# State Route 142 (Carbon Canyon Road) Truck Restriction Study
## Final Report

### Postmile:
- **District 8 (San Bernardino County)** – 0.00 to R3.865
- **District 12 (Orange County)** – R1.77 to R6.349

### City of Chino Hills Ordinance: No. 403
### City of Brea Ordinance: No. 1239

### Approval

<table>
<thead>
<tr>
<th>Recommended</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acting Deputy District Director Thomas Ainsworth&lt;br&gt;District 8 – Traffic Operations</td>
<td>District 8 Director Catalino A. Pining III&lt;br&gt;Date</td>
</tr>
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<td>Deputy District Director, Environmental Analysis Chris Flynn&lt;br&gt;For Acting District 12 Director</td>
<td>Date</td>
</tr>
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</table>
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1.0 INTRODUCTION

This study is the analysis of and recommendation for a restriction of vehicles based on number of axles for legal access on State Route 142 (Carbon Canyon Road) from postmile ORA 1.775, Carbon Canyon at Lambert Road/Valencia Avenue, in the City of Brea in Orange County (Caltrans District 12) to postmile SBD R3.855 at Chino Hills Parkway in the City of Chino Hills in San Bernardino County (Caltrans District 8).

Carbon Canyon Road (State Route 142) is a two-lane highway that directly connects Orange County and San Bernardino County. This section of roadway experiences significant elevation gains resulting in grades of over the maximum grade of seven percent for mountainous rural highways according to the Caltrans Highway Design Manual. The roadway is an alternative to regional freeways such as State Route 57, State Route 60 and State Route 91 and attracts additional regional traffic when these regional freeways become congested. The steep grades impact the ability of trucks to move through the corridor at speeds near posted speeds, and are primarily where travel shoulders are narrow or not provided, or where steep grades or tight horizontal curves exist which provide a challenge to truck movements and other vehicle movements. Slow truck movements also impact other vehicle movements.

State Route 142, within the study area, is a 65-foot California Legal route with a kingpin-to-rear axle distance (KPRA) advisory of 30 feet or less. Between postmile SBD 2.460 and SBD 2.220 there is an S-curve switchback, which has been identified by the City of Chino Hills, residents, and law enforcement as an operational and safety concern when navigated by large vehicles. While long-term physical modification of the S-curve to allow for safe operation would be a physical modification, current California Legal designation with tractor-semis over 30 feet KPRA not advised is insufficient to maintain safe operating conditions. This restriction is temporary until long term physical modification is completed under project EA 1M780. Figure 1 shows a project vicinity map, identifying where the S-curve is located along the corridor.

1.1 Justification

Based on multiple corridor studies and public outreach, the Cities of Chino Hills and Brea are pursuing an official/designated truck restriction to divert large vehicles from passing through the S-curve, with a curve radius of 30 feet, at its two end points on State Route 142. The analysis demonstrates that a WB-40 design vehicle with a length of 45 feet and six inches under low-speed operation would off-track through the S-curve section of State Route 142. WB-40 design vehicle is a medium-sized semi-truck that has four axles and a typical KPRA of 27.5 feet, and has a lower turning radius than the California Legal Design Vehicle 50-Foot Radius. Therefore, the analysis supports the finding that the constrained roadway geometrics and strong community support justify restriction of vehicles over four axles on State Route 142. It should be noted that a restriction based on number of axles is a clearer restriction as compared to weight, KPRA

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and length which may be variable depending on the load, whereas number of axles is readily evident to
the vehicle operator.

To begin the route restriction process, the City Councils of Brea and Chino Hills adopted resolutions to
prohibit vehicles and combination vehicles with an overall length greater than 30 feet KPRA on Carbon
Canyon Road (State Route 142) in 2019. However, given CVC Section 35401(e) that prohibits a city or
county from restricting KPRA to less than 38 feet, revised restriction ordinances based on number of
vehicle axles have been prepared for approval by the Cities.

The 2019 ordinances were developed under the concept of building from the current 38-foot KPRA and
30-foot KPRA posted route advisory. However, upon review of California Vehicle Code Section 35401, the
minimum restriction for a KPRA restriction by a City or County is 38 feet. Therefore, this study provides
the justification for a restriction of vehicles by number of axles to meet the operational objectives of
providing reasonable notification of alternative routing for large vehicles which could pose an operational
issue to State Route 142 until such point that a physical modification of the S-curve section of roadway
can be implemented.
1.2 Legal Basis for Prohibiting the Use of a Highway for Certain Vehicles

A local authority can prohibit the use of certain vehicles through ordinance or resolution. However, for an ordinance that prohibits the use of state highway for certain types of vehicles requires the local authority to submit a complete draft form for written approval to Caltrans before enacting the restriction. These legal guidelines are contained in the California Vehicle Code (CVC).

- "Local authorities...may adopt rules and regulations by ordinance or resolution... (c) Prohibiting the use of particular highways by certain vehicles..." CVC §21101
- "No ordinance or resolution proposed to be enacted under Section 21101...is effective as to any highway not under the exclusive jurisdiction of the local authority enacting the same, except that an ordinance or resolution which is submitted to the Department of Transportation by a local legislative body in complete draft form for approval...is effective as to any state highway..." CVC §21104
- “No rule or regulation... shall be effective as to boundary line streets where portions thereof are within different jurisdiction unless approved by all authorities having jurisdiction of such portions of the street concerned have approved the same.” CVC §21105

Restrictions of KPRA distance have specific guidance under CVC § 35401:

- “A city or county, upon a determination that a highway or portion of highway under its jurisdiction cannot, in consideration of public safety, sustain the operation of trailers or semitrailers of the maximum kingpin to rearmost axle distances permitted under Section 35400, may, by ordinance, establish lesser distances consistent with the maximum distances that the highway or highway portion can sustain, except that a city or county may not restrict the kingpin to rearmost axle measurement to less than 38 feet on those highways or highway portions...” CVC §35401 (e)

- The Department of Transportation may recommend restricting the maximum KPRA lengths on certain highways, but to not less than 38 feet. By January 1, 1989, the Department shall erect advisory signs on state highways that cannot safely accommodate trailers or semitrailers of the maximum kingpin to rearmost axle distances permitted. CVC §35401. (f)

Special Route Restrictions are in place where justified through the Caltrans truck restriction guidelines. There are approximately 20 State route segments with specific truck restrictions, including number of...
axles, gross weight, length, and cargo type. The proposed five or more axle restriction is consistent with the special route restrictions based on number of axles on:

- State Route 1: Topanga Canyon Blvd. (Rte 27) from postmile 40.77 to 59.90 - No through trucks, or truck and trailer combinations, with 4 or more axles. (Otherwise, route is California Legal.)
- State Route 2: Jct with 210 in La Canada Flintridge from postmile 24.41 to 79.9 – Commercial vehicles with 3 or more axles, or a gross vehicle weight of 9,000 pounds or more are prohibited. For exceptions, see CVC Section 35655.6(b).

The proposed restriction would not prohibit the use of the roadway for the purposes of deliveries to residential streets in the corridor. CVC §35703 states: “No ordinance adopted pursuant to Section 35701 shall prohibit any commercial vehicles coming from an unrestricted street having ingress and egress by direct route to and from a restricted street when necessary for the purpose of making pickups or deliveries of goods, wares, and merchandise from or to any building or structure located on the restricted street or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling, or construction of any building or structure upon the restricted street for which a building permit has previously been obtained.” These delivery and service vehicles could utilize the roadway through an Oversized Vehicle Permit, if their load is considered oversized or overweight, from the City of Brea and/or a Wide/Overweight Permit from the City of Chino Hills\(^3\). The restriction would also specifically exempt emergency and fire suppression vehicles.

1.3 Truck Restriction Process

The following steps considered in the truck restriction are in accordance with the following CVC Sections: CVC §21101(c) to prohibit "certain vehicles" on local routes and CVC §21104 to prohibit "certain vehicles" on State routes; CVC §35701 to prohibit vehicles by weight on local routes, and CVC §35702 to prohibit vehicles by weight on State routes.

1. **Local Agency Prepares a Draft Truck Restriction Ordinance or Resolution.** The local agency prepares a draft ordinance or resolution of the proposed truck restriction and informs the Caltrans Districts 8 and 12 Truck Staff. The ordinance or resolution must cite the CVC Section providing the justification for the truck restriction. Caltrans districts should notify the Headquarters Office of Commercial Vehicle Operations in writing as soon as possible after learning of a truck restriction proposal. Districts should request and forward copies of local agencies’ draft ordinances or resolutions to Headquarters Office of Commercial Vehicle Operations (CVO), Legal and Environmental Programs for review.

2. **Local Agency Prepares Initial Study (this document).** The initial study provides the information necessary to justify the proposed restriction, and may also indicate if the proposed restriction is subject to California Environmental Quality Act (CEQA) review. The

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\(^3\) Permits are issued through the City of Chino Hills Community Development Department: https://www.chinohills.org/DocumentCenter/View/1508/Wide-Overweight-Permit-and-Guidelines?bidId
initial study allows the preliminary submittal of information by Caltrans, local agencies, and California Highway Patrol staff, as well as initial comments from the trucking industry, affected industries, and citizen groups. It should include the proposed restriction type, location, existing conditions, alternatives, maintenance and safety considerations on the alternative route(s), any initial public comment, and conditions that may involve further CEQA compliance.

3. **Local Agency Provides Public Review and Comment Period.** During the public review period, the local agency gives public notice of the proposed truck restriction, and public hearings can be advertised and held. All documentation acquired to date regarding the proposed truck restriction should be available for public review prior to the public hearing.

4. **Local Agency Receives Comments and Prepares Final Truck Restriction Report.** The local agency considers all comments received. If the local agency still wants to proceed with the proposed restriction, a final truck restriction report is prepared and forwarded to the Caltrans district office. This final report includes any comment revisions, and the draft restriction ordinance or resolution. The Caltrans District Director forwards the report with the District's recommendations to the Caltrans Traffic Operations Division Chief at Headquarters.

5. **Caltrans Traffic Operations Submits Recommendation to the Director's Office.** The Traffic Operations, Office of CVO, in cooperation with Caltrans Headquarters Environmental and Legal Divisions, prepares a recommendation regarding the truck restriction and submits it to the Caltrans Director's Office.

6. **Caltrans Director Issues Written Approval.** If approved, the Caltrans Director issues a written approval of the draft ordinance of resolution for the truck restriction.

7. **Local Agency Passes Final Truck Restriction Ordinance or Resolution.**

8. **Local Agency/Caltrans Erects Restriction Signs, and Restriction is Enforced.**
2.0 KEY ISSUES

The City of Chino Hills has sought feedback from community members on issues relating to traffic operations along the corridor (via prior studies, discussed further in the next section). In addition to written comments provided by residents, Iteris and City staff received comments regarding truck movements, with particular attention to S-curves (switchbacks).

Observations from previous studies along the corridor included:

- Large trucks were observed at multiple instances creating a significant delay at the switchback section since they had to maneuver slower than passenger vehicles around tight turns. Currently there is no place for trucks to pull over to allow traffic that was delayed through the corridor.
- Large trucks were observed contributing to approximately 10-20 minutes of delay due to steep grades and tight turns which reduce the speed trucks can travel in the corridor.
3.0 EXISTING CONDITIONS

This section presents existing conditions along the corridor, which includes review of previous planning efforts and discussion of vehicle demand and geometric conditions.

3.1 Planning Context

In October 2016, City of Chino Hills staff began the effort to identify a solution by meeting with Caltrans District 8 officials and staff from the City of Brea. The meetings shed some light on the challenges of truck traffic, among other issues, on Carbon Canyon Road. One of the first significant tasks undertaken was the initiation and completion of an initial (Phase 1) traffic study funded by the City of Chino Hills.

As a result of the collaboration between the various agencies, the City of Chino Hills took the lead and retained a transportation engineering consultant to prepare an initial traffic study for the Carbon Canyon Corridor. The objective of this study was to provide overall background information and recommendations on what steps to take to address the traffic issues along Carbon Canyon Road and, in particular, the large-truck traffic concerns. The consultant completed the initial study in March of 2017. The study was then submitted and reviewed by the City of Brea, who forwarded the report to Caltrans District 12 (Orange County). Likewise, Chino Hills City staff submitted the report to Caltrans District 8 for their review.

The Initial Study - Phase 1 identified several tasks for the follow-up study (Phase 2). This initial study was presented to the Public Works Commission on May 3, 2017, at which time the Commission received and filed the report and supported staff’s efforts to develop a scope of work for a Phase 2 study, with an emphasis on large-truck traffic/operational issues along Carbon Canyon Road.

On February 27, 2018, the City hired Iteris, Inc. (Iteris) to perform the second phase of this study. This phase focused primarily on the large truck traffic issues in the Carbon Canyon Corridor. Iteris completed a draft of the second phase study report in October of 2018 and the report received support from the City of Brea’s staff. On January 9, 2019, staff and Iteris presented the draft study to the Public Works Commission and received their support in submitting it to Caltrans. At this meeting, several residents provided input regarding the study.

Prior to submittal to Caltrans, the Councils of both cities prepared resolutions which requested Caltrans to restrict large truck traffic from this roadway. On March 26, 2019, the Chino Hills City Council adopted a resolution which requests Caltrans to prohibit excessively large sized trucks from utilizing this highway. And, on June 4, 2019, the City of Brea adopted a similar resolution. Both resolutions, along with the completed study, were submitted to Caltrans on June 19, 2019.
3.2 Literature Review

This section summarizes the review of relevant studies, data, policies, and requirements related to support of the restriction of large vehicles and development of improvement projects on Carbon Canyon Road State Route 142, as part of the Carbon Canyon Road Phase II Study. The effort included a review of the Initial Corridor Evaluation Study, as well as applicable City of Chino Hills, City of Brea, Orange County, San Bernardino County, Caltrans, and regional plans as they relate to State Route 142.

The key findings from the literature review are:

- State Route 142 is defined as a MAP-21 Principal Arterial in the National Highway System (NHS).
- There are sections of Carbon Canyon Road where current roadway grade is above the Caltrans Highway Design Manual standard of seven percent grade for a mountainous rural highway.
- The steep grades impact the ability of trucks to move through the corridor at speeds near posted speeds and roadway switchbacks, located near the highest part of the route, provide a challenge to truck movements and other vehicle movements. Slow truck movements also impact other vehicle movements.
- The current City of Chino Hills General Plan Circulation Element includes the following policies:
  - Continue to assert that all improvements to and maintenance of the portion of Chino Hills Parkway/Carbon Canyon Road that is part of State Route 142 shall be the responsibility of the State of California; and
  - Retain the switchbacks on Carbon Canyon Road between Feldspar Drive and the Western Hills Country Club.

3.3 Geometric Conditions

State Route 142 is under the jurisdiction of the California Department of Transportation and located within the Cities of Chino Hills and Brea. From Chino Hills Parkway on the northeast to Valencia Avenue on the southwest, the corridor is approximately 8.4 miles long. The segment within Chino Hills is 3.8 miles long and the segment within Brea is 4.6 miles long. While the segment within Chino Hills is physically shorter, it includes 12 intersections whereas the Brea segment includes eight intersections. The majority of the project segment is a two-lane undivided roadway, with the roadway widening in the approach and departures of the intersections at each end of the corridor (Valencia Avenue and Chino Hills Parkway).

From the southwest to the northeast, the roadway has an upward grade through Carbon Canyon to a summit east of Carriage Hills Lane. The grades from the summit to Chino Hills Parkway are greater than the southwestern section and include an S-curve switchback section.

3.4 Existing Traffic Volumes

Traffic volumes were collected on May 24, 2018, on a typical weekday with local schools in session during the a.m. peak period (7:00 – 9:00 a.m.) and p.m. peak period (4:00 – 6:00 p.m.). In addition, 24-hour volume data was collected along the corridor, which included truck classification counts (large 2-axle, 3-axle, 4+-axle). Existing volumes provide a baseline to evaluate current performance of the circulation.
system and are used as the basis of future forecast volumes.

The following summarizes the results of the data collection:

- The Average Daily Traffic (ADT) volume through the corridor is approximately 15,700 in the vicinity of the Canyon Hills Road intersection (nearly mid-point of corridor).
- During the a.m. peak hour, the peak direction of traffic is west/southbound. The highest hourly west/southbound volume is 1,333 vehicles.
- During the p.m. peak hour, the peak direction of traffic is east/northbound. The highest hourly east/northbound volume is 1,254 vehicles.
- During the 24-hour period, there were two eastbound and zero westbound trucks with four or more axles and 21 eastbound and 22 westbound trucks with three axles.
- During the 24-hour period, approximately 1.3% of vehicles counted were trucks, the majority of which were large 2-axle trucks.

The daily volumes along the corridor were evaluated in comparison to theoretical roadway capacities, in order to identify deficiencies in the roadway network. In this analysis, a segment was considered deficient having a volume-to-capacity ratio of 1.00 or greater, and is considered near capacity with a volume-to-capacity ratio above 0.90. Table 1 summarizes the daily volumes, the planning-level capacity of the roadway, and the corresponding level of service (LOS) based on the volume-to-capacity ratio. For two-lane undivided roadways, the theoretical capacity is assumed as 13,000 vehicles per day, while the four-lane divided roadway capacity is assumed as 30,000 vehicles per day.

<table>
<thead>
<tr>
<th>Carbon Canyon Road Location</th>
<th>Lane Configuration</th>
<th>Planning-level Capacity (veh/day)</th>
<th>Daily Volume</th>
<th>V/C</th>
<th>Level of Service (LOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Cyn south of Chino Hills Pkwy</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>16,800</td>
<td>1.29</td>
<td>F</td>
</tr>
<tr>
<td>Carbon Cyn north of Canon Ln</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>14,000</td>
<td>1.08</td>
<td>F</td>
</tr>
<tr>
<td>Carbon Cyn north of Canyon Hills</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>15,670</td>
<td>1.21</td>
<td>F</td>
</tr>
<tr>
<td>Carbon Cyn north of Rosemary Ln</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>12,100</td>
<td>0.93</td>
<td>E</td>
</tr>
<tr>
<td>Carbon Cyn east of Olinda Pl</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>11,800</td>
<td>0.91</td>
<td>E</td>
</tr>
<tr>
<td>Carbon Cyn east of Ruby St</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>11,900</td>
<td>0.92</td>
<td>E</td>
</tr>
<tr>
<td>Carbon Cyn east of Brea Hills Ave</td>
<td>2-lane undivided</td>
<td>13,000</td>
<td>12,300</td>
<td>0.95</td>
<td>E</td>
</tr>
<tr>
<td>Carbon Cyn east of Santa Fe Rd</td>
<td>4-lane divided</td>
<td>30,000</td>
<td>12,500</td>
<td>0.42</td>
<td>A</td>
</tr>
<tr>
<td>Carbon Cyn east of Valencia Ave</td>
<td>4-lane divided</td>
<td>30,000</td>
<td>14,900</td>
<td>0.50</td>
<td>A</td>
</tr>
</tbody>
</table>

Notes: V/C = Volume-to-Capacity ratio, Level of Service (LOS)

As shown in Table 1, the majority of Carbon Canyon Road segments (Chino Hills and Brea) have daily volumes that either exceed or are near the theoretical capacity for a roadway of that configuration (two-lane undivided).
3.4.1 Bicycles and Pedestrians

There are currently no sidewalks along Carbon Canyon Road, with limited curbs and gutters in a few locations. Shared lane markings for bicycles (sharrows), which are V-shaped road markings indicating to drivers that the roadway should be shared with bicyclists, are painted in the travel lanes in the corridor including through the S-curve portion of the roadway.

3.5 Corridor Speed Evaluation

Speed limits vary along the Carbon Canyon Road corridor. From the northeast section (at Chino Hills Parkway) to Canyon Hills Road, the posted speed limit is 45 miles per hour. South of Canyon Hills Road, through the Sleepy Hollow neighborhood to the City/County limit, the posted speed limit is 35 miles per hour. Within this section, the roadway right-of-way narrows and the road curves, which contributes to lower travel speeds. Within the City of Brea, the posted speed limit reverts back to 45 miles per hour. The corridor has several curve warning signs with recommended speed limits of 30, 20, 15 mile per hour installed in the “S curve” portion of State Route 142 at the 40 mph regulatory speed zone segment. Caltrans conducted a speed survey study in 2016 on the San Bernardino County portion of State Highway 142 with the results shown in Table 2.

<table>
<thead>
<tr>
<th>Postmile from</th>
<th>Postmile to</th>
<th>Location</th>
<th>Speed Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>0.560</td>
<td>Orange Co In to 0.26 miles E of Rosemary Lane-RT</td>
<td>35</td>
</tr>
<tr>
<td>0.560 R</td>
<td>1.600</td>
<td>0.26 miles E of Rosemary Lane-RT, to 170 feet W of Ginseng Lane</td>
<td>45</td>
</tr>
<tr>
<td>R 1.600 R</td>
<td>2.850</td>
<td>170 feet W of Ginseng Lane, to 450 feet W of Feldspar Drive-RT</td>
<td>40</td>
</tr>
<tr>
<td>R 2.850 R</td>
<td>3.300</td>
<td>450 feet W of Feldspar Drive-RT, to 1,930 feet E of Feldspar Drive-RT</td>
<td>45</td>
</tr>
<tr>
<td>R 3.300 R</td>
<td>3.865</td>
<td>1,930’ E Feldspar Drive-Rt, to Chino Hills Parkway</td>
<td>50</td>
</tr>
</tbody>
</table>

3.6 Collision Data

Collision data along Carbon Canyon Road was obtained for both the City of Chino Hills and City of Brea segments, from Caltrans Districts 8 and 12, respectively. Table 3 shows the collisions per segment as compared to the statewide average, from north to south for the Chino Hills section (i.e., San Bernardino County), over a three-year period from July 1, 2018 to June 30, 2021. Table 4 shows the collisions compared to the statewide average in the Brea section (i.e., Orange County), over a five-year period from January 1, 2016 to December 31, 2020.
<table>
<thead>
<tr>
<th>Carbon Cyn Rd Segments (north to south)</th>
<th>Length (miles)</th>
<th>Postmile (PM)</th>
<th>Number of Collisions</th>
<th>Collision Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fat</td>
<td>F+I</td>
</tr>
<tr>
<td>Chino Hills Pkwy to Feldspar Dr</td>
<td>0.95</td>
<td>R3.865 to R2.935</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Feldspar Dr to Old Carbon Cyn Rd</td>
<td>0.21</td>
<td>R2.935 to 2.72</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Old Carbon Cyn Rd to Azurite Dr</td>
<td>0.22</td>
<td>2.72 to 2.49</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Azurite Dr to Carriage Hills Ln</td>
<td>0.56</td>
<td>2.49 to 1.93</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Carriage Hills Ln to Fairway Dr</td>
<td>0.24</td>
<td>1.93 to R1.63</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Fairway Dr to Valley Springs Rd</td>
<td>0.15</td>
<td>R1.63 to R1.48</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Valley Springs Rd to Canon Ln</td>
<td>0.21</td>
<td>R1.48 to 1.24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Canon Ln to Canyon Hills Rd</td>
<td>0.50</td>
<td>1.24 to R0.77</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Canyon Hills Rd to Rosemary Ln (East)</td>
<td>0.44</td>
<td>R0.77 to 0.30</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Rosemary Ln to Oak Way Ln</td>
<td>0.18</td>
<td>0.30 to 0.14</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Oak Way Ln to Rosemary Ln/Hillside Dr</td>
<td>0.05</td>
<td>0.14 to 0.09</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Rosemary Ln (West)/Hillside Dr to City line</td>
<td>0.09</td>
<td>0.09 to 0.00</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

1 = Segment includes S-curve
Fat = Fatality, I = Injury

As shown, a total of 67 collisions resulting in 24 injuries and one fatality were recorded during this period along Carbon Canyon Road in the San Bernardino County segment. The total collision rate for the Old Carbon Canyon Road to Azurite Drive facility is higher than the average collision rate for similar facilities statewide (0.77 Actual versus 0.62 Average). All other segments had total collision rates below the statewide average.
As shown, a total of 127 collisions resulting in 43 injuries and one fatality were recorded during this period along Carbon Canyon Road in the Orange County segment. The total collision rate for the facility is higher than the average collision rate for similar facilities statewide (0.80 Actual versus 0.70 Average).
4.0 LAND USE AND TRAFFIC FORECASTS

Land use in the State Route 142 corridor is predominately low-density residential and open space. The land use in Brea adjacent to the SR-142 are low-density residential, very low-density residential, with medium density residential (Hollydale Mobilehome Estates). In Chino Hills the land use adjacent to the State Route 142 are low-density residential, agriculture/ranches, and public open space.

The Southern California Association of Governments (SCAG) 2016 RTP/SCS model was used to evaluate long-range traffic growth along the corridor. This version of the model is considered to be the most up-to-date version at the time. The land use assumptions were taken directly from the SCAG 2016 RTP model, and are values that were developed by SCAG in coordination with and approval by each jurisdiction in the six-county region (using the most up-to-date information at the time). The SCAG model’s base year scenario is 2012 and the future year scenario is 2040. Along Carbon Canyon Road, the projected growth in traffic volumes is approximately 10% to 15% between the base and future year scenarios. Along with this growth, truck traffic would increase accordingly, though is forecast to remain at approximately the same percentage of total volume as in existing conditions.

Traffic growth is also anticipated along freeways in the vicinity of Carbon Canyon Road, including State Route 91, State Route 57, and State Route 71. During the most congested conditions, there is the potential that traffic utilizing these freeways would utilize Carbon Canyon Road instead.

In addition, it is understood that the City of Corona is currently evaluating the Trails of Corona project, a mixed-use development project comprising approximately 104.8 acres (425 single-family residences). When fully built out, this project has the potential to increase traffic volumes along State Route 71 through Chino Hills, as well as the other freeways in the vicinity.

5.0 OPERATIONAL CONSIDERATIONS

Stakeholder outreach indicated truck and large vehicle usage of the roadway as an operations concern. While the volume of trucks using Carbon Canyon Road is low (1.3% of total vehicles per day), their presence is amplified by the roadway’s geometric conditions: change in elevation, tight curves, steep curves, and a switchback section of roadway.

5.1 Geometric Conditions/Observations

This section includes a discussion of the corridor’s vertical alignment, S-curve turning radii, and observations of heavy vehicles movements.
5.1.1 Vertical Alignment

Since trucks are bigger and heavier than passenger vehicles, they are slower to accelerate, require longer stopping distances, and have larger turning radii than a passenger car. Trucks are more adversely impacted by uphill grades. The truck operating speed on a roadway is determined by the truck speed at the beginning of the grade, the grade of the slope, and the grade length.

On long uphill grades, trucks eventually reach a crawl speed. Within the corridor on both approaches there are slopes that average between 6-8 percent which can affect the trucks travel speeds without slowing down the traffic flow within the corridor. Furthermore, the turn radii are tight, trucks often have to swing wide, encroaching into the adjacent lane, so that the trucks do not ride up onto a shoulder area. This is of particular concern on undivided two-lane roadways (such as State Route 142) where the trucks must encroach into the oncoming traffic lane when passing through tight curves, conflict with oncoming traffic, and create operational concerns.

Steep grades greatly affect truck operating speeds, as well as overall roadway capacity. Section 204.5 in the Caltrans Highway Design Manual offers guidance on Sustained Grades, which are applicable along State Route 142 due to the mountainous terrain. The length of an uphill grade also affects the roadway capacity, LOS and truck travel speed. When the truck running speed falls ten miles per hour or more below the running speed of remaining traffic, a climbing lane should be considered. However, the addition of this roadway width may not be feasible.

5.1.2 Turning Radii

The S-curve switchbacks section of the roadway west of Old Carbon Canyon Road does not meet current design standards. The curve radius is approximately 30 feet as observed. Note that even at a design speed of only 20 miles per hour, the minimum curve radius per the Caltrans Design Manual is set at 130 feet. The posted speed limit for State Route 142 varies from 40 to 45 miles per hour, which requires a minimum curve radius of at least 550 feet, though the section does include curve warning signs with recommended speed limits of 30, 20, and 15 miles per hour.

Large vehicles need to slow and have the potential to off-track to navigate narrow turns. Off-tracking means the front and rear wheels follow different paths when turning. Off-tracking results in trucks entering shoulder areas and the opposing traffic lanes. Since State Route 142 is a two-lane facility, the encroachment of large vehicles on shoulder areas and opposing traffic lanes is an operational and delay concern. Improvement of the roadway to eliminate the geometric constraints for large vehicles on State Route 142 would be a long-term project at high cost to address issues related to 1.3% of the vehicles traveling on the roadway.

During the Phase 1 study, multiple truck sizes were observed using the roadway. The largest truck observed to use the roadway was a WB-40 type truck. The observer was traveling eastbound ahead of the truck in order to log the approximate delay time that the WB-40 size of truck would cause on the corridor and identified a 15-minute window that traffic was delayed coming out of Carbon Canyon onto Chino Hills Parkway. This was due to the combined effects of the grade approach leading up to the summit at Carriage
Hills Lane and the required slow maneuvering speed through the switchbacks.

A WB-40\textsuperscript{4} truck turning template using AutoTURN 8.1 software was used to analyze swept path maneuvers for the truck movements along the curves. A WB-40 truck as a wheelbase of 40 feet and an overall length of 45 feet six inches. All vehicle dimensions and swept paths are based on standards from AASHTO’s \textit{A Policy on Geometric Design of Highways and Streets}. It is the length of wheelbase that governs the truck turning path for each truck type. The longer the wheelbase, the wider the turning radius of the truck.

The Phase 1 study found, based on the WB-40 truck path, turning trucks may take up the entire lane in certain areas. The roadway is more constrained in the Sleepy Hollow community because of the narrow shoulders and residences being adjacent to the roadway in the areas near Rosemary Lane and Francis Drive where the roadway is approximately 24-feet with a 2-foot shoulder.

Similarly, the Phase 2 study found that in order for a WB-40 to avoid infringing on the centerline in the S-curve section, the vehicle would need to infringe on the shoulder/dirt area along the inside of the curve. Based on the field observations, truck drivers chose to infringe across the centerline in the absence of opposing traffic. Under light traffic conditions, this is a reasonable accommodation in the limited roadway geometrics. However, during peak travel times this can force a large vehicle driver to choose from driving in the shoulder or across the roadway centerline and be a hazard to opposing traffic or to cyclists and pedestrians who may be utilizing the shoulder area.

\textsuperscript{4} A WB-40 truck is considered a medium sized semi-truck with a 40-foot wheelbase with a typical length of around 45 1/2 feet and 8 feet in width.
Figure 3
Truck Turning (AutoTURN WB-40)
A potential mitigation for this difficult turning maneuver would be for Caltrans to widen the roadway. The details of this potential mitigation will be determined during project development.

Some recent incidents involving heavy vehicles include the following:

- April 12, 2021 – A semi-truck travelling uphill collided with a passenger vehicle travelling downhill, as a result of the truck encroaching in the opposing lane.
- July 21, 2021 – A semi-truck was disabled, resulting in the blockage of both travel lanes for approximately 45 minutes, at approximately 2:00 p.m. in the afternoon.
- August 12, 2021 – A resident reported that a semi-truck traveling downhill encroached into the opposing travel lane, resulting in the resident veering onto the shoulder to avoid a collision. Other vehicles behind the resident’s vehicle needed to stop as well.

5.1.3 24-Hour Observations of S-Curve Section

As part of the Phase 2 study, 24-hour video camera footage of the Carbon Canyon Road segment within the switchback area was collected over a seven-day period from July 13 to July 20, 2018. The purpose of the video collection was to observe heavy truck maneuvers down the hill, specifically at the two curves between postmile SBD 2.460 and SBD 2.220. Two cameras were utilized, placed at the locations shown in Figure 4.

During the course of the video collection, multiple occasions were observed where heavy trucks either slightly infringed or fully crossed over the roadway centerline. Figure 5 shows video screenshots of a few of these recorded maneuvers. As shown in the sequence of screenshots, some trucks were observed crossing the centerline by approximately 4 to 5 feet at the beginning of their turn and up to approximately 12 feet at the end of their turn.
Figure 5 – Observed Heavy Vehicle Turning Maneuvers
State Route 142 (Carbon Canyon Road)
Truck Restriction Study

[Images of road scenes with trucks and cars]

Iteris, Inc. | 24
Currently, trucks are not restricted on State Route 142; however, it is a posted advisory route. At the southern Chino Hills City limit, currently there is a sign that reads “TRACTOR-SEMIS OVER 30 FEET KINGPIN-TO-REAR AXLE NOT ADVISED”. At the northern end of the corridor, south of Chino Hills Parkway, currently there is a sign that reads “VEHICLE LENGTH OVER 50 FT NOT ADVISED BEYOND OLD CANYON RD”. Also, the same sign is located approximately 850 feet east of Old Carbon Canyon Road. Based on the video observations, analysis of the corridor, and limited options for altering road geometrics, it was initially recommended that the advisory be revised to prohibit vehicles that are over 30 feet kingpin-to-rear axle. Given the low usage of the corridor by heavy trucks, restricting trucks would likely have only a minor impact to commerce and traffic operations along alternate routes. In addition, the majority of truck volume occurs outside of the a.m. and p.m. peak hours. The two alternate routes to accommodate trucks from State Route 142 would be State Route 71 to State Route 91 to State Route 90 on the east and State Route 71 to State Route 60 to Route 57 on the west. These major freeway routes are reasonable alternatives to State Route 142, which is currently not advised for large vehicles.

Transportation regulations are to ensure that trucks have safe operating characteristics (fitting under bridges, adequate turning radius, stopping capability, etc.) and that trucks do not create undue damage to state highways and city streets. The California Vehicle Code (CVC) does allow local jurisdictions to issue permits to vehicles in excess of these size or weight standards. In order for the local jurisdiction to impose restrictions on a state highway, the restriction ordinance or resolution must be submitted to Caltrans for approval before enactment.

### 5.2 Proposed Restriction Type

As part of the evaluation of a potential truck restriction along Carbon Canyon Road, two Caltrans truck restriction reports, along State Route 108 and State Route 152, were reviewed. The Carbon Canyon Road segment evaluated in this report has common conditions and issues with those other routes.

In both corridors, truck traffic was interrupting traffic flow and off-tracks and encroaches either the opposing lane or onto unpaved road shoulders. Each previous study indicated a higher rate of collisions, however the severity of the Carbon Canyon Road ‘S’ curve is so extreme that it necessitates such slow speeds for vehicles to navigate. Thus, conflicts occur at slower speeds allowing drivers to react to overtracking and encroaching trucks. This is not a sustainable condition as previous reliance on driver alertness cannot overcome the geometric conditions of the infrastructure to fail to maintain longer vehicles within their lanes. Recent increases in traffic volumes may seem minor, however each additional vehicle represents a potential conflict within the geometrically constrained section of State Route 142. The strong community support to remove large truck trips from State Route 142 over concerns over conflicts with other vehicles was evident through the public outreach.

The analysis demonstrates that a WB-40 design medium-sized semitrailer-tractor vehicle under low-speed operation would off-track through the S-curve section of State Route 142. WB-40 design vehicle is a medium-sized semi-truck with four axles and a typical KPRA of 27.5 feet and total length of 45 feet six
State Route 142 (Carbon Canyon Road)
Truck Restriction Study

inches.\(^5\) CVC Section 35401(e) prohibits a city or county from restricting KPRA to less than 38 feet, therefore the proposed restriction must be based on number of axles. The analysis supports the finding that the constrained roadway geometrics and strong community support justify restriction of trucks with more than four axles on State Route 142.

The types of vehicles that would not be permitted on State Route 142 under this restriction would be any vehicle with five or more axles and would generally correspond to larger semi-trailer trucks of the Federal Highway Administration’s vehicle classifications of nine and above as seen in Figure 6. It should be noted that there may be some longer trucks with four-axle configurations.

Figure 6: FHWA Vehicle Classifications

<table>
<thead>
<tr>
<th>FHWA Vehicle Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motorcycles 2 axles, 2 or 3 tires</td>
</tr>
<tr>
<td>2. Passenger Cars 2 axles, can have 1- or 2-axis trailers</td>
</tr>
<tr>
<td>3. Pickups, Panels, Vans 2 axles, 4 tire single units Can have 1 or 2 axle trailers</td>
</tr>
<tr>
<td>4. Buses 2 or 3 axles, full length</td>
</tr>
<tr>
<td>5. Single Unit 2-Axle Trucks 2 axles, 6 tires (dual rear tires), single-unit</td>
</tr>
<tr>
<td>6. Single Unit 3-Axle Trucks 3 axles, single unit</td>
</tr>
<tr>
<td>7. Single Unit 4 or More-Axle Trucks 4 or more axles, single unit</td>
</tr>
<tr>
<td>8. Single Trailer 3- or 4-Axle Trucks 3 or 4 axles, single trailer</td>
</tr>
<tr>
<td>9. Single Trailer 5-Axle Trucks 5 axles, single trailer</td>
</tr>
<tr>
<td>10. Single Trailer 6 or More-Axle Trucks 6 or more axles, single trailer</td>
</tr>
<tr>
<td>11. Multi-Trailer 5 or Less-Axle Trucks 5 or less axles, multiple trailers</td>
</tr>
<tr>
<td>12. Multi-Trailer 6-Axle Trucks 6 axles, multiple trailers</td>
</tr>
<tr>
<td>13. Multi-Trailer 7 or More-Axle Trucks 7 or more axles, multiple trailers</td>
</tr>
</tbody>
</table>


5.2.1 Restriction Limits and Signage

Advance warning signage of the route restriction would need to be posted in advance of the restricted portion of roadway to allow California Legal trucks the ability to turn from entering the restricted route at postmile ORA R1.775, Carbon Canyon at Lambert Road/Valencia Avenue, in the City of Brea in Orange County (Caltrans District 12) to postmile SBD R3.855 at Chino Hills Parkway in the City of Chino Hills in San Bernardino County (Caltrans District 8).

6.0 ALTERNATIVES

As an alternative to the restriction of vehicles with more than four axles, roadway widening may be considered. Caltrans has evaluated options for widening the roadway and straightening the S-curve, and currently has a planned widening project (EA 1M780) to accommodate truck turns. The project proposes to widen the highway S-Curve between Carriage Hills Lane and Azurite Drive. The project is scheduled to be completed by late 2029.
7.0 PUBLIC COMMENTS

In the past, the City of Chino Hills has sought feedback from community members on issues relating to traffic and safety along the corridor. In addition to written comments provided by residents, Iteris and City staff received comments during a June 14, 2018 meeting. Past community feedback and the 2018 meeting included other issues as well.

Based on the contents of this report, a draft ordinance, addressing the proposed truck restriction, was prepared. The draft ordinance is summarized below and provided in Appendix A.

SECTION 2. Chapter 10.38 is added to the Chino Hills Municipal Code to read as follows:

“CHAPTER 10.38 - VEHICLE AXLE LIMITATIONS ON CARBON CANYON ROAD (STATE ROUTE 142)

Section 10.38.010 Vehicle Axle Limitations on Carbon Canyon Road (State Route 142)

- **A.** Except as provided in subsection C below, or as otherwise provided by law, vehicles or vehicle combinations with more than four axles shall not be operated on Carbon Canyon Road (State Route 142) within the City of Chino Hills.
- **B.** Prior to the enforcement of the prohibition in this Section, all entrances to the City from routes where vehicles or vehicle combinations with more than four axles are permitted shall be posted with signs indicating that vehicles or vehicle combinations with more than four axles are prohibited.
- **C.** Exceptions
  - 1. Nothing in this section shall prohibit vehicles from driving on state highways which are included in the National System of Interstate and Defense Highways.
  - 2. Nothing in this section shall prohibit the ingress to and egress from Carbon Canyon Road (State Route 142) by vehicles to and or from permitting routes when necessary for the purpose of making pickups or deliveries of goods, wares and merchandise from or to any building or structure located on a city street, or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling or construction of any building or structure upon a city street for which a building permit has previously been obtained.
  - 3. The provisions of this section shall not apply to vehicles subject to Sections 1031 to 1036, inclusive, of the Public Utilities Code.
  - 4. The provisions of this section shall not apply to any city licensed refuse hauling vehicles while picking up refuse, waste, or garbage pursuant to such license.
  - 5. The provisions of this section shall not apply to school buses or buses transporting persons engaged in any type of authorized school activity.

10.38.020 - Violation - Penalty.

Any person violating Section 10.38.010 of this chapter is guilty of an infraction punishable by a fine in the amount established by state law pursuant to California Vehicle Code Section 42001, any successor
provision or other applicable provision.”

In addition, the corresponding City of Brea draft ordinance is provided in Appendix A.

8.0 ECONOMIC ANALYSIS

If vehicles or vehicle combinations with more than four axles are prohibited on State Route 142, the driving distance between the State Route 142/State Route 90 junction (in Brea) and the State Route 142/State Route 71 junction (in Chino Hills) would be 7.4 and 12.9 miles longer by the two shortest alternatives. The distances are:

- Via State Route 142 – 11.3 miles.
- Via State Route 57 and State Route 60 – 18.7 miles.
- Via State Route 91 – 24.2 miles.

There are approximately two trucks per day with four or more axles that use State Route 142, which would be subject to the proposed restriction. Based on a fuel cost of $5.00 per gallon and a mile per gallon rating of seven miles per gallon, the extra fuel cost of the alternate routes would be $5.29 and $9.21 per truck per trip. However, it should be noted that travel through the hilly State Route 142 corridor would reduce fuel economy.

9.0 CEQA/NEPA COMPLIANCE

The California Environmental Quality Act (CEQA) lead agency is Caltrans. Caltrans has determined that the proposed regulation is exempt from CEQA as a Categorical Exemption Class 1(c), existing highway operation with no expansion of use. Further, Caltrans determined that the proposed regulation is not applicable under the National Environmental Protection Act (NEPA). The signed Categorical Exemption/Categorical Exclusion Determination Form is provided in Appendix B.
APPENDIX A – ORDINANCES
ORDINANCE NO. 403

AN ORDINANCE OF THE CITY OF CHINO HILLS, ADDING CHAPTER 10.38 TO TITLE 10 (VEHICLES AND TRAFFIC) OF THE CHINO HILLS MUNICIPAL CODE TO IMPOSE VEHICLE AXLE LIMITATIONS TO PROHIBIT VEHICLES OR VEHICLE COMBINATIONS WITH MORE THAN FOUR AXLES TO BE OPERATED ON CARBON CANYON ROAD (STATE ROUTE 142) AND FINDING THE ORDINANCE EXEMPT FROM REVIEW UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, Vehicle Code § 21101(c) authorizes local authorities, for those highways under their jurisdiction, to prohibit the use of particular highways by certain vehicles, subject to certain exceptions; and

WHEREAS, Vehicle Code § 35701 authorizes local authorities to prohibit the use of a street by any commercial vehicle or by any vehicle exceeding a maximum gross weight limit on streets and highways within the local authority’s jurisdiction, with certain exceptions; and

WHEREAS, the City retained a professional traffic consultant (Iteris, Inc.) to conduct a thorough study and to make recommendations regarding the potential restriction of vehicles based on the number of axles for legal access onto Carbon Canyon Road (State Route 142); and

WHEREAS, the Iteris study revealed potentially serious safety and operational concerns with respect to travel along Carbon Canyon Road by vehicles or vehicle combinations with more than four axles and recommended that the City impose a restriction on such vehicles; and

WHEREAS, in order to advance important safety and operational objectives, the City of Chino Hills desires to impose a vehicle axle limitation on Carbon Canyon Road (State Route 142); and

WHEREAS, adoption of this Ordinance is not subject to review under the California Environmental Quality Act (“CEQA”) for the reasons detailed herein; and

WHEREAS, the California Department of Transportation requires a City to conduct an analysis of typical traffic volumes and roadway conditions; and

WHEREAS, enforcement of said restrictions are the responsibility of the California Highway Patrol.
THE CITY COUNCIL OF THE CITY OF CHINO HILLS DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. CEQA. The City Council finds that this Ordinance is exempt from review under the California Environmental Quality Act, CEQA Guidelines Section 15061(b)(3), because it can be seen with certainty that there is no possibility that the Ordinance may have a significant effect on the environment. In addition, the project is exempt pursuant to CEQA Guidelines Section 15301 (Class 1) as it involves a minor alteration to an existing highway operation with no expansion of use. None of the exceptions set forth in section 15300.2 of the Guidelines is applicable.

SECTION 2. Chapter 10.38 is added to the Chino Hills Municipal Code to read as follows:

“CHAPTER 10.38 - VEHICLE AXLE LIMITATIONS ON CARBON CANYON ROAD (STATE ROUTE 142)

Section 10.38.010 Vehicle Axle Limitations on Carbon Canyon Road (State Route 142)

A. Except as provided in subsection C below, or as otherwise provided by law, vehicles or vehicle combinations with more than four axles shall not be operated on Carbon Canyon Road (State Route 142) within the City of Chino Hills.

B. Prior to the enforcement of the prohibition in this Section, all entrances to the City from routes where vehicles or vehicle combinations with more than four axles are permitted shall be posted with signs indicating that vehicles with more than four axles are prohibited.

C. Exceptions.

1. Nothing in this section shall prohibit vehicles from driving on state highways which are included in the National System of Interstate and Defense Highways.

2. Nothing in this section shall prohibit the ingress to and egress from Carbon Canyon Road (State Route 142) by vehicles to and or from permitting routes when necessary for the purpose of making pickups or deliveries of goods, wares and merchandise from or to any building or structure located on a city street, or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling or construction of any building or structure upon a city street for which a building permit has previously been obtained.

3. The provisions of this section shall not apply to vehicles subject to Sections 1031 to 1036, inclusive, of the Public Utilities Code.
4. The provisions of this section shall not apply to any city licensed refuse hauling vehicles while picking up refuse, waste, or garbage pursuant to such license.

5. The provisions of this section shall not apply to school buses or buses transporting persons engaged in any type of authorized school activity.

10.38.020 - Violation - Penalty.

Any person violating Section 10.38.010 of this chapter is guilty of an infraction punishable by a fine in the amount established by state law pursuant to California Vehicle Code Section 42001, any successor provision or other applicable provision.”

SECTION 3. Inconsistencies. Upon the effective date of this Ordinance, the provisions hereof shall supersede any inconsistent or conflicting provisions of the San Bernardino County Code as the same were adopted by reference by City Ordinance Nos. 91-01 and 92-02, including, but not limited to San Bernardino County Code section 53.092 which is expressly repealed. Any provision of the Chino Hills Municipal Code (CHMC) or appendices thereto inconsistent with the provisions of this Ordinance, to the extent of such inconsistencies and no further, is hereby repealed or modified to that extent necessary to effect the provisions of this Ordinance.

SECTION 4. Interpretation. This Ordinance must be broadly construed in order to achieve the purposes stated in this Ordinance. It is the City Council’s intent that the provisions of this Ordinance be interpreted or implemented by the City and others in a manner that facilitates the purposes set forth in this Ordinance.

SECTION 5. Effect of Repeal. Repeal of any provision of the CHMC does not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before this Ordinance’s effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 6. Effect of Invalidation. If this Ordinance or its application is deemed invalid by a court of competent jurisdiction, any repeal or amendment of the CHMC or other City Ordinance by this Ordinance will be rendered void and cause such previous CHMC provision or other City Ordinance to remain in full force and effect for all purposes.

SECTION 7. Preservation. Repeal or amendment of any previous Code Sections does not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before this Ordinance’s effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 8. Severability. If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the City Council intends that such invalidity
will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable.

SECTION 9. Certification. The City Clerk is directed to certify the passage and adoption of this Ordinance; cause it to be entered into the City of Chino Hills’ book of original ordinances; make a note of the passage and adoption in the records of this meeting; and, within fifteen (15) days after the passage and adoption of this Ordinance, cause it to be published or posted in accordance with California law.

SECTION 10. Effective Date. This Ordinance will take effect on the 30th day following its final passage and adoption.

PASSED, APPROVED, AND ADOPTED this _____ day of _____________, 20XX.

________________________________
PETER ROGERS, MAYOR

ATTEST:

________________________________
CHERYL BALZ, CITY CLERK

APPROVED AS TO FORM:

________________________________
MARK D. HENSLEY, CITY ATTORNEY
STATE OF CALIFORNIA            )
COUNTY OF SAN BERNARDINO       ) ss
CITY OF CHINO HILLS            )

I, CHERYL BALZ, City Clerk of the City of Chino Hills, DO HEREBY CERTIFY that Ordinance No. ___ was duly introduced at a regular meeting held [month] ___ st/rd/th, 20xx; and adopted at a regular meeting of the City Council held on the ___st/rd/th of [Month], 20xx by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

I, CHERYL BALZ, City Clerk of the City of Chino Hills further certify that summaries of the Ordinance were published on [month] ___ st/rd/th, 20xx and [month] ___ st/rd/th, 20xx in the Chino Hills Champion newspaper.

________________________________
CHERYL BALZ, CITY CLERK
ORDINANCE NO. 1239

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BREA PROHIBITING LARGE TRUCK USE OF CARBON CANYON ROAD (STATE ROUTE 142) AND APPROVING A CEQA EXEMPTION DETERMINATION

THE CITY COUNCIL OF THE CITY OF BREA DOES ORDAIN AS FOLLOWS:

A. RECITALS:

(i) Carbon Canyon Road (State Route 142) is under the jurisdiction of the State of California.

(ii) Pursuant to Vehicle Code Sections 35701(a) and 35702, with approval of the truck restriction report from the California Department of Transportation (“Caltrans”), the City may adopt an ordinance to prohibit the use of Carbon Canyon Road (State Route 142) by any vehicle exceeding a maximum gross weight limit.

(iii) Pursuant to Vehicle Code Sections 21101(c) and 21104, with approval of the truck restriction report from Caltrans, the City may adopt an ordinance to prohibit the use of Carbon Canyon Road (State Route 142) by certain vehicles.

(iv) The City of Brea and the City of Chino Hills retained a professional traffic consultant, Iteris, Inc., to conduct a thorough study of potential safety and operational concerns related to the operation of large trucks on Carbon Canyon Road (State Route 142).

(v) The Iteris studies identified serious operational safety and concerns with respect to travel on Carbon Canyon Road (State Route 142) by large trucks and recommended enactment of a prohibition.

(vi) On June 4, 2019, the City Council adopted Resolution No. 2019-041
recommending that the State of California prohibit trucks with kingpin-to-rear axle distance over 30 feet from traveling on Carbon Canyon Road (State Route 142) from Valencia Drive to the Orange County Line.

(vii) Caltrans has reviewed and granted written approval of this Ordinance.

B. ORDINANCE:

SECTION 1. The facts set forth in the Recitals, Part A of this Ordinance, are true and correct.

SECTION 2. Section 10.40.050 (Weights and Routes Designated) of Chapter 10.40 (Truck Routes and Terminals) of Title 10 (Vehicles and Traffic) of Part I (Municipal Code) of the Brea City Code is amended by adding a new paragraph E to read as follows:

“E. Paragraph B shall not apply to vehicles that are subject to the prohibition in Section 10.40.060.”

SECTION 3. Chapter 10.40 (Truck Routes and Terminals) of Title 10 (Vehicles and Traffic) of Part I (Municipal Code) of the Brea City Code is amended by adding a new Section 10.40.060 to read as follows:

“§ 10.40.060 Vehicle Axle Limitations on Carbon Canyon Road (State Route 142).

A. Vehicles or vehicle combinations with more than four axles are prohibited on Carbon Canyon Road (State Route 142) from Valencia Drive to the Orange County Line except as provided in paragraph B of this section. State routes 57, 60, 71 and 91 are designated as alternate routes for such vehicles.

B. Paragraph A of this section shall not apply to the following vehicles:

1. Vehicles actually involved in providing services, making pickups or deliveries of goods, wares and merchandise, or delivering construction materials to sites
on the restricted highway segment, and that have no other means of access.
2. Authorized refuse hauling vehicles actually picking up refuse, waste, recyclable material, or other garbage.
3. School buses or buses transporting persons engaged in any type of authorized school activity.
4. Authorized emergency and fire suppression vehicles.
5. Vehicles subject to Public Utilities Code Section 1031 et seq.

C. Any violation of this section may be prosecuted as an infraction or as a civil administrative action in the discretion of the City Attorney or City Prosecutor. The fine or administrative penalty shall be one hundred dollars ($100) per violation.”

SECTION 4. The Public Works Director shall cause appropriate signs to be erected to give notice of the prohibition imposed by this Ordinance.

SECTION 5. The City Council finds that this Ordinance improves the operation and safety of an existing highway. Adoption of this Ordinance is therefore exempt from California Environmental Quality Act (“CEQA”) review pursuant to Title 14, Section 15301 of the California Code of Regulations. Additionally, the City Council finds that it can be seen with certainty that there is no possibility that the adoption of this Ordinance may have a significant effect on the environment because this Ordinance will require a small number of vehicles to use an alternate route involving a slightly longer distance. It is therefore also exempt from CEQA review pursuant to Title 14, Section 15061(b)(3) of the California Code of Regulations.

SECTION 6. The City Council declares that, should any provision, section, paragraph, sentence, or word of this Ordinance be rendered or declared invalid by any final court
action in a court of competent jurisdiction, or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences, and words of this Ordinance shall remain in full force and effect.

SECTION 7. The City Clerk shall certify to the adoption of this Ordinance.

APPROVED AND ADOPTED this ___ day of __________, 2023.

________________________________________
Marty Simonoff, Mayor

ATTEST: __________________________________
Lillian Harris-Neal, City Clerk
I, Lillian Harris-Neal, City Clerk of the City of Brea, do hereby certify that the foregoing Ordinance was introduced at a regular meeting of the City Council of the City of Brea held on the ___ day of ___________, 2023, and was finally passed at a regular meeting of the City Council of the City of Brea held on the ____ day of ___________, 2023, by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

DATED: ________________, 2023

__________________________
Lillian Harris-Neal, City Clerk
APPENDIX B – CATEGORICAL EXEMPTION FORM
## Project Information

**Project Name (if applicable):** Truck Restriction Signs  
**DIST-CO-RTE:** 08-SBD-SR-142  
**PM/PM:** VAR/VAR  
**EA:** N/A  
**Federal-Aid Project Number:** N/A

## Project Description

Impose vehicle axle limitations to prohibit vehicles with more than four axles to be operated on Carbon Canyon Road (State Route 142) within the City of Chino Hills and the City of Brea.

## Caltrans CEQA Determination (Check one)

- [ ] Not Applicable – Caltrans is not the CEQA Lead Agency  
- [ ] Not Applicable – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:

- [ ] Exempt by Statute. (PRC 21080[b]; 14 CCR 15260 et seq.)  
- [X] Categorically Exempt. Class 1(c). (PRC 21084; 14 CCR 15300 et seq.)
  - [ ] No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the SER Chapter 34 for exceptions.

- [ ] Covered by the Common Sense Exemption. This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3]).

## Senior Environmental Planner or Environmental Branch Chief

- **Tracey D’Aoust Roberts**
- **Signature**
- **06/29/2023**

## Project Manager

- **Print Name**
- **Signature**
- **Date**
Caltrans NEPA Determination (Check one)
☒ Not Applicable

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☐ 23 USC 326: Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2022, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:
  ☐ 23 CFR 771.117(c): activity (c)(Enter activity number)
  ☐ 23 CFR 771.117(d): activity (d)(Enter activity number)
  ☐ Activity Enter activity number listed in Appendix A of the MOU between FHWA and Caltrans

☐ 23 USC 327: Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Print Name ____________________________ Signature ____________________________ Date ________________

Project Manager/ DLA Engineer

Print Name ____________________________ Signature ____________________________ Date ________________

Date of Categorical Exclusion Checklist completion (if applicable): N/A
Date of Environmental Commitment Record or equivalent: 6/29/23

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions).
Continuation sheet:

The Cities of Chino Hills and Brea propose to impose vehicle axle limitations to prohibit vehicles with more than four axles to be operated on Carbon Canyon Road (State Route 142) within

The following technical documentation was prepared in conjunction with determining and addressing applicable California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documentation and compliance requirements.

Furthermore, the Project is not subject to any of the exceptions to the categorical exemptions listed in Section 15300.2 of the State CEQA Guidelines as it (1) will not impact environmental resources of hazardous or critical concern that are designated, precisely mapped and officially adopted by government agencies; (2) will not have a significant effect on the environment due to unusual circumstances; (3) will not contribute to cumulative environmental impact resulting from successive projects of the same type in the same place; (4) will not damage scenic resources within a designated state scenic highway; (5) is not proposed on a site that is on the list of Hazardous Waste and Substance Sites pursuant to Section 65962.2 of the Government Code; and (6) will not cause adverse change in the significance of a historical resource.

AIR QUALITY:

The project is exempt from conformity determination because it falls under the exempt project (traffic control devices and operating assistance) listed under 40 CFR 93.126. Therefore, this project does not require an air quality report.

SCENIC RESOURCES:

There will be no damage to scenic resources within an official state scenic highway designated under Str & H C §262 because there are no scenic highways nearby. Pub Res C §21084(c); 14 Cal Code Regs §15300.2(d).

The project proposes installing road signs at the beginning of each end of the corridor and will have no impact on the scenic resources.

HAZARDOUS WASTE:

The project site is not a listed hazardous waste site. Pub Res C §21084(d); 14 Cal Code Regs §15300.2(e).

CULTURAL RESOURCES:

There will be no substantial adverse change in the significance of a historical and cultural resources as specified by Pub Res C §21084.1 because the project site is
vacant and surrounded by properties developed with urban uses. 14 Cal Code Regs §15300.2(f).

**PALEONTOLOGICAL RESOURCES:**

Due to the nature of the project description, no paleontological studies are necessary for this project.

**NOISE:**

This project has minimal sign post installations. Therefore, no significant construction generated noise impact will be generated. The project is not a Type 1 project; therefore, no noise study is required.

**HYDRAULICS:**

Since the project installs signs and sign posts there is no impact to the hydraulics of the roadway and will have no effect on any water surfaces. Consequently, there will be no need for a location Hydraulic Study (LHS), Summary Floodplain Encroachment Report (SFER), Letter of Map Revision (LOMR) or a Conditional Letter of Map Revision (CLOMR) for any flood plains.

**STORM WATER QUALITY:**

The appropriate stormwater permits and documents are:

- Order No. 2012-0011-DWQ, NPDES No. CAS000003, NPDES Statewide Storm Water Permit for State of California, Department of Transportation (Caltrans NPDES Permit). Issued by the California State Water Resources Control Board (SWRCB). This permit regulates stormwater and non-stormwater discharges from Caltrans properties and facilities, and discharges associated with operations and maintenance of the statewide highway system.
- Caltrans Statewide Stormwater Management Plan (SWMP). The SWMP is the document that describes how Caltrans plans to implement the “Caltrans Permit” requirements.

It is understood that:

- Only sign post excavation is anticipated.
- The only soil disturbance will be from sign post installation and the contractor’s vehicles entering and exiting the work locations.

**LANDSCAPE ARCHITECTURE:**

No noticeable visual changes to the environment are proposed with the sign installations and no further analysis is needed.
BIOLOGICAL RESOURCES:

Impacts to special status species or their respective habitats are not anticipated. The project does not anticipate “take”, as defined by the federal Endangered Species Act and the California Endangered Species Act. Sign locations are anticipated to be in non-vegetated areas and sloe to the roadway, these areas are proximal to developed/disturbed high-traffic area. Therefore, habitat suitability is low or absent. Activities are noninvasive, occurring near roadways and developed, maintained accessway.

All work occurs on maintained Caltrans ROW. Therefore, suitable habitat for federally listed species is absent from the work areas. The project would not impact federally listed species identified for this project.

The project would not require section 2081(b) of the California Fish and Game Code Incidental Take Permit or USFWS Incidental Take Statement.

The Project would not impact any jurisdictional water features and will not require water quality permits (i.e. – Regional Water Quality Control Board Section 401 of the Clean Water Act (CWA), U.S. Army Corps of Engineers Section 404 of the CWA, or California Department of Fish and Wildlife [CDFW] Section 1602 Lake and Streambed Alteration Agreement).

PERMITS:

An encroachment permit for the City Forces or a contractor and will be obtained once the sign installations are approved and authorized by Caltrans.