-020

Day: Thursday

City: Burbank

Date: 2/6/2014

AM

NS/EW Streets:	Buena Vista St			Buena Vista St			Victory Blvd			Victory Blvd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 1	WL 1	WT 2	WR 1	
7:00 AM	30	89	2	27	130	13	14	70	30	6	66	14	491
7:15 AM	16	77	3	23	170	17	17	108	41	8	85	12	577
7:30 AM	31	111	11	54	222	34	32	127	72	17	122	24	857
7:45 AM	46	171	9	57	217	41	54	198	66	22	139	33	1053
8:00 AM	37	193	18	51	245	19	46	139	36	17	119	28	948
8:15 AM	27	166	11	39	231	18	49	149	60	24	78	23	875
8:30 AM	31	152	10	45	250	25	26	131	58	18	100	16	862
8:45 AM	31	144	9	46	254	14	46	145	55	26	76	33	879
9:00 AM	24	140	11	33	186	15	43	126	53	14	99	14	758
9:15 AM	25	128	6	28	163	9	38	119	37	11	92	19	675
9:30 AM	21	136	11	36	181	17	24	133	37	18	78	15	707
9:45 AM	27	155	11	29	197	11	31	132	28	21	74	20	736
<b>TOTAL VOLUMES :</b>	346	1662	112	468	2446	233	420	1577	573	202	1128	251	9418
<b>APPROACH %'s :</b>	16.32%	78.40%	5.28%	14.87%	77.72%	7.40%	16.34%	61.36%	22.30%	12.78%	71.35%	15.88%	
<b>PEAK HR START TIME :</b>	745 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	141	682	48	192	943	103	175	617	220	81	436	100	3738
<b>PEAK HR FACTOR :</b>	0.878			0.967			0.796			0.795			0.887

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

**National Data & Surveying Services**

Project ID: 14-5062-020

Day: Thursday

City: Burbank

Date: 2/6/2014

PM

NS/EW Streets:	Buena Vista St			Buena Vista St			Victory Blvd			Victory Blvd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 2	ET 2	ER 1	WL 1	WT 2	WR 1	
4:00 PM	47	203	17	36	199	33	40	108	27	25	119	23	877
4:15 PM	48	170	20	41	152	34	43	148	37	24	150	20	887
4:30 PM	54	208	16	39	210	28	45	134	25	16	128	33	936
4:45 PM	68	193	16	44	165	21	37	142	18	23	138	31	896
5:00 PM	68	211	19	50	188	32	41	151	23	15	161	31	990
5:15 PM	62	232	18	40	210	32	46	164	32	34	169	33	1072
5:30 PM	47	213	31	58	194	36	43	157	25	33	178	26	1041
5:45 PM	65	222	29	37	188	31	44	186	21	33	186	43	1085
6:00 PM	58	216	29	52	227	30	37	163	35	26	153	33	1059
6:15 PM	48	186	24	43	198	47	52	163	23	20	181	42	1027
6:30 PM	54	225	16	48	189	31	33	137	22	24	128	26	933
6:45 PM	53	148	15	44	126	28	33	140	19	17	148	26	797
<b>TOTAL VOLUMES :</b>	672	2427	250	532	2246	383	494	1793	307	290	1839	367	11600
<b>APPROACH %'s :</b>	20.07%	72.47%	7.46%	16.83%	71.05%	12.12%	19.04%	69.12%	11.84%	11.62%	73.68%	14.70%	
<b>PEAK HR START TIME :</b>	515 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	232	883	107	187	819	129	170	670	113	126	686	135	4257
<b>PEAK HR FACTOR :</b>	0.967			0.918			0.949			0.904			0.981

CONTROL : Signalized