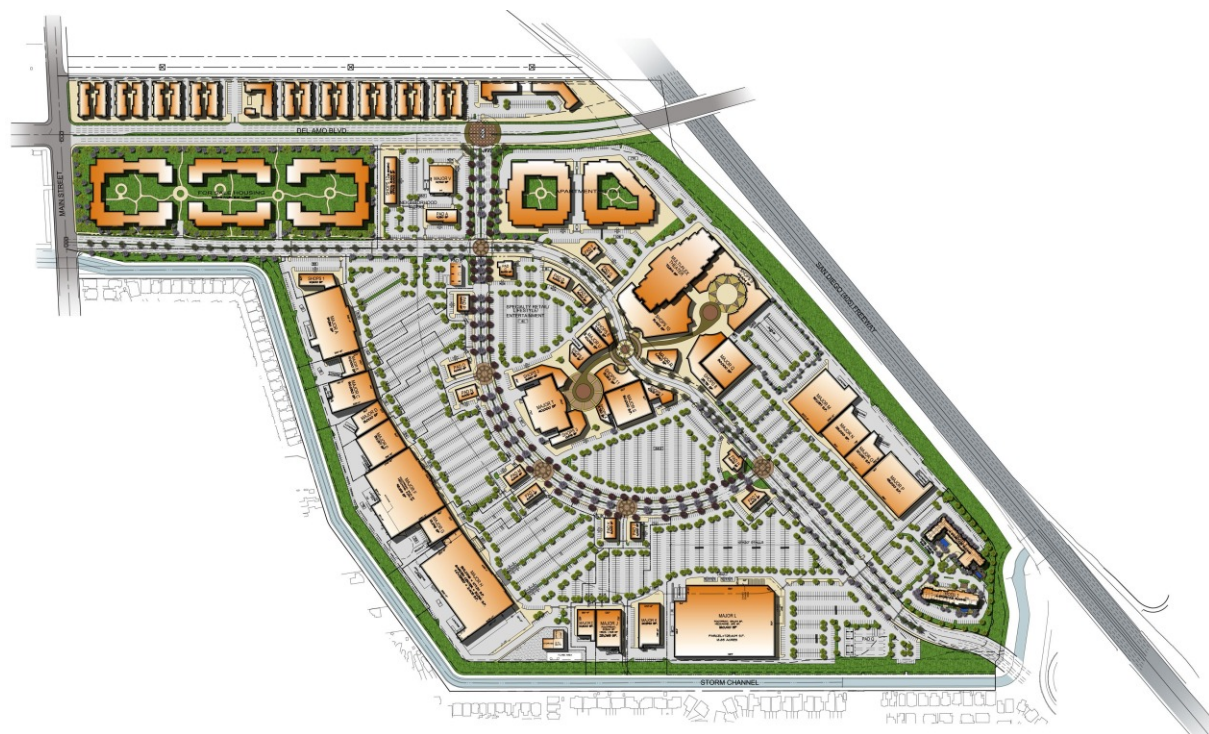




Fugitive Dust Control Plan



For

Avalon at South Bay
(Formerly Carson Marketplace)
Carson, California



February 11, 2008

Prepared by:

TETRA TECH

348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408

Prepared for:

Carson Marketplace, LLC

4350 Von Karman Avenue, Suite 200
Newport Beach, California 92657

FUGITIVE DUST CONTROL PLAN

FOR

**AVALON AT SOUTH BAY
(PREVIOUSLY CARSON MARKETPLACE)
20300 MAIN STREET
CARSON, CA**

Prepared for:

Carson Marketplace, LLC
4350 Von Karman Avenue, Suite 200
Newport Beach, CA 92657

Prepared by:



TETRA TECH, INC.
348 West Hospitality Lane, Suite 100
San Bernardino, CA 92408

February 11, 2008

TABLE OF CONTENTS

Section	Page
SECTION 1.0 BACKGROUND	1
1.1 Introduction.....	1
1.2 Rule 403 Requirements.....	5
1.2.1 Requirements for All Operations.....	6
1.2.2 Requirements for Large Operations.....	6
1.3 Applicability of Rule 403 for the Project.....	6
SECTION 2.0 POTENTIAL FUGITIVE DUST EMISSION SOURCES.....	8
2.1 Construction.....	8
2.2 Materials Hauling.....	8
2.3 High Wind.....	8
SECTION 3.0 IMPLEMENTATION OF DUST CONTROL METHODS	10
3.1 General Dust Control Methods	10
3.2 Additional Dust Control Measures	10
SECTION 4.0 FUGITIVE DUST MONITORING PROGRAM	12
4.1 Sampling Protocol.....	13
4.2 Historic Meteorological Conditions and Meteorological Station	13
4.3 Proposed Locations of Samplers.....	15
4.4 Air Monitoring Schedule	15
4.5 Frequency of Sampling.....	17
4.6 Pump Calibration	17
4.7 Filter Preparation	17
4.8 Monitoring Conditions.....	17
4.9 Record Keeping Practices	17
4.10 Quality Assurance.....	18
4.10.1 Field Sample Blanks	18
4.10.2 Data Analysis	18
4.11 Monitoring Data Review and Corrective Action Implementation.....	18
SECTION 5.0 SELF – INSPECTION CHECKLIST	20
SECTION 6 REFERENCES.....	21

List of Figures

Figure 1. – Vicinity Plan	2
Figure 2. – Site Plan.....	3
Figure 3. – Development Plan	4
Figure 4. – Surrounding Area Prevailing Wind.....	14
Figure 5. – Dust monitoring Locations	16

List of Appendices

Appendix A Air Monitoring Instruments
Appendix B Example Noise/Dust Daily Monitoring Log
Appendix C SCAQMD Notification Form

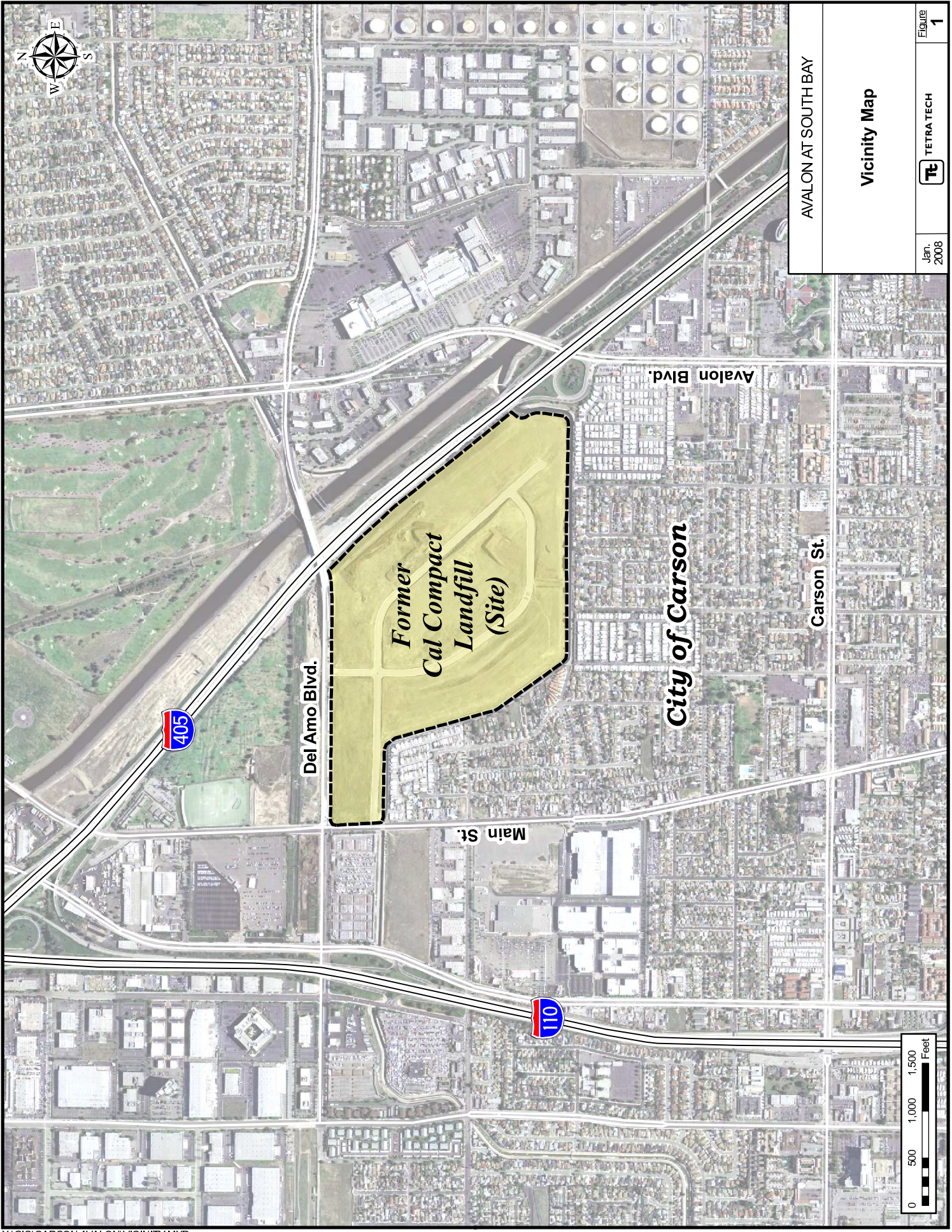
SECTION 1.0 BACKGROUND

1.1 Introduction

Carson Marketplace, LLC (Developer) has proposed to develop the Avalon at South Bay development project (Project), which was previously named Carson Marketplace. This proposed brownfield restoration project involves the development of the former Cal Compact landfill into multiple land uses, including commercial, recreation, entertainment, big-box retail stores, restaurants, hotels, and residential. The proposed Project site comprises approximately 168 acres of land located at 20300 Main Street in Carson, California. The property is bounded on the east/northeast by the San Diego Freeway (I-405), on the north by Del Amo Boulevard, on the west by Main Street and single family residences and mobile home development, and on the south by single family residences and mobile home development (Figure 1). A strip of vacant land to the north across Del Amo Boulevard, which comprises 11 acres, is also within the overall scope of the Project. This portion of the property was not part of the former landfill and therefore, no environmental remediation activities are needed prior to the commencement of the development activities planned for it.

The former Cal Compact landfill consists of five separate landfill cells numbered A1 through A5 separated by the site boundaries on the outer perimeter and by two interior roadways on the interior perimeter (Lenardo Drive and Stamps Drive). A Los Angeles County Flood Control channel (Torrance Lateral) is located adjacent to the south and west sides of the Project site and serves to separate the Project site from the adjacent residential neighborhood (Figure 2).

This Project involves the development of the former Cal Compact landfill into the following land uses: neighborhood commercial, regional commercial, commercial recreation/entertainment, big-box retail stores, restaurants, hotels, and residential (Figure 3). The construction phases of this Project will begin with mass grading of the former landfill area and removal of some of the clean soil covering the landfill cells. This will be done to establish a uniform grade and minimize the thickness of clean soil cover overlying the refuse material so that compaction of the landfill cells may commence. Clean soil removed in the grading process will be temporarily stockpiled onsite until it is reused. Compaction of refuse will be done using deep dynamic compaction (DDC) to consolidate the refuse and soil below future parking and open areas to minimize future settling. The refuse under future building locations will not be compacted. Once all compaction is complete, a landfill gas collection system with horizontal collection wells throughout the site and vertical gas collection wells below future building locations will be installed. This gas collection system will be connected to a gas flare treatment system with a landfill operations center which will have controls and integral monitoring to detect any leakage or system failure. The landfill cells and gas collection system will then have a multi-component landfill cap installed. The first layer of this cap will be the installation of a continuous layer of linear low density polyethylene (LLDPE) geomembrane which will serve as the primary impermeable layer of the cap system. This LLDPE geomembrane will then have drainage strips installed on top of it that will direct



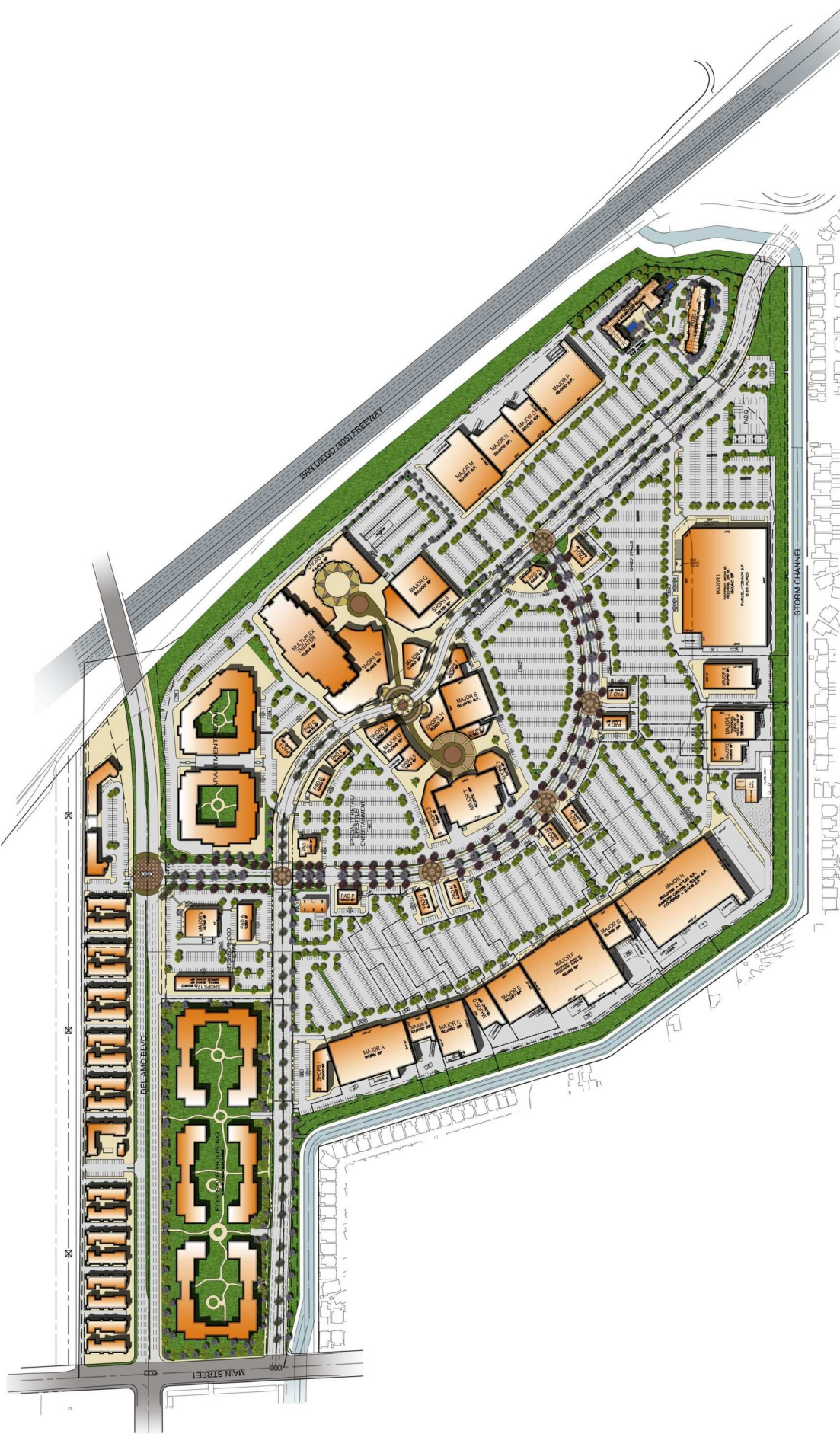
AVALON AT SOUTH BAY

Vicinity Map



AVALON AT SOUTH BAY

Development Plan



water off of the landfill cap so that it does not accumulate. These drainage strips will be covered by a geotextile fabric layer to prevent the accumulation of silt and eventual clogging of the drainage system. This layer will then be covered with clean soil.

All future buildings will be supported on driven piles. Piles will be driven through the refuse until competent native soil is reached. Pile caps will be installed and the concrete building slabs will be poured on top. The LLDPE geomembrane will be sealed to the pile caps where they penetrate it using an expansion boot to allow expansion and movement while remaining sealed.

A building protection system will be installed below all building locations to serve as a backup in case of landfill cap or primary gas collection system failure. This system will include the installation of a membrane attached to the underside of the concrete slab. The space between this membrane and the LLDPE geomembrane will have a passive gas venting system installed and will also include methane detection sensors to provide notification of system failure. All buildings will be built aboveground.

The Project will also include the installation of a groundwater extraction and treatment system along the southern boundary of the Project site to contain and treat impacted groundwater underlying the Project. Some refuse materials in the landfill cells may need to be excavated and moved to facilitate the installation of site utilities and the landfill gas collection system. Tetra Tech, Incorporated (Tetra Tech) is the environmental engineer and general contractor responsible for the design and installation of these remedial systems. Tetra Tech is not, however, responsible for the design and installation of the driven piles, pile caps, and building slabs that make up the building foundations.

During construction of the Project, there are activities that have the potential to generate dust at the site and thus, are subject to the South Coast Air Quality Management District (SCAQMD) Rule 403. This fugitive dust control plan is prepared to discuss the procedures and methods that will be used to mitigate fugitive dust emissions from the Project. Preparation of this plan which includes perimeter monitoring is also required for compliance with the provisions of the Mitigation Monitoring and Reporting Program developed as a part of the Environmental Impact Report (EIR) process (Mitigation Measures D-3, G-1, G-12, and J.1-7).

1.2 Rule 403 Requirements

The purpose of Rule 403 is to reduce man-made fugitive dust. Rule 403 requires implementation of control measures to prevent, reduce, or mitigate fugitive dust emissions and includes a performance standard that prohibits visible emissions from crossing any property line. Rule 403 requirements are summarized in the following subsections below.

1.2.1 Requirements for All Operations

Any operation, which generates fugitive dust, is required to comply with the following:

1. Use best available control measures specified in Rule 403 to minimize dust emissions.
2. Do not allow particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) levels to exceed 50 micrograms per cubic meter (performance standard).
3. Do not allow track-out to extend 25 feet or more outside property line.
4. Remove all track-out at the conclusion of each workday.
5. If the operation involves a site of five or more acres, use at least one of the following measures to minimize track-out: (1) washed gravel pad, (2) paved surface, (3) wheel shaker, or (4) wheel washing system.

1.2.2 Requirements for Large Operations

A large operation is defined as an operation which is 50 or more acres in size, or any earth-moving activities with a soil throughput volume of 5,000 cubic yards or more repeated three times per day. The operator of a large operation is required to implement additional dust control measures in addition to the measures specified in Section 1.2.1. These measures include:

1. Notify the SCAQMD before operation initiation.
2. Implement additional dust control measures defined in the Rule 403.
3. Maintain daily records to document the specific dust control actions taken.
4. Identify a dust control supervisor who will ensure compliance with Rule 403.
5. Prepare a fugitive dust control plan and submit to the SCAQMD for approval.

1.3 Applicability of Rule 403 for the Project

Soil moving activities at the Project will exceed a soil throughput volume of 5,000 cubic yards repeated three times per day. Additionally, the total size of the proposed development is larger than 50 acres. Therefore, the Project is subject to Rule 403 requirements for a large operation as described in Section 1.2.2, in addition to the requirements outlined in Section 1.2.1.

Tetra Tech plans to implement the best available control measures, including watering, stabilized construction entrances, tracking reduction methods, reducing vehicle speed, and stopping all activities during high wind conditions. This plan outlines these dust control measures. In addition, this plan identifies future dust control measures.

Please note that this fugitive dust control plan is prepared in compliance with SCAQMD Rule 403. Tetra Tech is also developing an air monitoring plan, which details the

monitoring programs of other air quality parameters, including odor and volatile organic compound emissions.

SECTION 2.0 POTENTIAL FUGITIVE DUST EMISSION SOURCES

This section identifies potential fugitive dust emission sources at the Project. The entire site consists of unpaved surfaces. Onsite disturbance activities (i.e., stockpiling, loading, excavation, deep dynamic compaction, etc.) have a potential to generate fugitive dust.

2.1 Construction

Construction activities are a fugitive dust source. Emission sources during construction activities include land clearing, deep dynamic compaction, pile driving, grading, ground excavation, cut and fill activities, and windblown emissions from disturbed surfaces. Vehicular travel on disturbed surfaces and material tracked from unpaved surfaces onto paved public roads can also contribute to construction activity emissions. Construction activity fugitive dust emissions can vary significantly from day to day depending on the level/type of activity and wind conditions.

2.2 Materials Hauling

Dust emissions are possible when haul trucks are traveling through the site and when materials are unloaded from the trucks. Additionally, material tracked from unpaved surfaces onto paved roads by haul trucks can also contribute to dust emissions.

Prior to any activity, Tetra Tech will determine which roads near the site should be used to carry the materials to/from the Site and which truck routes, within the site, should be used to minimize fugitive dust. Tetra Tech will also complete daily routine modifications that will reduce traffic in some areas or eliminate it altogether. For example, truck traffic will be reduced or eliminated altogether on the route bordering the site property line near residents. A haul route will be created and all drivers will be briefed on the proper haul route to follow prior to their arrival on site.

The use of water to abate dust has proven to be an effective measure. Where possible and readily available, reclaimed water will be used, within reason, to satisfy Mitigation Measure J.1-7. The route traveled by the water truck will be carefully planned to avoid fugitive dust emissions caused by traveling on unpaved surfaces. Any tracked material from the haul trucks will be removed from road surfaces by street-sweeping (both onsite and on surrounding public roadways) at the end of every work day.

2.3 High Wind

During the construction period of the project, the entire site will consist of unpaved surfaces. During high wind conditions (i.e. 25 miles per hour or higher), fugitive dust is generated from the unpaved surfaces even without any man-made soil disturbance activities.

All stockpiles, material transfer points, material conveyances routes, and open areas subject to wind erosion will be identified. Tetra Tech shall complete daily routine

procedure modifications during high wind conditions that will reduce dust emissions, such as stopping all activities, covering stockpiles with plastic sheets, and watering.

SECTION 3.0 IMPLEMENTATION OF DUST CONTROL METHODS

3.1 General Dust Control Methods

The following are the general dust control measures that shall be implemented on the Project.

- Limit onsite vehicle speeds to 15 miles per hour (MPH) to prevent dust emissions caused by truck travel on unpaved surfaces;
- Use stabilized construction entrances to prevent track-out;
- Stop operations when wind exceeds 25 MPH;
- Maintain live perennial vegetation where possible;
- Apply water in sufficient quantity to prevent the generation of dust plumes;
- Empty loader buckets and dump trucks slowly;
- Minimize the drop height from loader buckets;
- Minimize transfer stations;
- Limit disturbances to soils where possible; and
- Remove track-out at the conclusion of each day.

3.2 Additional Dust Control Measures

The following are additional dust control measures that shall be utilized at the Project as necessary:

- Install a system to reduce track-out, i.e. rumble strips, wheel wash sump;
- Apply chemical suppressants;
- Plant vegetation around the site perimeter, particularly on slopes;
- Erect fencing or wind barriers;
- Cover trucks with a tarp and maintain required freeboard clearances (6 inches) to keep excessive dust during hauling operations;
- Maintain storage piles to reduce steep sides or faces;
- Cover stockpiles with plastic sheet as much as possible; and
- For open storage piles, apply water to at least 80 percent of the surface area on a daily basis when there is evidence of wind driven fugitive dust.

The following shall also be implemented when the noted situations arise:

- Earth-moving operations with greater than one acre of disturbed surfaces are required to operate a water application system (i.e., water truck) while conducting earth-moving operations.
- Track-out control devices, consisting of, at a minimum, a washed gravel pad at least 30 feet wide, 50 feet long, and six inches deep, starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet. A grizzly or wheel wash system

is required for construction projects greater than or equal to five acres or those that import/export greater than or equal to 100 cubic yards of soil per day. Regardless of the project size or track-out control device selected, all materials tracked-out onto a paved public road must be removed at anytime the track-out extends more than 25 feet from a site entrance and at the conclusion of each workday.

- Soil stabilizers and dust suppressants may be used to reduce dust emissions when necessary. They consist of commercially available chemicals applied to the soil surface that maintain the moisture levels in exposed soils or chemically bind the surface material to reduce fugitive dust emissions.
- In general, a policy of “no visible dust emissions” will be in place for all activities conducted at the site over the course of the project. At all times, site personnel will be responsible to report any fugitive dust emissions visually observed on the site so that procedures can be modified or steps can be taken to eliminate or minimize the dust emissions. All personnel will also be responsible for modifying work procedures (if minor) or requesting modification of procedures (if major) for tasks they are conducting, to eliminate visible dust emissions when they are observed.

SECTION 4.0 FUGITIVE DUST MONITORING PROGRAM

Monitoring of the fugitive dust during construction activities is required to ensure that the measures taken are adequately controlling fugitive dust and that compliance with SCAQMD Rule 403 and Mitigation Measures are maintained, including perimeter dust monitoring.

The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 prohibits fine dust (PM₁₀) levels exceeding 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) from any soil disturbance activities. Simultaneous sampling is required to determine PM₁₀ levels at upwind and downwind locations of the emission source, as close to the property line as feasible, to minimize the impact of other fugitive dust sources between the sampler and the property line.

All monitoring equipment, procedures, and analyses selected will follow the standard procedures and protocols of the US Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and South Coast Air Quality Management District (SCAQMD).

Depending on each site activity, sampling procedures may vary. The monitoring variable parameters include: types of samples, locations of samplers, numbers of samplers, laboratory tests, monitoring duration, etc.

The fugitive dust monitoring project at the site will include the use of the following monitoring equipment: high volume PM₁₀ samplers, dust-traks, hand-held dust monitors, and low volume metals samplers. Following is a brief description of each monitoring device:

The High volume PM₁₀ sampler has been widely used for measuring ambient airborne PM₁₀. It consists of a pump that draws air sample passing a cyclone and then through a 8" x 10" quartz filter. The air volume collected is about 1.0 m³/min (cubic meters per minute). Laboratory analysis of the filter by gravimetric methods provides the PM₁₀ concentration. The sampler weighs about 80 pounds and requires an electric power supply of 110 volt.

The Dust-trak monitor is a relatively new device for PM₁₀ monitoring. Its popularity is ever increasing due to its simplicity to operate versus the traditional high volume PM₁₀ sampler. It is a battery-powered sampling pump and laser-photometer housed inside a metal case. PM₁₀ concentration can be digitally displayed real-time and recorded.

The hand-held dust monitor operates similar to the dust-trak sampler but has less recording ability and is more portable. It is portable and weighs about 7 pounds. It can be used to collect additional dust level readings at the site perimeter or to do monitoring in a work area for worker safety protection.

A low volume metal sampler is used to collect samples to be analyzed for a specific metal in the ambient air, e.g. chromium. It is used when a high concentration of a metal airborne with the dust is suspected. It consists of a pump that draws a low volume of air passing thru a small filter. The air volume collected is about 0.02 m³/min. Laboratory analysis of the filter provides the metal concentration. Appendix A presents pictures of the monitoring instruments.

Tetra Tech will determine the specific monitoring devices to be used based on specific activities being performed. The following sections describe the fugitive dust monitoring program planned for the proposed development.

The primary purpose of the perimeter dust monitoring program is to help ensure that safe conditions are being maintained for the surrounding community during construction work. The objectives of the program are to:

- Monitor the levels of particulate matter with aerodynamic diameter of 10 microns or less (PM₁₀); and
- Document air quality at the site perimeter.

4.1 Sampling Protocol

The sampling protocol will take into account the actual site operational and physical characteristics including operation of the Site activities, wind speed and direction, and the chemical and physical features of PM₁₀. Details of the protocol are presented in the following sections.

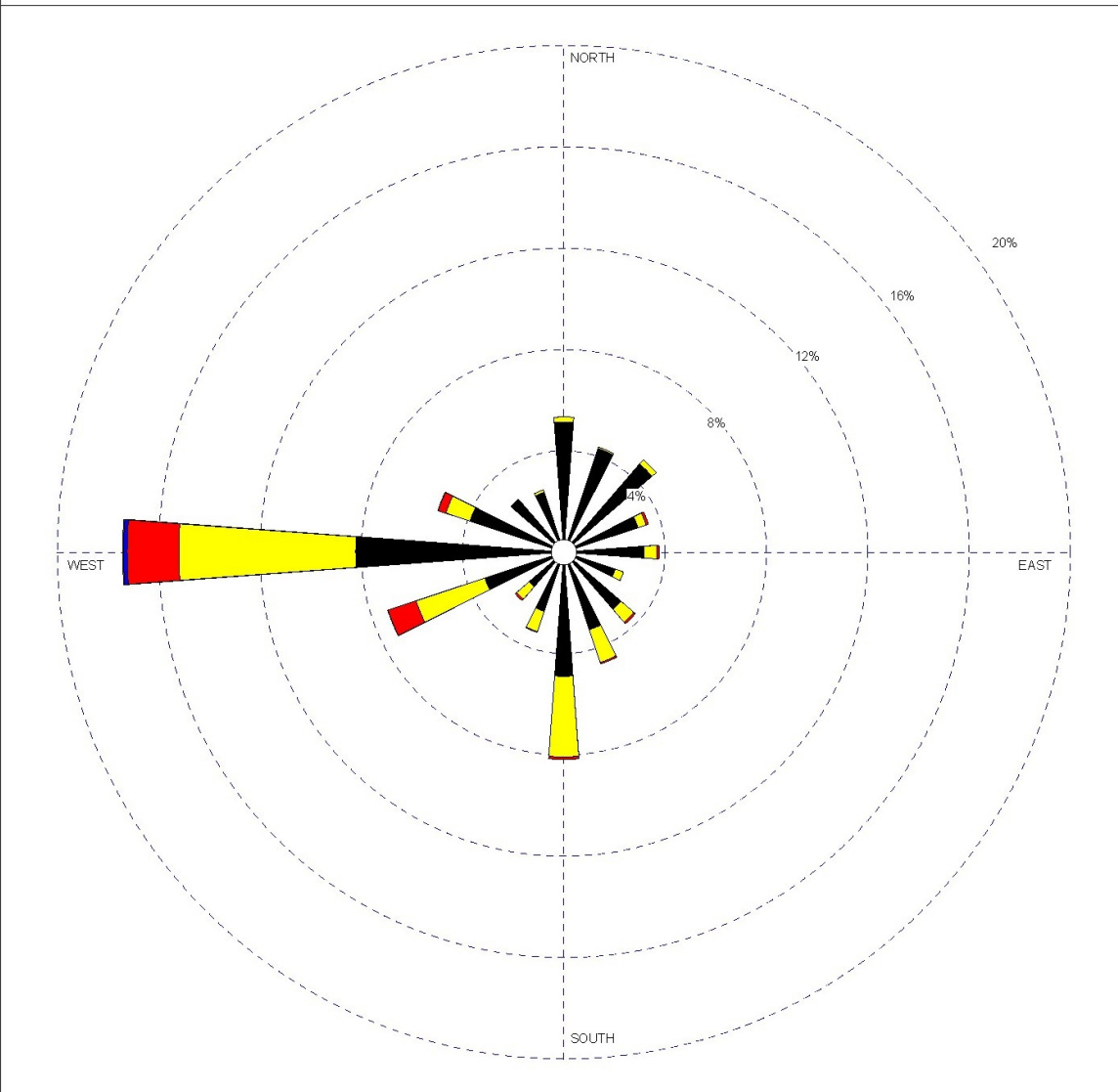
4.2 Historic Meteorological Conditions and Meteorological Station

To identify upwind and downwind locations, meteorological data will be used. The SCAQMD maintains a meteorological station in the City of Long Beach. The station continuously measures local meteorological data. Since the site is located near this station, the meteorological data from this station will be used to assist in selecting the sampler locations. The historic prevailing wind direction at the site is from the west to southwest with a yearly average wind speed of 1.71 m/s (Figure 4). The project is located in the Southern California region, which experience typically a westerly wind in daytime and an easterly wind in nighttime. The time during the wind shifts also varies monthly and seasonally. It will monitor the wind conditions during the project and update the monitoring procedures accordingly. For example, the sampling locations might change based on the wind data and the construction activities.

In addition, Tetra Tech will install a project specific meteorological station onsite, which will provide data specific to the site and account for any micro-environment wind speed

WIND ROSE PLOT

STATION #53101 - Long Beach



Wind Speed (m/s)			
	DISPLAY Wind Speed	UNIT m/s	COMMENTS
	AVG. WIND SPEED 1.71 m/s	CALM WINDS 17.55%	
	ORIENTATION Direction (blowing from)	PLOT YEAR-DATE-TIME 81 January 1 - December 31 Midnight - 11 PM	PROJECT/PLOT NO.

WRPLOT View 2.22 by Lakes Environmental Software - www.lakes-environmental.com

Avalon at South Bay

Surrounding Area Prevailing Wind

Feb.
2008

TETRA TECH

Figure
4

and direction conditions at the site. Meteorological data for wind speed, direction, air temperature, relative humidity and barometric pressure will be collected at the site concurrently with the air monitoring.

Meteorological data will be collected prior to the commencement of significant site construction activities to determine the baseline data for site. The meteorological station will then continue to collect data throughout the site development project. Data will be collected to document weather conditions and to ensure that the perimeter air monitoring stations are appropriately located throughout the entire phase of the project.

4.3 Proposed Locations of Samplers

For perimeter dust monitoring, a minimum of four air samplers for PM₁₀ monitoring is planned for the monitoring program. The proposed locations of the four air samplers are shown on Figure 5. These locations are tentatively selected and may change depending on wind conditions and construction activities. The actual location of the samplers will be chosen in the field based on observed site conditions and the particular site operations. One sampler will be established at an upwind location and three samplers will be established at downwind locations. The upwind sampler will be utilized to identify any extraneous emission sources and the downwind samplers will be used to quantify emissions from the site activities. If the monitoring data shows that the measured concentration exceeds the air quality standards, additional measures to control emissions from the site will be implemented. In addition to the four air samplers, one sampler will be installed near the track-out control device. Readings from this air sampler can be used to assess the track-out control device effectiveness.

Work area dust monitoring will be conducted using hand held dust monitors or dust-trak monitors. Dust levels will be monitored in the work area at the beginning of a specific task to determine a baseline dust level for the task and to determine if additional dust minimization measures are needed for the task. Additional monitoring will be conducted periodically over the course of the task to ensure levels have not elevated from the baseline levels and also when procedures, conditions, or locations change.

4.4 Air Monitoring Schedule

Ambient air monitoring at the site will be conducted at the site before the soil disturbing construction activities start. This monitoring may be concurrent with the site mobilization and pre-construction activities such as: equipment mobilization, surface soil sampling, site surveying, temporary utility installation, site office trailer installation, and site fencing installation. These activities are not expected to impact the collection of perimeter dust monitoring data. Once construction activities commence, daily dust monitoring will be conducted at any time construction activities are being performed.



AVALON AT SOUTH BAY		
Dust Monitoring Locations		
Feb. 2008	TETRA TECH	Figure 5

4.5 Frequency of Sampling

Prior to the commencement of site activities, Tt plans to conduct PM₁₀ monitoring. This data will provide a baseline background level of airborne PM₁₀ concentration at the project site. During the initial phase of the site development (e.g. 1st week of the project), Tt will conduct monitoring at a frequency of one measurement per day per instrument. Tt will expedite the analysis of this initial data to determine the appropriate monitoring frequency throughout the duration of the site development project. The data will continue to be analyzed throughout the duration of the project to determine if the selected monitoring frequency and amount of samplers are adequate. Changes to the sampling frequency and number of sampling points will be made as needed throughout the project. Both the baseline and project monitoring programs include consideration for the variation of daily and monthly wind direction shifts and other onsite activities surrounding the site.

4.6 Pump Calibration

Prior to monitoring, the high volume PM₁₀ samplers or other monitors will be calibrated according to manufacturer's recommendations and in accordance with Title 40 of the Code of Federal Regulations (CFR), Part 50, Appendix J. The flow rate of each instrument will be measured again at the conclusion of each sampling event to quantify flow rate drift.

4.7 Filter Preparation

Prior to monitoring, each quartz sampling filter for PM₁₀ will be conditioned and weighed, and given a unique identification number. After monitoring, each filter will be immediately wrapped with aluminum foil to prevent any heating of the filters, and they will be delivered to the analytical laboratory for analysis. All samples will be delivered using a chain-of-custody form.

4.8 Monitoring Conditions

Over the course of each monitoring day Tetra Tech staff will check the sampling instruments regularly to ensure their proper operation with no abnormalities, such as pump failure. The meteorological station will also be routinely checked to ensure proper recording by the data logger and computer.

4.9 Record Keeping Practices

All data from the monitoring activities will be recorded including, instrument calibration data, sampling data, sampling locations, sampling time, sampling duration at each location, and all quality assurance data. Monitoring records will be completed daily and the records will be turned in for inspection, filing, and quality assurance at the site office at the end of each day. A sample noise and dust daily monitoring log for the use of real time monitoring dust-trak monitors and handheld monitors is contained in Appendix B.

The log sheet will be modified as needed if high volume PM₁₀ or other monitors are utilized.

4.10 Quality Assurance

The Project Manager, or his designated representative, will ensure that all work conducted will be carried out in accordance with this Plan. Records of equipment calibration and monitoring activities will be maintained. Field data sheets completed to record monitoring activities will be submitted daily to the project manager. Chain-of-custody documents will be completed for each delivery of the filters from the field to the laboratory. The project manager will insure that regular field audits of the monitoring procedures and monitoring records are conducted to ensure a high level of quality assurance.

4.10.1 Field Sample Blanks

Field sample blanks will be collected at each of the four perimeter monitoring stations. The blank samples provide an assessment on the quality of the sampling procedures. The field blanks will be installed, removed, and handled in the same manner as the primary samples, except for the passing of ambient air through the filters. Thus, any mass found on the blank is an artifact of the sampling process, and the amount will be subtracted from the primary sample mass loading.

4.10.2 Data Analysis

The PM₁₀ results collected by the high volume PM₁₀ samplers will be presented in mass concentration. Mass concentration is calculated by:

$$\text{Conc.} = \text{Mass}/(\text{Q} \times \text{t})$$

Where

Conc.	=	Concentration, (micrograms per cubic meters, $\mu\text{g}/\text{m}^3$)
Mass	=	Filter mass loading, (micrograms, μg)
Q	=	Sampling flow rate, (cubic meters per minute, m^3/min)
t	=	Sampling time, minutes

Meteorological data from the weather station will be compiled and correlated with the monitoring events.

4.11 Monitoring Data Review and Corrective Action Implementation

The results of the monitoring samples will be reviewed immediately upon receipt to determine if site conditions are in compliance with the air quality goals for the project. If the results show that particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) levels exceed 50 micrograms per cubic meter, then measures will be taken to

determine the cause of the exceedence. Procedures and construction activities will be reviewed to see what modifications will be made to ensure that these levels will not continue to be exceeded. The changes will be documented to show that corrective actions have been implemented.

SECTION 5.0 SELF – INSPECTION CHECKLIST

The following self-inspection checklist is developed to ensure dust control measures presented in this plan are implemented effectively and that compliance with Rule 403 is maintained.

- ☐ Notify the SCAQMD before initiation of a large soil moving operation.¹ Use the notification form presented in Appendix C.
- ☐ Design the construction activity to minimize fugitive dust emissions using strategies defined in Section 2 of this plan.
 - ☐ Minimize truck traveling on unpaved route
 - ☐ Design truck routes to minimize dust generation
 - ☐ Provide vegetation, if possible
 - ☐ Minimize numbers of material transfer stations
 - ☐ Reduce activities during high wind conditions
 - ☐ Cover soil stockpiles during high wind conditions
- ☐ Implement appropriate dust control measures described in Section 3 of this plan.
- ☐ Develop fugitive dust monitoring protocol and implement the monitoring program.
- ☐ Identify a control supervisor who will ensure compliance with Rule 403.
- ☐ Maintain daily records to document the specific dust control actions taken. Records shall include: time, date, control measures taken, weather conditions, and public complaints, if any.

¹ Large operation is defined as the operation, which contains 50 or more acres or any earth-moving activities with a soil throughput volume of 5,000 cubic yards or more three times per day.

SECTION 6 REFERENCES

South Coast Air Quality Management District (SCAQMD), Rule 403,
http://www.aqmd.gov/rules/reg/reg04_tofc.html

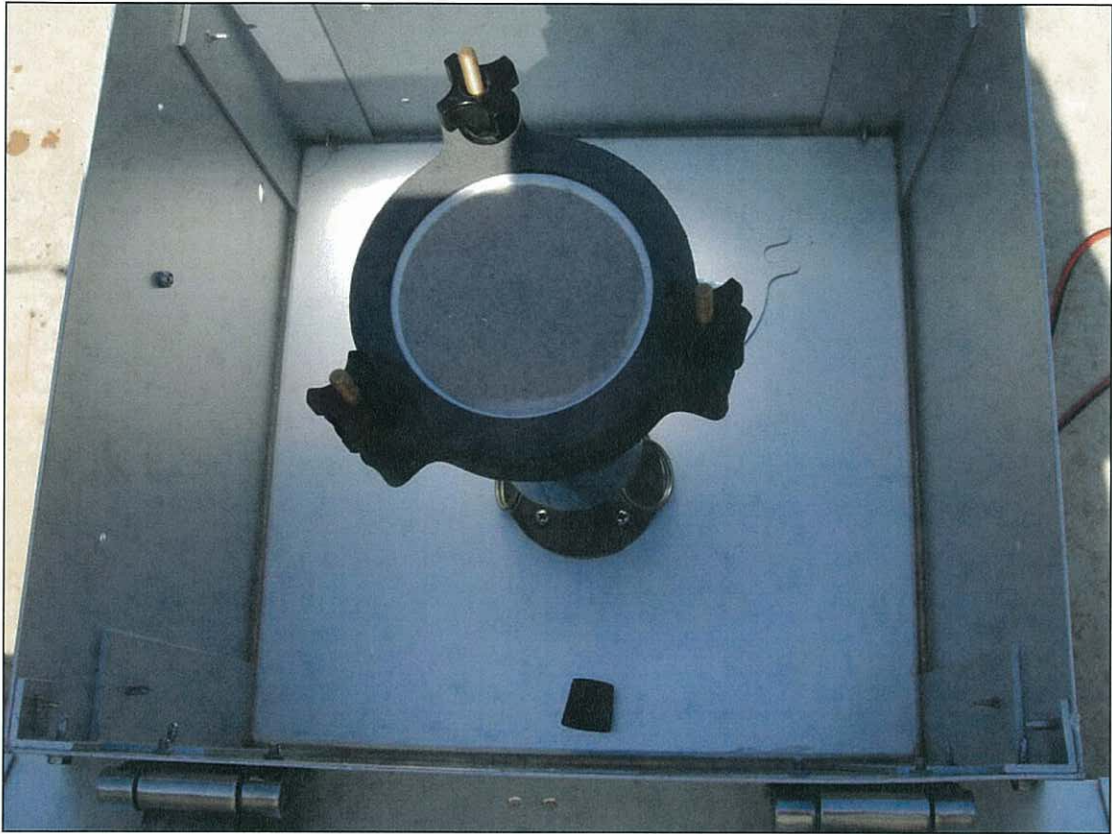
APPENDIX A

AIR MONITORING INSTRUMENTS

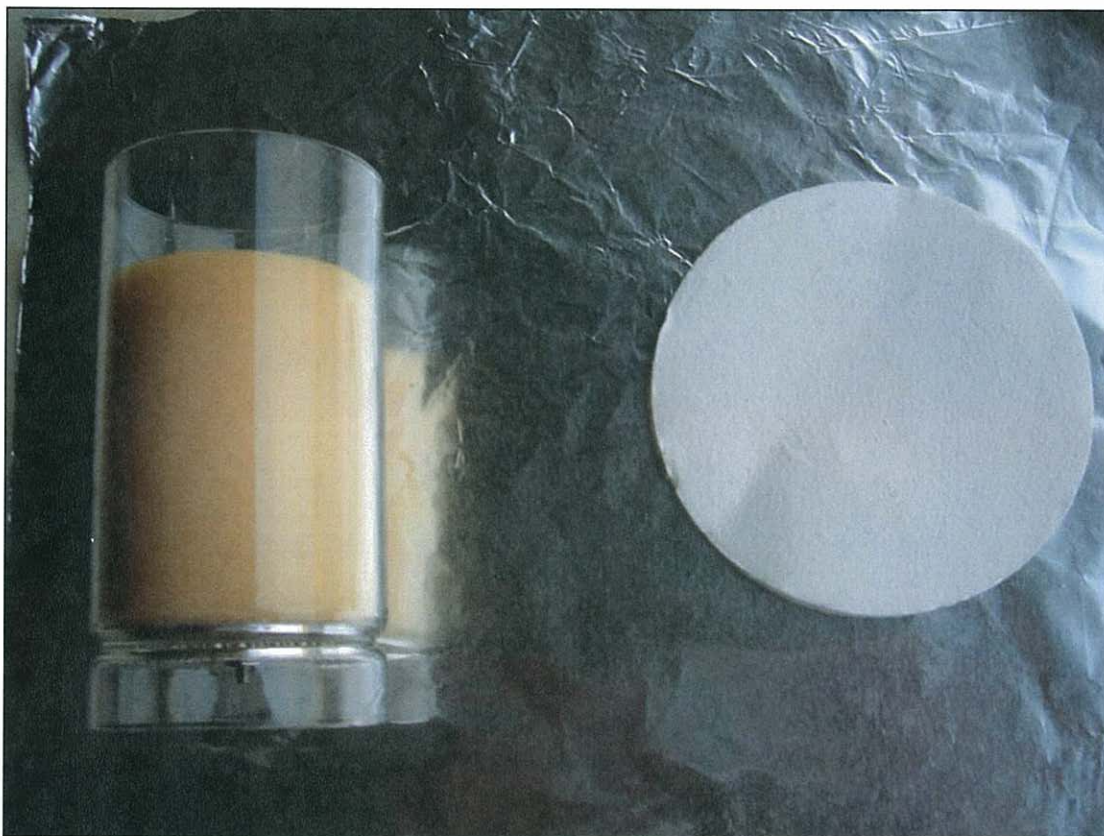


PUF Sampler

PM₁₀ Sampler



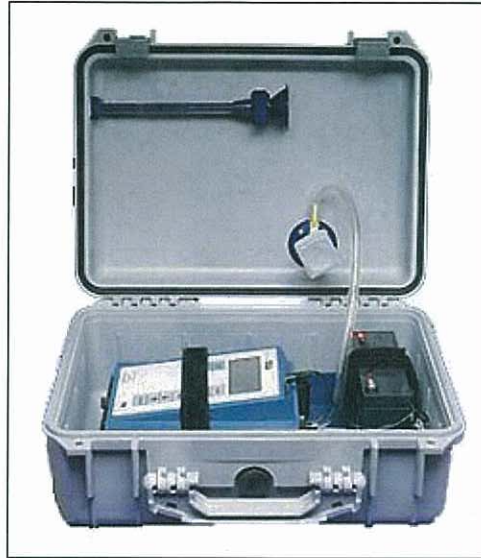
PUF SAMPLER CHAMBER COLLECTOR



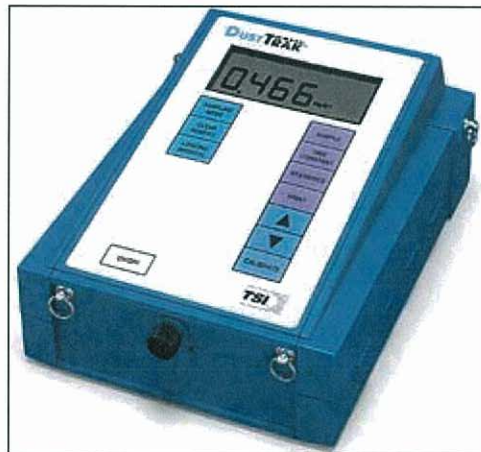
PUF SAMPLER FILTERS



Low Volume Sampler



Dust-trak



Handheld Dust Monitor Device



SUMMA CANISTERS



Meteorological Station

APPENDIX B

EXAMPLE DUST/NOISE DAILY MONITORING LOG

Dust and Noise Monitoring Records

	Facility/Site Information
Tetra Tech, Inc 348 West Hospitality Lane, Suite 100 San Bernardino, CA 92408	
Monitoring Personnel:	
Name:	Company

Dust Monitor Information	Calibration Data	Noise Monitor Information	Calibration Data
Brand:	Method: Zero Check / Flow Check (Daily)	Brand:	Method:
Model:	Date	Model:	Cal Save Date:
Type	By	Type	By

[illegible]

I certify that the information contained in the above document is true and correct. I further certify that the above listed monitors were operated in a manner consistent with the manufacturer's specifications and the conditions specified. In addition, I certify that the above readings represent the actual measurements I observed and recorded during the excavation process.

DATE: _____

APPENDIX C

SCAQMD NOTIFICATION FORM

RULE 403 - LARGE OPERATION NOTIFICATION

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, CA 91765

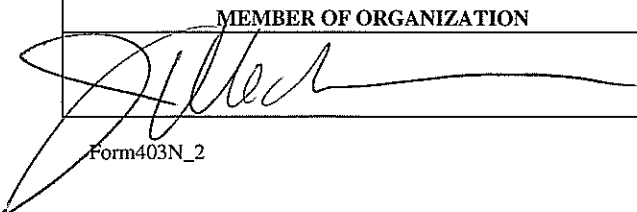
Is this plan being submitted to comply with the requirements of a Notice to Comply or Notice of Violation? YES/NO

Notice Number _____ Please attach copy

Qualifying Criteria:

- Does this operation contain more than 50 acres of disturbed surface area as of the date of submittal? YES/NO
Please indicate the size of the project **168 Acres**
- Will the earth-moving operation exceed a daily earth-moving or throughput volume of 5,000 cubic yards three times during the most recent 365-day period from the date grading begins? YES/NO

Please Print or Type

Contractor/ Consultant/ Owner:			
(Circle one of the above) Tetra Tech, Incorporated		Phone Number: (909)381-1674	
Address: 348 West hospitality Lane, Suite 100 City: San Bernardino State: CA Zip: 92408			
Project Name: Avalon at South Bay (formerly Carson Marketplace)			
Nature of Business: <input checked="" type="checkbox"/> Construction/Demolition <input type="checkbox"/> Sand & Gravel/Mining Operations <input type="checkbox"/> Cement Manufacturing			
Name of Responsible Person of Organization: Javier Weckmann			
Title: Vice President		Phone Number: (909)381-1674	
Environmental Observer: Weyman Kam		Phone Number: (626)675-5608	
Date Attended Dust Class:		ID Number:	
Project Address: 20300 Main Street		City: Carson	State: CA Zip: 90745
(Attach location map)			
Name of Property Owner: Carson Marketplace, LLC.			
(If different than above) 4350 Von Karman Avenue, Suite 200, Newport beach, CA 92657			
Anticipated Start Date: February 18, 2008		Anticipated Completion Date: December 2012	
Telephone Number: (909)381-1674			
Emergency Phone Number: (310)956-5942 Project Construction Relations Officer			
In accordance with paragraph (e)(1) of Rule 403, I will ensure that the actions specified in Tables 2 and 3 will be implemented onsite for each applicable fugitive dust source type within the property lines and that records are maintained in accordance with Rule 403, subparagraph (e)(1)(c). Further, I hereby certify that all information contained herein is true and correct.			
SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION		TITLE	DATE
		VICE PRESIDENT	2/12/08



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

APPROVAL DATE
March 4, 2008

Javier Weckmann
Vice President
Tetra Tech, Inc.
348 W. Hospitality Ln., Suite 100
San Bernardino, CA 92408

Dear Javier Weckmann:

The South Coast Air Quality Management District (SCAQMD), hereby acknowledges receipt of the **Large Operation Notification** (Form 403N) submitted for the Avalon at South Bay (formerly Carson Marketplace) project. Rule 403 requires all active operations to comply with the applicable Best Available Control Measures listed in Table 1.

This notification satisfies part of the Rule 403 requirements for Large Operations. Rule 403 also requires applicants to implement and document Table 2 and Table 3 actions taken on a daily basis for each applicable source of fugitive dust. These records must be maintained for a period of at least three years and also must be made available to the Executive Officer or his designee upon request.

Please remember that the approved Large Operations Notification Plan will be valid for one year from the approval date. Please also remember that Rule 403 requires large operations which operate for more than one year to submit a revised notification to the District **30 days** prior to the March 4, 2008, approval date. If conditions at the site have not changed and the operator wants to be subject to the same fugitive dust control actions as identified in the original notification, the operator can simply submit a Statement of No Change (Form 403NC). There are no filing fees associated with submittal of a Form 403NC.

For future reference you can access the 403 Notification Form from the SCAQMD web page at (www.aqmd.gov). Go to "Business", "Compliance Program", "Recordkeeping and Reporting Forms", and finally, "Form 403 N".

If you have any questions regarding compliance with Rule 403, please call Patrick Hotra at (909) 396-2995.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick Hotra", is written over a light blue circular stamp.

Patrick Hotra
Senior Staff Specialist

Cleaning the air that we breathe...