

EAST OAKLAND TRUCK ROUTE ASSESSMENT REPORT



CITY of OAKLAND

Kimley»Horn

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EAST OAKLAND TRUCK ROUTE ASSESSMENT REPORT



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1. INTRODUCTION

1.1. Background and Project Objectives

The truck routes in the City are established by legislation contained in the *Oakland Municipal Code (OMC)*, Title 10, Chapter 52, Commercial Vehicles and Vehicle Size and Weight Limits. There are two truck route designations in the OMC; Through Routes and Local Routes. The current Through Truck Routes were established in 1951 by City Council to manage trucks traversing the City from the southern and eastern borders of the City to the Bay Bridge. Except for a section of these routes in West Oakland the Through Routes have not change since 1951. Local Routes, as they would imply, are established to manage truck traffic in localized areas that are industrial and generate heavy truck traffic. A more detailed description of the codes is provided in subsequent sections of this report. The Through Truck Routes or primary routes have not effectively changed or been assessed since they were established 60 years ago.

This report presents the results of the truck study that was conducted in East Oakland between August of 2012 and January of 2013 by Kimley Horn and Associates, a City Transportation Services Division Transportation Consultant. The report also discusses the recommendations by the study Technical Advisory Group to modify the existing truck routes and prohibitions in the study area of East Oakland. The study was funded by the City Redevelopment Agency and Council Member Larry Reid's Office in response to a combination of events that have occurred. These events include an environmental indicators report, *East Oakland Diesel Truck Survey Report* by Communities for a Better Environment (CBE) in 2010; the industrial rezoning and redevelopment of the San Leandro Street Corridor, and Coliseum Development Area; and the greater recognition of the environmental impacts of diesel engine particulate emissions by the City.

The *East Oakland Diesel Truck Report* was a grass roots study conducted by East Oakland residents and CBE. It documents the high level of truck traffic in and around the Coliseum and San Leandro Street Area of East Oakland and cites the adverse health impacts of exposure to higher levels of diesel emissions on residents around these heavy vehicle traffic areas. The report also recommends five solutions to reduce the level of exposure for residential and non-commercial/industrial areas. This report (East Oakland Truck Route Assessment Study) responds to two of the recommended solutions. Solution 1: Examine and Revise Truck Routes and Zoning to Protect Community Health. Solution 2: Post "No Idling" Signs and Educate Truckers.

Industrial Zoned Corridor of San Leandro Street Corridor: The general area of East Oakland along San Leandro Street to Interstate 880 and on to the Port of Oakland has long been a heavily industrialized area including associated heavy truck traffic. The Industrial Zoning Update of 2005 re-affirmed the San Leandro Street corridor, from High Street to just beyond 98th Avenue, as General Industrial allowing truck and transportation among other industrial activities. The only exception to this is in the immediate Coliseum BART station area, which was re-designated as Regional Commercial General Plan in the 1998 General Plan Update: from 73rd Avenue to Hegenberger Road.

Trucking and Transportation is part of the City's International Trade and Logistics sector. As a port city, and the western end of the transcontinental railway since the latter part of the 20th Century, goods movement is both an important part of the City's industrial sector, but also is disproportionately represented in Oakland relative to neighboring cities, due to its excellent access via rail, ship, roadway and freeways. Earlier studies include the 2002 Goods Movement Study which did not look at the internal impacts of this industry on the City, but rather, looked at the overall regional goods movement industry's impact on Oakland and land use.

State of California Diesel Regulations: In 1998 the California Air Resource Board (ARB) identified diesel emissions as toxic air contaminants. In 2000 ARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. In 2008, ARB proposed regulations to reduce emissions from diesel vehicles and the State of California put into effect anti-idling regulation. In December 2011, diesel emissions regulations went into effect.



City and Port of Oakland Adopt Changes in West Oakland: In 2002 a group of West Oakland residents with guidance from the Pacific Institute, a non-profit environmental research and advocacy organization in Oakland, organized and established the West Oakland Environmental Indicators Project organization (WOEIP). WOEIP, through grass roots efforts, established the need to assess the environmental and adverse health impacts of truck emissions in West Oakland. This effort culminated in a report titled *Clearing the Air*, which was published in 2003 by the Pacific Institute. This report, a predecessor to the CBE report, documented the high volume of diesel truck traffic in and around the West Oakland Community and correlated it to the disproportionate level of health issues like respiratory disease and asthma. The City received the report and began partnering with WOEIP and the Port of Oakland through the West Oakland Truck Route Committee (WOTRC).

The West Oakland Truck Route Committee, over a two year period meet and develop the plans to reassess the truck routes in West Oakland to better align with I-880, Port Operations, and away from the West Oakland residents. In 2005 City Council approved the revisions to OMC Chapter 10.52 that reroute the old truck routes according the WOTRC plans. The Port facilitates the plan by publishing a pamphlet about Port Operations and the new truck routes, posting the route plan on their website, and hosting a community hotline for community complaints. In 2006 the City updated the West Oakland Truck Route signage.

East Oakland Truck Study Objective:

The truck study will determine, at the direction of the Technical Advisory Group, changes to Chapter 10.52 of the Oakland Municipal Code that will improve truck traffic in the East Oakland study area by assessing truck activities, roadway characteristics, and area land uses. The goal will be to better align the truck routes and traffic on more appropriate streets. Appropriate streets shall include streets that are not only designed to handle heavy truck traffic but also circumvent residential and noncommercial areas that may be at risk of exposure from higher levels of diesel particulate matter emissions. Further, to proactively provide better direction for truckers to manage their trips through the study area with minimal impact to adjacent neighborhoods.

1.2. The East Oakland Truck Study Technical Advisory Group

As part of the truck route assessment process, the City of Oakland established a Technical Advisory Group (TAG) to represent the various interests and stakeholders within the study area, and provide input and perspective into the route assessment process. The group includes following people and organizations:

- Residents and Neighborhood Associations of the Study Area
- Communities for a Better Environment (CBE)
- Council Member Larry Reid's Office
- Council Member Desley Brook's Office
- Trucking Industry Representatives
- Alameda County Public Health Department
- Area Business Associations
- California Air Resource Board
- Bay Area Air Quality District

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- Alameda County Transportation Commission
- Port of Oakland
- City of Oakland Economic Development and Transportation Services Departments
- City Transportation Consultants

The TAG, through several meetings facilitated by the City Transportation Department and their Consultant, developed the scope of the truck study and the direction of the analysis and assessment. Their varied interest was important in developing a study that was comprehensive of East Oakland and its communities.

In the fourth meeting, the Technical Advisory Group developed the recommendations to modify the designated truck routes and prohibitions in the Oakland Municipal Code (Chapter 10.52) based on the objectives of the study. That is, to route truck traffic onto more appropriate streets.

1.3. Study Area Overview

The East Oakland Truck Route Assessment study area is bounded by Seminary Avenue to the west, Interstate 580 (I-580) to the north, the City of San Leandro border to the east, and I-880 to the south. This study area is approximately nine square miles and includes varying land uses from residential to heavy industrial to urban open space and parks. The easterly portion is primarily residential and has significantly less truck traffic than the westerly portion between International Boulevard and I-880.

The study area consists of varied types of land uses, with residential being the primary use. In addition to the freeways there are two principal arterial streets, Hegenberger/ 73rd Avenue and International Boulevard which is a State Route, No. 185. There are also several minor arterial streets including MacArthur Boulevard, Bancroft Avenue, 66th Avenue, 98th Avenue, and San Leandro Street.

The area which is approximately 300-500 feet from centerline of San Leandro Street east toward International Blvd is primarily residential, starting in the east and moving west towards San Leandro Street. The San Leandro Street corridor travels north-south through the westerly side of the study area and, as the “trunk line” of the City’s General Industrial Zoning District, carries a majority of the truck traffic. San Leandro Street between 85th Avenue and 98th Avenue is zoned General Industrial/Transportation and the entire San Leandro Street corridor through the study area is part of the East Oakland Industrial Sub-Areas. The 85th Avenue to 98th Avenue segment of San Leandro Street contains the highest concentration of truck traffic generators in the study area, including manufacturers, warehouses, trucking companies, and other industrial businesses. A bulk of the truck traffic in the study area is going into, or coming out of that segment from the I-880. There are a number of businesses which use trucking as a core part of their operations, including wholesale and warehousing businesses, manufacturers, shipping container storage, a truck service stop, an informal truck parking area and the Oakland Foreign Trade Zone. International Boulevard and MacArthur Boulevard also carry a large number of commercial vehicles relative to the other streets in the study area. Hegenberger Road and International Blvd pass through areas zoned as Mixed Housing Type Residential, Urban Residential, and Community Commercial,

Also of significant to the flow of traffic through the study area are I-580 along the eastern border, and I-880 along the western border. Interstate 880 is the primary truck route running north and south connecting many of the industrial/commercial businesses within the study area to the Port of Oakland, the Airport, to the Central Valley and beyond. The California Vehicle Code (CVC 35655.5a) restricts vehicles exceeding 4 ½ tons along I-580 through Oakland. As a result, most regional truck traffic entering/exiting the study area does so via I-880 and the routes that access it. The truck restrictions along I-580 and their impact on the study area are discussed further in the following section.



1.4. Current State and Local Commercial Vehicle Codes in the City of Oakland

The CVC stipulates the following vehicle weight limit restrictions along I-580:

“Notwithstanding this Article or any other provision of law, no vehicle...with a gross weight of 9,000 pounds or more, shall be operated on the segment of Interstate Route 580...that is located between Grand Avenue in the City of Oakland and the city limits of the City of San Leandro. This subdivision does not apply to passenger and buses or paratransit vehicles.”

In turn, the City of Oakland Municipal Code (O.M.C. 10.52.130) further addresses the truck prohibition on the MacArthur Freeway (I-580) by listing the allowed routes for truck traffic, that would otherwise be using I-580, might travel through the City of Oakland on alternative streets. These alternative streets include: Through Truck Routes A, B, C, and D described in O.M.C. 10.52.070; Local Truck Routes described in O.M.C. 10.52.120; and designated alternate (truck) routes in O.M.C. 10.52.130d.

O.M.C., 10.52.070 – Through truck route “A” covering truck travel between intersection of [I-580] and the Oakland-San Leandro boundary and the distribution structure of the San Francisco-Oakland Bay Bridge

This ordinance says that as long as the Interstate 580 truck restrictions are in place, the following truck route is established for through truck traffic traveling along MacArthur Boulevard between the City of Oakland-City of San Leandro border and the San Francisco-Oakland Bay Bridge.

“MacArthur Boulevard from the easterly San Leandro city to 90th Avenue; 90th Avenue from MacArthur Boulevard to International Boulevard (East 14th Street); International Boulevard from 90th Avenue to 81st Avenue; 81st Avenue from International Boulevard to San Leandro Street; San Leandro Street from 81st Avenue to Fruitvale Avenue...”

O.M.C., 10.52.080 – Through truck route “B” covering truck travel between intersection of San Leandro Street and the Oakland-San Leandro boundary and the distribution structure of the San Francisco-Bay Bridge

This ordinance says that as long as the Interstate 580 truck restrictions are in place, the following truck route is established for through truck traffic traveling along San Leandro Street between the City of Oakland-City of San Leandro border and the San Francisco-Oakland Bay Bridge.

“San Leandro Street from the San Leandro city boundary to 81st Avenue and thence by Route “A” as described in Section 10.52.070...”

O.M.C., 10.52.120 – Local truck routes

This ordinance says that the routes listed in Table 2 are established for the movement of trucks.

Table 1 – Local Truck Routes

Street	From	To
14 th Street	81 st Avenue	90 th Avenue
81 st Avenue	San Leandro Street	E. 14 th Street/ SR-185
90 th Avenue	E. 14 th Street	MacArthur Boulevard
Hegenberger Road	E. 14 th Street	Doolittle Drive
MacArthur Freeway	Edwards Avenue Interchange	Warren Freeway (State Route 13 Interchange)
MacArthur Freeway	Warren Freeway (State Route 13 Interchange)	Edwards Avenue Interchange

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O.M.C., 10.52.130 – Vehicles exceeding four and one-half tons prohibited use of MacArthur Freeway

This ordinance says that as long as the I-580 truck restrictions are in place, the routes listed in Table 3 shall remain unrestricted to those vehicles prohibited from using I-580.

Table 2 – Alternate Truck Routes

Street	From	To
73 rd Avenue	San Leandro Street	MacArthur Boulevard
Seminary Avenue	San Leandro Street	Mountain Boulevard

O.M.C., 10.52.060 – Vehicles exceeding four and one-half tons prohibited use on certain streets

This ordinance says that when the routes listed here are appropriately signed, vehicles exceeding four and one-half tons are prohibited from using the routes listed below except for the purpose of loading and unloading.

Table 3 – Prohibited Routes

Street	From	To
73 rd Avenue	MacArthur Boulevard	Hillmont Drive
100 th Avenue	E. 14 th Street	E Street
102 nd Avenue	E. 14 th Street	E Street
103 rd Avenue	E. 14 th Street	E Street
104 th Avenue	E. 14 th Street	E Street
Denslowe Street	Caswell Avenue	Darien Avenue
E Street	98 th Avenue	105 th Avenue
E Street	92 nd Avenue	94 th Avenue
Edwards Avenue	Sunkist Drive	Eastbound I-580 Off ramp
Havenscourt Boulevard	East 14 th Street	Bancroft Avenue
Hillmont Drive	Sunnymere Avenue	73 rd Avenue
Lyndhurst Street	98 th Avenue	Stoneford Avenue
Maddux Drive	Edes Avenue	Stoneford Avenue
Sunnymere Avenue	Seminary Avenue	Edwards Avenue

Figure 1 – Oakland Municipal Code Truck Route Designations and Prohibitions illustrates the study area maps out the current Through Truck Routes, Local Truck Routes, Alternate (I-580) Routes, and Prohibited Routes including Interstate 580 in Oakland.



Figure 1 – Oakland Municipal Code Truck Route Designations and Prohibitions



2. DATA COLLECTION TASK

The objective of this study is to determine whether the current City of Oakland Truck Routes, as presented in the OMC, appropriately move truck traffic through the study area. Appropriate routes not only accommodate the movement of large commercial vehicles but also avoid dense residential or non-commercial areas and exposure to diesel particulate emissions. The City has been made aware of the concern of residents regarding the amount of truck traffic observed using residential streets and streets primarily serving residents, schools, churches, and other areas where large numbers of people may congregate in the area.

The overall characteristics of the East Oakland study area have not significantly changed in many years or the completion of the Mac Arthur Freeway. Some specific areas have however undergone significant change and redevelopment of properties. The San Leandro Street Corridor and the communities adjacent to the corridor is such an area and a focus of the study. The current designated truck routes likely functioned quite differently at the time that they were established than they do now. The current designated truck routes generally avoid local/residential streets in favor of larger arterial roads. This makes sense from a traffic standpoint given the fact that residential streets are generally designed primarily to accommodate passenger vehicles and their associated traffic movements. Larger arterials are meant to accommodate higher volumes of vehicles as well as larger/heavier vehicles. Most cities have multiple roadway classifications. The purpose of creating different roadway classification types is so that various design standards can be applied uniformly throughout a city, county, or specific geographic area. Roadway designation such as arterial, collector, and local are planned by the City based on the types of land uses present however they also take on their own designation based on the traffic patterns that develop over many years. For example, passenger vehicles generally outnumber all other vehicle types in primarily residential areas. In areas that are primarily industrial, large/heavy vehicles are most prevalent. Primarily commercial areas tend to see a mix of both heavy vehicles and passenger vehicles, with one being more prevalent than the other depending upon the time of day. In general, roads are designed with these varying traffic characteristics in mind.

The first two meetings of the Technical Advisory Group established the scope of the truck study and determined the location and type of the data collection as follows: (1) truck volumes along existing designated routes, (2) actual truck routes based on real-time observations of trucks moving through the study area, and (3) roadway characteristics of existing designated truck routes.

2.1. Data Collection Methodology

Two methods of data collection were used to assess truck traffic within the study area; traffic counts and following surveys. The traffic counts were used to determine how many trucks, on average, were using various roads throughout the study area. The truck following surveys built off of the truck traffic counts and helped provide additional details on where some of the trucks traveling throughout the project study area were going.

2.1.1 Truck Traffic Counts

The truck traffic counts were conducted over the course of three days in August, 2012, at 18 locations throughout the study area. The truck volumes were collected using either automatic traffic counters or video data.

Automatic traffic counters are temporary devices installed adjacent to the roadway that use pneumatic tubes pulled across the traffic lanes to capture volume, speed, and classification of the vehicles that drive over the tubes. Once the field data is collected, the data stored in the automatic traffic counter device is downloaded to a computer and parsed out. For the purposes of this project, only volume and vehicle classification data were used. The computer software generates a report showing the number of vehicles that passed the counter, the time that each vehicle passed, and the number of axles on each vehicle. Trucks

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are distinguished from other vehicles based on the number of axles per vehicle, and only vehicles with more than three axles were considered for the purposes of this study.

Video counters were placed at locations with more than one lane in each direction. This had to be done because the tube counters are unable to capture classification data on multi-lane roads. Video counters are basically manual counts done by someone watching a video of traffic passing by the camera.

2.1.2 Truck Following Surveys

As mentioned above, the purpose of the truck following surveys was to determine where truck traffic was going to/coming from within the study area. The initial studies were conducted in October, 2012 with follow-up studies being done in December, 2012 and March 2013. In all, 120 trips were recorded at 11 different locations. The data collection time periods ranged from 2 to 3 hours, and were typically done in the early and late morning. Some data was also collected during the early afternoon. Volume data showed the highest percentage of truck traffic throughout the day, occurred during these times.

“Gateway points” were established at 11 locations within the project study area. Gateway points were locations where the individual doing data collection would wait for a truck to pass, and follow that truck to its destination within the study area, or to the next point at which the truck would exit the study area boundaries. Upon seeing a truck pass through the gateway point, the observer would document the truck type (based on FHWA vehicle classification, see Appendix) and the time at which the observation started, follow the truck while documenting the route, and capture the truck’s destination (or note that the truck exited the study area boundaries) and the time that the vehicle reached its destination.

The gateway points were strategically located to capture trucks passing through particular areas of interest, as well as to capture trucks in locations where volume data showed a high amount of truck traffic relative to other parts of the study area. The gateway points for the truck following surveys were as follows:

- Seminary Avenue at Hillmont Drive
- International Boulevard west of Seminary Avenue
- 66th Avenue north of San Leandro Street
- 73rd Avenue north of International Boulevard
- 81st Avenue north of San Leandro Street
- Hegenberger Road at Edes Avenue
- 85th Avenue at E Street
- 92nd Avenue at G Street
- 98th Avenue north of I-880
- 98th Avenue between Bancroft Avenue and International Boulevard
- MacArthur Avenue east of 90th Avenue

2.1.3 Existing Truck Route Roadway Characteristics

Roadway characteristics are important in determining the appropriateness of a particular truck route segment because trucks have certain physical and operational limitations that need to be accounted for when designing a road that is intended to accommodate trucks. For instance, roadways that were meant to carry truck traffic are typically wider (in order to accommodate vehicles that are large), have multiple lanes (to

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allow for faster vehicles to pass more safely given that large vehicles tend to move more slowly than smaller passenger vehicles), and usually connect to other major roads that are part of a regional network (meant for vehicles that are moving from one region to another, such as trucks and other vehicles that are not primarily traveling from neighborhood to neighborhood).

A review of the Land Use and Transportation Element of the City of Oakland General Plan shows the street classifications of all of the streets that are currently designated as truck routes (as shown in Figure 1), and provides a description of the intended design and function for each classification. According to the document, “The City’s five street classifications [Local Streets, Collector Streets, Arterial Streets, Truck Routes, Transit Streets] are based on right-of-way width, traffic capacity, adjacent land uses, transit, bicycle and pedestrian use, provision of access to adjoining properties, and control of intersections.”

Figure 4 “Transportation Diagram”, of the Land Use and Transportation Element provides an overall City map which shows the street classification for the City’s major roadways (arterials and transit streets). The description of arterial streets indicates that they serve as a basic network for through-traffic between different sections of the City. The description also includes design characteristics that are consistent with a roadway that is intended to carry lots of different types of traffic. This is the type of road that is most appropriate for carrying truck traffic, and thus would make an appropriate truck route from a design point of view. While there are other criteria that need to be taken into consideration when determining which routes are appropriate for truck traffic, the design characteristics of a roadway (basically, whether or not the road was actually designed to carry heavy vehicles) should be one of the more critical criteria.

The second component of this task involved going into the field and comparing actual truck route roadway characteristics with those of the Arterial Streets classification in the General Plan.



3. DATA COLLECTION RESULTS

As outlined in the section above, the data collection effort focused on (1) truck volumes along existing designated routes, (2) actual truck routes based on real-time observations of trucks moving through the study area, and (3) physical characteristics of existing designated truck routes. The results of that effort are highlighted below.

The data collection phase of this project included 24 hour truck volume counts at 18 locations, along with a truck following survey that documented over 100 truck trips throughout the study area, starting from 11 gateway locations. The results of the data collection effort were compiled to provide information regarding how many trucks are moving through the study area each day on average, which routes trucks are using to enter and exit the study area, and which routes trucks are using to move through the study area to their ultimate destinations.

3.1. Truck Traffic Counts

Figure 2 shows all of the count locations along with the average daily (24 hour) bi-directional volumes associated with that count location. A quick review of the information in the figure shows that a large amount of the truck traffic within the study area was using San Leandro Street along the entire length of the study area, 98th Avenue between I-880 and San Leandro Street, and International Boulevard west of Hegenberger Road. This information is consistent with the type of land uses that are present along these corridors. One key observation is that properties along 98th Avenue, between San Leandro Street and Interstate 880 have no truck traffic generators (i.e., facilities whose in/out traffic consists of a large volume of trucks), yet 98th Avenue carries a high volume of truck traffic into and out of the study area. This is likely due to the fact that there are a lot of truck traffic generators along San Leandro Street within the vicinity of 98th Avenue, and vehicles can access eastbound and westbound I-880 from 98th Avenue. International Boulevard is also a major commercial corridor within the study area boundaries, as well as outside the boundaries; therefore, a lot of trucks use this route.

Traffic count data also showed a relatively low number of trucks along certain segments of the designated truck routes, and comparably higher truck volumes along adjacent segments not designated as truck routes. For example, 90th Avenue and 81st Avenue along Through Truck Route “A” have very low volumes in comparison to adjacent parallel routes such as 98th Avenue and 85th Avenue, respectively.

3.2. Truck Following Surveys

Figure 3 illustrates the results of the truck following study. The figure shows the 11 gateway locations, along with the number of trucks followed from each gateway, the routes that the trucks took from the gateway to their destination, the truck’s final destinations, and the total number of trucks that arrived at those destinations. As the table on the left side of the figure shows, there were 47 destinations in all throughout the study area, and 119 total vehicle trips in the survey. Of those 119 trips, 97 (approximately 82%) were trips to destinations within the study area. The single facility with the highest number of trips was the Foreign Trade Zone near the intersection of 98th Avenue and San Leandro Street. The gateway with the highest number of trucks followed was 98th Avenue north of I-880. Sixty-nine trucks trips were captured at this location.

In addition to the gateways, destinations, and routes shown in the figure, the OMC through truck traffic routes and prohibitions are shown in the background. The truck following routes show that almost all of the truck traffic captured as part of the data collection effort managed to stay on the designated truck routes, or on routes that were not restricted to through truck traffic



Figure 2 – Truck Traffic Counts Results Map



Figure 3 – Truck Following Survey Results Map



3.3. Existing Truck Route Roadway Characteristics

As mentioned in Section 2, the study area consists of various land uses and roadway classifications. Certain types of roads are more appropriate for heavy vehicle traffic than others. Typically, a truck route will utilize roads designed to accommodate a large number of vehicles, through predominantly commercial and industrial corridors, and with stop/signal control at intersections with other major routes.

Based on discussions with the TAG, certain existing truck routes are not appropriate because they pass through residential areas, and other areas with high concentrations of pedestrians. Specifically, 81st Avenue between International Boulevard and San Leandro Street was identified as a truck route that did not appear to be appropriately designated. Observations showed that 81st Avenue between International Boulevard and San Leandro Street is not an appropriate truck route primarily because of roadway width (only a single lane in each direction with on-street parking), and the fact that the segment is predominately residential with several driveways and stop signs. In addition, 90th Avenue between MacArthur Boulevard and International Boulevard is not an appropriate truck route due primarily to the fact that is a predominately residential segment with several driveways and stop signs. Both segments are currently designated as Through Truck Route “A”.

Figure 4 below shows 81st Avenue between G Street and International Boulevard. This is a relatively narrow two-lane road with on-street parking, several residential driveways, and houses that are not set back very far from the road.



Facing West



Facing East

Figure 4 – 81st Avenue west of B Street

Figure 5 shows 90th Avenue at Hillside Street. The 90th Avenue corridor is primarily residential between International Boulevard and MacArthur Boulevard and consists of two lanes in each direction, with on-street parking and homes slightly set back from the roadway. While the geometrics of this road appear suitable for truck traffic, the route is entirely residential with several driveways, three stop signs, and four crosswalks. This is an undesirable situation because of the number of starts and stops large vehicles have to make (loud noise from braking and accelerating), and the pedestrian conflicts at the stop-controlled intersections and mid-block cross walk locations.



Facing West



Facing East

Figure 5 – 90th Avenue at Hillside Street

4. FINDINGS AND RECOMMENDATIONS

These findings and recommendations on the current commercial vehicle prohibitions were developed through the coordinated efforts of the Technical Advisory Group. As stated in Section 1, the primary objective of the study is to reassess the current truck routes and prohibitions and to recommend any changes that will better and more appropriately align the truck routes and traffic on streets that can better handle the traffic and separate it from residential and noncommercial areas that may be at risk from higher levels of diesel particulate emissions. The recommendations that follow are based on the study data, engineering judgment, existing and planned land uses, and ultimately the concurrence of the TAG that represents the varied interests of the area and traffic. This report will further incorporate the comments and recommendations of the general population of the study area through several planned public meetings. Figure 6 illustrates the final recommended truck route restrictions and designations.

4.1. Recommended Changes to “Through Truck Route”

Traffic data and field observations indicated that truck traffic and movement were not utilizing the sections of Through Route A from MacArthur Boulevard along 90th Avenue, International Boulevard, and 81st Avenue to San Leandro Street. The current roadway characteristics of 98th Avenue are better suited for commercial vehicles to travel between MacArthur Boulevard and San Leandro Street than the existing route and the probable reason it is nine times more travelled by trucks than the existing section. The characteristics of an appropriate roadway to handle truck traffic are as follows:

- Wide streets, generally multiple lanes that allow slower moving vehicles and trucks to stay out of the way of faster moving ones; typically wider streets also have wider sidewalks and shoulders;
- Wide intersecting streets that allow for safe turning movements of larger vehicles;
- Streets with few, or no, stop signs. Stops and starts generate significantly more emissions than a vehicle that simply passes through;
- Streets designed to carry high volumes – typically roadways designed to carry high volumes, such as major collectors or arterials, are built and maintained in a manner that allows them to better accommodate heavy vehicles than other smaller streets;
- Adjacent properties are commercial, industrial, or undeveloped;



Ninety-Eighth Avenue is residential in many areas between MacArthur Boulevard and San Leandro Street; however, the existing route along 90th Avenue and 81st Avenue is primarily single-family residential, stop-controlled, and single lane on 81st Avenue.

Through Truck Route B runs along San Leandro Street from the City of San Leandro border to 81st Avenue. It carries high levels of truck traffic and has all the roadway characteristics of a street designed to carry heavy vehicles.

The recommendation for Through Truck Route A (OMC 10.52.070) is to modify (remove) the section between MacArthur Boulevard and San Leandro Street along 90th Avenue, International Boulevard, and 81st Avenue, and designate 98th Avenue as the preferred route between MacArthur Boulevard and San Leandro Street. The area near the intersection of 98th Avenue and San Leandro Street was identified during the data collection stage of this study as having the highest concentration of truck traffic within the study area.

There is no recommendation to Through Route B (OMC 10.52.080) which is San Leandro Street from the City of San Leandro border to 81st Avenue. However, for continuity of Through Route A in the Oakland Municipal Code, the section of San Leandro Street between 98th Avenue and 81st Avenue will be re-designated to Through Route A.

4.2. Recommended Changes to Restricted Truck Routes

Given the close proximity of residential properties to commercial properties and truck traffic generators along San Leandro Street near 85th Avenue and 92nd Avenue, the TAG recommends that 85th Avenue between International Boulevard and G Street, and 92nd Avenue between International Boulevard and G Street be restricted to through truck traffic. The recommended restricted portions of these routes pass through relatively narrow residential streets which are not suitable for truck traffic. The TAG recommends that the O.M.C. be amended to include these two segments to the list of restricted truck routes.

4.3. Recommended Changes to “Local Truck Route”

The O.M.C., 10.52.120 designates a segment of I-580 (between State Route 13 and Edwards Avenue) as a Local Truck Route. This contradicts the CVC which states that no vehicle exceeding 4 ½ tons shall be operated on that segment of I-580. In order to address the contradiction, it is recommended that the O.M.C. be amended to remove reference to any segment of I-580 as being designated a Local Truck Route.

In order to help truck traffic maneuver appropriately in response to the route restrictions recommended in Section 4.3, the TAG recommends that the O.M.C. be amended to include 85th Avenue between San Leandro Street and G Street, G Street between 85th Avenue and 90th Avenue, and 90th Avenue between G Street and San Leandro Street as Local Truck Routes. This designation will help keep trucks off the restricted segments of 85th Avenue and 92nd Avenue by providing a designated path back to San Leandro Street.

4.4. Recommendations for Posting of No Idling Signs

The TAG confirmed the placement of No Idling Signs on San Leandro Street, based on State regulation and the recommendations of CBE and TAG representatives who live in the area. Thanks to the Air Resources Board and a participant of the TAG, the City was able to receive the appropriate signs and install them at the designated areas.

It should be noted that the Air Resources Board has for several years now worked with the City and the Port of Oakland to inform truckers about the No Idling law and enforcing it in the Port’s Maritime area of West Oakland.

It is recommended the City and Port further identify areas where excessive idling is happening like on San Leandro Street (include the NO IDLING signs that the City and State worked to install in a pull-out box as an example of ways to encourage reducing truck emissions); supporting trucking businesses with accessing

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BAAQMD incentive funds for truck engine retrofits and upgrades and installing vegetative buffers in landscaping between residences and truck businesses or routes, which all can help reduce the public health impacts of truck activities.

4.5. Recommendations for Public Awareness and Education

Establish greater education and awareness of the existing truck routes and prohibited streets in the area to truck drivers will help ensure the truck drivers are using the routes. The City should post the truck route map on its website. There is a need to identify primary “off route” truck destinations so that they can be prioritized for education about the new local routes, and so that they can post “best route” maps to direct truckers onto the lowest impact route from the business to an official truck route.

Create a finalized map of the routes in the area and do outreach to provide residents, local trucking and warehousing businesses, Oakland Foreign Trade Zone and the Port of Oakland, Alameda County Transportation Commission with copies would help ensure the truck routes are properly utilized.

The Port has a website and meets periodically with truckers to educate them and make them aware of the truck routes. It is important to note, however, that particularly in comparison with West Oakland, a much higher proportion of trucks traveling to and from East Oakland are not Port related trucks.

The City also works with the Port of Oakland and Oakland Police Department to let trucking firms and drivers know about local routes and the Port’s designated routes. Send the map to the State (Caltrans? Not sure which is the appropriate entity), OPD and County Sherriff.

4.6. Additional Recommendations for Improvements in the Study Area

Ensuring adequate route signage throughout the study area would help keep truckers and motorists informed as to where trucks should and should not be going. Adequate advance signage at major decision points can potentially reduce instances of trucks ending up on restricted routes because they are simply unable to go anywhere else.

After installation of signage and outreach to residents and trucking communities as well as traffic enforcement, the City should provide enforcement of the route.

City Transportation Planning and Street Design – Truck traffic should be incorporated into the City’s review of truck generating developments. Truck activity and routing should be incorporated into development plans for any new development which is subject to Design Review to ensure that conflicts between residences and truck activity can be avoided or mitigated; for example, creating a traffic circulation map illustrating best access routes.

The City adopted a Complete Streets Policy in 2013. As part of this policy, the City should develop specific guidelines for roadways that carry truck traffic especially when they pass through residential and mixed use (residential and commercial) areas. Traffic calming and greening measures should be considered in these areas.



Figure 6 –Recommended Oakland Municipal Code Truck Route Designations and Prohibitions