- Not appropriate in channels that drain areas greater than 10 acres.
- Not appropriate in channels that are already grass-lined unless erosion is expected, as installation may damage vegetation.
- Require extensive maintenance following high velocity flows.
- Promotes sediment trapping which can be re-suspended during subsequent storms or removal of the check dam.

## Implementation

### *General*

Check dams reduce the effective slope and create small pools in swales and ditches that drain 10 acres or less. Reduced slopes reduce the velocity of stormwater flows, thus reducing erosion of the swale or ditch and promoting sedimentation. Use of check dams for sedimentation will likely result in little net removal of sediment because of the small detention time and probable scour during longer storms. Using a series of check dams will generally increase their effectiveness. A sediment trap (SE-3) may be placed immediately upstream of the check dam to increase sediment removal efficiency.

### *Design and Layout*

Check dams work by decreasing the effective slope in ditches and swales. An important consequence of the reduced slope is a reduction in capacity of the ditch or swale. This reduction in capacity must be considered when using this BMP, as reduced capacity can result in overtopping of the ditch or swale and resultant consequences. In some cases, such as a "permanent" ditch or swale being constructed early and used as a "temporary" conveyance for construction flows, the ditch or swale may have sufficient capacity such that the temporary reduction in capacity due to check dams is acceptable. When check dams reduce capacities beyond acceptable limits, there are several options:

- Don't use check dams. Consider alternative BMPs.
- Increase the size of the ditch or swale to restore capacity.

Maximum slope and velocity reduction is achieved when the toe of the upstream dam is at the same elevation as the top of the downstream dam. The center section of the dam should be lower than the edge sections so that the check dam will direct flows to the center of the ditch or swale.

Check dams are usually constructed of rock, gravel bags, sandbags, and fiber rolls. A number of products manufactured specifically for use as check dams are also being used, and some of these products can be removed and reused. Check dams can also be constructed of logs or lumber, and have the advantage of a longer lifespan when compared to gravel bags, sandbags, and fiber rolls. Straw bales can also be used for check dams and can work if correctly installed; but in practice, straw bale check dams have a high failure rate. Check dams should not be constructed from straw bales or silt fences, since concentrated flows quickly wash out these materials.

Rock check dams are usually constructed of 8 to 12 in. rock. The rock is placed either by hand or mechanically, but never just dumped into the channel. The dam must completely span the ditch

or swale to prevent washout. The rock used must be large enough to stay in place given the expected design flow through the channel.

Log check dams are usually constructed of 4 to 6 in. diameter logs. The logs should be embedded into the soil at least 18 in. Logs can be bolted or wired to vertical support logs that have been driven or buried into the soil.

Gravel bag and sandbag check dams are constructed by stacking bags across the ditch or swale, shaped as shown in the drawings at the end of this fact sheet.

Manufactured products should be installed in accordance with the manufacturer's instructions.

If grass is planted to stabilize the ditch or swale, the check dam should be removed when the grass has matured (unless the slope of the swales is greater than 4%).

The following guidance should be followed for the design and layout of check dams:

- Install the first check dam approximately 16 ft from the outfall device and at regular intervals based on slope gradient and soil type.
- Check dams should be placed at a distance and height to allow small pools to form between each check dam.
- Backwater from a downstream check dam should reach the toes of the upstream check dam.
- A sediment trap provided immediately upstream of the check dam will help capture sediment. Due to the potential for this sediment to be resuspended in subsequent storms, the sediment trap must be cleaned following each storm event.
- High flows (typically a 2-year storm or larger) should safely flow over the check dam without an increase in upstream flooding or damage to the check dam.
- Where grass is used to line ditches, check dams should be removed when grass has matured sufficiently to protect the ditch or swale.
- Gravel bags may be used as check dams with the following specifications:

***Materials***

Gravel bags used for check dams should conform to the requirements of SE-6, Gravel Bag Berms. Sandbags used for check dams should conform to SE-8, Sandbag Barrier. Fiber rolls used for check dams should conform to SE-5, Fiber Rolls. Straw bales used for check dams should conform to SE-9, Straw Bale Barrier.

***Installation***

- Rock should be placed individually by hand or by mechanical methods (no dumping of rock) to achieve complete ditch or swale coverage.
- Tightly abut bags and stack according to detail shown in the figure at the end of this section. Gravel bags and sandbags should not be stacked any higher than 3 ft.
- Fiber rolls and straw bales must be trenched in and firmly staked in place.

### Costs

Cost consists of only installation costs if materials are readily available. If material must be imported, costs may increase. For material costs, see SE-5, SE-6, SE-8 and SE-9.

### Inspection and Maintenance

- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- Replace missing rock, bags, bales, etc. Replace bags or bales that have degraded or have become damaged.
- If the check dam is used as a sediment capture device, sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
- If the check dam is used as a grade control structure, sediment removal is not required as long as the system continues to control the grade.
- Remove accumulated sediment prior to permanent seeding or soil stabilization.
- Remove check dam and accumulated sediment when check dams are no longer needed.

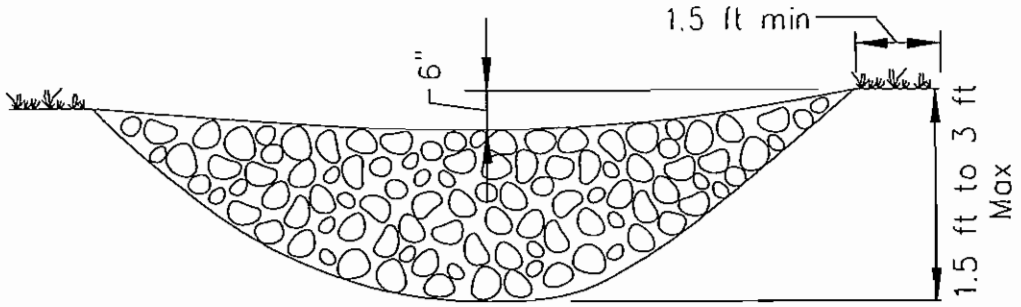
### References

Draft – Sedimentation and Erosion Control, and Inventory of Current Practices, USEPA, April 1990.

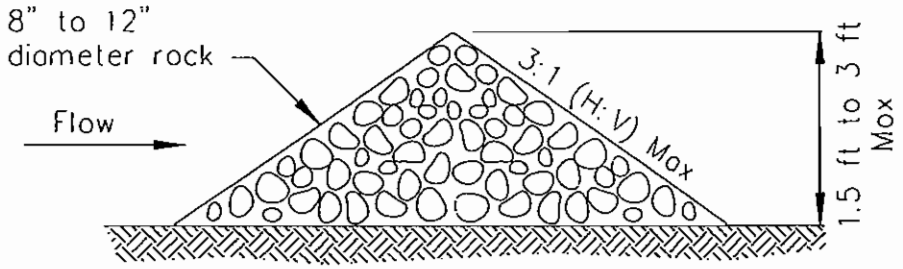
Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

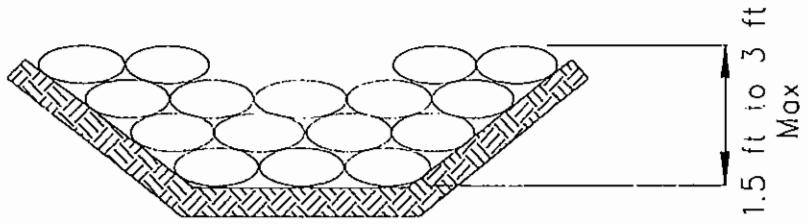



ELEVATION



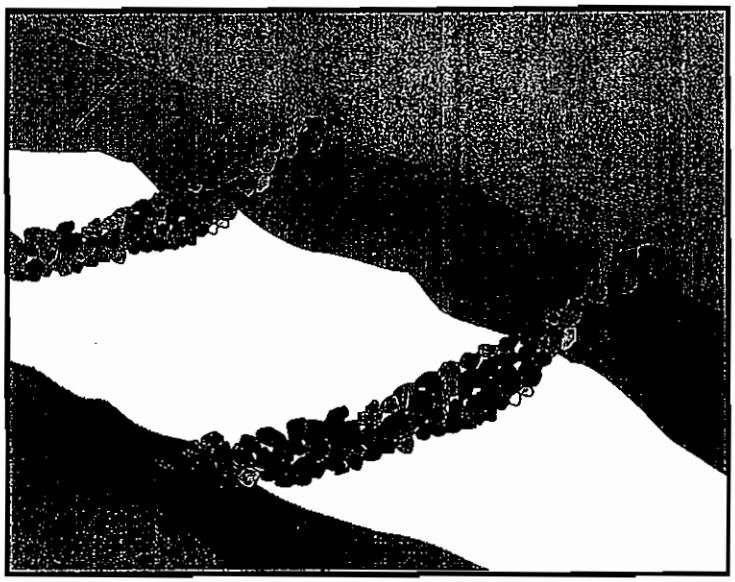

TYPICAL ROCK CHECK DAM SECTION

ROCK CHECK DAM
NOT TO SCALE




GRAVEL BAG CHECK DAM ELEVATION
NOT TO SCALE

# Check Dams SE-4



| Objectives | | |
|---|---|---|
| EC | Erosion Control | ✓ |
| SE | Sediment Control | ✓ |
| TC | Tracking Control | |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | ✓ |
| Nutrients | |
| Trash | |
| Metals | |
| Bacteria | |
| Oil and Grease | |
| Organics | |

**Potential Alternatives**

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

## Description and Purpose

A check dam is a small barrier constructed of rock, gravel bags, sandbags, fiber rolls, or reusable products, placed across a constructed swale or drainage ditch. Check dams reduce the effective slope of the channel, thereby reducing the velocity of flowing water, allowing sediment to settle and reducing erosion.

## Suitable Applications

Check dams may be appropriate in the following situations:

- To promote sedimentation behind the dam.
- To prevent erosion by reducing the velocity of channel flow in small intermittent channels and temporary swales.
- In small open channels that drain 10 acres or less.
- In steep channels where stormwater runoff velocities exceed 5 ft/s.
- During the establishment of grass linings in drainage ditches or channels.
- In temporary ditches where the short length of service does not warrant establishment of erosion-resistant linings.

## Limitations

- Not to be used in live streams or in channels with extended base flows.

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- Not appropriate in channels that drain areas greater than 10 acres.
- Not appropriate in channels that are already grass-lined unless erosion is expected, as installation may damage vegetation.
- Require extensive maintenance following high velocity flows.
- Promotes sediment trapping which can be re-suspended during subsequent storms or removal of the check dam.

## Implementation

### *General*

Check dams reduce the effective slope and create small pools in swales and ditches that drain 10 acres or less. Reduced slopes reduce the velocity of stormwater flows, thus reducing erosion of the swale or ditch and promoting sedimentation. Use of check dams for sedimentation will likely result in little net removal of sediment because of the small detention time and probable scour during longer storms. Using a series of check dams will generally increase their effectiveness. A sediment trap (SE-3) may be placed immediately upstream of the check dam to increase sediment removal efficiency.

### *Design and Layout*

Check dams work by decreasing the effective slope in ditches and swales. An important consequence of the reduced slope is a reduction in capacity of the ditch or swale. This reduction in capacity must be considered when using this BMP, as reduced capacity can result in overtopping of the ditch or swale and resultant consequences. In some cases, such as a "permanent" ditch or swale being constructed early and used as a "temporary" conveyance for construction flows, the ditch or swale may have sufficient capacity such that the temporary reduction in capacity due to check dams is acceptable. When check dams reduce capacities beyond acceptable limits, there are several options:

- Don't use check dams. Consider alternative BMPs.
- Increase the size of the ditch or swale to restore capacity.

Maximum slope and velocity reduction is achieved when the toe of the upstream dam is at the same elevation as the top of the downstream dam. The center section of the dam should be lower than the edge sections so that the check dam will direct flows to the center of the ditch or swale.

Check dams are usually constructed of rock, gravel bags, sandbags, and fiber rolls. A number of products manufactured specifically for use as check dams are also being used, and some of these products can be removed and reused. Check dams can also be constructed of logs or lumber, and have the advantage of a longer lifespan when compared to gravel bags, sandbags, and fiber rolls. Straw bales can also he used for check dams and can work if correctly installed; but in practice, straw bale check dams have a high failure rate. Check dams should not be constructed from straw bales or silt fences, since concentrated flows quickly wash out these materials.

Rock check dams are usually constructed of 8 to 12 in. rock. The rock is placed either by hand or mechanically, but never just dumped into the channel. The dam must completely span the ditch

or swale to prevent washout. The rock used must be large enough to stay in place given the expected design flow through the channel.

Log check dams are usually constructed of 4 to 6 in. diameter logs. The logs should be embedded into the soil at least 18 in. Logs can be bolted or wired to vertical support logs that have been driven or buried into the soil.

Gravel bag and sandbag check dams are constructed by stacking bags across the ditch or swale, shaped as shown in the drawings at the end of this fact sheet.

Manufactured products should be installed in accordance with the manufacturer's instructions.

If grass is planted to stabilize the ditch or swale, the check dam should be removed when the grass has matured (unless the slope of the swales is greater than 4%).

The following guidance should be followed for the design and layout of check dams:

- Install the first check dam approximately 16 ft from the outfall device and at regular intervals based on slope gradient and soil type.
- Check dams should be placed at a distance and height to allow small pools to form between each check dam.
- Backwater from a downstream check dam should reach the toes of the upstream check dam.
- A sediment trap provided immediately upstream of the check dam will help capture sediment. Due to the potential for this sediment to be resuspended in subsequent storms, the sediment trap must be cleaned following each storm event.
- High flows (typically a 2-year storm or larger) should safely flow over the check dam without an increase in upstream flooding or damage to the check dam.
- Where grass is used to line ditches, check dams should be removed when grass has matured sufficiently to protect the ditch or swale.
- Gravel bags may be used as check dams with the following specifications:

### *Materials*

Gravel bags used for check dams should conform to the requirements of SE-6, Gravel Bag Berms. Sandbags used for check dams should conform to SE-8, Sandbag Barrier. Fiber rolls used for check dams should conform to SE-5, Fiber Rolls. Straw bales used for check dams should conform to SE-9, Straw Bale Barrier.

### *Installation*

- Rock should be placed individually by hand or by mechanical methods (no dumping of rock) to achieve complete ditch or swale coverage.
- Tightly abut bags and stack according to detail shown in the figure at the end of this section. Gravel bags and sandbags should not be stacked any higher than 3 ft.
- Fiber rolls and straw bales must be trenched in and firmly staked in place.

### Costs

Cost consists of only installation costs if materials are readily available. If material must be imported, costs may increase. For material costs, see SE-5, SE-6, SE-8 and SE-9.

### Inspection and Maintenance

- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- Replace missing rock, bags, bales, etc. Replace bags or bales that have degraded or have become damaged.
- If the check dam is used as a sediment capture device, sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed at an appropriate location.
- If the check dam is used as a grade control structure, sediment removal is not required as long as the system continues to control the grade.
- Remove accumulated sediment prior to permanent seeding or soil stabilization.
- Remove check dam and accumulated sediment when check dams are no longer needed.

### References

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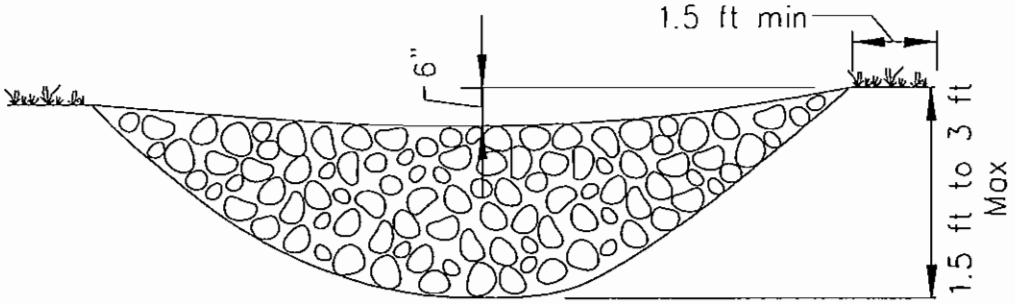
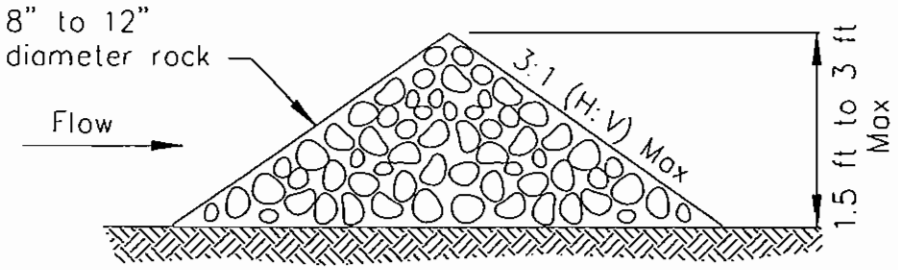
Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

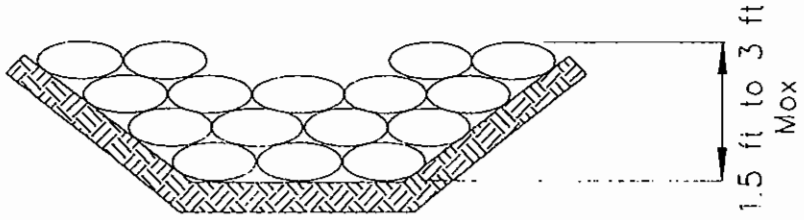



ELEVATION



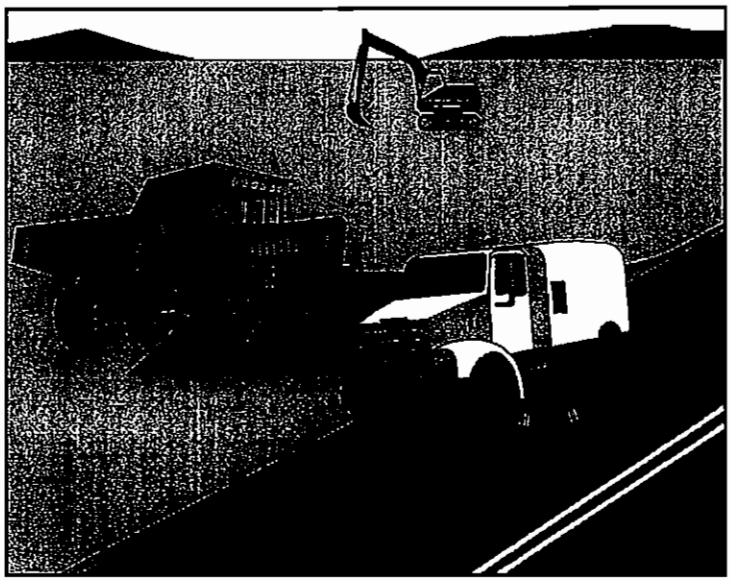

TYPICAL ROCK CHECK DAM SECTION

ROCK CHECK DAM
NOT TO SCALE




GRAVEL BAG CHECK DAM ELEVATION
NOT TO SCALE

# Street Sweeping and Vacuuming SE-7



| Objectives | | |
|---|---|---|
| EC | Erosion Control | |
| SE | Sediment Control | ✓ |
| TC | Tracking Control | ✓ |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | ✓ |
| Nutrients | |
| Trash | ✓ |
| Metals | |
| Bacteria | |
| Oil and Grease | ✓ |
| Organics | |

**Potential Alternatives**

None

## Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

## Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

## Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

## Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

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- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

### Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 $yd^3$ hopper) to $88/hour (9 $yd^3$ hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

### Inspection and Maintenance

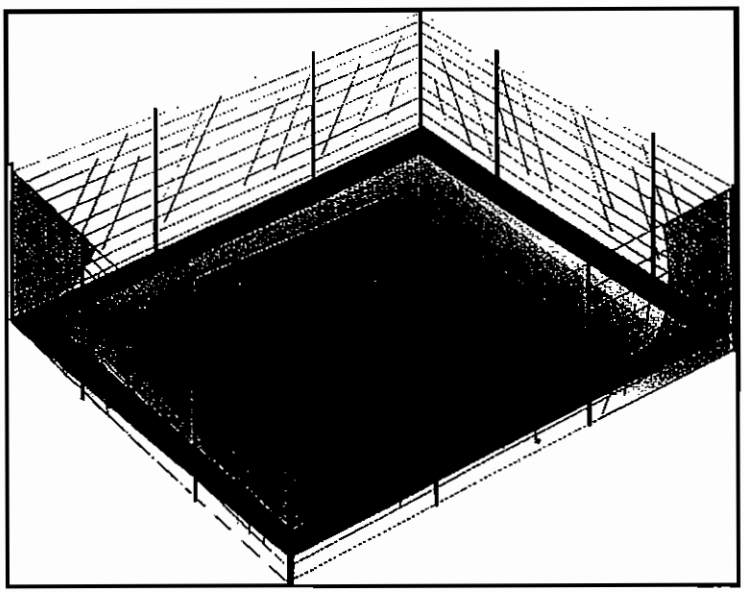
- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

### References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

# Storm Drain Inlet Protection SE-10



| Objectives | | |
|---|---|---|
| EC | Erosion Control | |
| SE | Sediment Control | ✓ |
| TC | Tracking Control | |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | ✓ |
| Nutrients | |
| Trash | ✓ |
| Metals | |
| Bacteria | |
| Oil and Grease | |
| Organics | |

**Potential Alternatives**

SE-1 Silt Fence
SE-5 Fiber Rolls
SE-6 Gravel Bag Berm
SE-8 Sandbag Barrier
SE-9 Straw Bale Barrier

## Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction.

## Suitable Applications

Every storm drain inlet receiving sediment-laden runoff should be protected.

## Limitations

- Drainage area should not exceed 1 acre.
- Straw bales, while potentially effective, have not produced in practice satisfactory results, primarily due to improper installation.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.
- Inlet protection usually requires other methods of temporary protection to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.
- Sediment removal may be difficult in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are

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expected, use other onsite sediment trapping techniques in conjunction with inlet protection.

- Frequent maintenance is required.
- For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps.
- Excavated drop inlet sediment traps are appropriate where relatively heavy flows are expected, and overflow capability is needed.

## Implementation

### *General*

Large amounts of sediment may enter the storm drain system when storm drains are installed before the upslope drainage area is stabilized, or where construction is adjacent to an existing storm drain. In cases of extreme sediment loading, the storm drain itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Inlet protection methods not presented in this handbook should be approved by the local stormwater management agency.

### *Design and Layout*

Identify existing and planned storm drain inlets that have the potential to receive sediment-laden surface runoff. Determine if storm drain inlet protection is needed and which method to use.

- Limit upstream drainage area to 1 acre maximum. For larger drainage areas, use SE-2, Sediment Basin, or SE-3, Sediment Trap, upstream of the inlet protection device.
- The key to successful and safe use of storm drain inlet protection devices is to know where runoff will pond or be diverted.
  - Determine the acceptable location and extent of ponding in the vicinity of the drain inlet. The acceptable location and extent of ponding will influence the type and design of the storm drain inlet protection device.
  - Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.
- The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the

inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

- Four types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected.
  - Filter Fabric Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3).
  - Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Provide area around the inlet for water to pond without flooding structures and property.
- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

*Installation*

- ***DI Protection Type 1 - Filter Fabric Fence*** - The filter fabric fence (Type 1) protection is shown in the attached figure. Similar to constructing a silt fence; see BMP SE-1, Silt Fence. Do not place filter fabric underneath the inlet grate since the collected sediment may fall into the drain inlet when the fabric is removed or replaced.
  1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.
  2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes must be at least 48 in.
  3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in.
  4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden stakes. Use heavy-duty wire staples at least 1 in. in length.
  5. Backfill the trench with gravel or compacted earth all the way around.
- ***DI Protection Type 2 - Excavated Drop Inlet Sediment Trap*** - The excavated drop inlet sediment trap (Type 2) is shown in the attached figures. Install filter fabric fence in

accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 $yd^3$/acre of drainage area.

- ***DI Protection Type 3 - Gravel bag*** - The gravel bag barrier (Type 3) is shown in the figures. Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be used due to their high permeability.

  1. Use sand bag made of geotextile fabric (not burlap) and fill with 0.75 in. rock or 0.25 in. pea gravel.
  2. Construct on gently sloping street.
  3. Leave room upstream of barrier for water to pond and sediment to settle.
  4. Place several layers of sand bags – overlapping the bags and packing them tightly together.
  5. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10 year storm) should not overtop the curb.

- ***DI Protection Type 4 – Block and Gravel Filter*** - The block and gravel filter (Type 4) is shown in the figures. Block and gravel filters are suitable for curb inlets commonly used in residential, commercial, and industrial construction.

  1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place filter fabric over the wire mesh.
  2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high.
  3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with 0.5 in. opening.
  4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in.

## Costs

- Average annual cost for installation and maintenance (one year useful life) is $200 per inlet.

## Inspection and Maintenance

- Inspect BMPs prior to forecast rain, daily during extended rain events, after rain events, weekly during the rainy season, and at two-week intervals during the non-rainy season.

- Filter Fabric Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged stakes.

- Gravel Filters. If the gravel becomes clogged with sediment, it must be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, consider using the sediment-laden stone as fill material and put fresh stone around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. Check gravel bags for proper arrangement and displacement.

- Sediment that accumulates in the BMP must be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Sediment removed during maintenance may be incorporated into earthwork on the site ore disposed at an appropriate location.

- Remove storm drain inlet protection once the drainage area is stabilized.

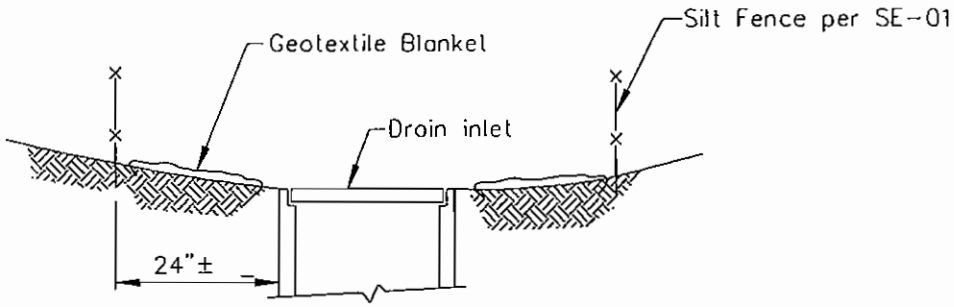
  - Clean and regrade area around the inlet and clean the inside of the storm drain inlet as it must be free of sediment and debris at the time of final inspection.

### References

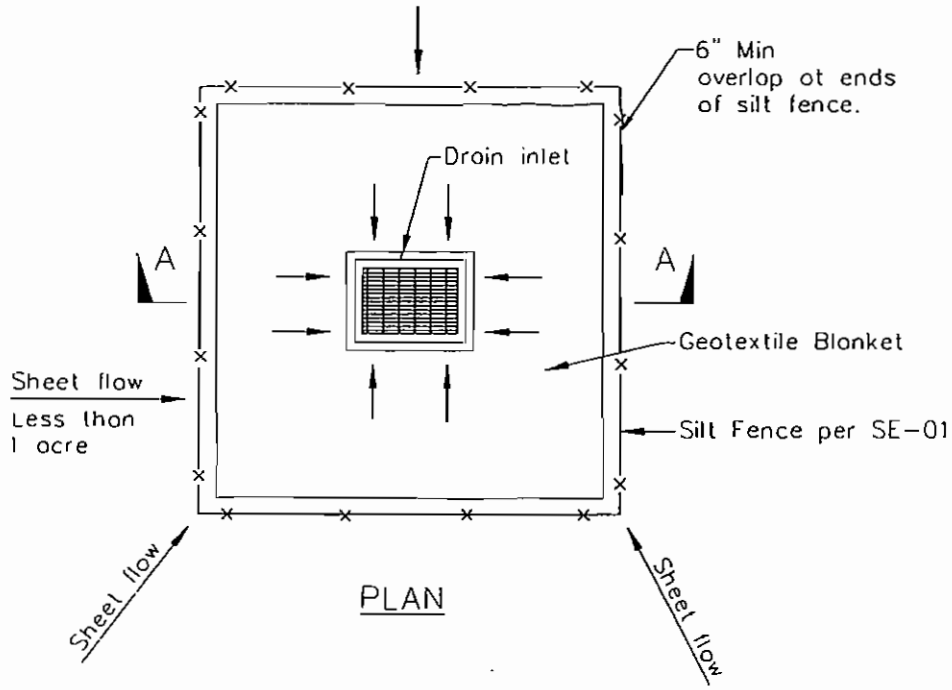
Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management Manual for The Puget Sound Basin, Washington State Department of Ecology, Public Review Draft, 1991.

# SE-10 Storm Drain Inlet Protection




SECTION A-A



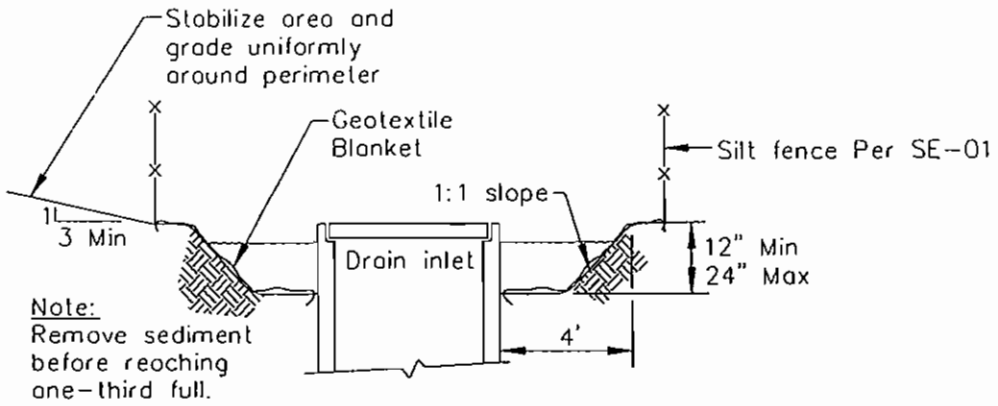

PLAN

DI PROTECTION TYPE 1
NOT TO SCALE

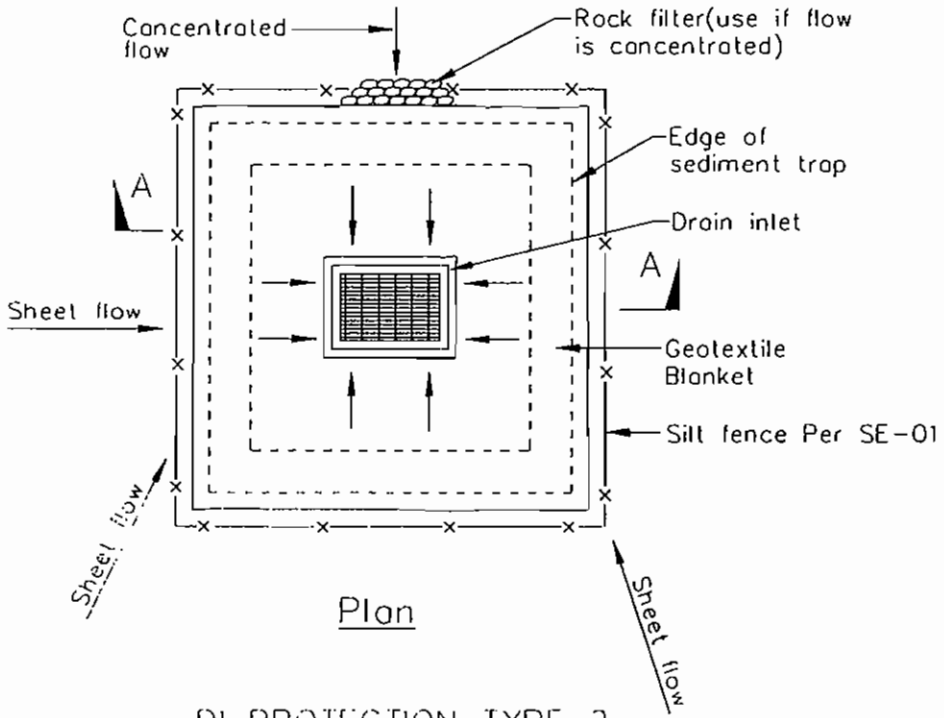
NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

# Storm Drain Inlet Protection SE-10



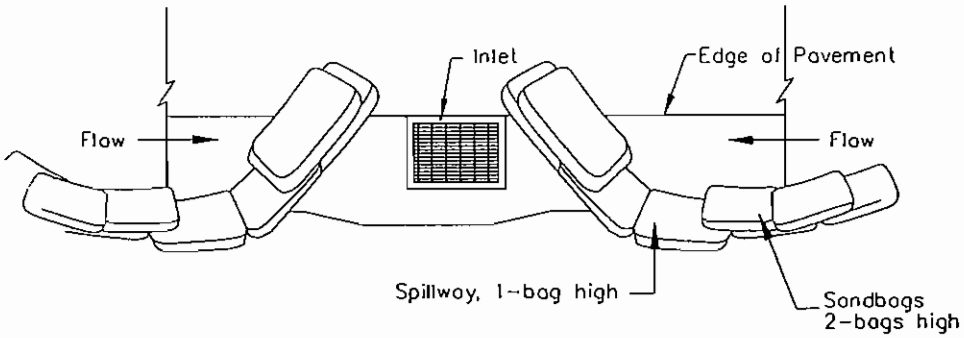

Section A-A



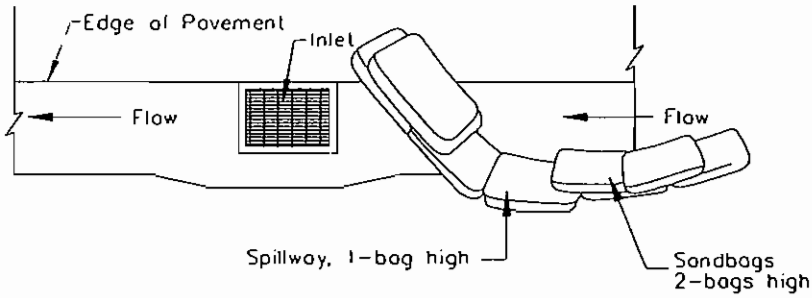

Plan

DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1 For use in cleared and grubbed and in graded areas.
2 Shape basin so that longest inflow area faces longest length of trap.
3 For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow




TYPICAL PROTECTION FOR INLET ON SUMP



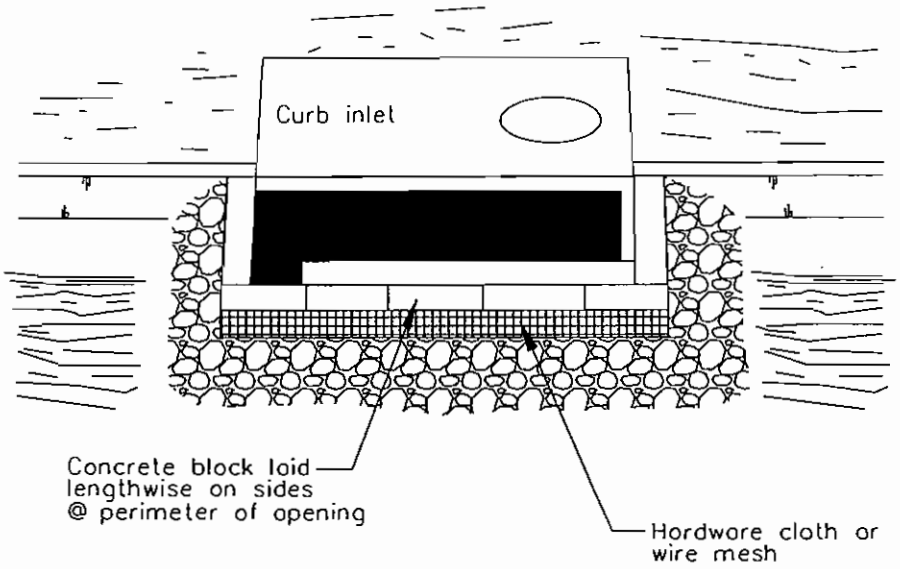

TYPICAL PROTECTION FOR INLET ON GRADE

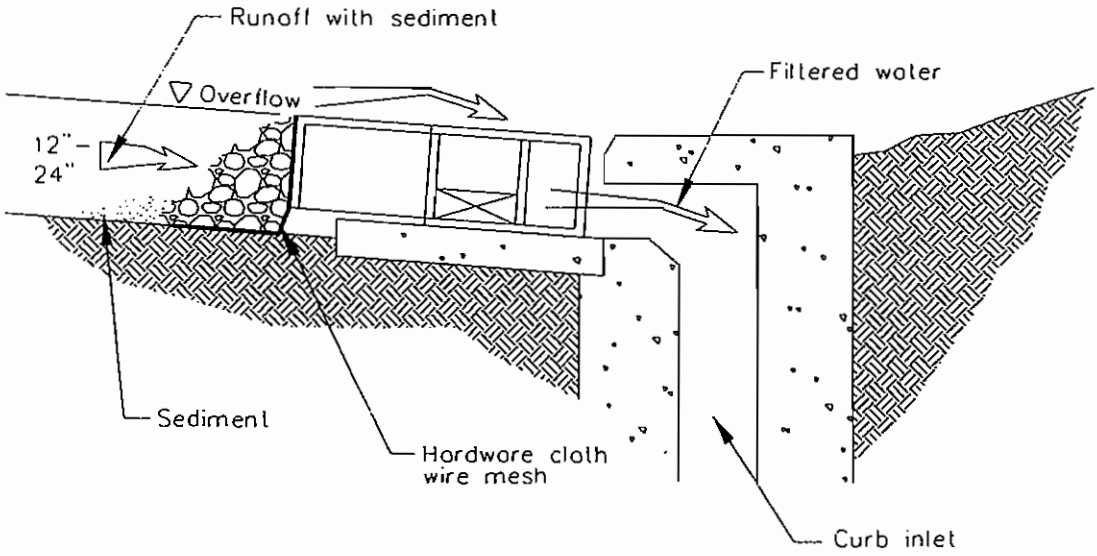
NOTES:

1. Intended for short-term use.
2. Use to inhibit non-storm water flow
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE

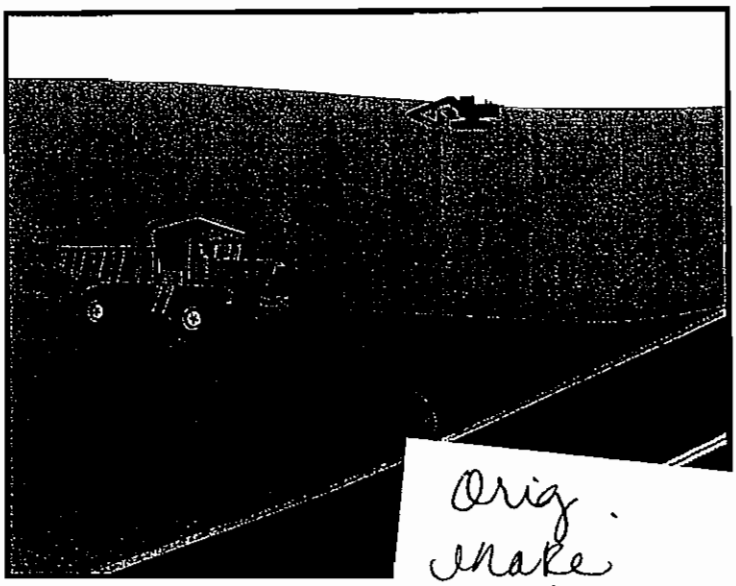
# Storm Drain Inlet Protection SE-10




DI PROTECTION – TYPE 4
NOT TO SCALE

# Stabilized Construction Entrance/Exit TC-1




| Objectives | | |
|---|---|---|
| EC | Erosion Control | ✓ |
| SE | Sediment Control | ✓ |
| TC | Tracking Control | ✓ |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | ✓ |
| Nutrients | |
| Trash | |
| Metals | |
| Bacteria | |
| Oil and Grease | |
| Organics | |

**Potential Alternatives**

None

## Description and Purpose

A stabilized construction access i
entrance/exit to a construction s
the tracking of mud and dirt onto public roads by [illegible]
vehicles.

## Suitable Applications

Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

## Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

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# Stabilized Construction Entrance/Exit TC-1

## Implementation

### *General*

A stabilized construction entrance is a pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right of way, street, alley, sidewalk, or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights of way or streets. Reducing tracking of sediments and other pollutants onto paved roads helps prevent deposition of sediments into local storm drains and production of airborne dust.

Where traffic will be entering or leaving the construction site, a stabilized construction entrance should be used. NPDES permits require that appropriate measures be implemented to prevent tracking of sediments onto paved roadways, where a significant source of sediments is derived from mud and dirt carried out from unpaved roads and construction sites.

Stabilized construction entrances are moderately effective in removing sediment from equipment leaving a construction site. The entrance should be built on level ground. Advantages of the Stabilized Construction Entrance/Exit is that it does remove some sediment from equipment and serves to channel construction traffic in and out of the site at specified locations. Efficiency is greatly increased when a washing rack is included as part of a stabilized construction entrance/exit.

### *Design and Layout*

- Construct on level ground where possible.
- Select 3 to 6 in. diameter stones.
- Use minimum depth of stones of 12 in. or as recommended by soils engineer.
- Construct length of 50 ft minimum, and 30 ft minimum width.
- Rumble racks constructed of steel panels with ridges and installed in the stabilized entrance/exit will help remove additional sediment and to keep adjacent streets clean.
- Provide ample turning radii as part of the entrance.
- Limit the points of entrance/exit to the construction site.
- Limit speed of vehicles to control dust.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment trapping device before discharge.
- Design stabilized entrance/exit to support heaviest vehicles and equipment that will use it.
- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions. Do not use asphalt concrete (AC) grindings for stabilized construction access/roadway.

- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 in. depth, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 in. but smaller than 6 in. should be used.
- Designate combination or single purpose entrances and exits to the construction site.
- Require that all employees, subcontractors, and suppliers utilize the stabilized construction access.
- Implement SE-7, Street Sweeping and Vacuuming, as needed.
- All exit locations intended to be used for more than a two-week period should have stabilized construction entrance/exit BMPs.

### Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect weekly during the rainy season and of two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
- Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment.
- Keep all temporary roadway ditches clear.
- Check for damage and repair as needed.
- Replace gravel material when surface voids are visible.
- Remove all sediment deposited on paved roadways within 24 hours.
- Remove gravel and filter fabric at completion of construction

### Costs

Average annual cost for installation and maintenance may vary from $1,200 to $4,800 each, averaging $2,400 per entrance. Costs will increase with addition of washing rack, and sediment trap. With wash rack, costs range from $1,200 - $6,000 each, averaging $3,600 per entrance.

### References

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, May 1995.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas, USEPA Agency, 2002.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April 1992.

# Stabilized Construction Entrance/Exit TC-1

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

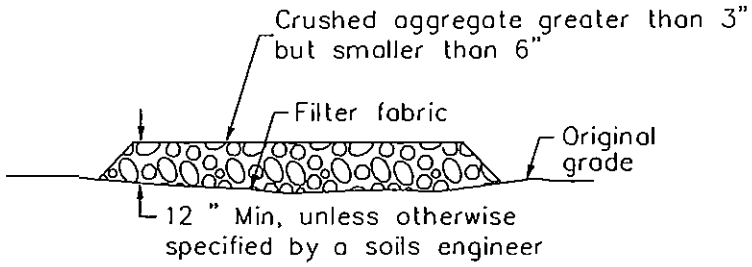
Stormwater Management of the Puget Sound Basin, Technical Manual, Publication #91-75, Washington State Department of Ecology, February 1992.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

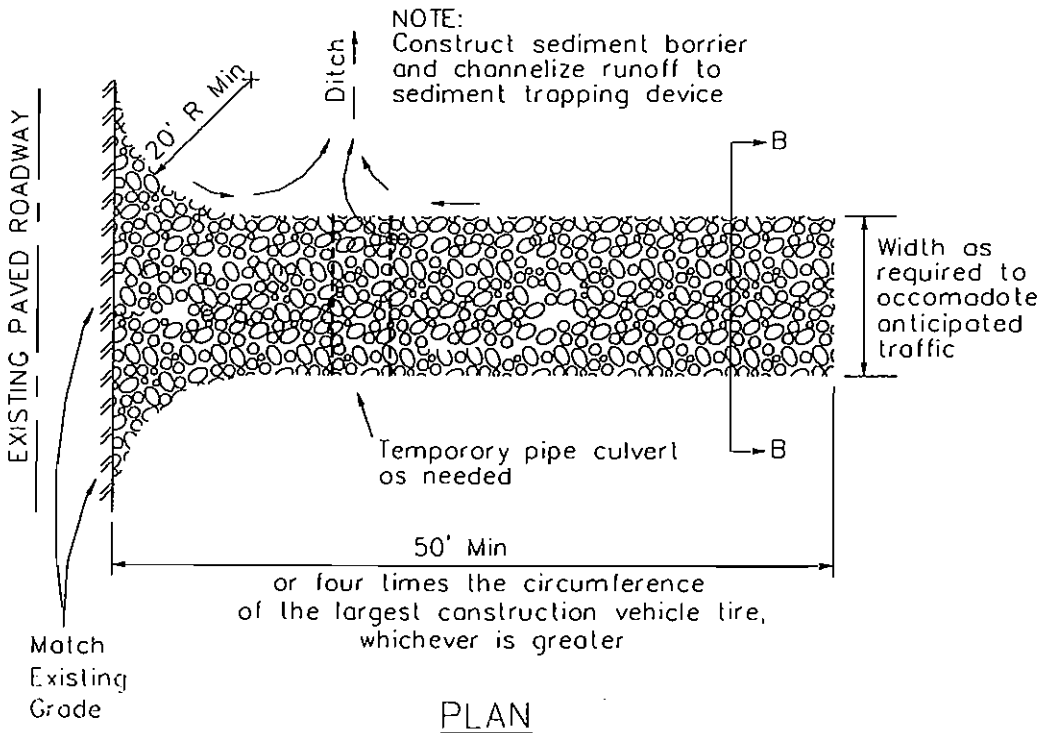
Guidance Specifying Management Measures for Nonpoint Pollution in Coastal Waters, EPA 840-B-9-002, USEPA, Office of Water, Washington, DC, 1993.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency, November 1988.

# Stabilized Construction Entrance/Exit TC-1

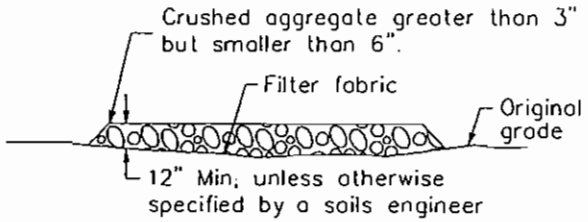



SECTION B–B
NTS




PLAN
NTS

# Stabilized Construction Entrance/Exit TC-1




SECTION B–B
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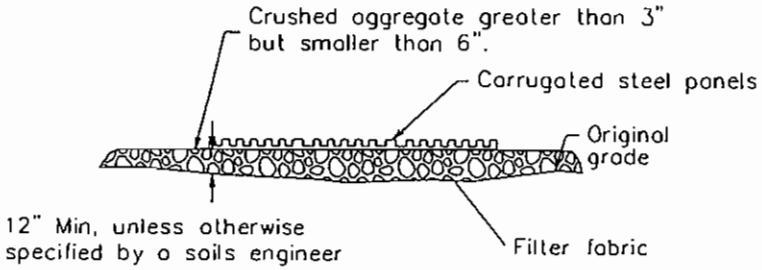
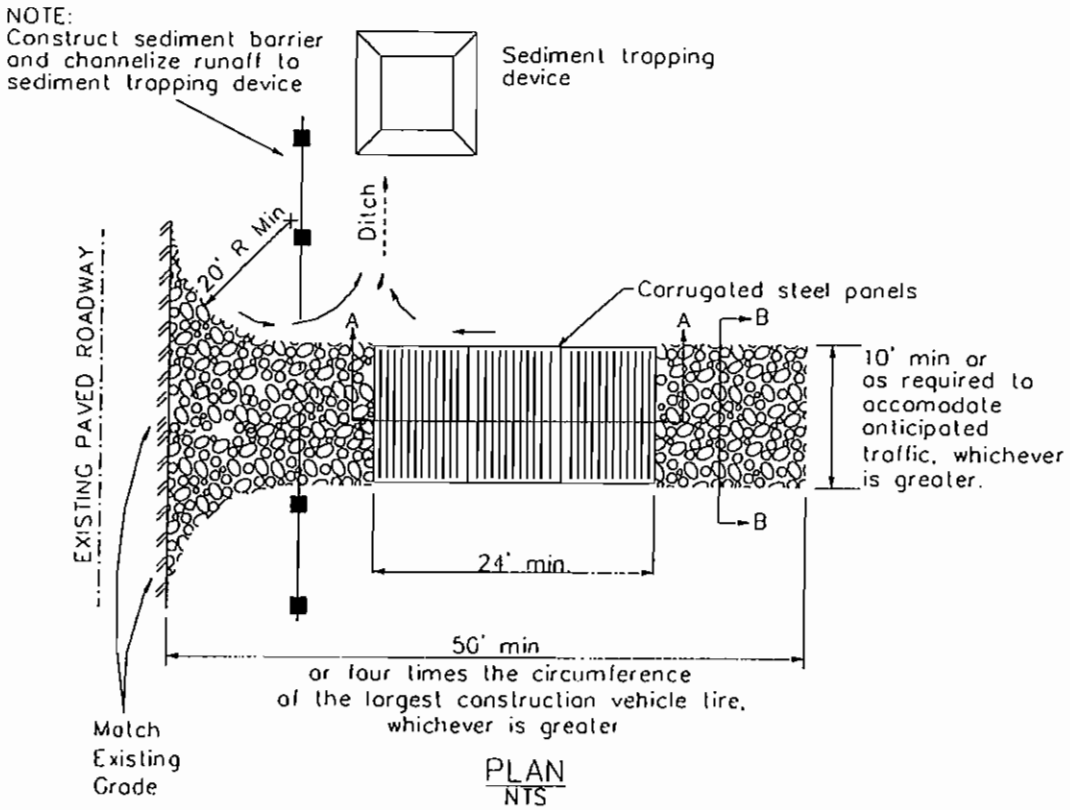
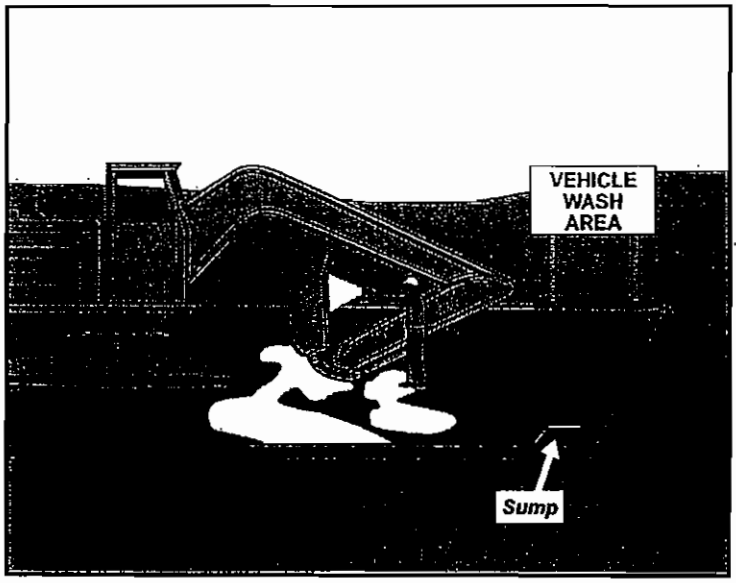



SECTION A–A
NOT TO SCALE




PLAN
NTS

# Vehicle and Equipment Cleaning NS-8




| Objectives | | |
|---|---|---|
| EC | Erosion Control | |
| SE | Sediment Control | |
| TC | Tracking Control | |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | ✓ |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | ✓ |
| Nutrients | ✓ |
| Trash | |
| Metals | |
| Bacteria | |
| Oil and Grease | ✓ |
| Organics | ✓ |

**Potential Alternatives**

None

## Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

## Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

## Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

## Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

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- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit steam cleaning onsite. Steam cleaning can generate significant pollutant concentrates.
- Cleaning of vehicles and equipment with soap, solvents or steam should not occur on the project site unless resulting wastes are fully contained and disposed of. Resulting wastes should not be discharged or buried, and must be captured and recycled or disposed according to the requirements of WM-10, Liquid Waste Management or WM-6, Hazardous Waste Management, depending on the waste characteristics. Minimize use of solvents. Use of diesel for vehicle and equipment cleaning is prohibited.
- All vehicles and equipment that regularly enter and leave the construction site must be cleaned offsite.
- When vehicle and equipment washing and cleaning must occur onsite, and the operation cannot be located within a structure or building equipped with appropriate disposal facilities, the outside cleaning area should have the following characteristics:
  - Located away from storm drain inlets, drainage facilities, or watercourses
  - Paved with concrete or asphalt and bermed to contain wash waters and to prevent runon and runoff
  - Configured with a sump to allow collection and disposal of wash water
  - No discharge of wash waters to storm drains or watercourses
  - Used only when necessary
- When cleaning vehicles and equipment with water:
  - Use as little water as possible. High-pressure sprayers may use less water than a hose and should be considered
  - Use positive shutoff valve to minimize water usage
  - Facility wash racks should discharge to a sanitary sewer, recycle system or other approved discharge system and must not discharge to the storm drainage system, watercourses, or to groundwater

## Costs

Cleaning vehicles and equipment at an offsite facility may reduce overall costs for vehicle and equipment cleaning by eliminating the need to provide similar services onsite. When onsite cleaning is needed, the cost to establish appropriate facilities is relatively low on larger, long-duration projects, and moderate to high on small, short-duration projects.

### Inspection and Maintenance

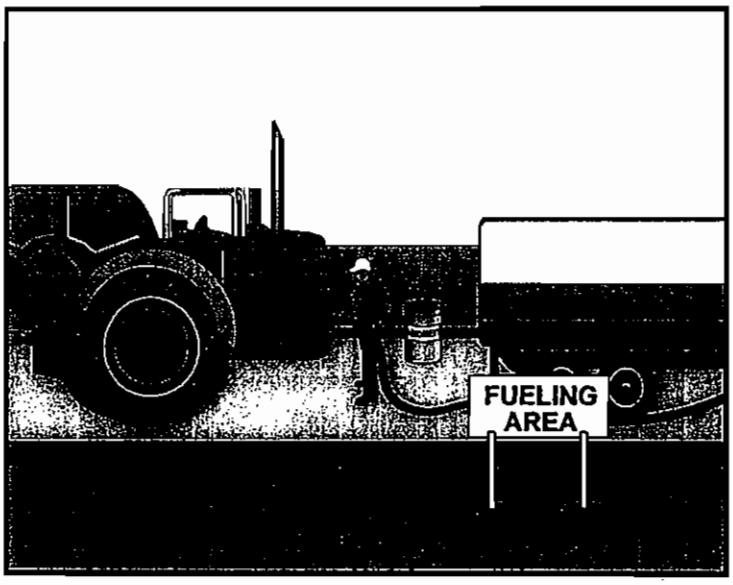
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Inspection and maintenance is minimal, although some berm repair may be necessary.
- Monitor employees and subcontractors throughout the duration of the construction project to ensure appropriate practices are being implemented.
- Inspect sump regularly and remove liquids and sediment as needed.
- Prohibit employees and subcontractors from washing personal vehicles and equipment on the construction site.

### References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Swisher, R.D. Surfactant Biodegradation, Marcel Decker Corporation, 1987.

# Vehicle and Equipment Fueling NS-9




| Objectives | | |
|---|---|---|
| EC | Erosion Control | |
| SE | Sediment Control | |
| TC | Tracking Control | |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | ✓ |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

| Targeted Constituents | |
|---|---|
| Sediment | |
| Nutrients | |
| Trash | |
| Metals | |
| Bacteria | |
| Oil and Grease | ✓ |
| Organics | |

**Potential Alternatives**

None

## Description and Purpose

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

## Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment fueling takes place.

## Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/ Exit.

## Implementation

- Use offsite fueling stations as much as possible. These businesses are better equipped to handle fuel and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate fueling area at a site.
- Discourage "topping-off" of fuel tanks.

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- Absorbent spill cleanup materials and spill kits should be available in fueling areas and on fueling trucks, and should be disposed of properly after use.
- Drip pans or absorbent pads should be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the adsorbent materials promptly and dispose of properly.
- Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and large excavators, most vehicles should be able to travel to a designated area with little lost time.
- Train employees and subcontractors in proper fueling and cleanup procedures.
- When fueling must take place onsite, designate an area away from drainage courses to be used. Fueling areas should be identified in the SWPPP.
- Dedicated fueling areas should be protected from stormwater runon and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Protect fueling areas with berms and dikes to prevent runon, runoff, and to contain spills.
- Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.
- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD).
- Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

### Costs

- All of the above measures are low cost except for the capital costs of above ground tanks that meet all local environmental, zoning, and fire codes.

### Inspection and Maintenance

- Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.
- Keep ample supplies of spill cleanup materials onsite.
- Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

## References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices, EPA 832-R-92005; USEPA, April 1992.

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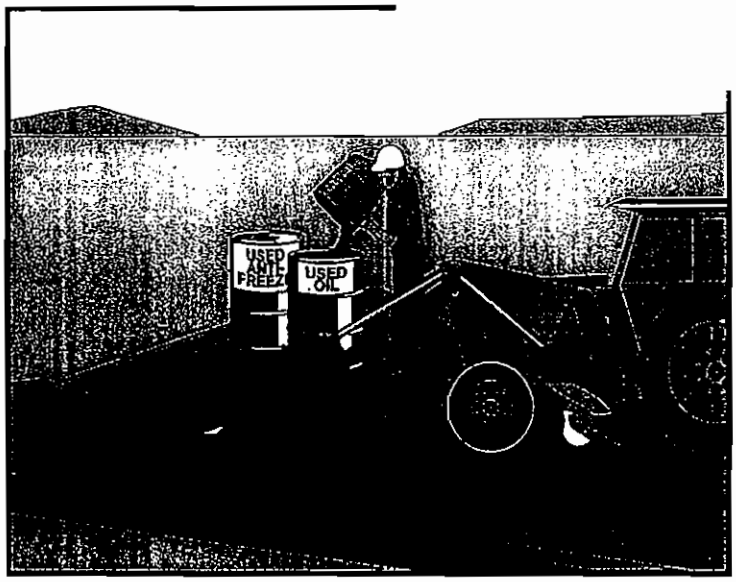
# Vehicle & Equi nance NS-10




## Objectives

| | | |
|---|---|---|
| EC | Erosion Control | |
| SE | Sediment Control | |
| TC | Tracking Control | |
| WE | Wind Erosion Control | |
| NS | Non-Stormwater Management Control | ✓ |
| WM | Waste Management and Materials Pollution Control | |

**Legend:**
✓ **Primary Objective**
✓ **Secondary Objective**

## Targeted Constituents

| | |
|---|---|
| Sediment | |
| Nutrients | ✓ |
| Trash | ✓ |
| Metals | |
| Bacteria | |
| Oil and Grease | ✓ |
| Organics | ✓ |

## Potential Alternatives

None

## Description and Purpose

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. Employees and subcontractors must be trained in proper procedures.

## Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

## Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). For further information on vehicle or equipment servicing, see NS-8, Vehicle and Equipment Cleaning, and NS-9, Vehicle and Equipment Fueling.

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# NS-10 Vehicle & Equipment Maintenance

## Implementation

- Use offsite repair shops as much as possible. These businesses are better equipped to handle vehicle fluids and spills properly. Performing this work offsite can also be economical by eliminating the need for a separate maintenance area.
- If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.
- Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.
- Use adsorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.
- Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately.
- Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.
- Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.
- Train employees and subcontractors in proper maintenance and spill cleanup procedures.
- Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.
- For long-term projects, consider using portable tents or covers over maintenance areas if maintenance cannot be performed offsite.
- Consider use of new, alternative greases and lubricants, such as adhesive greases, for chassis lubrication and fifth-wheel lubrication.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose of or recycle used batteries.
- Do not bury used tires.
- Repair leaks of fluids and oil immediately.

# Vehicle & Equipment Maintenance NS-10

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

***Safer Alternative Products***

- Consider products that are less toxic or hazardous than regular products. These products are often sold under an "environmentally friendly" label.
- Consider use of grease substitutes for lubrication of truck fifth-wheels. Follow manufacturers label for details on specific uses.
- Consider use of plastic friction plates on truck fifth-wheels in lieu of grease. Follow manufacturers label for details on specific uses.

***Waste Reduction***

Parts are often cleaned using solvents such as trichloroethylene, trichloroethane, or methylene chloride. Many of these cleaners are listed in California Toxic Rule as priority pollutants. These materials are harmful and must not contaminate stormwater. They must be disposed of as a hazardous waste. Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents. Also, if possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example, replace chlorinated organic solvents with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check the list of active ingredients to see whether it contains chlorinated solvents. The "chlor" term indicates that the solvent is chlorinated. Also, try substituting a wire brush for solvents to clean parts.

***Recycling and Disposal***

Separating wastes allows for easier recycling and may reduce disposal costs. Keep hazardous wastes separate, do not mix used oil solvents, and keep chlorinated solvents (like,-trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits). Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around. Provide cover and secondary containment until these materials can be removed from the site.

Oil filters can be recycled. Ask your oil supplier or recycler about recycling oil filters.

Do not dispose of extra paints and coatings by dumping liquid onto the ground or throwing it into dumpsters. Allow coatings to dry or harden before disposal into covered dumpsters.

Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

## Costs

All of the above are low cost measures. Higher costs are incurred to setup and maintain onsite maintenance areas.

# NS-10 Vehicle & Equipment Maintenance

## Inspection and Maintenance

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two-week intervals in the non-rainy season to verify continued BMP implementation.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges occur.
- Keep ample supplies of spill cleanup materials onsite.
- Maintain waste fluid containers in leak proof condition.
- Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

## References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program; Program Development and Approval Guidance, Working Group, Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

# *Appendix 6 Transportation*

**6A**

**Traffic Impact Study Sunbelt Enterprises Medical Office Development Agoura Hills Project No. 05-CUP-006. Interwest Consulting Group. January 3, 2007.**

# TRAFFIC IMPACT STUDY

## SUNBELT ENTERPRISES
## MEDICAL OFFICE DEVELOPMENT
## AGOURA HILLS PROJECT NO. 05-CUP-006

**January 3, 2007**

Prepared By:


INTERWEST CONSULTING GROUP

9519 Chamberlain Street
Ventura, CA 93004

Mark Wessel, P.E.



# TRAFFIC IMPACT STUDY
# Agoura Hills Project No. 05-CUP-006

## EXECUTIVE SUMMARY

A traffic impact study was conducted to identify potential offsite traffic impacts and associated mitigation measures relating to development of the proposed project. The project proposes to develop 25,200 square feet of medical office use on a 3.1 acre site at 29541and 29555 Canwood Street in the City of Agoura Hills. The project is expected to generate approximately 62 morning peak hour trips, 94 afternoon peak hour trips, and 910 daily trips.

Six intersections at the U.S. 101 Freeway interchanges with Reyes Adobe Road and Kanan Road were analyzed for both the morning and afternoon peak periods. Intersection operation was analyzed using the Intersection Capacity Utilization (ICU) method.

It was determined that five of the six intersections studied currently operate at good levels of service during the morning peak hour, but three of the intersections operate at LOS D or E during the afternoon peak hour. The proposed project will cause significant impacts to the intersections of Reyes Adobe Road – Canwood Street and Reyes Adobe Road – 101 Freeway Northbound Offramp. These impacts can be mitigated through implementation of the following improvements:

*Reyes Adobe Road – Canwood Street:* Add an eastbound right turn overlap phase.

*Reyes Adobe Road – 101 Freeway Northbound Offramp:* Delete the westbound through movement (from the offramp to the onramp) and overlap the southbound right turn with the westbound phase.

Considerable traffic will be added to all of the studied intersections by cumulative developments, with the result that some intersections will operate at unacceptable levels of service in the morning and most will operate unacceptably in the afternoon. The planned upgrade to the Kanan Road interchange will dramatically improve operation, but cumulative impacts will eventually lead to undesirable levels of service. The proposed project will contribute to these impacts, with its impacts being deemed significant at the intersection of Reyes Adobe Road – Canwood Street.

For the Reyes Adobe Road – Canwood Street intersection, the project-specific mitigation of providing an eastbound right turn overlap phase will also mitigate the project's cumulative impacts. Otherwise, cumulative impacts will be mitigated through payment of traffic impact fees.

Site access and onsite circulation as proposed is generally adequate, although several specific improvements are recommended.

TRAFFIC IMPACT STUDY
Agoura Hills Project No. 05-CUP-006

# TABLE OF CONTENTS

# TRAFFIC IMPACT STUDY
Agoura Hills Project No. 05-CUP-006

## INTRODUCTION

### Purpose and Scope

In compliance with the California Environmental Quality Act and City of Agoura Hills requirements, this traffic study was conducted to identify potential offsite traffic impacts associated with the proposed project and any necessary mitigation measures. The project proposal is to develop medical office uses on a currently vacant site on Canwood Street between Reyes Adobe Road and Kanan Road in the City of Agoura Hills. The study evaluated intersection level of service (LOS) for the weekday morning and afternoon peak hours for the Existing, Existing + Project, Existing + Cumulative Developments, and Existing + Cumulative Developments + Project scenarios for the Reyes Adobe Road and Kanan Road interchanges with the U.S. 101 Freeway as shown in Figure 1.

### Intersections Evaluated in the Study

Existing intersections evaluated in the study are shown in Figure 1 and are listed as follows:

- Reyes Adobe Road – Canwood Street
- Reyes Adobe Road – U.S. 101 Freeway Northbound Ramps
- Reyes Adobe Road – U.S. 101 Freeway Southbound Ramps
- Kanan Road – Canwood Street
- Kanan Road – U.S. 101 Freeway Northbound Ramps
- Kanan Road – U.S. 101 Freeway Southbound Ramps

All of the study intersections are currently signalized.

## PROJECT DESCRIPTION

The project proposal is to develop a currently vacant 3.1 acre site with two buildings comprising a total of 25,200 square feet of medical office uses as shown in Figure 2. The site is located on the north side of Canwood Street at address nos. 29541 and 29555. Project traffic volumes were estimated based on data contained in the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 7th Edition* and the results are contained in Table 1.

Table 1. Trip Generation

| Land Use | Size* | AM | | | PM | | | ADT |
|---|---|---|---|---|---|---|---|---|
| | | In | Out | Total | In | Out | Total | |
| Medical Office | 25.200 | 49 | 13 | 62 | 25 | 69 | 94 | 910 |

* Thousand Square Feet

Project traffic was distributed to the surrounding areas based on knowledge of the local area and regional traffic distribution guidelines provided in Appendix B of the *2004 Congestion Management Program for Los Angeles County*. The traffic was then assigned to specific routes and the resulting AM/PM peak hour turning movement volumes are shown in Figure 3.

## INTERSECTION LOS ANALYSES

### Methodology

Levels of service for signalized intersections were evaluated using the Intersection Capacity Utilization (ICU) method. With this method, an ICU value is calculated that represents the proportion of an hour required to accommodate traffic if all approaches operate at capacity. The ICU value is then correlated to a level of service. Although operation may be more congested during short periods within the peak hour, an ICU analysis of the entire peak hour is the generally accepted method of quantifying intersection operation. A description of operating conditions and definition of the ICU range for each level of service is provided in the appendix.

### Impact Significance Criteria

The City of Agoura Hills defines an impact as significant if it increases the ICU value by 0.02 or more and the resulting ICU value is 0.81 or higher.

### Existing Conditions

New AM and PM peak turning movement counts were conducted for the six study intersections. In addition, counts were conducted at the intersection of Kanan Road – Roadside Drive. The future U.S. 101 Southbound offramp will intersect Kanan Road at Roadside Drive and the counts at this intersection were conducted for the sole purpose of estimating how existing traffic will reassign itself to reflect the new configuration. Existing volumes are shown in Figure 4 and the data sheets are contained in the appendix. Existing intersection lane configurations for the six study intersections are shown in Figure 5.

Intersection LOS calculations were performed for the Existing scenario; the calculations are contained in the appendix and the results are summarized in Table 2.

Table 2. Intersection AM/PM Peak LOS Results

| Scenario | | | Reyes Adobe - Canwood | Reyes Adobe – U.S. 101 SB Offramp | Reyes Adobe – U.S. NB Offramp | Kanan - Canwood | Kanan – U.S. 101 SB Offramp | Kanan – U.S. 101 NB Offramp |
|---|---|---|---|---|---|---|---|---|
| AM | Existing | ICU | 0.61 | 0.93 | 0.68 | 0.56 | 0.70 | 0.71 |
| | | LOS | B | E | B | A | B | C |
| | Existing + Project | ICU | 0.63 | 0.93 | 0.68 | 0.56 | 0.70 | 0.71 |
| | | LOS | B | E | B | A | B | C |
| | Existing + Cumulative | ICU | 0.64 | 1.18 | 0.80 | - | 0.65 | 0.83 |
| | | LOS | B | F | C | - | B | D |
| | Existing + Cumulative + Project | ICU | 0.66 | 1.18 | 0.80 | - | 0.65 | 0.85 |
| | | LOS | B | F | C | - | B | D |
| PM | Existing | ICU | 0.80 | 0.67 | 0.82 | 0.88 | 0.73 | 0.93 |
| | | LOS | C | B | D | D | C | E |
| | Existing + Project | ICU | 0.83 | 0.68 | 0.84 | 0.89 | 0.74 | 0.93 |
| | | LOS | D | B | D | D | C | E |
| | Existing + Cumulative | ICU | 0.87 | 0.98 | 1.01 | - | 0.84 | 0.96 |
| | | LOS | D | E | F | - | D | E |
| | Existing + Cumulative + Project | ICU | 0.89 | 0.99 | 1.02 | - | 0.84 | 0.97 |
| | | LOS | D | E | F | - | D | E |

The results provided in Table 2 indicate that all intersections studied currently operate at a good level of service in the morning except for the 101 Freeway southbound offramp at Reyes Adobe, which operates at LOS E. In the afternoon, however, the intersections of the 101 Freeway northbound offramp at Reyes Adobe, Kanan at Canwood, and the 101 Freeway northbound offramp at Kanan all operate at either LOS D or E.

**Existing + Project Conditions**

The project traffic volumes shown in Figure 3 were added to the existing traffic volumes shown in Figure 4 and LOS calculations were again performed. The calculations for this Existing + Project scenario are contained in the appendix and the results are summarized in Table 2. These results indicate that the project will cause measurable impacts to most of the intersections studied and the impacts will be significant at the intersections of Reyes Adobe – Canwood and Reyes Adobe – 101 Freeway Northbound Offramp during the afternoon peak period.

**Project Mitigation Improvements**

The two intersections that will experience significant project impacts were reviewed in an effort to identify feasible mitigation measures to improve the levels of service to acceptable or at least offset the project impacts. The following improvements were identified:

*Reyes Adobe Road – Canwood Street*

The traffic signal should be modified to provide an eastbound right turn overlap phase. This will theoretically improve the afternoon post-project ICU value from 0.83 LOS D to 0.76 LOS C. In reality, the improvement will be somewhat less because protected-permissive northbound left turn phasing will provide less opportunity for overlapping right turns than would full protected phasing. Nevertheless, the improvement is expected to significantly exceed the 0.03 incremental project impact and restore LOS C operation.

*Reyes Adobe Road – 101 Freeway Northbound Offramp*

The southbound right turn can be overlapped with the westbound phase if the westbound through movement (from the offramp to the onramp) is eliminated. This will improve the post-project ICU value from 0.84 LOS D to 0.79 LOS C.

**Future Pre-Project Conditions**

From the City's December, 2005 *Commercial and Residential Development Summary*, 22 developments were selected to be included in the analysis of future conditions. These developments, referred to as "cumulative developments," were selected because they may contribute meaningful amounts of traffic to one or more of the study intersections. The locations of these developments are shown in Figure 6. Peak hour traffic volumes were estimated for each of these developments based on the ITE *Trip Generation, 7th Edition* publication and the results are contained in Table 3.

The traffic associated with each pending development was distributed to the surrounding areas in the same manner as was done for the proposed project. The resulting peak traffic volumes are shown in Figure 7. This figure also reflects the planned improvements to the Kanan Road – U.S. 101 Freeway interchange. On the north side, the northbound offramp will be realigned to intersect Kanan Road at the Canwood Street intersection and a northbound loop onramp will be provided. On the south side, the southbound offramp will be realigned to intersect Kanan Road at the Roadside Drive intersection and a southbound loop onramp will be provided. The lane configurations associated with the planned interchange upgrade are shown in Figure 8. The improvements to this interchange were considered when performing traffic assignment to the local street system.

Intersection LOS calculations were performed for the Existing + Cumulative Developments scenario; the calculations are contained in the appendix and the results are summarized in Table 2. The results indicate that the Reyes Adobe interchange will operate at very poor levels of service and the rest of the intersections studied will generally operate at marginal or unacceptable levels of service during the peak hours, especially the afternoon peak hour.

## Table 3. Cumulative Developments Trip Generation

| Map No. | Name | Address | Size* | Unit | Use | AM | | | PM | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In | Out | Total | In | Out | Total | |
| 3 | Burgundy Creek Bistro | w/o 28818 Agoura Road | 11 | TSF | Restaurant | 7 | 2 | 9 | 55 | 27 | 82 | 989 |
| 5 | E.F. Moore & Company | SEC Agoura & Kanan | 43.15 | TSF | Retail | 27 | 17 | 44 | 78 | 84 | 162 | 1,853 |
| | | | 43.15 | TSF | Office | 59 | 8 | 67 | 11 | 54 | 65 | 475 |
| | | | 119 | DU | Condo | 20 | 60 | 80 | 54 | 39 | 93 | 697 |
| 6 | Heathcote for Buckley | s/o Agoura Rd, near west City limit | 14.075 | TSF | Medical Office | 28 | 7 | 35 | 14 | 38 | 52 | 509 |
| 7 | Cornerstone | SEC Agoura & Cornell | 25.592 | TSF | Retail | 16 | 10 | 26 | 46 | 50 | 96 | 1,099 |
| | | | 17.847 | TSF | Office | 24 | 3 | 28 | 4 | 22 | 26 | 196 |
| | | | 37 | DU | Condo | 6 | 19 | 25 | 17 | 12 | 29 | 217 |
| 8 | Agoura Business Center | 5301 Derry, NWC Derry & Canwood | 19.81 | TSF | Industrial Park | 14 | 3 | 17 | 4 | 13 | 17 | 138 |
| 10 | Center Ct. Plaza | 29501 Canwood | 49.35 | TSF | Office | 67 | 9 | 76 | 12 | 61 | 73 | 543 |
| 12 | HQ Development for Agoura Hills Acquisition | 29621 Agoura Road | 95.215 | TSF | Office | 130 | 18 | 148 | 24 | 118 | 142 | 1,048 |
| 18 | Carlos Khantzis | 30800 Agoura Road | 46 | DU | Senior Condos | 2 | 2 | 4 | 3 | 2 | 5 | 160 |
| 22 | Doss for Rick Principe | 30101 Agoura Court | 30 | TSF | Office | 41 | 6 | 47 | 8 | 37 | 45 | 330 |
| 1P | Ball Properties (Centerpointe) | 30005 & 30009 Ladyface Cir. | 61.04 | TSF | Office | 83 | 12 | 95 | 15 | 76 | 91 | 672 |
| 4P | Silagi Canwood Plaza Bldg. C | NWC Kanan & Canwood | 22.896 | TSF | Office | 31 | 4 | 35 | 6 | 28 | 34 | 252 |
| 5P | Semler (Alan Hartley) | NEC Canwood & Derry | 125 | TSF | Office | 171 | 23 | 194 | 31 | 155 | 186 | 1,376 |
| 9P | Development Partners | 30101 Agoura Ct. | 31.16 | TSF | Office | 42 | 6 | 48 | 8 | 39 | 47 | 343 |
| 10P | Realty Bancorp Equities | 29901 Agoura Road | 76.75 | TSF | Office | 105 | 14 | 119 | 19 | 95 | 114 | 845 |

**Table 3 (cont.) Cumulative Developments Trip Generation**

| Map No. | Name | Address | Size* | Unit | Use | AM | | | PM | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | In | Out | Total | In | Out | Total | |
| 12P | Stockton for Levy | 28211 Canwood | 10.7 | TSF | Furniture Store | 1 | 1 | 2 | 2 | 3 | 5 | 54 |
| | | | 6 | TSF | Office | 8 | 1 | 9 | 2 | 7 | 9 | 66 |
| 13P | BBA Properties for Michael Browers | 28371 Agoura Road | 9 | TSF | Office | 12 | 2 | 14 | 2 | 11 | 13 | 99 |
| 14P | HBF Holdings | n/o Canwood, w/o Clareton | 125 | room | Suites Hotel | 40 | 20 | 60 | 29 | 40 | 69 | 780 |
| 17P | Scheu (Corp. Point) | s/s Agoura Rd. @ Reyes Adobe | 81 | TSF | Office | 110 | 15 | 125 | 20 | 100 | 120 | 892 |
| 18P | Zaghi | 29348 Roadside | 11.636 | TSF | Manufacturing | 7 | 2 | 9 | 3 | 5 | 8 | 44 |
| 22P | Agoura Detailing Center | 100 Reyes Adobe | 10.333 | TSF | Auto Care Center | 20 | 11 | 31 | 17 | 17 | 34 | 0 |
| 23P | Adler Realty | Canwood between Lewis & Derry | 120.23 | TSF | Home Furnishings | 132 | 108 | 240 | 216 | 266 | 482 | 5,748 |
| 888 | Symphony | SWC Kanan & Agoura | 41.2 | TSF | Retail | 26 | 16 | 42 | 74 | 80 | 154 | 1,769 |
| | | | 68 | TSF | Office | 92 | 13 | 105 | 17 | 84 | 101 | 749 |
| | | | 9 | TSF | Restaurant | 6 | 1 | 7 | 45 | 22 | 67 | 810 |
| | | | 89 | DU | Condo | 15 | 45 | 60 | 40 | 29 | 69 | 522 |

Notes

* Thousand Square Feet

18 Most appropriate trip generation category appears to be Senior Adult Housing - Attached.

18P Manufacturing selected for trip generation because it is more conservative than warehouse.

22P Most appropriate trip generation category for auto detailing appears to be auto care center. ADT not available or necessary.

23P No AM trip gen. available. AM assumed to be 50% of PM with 55/45 in/out ratio, based on Home Improvement Superstore data.

888 888 used because the Symphony project does not have a formal City map number.

**Future Post-Project Conditions**

The project traffic volumes shown in Figure 3 were added to the Existing + Cumulative Developments traffic volumes shown in Figure 7 and LOS calculations were again performed. The calculations for this Existing + Cumulative Developments + Project scenario are contained in the appendix and the results are summarized in Table 2. These results indicate that the project will cause significant cumulative impacts to the Reyes Adobe – Canwood intersection during the afternoon peak hour. Although Table 2 appears to suggest that project impacts will be significant at 101 Freeway Northbound Offramp – Kanan during the morning peak hour, rounding the ICU values to two decimal places only makes the impact *appear* to be 0.02; the incremental impact is actually 0.015, which is less than the 0.02 significance threshold.

**Cumulative Mitigation Improvements**

In general, cumulative impacts will be mitigated through payment of traffic impact fees. As noted above, however, one intersection will experience significant cumulative project impacts. Mitigation for this intersection is discussed as follows:

*Reyes Adobe Road – Canwood Street*

The project-specific mitigation of modifying the traffic signal to provide an eastbound right turn overlap phase will also mitigate the project's cumulative impacts. Although the overlap may not actually improve the operation from 0.89 LOS D fully to the theoretical level of 0.81 LOS D due to the previously discussed protected-permissive left turn phasing, the improvement will significantly exceed the 0.02 incremental project impact.

**SITE ACCESS AND INTERNAL CIRCULATION**

Access to the site will be served by a 26-foot wide driveway located approximately 47 feet west of the property's east boundary. This location was developed in coordination with City staff to maximize the offset from the driveway to the adjacent property to the east. As proposed, there will be 77 feet of clearance between the two driveways, which should provide adequate intervisibility and reaction time for motorists exiting the driveways. Although the driveway should provide adequate access for the size and intensity of the proposed development, consideration should be given to widening the driveway apron and/or increasing the easterly curb radius at the apron to facilitate simultaneous ingress/egress.

The drive aisle to the lower parking lot is approximately 70 feet from the Canwood Street curb. In the event of a temporary blockage at this drive aisle, this will provide ample room for at least three vehicles to queue without blocking traffic on Canwood.

Because the project is located on a hillside, the main drive aisle grade ranges from 10% at the street to 5% to 13%. The westerly drive aisle ranges from 5% to 15%. To avoid circulation problems, it is recommended that transitions at least 12 feet long be located at each grade change point. The grade of each transition should be an average of the approach and exit grades and the vertical profile should be blended (smoothed) at each end of the transition.

The 26' width of the drive aisle and parking aisles is adequate and the radius curb returns will facilitate internal circulation.

The upper two parking fields have a flow-through design, with drive aisles on both the west and east sides. However, the lower two parking fields have a dead-end design on the west side. Although egress from the most westerly parking stalls is facilitated by the extension of the drive aisles slightly west of the parking stalls, it is recommended that one stall at the end of each aisle be striped to prohibit parking. Motorists reaching the end of the aisle without finding an open stall will be able to use this area to get turned around.

## CONCLUSION

Five of the six intersections studied currently operate at good levels of service during the morning peak hour, but three of the intersections operate at LOS D or E during the afternoon peak hour. The proposed project will cause significant impacts to the intersections of Reyes Adobe Road – Canwood Street and Reyes Adobe Road – 101 Freeway Northbound Offramp. These impacts can be mitigated through implementation of the following improvements:

*Reyes Adobe Road – Canwood Street:* Add an eastbound right turn overlap phase.

*Reyes Adobe Road – 101 Freeway Northbound Offramp:* Delete the westbound through movement (from the offramp to the onramp) and overlap the southbound right turn with the westbound phase.

Considerable traffic will be added to all of the studied intersections by cumulative developments, with the result that some intersections will operate at unacceptable levels of service in the morning and most will operate unacceptably in the afternoon. The planned upgrade to the Kanan Road interchange will dramatically improve operation, but cumulative impacts will eventually lead to undesirable levels of service. The proposed project will contribute to these impacts, with its impacts being deemed significant at the intersection of Reyes Adobe Road – Canwood Street.

For the Reyes Adobe Road – Canwood Street intersection, the project-specific mitigation of providing an eastbound right turn overlap phase will also mitigate the project's cumulative impacts. Otherwise, cumulative impacts will be mitigated through payment of traffic impact fees.

Site access and onsite circulation as proposed is generally adequate, although several specific improvements are recommended.

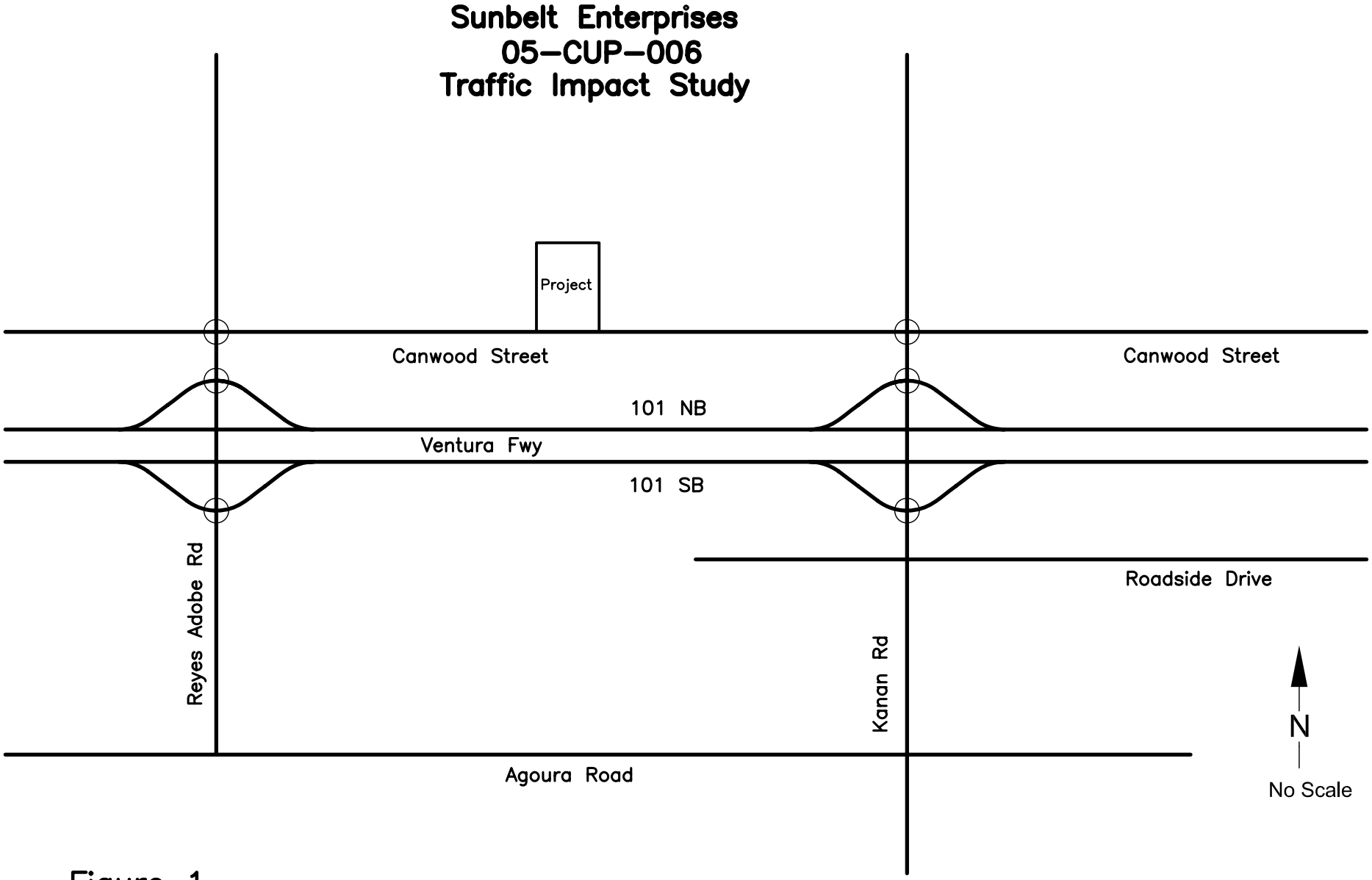
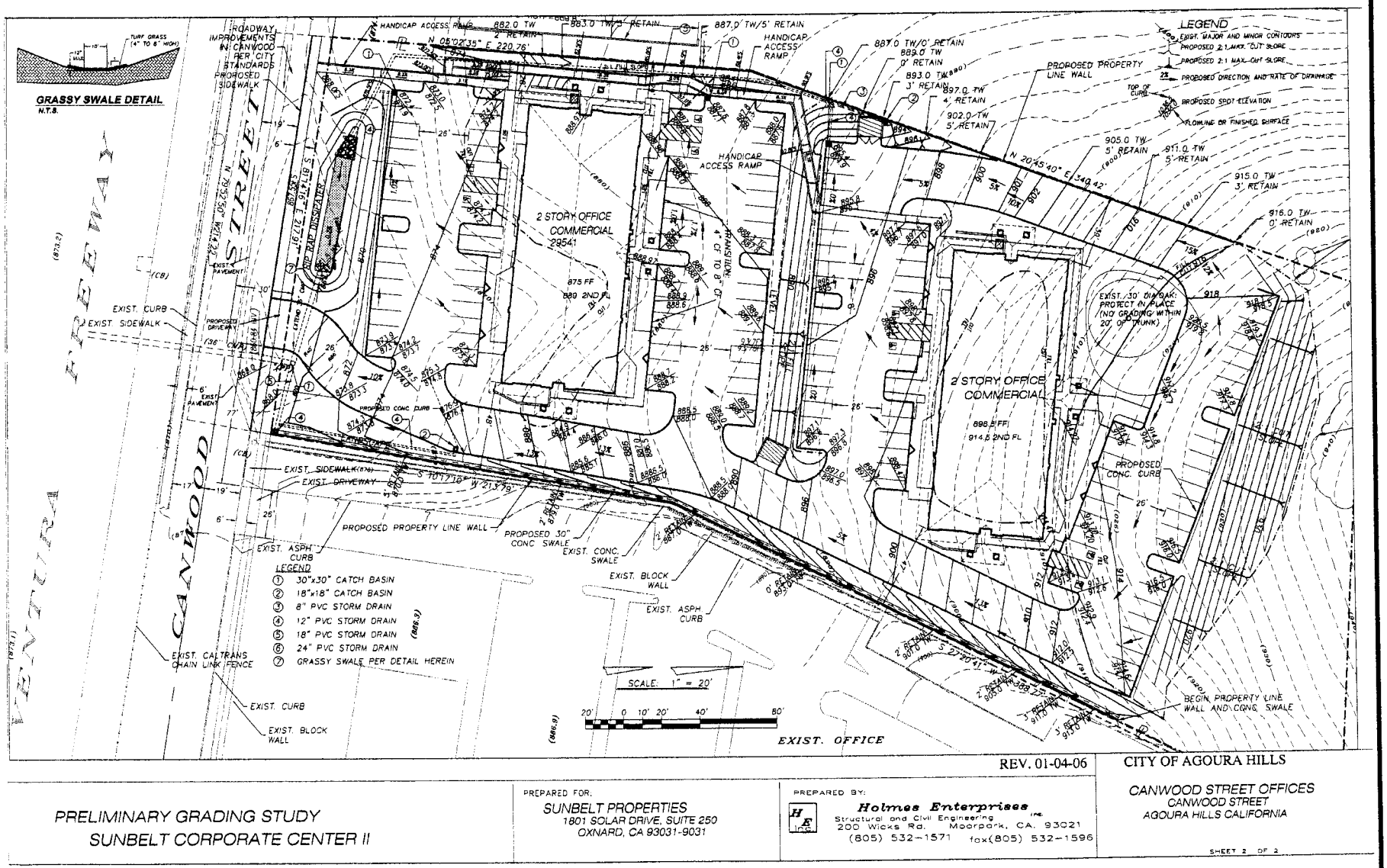



Figure 1
Study Area

○ Intersections Evaluated in Study




REV. 01-04-06

CITY OF AGOURA HILLS

CANWOOD STREET OFFICES
CANWOOD STREET
AGOURA HILLS CALIFORNIA

SHEET 2 OF 2

PRELIMINARY GRADING STUDY
SUNBELT CORPORATE CENTER II

PREPARED FOR:
SUNBELT PROPERTIES
1801 SOLAR DRIVE, SUITE 250
OXNARD, CA 93031-9031

PREPARED BY:
Holmes Enterprises Inc.
Structural and Civil Engineering
200 Wicks Rd. Moorpark, CA. 93021
(805) 532-1571 fax(805) 532-1596

Figure 2 Project Site Plan

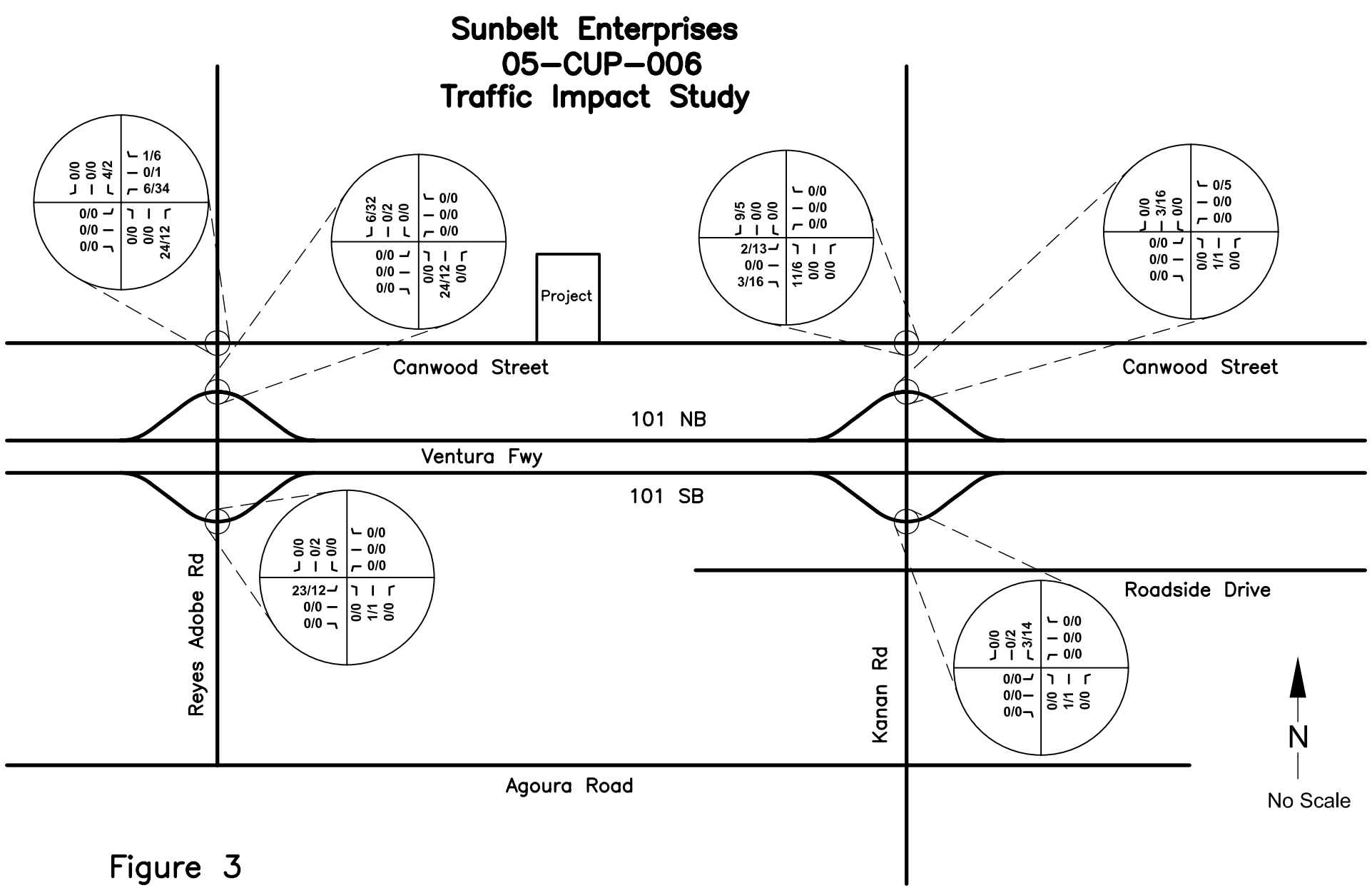



Figure 3
Project Peak Traffic Volumes

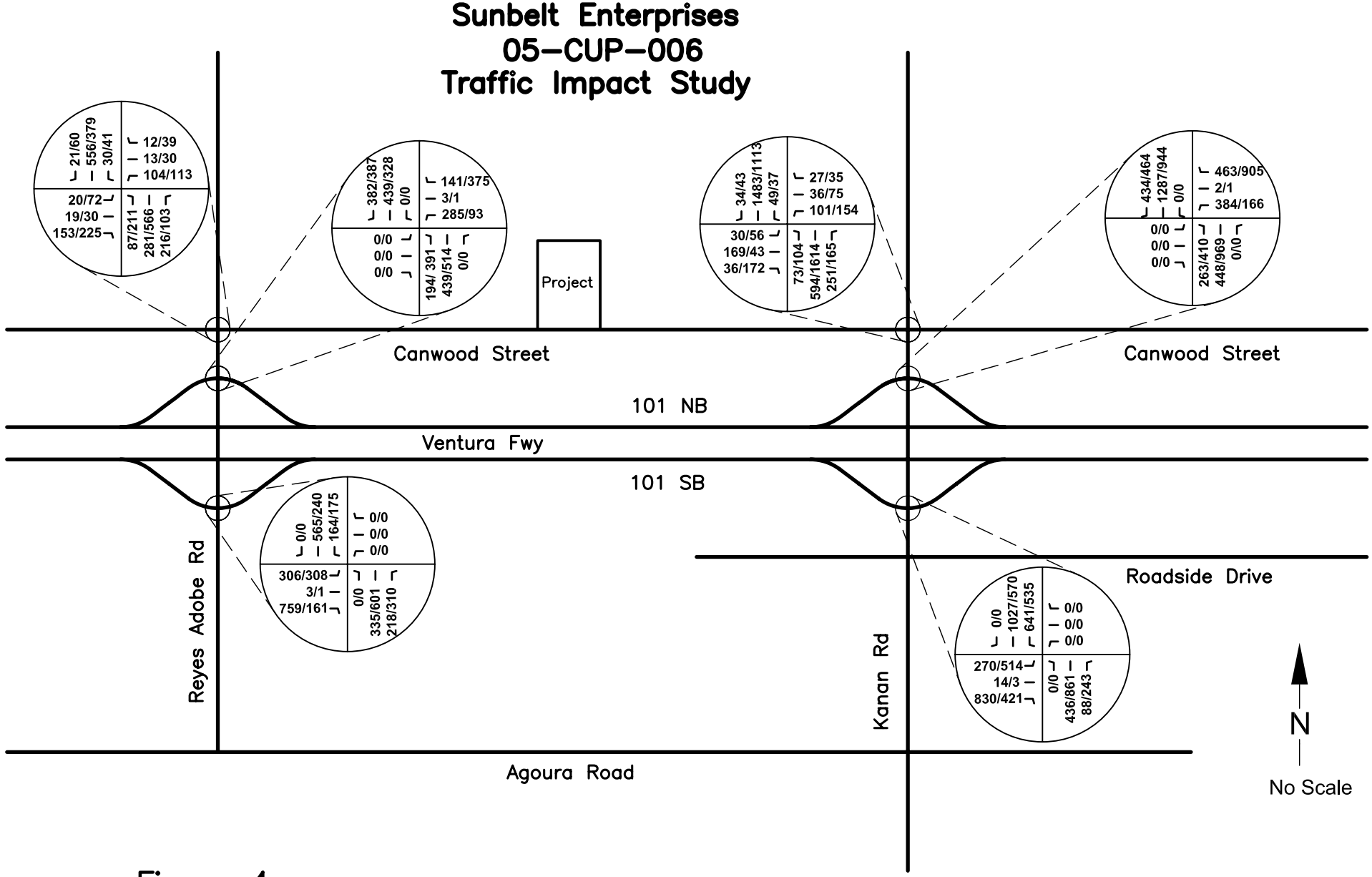



Figure 4
Existing Peak Traffic Volumes

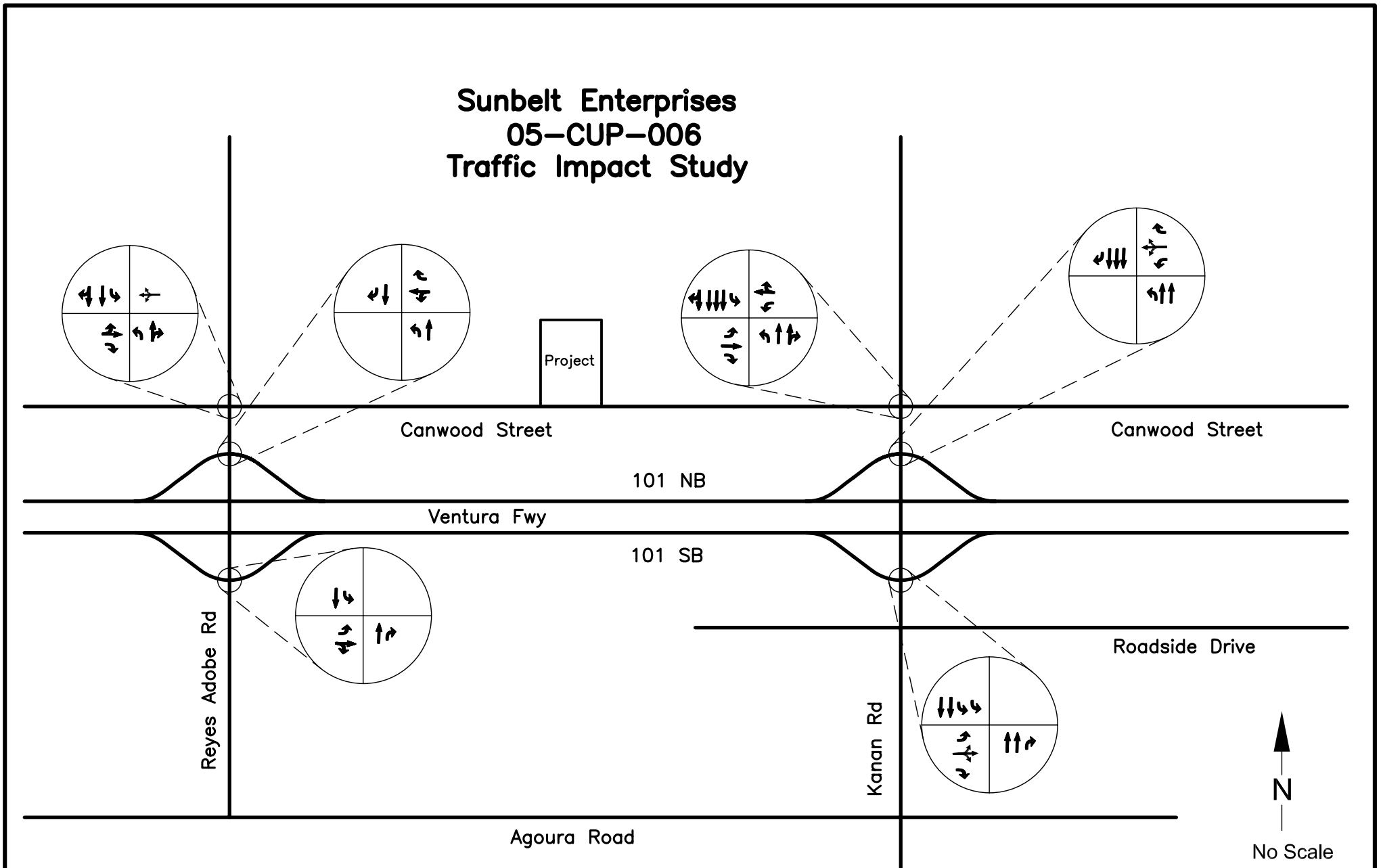



Figure 5
Existing Lane Configurations

# Sunbelt Enterprises
# 05–CUP–006
# Traffic Impact Study

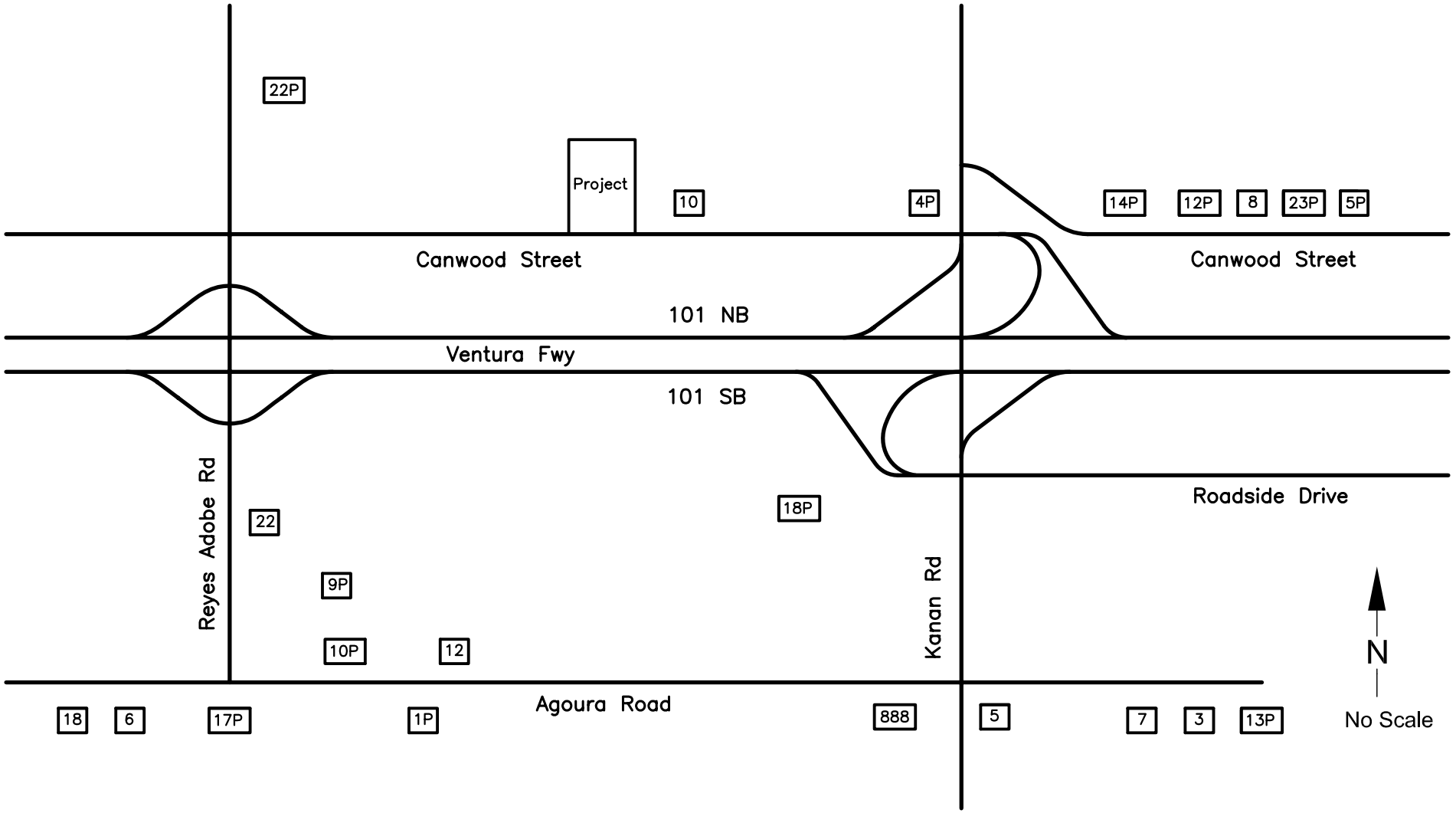



Figure 6
Cumulative Developments Location Map

5 Cumulative Development Per Table 3

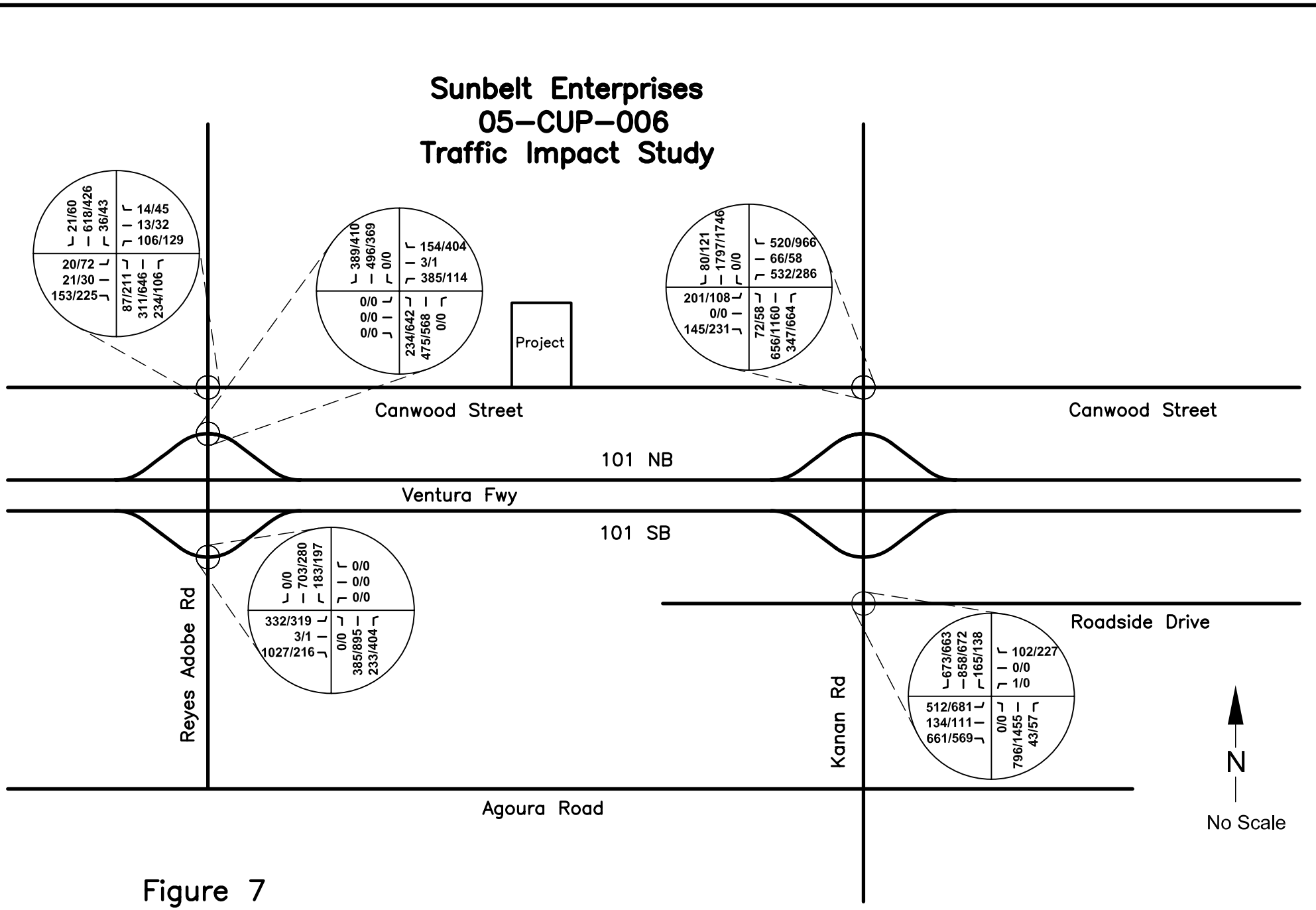



Figure 7
Existing + Cumulative Peak Traffic Volumes

# Sunbelt Enterprises
# 05–CUP–006
# Traffic Impact Study

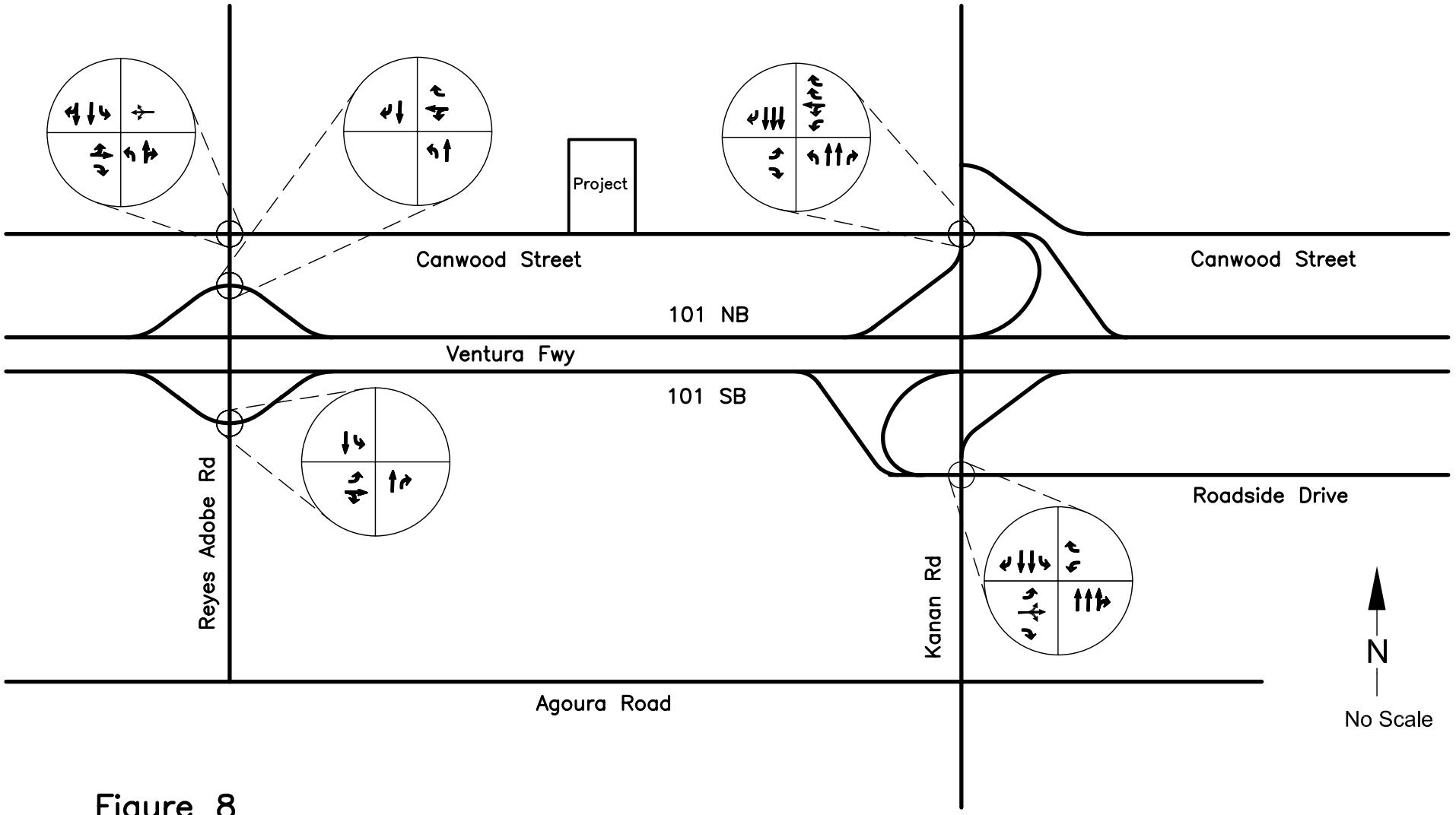



Figure 8
Future Lane Configurations

# APPENDICES

# APPENDIX A

## INTERSECTION

## LEVEL OF SERVICE THRESHOLDS

# INTERSECTION LEVEL OF SERVICE THRESHOLDS

For signalized intersections, the level of service (LOS) is based on the Intersection Capacity Utilization (ICU) value. A general description of operating conditions and corresponding ICU ranges is as follows:

| LOS | Description of Operating Conditions | ICU Range |
|---|---|---|
| A | Unobstructed flow; no approach is fully utilized by traffic and no vehicle waits longer than one red indication. | 0.00 – 0.60 |
| B | Stable operation; an occasional approach phase is fully utilized and a substantial number are approaching full use. | 0.61 – 0.70 |
| C | Stable operation with intermittent loading. Occasionally, drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. | 0.71 – 0.80 |
| D | Delays to approaching vehicles may be substantial for short periods during the peak period, with periodic clearance of developing queues. | 0.81 – 0.90 |
| E | Unstable flow conditions with long queues over extended periods. Capacity occurs at the limits of this level. | 0.91 – 1.00 |
| F | Forced flow conditions, with demand exceeding capacity; highly variable delay and long backups. | Above 1.00 |

# APPENDIX B

## TRAFFIC COUNT DATA

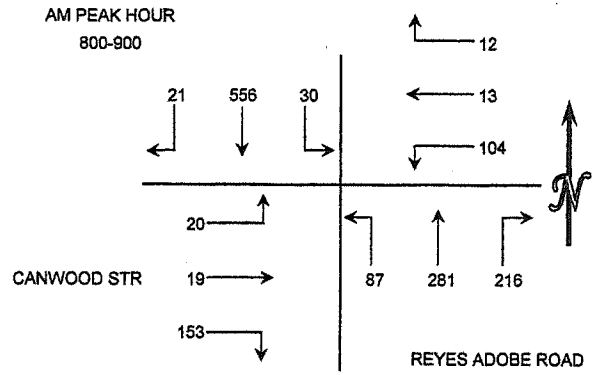
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

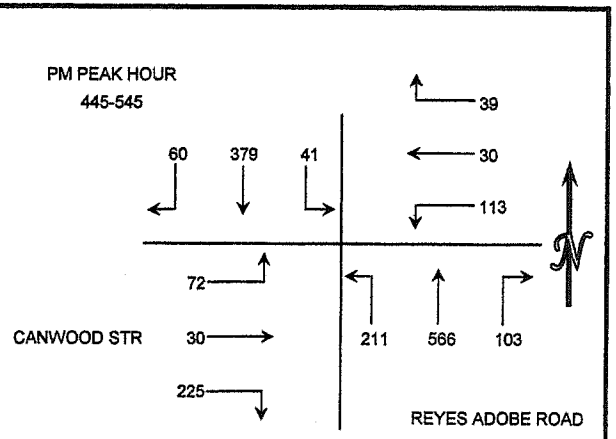
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S REYES ADOBE ROAD
E/W CANWOOD STREET

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 2 | 56 | 0 | 0 | 2 | 4 | 1 | 6 | 16 | 16 | 0 | 0 | 103 |
| 715-730 | 6 | 58 | 1 | 0 | 2 | 13 | 1 | 13 | 8 | 17 | 0 | 1 | 120 |
| 730-745 | 1 | 84 | 2 | 1 | 2 | 12 | 9 | 30 | 11 | 19 | 1 | 1 | 173 |
| 745-800 | 6 | 84 | 5 | 4 | 4 | 14 | 7 | 38 | 19 | 35 | 2 | 9 | 227 |
| 800-815 | 8 | 112 | 2 | 2 | 3 | 19 | 31 | 39 | 29 | 42 | 0 | 4 | 291 |
| 815-830 | 4 | 117 | 8 | 1 | 4 | 22 | 47 | 62 | 11 | 36 | 5 | 3 | 320 |
| 830-845 | 4 | 161 | 10 | 2 | 4 | 30 | 72 | 88 | 20 | 34 | 4 | 5 | 434 |
| 845-900 | 5 | 166 | 10 | 7 | 2 | 33 | 66 | 92 | 27 | 41 | 10 | 8 | 467 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 15 | 282 | 8 | 5 | 10 | 43 | 18 | 87 | 54 | 87 | 3 | 11 | 623 |
| 715-815 | 21 | 338 | 10 | 7 | 11 | 58 | 48 | 120 | 67 | 113 | 3 | 15 | 811 |
| 730-830 | 19 | 397 | 17 | 8 | 13 | 67 | 94 | 169 | 70 | 132 | 8 | 17 | 1011 |
| 745-845 | 22 | 474 | 25 | 9 | 15 | 85 | 157 | 227 | 79 | 147 | 11 | 21 | 1272 |
| 800-900 | 21 | 556 | 30 | 12 | 13 | 104 | 216 | 281 | 87 | 153 | 19 | 20 | 1512 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 12 | 112 | 16 | 8 | 5 | 32 | 30 | 119 | 45 | 63 | 5 | 13 | 460 |
| 415-430 | 11 | 105 | 6 | 5 | 6 | 20 | 31 | 124 | 51 | 44 | 8 | 10 | 421 |
| 430-445 | 11 | 94 | 11 | 8 | 8 | 18 | 20 | 117 | 41 | 52 | 4 | 10 | 394 |
| 445-500 | 15 | 100 | 11 | 11 | 5 | 25 | 24 | 104 | 46 | 48 | 11 | 11 | 411 |
| 500-515 | 17 | 90 | 12 | 11 | 8 | 34 | 21 | 162 | 60 | 69 | 8 | 28 | 520 |
| 515-530 | 17 | 98 | 9 | 11 | 7 | 26 | 33 | 154 | 53 | 54 | 10 | 17 | 489 |
| 530-545 | 11 | 91 | 9 | 6 | 10 | 28 | 25 | 146 | 52 | 54 | 1 | 16 | 449 |
| 545-600 | 15 | 91 | 11 | 9 | 2 | 29 | 26 | 118 | 37 | 45 | 6 | 20 | 409 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 49 | 411 | 44 | 32 | 24 | 95 | 105 | 464 | 183 | 207 | 28 | 44 | 1686 |
| 415-515 | 54 | 389 | 40 | 35 | 27 | 97 | 96 | 507 | 198 | 213 | 31 | 59 | 1746 |
| 430-530 | 60 | 382 | 43 | 41 | 28 | 103 | 98 | 537 | 200 | 223 | 33 | 66 | 1814 |
| 445-545 | 60 | 379 | 41 | 39 | 30 | 113 | 103 | 566 | 211 | 225 | 30 | 72 | 1869 |
| 500-600 | 60 | 370 | 41 | 37 | 27 | 117 | 105 | 580 | 202 | 222 | 25 | 81 | 1867 |



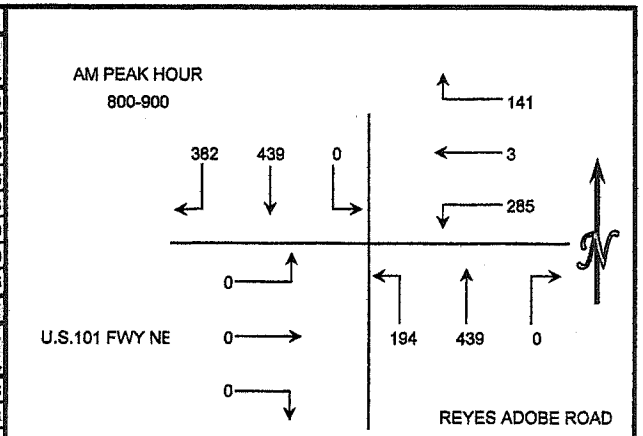
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

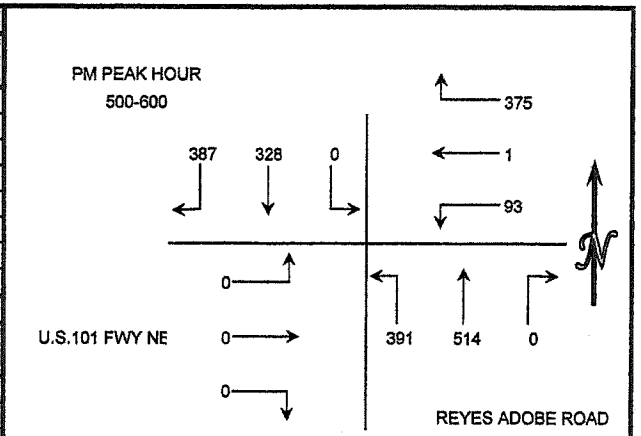
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S REYES ADOBE ROAD
E/W U.S.101 FWY NB

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 19 | 56 | 0 | 11 | 1 | 31 | 0 | 9 | 1 | 0 | 0 | 0 | 128 |
| 715-730 | 21 | 71 | 0 | 10 | 0 | 39 | 0 | 7 | 11 | 0 | 0 | 0 | 159 |
| 730-745 | 36 | 79 | 0 | 29 | 0 | 51 | 0 | 20 | 10 | 0 | 0 | 0 | 225 |
| 745-800 | 42 | 80 | 0 | 26 | 0 | 74 | 0 | 40 | 14 | 0 | 0 | 0 | 276 |
| 800-815 | 68 | 109 | 0 | 30 | 0 | 83 | 0 | 78 | 30 | 0 | 0 | 0 | 398 |
| 815-830 | 80 | 103 | 0 | 29 | 0 | 75 | 0 | 82 | 40 | 0 | 0 | 0 | 409 |
| 830-845 | 120 | 110 | 0 | 35 | 1 | 71 | 0 | 145 | 58 | 0 | 0 | 0 | 540 |
| 845-900 | 114 | 117 | 0 | 47 | 2 | 56 | 0 | 134 | 66 | 0 | 0 | 0 | 536 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 118 | 286 | 0 | 76 | 1 | 195 | 0 | 76 | 36 | 0 | 0 | 0 | 788 |
| 715-815 | 167 | 339 | 0 | 95 | 0 | 247 | 0 | 145 | 65 | 0 | 0 | 0 | 1058 |
| 730-830 | 226 | 371 | 0 | 114 | 0 | 283 | 0 | 220 | 94 | 0 | 0 | 0 | 1308 |
| 745-845 | 310 | 402 | 0 | 120 | 1 | 303 | 0 | 345 | 142 | 0 | 0 | 0 | 1623 |
| 800-900 | 382 | 439 | 0 | 141 | 3 | 285 | 0 | 439 | 194 | 0 | 0 | 0 | 1883 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 113 | 88 | 0 | 55 | 2 | 19 | 0 | 127 | 56 | 0 | 0 | 0 | 460 |
| 415-430 | 98 | 71 | 0 | 79 | 0 | 21 | 0 | 128 | 57 | 0 | 0 | 0 | 454 |
| 430-445 | 100 | 70 | 0 | 76 | 1 | 19 | 0 | 100 | 72 | 0 | 0 | 0 | 438 |
| 445-500 | 92 | 85 | 0 | 78 | 1 | 24 | 0 | 112 | 67 | 0 | 0 | 0 | 459 |
| 500-515 | 110 | 80 | 0 | 105 | 1 | 15 | 0 | 130 | 102 | 0 | 0 | 0 | 543 |
| 515-530 | 100 | 77 | 0 | 101 | 0 | 27 | 0 | 133 | 98 | 0 | 0 | 0 | 536 |
| 530-545 | 100 | 74 | 0 | 92 | 0 | 19 | 0 | 131 | 98 | 0 | 0 | 0 | 514 |
| 545-600 | 77 | 97 | 0 | 77 | 0 | 32 | 0 | 120 | 93 | 0 | 0 | 0 | 496 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 403 | 314 | 0 | 288 | 4 | 83 | 0 | 467 | 252 | 0 | 0 | 0 | 1811 |
| 415-515 | 400 | 306 | 0 | 338 | 3 | 79 | 0 | 470 | 298 | 0 | 0 | 0 | 1894 |
| 430-530 | 402 | 312 | 0 | 360 | 3 | 85 | 0 | 475 | 339 | 0 | 0 | 0 | 1976 |
| 445-545 | 402 | 316 | 0 | 376 | 2 | 85 | 0 | 506 | 365 | 0 | 0 | 0 | 2052 |
| 500-600 | 387 | 328 | 0 | 375 | 1 | 93 | 0 | 514 | 391 | 0 | 0 | 0 | 2089 |



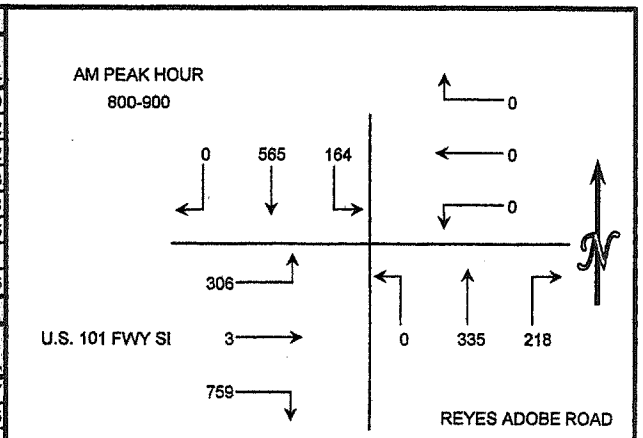
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

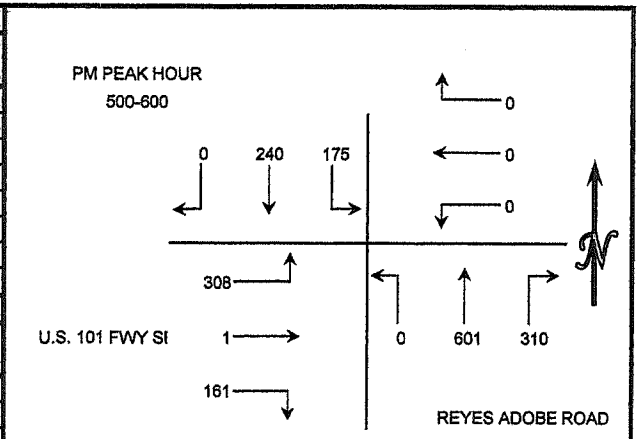
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S REYES ADOBE ROAD
E/W U.S. 101 FWY SB

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 0 | 33 | 50 | 0 | 0 | 0 | 21 | 3 | 0 | 27 | 0 | 6 | 140 |
| 715-730 | 0 | 52 | 61 | 0 | 0 | 0 | 18 | 11 | 0 | 33 | 0 | 7 | 182 |
| 730-745 | 0 | 83 | 58 | 0 | 0 | 0 | 24 | 16 | 0 | 47 | 0 | 14 | 242 |
| 745-800 | 0 | 101 | 51 | 0 | 0 | 0 | 20 | 18 | 0 | 78 | 0 | 35 | 303 |
| 800-815 | 0 | 121 | 52 | 0 | 0 | 0 | 17 | 49 | 0 | 185 | 1 | 53 | 478 |
| 815-830 | 0 | 146 | 39 | 0 | 0 | 0 | 55 | 68 | 0 | 240 | 1 | 66 | 615 |
| 830-845 | 0 | 156 | 35 | 0 | 0 | 0 | 69 | 107 | 0 | 200 | 1 | 93 | 661 |
| 845-900 | 0 | 142 | 38 | 0 | 0 | 0 | 77 | 111 | 0 | 134 | 0 | 94 | 596 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 0 | 269 | 220 | 0 | 0 | 0 | 83 | 48 | 0 | 185 | 0 | 62 | 867 |
| 715-815 | 0 | 357 | 222 | 0 | 0 | 0 | 79 | 94 | 0 | 343 | 1 | 109 | 1205 |
| 730-830 | 0 | 451 | 200 | 0 | 0 | 0 | 116 | 151 | 0 | 550 | 2 | 168 | 1638 |
| 745-845 | 0 | 524 | 177 | 0 | 0 | 0 | 161 | 242 | 0 | 703 | 3 | 247 | 2057 |
| 800-900 | 0 | 565 | 164 | 0 | 0 | 0 | 218 | 335 | 0 | 759 | 3 | 306 | 2350 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 0 | 50 | 58 | 0 | 0 | 0 | 84 | 119 | 0 | 30 | 0 | 71 | 412 |
| 415-430 | 0 | 38 | 54 | 0 | 0 | 0 | 57 | 111 | 0 | 30 | 1 | 73 | 364 |
| 430-445 | 0 | 44 | 42 | 0 | 0 | 0 | 74 | 107 | 0 | 30 | 1 | 73 | 371 |
| 445-500 | 0 | 55 | 59 | 0 | 0 | 0 | 67 | 110 | 0 | 39 | 0 | 62 | 392 |
| 500-515 | 0 | 55 | 42 | 0 | 0 | 0 | 103 | 164 | 0 | 38 | 0 | 75 | 477 |
| 515-530 | 0 | 53 | 44 | 0 | 0 | 0 | 76 | 139 | 0 | 25 | 0 | 81 | 418 |
| 530-545 | 0 | 46 | 41 | 0 | 0 | 0 | 84 | 175 | 0 | 60 | 1 | 71 | 478 |
| 545-600 | 0 | 86 | 48 | 0 | 0 | 0 | 47 | 123 | 0 | 38 | 0 | 81 | 423 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 0 | 187 | 213 | 0 | 0 | 0 | 282 | 447 | 0 | 129 | 2 | 279 | 1539 |
| 415-515 | 0 | 192 | 197 | 0 | 0 | 0 | 301 | 492 | 0 | 137 | 2 | 283 | 1604 |
| 430-530 | 0 | 207 | 187 | 0 | 0 | 0 | 320 | 520 | 0 | 132 | 1 | 291 | 1658 |
| 445-545 | 0 | 209 | 186 | 0 | 0 | 0 | 330 | 588 | 0 | 162 | 1 | 289 | 1765 |
| 500-600 | 0 | 240 | 175 | 0 | 0 | 0 | 310 | 601 | 0 | 161 | 1 | 308 | 1796 |



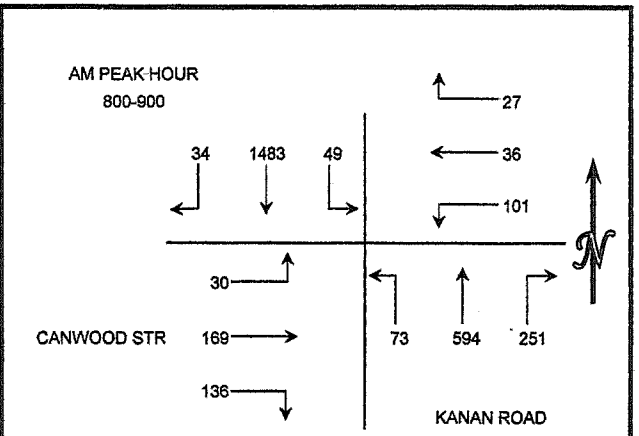
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

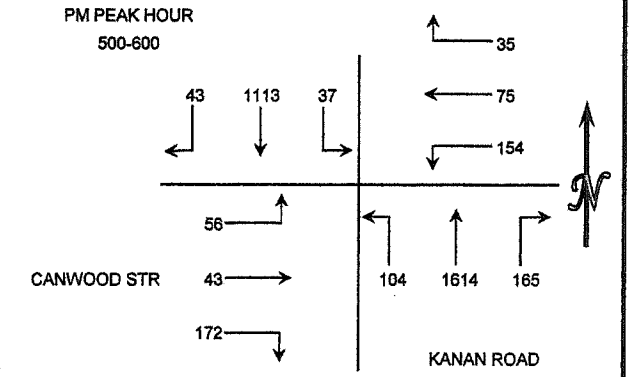
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S KANAN ROAD
E/W CANWOOD STREET

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 0 | 186 | 5 | 2 | 3 | 27 | 36 | 29 | 3 | 8 | 1 | 0 | 300 |
| 715-730 | 0 | 208 | 3 | 1 | 0 | 22 | 30 | 62 | 4 | 16 | 3 | 1 | 350 |
| 730-745 | 1 | 246 | 5 | 0 | 4 | 23 | 38 | 90 | 10 | 22 | 6 | 3 | 448 |
| 745-800 | 7 | 298 | 5 | 5 | 9 | 30 | 56 | 145 | 19 | 22 | 20 | 8 | 624 |
| 800-815 | 6 | 333 | 8 | 4 | 6 | 31 | 56 | 153 | 16 | 18 | 21 | 2 | 654 |
| 815-830 | 7 | 336 | 15 | 5 | 4 | 20 | 57 | 131 | 10 | 30 | 38 | 6 | 659 |
| 830-845 | 8 | 390 | 14 | 9 | 8 | 23 | 66 | 156 | 21 | 45 | 51 | 9 | 800 |
| 845-900 | 13 | 424 | 12 | 9 | 18 | 27 | 72 | 154 | 26 | 43 | 59 | 13 | 870 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 8 | 938 | 18 | 8 | 16 | 102 | 160 | 326 | 36 | 68 | 30 | 12 | 1722 |
| 715-815 | 14 | 1085 | 21 | 10 | 19 | 106 | 180 | 450 | 49 | 78 | 50 | 14 | 2076 |
| 730-830 | 21 | 1213 | 33 | 14 | 23 | 104 | 207 | 519 | 55 | 92 | 85 | 19 | 2385 |
| 745-845 | 28 | 1357 | 42 | 23 | 27 | 104 | 235 | 585 | 66 | 115 | 130 | 25 | 2737 |
| 800-900 | 34 | 1483 | 49 | 27 | 36 | 101 | 251 | 594 | 73 | 136 | 169 | 30 | 2983 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 13 | 293 | 6 | 4 | 18 | 43 | 42 | 340 | 34 | 51 | 9 | 14 | 867 |
| 415-430 | 14 | 294 | 12 | 6 | 5 | 27 | 40 | 337 | 34 | 40 | 6 | 8 | 823 |
| 430-445 | 15 | 255 | 13 | 10 | 10 | 42 | 37 | 327 | 17 | 30 | 7 | 9 | 772 |
| 445-500 | 16 | 260 | 7 | 8 | 7 | 36 | 40 | 366 | 21 | 34 | 14 | 10 | 819 |
| 500-515 | 9 | 282 | 9 | 8 | 41 | 34 | 40 | 371 | 28 | 48 | 9 | 16 | 895 |
| 515-530 | 13 | 285 | 12 | 7 | 12 | 38 | 45 | 390 | 28 | 51 | 10 | 12 | 903 |
| 530-545 | 13 | 258 | 9 | 7 | 12 | 52 | 45 | 425 | 27 | 38 | 12 | 16 | 914 |
| 545-600 | 8 | 288 | 7 | 13 | 10 | 30 | 35 | 428 | 21 | 35 | 12 | 12 | 899 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 58 | 1102 | 38 | 28 | 40 | 148 | 159 | 1370 | 106 | 155 | 36 | 41 | 3281 |
| 415-515 | 54 | 1091 | 41 | 32 | 63 | 139 | 157 | 1401 | 100 | 152 | 36 | 43 | 3309 |
| 430-530 | 53 | 1082 | 41 | 33 | 70 | 150 | 162 | 1454 | 94 | 163 | 40 | 47 | 3389 |
| 445-545 | 51 | 1085 | 37 | 30 | 72 | 160 | 170 | 1552 | 104 | 171 | 45 | 54 | 3531 |
| 500-600 | 43 | 1113 | 37 | 35 | 75 | 154 | 165 | 1614 | 104 | 172 | 43 | 56 | 3611 |



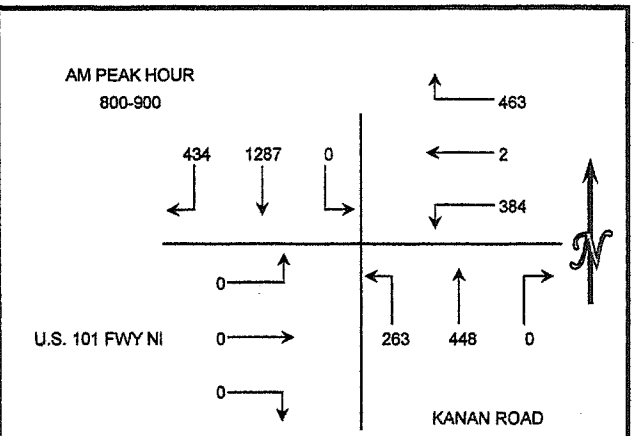
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

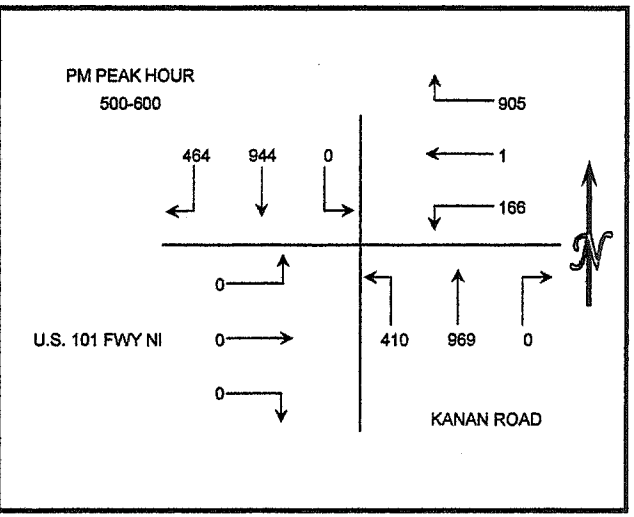
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S KANAN ROAD
E/W U.S. 101 FWY NB

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 35 | 182 | 0 | 40 | 0 | 67 | 0 | 31 | 12 | 0 | 0 | 0 | 367 |
| 715-730 | 44 | 215 | 0 | 61 | 0 | 70 | 0 | 38 | 16 | 0 | 0 | 0 | 444 |
| 730-745 | 57 | 235 | 0 | 79 | 0 | 112 | 0 | 50 | 27 | 0 | 0 | 0 | 560 |
| 745-800 | 73 | 266 | 0 | 107 | 1 | 104 | 0 | 113 | 49 | 0 | 0 | 0 | 713 |
| 800-815 | 80 | 292 | 0 | 110 | 0 | 110 | 0 | 113 | 62 | 0 | 0 | 0 | 767 |
| 815-830 | 95 | 307 | 0 | 107 | 1 | 96 | 0 | 94 | 71 | 0 | 0 | 0 | 771 |
| 830-845 | 125 | 329 | 0 | 116 | 0 | 103 | 0 | 118 | 62 | 0 | 0 | 0 | 853 |
| 845-900 | 134 | 359 | 0 | 130 | 1 | 75 | 0 | 123 | 68 | 0 | 0 | 0 | 890 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 209 | 898 | 0 | 287 | 1 | 353 | 0 | 232 | 104 | 0 | 0 | 0 | 2084 |
| 715-815 | 254 | 1008 | 0 | 357 | 1 | 396 | 0 | 314 | 154 | 0 | 0 | 0 | 2484 |
| 730-830 | 305 | 1100 | 0 | 403 | 2 | 422 | 0 | 370 | 209 | 0 | 0 | 0 | 2811 |
| 745-845 | 373 | 1194 | 0 | 440 | 2 | 413 | 0 | 438 | 244 | 0 | 0 | 0 | 3104 |
| 800-900 | 434 | 1287 | 0 | 463 | 2 | 384 | 0 | 448 | 263 | 0 | 0 | 0 | 3281 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 115 | 249 | 0 | 179 | 0 | 49 | 0 | 217 | 84 | 0 | 0 | 0 | 893 |
| 415-430 | 113 | 222 | 0 | 210 | 1 | 42 | 0 | 201 | 99 | 0 | 0 | 0 | 888 |
| 430-445 | 113 | 223 | 0 | 195 | 0 | 43 | 0 | 217 | 80 | 0 | 0 | 0 | 871 |
| 445-500 | 123 | 229 | 0 | 182 | 0 | 43 | 0 | 216 | 97 | 0 | 0 | 0 | 890 |
| 500-515 | 115 | 238 | 0 | 216 | 0 | 25 | 0 | 229 | 103 | 0 | 0 | 0 | 926 |
| 515-530 | 129 | 230 | 0 | 201 | 0 | 54 | 0 | 244 | 90 | 0 | 0 | 0 | 948 |
| 530-545 | 116 | 235 | 0 | 247 | 0 | 38 | 0 | 262 | 115 | 0 | 0 | 0 | 1013 |
| 545-600 | 104 | 241 | 0 | 241 | 1 | 49 | 0 | 234 | 102 | 0 | 0 | 0 | 972 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 464 | 923 | 0 | 768 | 1 | 177 | 0 | 851 | 360 | 0 | 0 | 0 | 3542 |
| 415-515 | 464 | 912 | 0 | 803 | 1 | 153 | 0 | 863 | 379 | 0 | 0 | 0 | 3575 |
| 430-530 | 480 | 920 | 0 | 794 | 0 | 165 | 0 | 906 | 370 | 0 | 0 | 0 | 3635 |
| 445-545 | 483 | 932 | 0 | 848 | 0 | 160 | 0 | 951 | 405 | 0 | 0 | 0 | 3777 |
| 500-600 | 464 | 944 | 0 | 905 | 1 | 166 | 0 | 969 | 410 | 0 | 0 | 0 | 3859 |



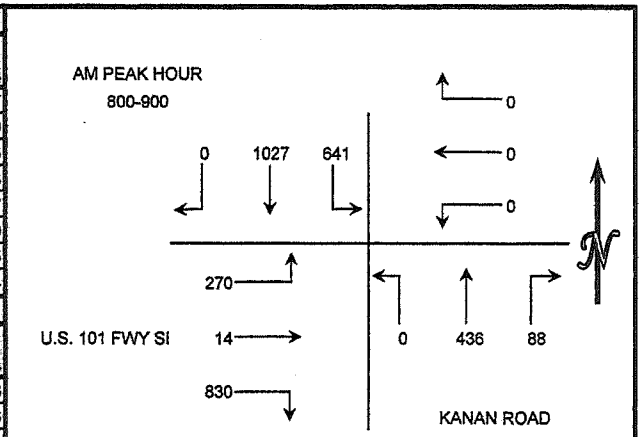
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

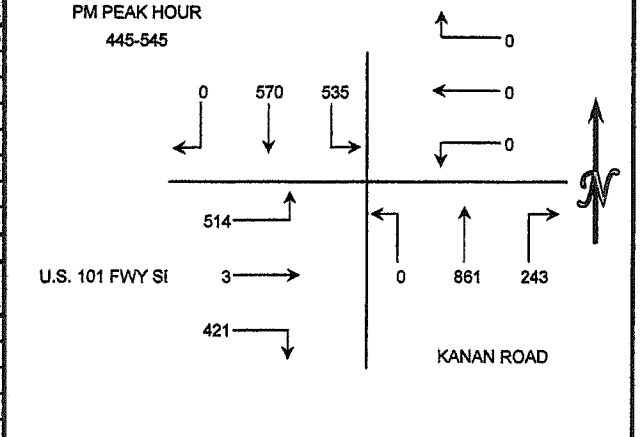
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 6TH, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S KANAN ROAD
E/W U.S. 101 FWY SB

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 0 | 102 | 145 | 0 | 0 | 0 | 36 | 27 | 0 | 64 | 1 | 22 | 397 |
| 715-730 | 0 | 153 | 154 | 0 | 0 | 0 | 29 | 38 | 0 | 71 | 0 | 25 | 470 |
| 730-745 | 0 | 170 | 154 | 0 | 0 | 0 | 34 | 70 | 0 | 126 | 0 | 32 | 586 |
| 745-800 | 0 | 217 | 157 | 0 | 0 | 0 | 23 | 79 | 0 | 244 | 3 | 40 | 763 |
| 800-815 | 0 | 245 | 166 | 0 | 0 | 0 | 32 | 107 | 0 | 240 | 0 | 77 | 867 |
| 815-830 | 0 | 258 | 162 | 0 | 0 | 0 | 23 | 101 | 0 | 217 | 0 | 69 | 830 |
| 830-845 | 0 | 256 | 151 | 0 | 0 | 0 | 20 | 127 | 0 | 178 | 2 | 71 | 805 |
| 845-900 | 0 | 268 | 162 | 0 | 0 | 0 | 13 | 101 | 0 | 195 | 12 | 53 | 804 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 0 | 642 | 610 | 0 | 0 | 0 | 122 | 214 | 0 | 505 | 4 | 119 | 2216 |
| 715-815 | 0 | 785 | 631 | 0 | 0 | 0 | 118 | 294 | 0 | 681 | 3 | 174 | 2686 |
| 730-830 | 0 | 890 | 639 | 0 | 0 | 0 | 112 | 357 | 0 | 827 | 3 | 218 | 3046 |
| 745-845 | 0 | 976 | 636 | 0 | 0 | 0 | 98 | 414 | 0 | 879 | 5 | 257 | 3265 |
| 800-900 | 0 | 1027 | 641 | 0 | 0 | 0 | 88 | 436 | 0 | 830 | 14 | 270 | 3306 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 0 | 152 | 117 | 0 | 0 | 0 | 60 | 203 | 0 | 82 | 1 | 125 | 740 |
| 415-430 | 0 | 157 | 132 | 0 | 0 | 0 | 76 | 194 | 0 | 84 | 0 | 123 | 766 |
| 430-445 | 0 | 139 | 118 | 0 | 0 | 0 | 54 | 169 | 0 | 102 | 0 | 100 | 682 |
| 445-500 | 0 | 169 | 120 | 0 | 0 | 0 | 59 | 211 | 0 | 109 | 1 | 120 | 789 |
| 500-515 | 0 | 110 | 140 | 0 | 0 | 0 | 55 | 209 | 0 | 114 | 0 | 117 | 745 |
| 515-530 | 0 | 141 | 141 | 0 | 0 | 0 | 77 | 224 | 0 | 103 | 0 | 139 | 825 |
| 530-545 | 0 | 150 | 134 | 0 | 0 | 0 | 52 | 217 | 0 | 95 | 2 | 138 | 788 |
| 545-600 | 0 | 143 | 133 | 0 | 0 | 0 | 49 | 221 | 0 | 106 | 0 | 124 | 776 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 0 | 617 | 487 | 0 | 0 | 0 | 249 | 777 | 0 | 377 | 2 | 468 | 2977 |
| 415-515 | 0 | 575 | 510 | 0 | 0 | 0 | 244 | 783 | 0 | 409 | 1 | 460 | 2982 |
| 430-530 | 0 | 559 | 519 | 0 | 0 | 0 | 245 | 813 | 0 | 428 | 1 | 476 | 3041 |
| 445-545 | 0 | 570 | 535 | 0 | 0 | 0 | 243 | 861 | 0 | 421 | 3 | 514 | 3147 |
| 500-600 | 0 | 544 | 548 | 0 | 0 | 0 | 233 | 871 | 0 | 418 | 2 | 518 | 3134 |



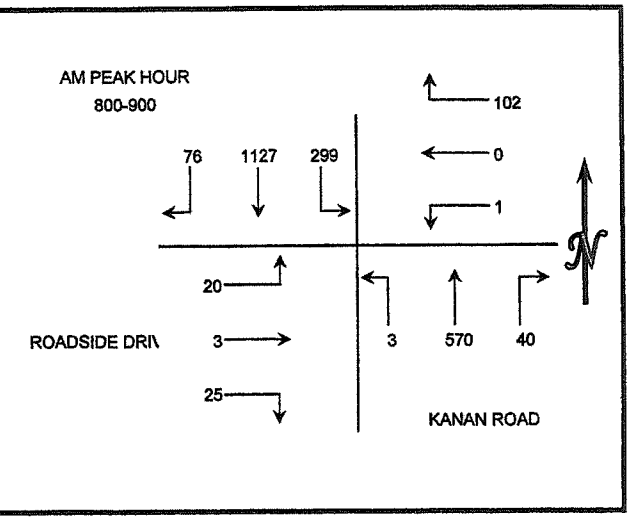
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

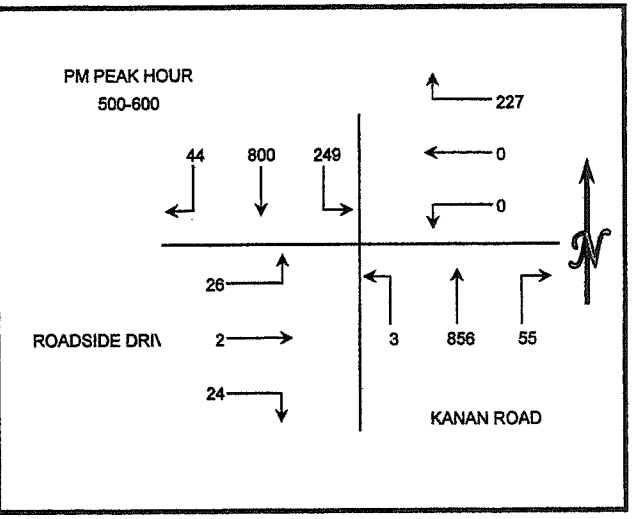
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: MEYER, MOHADDES ASSOCIATES
PROJECT: AUGORA HILLS
DATE: TUESDAY, DECEMBER 15TH 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S KANAN ROAD
E/W ROADSIDE DRIVE

| 15 MIN COUNTS | 7:00 AM TO 9:00 AM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-715 | 16 | 205 | 29 | 10 | 0 | 0 | 8 | 93 | 3 | 2 | 0 | 8 | 374 |
| 715-730 | 11 | 236 | 34 | 12 | 0 | 0 | 10 | 90 | 2 | 2 | 0 | 10 | 407 |
| 730-745 | 12 | 239 | 46 | 13 | 0 | 0 | 4 | 109 | 1 | 0 | 0 | 1 | 425 |
| 745-800 | 13 | 246 | 53 | 21 | 0 | 0 | 7 | 161 | 3 | 1 | 0 | 7 | 512 |
| 800-815 | 22 | 263 | 61 | 25 | 0 | 0 | 11 | 151 | 1 | 12 | 1 | 2 | 549 |
| 815-830 | 14 | 287 | 82 | 26 | 0 | 0 | 12 | 131 | 0 | 4 | 1 | 10 | 567 |
| 830-845 | 23 | 275 | 93 | 29 | 0 | 1 | 13 | 139 | 0 | 3 | 0 | 2 | 578 |
| 845-900 | 17 | 302 | 63 | 22 | 0 | 0 | 4 | 149 | 2 | 6 | 1 | 6 | 572 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 700-800 | 52 | 926 | 162 | 58 | 0 | 0 | 29 | 453 | 9 | 5 | 0 | 26 | 1718 |
| 715-815 | 58 | 984 | 194 | 71 | 0 | 0 | 32 | 511 | 7 | 15 | 1 | 20 | 1893 |
| 730-830 | 61 | 1035 | 242 | 85 | 0 | 0 | 34 | 552 | 5 | 17 | 2 | 20 | 2053 |
| 745-845 | 72 | 1071 | 289 | 101 | 0 | 1 | 43 | 582 | 4 | 20 | 2 | 21 | 2206 |
| 800-900 | 76 | 1127 | 299 | 102 | 0 | 1 | 40 | 570 | 3 | 25 | 3 | 20 | 2266 |




| 15 MIN COUNTS | 4:00 PM TO 6:00 PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-415 | 8 | 181 | 80 | 45 | 0 | 0 | 12 | 232 | 2 | 7 | 1 | 9 | 577 |
| 415-430 | 11 | 211 | 65 | 58 | 0 | 0 | 20 | 242 | 1 | 7 | 1 | 5 | 621 |
| 430-445 | 6 | 158 | 71 | 41 | 0 | 0 | 9 | 219 | 1 | 9 | 0 | 9 | 523 |
| 445-500 | 8 | 178 | 63 | 52 | 0 | 0 | 10 | 212 | 0 | 4 | 0 | 6 | 533 |
| 500-515 | 13 | 182 | 56 | 63 | 0 | 0 | 19 | 203 | 0 | 8 | 0 | 5 | 549 |
| 515-530 | 8 | 213 | 72 | 64 | 0 | 0 | 11 | 225 | 1 | 5 | 2 | 1 | 602 |
| 530-545 | 13 | 187 | 63 | 53 | 0 | 0 | 10 | 231 | 1 | 11 | 0 | 10 | 579 |
| 545-600 | 10 | 218 | 58 | 47 | 0 | 0 | 15 | 197 | 1 | 0 | 0 | 10 | 556 |
| HOUR TOTALS | | | | | | | | | | | | | |
| TIME | 1 SBRT | 2 SBTH | 3 SBLT | 4 WBRT | 5 WBTH | 6 WBLT | 7 NBRT | 8 NBTH | 9 NBLT | 10 EBRT | 11 EBTH | 12 EBLT | TOTAL |
| 400-500 | 33 | 728 | 279 | 196 | 0 | 0 | 51 | 905 | 4 | 27 | 2 | 29 | 2254 |
| 415-515 | 38 | 729 | 255 | 214 | 0 | 0 | 58 | 876 | 2 | 28 | 1 | 25 | 2226 |
| 430-530 | 35 | 731 | 262 | 220 | 0 | 0 | 49 | 859 | 2 | 26 | 2 | 21 | 2207 |
| 445-545 | 42 | 760 | 254 | 232 | 0 | 0 | 50 | 871 | 2 | 28 | 2 | 22 | 2263 |
| 500-600 | 44 | 800 | 249 | 227 | 0 | 0 | 55 | 856 | 3 | 24 | 2 | 26 | 2286 |



# APPENDIX C

## LOS CALCULATIONS

## FOR

## MORNING PEAK HOUR

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.606 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 40 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.57 | 0.43 | 1.00 | 1.93 | 0.07 | 0.51 | 0.49 | 1.00 | 0.81 | 0.10 | 0.09 |
| Final Sat.: | 1600 | 905 | 695 | 1600 | 3084 | 116 | 821 | 779 | 1600 | 1290 | 161 | 149 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.31 | 0.31 | 0.02 | 0.18 | 0.18 | 0.02 | 0.02 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.628 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 42 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 0 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.54 | 0.46 | 1.00 | 1.93 | 0.07 | 0.51 | 0.49 | 1.00 | 0.81 | 0.09 | 0.10 |
| Final Sat.: | 1600 | 863 | 737 | 1600 | 3084 | 116 | 821 | 779 | 1600 | 1294 | 153 | 153 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.33 | 0.33 | 0.02 | 0.18 | 0.18 | 0.02 | 0.02 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.573 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 38 | Level Of Service: | A |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 0 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.54 | 0.46 | 1.00 | 1.93 | 0.07 | 0.51 | 0.49 | 1.00 | 0.81 | 0.09 | 0.10 |
| Final Sat.: | 1600 | 863 | 737 | 1600 | 3084 | 116 | 821 | 779 | 1600 | 1294 | 153 | 153 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.33 | 0.33 | 0.02 | 0.18 | 0.18 | 0.02 | 0.02 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Mitigation: Add EB RT overlap

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.642 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 44 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 30 | 18 | 6 | 62 | 0 | 0 | 2 | 0 | 2 | 0 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.57 | 0.43 | 1.00 | 1.93 | 0.07 | 0.49 | 0.51 | 1.00 | 0.80 | 0.10 | 0.10 |
| Final Sat.: | 1600 | 913 | 687 | 1600 | 3095 | 105 | 780 | 820 | 1600 | 1275 | 156 | 168 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.34 | 0.34 | 0.02 | 0.20 | 0.20 | 0.03 | 0.03 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.655 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 45 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 30 | 30 | 10 | 62 | 0 | 0 | 2 | 0 | 6 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.56 | 0.44 | 1.00 | 1.93 | 0.07 | 0.49 | 0.51 | 1.00 | 0.80 | 0.09 | 0.11 |
| Final Sat.: | 1600 | 893 | 707 | 1600 | 3095 | 105 | 780 | 820 | 1600 | 1275 | 151 | 174 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.35 | 0.35 | 0.03 | 0.20 | 0.20 | 0.03 | 0.03 | 0.10 | 0.09 | 0.09 | 0.09 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.601 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 40 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 30 | 30 | 10 | 62 | 0 | 0 | 2 | 0 | 6 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.56 | 0.44 | 1.00 | 1.93 | 0.07 | 0.49 | 0.51 | 1.00 | 0.80 | 0.09 | 0.11 |
| Final Sat.: | 1600 | 893 | 707 | 1600 | 3095 | 105 | 780 | 820 | 1600 | 1275 | 151 | 174 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.35 | 0.35 | 0.03 | 0.20 | 0.20 | 0.03 | 0.03 | 0.10 | 0.09 | 0.09 | 0.09 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

Mitigation: Add EB RT overlap

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 47 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.27 | 0.00 | 0.00 | 0.27 | 0.24 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 47 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 | 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 0 | 24 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.29 | 0.00 | 0.00 | 0.27 | 0.24 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

Cycle (sec): 100 Critical Vol./Cap.(X): ~~0.676~~ 0.674
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: B

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | OVL ~~Include~~ | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 0 | 24 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | ~~3~~ | ~~141~~ 144 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.29 | 0.00 | 0.00 | 0.27 | 0.24 | 0.00 | 0.00 | 0.00 | 0.18 | ~~0.18~~ | 0.09 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Mitigation: Eliminate WB through movement and overlap SB right turn with WB phase.

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #3 Reyes Adobe / 101 NB

**********

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: C

**********

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 40 | 36 | 0 | 0 | 57 | 7 | 0 | 0 | 0 | 100 | 0 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1588 | 12 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.30 | 0.00 | 0.00 | 0.31 | 0.24 | 0.00 | 0.00 | 0.00 | 0.24 | 0.24 | 0.10 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |

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Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.799 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 67 | Level Of Service: | C |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 40 | 48 | 0 | 0 | 58 | 10 | 0 | 0 | 0 | 100 | 0 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1588 | 12 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.30 | 0.00 | 0.00 | 0.31 | 0.25 | 0.00 | 0.00 | 0.00 | 0.24 | 0.24 | 0.10 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.929 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 117 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 6 | 1594 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.14 | 0.10 | 0.35 | 0.00 | 0.19 | 0.48 | 0.48 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.929 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 117 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1 0 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 1 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 6 | 1594 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.14 | 0.10 | 0.35 | 0.00 | 0.21 | 0.48 | 0.48 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.183 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 50 | 15 | 19 | 138 | 0 | 26 | 0 | 268 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 5 | 1595 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.24 | 0.15 | 0.11 | 0.44 | 0.00 | 0.21 | 0.64 | 0.64 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

Cycle (sec): 100 Critical Vol./Cap.(X): 1.184
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 51 | 15 | 19 | 139 | 0 | 37 | 0 | 268 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 5 | 1595 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.24 | 0.15 | 0.11 | 0.44 | 0.00 | 0.21 | 0.64 | 0.64 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Kanan / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.563 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 37 | Level Of Service: | A |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 1 0 | 1 0 | 3 | 1 0 | 1 0 | 1 | 0 1 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 73 | 594 | 251 | 49 | 1483 | 34 | 30 | 169 | 136 | 101 | 36 | 27 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 73 | 594 | 251 | 49 | 1483 | 34 | 30 | 169 | 136 | 101 | 36 | 27 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 73 | 594 | 251 | 49 | 1483 | 34 | 30 | 169 | 136 | 101 | 36 | 27 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 73 | 594 | 251 | 49 | 1483 | 34 | 30 | 169 | 136 | 101 | 36 | 27 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 73 | 594 | 251 | 49 | 1483 | 34 | 30 | 169 | 136 | 101 | 36 | 27 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.41 | 0.59 | 1.00 | 3.91 | 0.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.57 | 0.43 |
| Final Sat.: | 1600 | 2249 | 951 | 1600 | 6257 | 143 | 1600 | 1600 | 1600 | 1600 | 914 | 686 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.26 | 0.26 | 0.03 | 0.24 | 0.24 | 0.02 | 0.11 | 0.09 | 0.06 | 0.04 | 0.04 |
| Crit Moves: | | **** | | | **** | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.563 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 37 | Level Of Service: | A |

| Street Name: | Kanan | | | | | | | | | Canwood | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | | | |
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Permitted | | | | | Permitted | | | | | Permitted | | | | | Permitted | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Min. Green: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 73 | 594 | 251 | | | 49 | 1483 | 34 | | | 30 | 169 | 136 | | | 101 | 36 | 27 | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Initial Bse: | 73 | 594 | 251 | | | 49 | 1483 | 34 | | | 30 | 169 | 136 | | | 101 | 36 | 27 | | |
| Added Vol: | 11 | 0 | 0 | | | 0 | 0 | 9 | | | 2 | 0 | 3 | | | 0 | 0 | 0 | | |
| PasserByVol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Initial Fut: | 84 | 594 | 251 | | | 49 | 1483 | 43 | | | 32 | 169 | 139 | | | 101 | 36 | 27 | | |
| User Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| PHF Volume: | 84 | 594 | 251 | | | 49 | 1483 | 43 | | | 32 | 169 | 139 | | | 101 | 36 | 27 | | |
| Reduct Vol: | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 | | |
| Reduced Vol: | 84 | 594 | 251 | | | 49 | 1483 | 43 | | | 32 | 169 | 139 | | | 101 | 36 | 27 | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Final Vol.: | 84 | 594 | 251 | | | 49 | 1483 | 43 | | | 32 | 169 | 139 | | | 101 | 36 | 27 | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | | 1600 | 1600 | 1600 | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | | |
| Lanes: | 1.00 | 1.41 | 0.59 | | | 1.00 | 3.89 | 0.11 | | | 1.00 | 1.00 | 1.00 | | | 1.00 | 0.57 | 0.43 | | |
| Final Sat.: | 1600 | 2249 | 951 | | | 1600 | 6220 | 180 | | | 1600 | 1600 | 1600 | | | 1600 | 914 | 686 | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.26 | 0.26 | | | 0.03 | 0.24 | 0.24 | | | 0.02 | 0.11 | 0.09 | | | 0.06 | 0.04 | 0.04 | | |
| Crit Moves: | | **** | | | | | **** | | | | | | **** | | | | **** | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #49 Kanan / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.709 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 51 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 0 | 0 0 | 3 0 | 1 | 0 0 | 0 0 | 0 | 1 0 | 1! 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.36 | 0.01 | 1.63 |
| Final Sat.: | 1600 | 3200 | 0 | 0 | 4800 | 1600 | 0 | 0 | 0 | 2171 | 11 | 2618 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.14 | 0.00 | 0.00 | 0.27 | 0.27 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #49 Kanan / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.712 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 52 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 0 | 0 0 | 3 0 | 1 | 0 0 | 0 0 | 0 | 1 0 | 1! 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 263 | 448 | 0 | 0 | 1287 | 434 | 0 | 0 | 0 | 384 | 2 | 463 |
| Added Vol: | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 263 | 449 | 0 | 0 | 1290 | 434 | 0 | 0 | 0 | 384 | 2 | 473 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 263 | 449 | 0 | 0 | 1290 | 434 | 0 | 0 | 0 | 384 | 2 | 473 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 263 | 449 | 0 | 0 | 1290 | 434 | 0 | 0 | 0 | 384 | 2 | 473 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 263 | 449 | 0 | 0 | 1290 | 434 | 0 | 0 | 0 | 384 | 2 | 473 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.34 | 0.01 | 1.65 |
| Final Sat.: | 1600 | 3200 | 0 | 0 | 4800 | 1600 | 0 | 0 | 0 | 2146 | 11 | 2643 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.14 | 0.00 | 0.00 | 0.27 | 0.27 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood /101

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.832 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 75 | Level Of Service: | D |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 0 0 | 3 0 | 1 | 1 0 | 0 0 | 1 | 1 1 | 0 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 36 | 413 | 263 | 0 | 1584 | 70 | 199 | 0 | 136 | 386 | 37 | 432 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 36 | 413 | 263 | 0 | 1584 | 70 | 199 | 0 | 136 | 386 | 37 | 432 |
| Added Vol: | 36 | 243 | 84 | 0 | 213 | 10 | 2 | 0 | 9 | 146 | 29 | 88 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 72 | 656 | 347 | 0 | 1797 | 80 | 201 | 0 | 145 | 532 | 66 | 520 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 72 | 656 | 347 | 0 | 1797 | 80 | 201 | 0 | 145 | 532 | 66 | 520 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 72 | 656 | 347 | 0 | 1797 | 80 | 201 | 0 | 145 | 532 | 66 | 520 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 72 | 656 | 347 | 0 | 1797 | 80 | 201 | 0 | 145 | 532 | 66 | 520 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 0.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.78 | 0.22 | 2.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 0 | 4800 | 1600 | 1600 | 0 | 1600 | 2847 | 353 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.21 | 0.22 | 0.00 | 0.37 | 0.05 | 0.13 | 0.00 | 0.09 | 0.19 | 0.19 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood 1101

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.847 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 79 | Level Of Service: | D |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 0 0 | 3 0 | 1 | 1 0 | 0 0 | 1 | 1 1 | 0 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 36 | 413 | 263 | 0 | 1584 | 70 | 199 | 0 | 136 | 386 | 37 | 432 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 36 | 413 | 263 | 0 | 1584 | 70 | 199 | 0 | 136 | 386 | 37 | 432 |
| Added Vol: | 58 | 243 | 84 | 0 | 213 | 19 | 4 | 0 | 12 | 146 | 29 | 88 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 94 | 656 | 347 | 0 | 1797 | 89 | 203 | 0 | 148 | 532 | 66 | 520 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 94 | 656 | 347 | 0 | 1797 | 89 | 203 | 0 | 148 | 532 | 66 | 520 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 94 | 656 | 347 | 0 | 1797 | 89 | 203 | 0 | 148 | 532 | 66 | 520 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 94 | 656 | 347 | 0 | 1797 | 89 | 203 | 0 | 148 | 532 | 66 | 520 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 0.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.78 | 0.22 | 2.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 0 | 4800 | 1600 | 1600 | 0 | 1600 | 2847 | 353 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.21 | 0.22 | 0.00 | 0.37 | 0.06 | 0.13 | 0.00 | 0.09 | 0.19 | 0.19 | 0.16 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Kanan / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.700 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 50 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 SB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 2 0 | 2 | 0 0 | 1 0 | 1! | 0 1 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 436 | 88 | 641 | 1027 | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 436 | 88 | 641 | 1027 | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 436 | 88 | 641 | 1027 | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 436 | 88 | 641 | 1027 | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 436 | 88 | 641 | 1027 | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.03 | 1.97 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 1600 | 53 | 3147 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.14 | 0.06 | 0.20 | 0.32 | 0.00 | 0.17 | 0.26 | 0.26 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | | **** | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Kanan / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.702 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 50 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 SB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 2 | 0 | 1 | 2 0 2 | 0 | 0 | 1 0 1! | 0 | 1 | 0 0 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 436 | 88 | | 641 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Growth Adj: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 436 | 88 | | 641 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Added Vol: | 0 1 | 0 | | 3 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 0 | 0 | | 0 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 437 | 88 | | 644 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| User Adj: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 437 | 88 | | 644 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Reduct Vol: | 0 0 | 0 | | 0 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 437 | 88 | | 644 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| PCE Adj: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 437 | 88 | | 644 1027 | | 0 | 270 | 14 | 830 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 1600 | 1600 | | 1600 1600 | | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 1.00 | 1.00 | | 1.00 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 2.00 | 1.00 | | 2.00 2.00 | | 0.00 | 1.00 | 0.03 | 1.97 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 3200 | 1600 | | 3200 3200 | | 0 | 1600 | 53 | 3147 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 0.14 | 0.06 | | 0.20 0.32 | | 0.00 | 0.17 | 0.26 | 0.26 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | **** | | | | | **** | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #96 Kanan / Roadside

**********

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

**********

| Street Name: | Kanan | | | | | | Roadside | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 1 0 | 1 0 | 2 | 0 1 | 1 0 | 1! | 0 1 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 590 | 43 | 165 | 623 | 641 | 284 | 134 | 504 | 1 | 0 | 102 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 590 | 43 | 165 | 623 | 641 | 284 | 134 | 504 | 1 | 0 | 102 |
| Added Vol: | 0 | 206 | 0 | 0 | 235 | 32 | 228 | 0 | 157 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 796 | 43 | 165 | 858 | 673 | 512 | 134 | 661 | 1 | 0 | 102 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 796 | 43 | 165 | 858 | 673 | 512 | 134 | 661 | 1 | 0 | 102 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 796 | 43 | 165 | 858 | 673 | 512 | 134 | 661 | 1 | 0 | 102 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 796 | 43 | 165 | 858 | 673 | 512 | 134 | 661 | 1 | 0 | 102 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.85 | 0.15 | 1.00 | 2.00 | 1.00 | 1.17 | 0.31 | 1.52 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 4554 | 246 | 1600 | 3200 | 1600 | 1880 | 492 | 2428 | 1600 | 0 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.17 | 0.17 | 0.10 | 0.27 | 0.42 | 0.27 | 0.27 | 0.27 | 0.00 | 0.00 | 0.06 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

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Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #96 Kanan / Roadside

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.654 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 45 | Level Of Service: | B |

| Street Name: | Kanan | | | | | | Roadside | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 2 | 1 | 0 | 1 0 | 2 | 0 1 | 1 0 | 1! | 0 1 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 590 | 43 | 165 | 623 | 641 | 284 | 134 | 504 | 1 | 0 | 102 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 590 | 43 | 165 | 623 | 641 | 284 | 134 | 504 | 1 | 0 | 102 |
| Added Vol: | 0 | 208 | 0 | 0 | 235 | 32 | 240 | 0 | 157 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 798 | 43 | 165 | 858 | 673 | 524 | 134 | 661 | 1 | 0 | 102 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 798 | 43 | 165 | 858 | 673 | 524 | 134 | 661 | 1 | 0 | 102 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 798 | 43 | 165 | 858 | 673 | 524 | 134 | 661 | 1 | 0 | 102 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 798 | 43 | 165 | 858 | 673 | 524 | 134 | 661 | 1 | 0 | 102 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.85 | 0.15 | 1.00 | 2.00 | 1.00 | 1.19 | 0.30 | 1.51 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 4555 | 245 | 1600 | 3200 | 1600 | 1907 | 488 | 2405 | 1600 | 0 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.18 | 0.18 | 0.10 | 0.27 | 0.42 | 0.27 | 0.27 | 0.27 | 0.00 | 0.00 | 0.06 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |

# APPENDIX D

## LOS CALCULATIONS

## FOR

## AFTERNOON PEAK HOUR

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.798 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 66 | Level Of Service: | C |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.85 | 0.15 | 1.00 | 1.73 | 0.27 | 0.71 | 0.29 | 1.00 | 0.63 | 0.16 | 0.21 |
| Final Sat.: | 1600 | 1354 | 246 | 1600 | 2763 | 437 | 1129 | 471 | 1600 | 993 | 264 | 343 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.42 | 0.42 | 0.03 | 0.14 | 0.14 | 0.06 | 0.06 | 0.14 | 0.11 | 0.11 | 0.11 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | | |
|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.833 | |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx | |
| Optimal Cycle: | 75 | Level Of Service: | D | |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 34 | 1 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.83 | 0.17 | 1.00 | 1.73 | 0.27 | 0.71 | 0.29 | 1.00 | 0.66 | 0.14 | 0.20 |
| Final Sat.: | 1600 | 1330 | 270 | 1600 | 2763 | 437 | 1129 | 471 | 1600 | 1055 | 222 | 323 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.43 | 0.43 | 0.03 | 0.14 | 0.14 | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.756 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 58 | Level Of Service: | C |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 34 | 1 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.83 | 0.17 | 1.00 | 1.73 | 0.27 | 0.71 | 0.29 | 1.00 | 0.66 | 0.14 | 0.20 |
| Final Sat.: | 1600 | 1330 | 270 | 1600 | 2763 | 437 | 1129 | 471 | 1600 | 1055 | 222 | 323 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.43 | 0.43 | 0.03 | 0.14 | 0.14 | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | | **** | | | **** | | | | **** |

Mitigation: Add EB RT overlap

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Reyes Adobe / Canwood

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| | | | | |
|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.866 | |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx | |
| Optimal Cycle: | 86 | Level Of Service: | D | |

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| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 80 | 3 | 2 | 47 | 0 | 0 | 0 | 0 | 16 | 2 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.86 | 0.14 | 1.00 | 1.75 | 0.25 | 0.71 | 0.29 | 1.00 | 0.63 | 0.15 | 0.22 |
| Final Sat.: | 1600 | 1374 | 226 | 1600 | 2805 | 395 | 1129 | 471 | 1600 | 1002 | 249 | 350 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.47 | 0.47 | 0.03 | 0.15 | 0.15 | 0.06 | 0.06 | 0.14 | 0.13 | 0.13 | 0.13 |
| Crit Moves: | | **** | | **** | | | | | **** | | | **** |

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Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Reyes Adobe / Canwood

**********

Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 94 Level Of Service: D

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| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 80 | 10 | 4 | 47 | 0 | 0 | 1 | 0 | 34 | 2 | 11 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.85 | 0.15 | 1.00 | 1.75 | 0.25 | 0.70 | 0.30 | 1.00 | 0.64 | 0.14 | 0.22 |
| Final Sat.: | 1600 | 1362 | 238 | 1600 | 2805 | 395 | 1118 | 482 | 1600 | 1027 | 224 | 349 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.47 | 0.47 | 0.03 | 0.15 | 0.15 | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

**********

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.810 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 69 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 80 | 10 | 4 | 47 | 0 | 0 | 1 | 0 | 34 | 2 | 11 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.85 | 0.15 | 1.00 | 1.75 | 0.25 | 0.70 | 0.30 | 1.00 | 0.64 | 0.14 | 0.22 |
| Final Sat.: | 1600 | 1362 | 238 | 1600 | 2805 | 395 | 1118 | 482 | 1600 | 1027 | 224 | 349 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.47 | 0.47 | 0.03 | 0.15 | 0.15 | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | | **** | | | **** | | | **** | |

Mitigation: Add EB RT overlap

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.841 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 77 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 0 | 12 | 0 | 0 | 2 | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.33 | 0.00 | 0.00 | 0.21 | 0.26 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 | 0.23 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.821 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 72 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 | 0 | 1 0 1 | 0 | 0 | 0 0 0 | 0 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.32 | 0.00 | 0.00 | 0.21 | 0.24 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 | 0.23 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

Cycle (sec): 100 Critical Vol./Cap.(X): ~~0.841~~ 0.786
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: ~~D~~ C

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | OVL ~~Include~~ | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 0 | 12 | 0 | 0 | 2 | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | ~~1~~ | ~~375~~ 376 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.33 | 0.00 | 0.00 | 0.21 | ~~0.26~~ 0.03 | 0.00 | 0.00 | 0.00 | 0.06 | ~~0.06~~ | 0.23 |
| Crit Moves: | **** | | | | *** | ~~****~~ | | | | | | **** |

Mitigation: Eliminate WB through movement and overlap SB RT with WB phase.

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.010 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 251 | 54 | 0 | 0 | 41 | 23 | 0 | 0 | 0 | 21 | 0 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1586 | 14 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.40 | 0.36 | 0.00 | 0.00 | 0.23 | 0.26 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.020 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 180 | Level Of Service: | F |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 251 | 60 | 0 | 0 | 43 | 39 | 0 | 0 | 0 | 21 | 0 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1586 | 14 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.40 | 0.36 | 0.00 | 0.00 | 0.23 | 0.27 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.668 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 71 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 10 | 1590 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.38 | 0.19 | 0.11 | 0.15 | 0.00 | 0.19 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 73 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1 0 | 0 | 0 0 | 0 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 1 | 0 | 0 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 10 | 1590 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.38 | 0.19 | 0.11 | 0.15 | 0.00 | 0.20 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.982 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 169 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 294 | 94 | 22 | 40 | 0 | 11 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 7 | 1593 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.56 | 0.25 | 0.12 | 0.17 | 0.00 | 0.20 | 0.14 | 0.14 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #5 Reyes Adobe / 101 SB

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.986
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 176 Level Of Service: E

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| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 0 | 1 | 1 0 | 1 0 | 0 | 1 0 | 0 | 1 0 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 295 | 94 | 22 | 42 | 0 | 17 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 7 | 1593 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.56 | 0.25 | 0.12 | 0.18 | 0.00 | 0.20 | 0.14 | 0.14 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |

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Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Kanan / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.883 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 92 | Level Of Service: | D |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 1 0 | 1 0 | 3 | 1 0 | 1 0 | 1 | 0 1 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.81 | 0.19 | 1.00 | 3.85 | 0.15 | 1.00 | 1.00 | 1.00 | 1.00 | 0.68 | 0.32 |
| Final Sat.: | 1600 | 2903 | 297 | 1600 | 6162 | 238 | 1600 | 1600 | 1600 | 1600 | 1091 | 509 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.56 | 0.56 | 0.02 | 0.18 | 0.18 | 0.04 | 0.03 | 0.11 | 0.10 | 0.07 | 0.07 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.893 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 97 | Level Of Service: | D |

| Street Name: | Kanan | | | | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R | | | |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Lanes: | 1 0 | 1 | 1 0 | 1 0 | 3 | 1 0 | 1 0 | 1 | 0 1 | 1 0 | 0 | 1 0 | | | |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 104 | 1614 | 165 | 37 | 1113 | 43 | 56 | 43 | 172 | 154 | 75 | 35 | | | |
| Added Vol: | 6 | 0 | 0 | 0 | 0 | 5 | 13 | 0 | 16 | 0 | 0 | 0 | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Initial Fut: | 110 | 1614 | 165 | 37 | 1113 | 48 | 69 | 43 | 188 | 154 | 75 | 35 | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| PHF Volume: | 110 | 1614 | 165 | 37 | 1113 | 48 | 69 | 43 | 188 | 154 | 75 | 35 | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Reduced Vol: | 110 | 1614 | 165 | 37 | 1113 | 48 | 69 | 43 | 188 | 154 | 75 | 35 | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Final Vol.: | 110 | 1614 | 165 | 37 | 1113 | 48 | 69 | 43 | 188 | 154 | 75 | 35 | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Lanes: | 1.00 | 1.81 | 0.19 | 1.00 | 3.83 | 0.17 | 1.00 | 1.00 | 1.00 | 1.00 | 0.68 | 0.32 | | | |
| Final Sat.: | 1600 | 2903 | 297 | 1600 | 6135 | 265 | 1600 | 1600 | 1600 | 1600 | 1091 | 509 | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.56 | 0.56 | 0.02 | 0.18 | 0.18 | 0.04 | 0.03 | 0.12 | 0.10 | 0.07 | 0.07 | | | |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #49 Kanan / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.929 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 117 | Level Of Service: | E |

| Street Name: | Kanan | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 0 | 0 0 | 3 0 | 1 | 0 0 | 0 0 | 0 | 1 0 | 1! 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.01 | 1.99 |
| Final Sat.: | 1600 | 3200 | 0 | 0 | 4800 | 1600 | 0 | 0 | 0 | 1600 | 4 | 3196 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.30 | 0.00 | 0.00 | 0.20 | 0.29 | 0.00 | 0.00 | 0.00 | 0.10 | 0.28 | 0.28 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #49 Kanan / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.931 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 118 | Level Of Service: | E |

| Street Name: | Kanan | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 0 | 0 0 | 3 0 | 1 | 0 0 | 0 0 | 0 | 1 0 | 1! 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 410 | 969 | 0 | 0 | 944 | 464 | 0 | 0 | 0 | 166 | 1 | 905 |
| Added Vol: | 0 | 1 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 410 | 970 | 0 | 0 | 960 | 464 | 0 | 0 | 0 | 166 | 1 | 910 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 410 | 970 | 0 | 0 | 960 | 464 | 0 | 0 | 0 | 166 | 1 | 910 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 410 | 970 | 0 | 0 | 960 | 464 | 0 | 0 | 0 | 166 | 1 | 910 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 410 | 970 | 0 | 0 | 960 | 464 | 0 | 0 | 0 | 166 | 1 | 910 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 3.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.01 | 1.99 |
| Final Sat.: | 1600 | 3200 | 0 | 0 | 4800 | 1600 | 0 | 0 | 0 | 1600 | 4 | 3196 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.30 | 0.00 | 0.00 | 0.20 | 0.29 | 0.00 | 0.00 | 0.00 | 0.10 | 0.28 | 0.28 |
| Crit Moves: | **** | | | | | **** | | | | | **** | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood /101

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.961 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 144 | Level Of Service: | E |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 0 0 | 3 0 | 1 | 1 0 | 0 0 | 1 | 1 1 | 0 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 51 | 870 | 410 | 0 | 1267 | 118 | 99 | 0 | 172 | 167 | 53 | 909 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 51 | 870 | 410 | 0 | 1267 | 118 | 99 | 0 | 172 | 167 | 53 | 909 |
| Added Vol: | 7 | 290 | 254 | 0 | 479 | 3 | 9 | 0 | 59 | 119 | 5 | 57 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 58 | 1160 | 664 | 0 | 1746 | 121 | 108 | 0 | 231 | 286 | 58 | 966 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 58 | 1160 | 664 | 0 | 1746 | 121 | 108 | 0 | 231 | 286 | 58 | 966 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 58 | 1160 | 664 | 0 | 1746 | 121 | 108 | 0 | 231 | 286 | 58 | 966 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 58 | 1160 | 664 | 0 | 1746 | 121 | 108 | 0 | 231 | 286 | 58 | 966 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 0.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.66 | 0.34 | 2.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 0 | 4800 | 1600 | 1600 | 0 | 1600 | 2660 | 540 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.36 | 0.42 | 0.00 | 0.36 | 0.08 | 0.07 | 0.00 | 0.14 | 0.11 | 0.11 | 0.30 |
| Crit Moves: | | | **** | **** | | | | | **** | | | **** |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Kanan / Canwood / 101

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.973 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 157 | Level Of Service: | E |

| Street Name: | Kanan | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 0 0 | 3 0 | 1 | 1 0 | 0 0 | 1 | 1 1 | 0 0 | 2 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 51 | 870 | 410 | 0 | 1267 | 118 | 99 | 0 | 172 | 167 | 53 | 909 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 51 | 870 | 410 | 0 | 1267 | 118 | 99 | 0 | 172 | 167 | 53 | 909 |
| Added Vol: | 19 | 290 | 254 | 0 | 479 | 7 | 22 | 0 | 77 | 119 | 5 | 57 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 70 | 1160 | 664 | 0 | 1746 | 125 | 121 | 0 | 249 | 286 | 58 | 966 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 70 | 1160 | 664 | 0 | 1746 | 125 | 121 | 0 | 249 | 286 | 58 | 966 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 70 | 1160 | 664 | 0 | 1746 | 125 | 121 | 0 | 249 | 286 | 58 | 966 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 70 | 1160 | 664 | 0 | 1746 | 125 | 121 | 0 | 249 | 286 | 58 | 966 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.00 | 1.00 | 0.00 | 3.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.66 | 0.34 | 2.00 |
| Final Sat.: | 1600 | 3200 | 1600 | 0 | 4800 | 1600 | 1600 | 0 | 1600 | 2660 | 540 | 3200 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.36 | 0.42 | 0.00 | 0.36 | 0.08 | 0.08 | 0.00 | 0.16 | 0.11 | 0.11 | 0.30 |
| Crit Moves: | | | **** | **** | | | | | **** | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Kanan / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.732 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 54 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 SB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 2 0 | 2 | 0 0 | 1 0 | 1! | 0 1 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.64 | 0.01 | 1.35 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 2630 | 15 | 2154 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.27 | 0.15 | 0.17 | 0.18 | 0.00 | 0.20 | 0.20 | 0.20 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Kanan / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.736 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 55 | Level Of Service: | C |

| Street Name: | Kanan | | | | | | 101 SB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 2 | 0 | 1 | 2 0 2 | 0 | 0 | 1 0 | 1! 0 | 1 | 0 0 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 861 | 243 | 535 | 570 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Added Vol: | 0 | 1 | 0 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 862 | 243 | 549 | 572 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 862 | 243 | 549 | 572 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 862 | 243 | 549 | 572 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 862 | 243 | 549 | 572 | 0 | 514 | 3 | 421 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.64 | 0.01 | 1.35 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 2630 | 15 | 2154 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.27 | 0.15 | 0.17 | 0.18 | 0.00 | 0.20 | 0.20 | 0.20 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | | **** | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #96 Kanan / Roadside

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| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.840 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 77 | Level Of Service: | D |

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| Street Name: | Kanan | | | | | | Roadside | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 1 0 | 1 0 | 2 | 0 1 | 1 0 | 1! | 0 1 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 882 | 57 | 138 | 442 | 535 | 517 | 111 | 358 | 0 | 0 | 227 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 882 | 57 | 138 | 442 | 535 | 517 | 111 | 358 | 0 | 0 | 227 |
| Added Vol: | 0 | 573 | 0 | 0 | 230 | 128 | 164 | 0 | 211 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1455 | 57 | 138 | 672 | 663 | 681 | 111 | 569 | 0 | 0 | 227 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1455 | 57 | 138 | 672 | 663 | 681 | 111 | 569 | 0 | 0 | 227 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1455 | 57 | 138 | 672 | 663 | 681 | 111 | 569 | 0 | 0 | 227 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1455 | 57 | 138 | 672 | 663 | 681 | 111 | 569 | 0 | 0 | 227 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.89 | 0.11 | 1.00 | 2.00 | 1.00 | 1.51 | 0.24 | 1.25 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 4619 | 181 | 1600 | 3200 | 1600 | 2402 | 391 | 2007 | 1600 | 0 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.31 | 0.32 | 0.09 | 0.21 | 0.41 | 0.28 | 0.28 | 0.28 | 0.00 | 0.00 | 0.14 |
| Crit Moves: | | | **** | **** | | | **** | | | | | **** |

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Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #96 Kanan / Roadside

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.842
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: D

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| Street Name: | Kanan | | | | | | Roadside | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 1 0 | 1 0 | 2 | 0 1 | 1 0 | 1! | 0 1 | 1 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 882 | 57 | 138 | 442 | 535 | 517 | 111 | 358 | 0 | 0 | 227 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 882 | 57 | 138 | 442 | 535 | 517 | 111 | 358 | 0 | 0 | 227 |
| Added Vol: | 0 | 574 | 0 | 0 | 232 | 128 | 169 | 0 | 211 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1456 | 57 | 138 | 674 | 663 | 686 | 111 | 569 | 0 | 0 | 227 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1456 | 57 | 138 | 674 | 663 | 686 | 111 | 569 | 0 | 0 | 227 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1456 | 57 | 138 | 674 | 663 | 686 | 111 | 569 | 0 | 0 | 227 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1456 | 57 | 138 | 674 | 663 | 686 | 111 | 569 | 0 | 0 | 227 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.89 | 0.11 | 1.00 | 2.00 | 1.00 | 1.51 | 0.24 | 1.25 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 4619 | 181 | 1600 | 3200 | 1600 | 2411 | 390 | 1999 | 1600 | 0 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.32 | 0.32 | 0.09 | 0.21 | 0.41 | 0.28 | 0.28 | 0.28 | 0.00 | 0.00 | 0.14 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |

**********

***6B***
***Agoura Hills 05-CUP-006 Traffic Study Addendum. Interwest Consulting Group. November 20, 2008.***

INTERWEST CONSULTING GROUP

November 20, 2008



Mr. John Brock
Sunbelt Enterprises
1801 Solar Drive, Suite 250
Oxnard, CA 93030

Subject: Agoura Hills 05-CUP-006 Traffic Impact Study Addendum

Dear John:

As directed by the City of Agoura Hills, we have prepared this addendum to our January 3, 2007 report to reflect the U.S. 101 Freeway – Reyes Adobe Road interchange area improvements that will begin construction in the Spring of 2009. The improvements will affect the intersection of Reyes Adobe Road – Canwood Street, as well as both offramp intersections. The improvements consist of the following:

Southbound Offramp Intersection
- Add northbound through lane.
- Add southbound left turn lane.
- Add southbound through lane.

Northbound Offramp Intersection
- Add northbound through lane.
- Add northbound left turn lane.
- Convert southbound right turn lane to through-right lane.

Canwood Street Intersection
- Add northbound through lane.
- Add northbound left turn lane.
- Add a second westbound lane and stripe the approach to provide a left turn lane and a through-right lane.

The updated future intersection lane configurations are shown in the revised Figure 8 (attached). Updated level of service (LOS) calculations were performed for the affected intersections; the calculation sheets are provided in the appendix and the results are reflected in the revised Table 2. Although the Kanan interchange LOS calculations were not affected, the original LOS results for those intersections are included in Table 2 for convenience.

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TEL.805.659.0017 • FAX.805.715.8018 • mwessel@interwestgrp.com

Table 2. Intersection AM/PM Peak LOS Results

| Scenario | | | Reyes Adobe - Canwood | Reyes Adobe – U.S. 101 SB Offramp | Reyes Adobe – U.S. NB Offramp | Kanan - Canwood | Kanan – U.S. 101 SB Offramp | Kanan – U.S. 101 NB Offramp |
|---|---|---|---|---|---|---|---|---|
| AM | Existing | ICU | 0.61 | 0.93 | 0.68 | 0.56 | 0.70 | 0.71 |
| | | LOS | B | E | B | A | B | C |
| | Existing + Project | ICU | 0.63 | 0.93 | 0.68 | 0.56 | 0.70 | 0.71 |
| | | LOS | B | E | B | A | B | C |
| | Existing + Cumulative | ICU | 0.49 | 0.96 | 0.69 | - | 0.65 | 0.83 |
| | | LOS | A | E | B | - | B | D |
| | Existing + Cumulative + Project | ICU | 0.49 | 0.96 | 0.69 | - | 0.65 | 0.85 |
| | | LOS | A | E | B | - | B | D |
| PM | Existing | ICU | 0.80 | 0.67 | 0.82 | 0.88 | 0.73 | 0.93 |
| | | LOS | C | B | D | D | C | E |
| | Existing + Project | ICU | 0.83 | 0.68 | 0.84 | 0.89 | 0.74 | 0.93 |
| | | LOS | D | B | D | D | C | E |
| | Existing + Cumulative | ICU | 0.58 | 0.64 | 0.81 | - | 0.84 | 0.96 |
| | | LOS | A | B | D | - | D | E |
| | Existing + Cumulative + Project | ICU | 0.60 | 0.65 | 0.82 | - | 0.84 | 0.97 |
| | | LOS | A | B | D | - | D | E |

Because the freeway interchange improvements will not affect the Existing and Existing + Project scenarios, the LOS results still indicate that the project will cause significant *project-specific* impacts to the Reyes Adobe – Canwood and Reyes Adobe – Northbound Offramp intersections during the afternoon peak period. However, the LOS results indicate that the interchange improvements will mitigate *project-specific* impacts at both of these intersections. Furthermore, the interchange improvements will improve intersection operation such that the project will no longer cause any significant *cumulative* impacts.

Based on these findings, it is concluded that project mitigation will consist of payment of traffic impact fees, a portion of which will be used to construct the Reyes Adobe interchange improvements.

If you have any questions regarding this addendum or are in need of further services, please don't hesitate to contact me.

Sincerely,

Mark Wessel

Mark Wessel, P.E.

081120 Agoura 05-CUP-006 traffic study addendum.doc

# Sunbelt Enterprises
# 05–CUP–006
# Traffic Impact Study

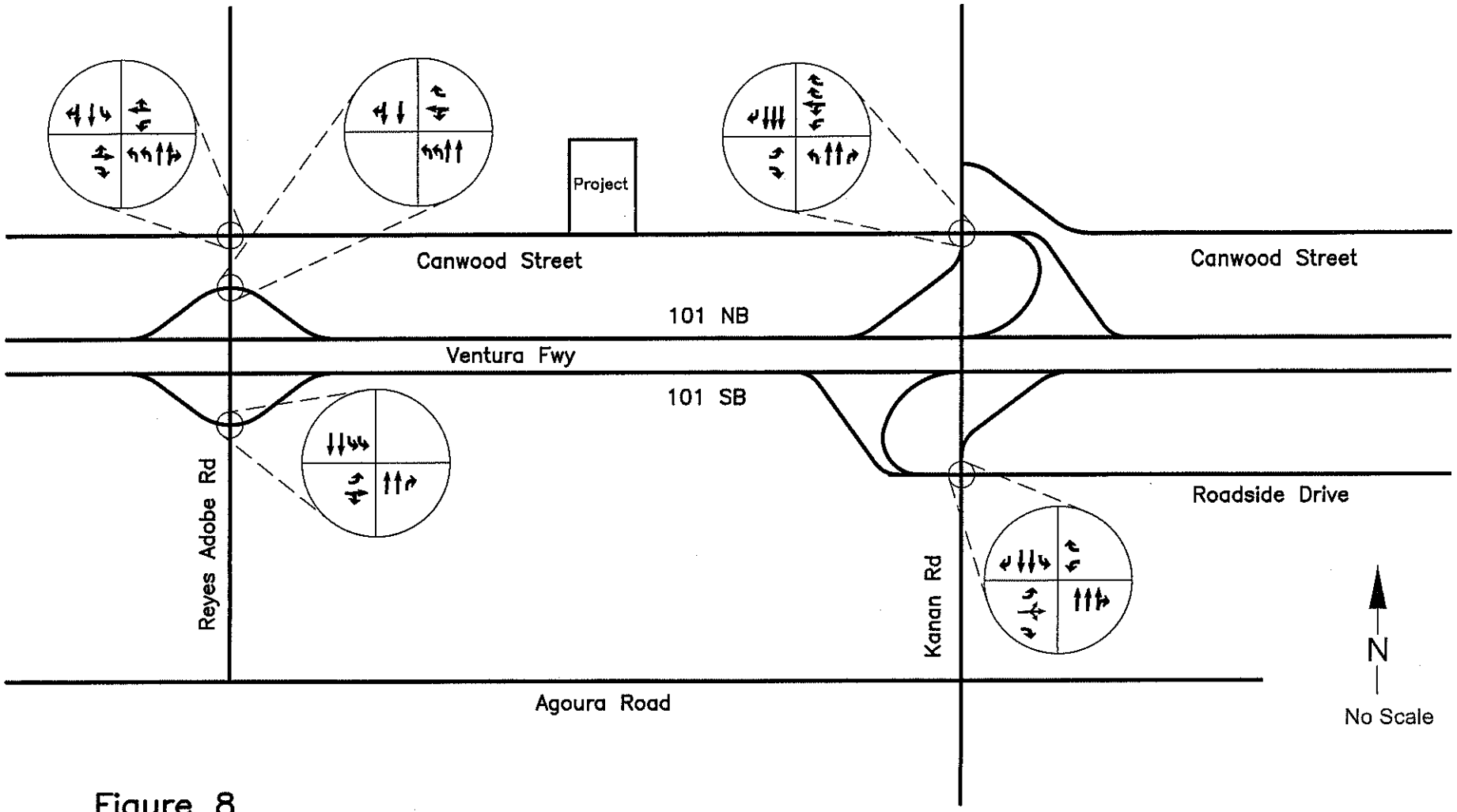


Figure 8
Future Lane Configurations

11–15–08
SunbeltAgoura8.dwg

# APPENDICES

# APPENDIX A

## LOS CALCULATIONS

## FOR

## MORNING PEAK HOUR

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.606 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 40 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.57 | 0.43 | 1.00 | 1.93 | 0.07 | 0.51 | 0.49 | 1.00 | 0.81 | 0.10 | 0.09 |
| Final Sat.: | 1600 | 905 | 695 | 1600 | 3084 | 116 | 821 | 779 | 1600 | 1290 | 161 | 149 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.31 | 0.31 | 0.02 | 0.18 | 0.18 | 0.02 | 0.02 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.628 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 42 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 0 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 281 | 240 | 34 | 556 | 21 | 20 | 19 | 153 | 110 | 13 | 13 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.54 | 0.46 | 1.00 | 1.93 | 0.07 | 0.51 | 0.49 | 1.00 | 0.81 | 0.09 | 0.10 |
| Final Sat.: | 1600 | 863 | 737 | 1600 | 3084 | 116 | 821 | 779 | 1600 | 1294 | 153 | 153 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.33 | 0.33 | 0.02 | 0.18 | 0.18 | 0.02 | 0.02 | 0.10 | 0.08 | 0.08 | 0.08 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.489 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 33 | Level Of Service: | A |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 30 | 18 | 6 | 62 | 0 | 0 | 2 | 0 | 2 | 0 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 311 | 234 | 36 | 618 | 21 | 20 | 21 | 153 | 106 | 13 | 14 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.14 | 0.86 | 1.00 | 1.93 | 0.07 | 0.49 | 0.51 | 1.00 | 1.00 | 0.48 | 0.52 |
| Final Sat.: | 3200 | 1826 | 1374 | 1600 | 3095 | 105 | 780 | 820 | 1600 | 1600 | 770 | 830 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.17 | 0.02 | 0.20 | 0.20 | 0.03 | 0.03 | 0.10 | 0.07 | 0.02 | 0.02 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.491 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 33 | Level Of Service: | A |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 87 | 281 | 216 | 30 | 556 | 21 | 20 | 19 | 153 | 104 | 13 | 12 |
| Added Vol: | 0 | 30 | 30 | 10 | 62 | 0 | 0 | 2 | 0 | 6 | 0 | 3 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 87 | 311 | 246 | 40 | 618 | 21 | 20 | 21 | 153 | 110 | 13 | 15 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.12 | 0.88 | 1.00 | 1.93 | 0.07 | 0.49 | 0.51 | 1.00 | 1.00 | 0.46 | 0.54 |
| Final Sat.: | 3200 | 1787 | 1413 | 1600 | 3095 | 105 | 780 | 820 | 1600 | 1600 | 743 | 857 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.17 | 0.03 | 0.20 | 0.20 | 0.03 | 0.03 | 0.10 | 0.07 | 0.02 | 0.02 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 47 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.27 | 0.00 | 0.00 | 0.27 | 0.24 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 47 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 0 | 24 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 194 | 463 | 0 | 0 | 439 | 388 | 0 | 0 | 0 | 285 | 3 | 141 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.29 | 0.00 | 0.00 | 0.27 | 0.24 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | | **** | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.692 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 49 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 2 0 | 0 | 0 0 | 1 1 | 0 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 40 | 36 | 0 | 0 | 57 | 7 | 0 | 0 | 0 | 100 | 0 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 234 | 475 | 0 | 0 | 496 | 389 | 0 | 0 | 0 | 385 | 3 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 0.00 | 1.12 | 0.88 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 3200 | 3200 | 0 | 0 | 1793 | 1407 | 0 | 0 | 0 | 1588 | 12 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.15 | 0.00 | 0.00 | 0.28 | 0.28 | 0.00 | 0.00 | 0.00 | 0.24 | 0.24 | 0.10 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

**********

Intersection #3 Reyes Adobe / 101 NB

**********

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

**********

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 2 0 | 0 | 0 | 0 | 1 1 0 | 0 | 0 | 0 0 0 | 0 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 194 | 439 | 0 | 0 | 439 | 382 | 0 | 0 | 0 | 285 | 3 | 141 |
| Added Vol: | 40 | 48 | 0 | 0 | 58 | 10 | 0 | 0 | 0 | 100 | 0 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 234 | 487 | 0 | 0 | 497 | 392 | 0 | 0 | 0 | 385 | 3 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 0.00 | 1.12 | 0.88 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 3200 | 3200 | 0 | 0 | 1789 | 1411 | 0 | 0 | 0 | 1588 | 12 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.15 | 0.00 | 0.00 | 0.28 | 0.28 | 0.00 | 0.00 | 0.00 | 0.24 | 0.24 | 0.10 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |

**********

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.929 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 117 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 6 | 1594 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.14 | 0.10 | 0.35 | 0.00 | 0.19 | 0.48 | 0.48 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing AM
Future Volume Alternative = Existing + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.929 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 117 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 1 | 0 | 1 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1 0 | 0 | 0 0 | 0 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 1 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 336 | 218 | 164 | 565 | 0 | 329 | 3 | 759 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 6 | 1594 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.21 | 0.14 | 0.10 | 0.35 | 0.00 | 0.21 | 0.48 | 0.48 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.963 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 146 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 0 | 1 | 2 0 | 2 0 | 0 | 1 0 | 0 1 | 0 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 50 | 15 | 19 | 138 | 0 | 26 | 0 | 268 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 385 | 233 | 183 | 703 | 0 | 332 | 3 | 1027 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 1600 | 5 | 1595 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.12 | 0.15 | 0.06 | 0.22 | 0.00 | 0.21 | 0.64 | 0.64 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.964 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 147 | Level Of Service: | E |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 2 | 0 2 | 0 0 | 1 | 0 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 335 | 218 | 164 | 565 | 0 | 306 | 3 | 759 | 0 | 0 | 0 |
| Added Vol: | 0 | 51 | 15 | 19 | 139 | 0 | 37 | 0 | 268 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 386 | 233 | 183 | 704 | 0 | 343 | 3 | 1027 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 1600 | 5 | 1595 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.12 | 0.15 | 0.06 | 0.22 | 0.00 | 0.21 | 0.64 | 0.64 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |

# APPENDIX B

## LOS CALCULATIONS

## FOR

## AFTERNOON PEAK HOUR

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.798 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 66 | Level Of Service: | C |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.85 | 0.15 | 1.00 | 1.73 | 0.27 | 0.71 | 0.29 | 1.00 | 0.63 | 0.16 | 0.21 |
| Final Sat.: | 1600 | 1354 | 246 | 1600 | 2763 | 437 | 1129 | 471 | 1600 | 993 | 264 | 343 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.42 | 0.42 | 0.03 | 0.14 | 0.14 | 0.06 | 0.06 | 0.14 | 0.11 | 0.11 | 0.11 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.833 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 75 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 34 | 1 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 211 | 566 | 115 | 43 | 379 | 60 | 72 | 30 | 225 | 147 | 31 | 45 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.83 | 0.17 | 1.00 | 1.73 | 0.27 | 0.71 | 0.29 | 1.00 | 0.66 | 0.14 | 0.20 |
| Final Sat.: | 1600 | 1330 | 270 | 1600 | 2763 | 437 | 1129 | 471 | 1600 | 1055 | 222 | 323 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.43 | 0.43 | 0.03 | 0.14 | 0.14 | 0.06 | 0.06 | 0.14 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | | **** | | **** | | | | | **** | | **** | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.583 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 39 | Level Of Service: | A |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 1 1 | 0 | 1 0 | 1 1 | 0 | 0 1 | 0 0 | 1 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 80 | 3 | 2 | 47 | 0 | 0 | 0 | 0 | 16 | 2 | 6 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 211 | 646 | 106 | 43 | 426 | 60 | 72 | 30 | 225 | 129 | 32 | 45 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.72 | 0.28 | 1.00 | 1.75 | 0.25 | 0.71 | 0.29 | 1.00 | 1.00 | 0.42 | 0.58 |
| Final Sat.: | 3200 | 2749 | 451 | 1600 | 2805 | 395 | 1129 | 471 | 1600 | 1600 | 665 | 935 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.24 | 0.23 | 0.03 | 0.15 | 0.15 | 0.06 | 0.06 | 0.14 | 0.08 | 0.05 | 0.05 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Reyes Adobe / Canwood

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.598 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 40 | Level Of Service: | A |

| Street Name: | Reyes Adobe | | | | | | Canwood | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 0 1 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 566 | 103 | 41 | 379 | 60 | 72 | 30 | 225 | 113 | 30 | 39 |
| Added Vol: | 0 | 80 | 10 | 4 | 47 | 0 | 0 | 1 | 0 | 34 | 2 | 11 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 211 | 646 | 113 | 45 | 426 | 60 | 72 | 31 | 225 | 147 | 32 | 50 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 1.70 | 0.30 | 1.00 | 1.75 | 0.25 | 0.70 | 0.30 | 1.00 | 1.00 | 0.39 | 0.61 |
| Final Sat.: | 3200 | 2724 | 476 | 1600 | 2805 | 395 | 1118 | 482 | 1600 | 1600 | 624 | 976 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.24 | 0.24 | 0.03 | 0.15 | 0.15 | 0.06 | 0.06 | 0.14 | 0.09 | 0.05 | 0.05 |
| Crit Moves: | | **** | | **** | | | | | **** | **** | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.821 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 72 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.32 | 0.00 | 0.00 | 0.21 | 0.24 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 | 0.23 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.841 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 77 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 0 0 | 0 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 0 | 12 | 0 | 0 | 2 | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 391 | 526 | 0 | 0 | 330 | 419 | 0 | 0 | 0 | 93 | 1 | 375 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 1600 | 1600 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1583 | 17 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.33 | 0.00 | 0.00 | 0.21 | 0.26 | 0.00 | 0.00 | 0.00 | 0.06 | 0.06 | 0.23 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.809 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 69 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 2 0 | 0 | 0 | 0 | 1 1 | 0 | 0 0 | 0 0 | 0 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 251 | 54 | 0 | 0 | 41 | 23 | 0 | 0 | 0 | 21 | 0 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 642 | 568 | 0 | 0 | 369 | 410 | 0 | 0 | 0 | 114 | 1 | 404 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 3200 | 3200 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1586 | 14 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.18 | 0.00 | 0.00 | 0.23 | 0.26 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Reyes Adobe / 101 NB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.819 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 71 | Level Of Service: | D |

| Street Name: | Reyes Adobe | | | | | | 101 NB On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 2 0 | 0 | 0 | 0 | 1 1 0 | 0 | 0 | 0 0 0 | 0 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 391 | 514 | 0 | 0 | 328 | 387 | 0 | 0 | 0 | 93 | 1 | 375 |
| Added Vol: | 251 | 60 | 0 | 0 | 43 | 39 | 0 | 0 | 0 | 21 | 0 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 642 | 574 | 0 | 0 | 371 | 426 | 0 | 0 | 0 | 114 | 1 | 404 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 2.00 | 2.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.01 | 1.00 |
| Final Sat.: | 3200 | 3200 | 0 | 0 | 1600 | 1600 | 0 | 0 | 0 | 1586 | 14 | 1600 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.18 | 0.00 | 0.00 | 0.23 | 0.27 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | **** |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM Volume

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.668 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 71 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 0 | 1 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 10 | 1590 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.38 | 0.19 | 0.11 | 0.15 | 0.00 | 0.19 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |

Sunbelt 05-CUP-006 Agoura Traffic Impact Study
Base Volume Alternative = Existing PM
Future Volume Alternative = Existing + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.676 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 73 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 | 0 1 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1 0 | 0 0 | 0 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 1 | 0 | 0 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 602 | 310 | 175 | 242 | 0 | 320 | 1 | 161 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1600 | 1600 | 1600 | 1600 | 0 | 1600 | 10 | 1590 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.38 | 0.19 | 0.11 | 0.15 | 0.00 | 0.20 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | | | | **** | | | | | |

Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #5 Reyes Adobe / 101 SB

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| | | | | |
|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.641 | |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx | |
| Optimal Cycle: | 44 | Level Of Service: | B | |

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| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 2 0 | 2 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 294 | 94 | 22 | 40 | 0 | 11 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 895 | 404 | 197 | 280 | 0 | 319 | 1 | 216 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 1600 | 7 | 1593 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.28 | 0.25 | 0.06 | 0.09 | 0.00 | 0.20 | 0.14 | 0.14 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |

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Sunbelt 05-CUP-006 Traffic Impact Study
Future Volume Alternative = Existing + Cumulative + Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Reyes Adobe / 101 SB

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.645 |
| Loss Time (sec): | 10 (Y+R=4.0 sec) | Average Delay (sec/veh): | xxxxxx |
| Optimal Cycle: | 44 | Level Of Service: | B |

| Street Name: | Reyes Adobe | | | | | | 101 On & Off Ramps | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 2 | 0 1 | 2 | 0 2 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 601 | 310 | 175 | 240 | 0 | 308 | 1 | 161 | 0 | 0 | 0 |
| Added Vol: | 0 | 295 | 94 | 22 | 42 | 0 | 17 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 896 | 404 | 197 | 282 | 0 | 325 | 1 | 216 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 0.01 | 0.99 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3200 | 1600 | 3200 | 3200 | 0 | 1600 | 7 | 1593 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.28 | 0.25 | 0.06 | 0.09 | 0.00 | 0.20 | 0.14 | 0.14 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |

# *Appendix 7 Noise*

Construction Noise Attenuation

TO DETERMINE NOISE CONTOURS FOR A GIVEN NOISE LEVEL

ATTENUATION RATE: 6 dBA/DOUBLING OF DISTANCE
hoice: 3, 4.5, or 6)
NOISE LEVEL: 89 dBA
REFERENCE DISTANCE: 50 FEET

| NOISE CONTOUR | DISTANCE FROM SOURCE | SPECIFIC DISTANCE | NOISE LEVEL |
|---|---|---|---|
| 75 | 251 | 20 | 97.0 |
| 70 | 446 | 100 | 83.0 |
| 65 | 792 | 150 | 79.5 |
| 60 | 1409 | 5,000 | 49.0 |
| 55 | 2506 | 7,000 | 46.1 |
| 50 | 4456 | 10,000 | 43.0 |

NOISE PREDICTION MODEL - MODIFIED FHWA STAMINA 2.0

U.S. 101 at Sunbelt Site First Building

| DATA | Date: | 09/19/08 |
|---|---|---|
| Enter ADT: | 172000 | |
| Enter vehicle speed: | 65 | |
| Enter % of Medium trucks: | 2.3 | |
| Enter % of Heavy trucks: | 2.3 | |
| Enter % of Evening Traffic - | | |
| (default=18%) Autos: | 17 | |
| Medium Trucks: | 0.5 | |
| Heavy Trucks: | 0.5 | |
| Enter % of Nighttime Traffic - | | |
| (default=15%) Autos: | 14 | |
| Medium Trucks: | 0.5 | |
| Heavy Trucks: | 0.5 | |
| For sustained grades only (> 1 mile), | | |
| enter % road gradient: | 0 | |
| Enter distance from site to | | |
| centerline of road, feet: | 270 | |

ESULTS WITHOUT BARRIER EFFECTS

| Noise Level at site - | | Hard Sites |
|---|---|---|
| Ldn, dBA: | 73.4 | 77.1 |
| CNEL, dBA: | 73.9 | 77.6 |
| For Ground-Level Observers | | |
| Distance To Contour From | Ldn | CNEL |
| Centerline, feet (4.5 dB/2x) - | | |
| 75 dBA: | 212 | 228 |
| 70 dBA: | 458 | 491 |
| 65 dBA: | 986 | 1058 |
| 60 dBA: | 2124 | 2280 |
| 55 dBA: | 4576 | 4911 |
| 50 dBA: | 9858 | 10581 |

ADDING NOISE LEVELS
101 (76.7) - Camwood (71.2) = 5.5
∴ Add 1.0 to 76.7 = 77.7 dBA CNEL @ front of closest bldg.

NOISE PREDICTION MODEL - MODIFIED FHWA STAMINA 2.0

Canwood Street at Sunbelt Site First Building

| DATA | Date: | 09/19/08 |
|---|---|---|
| Enter ADT: | 53000 | |
| Enter vehicle speed: | 45 | |
| Enter % of Medium trucks: | 2.3 | |
| Enter % of Heavy trucks: | 2.3 | |
| Enter % of Evening Traffic - | | |
| (default=18%) Autos: | 17 | |
| Medium Trucks: | 0.5 | |
| Heavy Trucks: | 0.5 | |
| Enter % of Nighttime Traffic - | | |
| (default=15%) Autos: | 14 | |
| Medium Trucks: | 0.5 | |
| Heavy Trucks: | 0.5 | |
| For sustained grades only (> 1 mile), | | |
| enter % road gradient: | 0 | |
| Enter distance from site to | | |
| centerline of road, feet: | 145 | |

ESULTS WITHOUT BARRIER EFFECTS

| Noise Level at site - | | Hard Sites |
|---|---|---|
| Ldn, dBA: | 68.4 | 70.7 |
| CNEL, dBA: | 68.8 | 71.2 |
| For Ground-Level Observers | | |
| Distance To Contour From | Ldn | CNEL |
| Centerline, feet (4.5 dB/2x) - | | |
| 75 dBA: | 53 | 56 |
| 70 dBA: | 114 | 121 |
| 65 dBA: | 246 | 262 |
| 60 dBA: | 529 | 564 |
| 55 dBA: | 1140 | 1215 |
| 50 dBA: | 2457 | 2618 |

# Combining Sound Levels in Decibels — Worksheet A

The noise environment at a site is determined by combining the contributions of different noise sources. In these Guidelines, Workcharts are provided to estimate the contribution of aircraft, automobile, truck, and train noise to the total day-night average sound level (DNL) at a site. The DNL contributions from each source are expressed in decibels and entered on Worksheet A. The combined DNL from all the sources is the DNL for the site and is the value used to determine the acceptability of the noise environment.

Sound levels in decibels ARE NOT COMBINED BY SIMPLE ADDITION! The following table shows how to combine sound levels:

Table 1

| Difference in Sound Level | Add to Larger Level |
|---|---|
| 0 | 3.0 |
| 1 | 2.5 |
| 2 | 2.1 |
| 3 | 1.8 |
| 4 | 1.5 |
| 5 | 1.2 |
| 6 | 1.0 |
| 7 | 0.8 |
| 8 | 0.6 |
| 9 | 0.5 |
| 10 | 0.4 |
| 12 | 0.3 |
| 14 | 0.2 |
| 16 | 0.1 |
| greater than 16 | 0 |

Use the table by first finding the numerical difference in sound level between two levels being combined. Entering the table with this value, find the value to be added to the larger of the two levels, add this value to the larger level to determine the total. Where more than two levels are to be combined use the same procedure to combine any two levels, then use this subtotal and combine it with any other level, and so on. Fractional numerical values may be interpolated from the table; however, the final result should be rounded to the nearest whole number.

*Example 1: In performing a site evaluation, the separate DNL values for airports, road traffic, and railroads have been listed on Worksheet A as 56, 63, and 61 decibels. In order to complete the final evaluation of the site, these separate DNL values must be combined. The difference between 63 and 56 is 7; from the table you find that 0.8 should be added to 63, for a subtotal of 63.8. The difference between 63.8 and 61 is 2.8; from the table you interpolate that approximately 1.9 should be added to 63.8 for a total of 65.7 or 66 dB when rounded to whole numbers. This example shows how noise from different sources may be Acceptable, individually, at a site, but when combined, the total noise environment may exceed the Acceptable DNL limit of 65 decibels.*