5.6 - TRANSPORTATION AND CIRCULATION

5.6.1 - Introduction

Information in this section is based upon the following documents:

- NMC Final EIR, City of Ontario, October 1997.
- NMC Transportation Implementation Plan, City of Ontario, February 2001.
- Initial Study/Mitigated Negative Declaration, NMC Transportation Implementation Plan, City of Ontario, August 2002.
- Rich Haven Specific Plan Traffic Impact Analysis, Meyer, Mohaddes Associates, September 2006, provided in Appendix E, Traffic Impact Analysis of this Draft EIR.
- Memorandum, Meyer, Mohaddes Associates, Ontario New Model Colony, Rich Haven Specific Plan, Potential Traffic Implications of Alternative Land Uses in Subarea 12, Planning Area 13, January 26, 2007. Included in Appendix E, Traffic Impact Analysis in this Draft EIR.

The NMC Final EIR evaluated potential impacts to traffic that would result from buildout of the NMC, which included evaluations of the roadway infrastructure and levels of service within and in the vicinity of the NMC. The NMC Final EIR identified policies that would ultimately reduce potential traffic-related impacts below the level of significance. The NMC Final EIR based its analysis on Year 2015 General Plan land use interim buildout and regional Year 2015 development levels consistent with San Bernardino County's regional Comprehensive Transportation Plan (CTP). The CTP included six Traffic Analysis Zones for the NMC.

Subsequent to the preparation of the NMC Final EIR, the City prepared a Transportation Implementation Plan (TIP) for the NMC in order to identify the transportation infrastructure needed for buildout of the NMC over an approximately 30-year period. The purpose of the TIP is to:

- To develop an Implementation Plan for the Transportation Element of the General Plan.
- To refine roadway construction phasing, developer responsible components and costs, funding mechanisms, and maintenance issues.
- To specify comprehensive strategies and requirements to guide the preparation of subarea specific plans.
- To identify interim facilities and improvements as developments occur.
- To create a secondary roadway plan, called a TRP, that identifies existing roads to be maintained for agricultural product transport or farm equipment routes, determines roadway

specifications and markings that identify the roads as being used for agricultural vehicles, establishes criteria to determine when the road should transition from being predominately used for agricultural purposes to being used for urban purposes.

- To create a Transportation Mobility Plan to improve the movement of pedestrians, bicycles, public transit, truck and automobile, freight and rail, within the NMC.

The Transitional Roadway Plan (TRP) contained in the TIP stated that the transition from the existing rural roadways to urban arterials will require several steps. Many of the roadway improvements will be implemented as frontage improvements, constructed in conjunction with proposed development projects. Other situations will require a roadway to be widened to provide additional travel lanes, but where no development is scheduled for the fronting properties, the City may need to actively pursue the widening through acquisition of right-of-way. A determination will have to be made on a case-by-case basis as to whether the right-of-way can or should be acquired on one or both sides of the existing roadway.

The TRP further stated that it is difficult to develop a detailed phasing plan for the roadways because of uncertainties in the pace and location of developments. The TRP evaluated the Year 2015 as an interim horizon year.

The City prepared an Initial Study/Mitigated Negative Declaration in order to determine the level of environmental review necessary for implementation of the TIP (TIP IS/MND). The TIP IS/MND stated that with the recommended mitigation measures, all TIP project-related impacts could be reduced below the level of significance and that no new environmental impacts were identified beyond those identified in the NMC Final EIR. The TIP IS/MND further stated that site-specific analyses would occur as individual NMC subareas are developed.

This section of the Draft EIR evaluates the potentially significant impacts to traffic that would result from implementation of the proposed project.

5.6.2 - Existing Conditions

This section includes a description of transportation facilities in the vicinity of the project site that would be affected by the proposed project, which include road networks, intersections, traffic volumes, transit service, airport operations, and project site access.

Road Network

The following describes existing conditions of the major roadways within the vicinity of the project site (Exhibit 5.6-1 and Exhibit 5.6-2).

Archibald Avenue is a north-south arterial located east of the project site. It has a curb-to-curb width of approximately 100 feet and a posted speed limit of 45 miles per hour. Archibald Avenue has four travel lanes in the northbound direction and three travel lanes in the southbound direction between SR-60 and Riverside Drive. It has four lanes of travel between Riverside Drive and Chino Avenue. The segment between Chino Avenue and the southern boundary of the MNC Planning Subarea 5 has two travel lanes in the northbound direction and one travel lane in the southbound direction. Archibald Avenue has two travel lanes from the southern boundary of MNC Planning Subarea 5 to the San Bernardino-Riverside County Line. It carries an average of 15,000 vehicles per day through the New Model Colony.

Turner Avenue is a north-south arterial located east of the project site. It has a curb-to-curb width of approximately 60 feet and a posted speed limit of 45 miles per hour. Turner Avenue has four travel lanes between SR-60 to south of Chino Avenue. Turner Avenue carries approximately 3,200 vehicles per day.

Haven Avenue is a north-south arterial located east of the project site. It has varying curb-to-curb widths of approximately 132, 78, and 65 feet between SR-60 and Creek Side, Creek Side and Riverside Drive, and Riverside Drive and Chino Avenue, respectively. Haven Avenue has three travel lanes in the northbound direction and two lanes in the southbound direction between SR-60 and Creek Side. It has two travel lanes in the northbound direction and one travel lane in the southbound direction between Creek Side and Riverside Drive with one travel lane in each direction south of Riverside Drive through the study area. Haven Avenue has a posted speed limit of 40 miles per hour north of Creek Side and 50 miles per hour south of Creek Side to Chino Avenue. It carries approximately 11,000 vehicles per day north of Riverside Drive and 3,000 vehicles per day south of Riverside Drive.

Riverside Drive is an east-west arterial located north of the project site. It has varying curb-to-curb widths throughout the study area and a posted speed limit of 50 miles per hour. Riverside Drive has two through lanes in the westbound direction and one through lane in the eastbound direction through the New Model Colony. Riverside Drive carries approximately 12,000 vehicles per day.

Mill Creek Avenue is a north-south arterial located west of the project site. It has varying curb-to-curb widths of approximately 40 feet north of Riverside Drive and 65 feet south Riverside Drive and

a posted speed limit of 35 miles per hour. Mill Creek Avenue has two travel lanes and carries approximately 1,500 vehicles per day.

Milliken Avenue is a north-south arterial located east of the project site. It has varying curb-to-curb widths of approximately 90 feet north of Riverside Drive and 55 feet south Riverside Drive and a posted speed limit of 40 miles per hour. Milliken Avenue has four travel lanes north of Riverside Drive and two travel lanes south of Riverside Drive and carries approximately 12,700 vehicles per day.

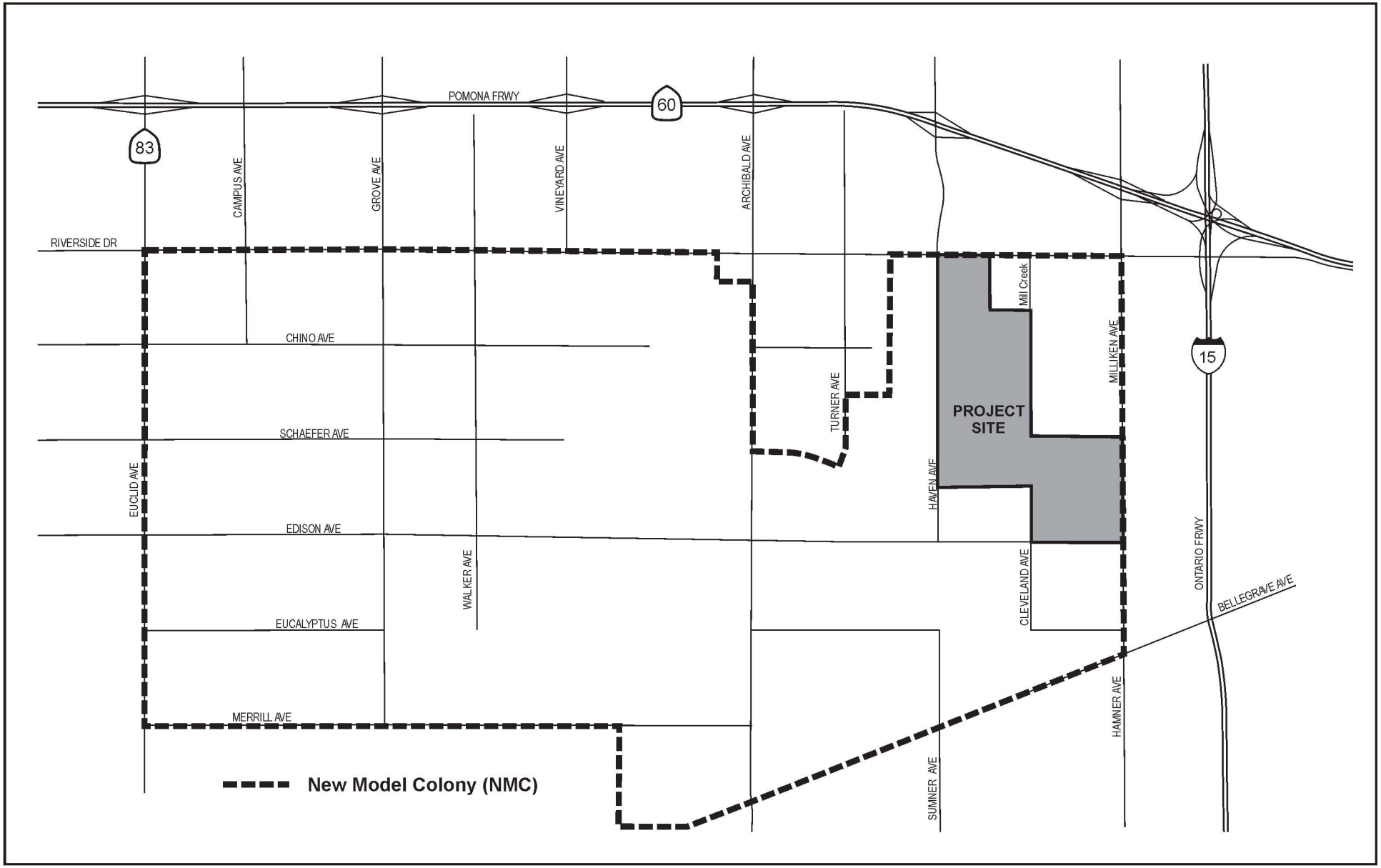
Chino Avenue is an east-west arterial that divides the project site into north and south sections. It serves as the physical divide between the project planning areas (PAs). Chino Avenue has two travel lanes throughout the study area with a posted speed limit of 40 miles per hour, and carries approximately 3,500 vehicles per day.

Edison Avenue is an east-west arterial located south of the project site. Edison Avenue has two travel lanes throughout the study area and a posted speed limit of 50 miles per hour. Edison Avenue carries approximately 4,000 vehicles per day.

Intersections

Twenty-one intersections were selected in consultation with City of Ontario staff for the level of service (LOS) analysis. The twenty-one intersections were selected because they represent the locations that may potentially be impacted by traffic due to the proposed project. Twelve of the intersections are existing intersections and nine intersections are future intersections. Table 5.6-1 presents the list of study intersections and existing levels of service. A brief description of each existing intersection follows.

Archibald Avenue and Riverside Drive is a controlled by a four-phase traffic signal with protected left-turn phasing in all directions. The northbound and southbound approaches are striped as a left-turn-only lane, two through-only lanes, and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane.



Source: Meyer, Mohaddes Associates, January 2006.

NORTH

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Michael Brandman Associates

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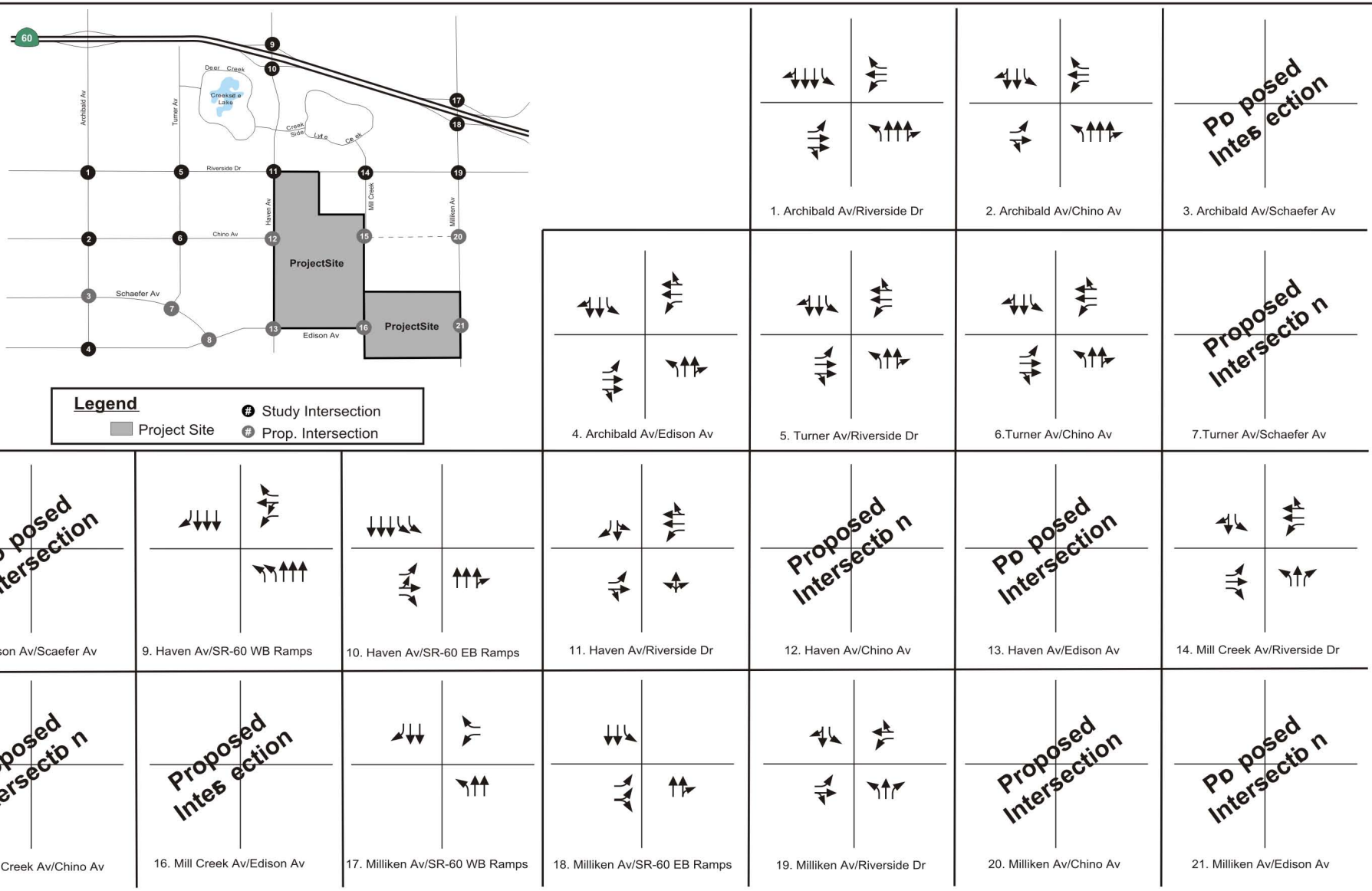
Exhibit 5.6-1
Project Vicinity



Source: Meyer, Mohaddes Associates, September 2006.

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Exhibit 5.6-2
Existing Lane Configuration

Archibald Avenue and Chino Avenue is a controlled by a three-phase traffic signal with protected left-turn phasing for Archibald Avenue. The northbound approach is striped as a left-turn-only lane, two through-only lanes, and a shared through/right-turn lane. The southbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane.

Archibald Avenue and Edison Avenue is a controlled by a four-phase traffic signal with protected left-turn phasing in all directions. The northbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The southbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane.

Turner Avenue and Riverside Drive is controlled by a three-phase traffic signal with protected left-turn phasing for Riverside Avenue. The northbound and southbound approaches are striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane.

Turner Avenue and Chino Avenue is stop-controlled in the east-west direction. The northbound and southbound approaches are striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane.

Haven Avenue and SR-60 WB Ramps is controlled by a three-phase traffic signal with protected left-turn phasing for Haven Avenue (northbound). The northbound approach is striped as dual left-turn-only lanes and three through-only lanes. The southbound approach is striped as three through-only lanes and a right-turn-only lane. The westbound approach (off-ramp) is stripped as a left-turn-only lane, a shared left-turn/through lane, and a free-right-turn-only lane.

Haven Avenue and SR-60 EB Ramps is controlled by a three-phase traffic signal with protected left-turn phasing for Haven Avenue (southbound). The northbound approach is striped as two through-only lanes and a shared through/right-turn lane. The southbound approach is striped as dual left-turn-only lanes and three through-only lanes. The eastbound approach (off-ramp) is stripped as a left-turn-only lane, a shared left-turn/through lane, and a right-turn-only lane.

Haven Avenue and Riverside Drive is controlled by a three-phase traffic signal with protected left-turn phasing for Riverside Avenue. The northbound approach is striped as a shared left-turn/through/right-turn lane. The southbound approach is striped as a shared left-turn/through lane and a right-turn-only lane. The eastbound approach is striped as a left-turn-only lane and a shared through/right-turn lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane.

Mill Creek Avenue and Riverside Drive is controlled by a three-phase traffic signal with protected left-turn phasing for Riverside Avenue. The northbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane. The southbound approach is striped as a left-turn-only lane and a shared through/right-turn lane. The eastbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane. The westbound approach is striped as a left-turn-only lane, a through-only lane, and a shared through/right-turn lane.

Milliken Avenue and SR-60 WB Ramps is controlled by a three-phase traffic signal with protected left-turn phasing for Milliken Avenue (northbound). The northbound approach is striped as a left-turn-only lane and two through-only lanes. The southbound approach is striped as two through-only lanes and a right-turn-only lane. The westbound approach (off-ramp) is stripped as a left-turn-only lane and a right-turn-only lane.

Milliken Avenue and SR-60 EB Ramps is controlled by a three-phase traffic signal with protected left-turn phasing for Milliken Avenue (southbound). The northbound approach is striped as a through-only lane and a shared through/right-turn lane. The southbound approach is striped as a left-turn-only lane and two through-only lanes. The eastbound approach (off-ramp) is stripped as a left-turn-only lane and a shared left-turn/right-turn lane.

Milliken Avenue and Riverside Drive is a controlled by a three-phase traffic signal with protected left-turn phasing for Milliken Avenue. The northbound approach is striped as a left-turn-only lane, a through-only lane, and a right-turn-only lane. The southbound approach is striped as a left-turn-only lane and a shared through/right-turn lane. The eastbound and westbound approaches are striped as a left-turn-only lane and a shared through/right-turn lane.

Traffic Volumes

Morning and evening peak period turning movement traffic counts for the twenty study intersections were collected during March and April of 2004. These counts were then augmented by 4% to reflect 2005 conditions. The traffic impact analysis is based on the highest single hour of traffic during each

time period at each location. Exhibit 5.6-3 illustrates the existing AM and PM peak hour turning movement volumes at the existing study intersections.

The morning and evening peak hour LOS analyses were conducted at the twelve existing study intersections based on the existing traffic volume counts and the methodologies described previously. Table 5.6-1 summarizes the LOS calculations for the study intersections under existing conditions during the AM and PM peak hours. An examination of the data indicates that all 12 existing intersections are currently operating acceptably in the both the AM and PM peak hours. All 12 intersections are operation at LOS A, B, or C.

Table 5.6-1: Study Intersections Existing Conditions

Intersection	Year 2005 - Existing Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
1. Archibald Avenue at Riverside Drive	C	30.3	0.508	C	32.5	0.619
2. Archibald Avenue at Chino Avenue	C	22.4	0.318	B	18.7	0.317
3. Archibald Avenue at Schaefer Avenue	—	—	—	—	—	—
4. Archibald Avenue at Edison Avenue	C	20.7	0.283	C	23.9	0.374
5. Turner Avenue at Riverside Drive	C	30.9	0.833	B	19.5	0.357
6. Turner Avenue at Chino Avenue	B	11.1	N/A	A	10.0	N/A
7. Turner Avenue at Schaefer Avenue*	—	—	—	—	—	—
8. Edison Avenue at Schaefer Avenue*	—	—	—	—	—	—
9. Haven Avenue at SR-60 WB Ramps	B	14.0	0.443	A	7.7	0.623
10. Haven Avenue at SR-60 EB Ramps	C	29.3	0.840	C	23.5	0.698
11. Haven Avenue at Riverside Drive	C	22.6	0.287	C	21.9	0.512
12. Haven Avenue at Chino Avenue*	—	—	—	—	—	—
13. Haven Avenue at Edison Avenue*	—	—	—	—	—	—
14. Mill Creek Avenue at Riverside Drive	C	22.6	0.369	B	12.4	0.311
15. Mill Creek Avenue at Chino Avenue*	—	—	—	—	—	—
16. Mill Creek Avenue at Edison Avenue*	—	—	—	—	—	—
17. Milliken Avenue at SR-60 WB Ramps	B	19.1	0.552	B	14.4	0.589
18. Milliken Avenue at SR-60 EB Ramps	B	19.2	0.557	C	22.4	0.581
19. Milliken Avenue at Riverside Drive	C	24.0	0.625	C	26.9	0.667

Table 5.6-1 (Cont.): Study Intersections Existing Conditions

Intersection	Year 2005 - Existing Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
20. Milliken Avenue/Hamner Avenue at Chino Avenue*	—	—	—	—	—	—
21. Milliken Avenue/Hamner Avenue at Edison Avenue*	—	—	—	—	—	—

LOS = Level of Service Delay = Average Vehicle Delay (Seconds) V/C = Volume-to-Capacity Ratio
N/A Not Applicable * Future Intersection
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.

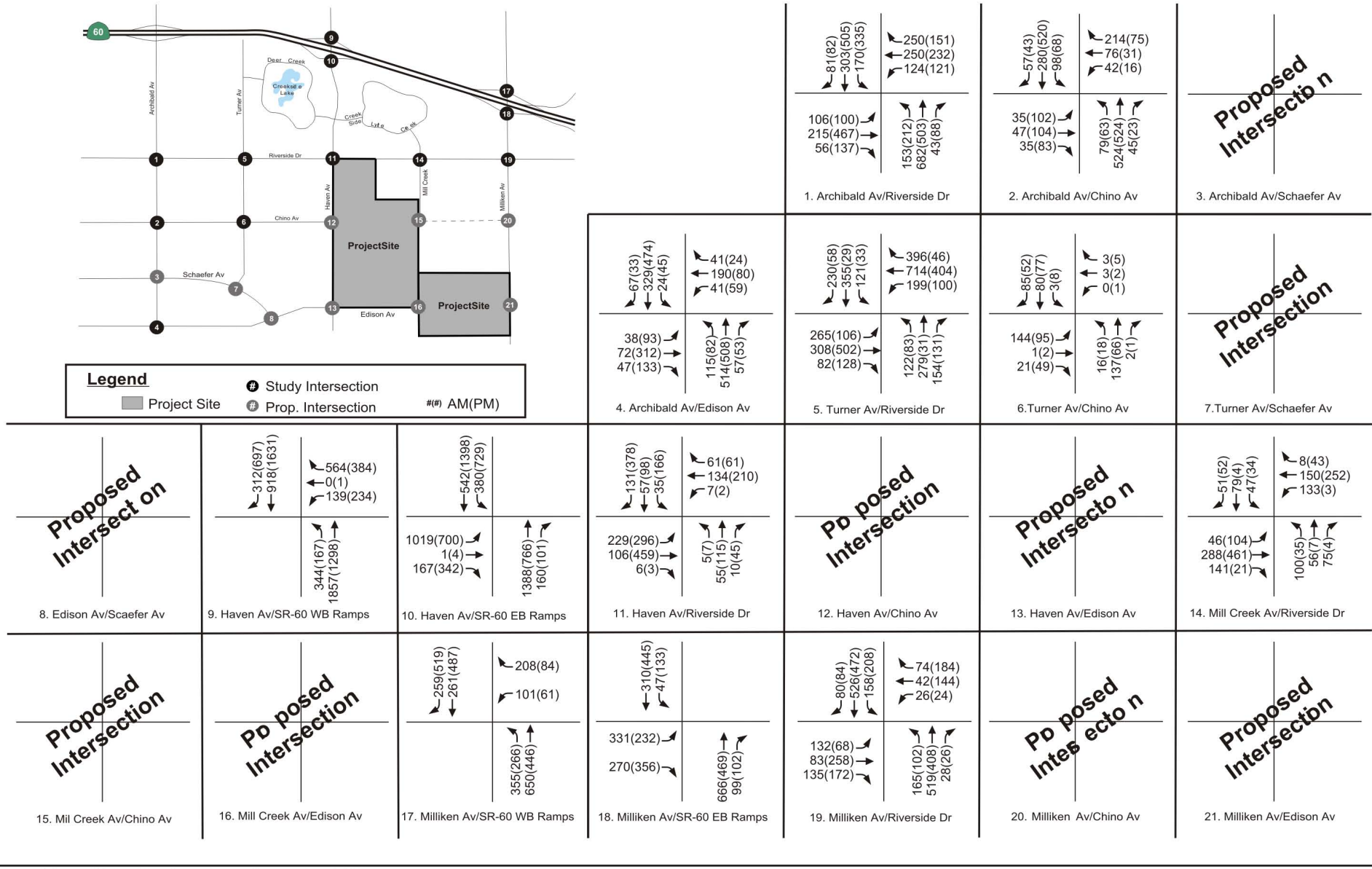
Existing Regulations and Standard Conditions

Performance Criteria

A LOS category is the generally accepted measure used to describe the quality of operation of roadways and intersections. There are six Levels of Service (LOS) categories—LOS A through LOS F—where LOS A represents free-flowing traffic conditions and LOS F represents constricted or bumper-to-bumper traffic conditions The City has established LOS D as the acceptable LOS. This is more stringent that the San Bernardino Congestion Management Program, which allows intersections to operate at LOS E.

Traffic service levels are also described in terms of an Intersection Capacity Utilization (ICU). The ICU methodology expresses intersection performance in terms of the degree of capacity utilization for critical lane groups of an intersection. Capacity utilization is expressed as a volume-to-capacity (V/C) ratio for each lane group, expressed in a decimal percent. The ICU of an intersection is based on the following variables: the number of vehicles using all legs of the intersection; the manner in which the vehicles use the intersection (left-turns, right-turns, etc.); and the capacity of each lane of the intersection. The sum of V/C ratios for the critical lane groups constitutes the ICU value for the intersection.

Table 5.6-2 describes the conditions associated with each LOS category, ICU value, and expected delays.



Source: Meyer, Mohaddes Associates, September 2006.

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Exhibit 5.6-3
Existing Peak Hour Traffic Volume

Table 5.6-2: LOS Interpretation

LOS Category	ICU Range	Description	Signalized Intersection Delay (seconds per vehicle)	Stop-Controlled Intersection Delay (seconds per vehicle)
LOS A	< 0.60	**Excellent operation.** All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10	≤ 10
LOS B	0.61 to 0.70	**Very good operation.** Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	> 10 and ≤ 20	> 10 and ≤ 15
LOS C	0.71 to 0.80	**Good operation.** Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	> 20 and ≤ 35	> 15 and ≤ 25
LOS D	0.81 to 0.90	**Fair operation.** Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	> 35 and ≤ 55	>25 and ≤ 35
LOS E	0.91 to 1.00	**Poor operation.** Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	> 55 and ≤ 80	> 35 and ≤ 50
LOS F	> 1.01	**Forced flow.** Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80	> 50

< = less than ≤ = less than or equal to > = greater than
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.

The San Bernardino Congestion Management Program established LOS E as the minimum LOS standard and the City established LOS D as the minimum standard for intersection performance. The City also has in place a Traffic Impact Fee Program whereby developers of real property contribute funds to provide traffic mitigation in proportion to the impacts created by the project, commonly referred to as a "Fair Share Fee."

Transit Service

Omnitrans, the public agency serving San Bernardino Valley, operates one line, Route 70 - Ontario-Creekside-Ontario Mills, through the study area as illustrated in Exhibit 5.6-4. Route 70 travels mainly along Campus Avenue, Walnut Avenue, Riverside Drive, and Milliken Avenue. This route

provides service between Montclair, Ontario and Rancho Cucamonga. Popular destinations along this route include the Ontario Civic Center and the Ontario Mills Mall. Transfers to other Omnitrans routes and public transit can be made at the Ontario Civic Center and Ontario Mills Mall (Routes 60, 61, 71, 75, and 90). This route operates seven days a week. On weekdays, it operates with 60-minute headways from 7 AM to 9 PM. On Saturdays and Sundays, it operates every 60 minutes from 7:30 AM to 6:30 PM.

Project Site Access

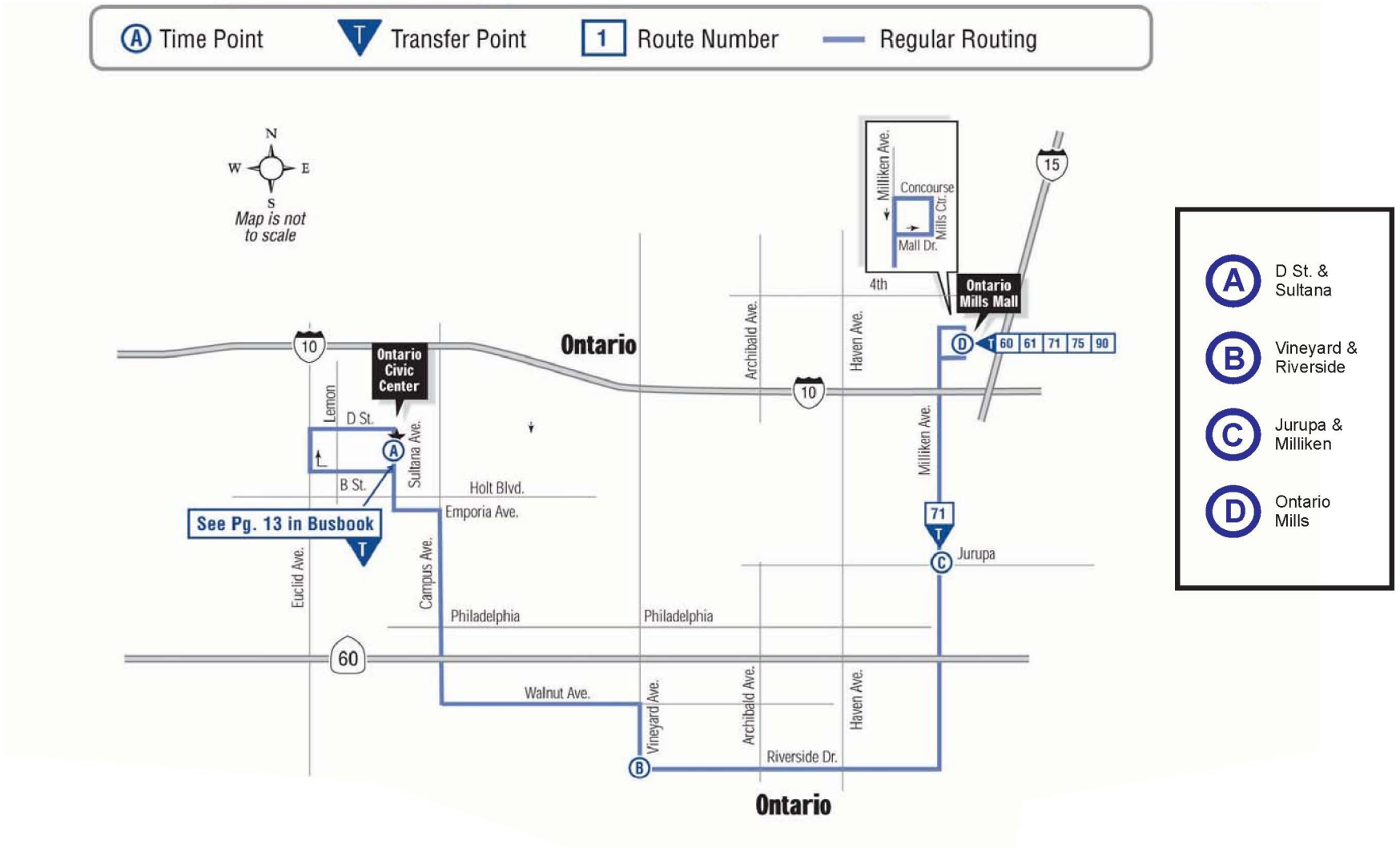
Vehicular access to the residential component would be from project roadways connecting to Riverside Drive, Haven Avenue, Mill Creek Avenue, Chino Avenue, and Edison Avenue. Vehicular access to the mixed use and commercial component would be from project roadways connecting to Mill Creek Avenue, Milliken Avenue, and Edison Avenue. These access intersections are shown on Exhibit 3-11, in Section 3, Project Description.

5.6.3 - Thresholds of Significance

According to the Initial Study, the project could have a significant impact on transportation and traffic if it results in any of the following:

- Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections),
- Exceed, either individually or cumulatively, a level of service (LOS) standard established by the county congestion management agency for designated roads or highways,
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment),

The San Bernardino Congestion Management Program established LOS E as the minimum LOS standard for those segments included in the CMP, and the City established LOS D as the minimum standard for intersection performance. For purposes of this evaluation, the City's threshold of LOS D is used.



Source: Meyer, Mohaddes Associates, January 2006.

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Exhibit 5.6-4
Study Area Transit Routes

5.6.4 - Project Impacts

The proposed project would develop the project site with residential and commercial uses that would generate traffic beyond the existing conditions. The Rich Haven Project develops a lower density residential uses on the northern and western portions of the site, and higher density residential and commercial mixed uses on the southern and eastern portions of the site as described in Chapter 3 of this document.

Following is a discussion of the project impacts that correspond to the thresholds of significance previously identified in Section 5.6.3. This section also provides a description of the methodology used to evaluate potential impacts.

Traffic Study Methodology

In this traffic analysis, minimum acceptable intersection operating conditions will follow City guidelines for all intersections. The City determined that the horizon year for this analysis would be Year 2015 consistent with the NMC Final EIR and the TIP.

Traffic operations in the vicinity of the project site were analyzed, as directed by the City, using the Highway Capacity Manual (HCM) methodology, as described in the Highway Capacity Manual, HCM 2000 (Transportation Research Board, Washington, D.C., 2000).

The following project scenarios were analyzed in this study:

- Existing Conditions (2005) - This scenario analyzed current operating conditions on the 12 study intersections using existing traffic counts.
- Horizon Year Without the Project (2015) - This scenario analyzed the future operating conditions of the study area intersections at the horizon year "without" the proposed project using forecast traffic volumes.
- Horizon Year With the Project (2015) - Analyzes the future operating conditions of the study area intersections at the horizon year "with" the proposed project using forecast traffic volumes.

Traffic Forecast Model Development

Traffic forecasts for the Rich-Haven Traffic Impact Analysis were prepared in consultation and coordination with City of Ontario staff. An updated version of the city's Existing General Plan Circulation Element traffic model was developed specifically for this project and other specific plans

that are currently underway in the New Model Colony. This model will be referred to in this report as the Updated Year 2015 Ontario NMC Traffic Model (September 2005).

Other developments outside the NMC were also incorporated into the updated model.

Land Use Assumptions

The land use data documented in the General Plan Amendment/EIR for the Ontario Sphere of Influence (now NMC) was thoroughly reviewed and found to be the same as the land use data in the original Buildout Ontario NMC Traffic Model. City staff cooperatively developed "Year 2015 Land Use Data" for the New Model Colony, based on the project description for each of the currently proposed NMC Specific Plan development (Edenglen, Countryside, West Haven, Parkside, Hettinga, Legacy, Rich Haven, and other local projects). This scaled back version of the "Buildout Land Use Data" is representative of estimated most reasonable Year 2015 conditions. The west half of the New Model Colony is expected to be less developed than the east half, where specific plan preparations are already in progress, included among these the Rich-Haven Specific Plan.

The City's traffic model has been customized to provide updated Year 2015 Forecasts for the Ontario New Model Colony. The land use data, traffic analysis zone structure, and highway network were customized to reflect all planned and programmed development in the Eastside of the New Model Colony including the Countryside, West Haven, Edenglen, Parkside, Hettinga, Rich Haven and Legacy Specific Plans. The Updated Year 2015 Ontario NMC Traffic Model (September 2005) will be used for all specific plan analyses in the area.

Traffic Assignment

The "Year 2015 Land Use Data" along with a customized traffic analysis zone structure and updated highway network that reflects all planned and programmed development in the New Model Colony were used to generate a Year 2015 traffic assignment.

The Year 2015 traffic assignment is representative of a region with significant planned residential and commercial development. The New Model Colony in Year 2015 and beyond is envisioned to undergo drastic changes in land use and infrastructure from the generally rural setting of today.

The Year 2015 turning movement traffic volumes are obtained directly from the updated traffic model. Typically, a post-processing of the model generated traffic volumes based on existing traffic trends would be performed. However, due to the existing rural setting and the magnitude of the planned developments in the area, the existing traffic circulation is expected to change dramatically,

and therefore the current traffic movement patterns cannot be used as the basis for future traffic volume adjustments. The Year 2015 turning movement volumes were used for LOS analysis for future conditions.

Future Base Project Conditions

This section summarizes the assumptions, methodology, and analysis related to future conditions without the proposed project. The 2015 Future Base "Without Project" Conditions for each respective intersection turning movement traffic volume is calculated by subtracting the Project-Only Trip Distribution from the 2015 "With Project" Conditions. This will serve as the basis for estimating impacts of the proposed project on background conditions for Year 2015.

Future Baseline Assumptions. The Year 2015 future base circulation system in the New Model Colony was developed in consultation with City of Ontario staff. The roadway segments expected to be in place by Year 2015, the number of lanes carrying through traffic and the corresponding intersection lane configurations were determined from various sources.

Roadway segments expected to be in place by Year 2015 were identified by city staff based on planned and programmed developments in the New Model Colony. The specific plans for developments in the Eastside of the New Model Colony provide information for particular roadway segments bordering each respective project site. The Rich Haven Specific Plan identifies street improvements adjacent to the proposed project site; Chino Avenue (eastbound and westbound), Milliken Avenue (northbound and southbound), Mill Creek Avenue (northbound and southbound), Haven Avenue (northbound and southbound), and New Edison Avenue (eastbound and westbound) are expected to be in place by Year 2015. Exhibit 5.6-4 identifies NMC-Programmed streets including signal modifications/installations, bridge modification/installations, and roadway arterial improvements (one additional lane, two additional lanes and/or fully improved arterials).

Additionally, city staff identified other proposed roadway segments that are considered essential circulation system components for the New Model Colony for 2015. These proposed roadway segments, which are identified in the Rich-Haven Specific Plan area, are as follows:

- Mill Creek Avenue between Chino Avenue and Edison Avenue
- New Edison Avenue between Haven Avenue and Milliken Avenue/Hamner Avenue
- Chino Avenue between Haven Avenue and Mill Creek Avenue

Therefore, the roadway improvements identified in the NMC for the Year 2015 as well as the improvements outlined above are assumed to be in place and part of the Year 2015 base condition.

Intersection lane designation assumptions in the NMC are based on the information provided in the TIP. Information in this report includes conceptual roadway alignments, width of public right-of-way, the number of and width of lanes, parkway and median widths, location of bikeways and conceptual tree planning scheme.

Future Base Traffic Operations Analysis AM and PM peak hour traffic volumes for 2015 Future Base "Without Project" Conditions at the study intersections were determined based on the peak hour volumes and a LOS analysis was then performed for both AM and PM peak hours.

During the AM peak hour, all 21 analyzed intersections are expected to operate acceptably (LOS D or better). For the PM peak hour conditions, the following intersections are projected to operate at unacceptable levels (LOS E or F or V/C>1.0):

- Archibald Avenue at Edison Avenue (LOS F)
- Milliken Avenue at SR-60 Westbound Ramps (LOS E)
- Milliken Avenue at SR-60 Eastbound Ramps (LOS F)
- Milliken Avenue at Riverside Drive (LOS F)
- Milliken Avenue/Hamner Avenue at Edison Avenue (LOS D with V/C ratio 1.034)

As shown on Table 5.6-3, the remaining 16 intersections are expected to operate acceptably during the PM peak hour.

Table 5.6-3: Year 2015 Future Without Project Conditions

Intersection	Year 2015 - Without Project Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
1. Archibald Avenue at Riverside Drive	C	22.9	0.566	C	25.3	0.724
2. Archibald Avenue at Chino Avenue	B	11.4	0.485	B	12.1	0.516
3. Archibald Avenue at Schaefer Avenue	B	15.4	0.500	B	18.0	0.599
4. Archibald Avenue at Edison Avenue	C	29.0	0.656	**F**	**214.5**	**1.805**
5. Turner Avenue at Riverside Drive	B	13.7	0.270	B	14.8	0.294
6. Turner Avenue at Chino Avenue [a]	A	9.9	N/A	B	10.1	N/A
7. Turner Avenue at Schaefer Avenue	A	2.6	0.088	A	2.1	0.103
8. Edison Avenue at Schaefer Avenue	A	3.0	0.303	A	7.1	0.382

Table 5.6-3 (Cont.): Year 2015 Future Without Project Conditions

Intersection	Year 2015 - Without Project Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
9. Haven Avenue at SR-60 WB Ramps	B	10.0	0.269	B	10.4	0.464
10. Haven Avenue at SR-60 EB Ramps	B	10.8	0.491	C	28.0	0.772
11. Haven Avenue at Riverside Drive	C	23.2	0.711	C	31.6	0.952
12. Haven Avenue at Chino Avenue	A	4.0	0.386	A	5.8	0.462
13. Haven Avenue at Edison Avenue	C	24.5	0.655	D	41.5	0.975
14. Mill Creek Avenue at Riverside Drive	B	17.1	0.530	B	17.3	0.661
15. Mill Creek Avenue at Chino Avenue	B	12.0	0.086	B	13.3	0.127
16. Mill Creek Avenue at Edison Avenue	A	5.5	0.329	A	3.4	0.397
17. Milliken Avenue at SR-60 WB Ramps	C	20.7	0.610	**E**	**73.3**	**1.110**
18. Milliken Avenue at SR-60 EB Ramps	B	19.4	0.818	**F**	**161.4**	**1.038**
19. Milliken Avenue at Riverside Drive	D	50.8	0.987	**F**	**101.7**	**1.216**
20. Milliken Avenue/Hamner Avenue at Chino Avenue	B	10.5	0.279	A	2.9	0.277
21. Milliken Avenue/Hamner Avenue at Edison Avenue	C	28.4	0.731	**D**	**51.1**	**1.034**

Notes:
LOS = Level of Service Delay = Average Vehicle Delay (Seconds)
V/C = Volume-to-Capacity Ratio HCM 2000 Operations Methodology
BOLD indicates unacceptable operating conditions.
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.

Project Traffic

This section describes the traffic generation and trip distribution associated with the proposed Rich-Haven Project. The project trip generation is presented first, followed by a discussion of the distribution of project-generated trips in relation to the project site.

Trip Generation. The trip generation component of the Updated Year 2015 Ontario NMC Traffic Model (September 2005) was used to generate the project-specific trips for the Rich-Haven Project. The city traffic model uses the Institute of Transportation Engineers (ITE) Trip Generation Manual, 5th Edition, rates during the assignment process to calculate project trips. The "Year 2015 Land Use Data" includes specific land use data for City of Ontario Traffic Analysis Zones (TAZs) 760, 771, 782, 783, and 794 also known as the New Model Colony Planning Subareas 6, 12, and 19 (Rich-Haven Specific Plan area). The land use data for these TAZs were updated based on the Specific Plan

Land Use Scenario. Table 5.6-4 summarizes the land uses and the Daily, AM and PM peak hour trip generation for the Specific Plan scenario. After the TAZs were updated with the Specific Plan land use data, the resulting model trip generation estimates were further refined to reflect the anticipated trips from the Specific Plan scenario shown in Table 5.6-4.

It should be noted that Table 5.6-4 is consistent with the "Specific Plan Scenario" described in the Rich-Haven Specific Plan (RBF Consulting, November 2005). Land use data, trip generation rates, and trip generation estimates for the Specific Plan Scenario can be found in the Specific Plan document (Tables 3-1, 8-1, and 8-3).

Table 5.6-4: Project Trip Generation

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
PAs 1-6 (NMC Subarea 6)								
Single-Family Residential	503 dus	4,814	95	285	380	328	184	512
County Park	13.3ac	30	0	0	0	0	0	1
Subtotal Subarea 6		**4,844**	**95**	**285**	**380**	**328**	**185**	**513**
PAs 7-19 (NMC Subarea 12)								
Single-Family Residential	621 du	5,943	116	349	466	401	226	627
Condominiums [a]	1,353 du	7,940	101	494	595	689	339	1,028
County Park	37.1 acres	85	0	0	0	1	1	2
Subtotal PAs 7-19 (Subarea 12		**13,968**	**218**	**844**	**1,061**	**1,091**	**566**	**1,658**
PA 20 (NMC Subarea 19)								
Condominiums	725 du	4,249	54	265	319	369	182	551
Internal Capture		-1,033	-7	-8	-15	-53	-36	-89
PA-20 Residential Total		**3,216**	**47**	**257**	**304**	**316**	**146**	**462**
Regional Commercial	*247,400 sq ft*	*7,009*	*103*	*66*	*168*	*293*	*318*	*611*
Neighborhood Commercial	*143,400 sq ft*	*3,270*	*51*	*32*	*83*	*105*	*113*	*218*
Commercial Subtotal	390,800 sq ft	10,278	153	98	251	398	431	829
Internal Capture		-1,130	-9	-10	-19	-44	-56	-100
Retail Total		**9,148**	**144**	**88**	**232**	**354**	**375**	**729**
Town Center Office	50,000 sq ft	551	69	9	78	13	62	75
Internal Capture		-107	-3	-2	-5	-4	-9	-13

Table 5.6-4 (Cont.): Project Trip Generation

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Office Total		**444**	**66**	**7**	**73**	**9**	**53**	**62**
PA 20 Subtotal (NMC Subarea 19)		**12,807**	**257**	**352**	**609**	**679**	**574**	**1,253**
PA 21A (NMC Subarea 19)								
Single-Family Residential	*202 du*	*1,933*	*38*	*114*	*152*	*131*	*73*	*204*
Multi-Family Residential	*650 du*	*4,056*	*62*	*247*	*309*	*245*	*132*	*377*
Residential Subtotal	852 du	5,989	100	361	460	376	205	581
Internal Capture		-606	-4	-5	-9	-29	-18	-47
Residential Total PA21A		**5,383**	**96**	**356**	**451**	**347**	**187**	**534**
Regional Commercial	*50,000 sq ft*	*1,417*	*21*	*13*	*34*	*59*	*64*	*124*
Neighborhood Commercial	*200,000 sq ft*	*4,560*	*71*	*45*	*116*	*146*	*158*	*304*
Retail Subtotal	250,000 sq ft	5,977	92	59	150	205	222	428
Internal Capture		-751	-6	-6	-12	-23	-33	-56
Retail Total		**5,226**	**86**	**53**	**138**	**182**	**189**	**372**
Town Center Office	75,000 sq ft	826	103	14	117	19	93	112
Internal Capture		-161	-2	-2	-4	-6	-6	-12
Office Total		**665**	**101**	**12**	**113**	**13**	**87**	**100**
PA 21 A Subtotal		**11,273**	**282**	**420**	**702**	**542**	**463**	**1,005**
PA 21B (Portion of Subarea 19)								
Multi-Family Residential	200 du	1,248	19	76	95	75	41	116
Internal Capture		-320	-2	-2	-4	-18	-12	-30
Residential Total		**928**	**17**	**74**	**91**	**57**	**29**	**86**
Regional Commercial	112,600 sq ft	3,190	47	30	77	133	145	278
Internal Capture		-341	-3	-3	-6	-15	-18	-33
Retail Total		**2,849**	**44**	**27**	**71**	**118**	**127**	**245**
Town Center Office	10,800 sq ft	119	15	2	17	3	13	16
Internal Capture		-23	-1	0	-1	-1	-3	-4
Office Total		**96**	**14**	**2**	**16**	**2**	**10**	**12**
Subtotal PA 21B		**3,873**	**75**	**103**	**177**	**178**	**166**	**343**

Table 5.6-4 (Cont.): Project Trip Generation

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Total for PA 20,21A & 21B (Subarea 19)		**27,953**	**614**	**875**	**1,489**	**1,398**	**1,203**	**2,601**
Total Trips		**46,765**	**927**	**2,004**	**2,929**	**2,818**	**1,954**	**4,772**

sq ft = square feet du = dwelling unit
[a] Trips based on ITE condominium/townhouse rates.
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.

Trip Distribution. Trip distribution assumptions were derived from the results of the Updated Year 2015 Ontario NMC Traffic Model (September 2005) using "select zone" model runs for the proposed project (TAZ 761). Select zone model runs (AM and PM) report the specific trip distribution for a designated traffic analysis zone.

Impacts Related to Increased Traffic and LOS (CMP) Standards

With the addition of the project traffic volumes and future Year 2015 traffic volumes to the future roadway network, the LOS at existing intersections will change. The resulting Year 2015 Future With Project AM and PM peak hour intersection turning volumes are shown on Table 5.6-5.

Table 5.6-5: Year 2015 Future With Project Conditions

Intersection	Year 2015 - With Project Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
1. Archibald Avenue at Riverside Drive	C	23.9	0.591	C	26.7	0.752
2. Archibald Avenue at Chino Avenue	B	12.0	0.501	B	13.0	0.534
3. Archibald Avenue at Schaefer Avenue	B	12.0	0.521	**B**	**19.2**	**0.633**
4. Archibald Avenue at Edison Avenue	C	29.7	0.684	**F**	**216.9**	**1.822**
5. Turner Avenue at Riverside Drive	B	14.1	0.292	B	14.5	0.332
6. Turner Avenue at Chino Avenue [a]	B	10.2	N/A	B	10.6	N/A
7. Turner Avenue at Schaefer Avenue	A	2.3	0.099	A	1.9	0.117
8. Edison Avenue at Schaefer Avenue	A	2.9	0.347	A	7.4	0.440
9. Haven Avenue at SR-60 WB Ramps	A	9.4	0.322	B	11.3	0.563
10. Haven Avenue at SR-60 EB Ramps	B	11.0	0.597	**D**	**50.4**	**1.018**

Table 5.6-5 (Cont.): Year 2015 Future With Project Conditions

Intersection	Year 2015 - With Project Conditions					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
11. Haven Avenue at Riverside Drive	**C**	**34.4**	**1.008**	**E**	**72.4**	**1.267**
12. Haven Avenue at Chino Avenue	A	8.4	0.521	A	8.8	0.677
13. Haven Avenue at Edison Avenue	C	27.0	0.809	**F**	**80.4**	**1.164**
14. Mill Creek Avenue at Riverside Drive	B	18.4	0.589	B	19.5	0.697
15. Mill Creek Avenue at Chino Avenue	B	14.3	0.164	B	14.5	0.282
16. Mill Creek Avenue at Edison Avenue	A	5.7	0.374	A	4.0	0.489
17. Milliken Avenue at SR-60 WB Ramps	C	21.1	0.657	**F**	**113.4**	**1.241**
18. Milliken Avenue at SR-60 EB Ramps	C	23.2	0.910	**F**	**204.4**	**1.153**
19. Milliken Avenue at Riverside Drive	**E**	**66.9**	**1.070**	**F**	**147.0**	**1.349**
20. Milliken Avenue/Hamner Avenue at Chino Avenue	B	14.0	0.335	A	6.5	0.384
21. Milliken Avenue/Hamner Avenue at Edison Avenue	C	33.1	0.843	**F**	**99.0**	**1.251**

Notes:
LOS = Level of Service Delay = Average Vehicle Delay (Seconds)
V/C = Volume-to-Capacity Ratio
HCM 2000 Operations Methodology
BOLD indicates unacceptable operating conditions.
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.

The results of the 2015 with project analysis for the AM peak hour indicate that two intersections are expected to operate at unacceptable condition (LOS E) and/or V/C ratio greater than 1.000. The intersection of Haven Avenue and Riverside Drive is expected to have a V/C ratio or 1.008 and would require improvement measures. In addition, the intersection of Milliken Avenue and Riverside Drive is projected to operate unacceptably with a delay of 66.9 seconds and a volume to capacity ratio of 1.070 and would require improvement measures. These values exceed the tolerances set forth above in Table 5.6-2. The remaining 19 analyzed intersections are expected to operate acceptably during the AM peak hour.

Similarly, the results of the 2015 "with project" analysis for the PM peak hour indicate that eight of the analyzed intersections are expected to operate at LOS E or F or have a V/C ratio greater than 1.000. These intersections are:

- Archibald Avenue at Edison Avenue (LOS F)
- Haven Avenue at SR-60 Eastbound Ramps (V/C = 1.018)
- Haven Avenue at Riverside Drive (LOS E)
- Haven Avenue at Edison Avenue (LOS F)
- Milliken Avenue at SR-60 Westbound Ramps (LOS F)
- Milliken Avenue at SR-60 Eastbound Ramps (LOS F)
- Milliken Avenue at Riverside Drive (LOS F)
- Milliken Avenue/Hamner Avenue at Edison Avenue (LOS F)

The above study intersections are projected to be out of compliance with CMP guidelines and City of Ontario LOS standards (LOS D or better with V/C<1.0) and would require mitigation measures. The remaining 13 analyzed intersections are expected to operate acceptably during the PM peak hour.

Impacts Related to Interim Traffic Impacts During Construction Phasing

Roadways that will be improved as part of the NMC East Backbone Infrastructure as of March 17, 2006 during the phasing of the project include the following:

- **Pilot Phase.** Construction completion anticipated mid to late 2007: Riverside Drive between Hellman and Hamner (Milliken).
- **Phase One.** Construction completion anticipated mid to late 2007/early 2008: Mill Creek from Riverside Drive south to Bellgrave Avenue and Hamner (Milliken) between Riverside Drive and Bellgrave Avenue.
- **Phase Two.** Construction completion anticipated mid 2009: portion of Chino Avenue from west of Haven Avenue to Hamner (Milliken) and Haven Avenue from Riverside Drive to Bellgrave Avenue.
- **Phase Three.** Construction completion anticipated late 2009.early 2010: Edison Avenue from Vineyard Avenue to Hamner.

For development to occur prior to the construction of these roadways, the developers of these properties would be required to provide the necessary roadway improvements to ensure adequate access and provide the necessary mitigation to ensure traffic related impacts are below a threshold of significance.

Impacts Related to the Potential Middle School

The Specific Plan includes the potential for replacing residential uses in Planning Area 13, Subarea 12 with a Middle School. The traffic impacts from this alternative where addressed in the MMA memorandum of January 26, 2007, a copy of which is included in Appendix E. The memorandum concluded that the potential impacts from this alternative where relatively minor and do not change the basic conclusions of the impact analysis presented in this section of the EIR.

Impacts Related to Hazards Due to a Design Feature

There are no design features associated with the Rich Haven Project that would result in design hazard. All roadway improvements would be constructed in accordance with City guidelines. Therefore, no significant impacts related to a transportation design hazard would occur.

5.6.5 - Cumulative Impacts

The Year 2015 analysis provided in Section 5.6.4 provides a cumulative traffic analysis. This horizon year was chosen in order to be consistent with the Year 2015 Ontario NMC Traffic Model, the NMC Final EIR, and the TIP. Due to the magnitude of the ultimate development of the NMC, uncertainty regarding the pace and location of future NMC development, and the change in traffic patterns that would result from the traffic improvements in place prior to Year 2015. Traffic circulation at Year 2015 and beyond is expected to change dramatically. Therefore, current traffic movement patterns cannot be used as the basis for future traffic adjustments beyond the horizon year. Improvements expected to be in place by Year 2015 are those associated with the proposed project (refer to Section 3.3.4 of this document for a complete description), which include improvements to Riverside Drive, Chino Avenue, Haven Avenue, Edison Avenue and Mill Creek Avenue. In addition to the improvements included with the proposed project, NMC-programmed roadway improvements that are expected to be in place by Year 2015 include improvements to various arterials in the eastern half of the NMC (Exhibit 5.6-5). These improvements include: signal installations/modifications; bridge installations/modifications; and roadway improvements, which would include additional lanes or fully improved roadways. Apart from NMC-programmed roadway improvements, City staff has identified additional roadways that are considered essential circulation system improvements that would be in place by Year 2015 (Exhibit 5.6-6). In addition, this cumulative Year 2015 scenario includes traffic volumes associated with development in the project vicinity. Therefore, the analysis provided in Section 5.6.4 is considered a project-level and cumulative traffic analysis. As discussed in Section 5.6-4, significant traffic impacts would occur in the Year 2015 with the development of the proposed project and development anticipated for the Year 2015 (Exhibit 5.6-7).

5.6.6 - Mitigation Measures

The Transportation/Circulation Section of the NMC Final EIR identified traffic and circulation mitigation measures that were related to the following: infrastructure improvements; transportation system management improvements; and preparation of a traffic impact analysis. The following mitigation measures are identified in the project-level traffic impact analysis.

The following mitigation measures are proposed to bring projected deficient intersections to acceptable operating conditions, (LOS D or better and V/C of less than 1.0) per City of Ontario standards. The mitigated LOS forecasts for the AM and PM peak hours are shown in Table 5.7.6.

The following mitigation measures are within the guidelines of the City of Ontario Sphere of Influence General Plan Amendment (January 7, 1998). An analysis of the traffic forecasts from the city's buildout model, the Updated Buildout Ontario NMC Traffic Model (September 2005), identifies that the Year 2015 mitigation measures presented in this section would satisfy the operating conditions of the intersections for buildout conditions. This is due to the subsequent redistribution of traffic expected beyond Year 2015.

T-1 Intersection Mitigation Measures:

(a) Intersection #3 Archibald Avenue/Edison Avenue
- Provide EB free-flow-right-turn only lane

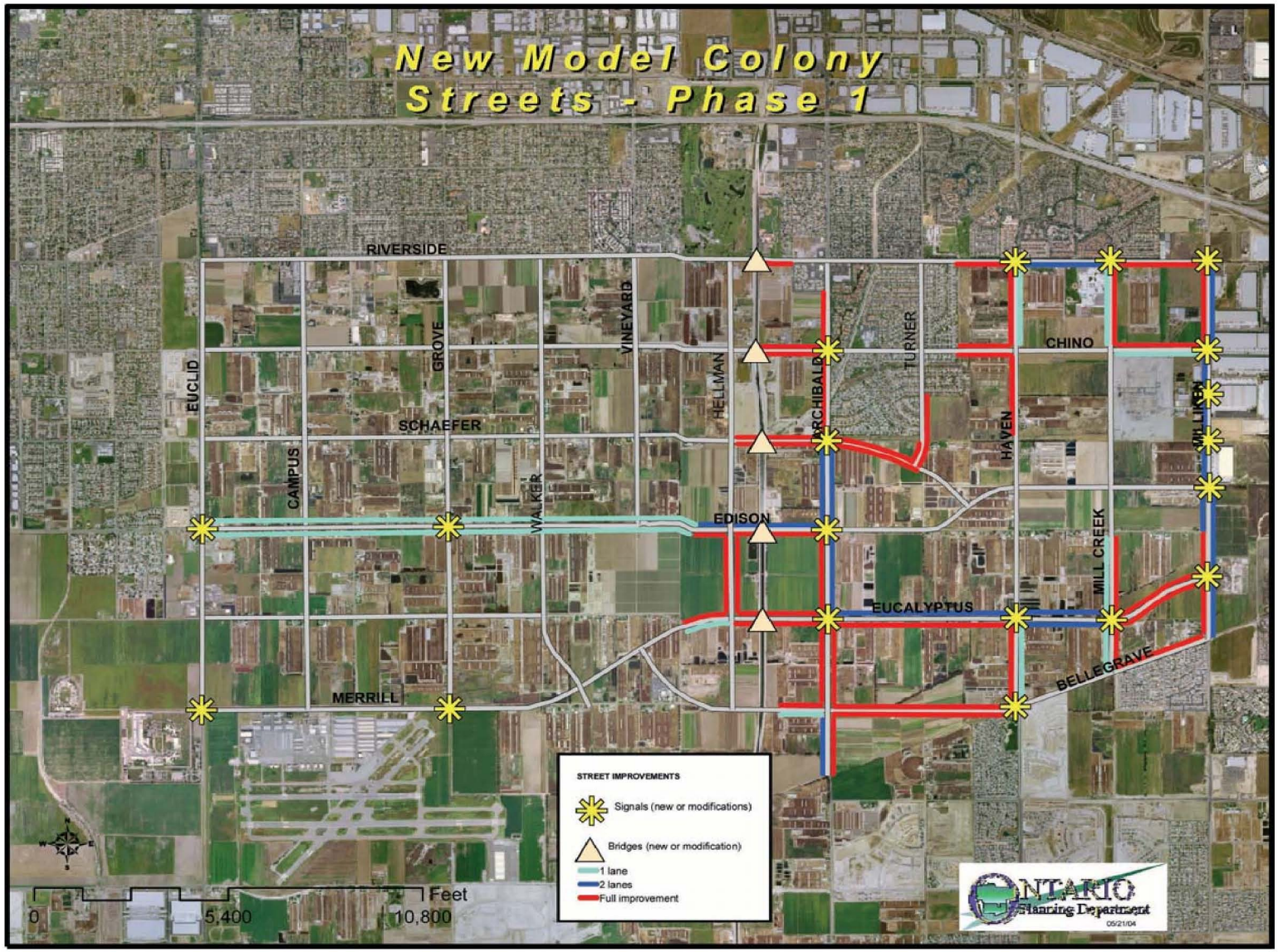
(b) Intersection #9 Haven Avenue/SR-60 EB Ramps
- Re-stripe EB center lane as shared left-turn/right-turn lane

(c) Intersection #10 Haven Avenue/Riverside Drive
- Provide NB and SB left turn protected phasing

(d) Intersection #12 Haven Avenue/Edison Avenue
- Provide NB and SB left turn protected phasing

(e) Intersection #16 Milliken Avenue/SR-60 WB Ramps
- Provide NB left-turn only lane
- Provide WB shared left-turn/right-turn lane

(f) Intersection #17 Milliken Avenue/SR-60 EB Ramps
- Re-stripe EB shared left-turn/right-turn lane as free-flow-right-turn only lane



Source: Meyer, Mohaddes Associates, January 2006.

NORTH

NOT TO SCALE

Michael Brandman Associates

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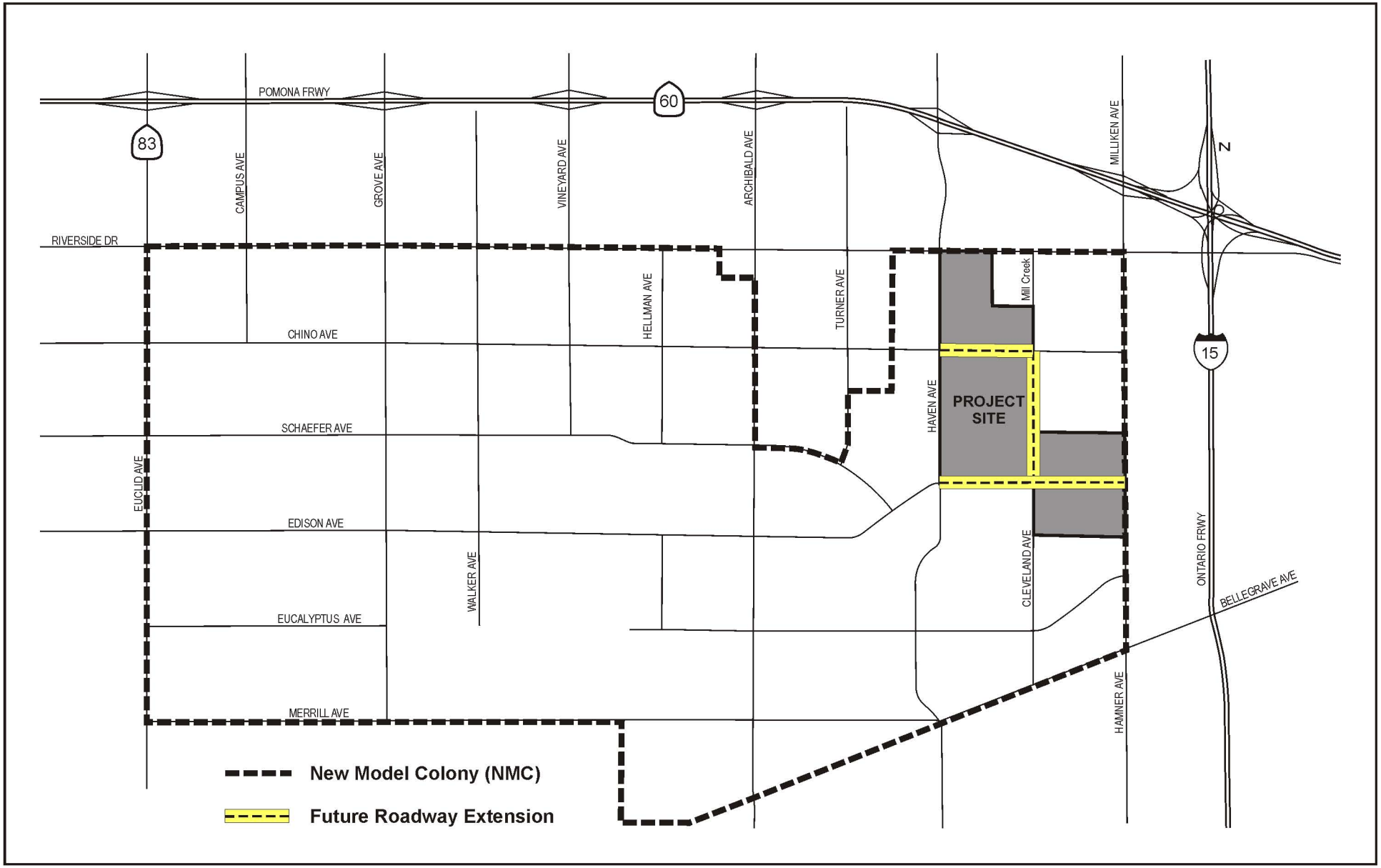
Exhibit 5.6-5
New Model Colony Street Improvements



Source: Meyer, Mohaddes Associates, January 2006.

NORTH

NOT TO SCALE

Michael Brandman Associates

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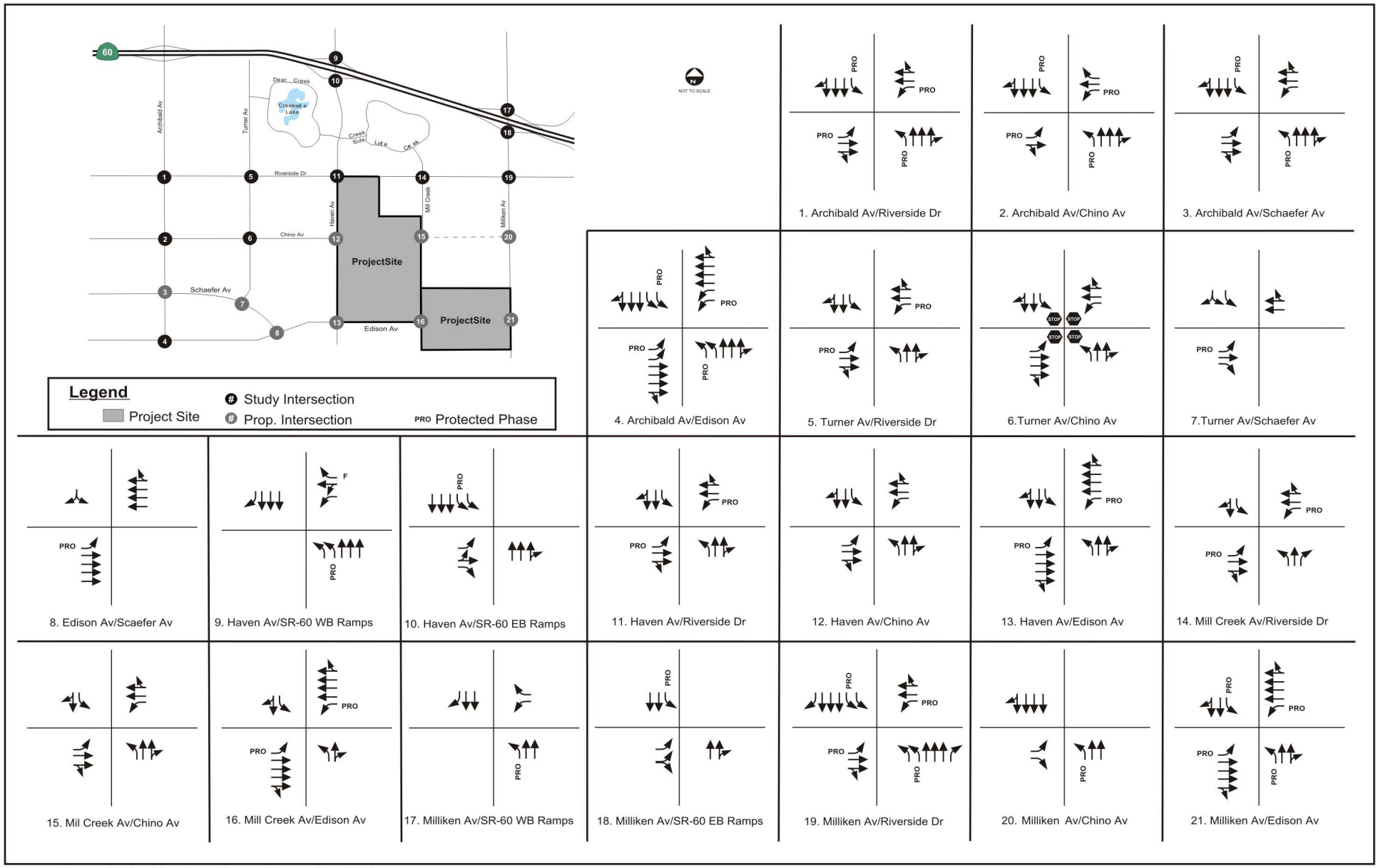
Exhibit 5.6-6
Future Base with Proposed Roadway Improvements



Source: Meyer, Mohaddes Associates, September 2006.

NORTH

Michael Brandman Associates

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Exhibit 5.6-7
2015 Base Lane Configuration

(g) Intersection #18 Milliken Avenue/Riverside Drive
- Provide EB and WB left turn protected phasing
- Provide WB right-turn only lane with overlap phasing
- Provide EB left-turn only lane

(h) Intersection #20 Milliken Avenue/Edison Avenue
- Provide SB shared through/right-turn lane
- Provide WB left-turn only lane

T-2 Prior to the issuance of a building permit for the commercial component, the project applicant shall pay the proportionate share for all intersection improvements, or construct those improvements deemed necessary by the City Engineer at the time of development contained in mitigation measure T-1 and other transportation improvements in conformance with the City of Ontario's Traffic Impact Fee Program. The determination of whether the payment of proportionate share or installation of the improvements is required shall be made by the City Engineer at the time of Tentative Tract Map approval.

5.6.7 - Level of Significance After Mitigation

Mitigation measures T-1 and T-2 would require implementation prior to permit issuance and occupancy of this site. This mitigation measure would reduce the project related traffic impacts by requiring payment to the City's Traffic Impact Fee Program, which would result in improvements to existing roadways and installation of additional traffic-related improvements in phase with development of the project site.

With the implementation of the mitigation measure T-1, (see Table 5.6-6: Year 2015 Future Project Conditions With Mitigation), all the study intersections would operate in conformance with CMP and City standards. Therefore, with the implementation of the recommended mitigation measures, short-term significant and unavoidable impacts related to traffic would not result from project and cumulative traffic in the Year 2015.

Table 5.6-6: Year 2015 Future With Project Conditions

Intersection	2015 Future Project With Mitigations					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
1. Archibald Avenue at Riverside Drive	C	23.9	0.591	C	26.7	0.752

Table 5.6-6 (Cont.): Year 2015 Future With Project Conditions

Intersection	2015 Future Project With Mitigations					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (Sec.)	V/C	LOS	Delay (Sec.)	V/C
2. Archibald Avenue at Chino Avenue	B	12.0	0.501	B	13.0	0.534
3. Archibald at Schaefer	B	16.5	0.527	B	19.2	0.63
4. Archibald Avenue at Edison Avenue	C	29.7	0.684	**C**	**32.7**	**0.787**
5. Turner Avenue at Riverside Drive	B	14.1	0.292	B	14.5	0.332
6. Turner Avenue at Chino Avenue [a]	B	10.2	N/A	B	10.6	N/A
7. Turner Avenue at Schaefer Avenue	A	2.3	0.099	A	1.9	0.117
8. Edison Avenue at Schaefer Avenue	A	2.9	0.347	A	7.4	0.440
9. Haven Avenue at SR-60 WB Ramps	A	9.4	0.322	B	11.3	0.563
10. Haven Avenue at SR-60 EB Ramps	A	8.6	0.624	**C**	**23.1**	**0.776**
11. Haven Avenue at Riverside Drive	**C**	**31.1**	**0.815**	**D**	**36.2**	**0.883**
12. Haven Avenue at Chino Avenue	A	8.4	0.521	A	8.8	0.677
13. Haven Avenue at Edison Avenue	C	30.7	0.745	**D**	**42.8**	**0.932**
14. Mill Creek Avenue at Riverside Drive	B	18.4	0.589	B	19.5	0.697
15. Mill Creek Avenue at Chino Avenue	B	14.3	0.164	B	14.5	0.282
16. Mill Creek Avenue at Edison Avenue	A	5.7	0.374	A	4.0	0.489
17. Milliken Avenue at SR-60 WB Ramps	B	18.0	0.448	**C**	**31.1**	**0.944**
18. Milliken Avenue at SR-60 EB Ramps	A	1.3	0.595	**A**	**1.9**	**0.659**
19. Milliken Avenue at Riverside Drive	**C**	**29.6**	**0.739**	**C**	**34.0**	**0.886**
20. Milliken Avenue/Hamner Avenue at Chino Avenue	B	14.0	0.335	A	6.5	0.384
21. Milliken Avenue/Hamner Avenue at Edison Avenue	C	30.8	0.828	**D**	**41.4**	**0.980**

Notes:
LOS = Level of Service Delay = Average Vehicle Delay (Seconds)
V/C = Volume-to-Capacity Ratio
HCM 2000 Operations Methodology
BOLD indicates mitigated operating conditions.
Source: Traffic Impact Analysis, Meyer, Mohaddes Associates, July 2006.