## TECHNICAL AREA: TRAFFIC AND TRANSPORTATION

### SUMMARY OF TRAFFIC AND TRANSPORTATION DATA REQUESTS AND RESPONSES

Since filing the Application for Certification, Traffic and Transportation has been the subject of several data requests. These requests have focused on the completeness of the data and analysis conducted for the AFC and have raised several specific new questions. ESP II has answered all data requests and assured interested parties that several concerns were addressed and will be part of the Traffic Management Plan for the project.

ESP II continues to believe that ESPR complies with all applicable Laws, Ordinances, Regulations, and Standards, and has no unmitigated significant impacts to Traffic and Transportation resources.

The following Data Requests have been received regarding Traffic and Transportation:

| Data Request | Applicant's Response Date | Source of Data Request | Page |
|---|---|---|---|
| 30 | March 28 | CEC | T&T-2 |
| 31 | March 28 | CEC | T&T-2 |
| 32 | March 28 | CEC | T&T-3 |
| 33 | March 28 | CEC | T&T-3 |
| 34 | March 28 | CEC | T&T-4 |
| 62 | March 28 | CEC | T&T-4 |
| 63 | March 28 | CEC | T&T-5 |
| 64 | March 28 | CEC | T&T-5 |
| 87 | March 28 | COMB | T&T-5 |
| CCC-20 | April 18 | CCC | T&T-6 |
| 33s | April 18 | CEC | T&T-7 |
| 62s | April 18 | CEC | T&T-11 |
| COES-3 | July 16 | COES | 2-page letter response |
| 33s | July 16 | CEC | 3-page response numbered T&T-1, 2, and 3 |
| 33s | December 14 | CEC | T&T-17 |
| | | | |

## Supplemental Traffic and Transportation Data Request 33

Please provide the backup data for the analysis performed in previous response to Data Request 33.

Also, CEC Staff and City of Manhattan Beach are concerned that the limited soil storage capacity provided at the plant and tank farm may result in more truck trips entering and leaving the site than was originally anticipated in the AFC analysis. Please assess the number of truck trips entering and leaving the site due to the use of the tank farm for stockpiled soil.

## Response to Supplemental Traffic and Transportation Data Request 33

Backup data for the traffic analysis presented our in July 16, 2001 response to Supplemental Traffic and Transportation Data Request 33 was provided on November 5, 2001 and is found in Attachment 44 to the Data Response package.

An updated analysis of project-related traffic at the plant entrance is presented below. This analysis supersedes the analysis presented in response to Supplemental Data Request 33, filed April 2, 2001, and is based upon:

1) New traffic data collected on Vista Del Mar at the plant entrance

2) Further definition of the demolition-phase work sequence and schedule, and associated demolition-phase truck trip requirements

3) No change in the estimated construction-phase truck trip requirements discussed in the AFC and in previous data responses.

## New Traffic Data

In an effort to further the analysis of truck traffic during the demolition phase, twenty-four hour tube counts were collected on Vista Del Mar immediately north of the plant entrance (between 45$^{th}$ Street and Grand Avenue) on Tuesday, November 6, 2001 through Thursday November 8, 2001. To determine LOS, a two-way stop controlled analysis was conducted for the Vista Del Mar/Plant Entrance "intersection." The 15-minute count data was averaged for the three-day period to represent the average daily traffic (ADT) on a typical weekday. Data was also used to determine a.m. and p.m. peak. The data is provided in Attachment 46 to the Data Response package.

**Peak-Hour Analysis.** Based on this analysis, the ADT along Vista Del Mar is approximately 25,200 with a peak hour directional volume (northbound) of 1,916 in the a.m. and a peak hour directional volume (southbound) of 2,191 in the p.m.

A critical factor in managing truck traffic is the safe traffic loading at the plant entrance. This is especially important during the peak hours. As discussed in the demolition truck trip analysis below, given the site constraints and the practical limitations of mass hauling operations, it is anticipated that an estimated maximum of 10 trucks per hour will enter or exit the site during any hour of any construction day. While other non-construction truck trips may occur during the demolition phase (i.e., deliveries of other materials), the analysis was conducted using a maximum of 10 trucks per hour entering and leaving the plant site.

Using the City of El Segundo's significance criteria, the threshold point for the analysis was assumed to be level of service (LOS) D between the hours of 7:00 a.m. and 7:00 p.m. The LOS D significance criteria was used because it is a very conservative assumption, given that the intersection to the north (Vista Del Mar and Grand) operates at LOS C during the a.m. peak and LOS B during the p.m. peak; Highland/Vista Del Mar/45$^{th}$ Street operates at LOS C and B during both the a.m. and p.m. peaks, respectively. (Refer to AFC Table 5.11-1 for intersection LOS throughout the project area, as prepared by Accutech, 2000.)

During times when the analysis did not meet the LOS D criteria, the number of trucks that could meet the criteria (i.e., the maximum number of trucks allowed while maintaining LOS D) was identified. The summary analysis is presented in the table below.

**Table 1**
**Traffic Volumes, and LOS Conditions During Peak AM and PM Time Periods[1]**

| Time | NB Hourly Volume | SB Hourly Volume | Total Hourly Volume | LOS with 10 Trucks Exiting | Maximum Number of Trucks to maintain LOS D |
|---|---|---|---|---|---|
| 7:00 am | 1051 | 192 | 1243 | D | >10[2] |
| 8:30 am | 1916 | 472 | 2388 | E | 8 |
| 9:00 am | 1764 | 468 | 2232 | D | >10[2] |
| 4:15 pm | 595 | 1016 | 1611 | E | 8 |
| 4:30 pm | 615 | 1101 | 1716 | E | 0 |
| 7:45 pm | 415 | 1087 | 1502 | E | 0 |
| 8:00 pm | 394 | 981 | 1375 | D | >10[2] |

[1] See Attachment 46 for additional traffic volume data.
[2] LOS can be maintained with more truck trips than the established maximum.

Based on this analysis it was determined that between 7 and 9 a.m., 18 trucks could exit the plant site within the LOS D threshold. During the off peak hours of 9 a.m. and 4 p.m., 10 or more trucks per hour can exit the site. Another 5 trucks can exit the site between 4 and 4:30 p.m. before the LOS deteriorates to E. After 8:00 p.m., the LOS D threshold is met once again.

**Non Peak Hour Analysis.** Using the assumed maximum level of 10 trucks per hour, for the time period between 9 a.m. and 4 p.m. 70 trucks could be accommodated. These plus the 18 trucks that could exit during the 7 to 9 a.m. period and the five trucks during the p.m. peak establishes that between 7:00 a.m. and 7:00 p.m. a maximum of 93 trucks can enter/exit the plant site and maintain a LOS D or better.

## Demolition Truck Trip Requirements

Demolition-phase truck trip requirements are estimated based on further definition of the demolition phase work sequence, and associated truck trip requirements.

A worst-case average daily estimate of 50 truck trips are anticipated during the demolition phase, primarily due to the hauling of structural steel over an estimated 2-month period.

However, based on very conservative assumptions regarding mass hauling operations, as many as 70 truck trips could be required in a given day during the 2-month period. This assumes that (a) the contractor loads 70 trucks in a day (one every six minutes for seven hours); and (b) that stockpiling of materials is maximized prior to hauling (i.e., two days of stockpiling followed by one day of mass hauling.

Based on the practical limitations of mass hauling operations and the limited space available for stockpiling, these assumptions are considered worst-case. It is anticipated that hauling will occur on alternate days, following one day of stockpiling.

An average daily maximum of 35 trips per day are anticipated in order to handle concrete and soil export, and soil import.

The following general work sequence will be followed during demolition.

- Mobilize demolition equipment (refer to AFC Table 3.8-2 for onsite equipment estimates)
- Remove and haul offsite above-ground steel and other building material (2,000 loads, varying capacity per load, averaging 40-50 loads per day over 2 months)
- Remove and crush concrete, crushing into large pieces for offsite hauling (1,500 loads, 7.5 cy per load, averaging 35 loads per day over 2 months)
- Crush concrete into small pieces for onsite storage and reuse (approx. 10,000 cy)
- Excavate soil
- Store clean soil onsite for reuse (approx. 36,000 cy)

- Export contaminated soil (1,500 loads, 13.5 cy per load, averaging 35 loads per day over 2 months)

- Backfill and compact bottom of excavation with stockpiled crushed concrete

- Backfill and compact stored soil

- Import additional fill soil at 1:1 to exported soil (1,500 loads, 13.5 cy per load, averaging 35 loads per day over 2 months)

- Finish working platform and demobilize demolition equipment (Refer to AFC Table 3.8-2).

The estimated 1,500 loads of soil export used in this analysis is a conservative worst-case. This is roughly equivalent to an area 250 x 250 x 10 feet. Based on existing studies of the power block area, and current excavation plans, it is anticipated that isolated areas of impacted soil will be encountered in the near-surface zone throughout the power block area. Impacted saturated soil and groundwater will be encountered at depths between 10 and 12 feet below grade, the depth at which the working platform will be constructed. Assuming stone columns are constructed below ten feet, impacted soils will likely also be encountered below that elevation. However, during installation of stone columns, the deep soils are compacted in place and the operation does not normally result in additional soil excavation.

Nevertheless, the actual number of contaminated soil export trips – and the corresponding 1:1 import of clean fill material – could exceed 1,500 trips, depending on actual conditions encountered during excavation. For example over-excavation of the working platform to a depth greater than 12 feet, would result in an increase in exported materials. This would result in a proportional increase in the overall duration of the soil export phase; however, the maximum daily number of trips for these operations would not change. Based on our assumptions of soil volume and export logistics, a 50% increase in the actual volume of contaminated soil exports would increase that phase of work from 2 months to 3 months. Conversely, a smaller volume of contaminated soil would result in a shortened duration of the soil export phase.

**Removal of the North Tank Truck Trip Requirements**

Following completion of below-ground preparation of the power block area, and prior to the above-ground construction, the north fuel oil tank will be removed and the area will be prepared for use as a construction staging area. The worst case estimate of truck trip requirements associated with north tank removal is based on the following assumptions:

- Disassemble North Tank steel walls, roof and bottoms (an estimated 146,000 square feet of steel, based on 219 feet diameter, 48 feet high walls, double steel bottoms)

- Cut steel into 16 x 8 feet panels (128 square feet each) for a total of 1,140 panels
- Haul steel offsite (174 truck loads, seven panels per truck, averaging 35 loads per day over a 1 to 2 week period)
- Remove surface soils at the tank bottom area (9,700 cubic yards of to 6 inches below grade)
- Export soil at the time of tank removal (52 trips, 13.5 yards per truck, averaging 35 loads per day over a 1 week period)
- Import surfacing materials (assume 52 trips, 13.5 yards per truck, averaging 35 loads per day over a 1 week period)

Based on these assumptions the North Tank would be disassembled and removed, and the tank bottom surface area will be prepared for construction staging, in a two to three week period depending on the schedule and rate of hauling.

**Construction Truck Trip Requirements**

AFC Section 3.9.1.2.8 describes the schedule for truck deliveries of equipment during the 20-month construction phase. AFC Table 3.9-3 lists the average daily number of truck deliveries associated with construction activities (excluding heavy equipment deliveries, such as the HRSGs). Truck deliveries are expected to peak in months 5 and 6 at 27.8 and 28.7 truck deliveries per day, respectively. These deliveries are primarily concrete and rebar.

**South Tank Removal and Tank Basin Remediation Truck Trip Requirements**

At the conclusion of project construction and prior to the start of operations the South Tank will be removed. The remainder of the tank farm will be remediated and contaminated soils will be removed, if required. A worst case set of assumptions for South Tank removal, tank basin remediation, and tank basin final surfacing is as follows:

- Disassemble South Tank steel walls, roof and bottoms (an estimated 146,000 square feet of steel, based on 219 feet diameter, 48 feet high walls, double steel bottoms)
- Cut steel into 16 x 8 feet panels (128 square feet each) for a total of 1,140 panels
- Haul steel offsite (174 truck loads , seven panels per truck, averaging 35 loads per day over a 1 to 2 week period)

- Remove contaminated soil (an estimated volume of 11,850 cubic yards based on an area of 160,000 square feet for the entire tank basin, to a depth of 2 feet below grade)

- Export contaminated soil (900 loads, 13.5 cy per load, averaging 35 loads per day over a 1 to 2 month period)

- Import clean fill soil at 1:1 to exported soil (900 loads, 13.5 cy per load averaging 35 loads per day over a 1 to 2 month period)

- Import surfacing materials (150 trips based on 1,500 cubic yards, 10 yards per truck, averaging 35 loads per day over a 1 to 2 month period).

The timing of the South Tank tear down and tank farm remediation will coincide with the final stages of power plant construction, prior to commercial operations. Based on an average of 35 trucks per day the South Tank removal and tank farm remediation would be completed in two to three months depending on the schedule and rate of hauling.

**Traffic Impact Summary**

Further definition of demolition phase truck trip requirements found that the number of truck trips occurring during the demolition phase would be greater than those first identified in the AFC. Based on this finding new traffic counts were taken and a LOS analysis of the "intersection" (i.e., the plant entrance and Vista Del Mar) was made. The analysis found that between the hours of 7:00 a.m. and 7:00 p.m. up to 93 trucks could be accommodated while maintaining LOS D or better. This estimated maximum is considered conservative based on nearby intersection data. The analysis identified that a limited number of peak hour truck trips could be accommodated without resulting in a reduction in service.

Depending on which phase of the demolition is taking place the average number of truck trips ranges between 35 to 50 trips per day. Under a worst-case set of assumptions, as many as 70 trucks trips could occur on individual days during mass hauling operations. To insure that this maximum worst-case estimate is not exceeded, the Transportation Management Plan will establish a limit to the number of trips permitted that is below the analytical maximum of 93 per day.

An estimated 1,500 loads of contaminated soil (20,250 cubic yards) will be exported from the power block area during the demolition phase. The actual number of contaminated soil export trips – and the corresponding 1:1 import of clean fill material – could exceed 1,500 trips, depending on actual conditions encountered during excavation. While this would prolong the export and import operations, the maximum daily number of trips for these operations would not change. Likewise the removal of the soils from the tank farm could exceed 900 trips, but again like the demolition phase, changes in the actual number of trips would prolong the remediation phase without changing the maximum daily number of trips.

As discussed in previous data responses, the Transportation Management Plan will include provisions for appropriate traffic control measures, including consideration of a limit on the number of total daily truck trips, prohibiting and/or limiting trucks at peak hours, installation of a temporary signal, and/or active traffic control (flagmen), among other measures.

Attachment 46 provides traffic data collected on Vista Del Mar on November 6 through November 8, 2001.

# ATTACHMENT 46
# SUPPLEMENTAL TRAFFIC AND TRANSPORTATION DATA REQUEST NO. 33

## TRAFFIC DATA AT VISTA DEL MAR AND PLANT ENTRANCE

## RESPONSE TO DATA REQUESTS
## DECEMBER 7, 2001

# 15-Minute Vehicle Distribution along Vista Del Mar between 45th Street and Grand Avenue
## Average (Tuesday, Wednesday, Thursday) Volume

| Time | NB - AM | Peak[1] | SB - AM | Peak | TOTAL | |
|---|---|---|---|---|---|---|
| 0:00 | 17 | | 44 | | 61 | |
| 0:15 | 20 | | 35 | | 55 | |
| 0:30 | 32 | | 27 | | 59 | |
| 0:45 | 20 | 89 | 22 | 128 | 42 | 217 |
| 1:00 | 19 | 91 | 18 | 102 | 37 | 193 |
| 1:15 | 19 | 90 | 21 | 88 | 40 | 178 |
| 1:30 | 24 | 82 | 23 | 84 | 47 | 166 |
| 1:45 | 21 | 83 | 17 | 79 | 38 | 162 |
| 2:00 | 18 | 82 | 14 | 75 | 32 | 157 |
| 2:15 | 14 | 77 | 14 | 68 | 28 | 145 |
| 2:30 | 4 | 57 | 8 | 53 | 12 | 110 |
| 2:45 | 8 | 44 | 5 | 41 | 13 | 85 |
| 3:00 | 8 | 34 | 13 | 40 | 21 | 74 |
| 3:15 | 4 | 24 | 2 | 28 | 6 | 52 |
| 3:30 | 8 | 28 | 1 | 21 | 9 | 49 |
| 3:45 | 9 | 29 | 7 | 23 | 16 | 52 |
| 4:00 | 9 | 30 | 3 | 13 | 12 | 43 |
| 4:15 | 12 | 38 | 6 | 17 | 18 | 55 |
| 4:30 | 15 | 45 | 6 | 22 | 21 | 67 |
| 4:45 | 20 | 56 | 5 | 20 | 25 | 76 |
| 5:00 | 29 | 76 | 5 | 22 | 34 | 98 |
| 5:15 | 52 | 116 | 13 | 29 | 65 | 145 |
| 5:30 | 70 | 171 | 12 | 35 | 82 | 206 |
| 5:45 | 91 | 242 | 17 | 47 | 108 | 289 |
| 6:00 | 122 | 335 | 30 | 72 | 152 | 407 |
| 6:15 | 168 | 451 | 48 | 107 | 216 | 558 |
| 6:30 | 200 | 581 | 38 | 133 | 238 | 714 |
| 6:45 | 278 | 768 | 44 | 160 | 322 | 928 |
| 7:00 | 350 | 996 | 39 | 169 | 389 | 1165 |
| 7:15 | 448 | 1276 | 71 | 192 | 519 | 1468 |
| 7:30 | 401 | 1477 | 89 | 243 | 490 | 1720 |
| 7:45 | 427 | 1626 | 125 | 324 | 552 | 1950 |
| 8:00 | 464 | 1740 | 97 | 382 | 561 | 2122 |
| 8:15 | 491 | 1783 | 131 | 442 | 622 | 2225 |
| 8:30 | 454 | **1836** | 116 | **469** | 570 | **2305** |
| 8:45 | 403 | 1812 | 105 | 449 | 508 | 2261 |
| 9:00 | 343 | 1691 | 100 | 452 | 443 | 2143 |
| 9:15 | 321 | 1521 | 97 | 418 | 418 | 1939 |
| 9:30 | 258 | 1325 | 94 | 396 | 352 | 1721 |
| 9:45 | 210 | 1132 | 107 | 398 | 317 | 1530 |
| 10:00 | 205 | 994 | 101 | 399 | 306 | 1393 |
| 10:15 | 170 | 843 | 85 | 387 | 255 | 1230 |
| 10:30 | 165 | 750 | 81 | 374 | 246 | 1124 |
| 10:45 | 137 | 677 | 104 | 371 | 241 | 1048 |
| 11:00 | 140 | 612 | 95 | 365 | 235 | 977 |
| 11:15 | 140 | 582 | 126 | 406 | 266 | 988 |
| 11:30 | 164 | 581 | 119 | 444 | 283 | 1025 |
| 11:45 | 177 | 621 | 120 | 460 | 297 | 1081 |
| | 7179 | | 2500 | | 9679 | |

**AM Peak**

| NB | SB | Total |
|---|---|---|
| 1836 | 469 | 2305 |

**Midday Average**

| NB | SB | Total |
|---|---|---|
| 944 | 435 | 1379 |

**PM Peak**

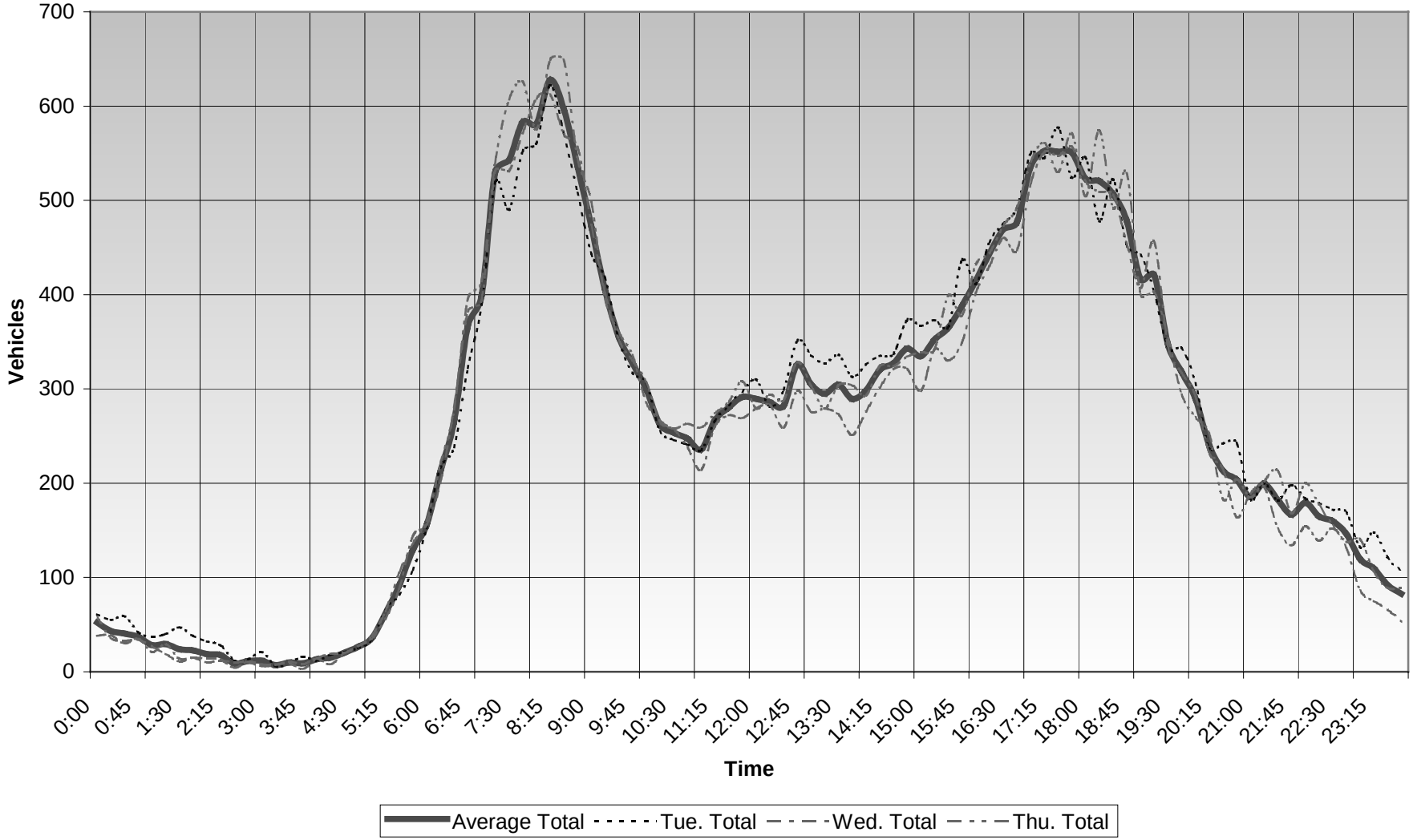
| NB | SB | Total |
|---|---|---|
| 716 | 1480 | 2196 |

TOTAL
25706

| Time | NB - PM | Peak | SB - PM | Peak | TOTAL |
|---|---|---|---|---|---|
| 12:00 | 150 | 631 | 160 | 525 | 310 |
| 12:15 | 145 | 636 | 136 | 535 | 281 |
| 12:30 | 158 | 630 | 141 | 557 | 299 |
| 12:45 | 189 | 642 | 162 | 599 | 351 |
| 13:00 | 164 | 656 | 172 | 611 | 336 |
| 13:15 | 183 | 694 | 144 | 619 | 327 |
| 13:30 | 171 | 707 | 165 | 643 | 336 |
| 13:45 | 153 | 671 | 160 | 641 | 313 |
| 14:00 | 165 | 672 | 161 | 630 | 326 |
| 14:15 | 135 | 624 | 200 | 686 | 335 |
| 14:30 | 143 | 596 | 194 | 715 | 337 |
| 14:45 | 146 | 589 | 227 | 782 | 373 |
| 15:00 | 154 | 578 | 213 | 834 | 367 |
| 15:15 | 138 | 581 | 235 | 869 | 373 |
| 15:30 | 140 | 578 | 226 | 901 | 366 |
| 15:45 | 145 | 577 | 292 | 966 | 437 |
| 16:00 | 129 | 552 | 282 | 1035 | 411 |
| 16:15 | 159 | 573 | 297 | 1097 | 456 |
| 16:30 | 166 | 599 | 309 | 1180 | 475 |
| 16:45 | 165 | 619 | 327 | 1215 | 492 |
| 17:00 | 169 | 659 | 381 | 1314 | 550 |
| 17:15 | 202 | 702 | 343 | 1360 | 545 |
| 17:30 | 184 | 720 | 393 | 1444 | 577 |
| 17:45 | 161 | **716** | 363 | **1480** | 524 |
| 18:00 | 169 | **716** | 376 | 1475 | 545 |
| 18:15 | 171 | 685 | 307 | 1439 | 478 |
| 18:30 | 139 | 640 | 383 | 1429 | 522 |
| 18:45 | 132 | 611 | 320 | 1386 | 452 |
| 19:00 | 126 | 568 | 316 | 1326 | 442 |
| 19:15 | 136 | 533 | 267 | 1286 | 403 |
| 19:30 | 98 | 492 | 245 | 1148 | 343 |
| 19:45 | 117 | 477 | 226 | 1054 | 343 |
| 20:00 | 97 | 448 | 209 | 947 | 306 |
| 20:15 | 81 | 393 | 156 | 836 | 237 |
| 20:30 | 89 | 384 | 153 | 744 | 242 |
| 20:45 | 107 | 374 | 136 | 654 | 243 |
| 21:00 | 77 | 354 | 106 | 551 | 183 |
| 21:15 | 86 | 359 | 114 | 509 | 200 |
| 21:30 | 84 | 354 | 98 | 454 | 182 |
| 21:45 | 72 | 319 | 126 | 444 | 198 |
| 22:00 | 76 | 318 | 108 | 446 | 184 |
| 22:15 | 67 | 299 | 112 | 444 | 179 |
| 22:30 | 66 | 281 | 106 | 452 | 172 |
| 22:45 | 62 | 271 | 107 | 433 | 169 |
| 23:00 | 53 | 248 | 79 | 404 | 132 |
| 23:15 | 53 | 234 | 95 | 387 | 148 |
| 23:30 | 40 | 208 | 81 | 362 | 121 |
| 23:45 | 37 | 183 | 69 | 324 | 106 |
| | 6049 | | 9978 | | 16027 |

[1] Peak stands for Peak Hourly Volume (the traffic level for that 15 minutes interval plus the levels of the pervious 45 minutes).

**15-Minute Vehicle Distribution along Vista Del Mar between 45th Street and Grand Avenue**
**Total Combined Vehicles (NB & SB) - Tuesday, Wednesday, Thursday, Average**



# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *AM Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 8:30 a.m. w/8 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *595* | *120* | *0* | *1016* | *8* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *595* | *0* | *0* | *1016* | *8* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *8* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *8* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *8* | | *0* |
| C (m) (vph) | *691* | | | | | *128* | | *515* |
| v/c | *0.00* | | | | | *0.06* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.20* | | *0.00* |
| Control Delay | *10.2* | | | | | *35.0-* | | *12.0* |
| LOS | *B* | | | | | *D* | | *B* |
| Approach Delay | -- | -- | | | | *35.0-* | | |
| Approach LOS | -- | -- | | | | *D* | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *AM Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 8:30 a.m. w/10 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *595* | *120* | *0* | *1016* | *10* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *595* | *0* | *0* | *1016* | *10* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *10* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *10* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *10* | | *0* |
| C (m) (vph) | *691* | | | | | *128* | | *515* |
| v/c | *0.00* | | | | | *0.08* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.25* | | *0.00* |
| Control Delay | *10.2* | | | | | *35.5* | | *12.0* |
| LOS | *B* | | | | | *E* | | *B* |
| Approach Delay | -- | -- | | | | *35.5* | | |
| Approach LOS | -- | -- | | | | *E* | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *Off Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 9:00 a.m. w/10 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *1764* | *120* | *0* | *468* | *10* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *1764* | *0* | *0* | *468* | *10* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *10* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *10* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *10* | | *0* |
| C (m) (vph) | *1104* | | | | | *142* | | *774* |
| v/c | *0.00* | | | | | *0.07* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.23* | | *0.00* |
| Control Delay | *8.3* | | | | | *32.3* | | *9.7* |
| LOS | *A* | | | | | *D* | | *A* |
| Approach Delay | -- | -- | | | | *32.3* | | |
| Approach LOS | -- | -- | | | | *D* | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *PM Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 4:15 p.m. w/8 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *595* | *120* | *0* | *1016* | *8* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *595* | *0* | *0* | *1016* | *8* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *8* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *8* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *8* | | *0* |
| C (m) (vph) | *691* | | | | | *128* | | *515* |
| v/c | *0.00* | | | | | *0.06* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.20* | | *0.00* |
| Control Delay | *10.2* | | | | | *35.0-* | | *12.0* |
| LOS | *B* | | | | | *D* | | *B* |
| Approach Delay | -- | -- | | | | *35.0-* | | |
| Approach LOS | -- | -- | | | | *D* | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *PM Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 4:15 p.m. w/10 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *595* | *120* | *0* | *1016* | *10* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *595* | *0* | *0* | *1016* | *10* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *10* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *10* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *10* | | *0* |
| C (m) (vph) | *691* | | | | | *128* | | *515* |
| v/c | *0.00* | | | | | *0.08* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.25* | | *0.00* |
| Control Delay | *10.2* | | | | | *35.5* | | *12.0* |
| LOS | *B* | | | | | *E* | | *B* |
| Approach Delay | -- | -- | | | | *35.5* | | |
| Approach LOS | -- | -- | | | | *E* | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *PM Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 7:30 p.m. w/0 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *457* | *120* | *0* | *1206* | *0* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *457* | *0* | *0* | *1206* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *0* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *0* | | *0* |
| C (m) (vph) | *586* | | | | | *98* | | *447* |
| v/c | *0.00* | | | | | *0.00* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.00* | | *0.00* |
| Control Delay | *11.1* | | | | | *41.7* | | *13.1* |
| LOS | *B* | | | | | *E* | | *B* |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

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# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *KER* | Intersection | *Vista Del Mar/Plant Entrance* |
| Agency/Co. | *URS* | Jurisdiction | *El Segundo* |
| Date Performed | *11/16/01* | Analysis Year | *2001* |
| Analysis Time Period | *Off Peak Analysis* | | |

Project Description *During Demolition - Average Volumes @ 8:00 p.m. w/10 Trucks*

East/West Street: *Plant Entrance* | North/South Street: *Vista Del Mar*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume | *0* | *394* | *120* | *0* | *981* | *10* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *0.95* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *394* | *0* | *0* | *981* | *10* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Two Way Left Turn Lane* | | | | | |
| RT Channelized | | | *0* | | | *1* |
| Lanes | *1* | *2* | *0* | *0* | *2* | *1* |
| Configuration | *L* | *T* | | | *T* | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume | *150* | *300* | *0* | *10* | *250* | *0* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *1.00* | *0.95* | *1.00* |
| Hourly Flow Rate, HFR | *0* | *0* | *0* | *10* | *0* | *0* |
| Percent Heavy Vehicles | *10* | *0* | *0* | *100* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | NB | SB | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (vph) | *0* | | | | | *10* | | *0* |
| C (m) (vph) | *712* | | | | | *142* | | *529* |
| v/c | *0.00* | | | | | *0.07* | | *0.00* |
| 95% queue length | *0.00* | | | | | *0.23* | | *0.00* |
| Control Delay | *10.1* | | | | | *32.3* | | *11.8* |
| LOS | *B* | | | | | *D* | | *B* |
| Approach Delay | -- | -- | | | | *32.3* | | |
| Approach LOS | -- | -- | | | | *D* | | |

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