Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Prepared for
Marin Catholic High School

MARIN CATHOLIC
DUC IN ALTUM

April 2024

Parametrix

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Prepared for

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1. Introduction / Executive Summary

This report summarizes the expected changes to traffic operations resulting from the proposed Marin Catholic High School ("Marin Catholic") Dino Ghilotti Motta Stadium Lights Project ("Project"). The proposed Project would replace existing temporary lights and install permanent stadium lights at the existing Dino Ghilotti Motta Stadium, allowing the athletic stadium to be used after daylight hours. Under project conditions, athletic stadium schedules would be expected to change, with some events starting later in the evening and others being rescheduled from Saturday mornings to Friday evenings, for example.

A previous study, "Dino Ghilotti Motta Stadium Community Lights Initiative - Updated Traffic Impact Analysis," was completed in 2016. This report expands on the previous analysis by evaluating the Project using recently recorded data to evaluate additional scenarios using the latest California standard transportation metric for determining environmental impacts, vehicle miles traveled (VMT).

This report analyzes the traffic performance for four scenarios, covering the men's and women's athletics teams that would be utilizing the Dino Ghilotti Motta Stadium. These scenarios represent a comprehensive analysis, covering typical conditions over several months.

The Project is expected to result in a slight increase in average vehicle delay, particularly during the Friday Night Football Games Scenario. The Soccer Game, Lacrosse Games, and Practices scenarios would be expected to result in minimal changes to vehicle delay compared to existing conditions. The intersections would be expected to meet the County LOS performance standards of LOS D or better under Project scenarios.

No queues on the roadway would be expected to exceed the available storage space as a result of the Project generated trips.

The parking demand for all study scenarios would be expected to be satisfied with a combination of on-site and off-site parking, or on-site parking alone.

The Project would be expected to have a less-than-significant transportation impact due to VMT.

The Via Hidalgo neighborhood could be expected to experience an influx of on-street parked vehicles and increased traffic during the few high-attendance athletic stadium events expected each year.

Overall, the Project would be expected to result in a modest increase in average vehicle delay for select scenarios, but would have less than significant environmental transportation impacts, as defined by CEQA.

2. Setting

Marin Catholic is a private school located in Kentfield, an unincorporated part of Marin County in California. It draws its student population from around Marin County and beyond. See Figure 1 for a vicinity map showing the location of the school and surrounding area.

2.1 Existing Roadway Network

This section describes the existing transportation infrastructure near Marin Catholic, including roadway, bicycle and pedestrian, and transit facilities.

Sir Francis Drake Boulevard is a major east-west principal arterial roadway running across the County of Marin, from West Marin connecting to US Highway 101 and the Interstate 580 Richmond-San Rafael Bridge towards the East Bay. It has two lanes in each direction for the portion of the roadway fronting Marin Catholic and sidewalks on both sides of the street. It is one of two primary east-west connections for cities and towns west of San Rafael. The posted speed limit is 40 MPH.

Bon Air Road is a north-south minor arterial roadway less than one mile long, connecting Sir Francis Drake Boulevard over the Corte Madera Creek to Magnolia Avenue to the south. It has two lanes in each direction on the north end adjacent to St. Sebastian's Church, and one lane in each direction south of Schultz Memorial Drive, with sidewalks on both sides of the street. The posted speed limit is 25 MPH.

Via Hidalgo is a local street serving several some businesses and multi-family residential communities east of Bon Air Road and south of Sir Francis Drake Boulevard. It is one lane in each direction with on-street parking on both sides of the street and a continuous sidewalk on one side of the street.

Wolfe Grade is a north-south minor arterial roadway connecting Sir Francis Drake Boulevard to downtown San Rafael to the north. It is one lane in each direction with narrow shoulders and discontinuous sidewalk network. The posted speed limit is 30 MPH.

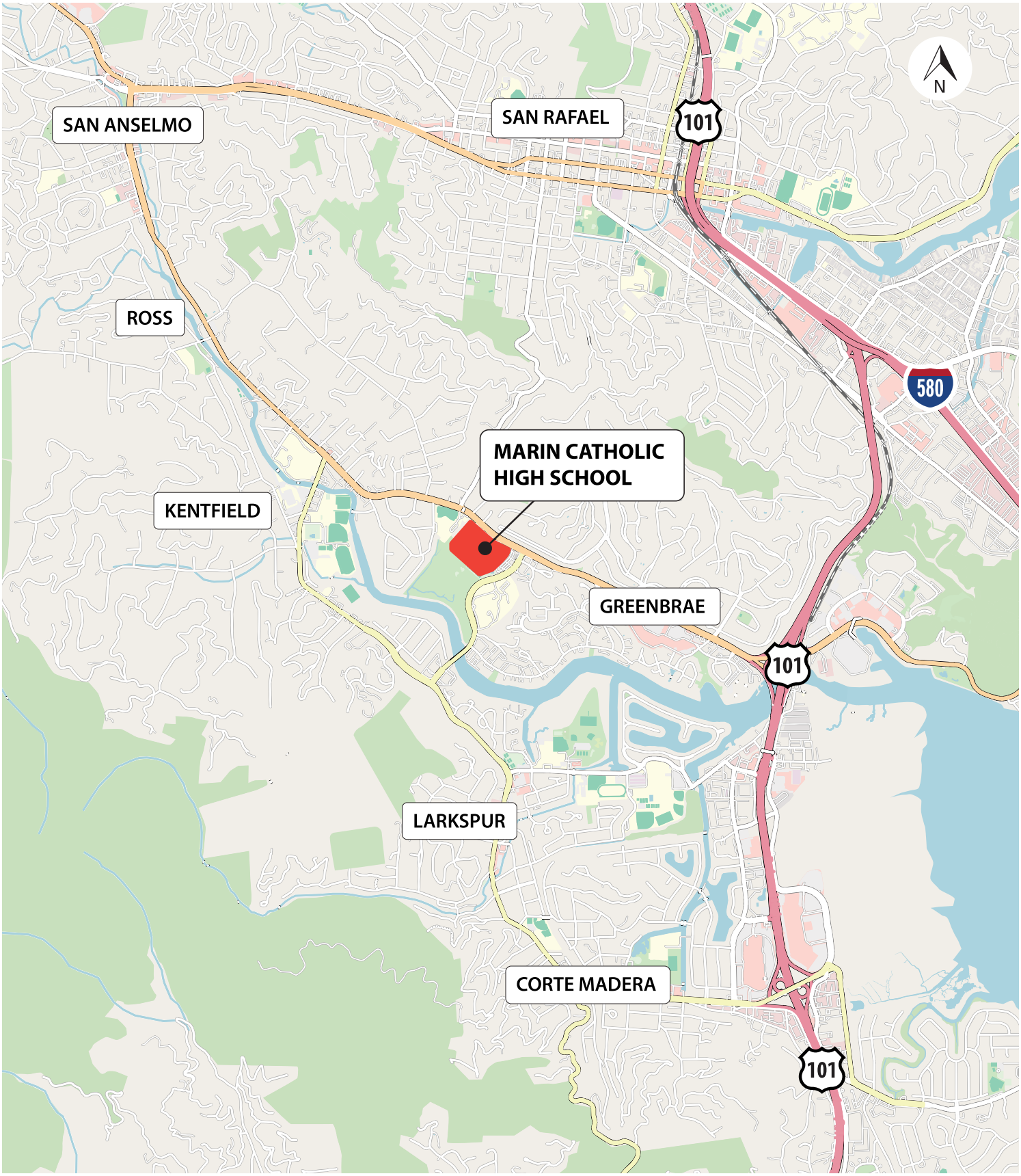
2.2 Study Intersections

This study assesses Existing and "Existing plus Project" conditions at seven study intersections for each study scenario. See Figure 2 for a map of the Project location, the study intersections, and their intersection control type and lane configurations.

The Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School intersection serves as a gateway for traffic arriving from / heading to the west or to the north for select parts of San Rafael. Traffic is subject to signal control.

The Sir Francis Drake Boulevard / Marin Catholic School Driveway A intersection serves as the primary access point to the Marin Catholic campus and its parking lot from Sir Francis Drake Boulevard. Sir Francis Drake Boulevard traffic is uncontrolled and driveway traffic is considered minor approach STOP controlled. The driveway can serve bi-directional traffic, but primary serves vehicles entering campus.

The Sir Francis Drake Boulevard / Marin Catholic School Driveway B intersection serves as the primary exit from Marin Catholic's parking lot, leading to eastbound Sir Francis Drake Boulevard. Driveway traffic is considered minor approach STOP controlled.



Map data from OpenStreetMap.

Figure 1. Project Vicinity Map

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The Sir Francis Drake Boulevard / Bon Air Road intersection is a three-way intersection serving traffic to/from all four driveways connecting to parking lots owned or leased by the school for daily use. Traffic is subject to signal control.

The Bon Air Road / St. Sebastian Church Driveway C intersection serves as one of two entrances to the St. Sebastian's parking lot, which is shared with the school. This driveway only serves entering traffic from southbound Bon Air Road and is not marked for exiting traffic.

The Bon Air Road / St. Sebastian Church Driveway D intersection serves entering and exiting traffic to/from the St. Sebastian's parking lot and the attaches Bay Club parking lot. Driveway traffic is considered subject to minor approach STOP controlled.

The Sir Francis Drake Boulevard / La Cuesta Drive intersection serves as a gateway for traffic arriving from / heading to the east and traffic using US Highway 101 from the north and south. Traffic is subject to signal control.

2.3 Pedestrian and Bicycle Facilities

The two roads immediately adjacent to the school, Sir Francis Drake Boulevard and Bon Air Road, have sidewalks on both sides of the street. Sidewalks are curb-tight and typically around five-feet wide, with some long driveway crossings. On portions of the north side of Sir Francis Drake Boulevard, a fence acts as a barrier between the sidewalk and traffic. There are no bike lanes on Sir Francis Drake Boulevard or Bon Air Road directly adjacent to the school. Some on-street painted class II bike lanes are present south of campus on Bon Air Road and there are connections to an eight-foot-wide multi-use trail along Bon Air Road south of campus.

2.4 Public Transit Facilities

Marin Catholic is served by Marin Transit Routes 29 and Route 228, with stops on Sir Francis Drake Boulevard and Bon Air Road between 500 and 2,000 feet from the school's entrance.

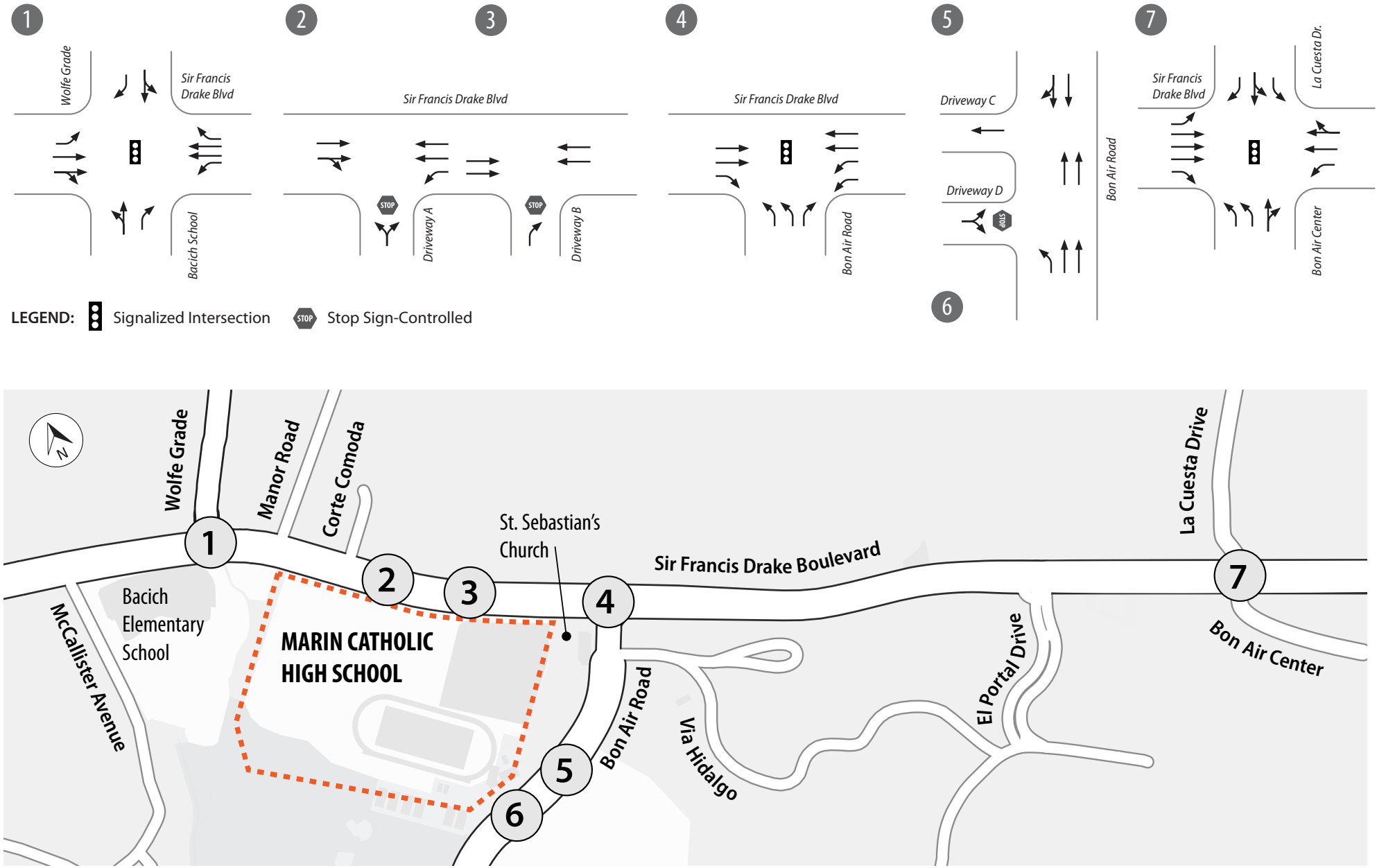

Figure 2. Project Study Area

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3. Existing Traffic Operations

This section summarizes the concept of Level of Service (LOS), a qualitative grade or score of intersection operations based on driver delay, the existing traffic count data used to calculate (LOS), and the calculated delay and LOS using these methodologies and data.

3.1 LOS Concept

This report provides an intersection delay analysis using Highway Capacity Manual LOS methodology to calculate the vehicle delay under existing and Existing plus Project conditions. The assessment is used to determine existing intersection operations and identify potential safety issues.

There are six levels of operation or "grades," ranging from LOS "A" to "F". LOS "A" represents free-flowing traffic conditions, where motorists are affected little by other motorists, and the level of comfort and convenience to the motorist is high. LOS "F" is characterized by congested conditions, where motorists usually experience discomfort, inconvenience, and long delays and have little freedom to choose speeds or lanes of travel. Table 1 shows the Level of Service criteria for signalized and unsignalized intersections.

Table 1. Intersection Level of Service Criteria for Signalized and Unsignalized Intersections

LOS	Description	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	Little or no delay	<10.0	<10.0
B	Short traffic delay	>10.0 and ≤20.0	>10.0 and ≤15.0
C	Average delay	>20.0 and ≤35.0	>15.0 and ≤25.0
D	Long delay	>35.0 and ≤55.0	>25.0 and ≤35.0
E	Very long delay	>55.0 and ≤80.0	>35.0 and ≤50.0
F	Extreme delay	>80.0	>50.0

Source: Highway Capacity Manual, Transportation Research Board, 2000

Traffic conditions were evaluated using Synchro 11 software (CUBIC) and the Highway Capacity Manual (HCM) 2000 methodology. Delay shown represents overall intersection average delay per vehicle, in seconds, for signalized intersection. The LOS for minor-approach STOP controlled intersections is based on the delay of vehicles entering an intersection from the minor STOP controlled approach typically and does not assess the major uncontrolled approaches.

3.2 Existing Traffic Counts

Existing traffic counts were recorded on Thursday January 25th and Friday January 26th in 2024. These were typical school days with no significant special events.

The prevailing PM commute peak hour for overall traffic in the surrounding road network was from 5:00 - 6:00 PM on Thursday, and around 4:00 - 5:00 PM on Friday. After those peak times, traffic volumes decline throughout the evening. Recorded traffic volumes on Friday were approximately ten percent lower than overall record Thursday traffic volumes, between 4:00 - 9:00 PM. The traffic volumes collected in 2024 were slightly lower than intersection counts collected in 2016.

Two peak hours were analyzed for each scenario, the peak trip-generation hour of athletic stadium activities coinciding with the PM commute period from 4:00 - 7:30 PM, and the peak trip-generating hour post-PM commute, after 7:30 PM. The peak trip-generating hour because of athletic stadium

activities was determined based on the net project trip generation, as detailed in Section 4.2. See Table 2 for a summary of these study periods. See Figure 3 through Figure 6 for recorded existing traffic counts for each study scenario.

Table 2. Study Peak Hours by Scenario

#	Scenario	Day / Month	Study Peak Hours	
			During PM Commute	Post-PM Commute
1	Football Games	Friday in November	6:15 – 7:15 PM	9:30 – 10:30 PM
2	Soccer Game	Weeknight in December	5:00 – 6:00 PM	8:00 – 9:00 PM
3	Lacrosse Games	Weeknight in February	5:30 – 6:30 PM	8:00 – 9:00 PM
4	Multiple Sports Practices	Weeknight in February	5:15 – 6:15 PM	9:00 – 10:00 PM

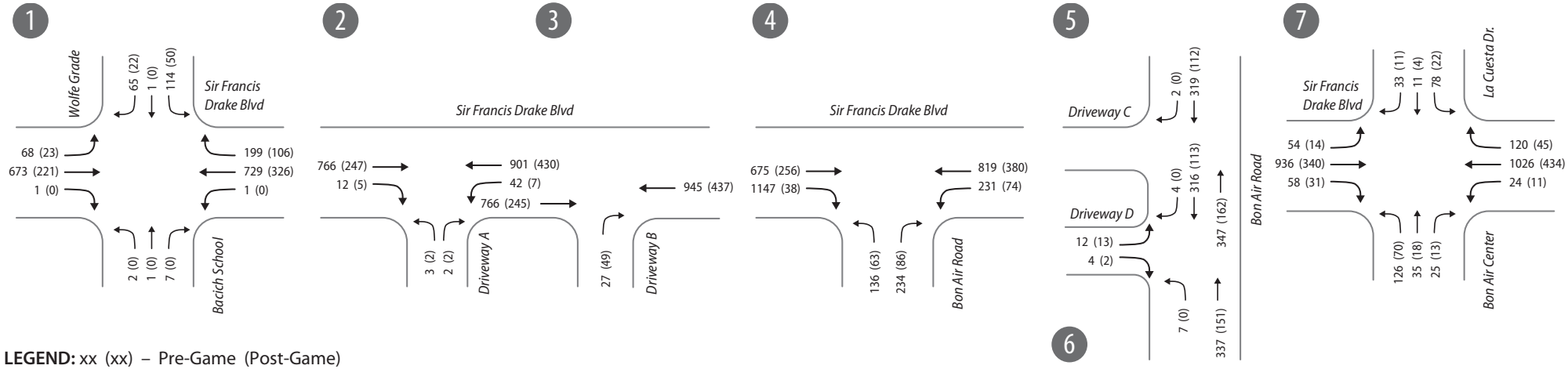
On Thursday January 25th, there were several activities using the athletic stadium, including multiple soccer practices and one soccer game between two other schools, an atypical event.

3.3 Existing Intersection Operations Results

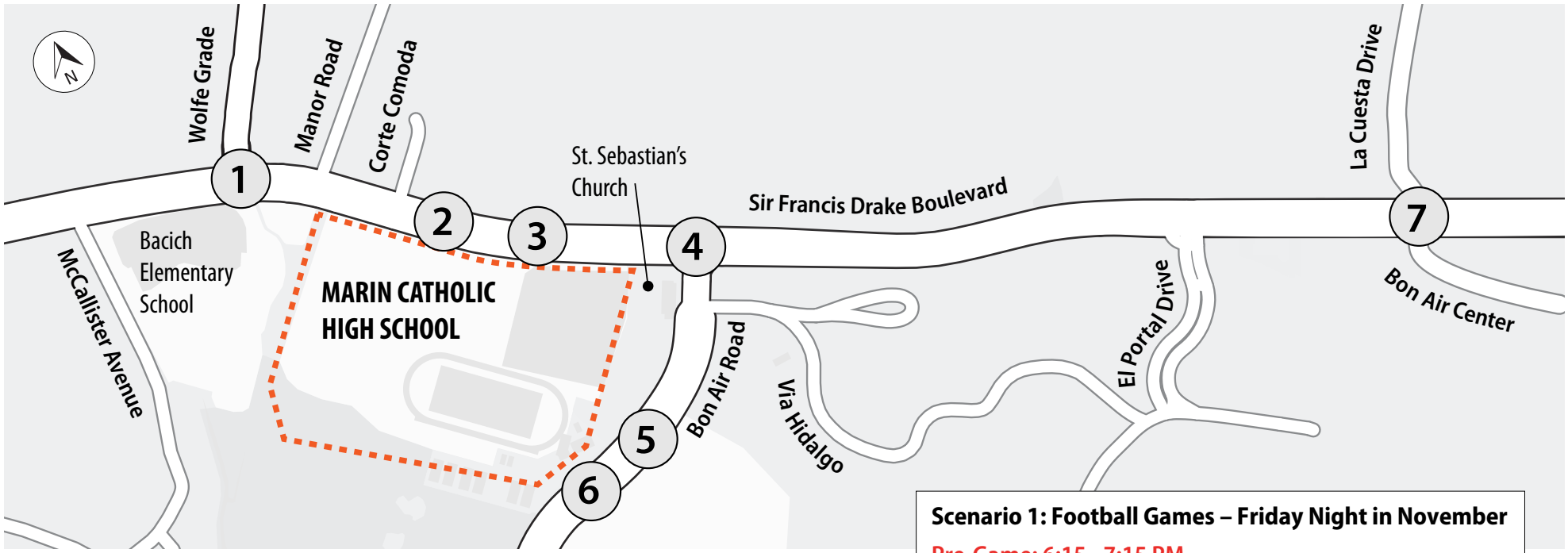
See Table 3 through Table 6 for LOS and average vehicle delay results for each existing conditions scenario. Each intersection has acceptable intersection operations performance under existing conditions.

The intersection of Bon Air Road / St. Sebastian Church Driveway C, Intersection 5, in an intersection where the driveway is striped for entering traffic only and the Bon Air Road approaches are uncontrolled. The presence of a median dividing Bon Air Road means only the southbound approaching vehicles are able to enter the driveway, by making a right turn. Thus, no vehicles are expected to experience delay at this intersection.

Recorded existing traffic counts were used for the existing conditions intersection operations analysis. See Appendix A for intersection traffic operations reports.



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 1: Football Games – Friday Night in November

Pre-Game: 6:15 - 7:15 PM

Post-Game Peak: 9:30 - 10:30 PM

Note: Includes trips for activities using the stadium under existing conditions that would no longer occur under project conditions

Figure 3. Existing Traffic Counts: Scenario 1 – Football Games

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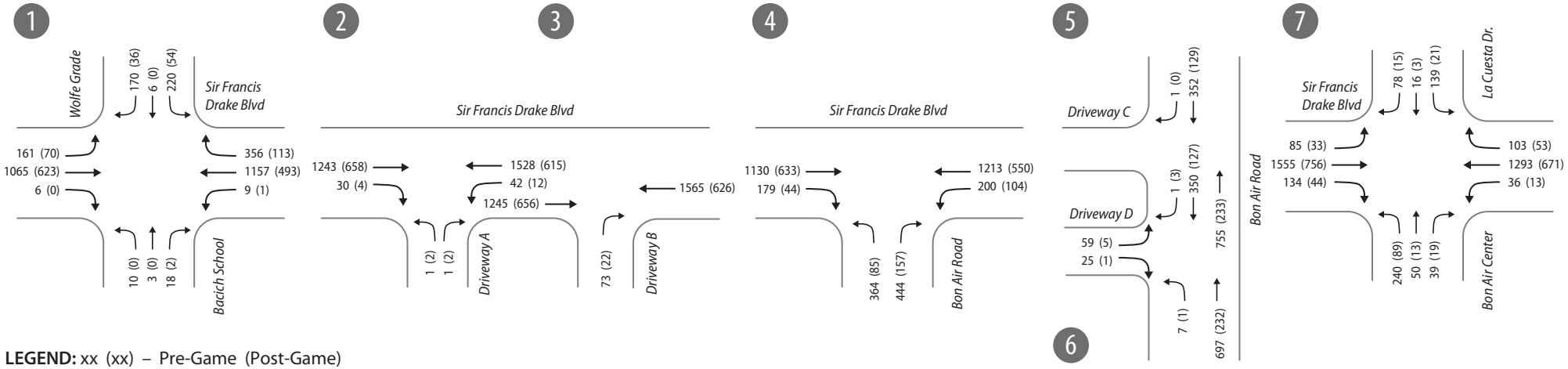
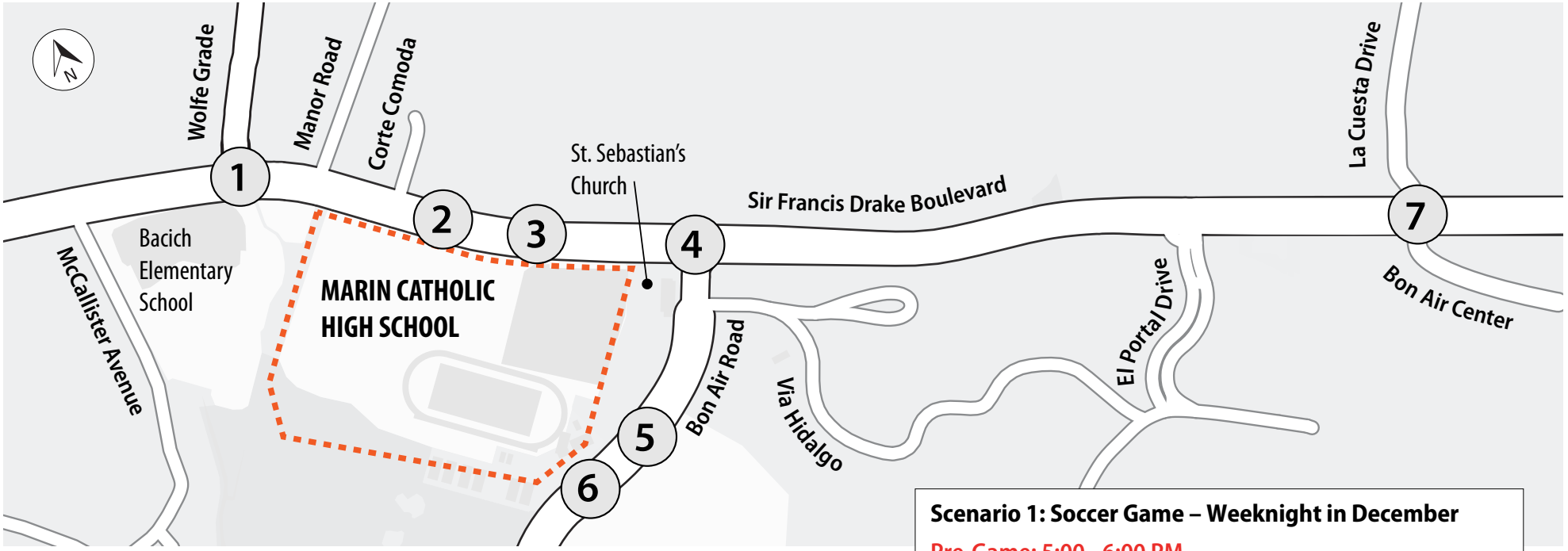


LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 1: Soccer Game – Weeknight in December

Pre-Game: 5:00 - 6:00 PM

Post-Game Peak: 8:00 - 9:00 PM

Note: Includes trips for activities using the stadium under existing conditions that would no longer occur under project conditions

Figure 4. Existing Traffic Counts: Scenario 2 – Soccer Game

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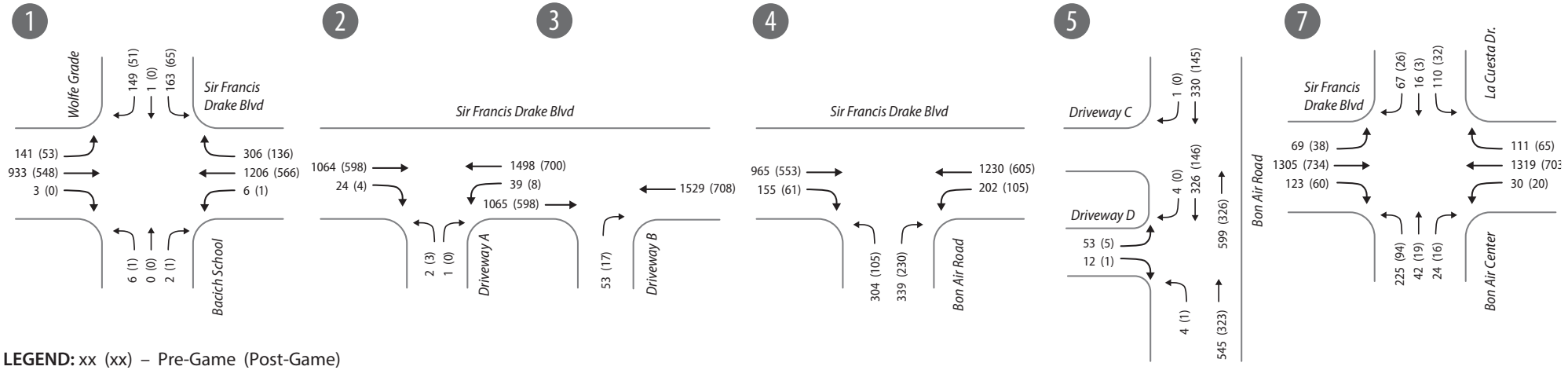
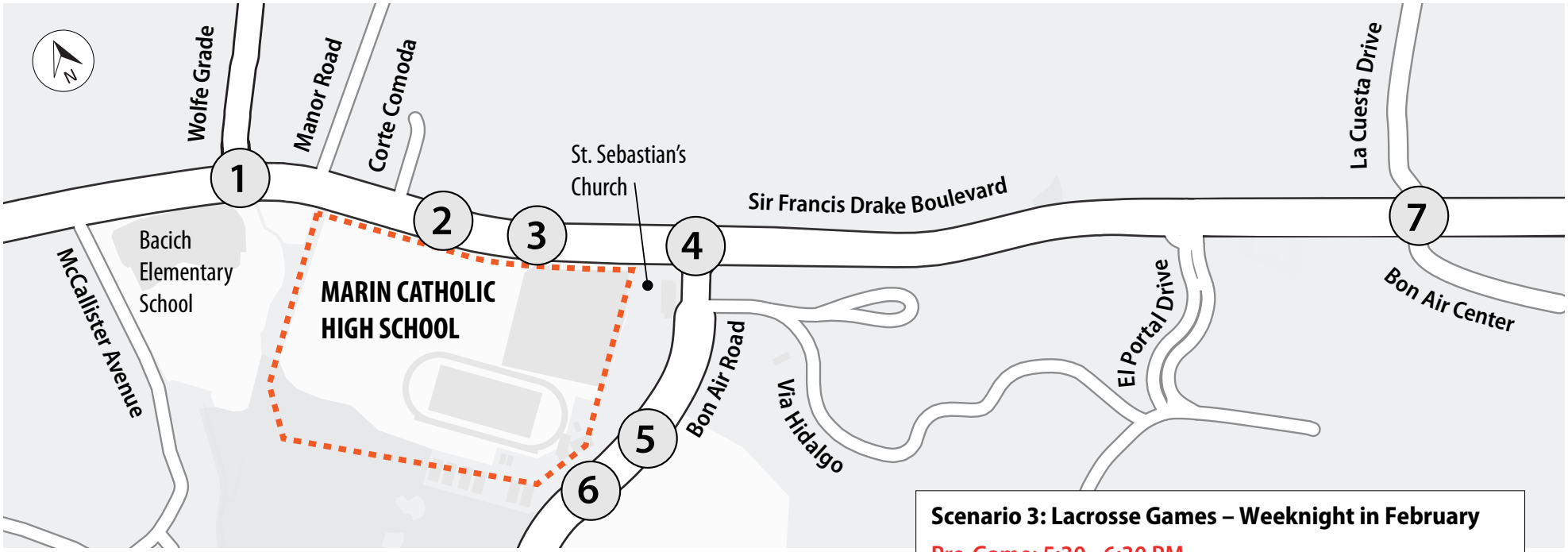


LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 3: Lacrosse Games – Weeknight in February

Pre-Game: 5:30 - 6:30 PM

Post-Game Peak: 8:00 - 9:00 PM

Note: Includes trips for activities using the stadium under existing conditions that would no longer occur under project conditions

Figure 5. Existing Traffic Counts: Scenario 3 – Lacrosse Games

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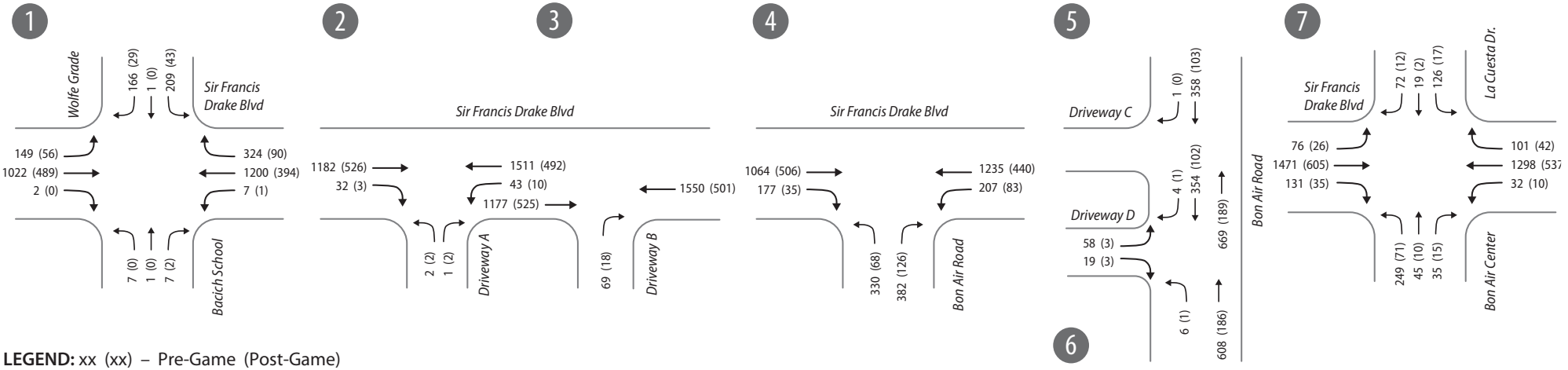
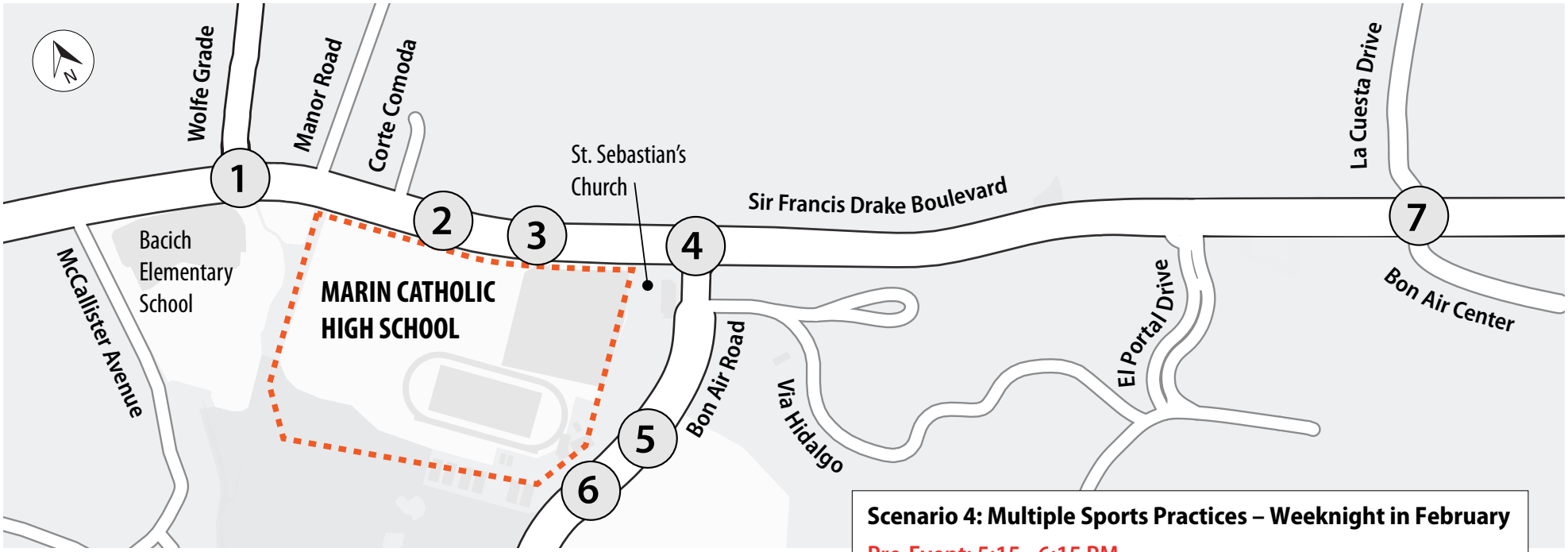


LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 4: Multiple Sports Practices – Weeknight in February

Pre-Event: 5:15 - 6:15 PM

Post-Event Peak: 9:00 - 10:00 PM

Note: Includes trips for activities using the stadium under existing conditions that would no longer occur under project conditions

Figure 6. Existing Traffic Counts: Scenario 4 – Multiple Sports Practices

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Table 3. Existing Intersection Delay and LOS: Scenario 1 – Football Games

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Delay (s)	LOS	Delay (s)	LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	17.6	B	11.1	B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	12.9	B	9.8	A
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.2	B	9.3	A
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	19.5	B	16.9	B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	12.1	B	9.7	A
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	29.8	C	19.9	B

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 4. Existing Intersection Delay and LOS: Scenario 2 – Soccer Game

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Delay (s)	LOS	Delay (s)	LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	30.4	C	12.6	B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	15.5	C	11.6	B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.8	B	10.1	B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	23	C	16	B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	16.5	C	9.9	A
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	48.6	C	20.4	C

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 5. Existing Intersection Delay and LOS: Scenario 3 – Lacrosse Games

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Delay (s)	LOS	Delay (s)	LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	26.7	C	13.1	B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	15.5	C	12.9	B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.6	B	10	B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	20.4	C	18.4	B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	14.8	B	10.4	B
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	38.7	D	22.9	C

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 6. Existing Intersection Delay and LOS: Scenario 4 – Multiple Sports Practices

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Delay (s)	LOS	Delay (s)	LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	29.1	C	12	B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	16.6	C	10.9	B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.7	B	9.9	A
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	21.2	C	15.8	B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	15.9	C	9.2	A
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	42.9	D	19.1	B

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

4. Proposed Project Description and Vehicle Trips

This section describes the existing and proposed use of the Dino Ghilotti Motta Stadium with the proposed Project to replace the temporary lights at the existing athletic stadium on campus with permanent stadium lights, which would allow it to be used after daylight hours by several athletics teams, typically football, men's and women's soccer, and men's and women's lacrosse. This section presents the estimated change in vehicle trips generated by Marin Catholic as a result of the Project and the resulting vehicle volumes at the study intersections.

4.1 Existing and Project Athletic Stadium Use

The Marin Catholic High School Dino Ghilotti Motta Stadium has a maximum attendance capacity of 1,604 persons, including 1,514 seats and 90 on-field participants. The athletic stadium would maintain its size under Project conditions. The stadium is used by multiple school sports teams, including junior varsity and varsity men's football, men's and women's soccer, men's and women's lacrosse, and men's and women's track & field, and occasionally hosts outside not-for-profit events. Under existing conditions, over the course of a typical year, approximately 1,477 events would be expected to be held in the Dino Ghilotti Motta Stadium. Under Project conditions, this is expected to increase to up to around 1,514 events in a typical year, with expected minor variability year-to-year based on league schedules. This includes an assumed 35 current activities relocated from other sites. Generally, the same sports and events would be using the athletic stadium under Project conditions as under existing conditions. The Project may provide the opportunity for the school to offer a Women's Flag Football team in the future, which could have up to 12 on-campus Saturday games per year. Over the course of a year, approximately 157 events would be expected to operate with the proposed permanent stadium lights on.

Based on a review of all the activities that make use of the athletic stadium under existing and future conditions, and the variety of possible daily schedules throughout the year, four scenarios were chosen to represent the most regular, high athletic stadium-use days for each sport. The athletic stadium currently sees, and would continue to see, the busiest use during the two to three weeks of overlap between different sports' seasons in the fall/winter and the spring.

The four scenarios analyzed in this report are as follows:

1. Men's Football Games
2. Men's/Women's Soccer Game
3. Men's/Women's Lacrosse Games
4. Men's/Women's Multiple Sport Practices

The four study scenarios capture the highest-attendance events that happen a few times a year, as well as more common overlap of daily practices and more frequent, lower-attendance games, to typically represent a more average day.

Football games currently occur on Saturday mornings and afternoons. Under proposed Project conditions, football games would be moved to Friday nights, with a Junior Varsity (JV) game from 4:00 - 6:30 PM and a varsity football game from 7:00 - 9:30 PM. Football practices on Friday evenings that currently occur from 3:00 – 6:00 PM would be replaced by football games under Project conditions, but several soccer practices would still occur on Friday, on the adjacent, separate Bishop Thomas A. Daly Baseball Field.

Under existing conditions without permanent stadium lights, the peak activity of a non-game day still has between six and eight athletic teams practicing simultaneously between 3:00 – 6:00 PM. Under Project conditions, with permanent stadium lights, the Dino Ghilotti Motta Stadium would be usable later after sundown and would allow practices to be more spread out into the evening.

See Appendix B for a detail daily schedule for the anticipated activities using the athletic stadium in each proposed scenario and under existing conditions.

4.2 Trip Generation

The expected number of vehicle trips generated before and after each event was calculated based on game attendance, men's and women's sports team size and staff count, and whether an attendee originates on or off campus.

For athletics games/meets, trips rates were determined based on recorded 2016 football game-day attendance and coinciding traffic counts. An overall vehicle trip rate of 0.45 trips per person pre-game and 0.47 trips post-game was assumed for all men's and women's sports games/meets.

For athletics practice events, it was assumed most players and coaches would already be on-site and the pre-event trip rate would be minimal. Post-practice, a trip rate of 1.3 was assumed for total trips. This assumes 80% of JV students and 30% of varsity students are picked up in a vehicle, with the rest driving themselves, carpooling, or using another means of transport. A vehicle entering and then exiting the school would count as two trips. See Table 7 for the trip generation rates used.

Table 7. Trip Generation Rates per Event Type

Event Type	Unit	During PM Commute			Post-PM Commute		
		Trip Rate	% In	% Out	Trip Rate	% In	% Out
Games	Per person	0.45	78%	22%	0.47	19%	81%
Practices	Per person	0.1	5%	5%	1.3	42%	58%

Parametrix, 2024.

Under proposed Project conditions, the number of spectators for varsity football games, soccer games, and lacrosse games was assumed to increase. For a conservative analysis, football games were assumed to have the highest attendance rates, fully occupying the maximum 1604 capacity of the athletic stadium between the spectators and players, coaches, and staff. Soccer and Lacrosse games were conservatively assumed to draw 150 spectators under Project conditions, a 50% increase from existing conditions.

Practice events were assumed to have the same number of people under existing and proposed conditions and would thus generate the same number of trips per event. See Table 8 for a detailed breakdown of event attendance levels, provided by Marin Catholic.

The various junior varsity and varsity, men's and women's teams for soccer and lacrosse have a varying number of players and coaches. To be conservative, study scenarios assumed one team with the greatest attendance levels, either junior varsity or varsity and either men's or women's, to represent each soccer and lacrosse game events.

Table 8. Dino Ghilotti Motta Stadium Events' Expected Attendees

Event Type	Team	Existing Conditions	Project Conditions

		Players, Coaches, Staff	Max. Spectators	Players, Coaches, Staff	Max. Spectators
Football Games	Varsity/Junior Varsity (JV)	90 59	1300 300	90 59	1514 300
Soccer / Lacrosse Game	Varsity/JV, Men's/Women's	50 – 82	100	50 - 82	150
Multiple Sports Practices	Varsity/JV, Men's/Women's	21 - 47	0	21 - 47	0

During the PM Commute period, which would be considered "pre-game" for most scenarios, the majority of the traffic generated would be from vehicles arriving to Marin Catholic to stay for the event or drop people off. During the Post-PM Commute period, typically "post-game" or "post-practice," the majority of trips would be from people leaving campus.

Under several PM commute scenarios, like the Soccer Game, Lacrosse Games, and Multiple Sports Practices, where other activities end prior to this peak hour, the trips arriving may be comparable to the trips leaving. People may be leaving from one activity, while other people are arriving for a different activity. The calculated trips generated for each scenario is a composite of several overlapping activities to determine the Project's cumulative impact. It is assumed the majority of students use a vehicle, and the number of students using walking, biking, or transit is less than one percent. See Table 9 for the calculated trips per scenario.

Table 9. Trips Generated per Study Scenario – Project Conditions

#	Scenario	During PM Commute			Post-PM Commute		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
1	Football Games	565	281	846	143	611	754
2	Soccer Game	116	77	193	19	81	100
3	Lacrosse Games	79	80	159	21	88	109
4	Multiple Sports Practices	73	100	173	33	45	78

Parametrix, 2024.

This report studies two peak hours, the peak hour generated from athletic stadium-use activities coinciding with the PM commute period between 4:00 - 7:30 PM, and the peak generating hour after 7:30 PM. Peak generating hour was determined based on the largest net change in trips resulting from the Project.

See Table 10 for detailed daily net trip schedules for each scenario. The Multiple Sports Practices scenario reschedules the same events. Thus, with no anticipated increase in attendance, the overall daily trips would remain constant from existing to proposed conditions. The Project would spread trips throughout the evening, outside of the PM commute peak hour. Scenario 1 would generate the largest number of trips.

Table 10. Proposed Daily Schedule Changes – Net change in Vehicle Trips

Time Period	Net Change in number of Trips by Scenario			
	Football Games	Soccer Game	Lacrosse Games	Multiple Sports Practices
	Friday Night	Weeknight	Weeknight	Weeknight
2-3 PM	-4	-37	-13	0
3-4 PM	+157	-36	-35	0
4-5 PM	0	0	-10	-39
5-6 PM	-87	+22	+32	+30
6-7 PM	+772	-4	+25	-139
7-8 PM	+33	0	+71	+66
8-9 PM	0	+95	+21	+4
9-10 PM	+603	+5	0	+78
10-11 PM	+151	0	0	0
Total	1627	45	91	0

Parametrix, 2024.

4.3 Trip Distribution

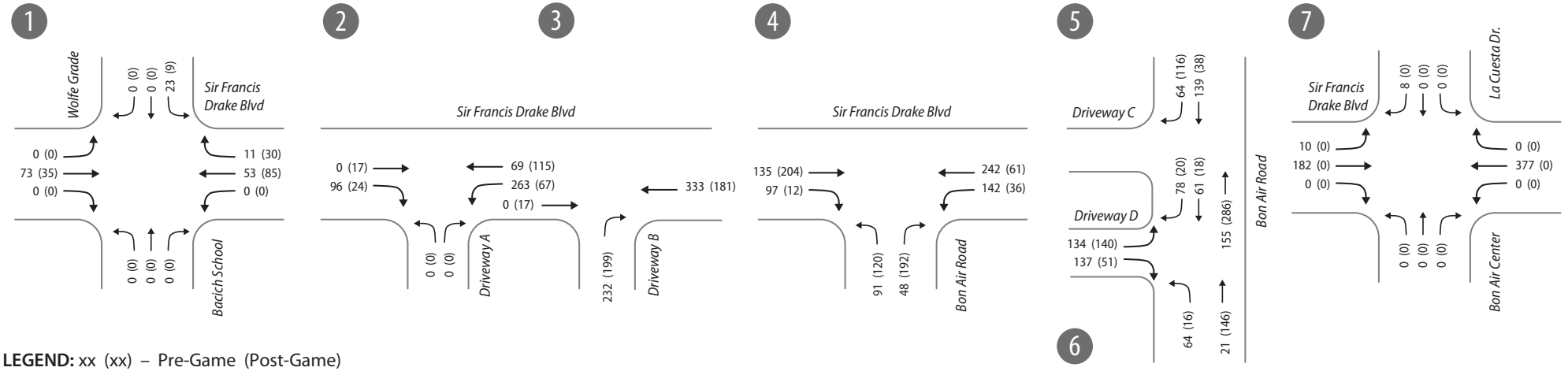
A trip assignment methodology was developed based on student residence zip codes and traffic counts of school driveway traffic. Based on these data,

- 68% of trips were assumed to come from/go towards east of the study network via Sir Francis Drake Boulevard,
- 13% were assumed to come from/go towards the west via Sir Francis Drake Boulevard,
- 15% from/go towards the south on Bon Air Road, and
- 4% from/go towards the north on Wolfe Grade.

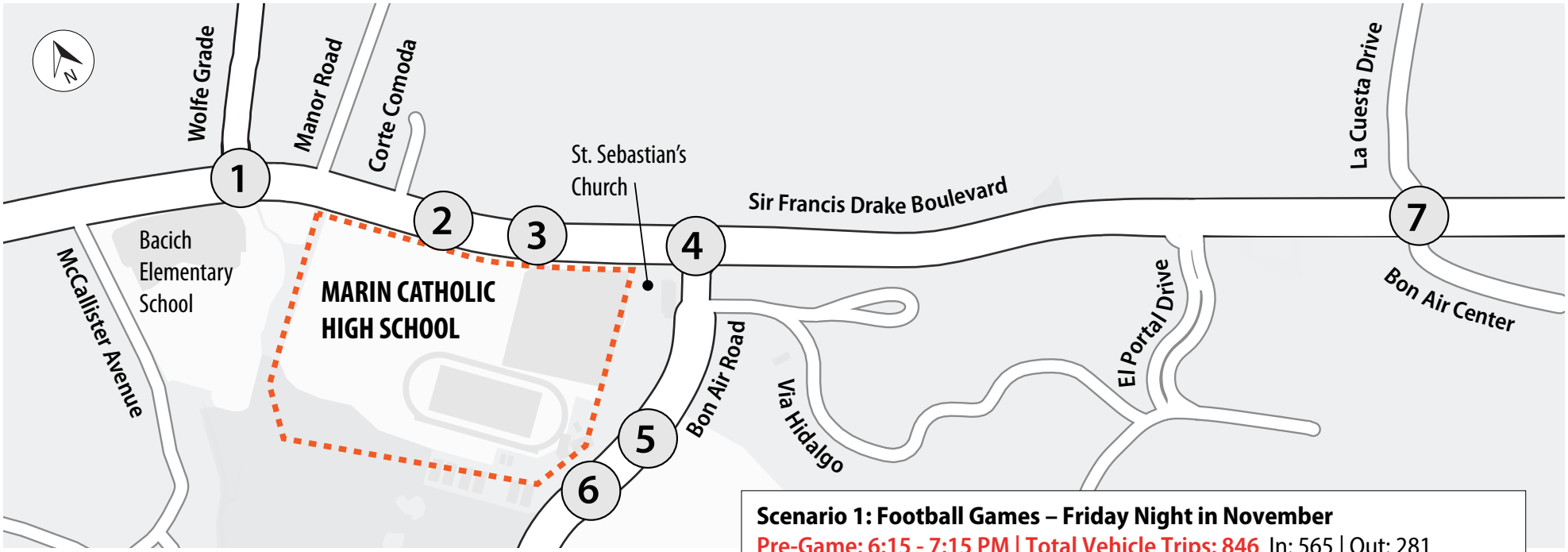
All traffic entering the study network was assumed to enter the school parking lot. For high-attendance events, where parking demand would be expected to be higher than on-site supply, additional “pass-though” trips were assumed to exit campus so drivers could find off-site parking.

At the school Driveway A, conflicting Sir Francis Drake Boulevard traffic is high, making it challenging for vehicles exiting the driveway to find a gap in traffic and safely and efficiently turn left onto Sir Francis Drake Boulevard. The parking lot configuration does not support a large number of vehicles exiting this driveway. For this analysis, it was assumed that Project generated trips would be prohibited from performing outbound turning movements from Driveway A to ensure acceptable LOS conditions. These trips were distributed to other driveways.

See Figure 7 through Figure 10 for the Project-only vehicle trips for each scenario assigned to each study intersection.



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 1: Football Games – Friday Night in November

Pre-Game: 6:15 - 7:15 PM | Total Vehicle Trips: 846 In: 565 | Out: 281

Assumes 220 park Off-site, but pass through parking lots.

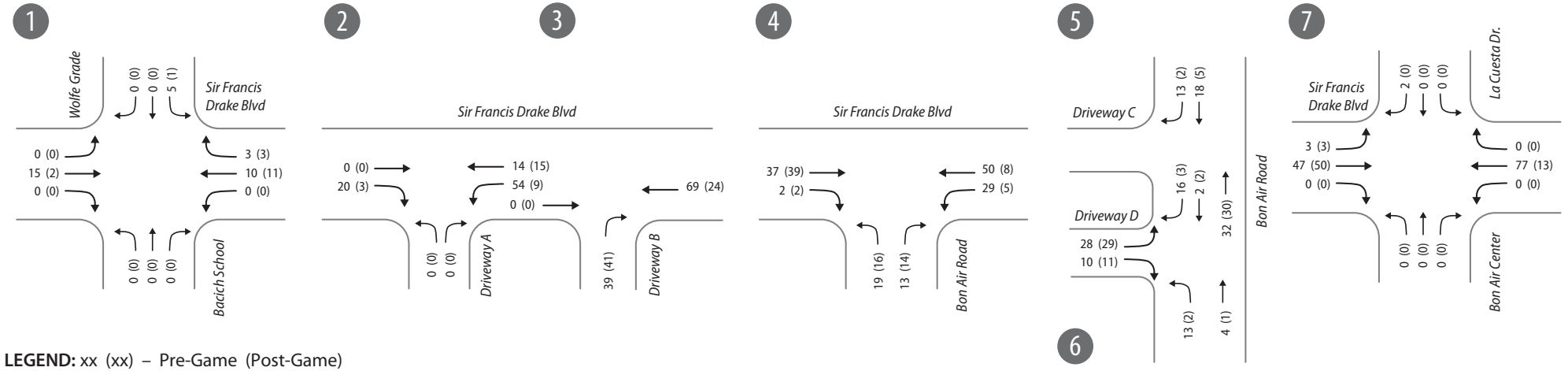
Post-Game Peak: 9:30 - 10:30 PM | Total Vehicle Trips: 754 In: 143 | Out: 611

(Assumes 220 leave from Off-site parking spaces)

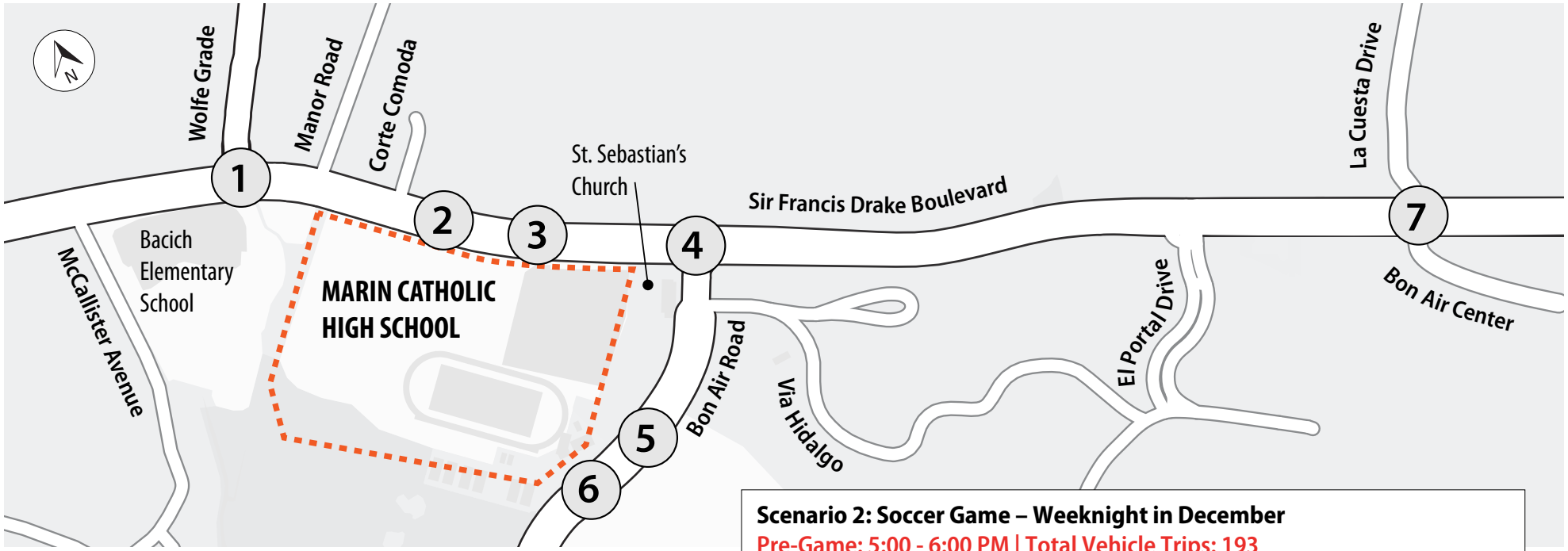
Figure 7. Project Trips: Scenario 1 – Football Games

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



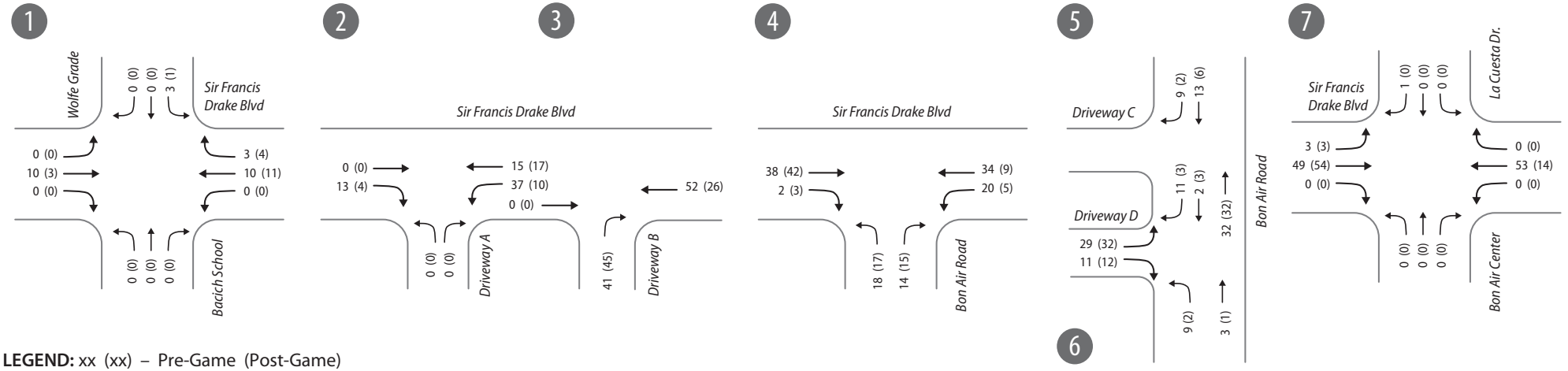
Scenario 2: Soccer Game – Weeknight in December
Pre-Game: 5:00 - 6:00 PM | Total Vehicle Trips: 193
In: 116 | Out: 77

Post-Game Peak: 8:00 - 9:00 PM | Total Vehicle Trips: 100
In: 19 | Out: 81

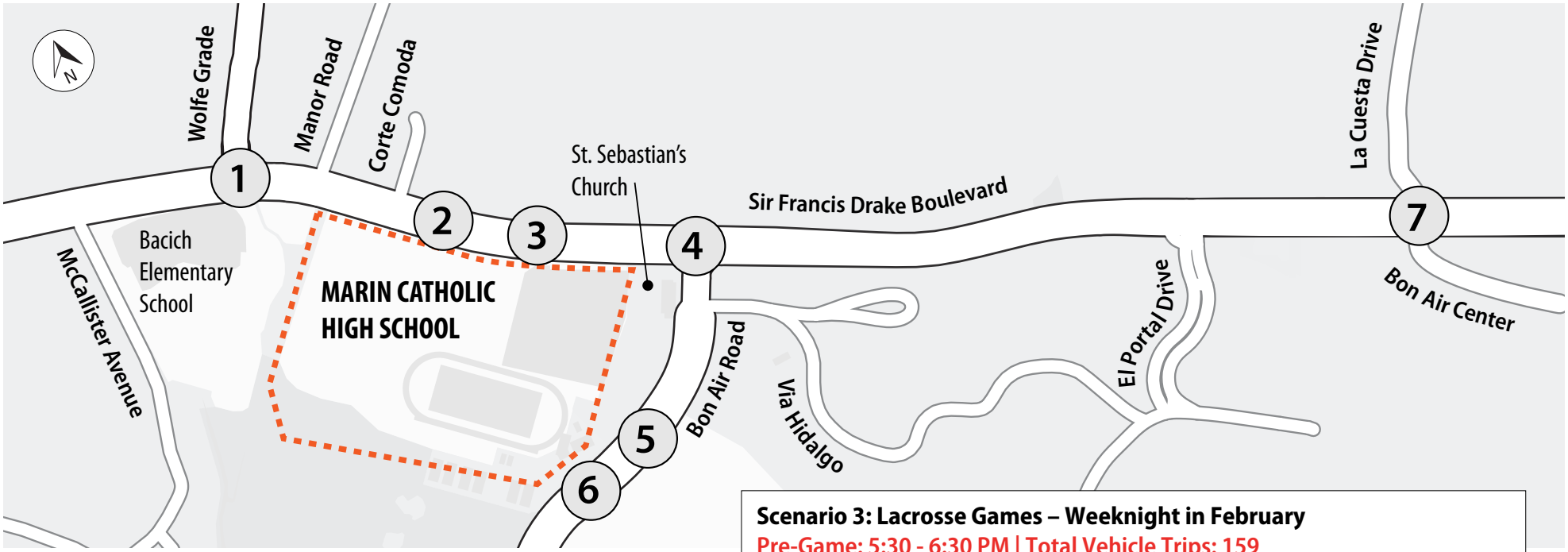
Figure 8. Project Trips: Scenario 2 – Soccer Game

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 3: Lacrosse Games – Weeknight in February

Pre-Game: 5:30 - 6:30 PM | Total Vehicle Trips: 159

In: 79 | Out: 80

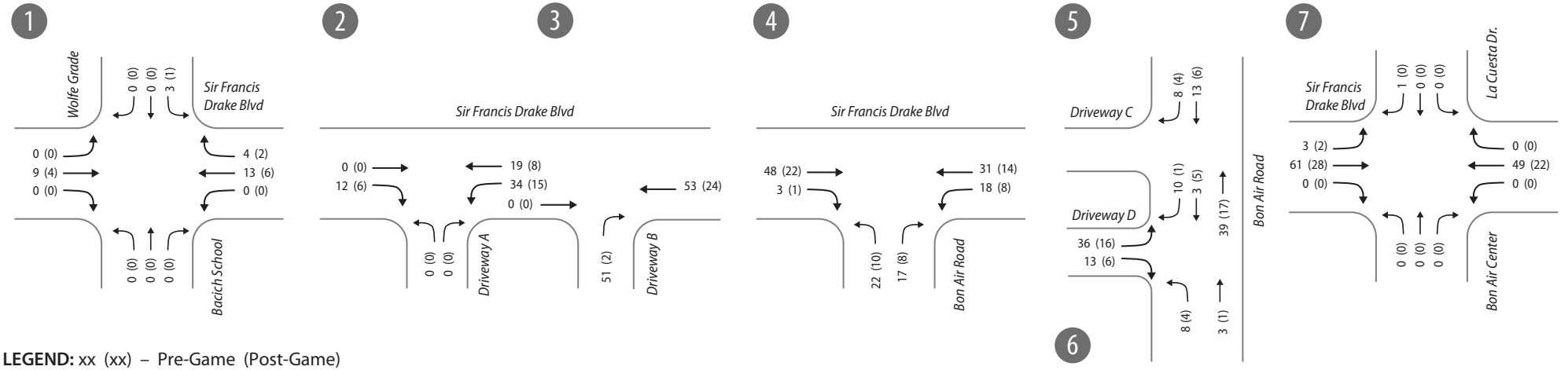
Post-Game Peak: 8:00 - 9:00 PM | Total Vehicle Trips: 109

In: 21 | Out: 88

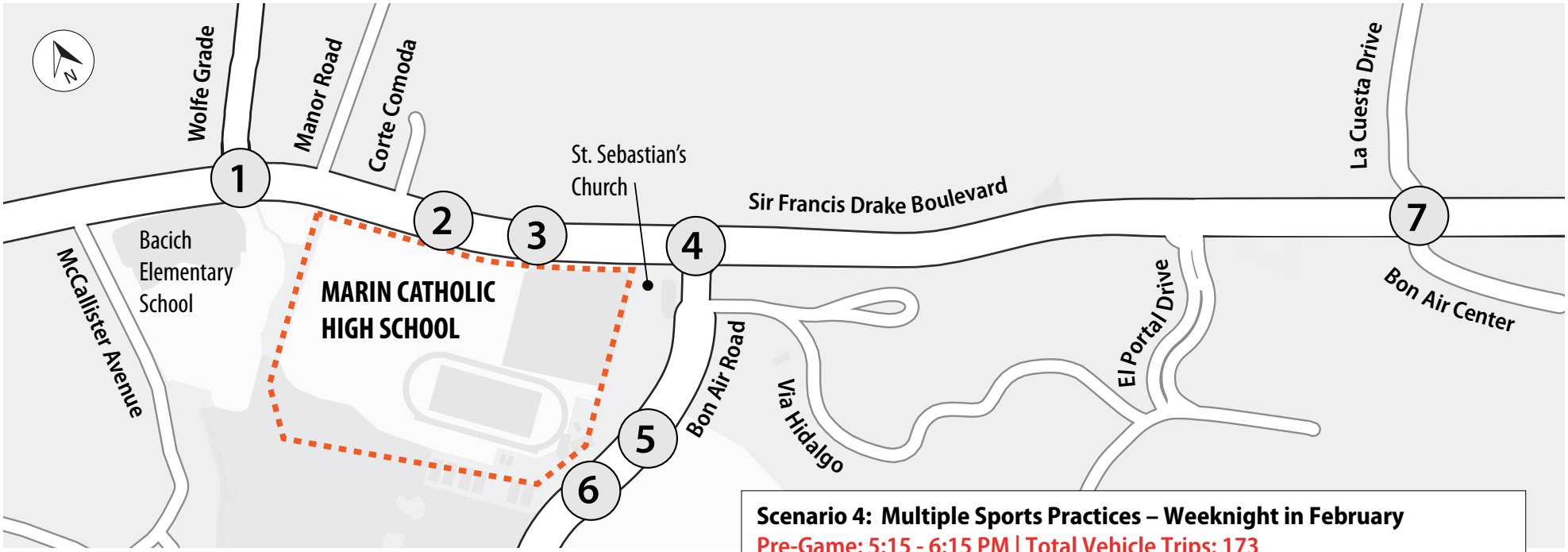
Figure 9. Project Trips: Scenario 3 – Lacrosse Games

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 4: Multiple Sports Practices – Weeknight in February
Pre-Game: 5:15 - 6:15 PM | Total Vehicle Trips: 173
In: 73 | Out: 100

Post-Game Peak: 9:00 - 10:00 PM | Total Vehicle Trips: 78
In: 33 | Out: 45

Figure 10. Project Trips: Scenario 4 – Multiple Sports Practices

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix

5. Existing Plus Project Traffic Operations

This section presents the estimated vehicle traffic volumes resulting from the Proposed Project and their estimated effect on the vehicle operations at the study intersections.

5.1 Existing Plus Project Traffic Volumes

Existing Plus Project conditions traffic volumes were determined by adding the Project-generated trips to baseline traffic volumes. Existing activities were using the Dino Ghilotti Motta Stadium during the time existing traffic counts were recorded. These existing athletic stadium trips were subtracted from the existing traffic counts to determine the baseline traffic volumes used for adding the proposed Project-generated trips. Additionally, the net change in trips resulting from the project throughout the day was considered. With the schedule modifications, some time periods may be expected to have a lower number of trips compared to existing conditions.

See Figure 11 through Figure 14 for Existing Plus Project conditions traffic volumes for each scenario.

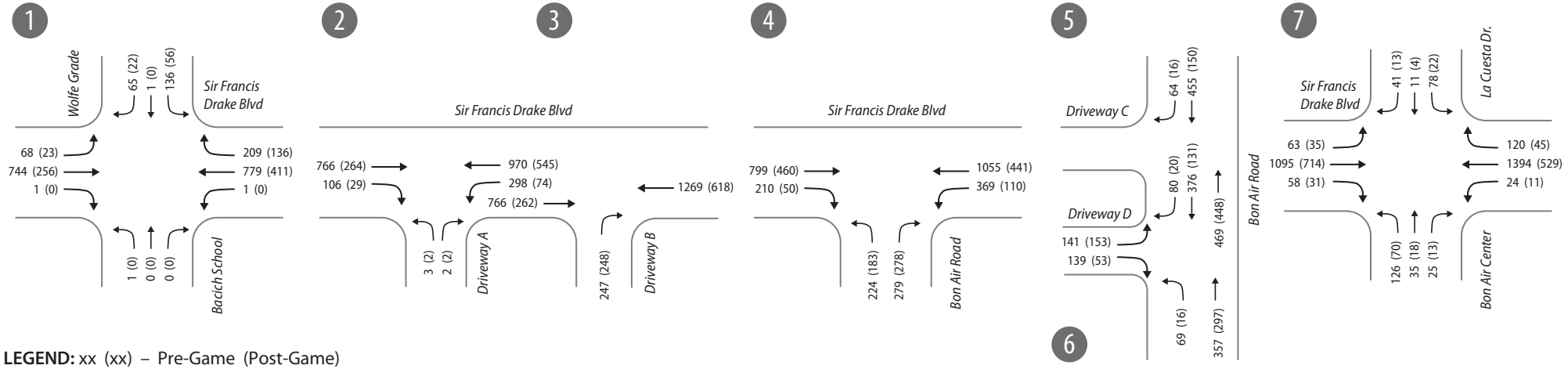
5.2 Existing Plus Project Intersection Operations Results

See Table 11 through Table 14 for LOS and average vehicle delay in seconds results for Existing Plus Project conditions for each scenario, for pre-event (coinciding with PM commute) and post-event time periods. These results meet the County LOS performance standards of LOS D or better.

The largest increase in overall intersection delay would occur under Scenario 1, with average intersection delay at the intersection of Bon Air Road / Sir Francis Drake Boulevard increasing three seconds pre-game and eight seconds post-game, from LOS B to LOS C in both time periods (Table 11). The average delay for traffic exiting the St. Sebastian Church Driveway D increases by 19.2 seconds to LOS D for that approach. With conflicting traffic on Bon Air Road free-flowing, a large volume of vehicles exiting this minor street stop controlled (MSSC) driveway would need to wait to find appropriate gaps in traffic to turn left and right. This traffic waiting to exit the campus would be stored in the parking lots and the driveway would meter the influx of traffic onto the public roadways. The results show an increase in delay of nine seconds at the school Driveway A, affecting less than ten vehicles.

The Soccer Game, Lacrosse Games, and Multiple Sports Practices would result in similar intersection operations performance under Project conditions compared to existing conditions, with increases in delay of less than one second at all intersections (Table 12, Table 13 and Table 14).

See Appendix A for intersection traffic operations and queueing reports.



LEGEND: xx (xx) – Pre-Game (Post-Game)

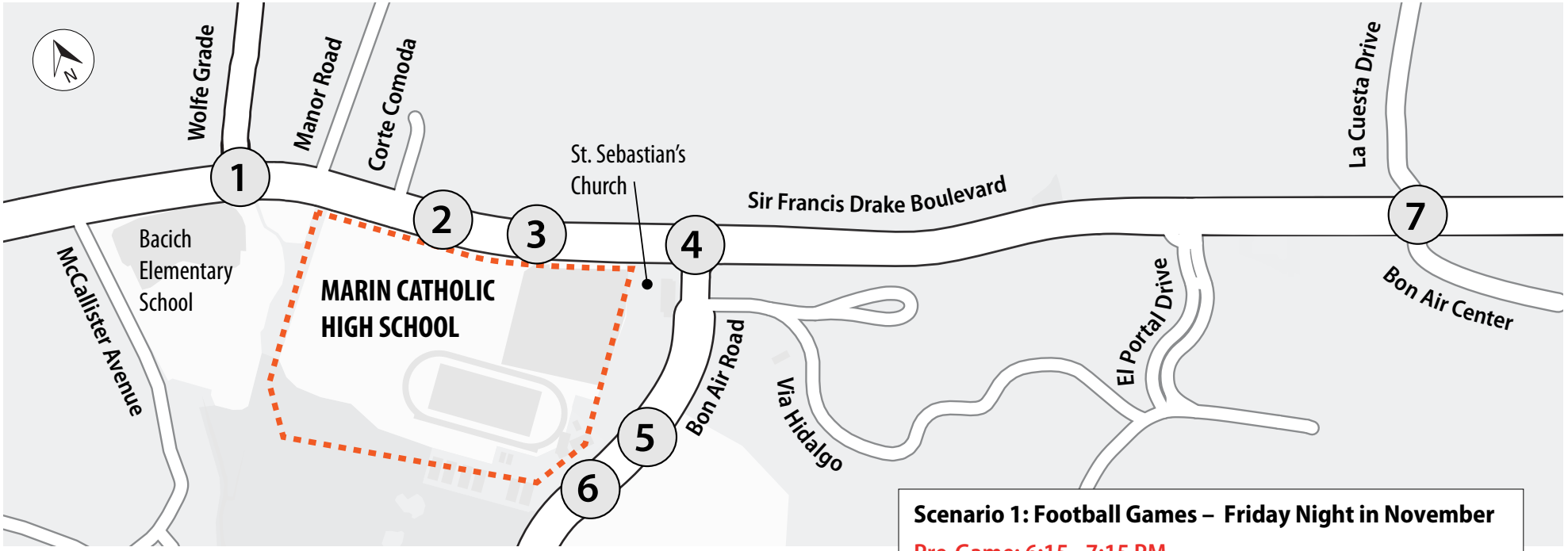
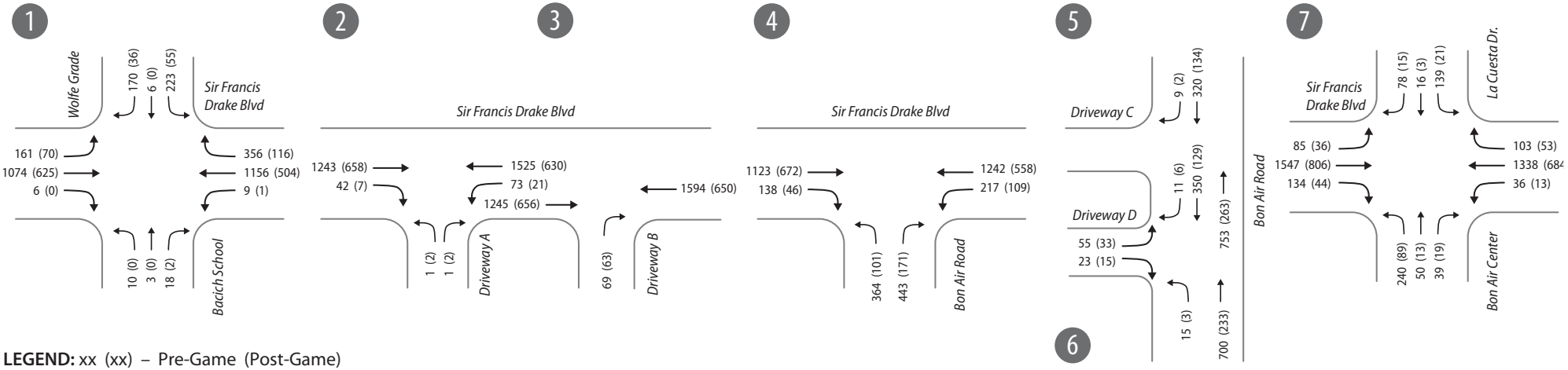


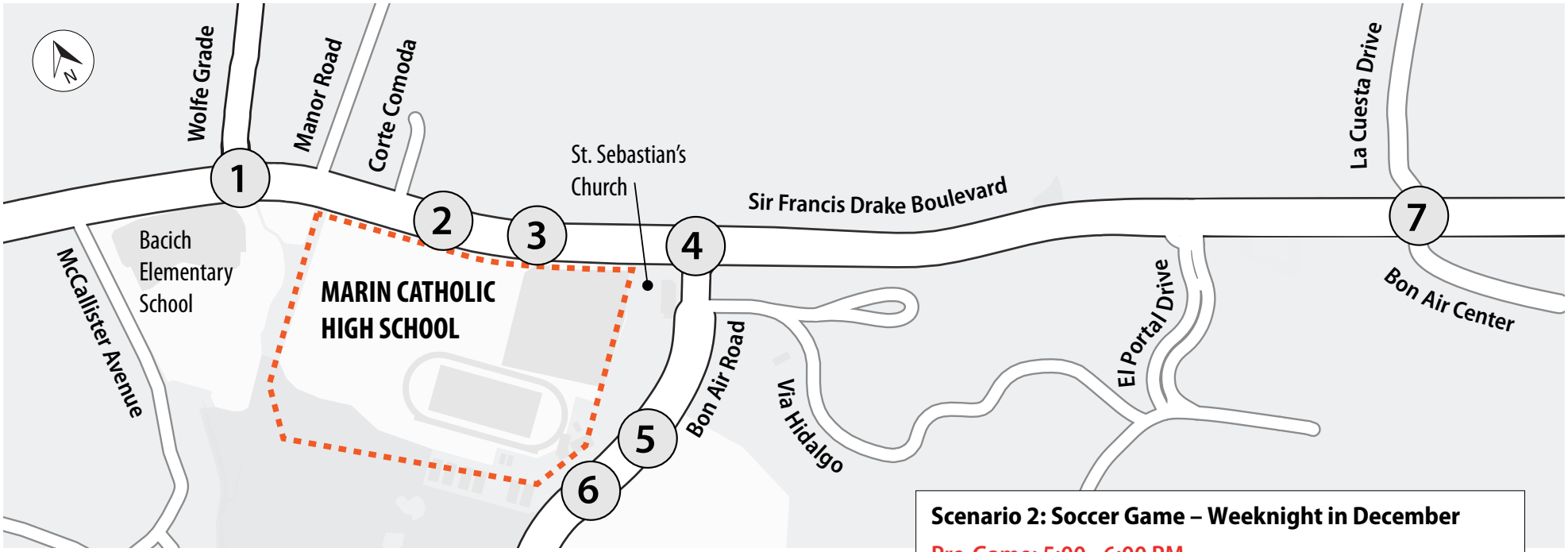
Figure 11. Existing Plus Project Traffic Volumes: Scenario 1 – Football Games

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 2: Soccer Game – Weeknight in December

Pre-Game: 5:00 - 6:00 PM

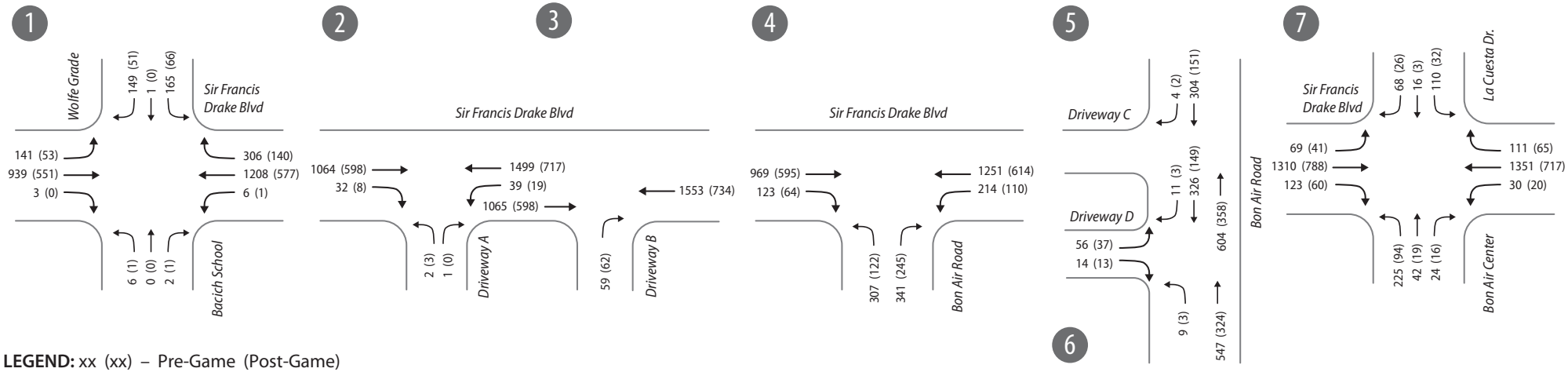
Post-Game Peak: 8:00 - 9:00 PM

Note: Volumes include discounts taken accounting for athletic stadium trips recorded in traffic counts that would not occur under project conditions.

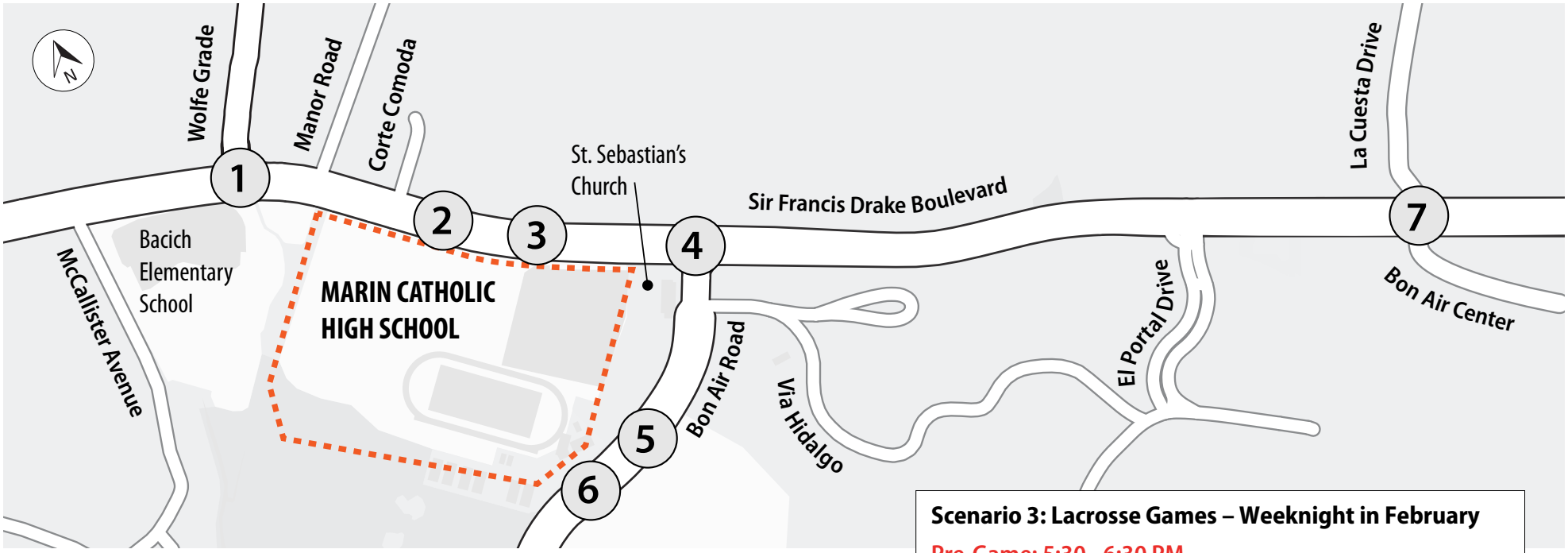
Figure 12. Existing Plus Project Traffic Volumes: Scenario 2 – Soccer Game

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 3: Lacrosse Games – Weeknight in February

Pre-Game: 5:30 - 6:30 PM

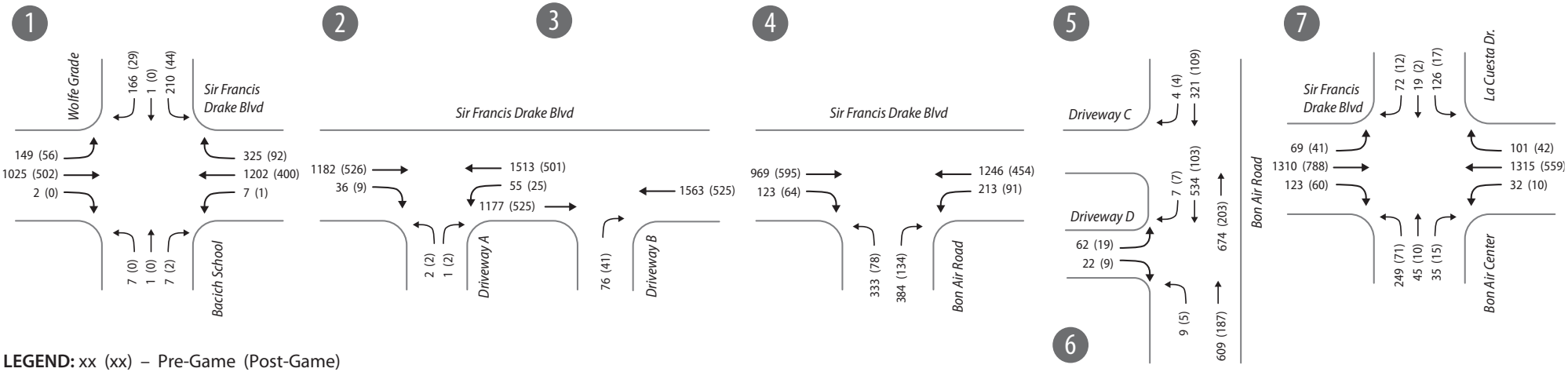
Post-Game Peak: 8:00 - 9:00 PM

Note: Volumes include discounts taken accounting for athletic stadium trips recorded in traffic counts that would not occur under project conditions.

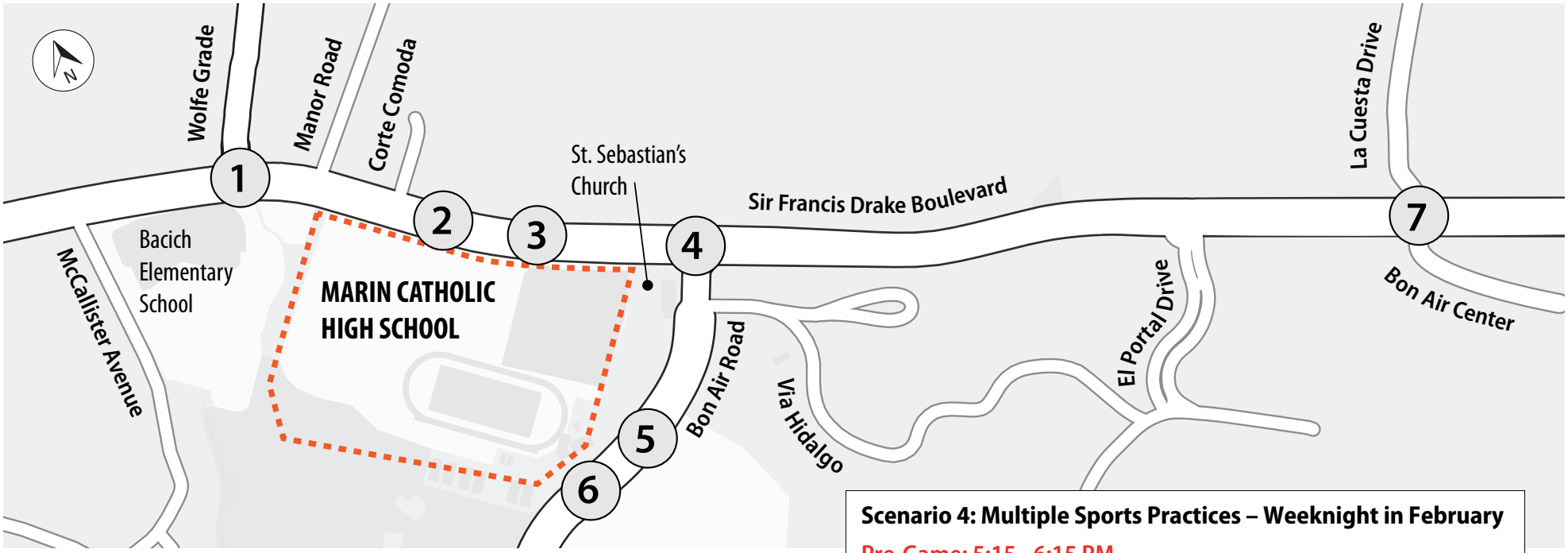
Figure 13. Existing Plus Project Traffic Volumes: Scenario 3 – Lacrosse Games

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix



LEGEND: xx (xx) – Pre-Game (Post-Game)



Scenario 4: Multiple Sports Practices – Weeknight in February

Pre-Game: 5:15 - 6:15 PM

Post-Game Peak: 9:00 - 10:00 PM

Note: Volumes include discounts taken accounting for athletic stadium trips recorded in traffic counts that would not occur under project conditions.

Figure 14. Existing Plus Project Traffic Volumes: Scenario 4 – Multiple Sports Practices

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Table 11. Existing Plus Project Intersection Delay and LOS: Scenario 1 – Football Games

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Existing	Plus Project	Existing	Plus Project
			Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	17.6 / B	17.5 / B	11.1 / B	10.5 / B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	12.9 / B	21.6 / C	9.8 / A	10.7 / A
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.2 / B	12.7 / B	9.3 / A	10.8 / B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	19.5 / B	22.1 / C	16.9 / B	24.7 / C
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	12.1 / B	31.3 / D	9.7 / A	12.9 / B
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	29.8 / C	34.6 / C	19.9 / B	19.9 / B

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 12. Existing Plus Project Intersection Delay and LOS: Scenario 2 – Soccer Game

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Existing	Plus Project	Existing	Plus Project
			Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	30.4 / C	30.1 / C	12.6 / B	13.3 / B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	15.5 / C	15.9 / C	11.6 / B	11.6 / B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.8 / B	10.8 / B	10.1 / B	10.5 / B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	23 / C	23.4 / C	16 / B	19 / B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	16.5 / C	16.9 / C	9.9 / A	10.1 / B
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	48.6 / D	48.9 / D	20.4 / C	20.8 / C

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 13. Existing Plus Project Intersection Delay and LOS: Scenario 3 – Lacrosse Games

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Existing	Plus Project	Existing	Plus Project
			Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	26.7 / C	26.7 / C	13.1 / B	13.2 / B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	15.5 / C	15.5 / C	12.9 / B	13.1 / B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.6 / B	10.6 / B	10 / B	10.3 / B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	20.4 / C	20.9 / C	18.4 / B	18.9 / B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	14.8 / B	15.2 / C	10.4 / B	10.7 / B
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	38.7 / D	39.3 / D	22.9 / C	23 / C

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

Table 14. Existing Plus Project Intersection Delay and LOS: Scenario 4 – Multiple Sports Practices

#	Intersection	Control Type	PM Commute		Post-PM Commute	
			Existing	Plus Project	Existing	Plus Project
			Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS	Delay (s) / LOS
1	Sir Francis Drake Boulevard / Wolfe Grade Road / Bacich School	Signal	29.1 / C	29.1 / C	12 / B	11.9 / B
2	Sir Francis Drake Boulevard / Marin Catholic School Driveway A	MSSC	16.6 / C	16.8 / C	10.9 / B	11 / B
3	Sir Francis Drake Boulevard / Marin Catholic School Driveway B	MSSC	10.7 / B	10.7 / B	9.9 / A	10.1 / B
4	Sir Francis Drake Boulevard / Bon Air Road	Signal	21.2 / C	21.6 / C	15.8 / B	16.4 / B
6	Bon Air Road / St. Sebastian Church Driveway D	MSSC	15.9 / C	16.2 / C	9.2 / A	9.7 / A
7	Sir Francis Drake Boulevard / La Cuesta Drive	Signal	42.9 / D	43.4 / D	19.1 / B	19.2 / B

MSSC = Minor Street Stop Control; Delay for MSSC Intersections reported for minor stop-controlled approach, not overall intersection

5.3 Existing Plus Project Queueing Results

A queueing analysis was performed to identify any locations where queues may exceed available storage lengths or block critical driveways or approaches. General travel lanes and forming the roadway links between the signalized intersections would have sufficient capacity to store longer queues without inhibiting adjacent signalized intersection operations. Dedicated right / turn lanes would be the most susceptible to potential queueing issues, where a queue exceeding the storage capacity of the turn lane would block through traffic for the adjacent lane. The 95th percentile queue was analyzed. The 95th percentile queue metric describes the maximum length of a vehicle queue that would not be exceeded 95% of the time.

Critical approaches include the left turn movements at the Bon Air Road intersection and the school driveways, particularly the Westbound left turns from Sir Francis Drake Boulevard. Scenario 1 would generate the most trips compared to the other three scenarios and would thus have the largest expected increase in turning movement volumes at these locations. The Project Soccer Game, Lacrosse Games, and Multiple Sports Practices scenarios would typically result in shorter queues than Scenario 1.

Based on the results, the queues on the roadway would be contained within the available storage space with the Project generated trips and thus would not substantially impact general roadway traffic.

See Table 15 for queueing results for critical approaches during Scenario 1.

Table 15. Queueing Results: Scenario 1 – Football Games

Intersection		Available Storage Space (ft)	95th Percentile Queues (ft)			
			PM Commute		Post-PM Commute	
#	Approach		Existing	Plus Project	Existing	Plus Project
4	Westbound Sir Francis Drake Blvd Left Turn to Bon Air Road	280	120	220	60	80
4	Eastbound Sir Francis Drake Blvd Right Turn to Bon Air Road	140	30	60	<20	<20
4	Northbound Bon Air Road towards Sir Francis Drake Blvd	710	100	150	60	130
2	Westbound Sir Francis Drake Blvd Left Turn to Bon Air Road	160	<20	60	<20	<20
6	Northbound Bon Air Road Left Turn into St. Sebastian's Lot	80	<20	<20	<20	<20

6. Parking

This section discusses the proposed Project's estimated parking demand against the available of on-site and off-site vehicle parking at Marin Catholic.

6.1 Existing Parking Supply

This section details the existing parking supply on-site and off-site available to Marin Catholic.

On-Site Parking Supply

The Marin Catholic campus parking lot contains 274 parking spaces on-site, not including 11 ADA parking spaces. The school leases 133 parking spaces from St. Sebastian's Church. The church parking lot is directly adjacent to the school campus and connected to the school's parking lot, allowing vehicles to pass between the two lots. In total, there are 407 on-site parking spaces, not including the ADA parking spaces.

Marin County Municipal Code requires a minimum number of parking spaces for places of public assembly with fixed seating, including stadiums. Per Section 24.04.340, Schedule 24.04.340-B: Minimum Automobile Parking Standards for Nonresidential Developments, the minimum number of required parking spaces is one space per every four stadium seats for the first 200 seats and one space for every five seats thereafter. Based on the Dino Ghilotti Motta Stadium's maximum 1,604 seat capacity, 331 parking spaces would need to be provided.

The school's on-site parking supply is greater than the County's minimum parking requirements and thus meets the parking code. High-attendance games utilizing the most seats in the athletic stadium would occur outside of normal school class hours and without any simultaneous events with parking demand, thus there wouldn't be competing demand for parking spaces.

While some spaces are designated for staff or students during the day of classes. After the school day ends, all parking spaces would be available to game spectators. The Bay Club Ross Valley athletic club parking lot is attached to St. Sebastian's Church parking lot, but not available for use by Marin Catholic and was not considered to contribute to available parking spaces in this analysis.

The school would not schedule other high-attendance activities during high-attendance games and games would start after classes end. While there may be minor activities or other people on campus, the majority of on-site parking spaces would be expected to be available before games. This analysis assumes 50 of the available 274 on-campus parking spaces are occupied when athletic stadium-generated trips begin arriving pre-event.

Off-Site Parking Supply

Existing off-site parking supply and occupancy counts were recorded on roadway segments near the school multiple times between 6-8 PM on February 9th, 2024, a typical Friday evening. This included the on-street segments of:

- Sir Francis Drake Boulevard, between Rosebank Avenue west and Wolfe Grade
- Bon Air Road, between Sir Francis Drake Boulevard and S Eliseo Drive
- Via Hidalgo, between Bon Air Road and Spyglass Hill

Based on the recorded data, approximately 41% of the available on-street parking supply was occupied between 6-7PM, and approximately 43% occupied between 7-8PM. On a typical Friday

night, when a high-attendance game could occur under Project conditions, 123 on-street parking spaces would be expected to be available out of a total possible 217 off-site spaces.

Additionally, the private lots of 1321-1341 South Eliseo Drive, associated with persons related to Marin Catholic, have been made available for overflow parking during high-attendance events with 149 parking spaces. Historically, several other off-site private lots may have been used for overflow parking. This includes the nearby Bacich Elementary School parking lot with 80 spaces, the parking lot of 350 Bon Air Road with 30 spaces, and the parking lot of 599 Sir Francis Drake Blvd with 54 parking spaces. For the purposes of this analysis, these supplemental spaces were not considered as available spaces.

See Table 16 for a summary of the total available parking supply. See Figure 15 for a map of the available parking locations.

Table 16. Parking Supply

Parking Locations		Parking Supply
On-Site	Marin Catholic High School Parking Lot	224/274 Available
	St. Sebastian's Church Parking Lot	133
	Subtotal	**357/407 Available**
Off-Site	On-Street: Sir Francis Drake Boulevard	42/45 Available
	On-Street: Bon Air Road	45/71 Available
	On-Street: Via Hidalgo	36/101 Available
	Subtotal	**123/217 Available**
Supplemental Off-Site	1321-1341 South Eliseo Drive	149
	Bacich Elementary School	80
	350 Bon Air Road	30
	599 Sir Francis Drake Blvd	54
	Subtotal	**0/313 Assumed**
	Total Available Parking Spaces	**480/937 Available**

6.2 Project Parking Assessment

Each scenario was analyzed to determine the expected parking demand for each event. Parking demand was calculated based on the arriving trips generated for each event, subtracting the exiting trips for people just being dropped off. See Table 17 for the expected Project parking demands.

Men's and women's sport practices are expected to have no significant additional parking demands compared to a typical school day of classes, with students and coaches already on campus earlier in the day.

Parking demand would be expected to exceed available on-site parking supply during high-attendance games. The available supplemental parking supply from on-street sources would be expected to satisfy the overflow parking demand. All other sport games/meets, are expected to have parking demands low enough to be satisfied solely by the available on-site parking supply.

Table 17. Parking Demands per Project Scenario

#	Scenario	Calculated Peak Parking Demand	Parking Demand Satisfied?
1	Football Games	404	Yes, parking demand satisfied with on-site and off-site parking supply
2	Soccer Game	54	Yes, parking demand satisfied with on-site parking supply
3	Lacrosse Games	109	Yes, parking demand satisfied with on-site parking supply
4	Multiple Sport Practices	<10	Yes, parking demand satisfied with on-site parking supply

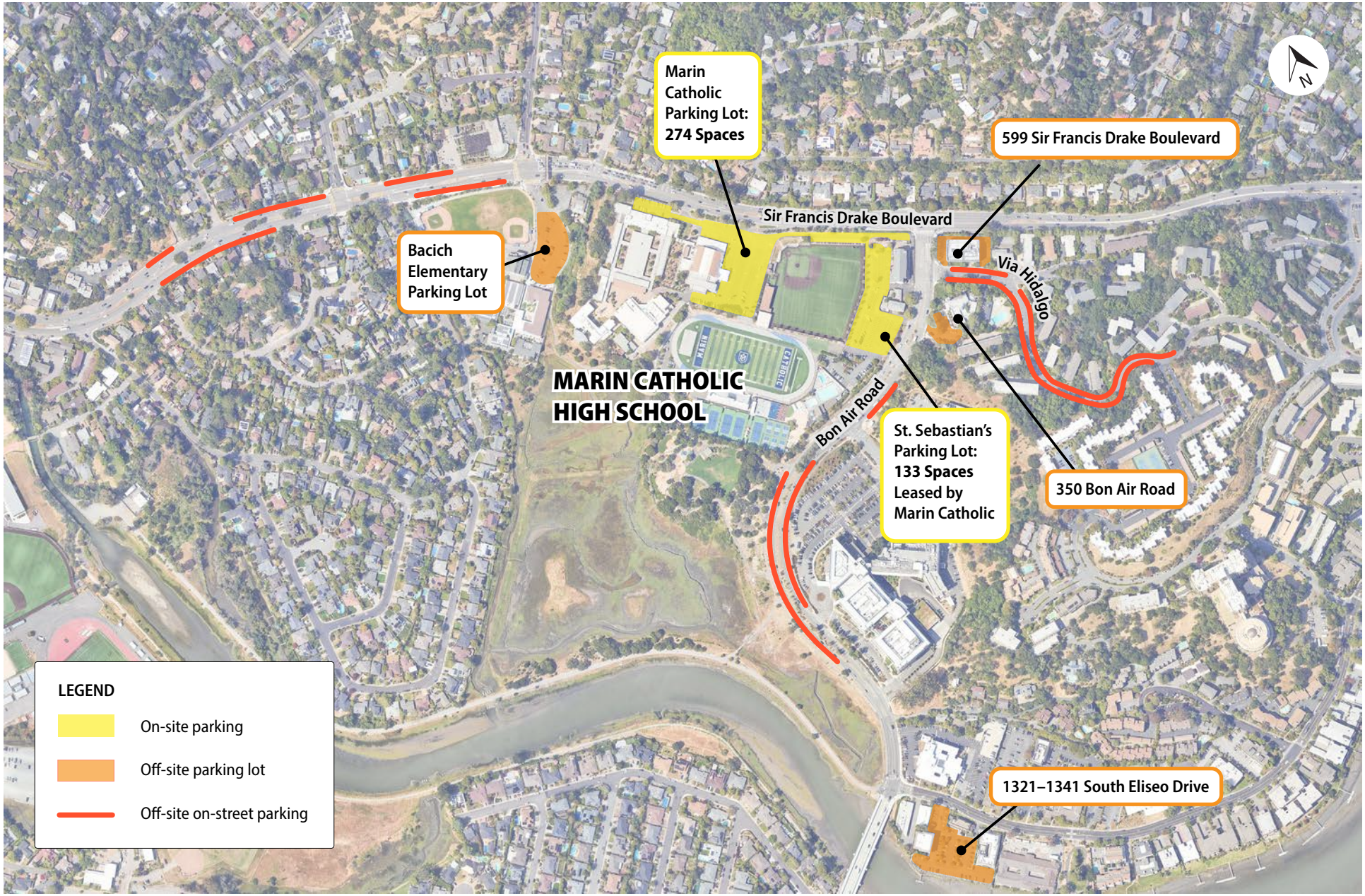


Figure 15. Parking Locations

Marin Catholic High School Dino Ghilotti Motta Stadium Lights Traffic Study

Parametrix

7. Transportation Impacts and CEQA Checklist

This section assesses whether there would be any expected transportation-related environmental impacts resulting from the Project as defined by CEQA.

7.1 VMT Assessment

California Senate Bill 743 (Steinberg, 2013) amended the California Environmental Quality Act (CEQA) criteria for determining transportation impacts. As of July 1, 2020, the statewide standard is vehicle miles traveled (VMT) instead of automobile delay or "level of service".

7.1.1 VMT Background

Vehicle Miles Traveled (VMT) is a measurement of miles traveled by vehicles within a specified region and for a specific time period and refers to the amount and distance of automobile travel attributable to a project. VMT measures the efficiency of the transportation network and is calculated based on the sum of individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round trip) travel and is often estimated for a typical weekday to measure transportation impacts.

The use of VMT as a performance measure allows for the evaluation of traffic impacts associated with greenhouse gas (GHG) emissions. It can be measured as a total or on a per-capita basis and can be used to estimate fuel consumption by motor vehicles for distances traveled. Increase in VMT for gasoline-powered vehicles would cause an increase in the GHG emissions from vehicles making these trips.

The State of California gives the lead agency discretion in selecting an appropriate methodology and significance threshold for VMT impacts. A lead agency may conduct either a qualitative or quantitative analysis of VMT impacts, but guidance from the Governor's Office of Planning and Research (OPR) recommends that, if possible, lead agencies should conduct a quantitative analysis based on transportation models. However, where existing models or methods are not available, the lead agency may instead prepare a qualitative analysis.

The lead agency has discretion in determining an appropriate methodology for evaluating a project's VMT, including whether to express the change in absolute terms, per capita, or another measure, as long as assumptions are documented. The OPR recommends setting residential or office land use project VMT thresholds at 15 percent below existing VMT per capita based on regional or city VMT per capita. Another approach is for the lead agency to develop its own jurisdiction-specific VMT thresholds. The County of Marin has not set significance thresholds for acceptable versus unacceptable levels of VMT for California Environmental Quality Act (CEQA) analysis. For other project types, the OPR recommends a considering the total change in VMT.

Therefore, based on this project not fitting the categories of residential or office development, this analysis is based on the recommendation by the OPR that a total change in VMT be considered. The OPR recommends screening thresholds to quickly identify if a project would be expected to result in a less-than-significant impact without conducting a detailed study. If a project is expected to generate or attract fewer than 110 vehicle trips per day, it may be generally assumed the project would cause a less-than-significant transportation impact, as defined by CEQA.

7.1.2 VMT Evaluation

The proposed Marin Catholic Dino Ghilotti Motta Stadium Lights Project consists of replacing existing temporary lights with permanent stadium lights and modifying athletic stadium event schedules, but would not substantially change the nature of the existing use, enrollment area, enrollment size, or travel mode to the school. The size of the men's and women's athletic teams regularly using the athletic stadium would not be expected to significantly change, outside of the normal variation in participating students each year. The Project would not be expected to significantly change the number of events utilizing the athletic stadium over the course of the year compared to existing conditions. The resulting anticipated changes to the schedules and operations of current events and activities using the athletic stadium due to the Project would be expected to have varying impacts related to VMT.

Under existing conditions, over the course of a typical year, approximately 1,477 events would be held in the Dino Ghilotti Motta Stadium. This includes football, men's and women's soccer, men's and women's lacrosse, men's and women's track & field games/meets, playoff games, practices, and outside not-for-profit events. Under Project conditions, the total number of events is expected to increase to up to around 1,514 events in a typical year, an increase of 35 events. Minor variability year-to-year would be expected based on varying league schedules.

The Project may provide the opportunity for the school to offer a Women's Flag Football team in the future, which could have up to 12 on-campus Saturday games per year. Also included in the additional assumed events held at the athletic stadium would be men's and women's soccer or lacrosse practices that, when needed, currently occur off-site under existing conditions, at the College of Marin, 1.5 miles away from Marin Catholic. Relocating these practices on-site would allow students and coaches to stay on-site after school, remove the need to travel between locations, and thus reduce the number of expected trips for the average 30 people per practice, thus reduce VMT.

Existing activities would primarily be redistributed in time based on a new weekly event schedule. Most practices would be expected to maintain the same number of trips under existing and proposed conditions. New later evening practices, starting after 5 PM, may lead to an increased number of trips if some students leave campus between the end of school and return for practice. This would impact approximately 155 soccer practices over the course of the season. JV student athletes would be expected to generally stay on campus or depart and return on foot. Some varsity students who drive may leave campus by car and return before practices starts. This analysis assumes 20% of soccer players would make an extra trip for late evening practices.

Under Project conditions, the number of spectators at each men's and women's athletics game/meet would be assumed to increase. With rescheduled games in the evenings, more people would be expected to attend. This increase in attendance would result in additional vehicle trips.

Considering the cumulative impact of these expected changes, over the course of a typical year, the total number of trips generated by athletic stadium uses would be expected to increase by approximately 9,400 trips. 85% of these trips were due to the assumed increase in game attendance and from assuming every game would attract a record high number of attendees. The Project is conservatively expected to generate an average of up to 52 trips per day, for each day of a standard 180-day school year.

Based on the OPR screening threshold guidance, a project generating less than 110 trips per day can be assumed to have a less-than-significant transportation impact for CEQA. Thus, the Project is expected to have a less-than-significant transportation impact due to VMT.

7.2 Summary of Environmental Impacts - CEQA Checklist

The proposed Project would not have a significant impact on transportation and traffic based upon the following categories:

7.2.1 Regulatory Impacts

The Project does not include any improvements within County right-of-way and would not conflict with a program, plan, ordinance, or policy addressing the transportation network facilities. The proposed Project would have less than significant Impacts.

7.2.2 VMT Impacts

The proposed Project is consistent with CEQA Guidelines Section 15064.3, Subdivision (b) regarding Vehicle Miles Traveled (VMT), with the Project expected to have a less than significant impact due to VMT.

7.2.3 Geometric Hazard Impacts

The proposed Project would not modify roadway or parking lot configurations and thus would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. The Project would have no geometric hazard impacts.

7.2.4 Emergency Access Impacts

The proposed Project would not modify any facilities used for emergency access and would not impair emergency access. The Project would have less than significant emergency access impacts.

8. Summary and Recommendations

The section presents a summary of the forecast traffic operations and potential management strategies that Marin Catholic could employ to lessen the impacts of vehicle traffic demand on game days.

8.1 Summary of Results

Overall, the Project would be expected to result in a modest increase in average vehicle delay for select scenarios, but would have a less than significant transportation impact.

The Project is expected to result in a slight increase in average vehicle delay, particularly during the Friday Night Football Games Scenario. The Soccer Game, Lacrosse Games, and Practices scenarios would be expected to result in minimal changes to vehicle delay compared to existing conditions. The intersections would be expected to meet the County LOS performance standards of LOS D or better under Project scenarios.

No queues on the roadway would be expected to exceed the available storage space as a result of the Project generated trips.

For the Soccer Game, Lacrosse Games, and Multiple Sports Practices scenarios under Project conditions, parking demand would be expected to be satisfied with on-site parking. For the Football Games scenario, parking demand would expect to be satisfied with a combination of on-site and off-site parking.

The Via Hidalgo neighborhood would be expected to experience an influx of on-street parked vehicles and increased traffic during the few high-attendance athletic stadium events expected each year.

The Project would be expected to have less than significant environmental transportation impacts, as defined by CEQA.

Appendices