Chapter 5
# Alternatives

## Introduction

According to Section 15126.6 of the CEQA Guidelines:

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project.

## Nature of Proposed Program

As described in Chapter 2, *Project Description*, the proposed program consists of a range of individual roadway improvement projects within the Carmel Valley Road corridor, including additional lane channelization, shoulder widening, paved turnouts, new signage, roadway extension and signalization, additional passing lanes, bikeway upgrades, and a proposed grade separation at Laureles Grade and Carmel Valley Road.

## Program Objectives

The general objectives of the proposed program, as stated in Chapter 2, *Program Description* are to:

- address existing and forecasted LOS deficiencies in the CVMP area; and
- allow development to proceed in accordance with all CVMP policies.

These objectives were considered during the formulation of potential alternatives, and their various components, for consideration in this EIR.

# Alternatives Suggested During the EIR Scoping Process

A dual scoping meeting was held for the CVMP SEIR and the Rancho Canada Village EIR on September 25, 2002. Oral and written comments were received at that time. The Notice of Preparation (NOP) for the subsequent EIR for the Carmel Valley Master Plan was issued on August 28, 2006 (see Appendix A). Suggested actions and alternatives were addressed in the range of alternatives considered in this chapter.

# Significant Environmental Impacts of the Proposed Program

State CEQA Guidelines section 15126.6 (f) states that "alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project." As such, alternatives that do not avoid or substantially lessen significant effects of the project do not need to be analyzed in an EIR.

The analysis in this DEIR identifies the following environmental effects of the proposed program.

## Geology, Soils, and Seismicity

The program could result in significant impacts related to strong groundshaking, earthquake-induced liquefaction, landslide/slope failure, destabilization of steep slopes, and land subsidence/settlement during the lifespan of the proposed program. These impacts are mitigable to less-than-significant levels at the site-specific, project-level through individual geotechnical investigations and proper facilities designs. The program could cause erosion and loss of topsoil. This impact is mitigable to a less-than-significant level at the site-specific, project-level through implementation of construction plans and Best Management Practices.

## Hydrology and Water Quality

The program could result in significant impacts related to the increase of impervious surfaces that could lead to increases in runoff or exceedances in stormwater capacity and interference with groundwater recharge, temporary and long-term water quality effects in the Carmel River, and risks from flooding. These impacts are mitigable to a less-than-significant level through implementation of management measures and plans, site-specific assessments, and the additional mitigation noted in Section 3.2.

## Biological Resources

The program could result in significant impacts related to the loss or disturbance of sensitive oak woodland and forest habitats, protected trees, common wildlife species and migration, nesting birds, and fish, and the introduction of noxious weeds. The program could conflict with local biological resources protection policies. These impacts are mitigable to a less-than-significant level through implementation of site-specific avoidance and minimization measures, compensation for losses, and compliance with local policies. The program might result in significant and unavoidable impacts related to the loss or disturbance of riparian habitat and special status plant and wildlife populations and their habitats depending on project-level considerations and the feasibility of site-specific mitigation. Implementation of measures noted in Section 3.3 would reduce impacts, but potentially not to less-than-significant levels.

## Aesthetics

Carmel Valley Road is a designated State Scenic Highway. The program could change and/or obstruct certain portions of existing views, degrade scenic resources, and introduce light and glare within the Carmel Valley Road corridor. The program would reduce these impacts to less-than-significant levels with implementation of the mitigation identified in Section 3.4.

## Land Use

The program would not result in significant effects related to compatibility with surrounding land uses and communities and consistency with land use policies. No mitigation is required.

## Agricultural Resources

The program could result in significant direct effects related to conversion of important farmland adjacent to Carmel Valley Road to non-agricultural uses if road improvements require such conversion. Although limited in scale, if a net loss of prime agricultural land were to occur, mitigation noted in Section 3.6 would reduce impacts, but not necessarily to a less-than-significant level.

## Transportation and Circulation

With the proposed program improvements and cumulative traffic, LOS intersection standards would be met at all study intersections with the exception of Highway One at Rio Road. TAMC is planning improvements to this

intersection as part of its Highway 1 Carmel Area Operation Improvement project.

With proposed program improvements and cumulative traffic, LOS roadway segment standards would be met for Carmel Valley Road with the exception of Esquiline Road to Ford Road (Segment 3). This is a significant and unavoidable cumulative impact because no allowable mitigation measure has been identified to improve the LOS there.

The program could also significantly alter present vehicular circulation and increase delays and roadway hazards during construction of specific projects but mitigation is available to reduce impacts to a less-than-significant level.

## Air Quality

The program would result in increased emissions of exhaust, dust, and soil during construction, but would be mitigated to a less-than-significant level, as detailed in Section 3.8. The program's construction may cause significant elevated health risks to sensitive receptors from exposure to emissions, depending on project-level considerations that cannot be identified at this time. Mitigation is available to reduce this risk, but possibly not to a less-than-significant level

The program would not substantially increase operational emissions compared to the no-project conditions, including greenhouse gas emissions.

## Noise

The program would result in increased noise and could expose persons to ground borne vibration during construction. However, implementation of mitigation in Section 3.9 would be expected to reduce impacts on noise to a less-than-significant level.

Cumulative traffic noise could be reduced with mitigation, but not necessarily to a less-than-significant level, depending on project circumstances and the feasibility of on-site mitigation measures.

## Public Services and Utilities

The program could result in temporary significant impacts to emergency access and utility disruption during project construction, and impacts related to increased solid waste disposal, but these impacts can be reduced to less-than-significant levels with implementation of mitigation discussed in Section 3.10.

## Cultural Resources

The program could result in the degradation of known significant historic or archaeological resources. If avoidance is possible, the impact would be considered less than significant; however, avoidance may not be an option and this is therefore considered significant and unavoidable.

## Population and Housing

The program's proposed grade separation at Laureles Grade and Carmel Valley Road could require land acquisition that might affect a few residences. Mitigation proposed in Section 3.12 would reduce this impact to less than significant. The program otherwise would not result in significant impacts to population and housing as it would only allow growth consistent with the CVMP.

## Growth Inducement

The proposed program would remove the moratorium for growth in the CVMP area by addressing existing and forecasted LOS deficiencies in the program area and allowing land subdivision and development to proceed in accordance with the CVMP policies. This would indirectly contribute to growth in the program area by removing a constraint to growth. However, the proposed program would not directly induce or contribute to growth in the program area. Instead, the program would serve to accommodate the planned growth in the CVMP area rather than promote additional increases above the level of development currently planned for the region.

# Alternatives Analysis

The projects in the proposed program, while they would result in site-specific impacts due to construction, are in general of a limited character. Several alternatives are considered to evaluate potentially different traffic improvements and approaches. In addition, since the program would remove a constraint to growth, several alternatives in regards to CVMP growth are also considered.

Alternatives considered in this draft EIR are discussed below.

The following alternatives were initially evaluated for their feasibility and their ability to achieve most of the program objectives while avoiding, reducing, or minimizing significant impacts identified for the proposed program:

- **No Project Alternative**—This alternative would include continuation of the existing moratorium on land subdivision in the CVMP for residential or visitor-serving development. This alternative would include approximately

50% of the residential development allowed by lifting the moratorium, but the same amount of visitor-serving and commercial development.

- **Alternative 1—Grade Separation Alternatives 1A and 1B**—This alternative would be the same as the proposed program but would include either a traffic signal (Variant A) or an all-way stop (Variant B) at the intersection of Laureles Grade and Carmel Valley Road.
- **Alternative 2—Carmel Valley Village Alternatives 2A and 2B**—This alternative would be the same as the proposed program but would include either a passing lane through the Carmel Valley Village or routing of traffic on side streets.

The following alternatives were initially considered but dismissed from further analysis because they are either infeasible, do not achieve most of the program objectives or do not avoid or substantially lessen significant impacts identified for the proposed program:

- **Alternative A—Zero Growth Alternative.** This alternative would halt all growth in the CVMP area via a complete moratorium on subdivisions, regardless of CVMP build out allowances.
- **Alternative B—Four-Lane Alternative.** This alternative would widen Carmel Valley Road to four lanes from Highway One to Laureles Grade and perhaps all the way to the Carmel Valley Village.
- **Alternative C—Rio Road Extension to Carmel Valley Road.** This alternative would extend Rio Road to connect up with Carmel Valley Road.
- **Alternative D —Transit Alternative.** This alternative consists of expansion of transit service along Carmel Valley Road between the Carmel Valley Village and Highway one with periodic stops in-between.
- **Alternative E—Clustered Land Use Pattern Alternative.** This alternative would include changing the land use pattern for future development from a dispersed low-density rural character to focus future development in three discrete areas: the mouth of the Carmel Valley, Mid-Valley, and the Carmel Valley Village.
- **Alternative F—Regional Improvements Alternative.** This alternative would include regional traffic improvements (such as to Highway 101 or Highway 68) instead of improvements to Carmel Valley Road.
- **Alternative G—Policy Change Alternative.** This alternative would include changing the LOS Standard for Carmel Valley Road in all locations to LOS D, as in the current 1982 County General Plan, or to LOS E.

# Alternatives Analyzed in the Draft EIR

Alternatives 1 and 2 were determined to be feasible (or potentially feasible) and would meet at least some of the program objectives (though not necessarily all). The ability of these two alternatives and the No Project Alternative to substantially lower the significant impacts identified for the proposed program is

discussed below. All resource areas are analyzed for each alternative determined to be potentially feasible, though at a much more general level than in Sections 3.1–3.12.

# No Project Alternative

## Alternative Characteristics

Under the No Project Alternative, there would be no additional residential or commercial subdivisions, as it is assumed that the existing subdivision moratorium will continue. It is assumed that additional single-family dwellings, visitor-serving units, and commercial developments can be approved within the CVMP land use framework without the need for subdivision up to the growth limits in the CVMP. It is also assumed that previously approved projects will be completed.

This alternative assumes that Monterey County Board Resolution 02-024 becomes permanent policy for the duration of CVMP buildout to 2030. This resolution does not stop development, but rather land subdivision. Without the program (and thus with a continued moratorium), it is still possible that single-family residential development could occur on certain existing legal lots within the CVMP. Construction of one single-family residence or a second dwelling unit in a residential zone can be exempt from CEQA review (CEQA Guidelines 15303), although the exemption is not absolute. In the program area, 655 residential units are associated with prior approvals. Based on County data, there are 258.5 remaining vacant lots of record in the program area that meet the criteria of compatible uses and that do not already contain substantive development. It is assumed that one (1) unit per lot would be built in this scenario (DKS Associates 2007). It cannot be known for certain that such residential development will or will not actually occur; however this residential development is considered possible and thus disclosed as a potential characteristic of the No Project Alternative.

Commercial development is assumed to not be impeded by lack of ability to subdivide land under this alternative and the AMBAG projections for commercial growth by 2030 are assumed for this alternative (the same as the proposed program). Visitor-serving development would include 285 additional units, would be allowed in various locations within Carmel Valley through 2030 under the No Project scenario. It is assumed that the lack of ability to subdivide land does not affect visitor-serving development.

Pursuant to the moratorium resolution and CVMP Policy 39.3.2.1(2006 CVMP Update Policy 2.18), the County cannot approve development that results in a significant impact to CVMP roads unless an EIR is prepared that includes mitigation of operations to acceptable levels, but which may include statements of overriding considerations.

Under this alternative, it is assumed that some traffic mitigation measures would be advanced as projects come forward (particularly for larger-scale visitor-serving and commercial projects), and the current fee program would continue to be implemented to administer traffic mitigation measures such that effects of development are addressed as they occur. This alternative represents a "lesser buildout" alternative as it represents less than 50% of potential residential development than with the proposed program. The scale and timing of traffic improvements was not determined although the overall scale would be less than the proposed program due to the lower amount of fees collected.

With the prohibition of subdivision, residential growth is likely to be more dispersed throughout the Valley than with the proposed program.

Since visitor-serving and commercial growth would be the same as the proposed program, impacts of this buildout in the CVMP area is not discussed below and the reader is referred to Chapter 3.

The No Project Alternative would not meet the program objectives because traffic improvements would not be implemented in order to alleviate future traffic-related congestion related to growth in Carmel Valley as planned under the CVMP.

## Impact Analysis

**Geology, Soils, and Seismicity.** Impacts related to traffic improvement construction would be similar to those of the proposed program, but on a more limited scale.

CVMP residential growth could result in geology, soils, or seismicity impacts but at a smaller scale than the proposed program. However, it is probable that related impacts could be mitigated through proper design and construction.

**Hydrology and Water Quality.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

CVMP residential growth could result in increase of impervious surfaces and water quality impacts, but on a smaller overall scale than that facilitated by the proposed program. However, residences may be more dispersed with the inability to subdivide land, which may increase roadway lengths in the watershed.

**Biological Resources.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

Residential development on undeveloped parcels containing sensitive biological habitat could occur with this alternative but likely at a smaller scale than the proposed program. However, residences may be more dispersed with the inability to subdivide land, which may increase roadway lengths through intact habitat.

**Aesthetics.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

Minor changes in aesthetics could occur due to new residential development. Future development would be subject to design permit review to require compatibility of new structures with the local visual setting and character. Residential development would be more dispersed with the inability to subdivide land.

**Land Use.** New development would be controlled by CVMP policies and designations. However, this alternative would constrain ultimate buildout levels in Carmel Valley and limit housing provisions, which would be inconsistent with the CVMP. This could result in increased development in other neighboring vicinities and/or increase the need for housing elsewhere.

**Agricultural Resources.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

**Transportation and Circulation.** The traffic study in Appendix F includes evaluation of the No-Project Alternative traffic impacts to intersections and roadway segments. The analysis was conducted without any traffic improvements as the availability of funding, timing, and scale of improvements with this alternative are uncertain.

Cumulative traffic volumes would continue to grow based on County growth and CVMP buildout potential, even with more limited residential growth in the CVMP area.

Without the program, all study intersections would operate at an acceptable LOS except for the intersection at Highway One and Rio Road and the intersection at Laureles Grade and Carmel Valley Road. As described in the traffic study, TAMC is planning an improvement to the Highway One/Rio Road intersection as part of their Highway 1 Carmel Area Operational Improvements. Similar to the existing condition, the Laureles Grade/ Carmel Valley Road intersection would continue to operate at LOS F during the P.M. peak hour. The addition of program-generated traffic would cause this intersection to deteriorate from LOS E to LOS F during the A.M. peak hour. This intersection satisfies a peak-hours signal warrant for the A.M. and P.M. peak hours, respectively. Although some traffic improvements may occur under this alternative, it is unknown when and if any improvement to this intersection will occur.

With the No Project Alternative, all study roadway segments would operate at an acceptable LOS for all alternatives except for the following roadway segments:

- From Esquiline Road to Ford Road (Segment 3)
- From Robinson Canyon Road to Laureles Grade (Segment 5)
- From Schulte Road to Robinson Canyon Road (Segment 6)
- From Rancho San Carlos Road to Schulte Road (Segment 7)

The failing operations on Segment 3 are similar to the proposed program. The failing operations on Segments 5, 6, and 7 would be worse than the proposed program, which includes new passing lanes along these segments. Although some traffic improvements may occur under this alternative, it is unknown when and if any improvements to these segments would occur.

**Air Quality.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

As indicated in Table 3.8-6 in Section 3.8 *Air Quality*, the No Project in 2030 traffic emissions would be similar to the proposed program due to a similar amount of Vehicle Miles Traveled within the CVMP area. Due to a lesser level of buildout, it is possible that vehicle miles traveled outside the CVMP area could be less than the proposed programs, but only if the lesser amount of growth in the CVMP area were not compensated by increased growth in other areas.

**Noise.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

Within the CVMP, traffic noise levels would slightly increase with growth in the CVMP area. Because VMT in the CVMP area is the same as the proposed program, vehicle noise would also be similar to the proposed program.

**Public Services and Utilities.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

A lesser amount of residential growth would mean in general that overall demands for public services and utilities should be less than the proposed program. However, since development would be more dispersed it is possible that the extension of utility lines might have a greater length than in a growth pattern that allows subdivision.

**Cultural Resources.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

With lesser development potential, impacts to cultural resources would likely be less than with the proposed program.

**Population and Housing.** Impacts related to traffic improvement construction would be similar to those of the proposed program but on a more limited scale.

This alternative would facilitate approximately 50% less housing in Carmel Valley than the proposed program. This may put pressure on adjacent and nearby areas to compensate in the provision of housing and/or may put increased pressure on the cost of housing in the local area.

**Growth Inducement.** Like the proposed program, this alternative would allow growth in the Carmel Valley with provision for increased residential, visitor-serving, and commercial development. However, the amount of potential residential growth would be smaller than the proposed program. Further, this alternative may actually hinder the pace of development as the timing, funding, and scale of traffic improvements would be uncertain.

## Alternative 1—Grade Separation Alternatives 1A and 1B

This alternative would be the same as the proposed program but would include a signal or an all-way stop instead of a grade separation at the intersection of Laureles Grade and Carmel Valley Road.

The intersection of Laureles Grade and Carmel Valley Road would operate at a deficient LOS under the No Project. The proposed program includes a partial grade separation at the southbound left turn movement, which would improve LOS operations from LOS F to LOS C in both A.M. and P.M. peak periods.

Two alternatives for addressing operations at the intersection of Laureles Grade and Carmel Valley Road without implementing a grade separation are analyzed below as Grade Separation Alternative 1A and Grade Separation Alternative 1B.

The Grade Separation Alternatives 1A and 1B would meet the program objective to address level of service deficiencies in the CVMP area.

### Grade Separation Alternative 1A Characteristics

Grade Separation Alternative 1A involves implementation of a signal at Laureles Grade and Carmel Valley Road to address LOS operation deficiencies. The intersection meets the need for a signal warrant during both A.M. and P.M. peak periods. Grade Separation Alternative 1A would convert the intersection of Laureles Grade and Carmel Valley Road to a signalized intersection, improving the LOS operations from LOS F to LOS C in the A.M. peak period and to LOS B in the P.M. peak period.

A generic estimate of a signalized intersection with all features would cost approximately $250,000, which would include signal study, the equipment purchase, installment, maintenance, and operation.

### Grade Separation Alternative 1B Characteristics

Grade Separation Alternative 1B involves modification to the Laureles Grade and Carmel Valley Road intersection geometry and traffic control to address LOS operation deficiencies. The intersection would be modified to an all-way stop. An additional through lane would be constructed in the east- and westbound directions and right turn lanes (receiving lanes) would be provided for vehicles traveling in the south- and westbound directions. These modifications would improve the LOS from LOS F to LOS D in the A.M. and P.M. peak periods.

A generic estimate of this alternative is $200,000 assuming that the extra eastbound and westbound lanes would start approximately 300 feet before the intersection. In addition right turn receiving lanes in the northbound and westbound directions would extend for approximately 200 feet.

### Impact Analysis

Both alternatives to the proposed grade separation at Laureles Grade and Carmel Valley Road would avoid the use of a grade-separated structure at the project site, thereby eliminating impacts associated with the structure identified under the proposed program. Furthermore, excavation at the project site would be avoided and the construction timeframe and intensity would be reduced. All construction impacts associated with erection of the grade separation would be eliminated in the areas of biological resources; hydrology and water quality; agricultural resources; air quality; noise; public services and utilities; cultural resources; and population and housing. All visual impacts associated with the proposed grade-separated structure would be avoided, although there would be an all-way stop or signal at this location that some individuals might find to be aesthetically different than the present condition.

Both of these alternatives would be more cost effective than the grade separation. In addition, given the failing operations at this intersection at present and the time necessary to collect fees to fund a grade separation, both of these alternatives would improve traffic conditions far sooner than the proposed program.

## Alternative 2—Carmel Valley Village Alternative 2A and 2B

This alternative would be the same as the proposed program but would include a multi-lane segment through the Carmel Valley Village or would route Carmel Valley Road traffic on Via Contenta and Ford Drive.

### Village Alternative 2A Characteristics

Carmel Valley Village Alternative 2A would widen Carmel Valley Road in the segment near Carmel Valley Village to two (2) lanes in each direction. The feasibility of adding two lanes is unknown, as no evaluation of right-of-way and alignments has been done. For this EIR, this is considered potentially feasible barring further analysis.

### Village Alternative 2B Characteristics

Carmel Valley Village Alternative 2B would reroute traffic off of Carmel Valley Road on to Via Contenta and/or Holman Road/Ford Road and back on to Carmel Valley Road by increasing the speed limits and replacing signage in these locations. The traffic re-routing under this alternative would divert local and regional traffic through residential neighborhoods.

### Impact Analysis

While potentially improving traffic conditions on Carmel Valley Road, widening to 4-lanes through the Carmel Valley Village would change the current ambiance and character of the Carmel Valley Village shopping area. Circulation and safety impacts would likely occur with the need to provide for left-turns across two lanes of traffic and the need to provide for safe pedestrian crossings. Widening would also result in the removal of street trees and may require land acquisition or building removal. Such changes are also considered inconsistent with the policies of the CVMP.

Via Contenta, Holman Road, and Ford Road are not designed to carry through traffic. While increasing speed limits along these roads is feasible as well as providing directional signage, this alternative would likely increase safety risks for drivers and residences along this road and would change the residential character of these side roads at present.

## Environmentally Superior Alternative

The No Project Alternative would result in a lower level of impacts related to traffic improvement construction and lesser level of impacts related to residential buildout (although this may be offset by residential development elsewhere). The No Project Alternative would result in greater traffic deficiencies compared to the proposed program and would not meet the project objectives. Thus, the No Project Alternative is not considered the environmentally superior alternative.

Based on the assessment of environmental impacts for the feasible alternatives described above, the environmentally superior alternative is Grade Separation Alternative 1A which would meet the project objectives while avoiding the

impacts of the proposed grade separation, particularly as the Laureles Grade / Carmel Valley Road intersection is failing now and it will be many years before sufficient fee is collected to build the grade separation.

# Alternatives Considered but Dismissed from Further Evaluation

The following alternatives were considered during the environmental impact analysis but dismissed from further evaluation because they are either considered infeasible, would not meet at least some of the project objectives, or would not avoid or substantially lower the significant impacts identified under the proposed program. Each alternative is briefly described below along with the reason for dismissing it from further analysis.

## Alternative A—Zero Growth Alternative

This alternative would halt all growth in the CVMP area via a complete moratorium on subdivisions, regardless of CVMP build out allowances. All previously approved projects would be permitted to move forward as proposed, but no new residential, visitor-serving, or commercial growth would be allowed. No new traffic improvements would be built because there would be no new traffic fees collected.

This alternative would reduce all program-related impacts, but has been dismissed as infeasible because it would be unconstitutional to eliminate all economic use of undeveloped land in the Carmel Valley. This alternative would not address the existing intersection deficiency at Laureles Grade / Carmel Valley Road and would not address future deficiencies that may occur along Carmel Valley Road due to the growth in through traffic from outside the CVMP.

## Alternative B—Four-Lane Alternative

This alternative would widen Carmel Valley Road to four lanes from the existing multi-lane segment at Rancho San Carlos Road to at least Laureles Grade and possible further east to Holman Road.

This alternative was rejected because it would not avoid the impacts of the proposed program and could result in more severe environmental impacts associated with road widening throughout the Carmel Valley Road corridor. This alternative would also be less cost effective than the proposed program.

## Alternative C—Rio Road Extension to Carmel Valley Road

This alternative would extend Rio Road to connect up with Carmel Valley Road. This approach has been dismissed because it would not serve to improve traffic operations in the CVMP area and would result in more environmental impacts than the proposed program due to construction of a new roadway extension. This alternative was also analyzed in the 1991 FEIR for the CVMP Traffic Policy Project (SCH# 89-005) and was not recommended as a viable alternative.

## Alternative D—Transit Alternative

The Transit Alternative consists of doubling service on Monterey-Salinas Transit (MST) Line 24 to two buses an hour in each direction.

Currently, MST operates Line 24 from the Monterey Transit Center into Carmel Valley. This line operates on a 60-minute headway and has less than 10 passengers per hour. Service operates with 5,550 revenue service hours annually (Monterey Salinas Transit 2005). Applying a cost allocation of $78.50, the service costs an estimated $435,675 per year to operate (2006 Short Range Transit Plan, Monterey Salinas Transit). Assuming a farebox recovery of 10% (2005 Short Range Transit Plan, Monterey Salinas Transit), the cost of operating the service is $392,108 in 2006 dollars.

The doubling of this service to provide two buses an hour in each direction for the same time period would represent a cost similar to the $392,108. In addition, an optimistic projection of the 10-passenger per hour performance for this new service would result in only a decrease of eight vehicles (assuming a 1.2 vehicle occupancy) at peak hours. To operate a doubling of Line 24 service over a 23-year period would cost $9,018,484. Finally, a nexus of transit operations to apply to new development is a difficult legal nexus, so that additional funds from other sources would be needed to fund most, if not all, of this additional cost.

The operation of transit service generally requires sizeable subsidies from non-development sources. For example, the proposed Carmel Valley Grape Express is estimated to cost $174,000 a year (2006 Short Range Transit Plan, Monterey Salinas Transit).

Based on current low transit usage and the low-density of development throughout the Carmel Valley, while limited increased ridership might occur, it is highly unlikely this alternative would improve existing roadway deficiencies nor address future deficiencies. This alternative has been dismissed because, although it would avoid all construction impacts associated with roadway improvements, it would not achieve the project objectives to reduce LOS operational deficiencies in the program area.

## Alternative E—Clustered Land Use Pattern Alternative

This alternative would include changing the CVMP land use pattern for future development from a dispersed low-density rural character to focus future development in one to three discrete areas: the mouth of the Carmel Valley, Mid-Valley, and/or the Carmel Valley Village.

This alternative might reduce the amount of in-Valley traffic as new development would be closer to areas of services. However, this alternative would not avoid substantial travel between areas within Carmel Valley or between Carmel Valley and areas outside of Carmel Valley, which would still necessitate the use of Carmel Valley Road. The level of services within any portion of the Valley are limited at present and thus substantial in-Valley and out of Valley travel due to new development is likely with this alternative.

One variant would be to focus all future development near the mouth of the Valley near Highway One. Since the most substantive traffic issues are east of Rancho San Carlos Road, focusing development to the west may reduce some of the generated traffic from new development as the multi-lane portion of Carmel Valley Road would provide access to Highway One and then on to other destinations.

In the Traffic Study, traffic conditions were studied with a more dispersed CVMP buildout pattern (Traffic Study Scenario A) and with CVMP buildout with approximately 50% of future residential growth in one higher density development (Rancho Canada Village) located in the lower Valley (Traffic Study Scenario B). Comparing these two conditions, resultant traffic conditions (before mitigation) are highly similar; however conditions along Segments 5, 6, and 7 are slightly worse with Alternative B. In either case, passing lanes would remedy the deficiencies. Thus, it seems unlikely that clustering development at the mouth of the Valley (which is what the Rancho Canada Village development would do), would avoid the need for traffic improvements to Carmel Valley Road. It is expected that evaluation of a focus of development in the Mid-Valley or Village area would result in a similar conclusion, due the fact that Carmel Valley Road is the only through access available through Carmel Valley.

While not specifically studied during the traffic study, with a similar overall level of development and continued travel, it is likely that this alternative would result in similar traffic impacts and thus require similar improvements as the proposed program. As such, this alternative was dismissed from further analysis as it appears unlikely to meet the project objectives without traffic improvements of its own and would not avoid any significant impacts of the proposed program.

## Alternative F—Regional Improvements Alternative

This alternative would include regional traffic improvements (such as to Highway 101 or Highway 68) instead of improvements to Carmel Valley Road. DKS tested the impact of additional lanes on US 101 and SR 68 and determined

that traffic diversion was not great enough to warrant a change in forecast volumes or forecasted traffic deficiencies in Carmel Valley. Thus, this alternative would not meet the project objectives.

## Alternative G—Policy Change Alternative

The current LOS standards for Carmel Valley Road operations are as follows:

- Holman Road to Ford Road—LOS C;
- Ford Road to Rancho San Carlos Road—LOS D;
- Rancho San Carlos Road to Carmel Ranch Boulevard—LOS C; and
- Carmel Rancho Boulevard to SR1—LOS E.

This alternative would change the LOS Standard for Carmel Valley Road to either LOS D or LOS E.

If the LOS standard for Carmel Valley Road were changed to LOS D, then no significant impacts would be identified along Segment 3 (Esquiline Road to Ford Road), but segment operations along Segments 5, 6, and 7 would still be deficient at 2030 buildout.

If the LOS standard for Carmel Valley Road were changed to LOS E, then no significant traffic impacts would be identified.

This alternative would allow for buildout of the CVMP, would avoid the need for additional passing lanes, but would allow unacceptable traffic conditions along Segments 5, 6, and 7, which would be inconsistent with the CVMP. This alternative does not meet the project objectives.