

REMEDIATION OVERVIEW

for

**Aggregate Recycling Systems
6208 South Alameda Street
Huntington Park, California
CIWMB Contract # IWM-03015B**

**Prepared for:
State of California
Integrated Waste Management Board
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1.0 INTRODUCTION

This report has been prepared by A.J. Diani Construction Co., Inc. (AJD) to discuss the procedures and methods that may be used to remediate the Aggregate Recycling Systems (ARS) facility located at 6802 South Alameda Street, Huntington Park, California. AJD is under contract with the California Integrated Waste Management Board (CIWMB) to provide environmental services for landfill and disposal site remediation. The contract (IWM-03015B) is for cleanup of sites throughout the State of California, approximately twenty-six months in duration, with equipment rates determined by the Department of Transportation and labor rates determined by the Department of Industrial Relations. All work done under the contract is accomplished under Work Orders for specific projects and tasks.

This report is based on information contained in the following:

- CIWMB Work Order D-A1 (Contract #IWM-03015B);
- Photographs of the site provided by CIWMB;
- Site visit held on July 7, 2004; and
- Letter addressed to the CIWMB from the Communities for a Better Environment (CBE), dated June 11, 2004.

2.0 SITE DESCRIPTION

The proposed work will take place at the former ARS facility located at 6802 South Alameda Street in the City of Huntington Park, California. The site is located to the south of Randolph Street and east of the frontage road paralleling Alameda Street. Industrial and commercial businesses border the site on the north, south and west sides. Cottage Avenue and a residential area bound the site on the east. The site is "L" shaped and includes approximately 5.45 acres. There is a truck scale and office building fronting Alameda Street with several support buildings immediately to the east and a warehouse building located in the southeast corner of the site.

An aerial survey of the site was made on May 14, 2004 which determined that approximately 48,000 cubic yards of unprocessed material and 36,000 cubic yards of processed material are stockpiled at the site. The processed material extends from the north side of the property to the south side, restricting access to the unprocessed material at the east end of the site. Although there are two gates in the block wall along the east side of the property, parking is allowed on both sides of Cottage Street which limits access. In addition to the processed and unprocessed concrete materials, there is other construction debris and trash contained in the piles and numerous roll-off trash bins, as well as approximately 150 used truck and automobile tires, located in the southeast corner of the site.

3.0 SCOPE OF WORK

The immediate goal of this project is the removal of all unprocessed concrete rubble, processed material and all remaining debris and trash from the site as rapidly as possible while minimizing impact to the surrounding residential and commercial areas. All materials are to be used for aggregate or engineered fill when feasible or otherwise disposed of at appropriately approved facilities or sites. Crushing on-site will not be allowed, some larger concrete slabs will be broken to facilitate loading and hauling.

4.0 REMEDIATION OPTIONS

With the above Scope of Work, AJD contacted numerous facilities, agencies and contractors in the Los Angeles area to determine possible uses for the material and/or available sites for disposal. These contacts were made without exact dates for material being available or whether the removal would include processed as well as unprocessed concrete materials. When those factors are determined, an additional effort will be made to ascertain uses for the material and costs for various means of disposal.

Early in the contacts, it was determined that there is a very limited market for processed material. Recycling facilities near the site reported that they had little or no market for the material that they were processing, their interest in materials from the property was primarily limited to the unprocessed material (for which they could charge a higher rate). There was some interest expressed for the processed material by local developers, but the interest was only if the material would be available at specific times. Processed material could possibly be sold or hauled from the site at the developers' expense, but that method of disposal is entirely dependent on timing.

To minimize remediation time (and resultant manpower and equipment costs as well as impact on the surrounding area), it is recommended that facilities permitted to take large volumes of material on a daily basis be used for disposal of the materials. Based on site conditions at the property and traffic to and from the site, it is expected that an average of 90 truckloads of material can be removed from the property each day. Initially, access will be limited to the processed material and 60 truckloads per day may be difficult to achieve. When sufficient processed material has been removed to allow access to both piles and there is sufficient room to easily operate equipment, it may be possible to load 120 trucks per day. With approximately 5,250 truckloads of material at the property, it is estimated that removal will take 60 working days (or 12 weeks).

As stated in the Scope of Work, the goal of this project is removal of materials from the property as quickly as possible. Options considered for this removal are limited to the facilities that have indicated ability to take the material in a timely manner. A summary of these facilities is included as Table I, Disposal Site Evaluation. This table includes parameters effecting removal cost, such as distance from the property and disposal fees. Limitations of certain facilities are listed in the "Comments" section of the table.

When actual start dates are determined, AJD will again contact the facilities to confirm prices and capacities, and will also contact local agencies and developers to determine if there are uses of the materials that will reduce the cost of the remediation. AJD will also contact the local recycling facilities to determine if they can take material from the property.

At this time it appears that the most economical means of site remediation will involve disposal at Nu-Way Live Oak and Peck Road Gravel Pit with potential future use as engineered fill for mine reclamation. Some small percentage of the material may be hauled to local recycling facilities to reduce the cost of disposal, although those facilities have very limited capacities.

5.0 CONSTRUCTION SEQUENCE

The sequence of this project will be; (1) pre-construction activities; (2) mobilize equipment and personnel to the site; (3) install mitigation measures; (4) load and export material; (5) finish grade and clean site; and (6) de-mobilize from site. These operations will be outlined in the following sections.

- (1) Pre-Construction Activities – To date AJD has conducted a site visit, identified waste types, estimated quantities, and identified potential disposal facilities. A site specific Health and Safety Plan and a Traffic Plan will be prepared and submitted to local authorities. Project signs will also be prepared for posting around the site perimeter. These signs will provide pertinent project information and progress updates as well as contact information. Finally, a community outreach event will be conducted prior to the start of work. Information provided will include a description of the project, intended work hours and days, and anticipated impacts to the community and how those impacts will be mitigated.
- (2) Mobilization & Site Preparation - This task will include the delivery and staging of all equipment and materials at the site; site-specific health and safety training of site personnel; installation of temporary site fencing, signs and temporary storm water pollution measures; and the establishment of work zones.
- (3) Install Mitigation Measures – Various measures will be established to mitigate and monitor dust, noise, and pollution concerns associated with the site. Mitigation measures will consist of engineering controls while monitoring measures will consist of quantitative and qualitative measurements obtained through real-time electronic monitoring equipment and visual observations. A discussion of each concern and the mitigation measures follow:
 - Dust – It is anticipated that dust may be generated when haul trucks are traveling through the site and as they are loaded. The following measures will be implemented to control dust.
 - Engineering controls – The most effective method of dust control for this project will be the liberal use of water. Prior to start of work the existing site water system will be inspected and verified adequate to supply the needs of the project.

Supplemental water may be obtained through a metered city fire hydrant if required. Twenty thousand-gallon water storage tanks will be brought to the site and plumbed to the onsite water source. From the water tanks, booster pumps will be connected to sprinkler systems placed on top of the debris piles. Water amended with surfactants will be pumped from the tanks and sprayed over the piles to wet the debris. To provide water to specific locations while loading, the pumps will supply water to manifolds to which fire hoses can be attached. To mitigate dust generation on the haul roads, a 4,000-gallon water truck will be used to keep the site roads moist. In addition to wetting the roads a ten-mile per hour speed limit will be enforced on all trucks within the site. To reduce tracking of debris from the site, rumble strips will be installed to dislodge debris from the trucks as they exit the site. Finally, a sweeper will be used to periodically clean the surface roads along the exit route.

- **Measurement** – The primary method for monitoring dust generation will be visual observation. Site personnel will be instructed to continuously monitor for dust generation. Prolonged visual opacity exceeding limits established by OSHA and the South Coast Air Quality Management District (SCAQMD) will cause operations to be stopped and control methods evaluated and modified as required before work resumes. In addition to visual observations, meters designed to measure airborne particulates will be placed in locations upwind and downwind to measure airborne dust concentrations entering and leaving the site.

Noise – Mechanized equipment will be the primary source of noise generated at the site. The following measures will be implemented to control noise in accordance with OSHA standards and the Huntington Park Municipal Code.

- **Engineering controls** - Equipment will be equipped with exhaust mufflers meeting or exceeding original manufacture's specifications. No equipment will be allowed to operate onsite with a modified or broken exhaust system. The use of truck engine braking will be prohibited onsite. To minimize noise generated by concrete sizing operations, a hydraulic concrete pulverizer will be used to size larger concrete slabs in lieu of a breaker. Finally, work hours have been set for site operations to reduce impact on the surrounding neighborhoods.
- **Measurement** – Noise levels within the work site and along Cottage Avenue will be periodically measured using an audiometer to confirm that OSHA exposure limits are not exceeded.

Pollution – Primary source of pollution generated during the project will be engine exhaust. Although there is some indication of contaminated soils at the site, there is some indication that those soils have already been removed. The following measures will be implemented to control pollution.

- **Engineering controls** – To minimize airborne pollution generated by equipment on the site; (1) only California Air Resources Board certified construction equipment will be used onsite, (2) all equipment will be properly maintained and tuned according to manufactures specifications, and (3) low sulfur diesel fuel will be burned in all construction equipment. In addition, AJD will comply with proposed standard to reduce public exposure to diesel emissions, although these standards are not currently required by regulation.

- Visual observation will be used to monitor for contaminated soils. Based on current site information and sampling data, it is not anticipated that contaminated soils will be encountered, but all materials will be visually identified, and potentially hazardous or contaminated materials will be segregated and then sampled for later disposal at appropriate facilities.
 - Measurement – Direct reading instrumentation such as Photo-ionization detectors (PID) will be on site to examine any potentially contaminated material.
- (4) Load and Export Material – Once mitigation measures have been implemented loading operations will begin. Loading and shipping activities will be scheduled in advance to reflect availability of the various disposal sites. Trucks will be scheduled to; (1) minimize the amount of time they spend onsite, (2) minimize the impact to the surrounding neighborhoods, and (3) maximize the use of onsite loading equipment. Currently access is limited to the processed material. The excavator will begin removing material to provide access to the unprocessed material, while the front end loader also loads trucks from the processed pile. When access is gained to the unprocessed pile, trucks will be directed to either of the two loading piles. At the unprocessed debris pile the track-mounted hydraulic excavator will load the trucks from the pre-wetted stockpile. Laborers will be present to assist in loading and abate dust using a fire hose. The laborer will also brush any debris from the truck bed prior to the truck leaving the loading areas. As the excavator moves through the unprocessed pile, the operator will segregate any debris not appropriate for the disposal facility being used that day. This debris along with pieces of concrete too large to load will be set aside for removal at a later date. Concrete pieces too large to load will be reduced in size using the hydraulic pulverizer. At the processed debris pile, a rubber-tired front end loader will be used to load the waiting trucks. A laborer will be there also to suppress dust and clean the truck bed. After loading, the trucks will proceed to the exit gate at the southwest corner of the site where loads will be covered with tarps and drivers receive the load manifest. As the trucks leave the site, they will cross over rumble strips to remove any loose debris from the truck.
- (5) Finish Grade and Clean Site – Upon completion of the removal of all identified debris and trash from the site a motor grader will be used to re-establish site grades and to reduce potential ponding areas.
- (6) Final Cleanup and De-mobilization – Upon completion of site activities, any remaining waste materials and project equipment will be removed in preparation for final inspection by the Project Engineer.

6.0 EQUIPMENT

The equipment required to accomplish the tasks as outlined above are as follows:

- (1) Cat 345 excavator (equipped with a hydraulic breaker)
- (1) Cat 966 front end loader
- (1) 2,000 gallon water truck
- (1) Cat 140G motor grader

Misc. support equipment
(2) Temporary sanitary facilities
Water tanks and pumps

7.0 SITE SECURITY / TRAFFIC CONTROL

Security-

Existing site fencing and gates will remain in place during the project. Regulated areas and designated work zones will be established within the site perimeter using 4' high orange construction fence and T-posts. Some sections of existing fence may require replacement after removal of adjacent materials.

Access to the site will be controlled by:

- Establishing barriers to exclude unnecessary personnel and the public.
- Scheduling operations that utilize minimum numbers of personnel.
- Establishing control points to regulate ingress and egress to work zones.

Security for the site during field operations will be the responsibility of the Site Superintendent. All workers and visitors entering the site will be required to sign an entry log. At the close of the shift the site will be secured using locks on gates at all access points.

Traffic Control

Traffic control within the work site will be the responsibility of the Site Superintendent and will be implemented by laborers. After approval by appropriate authorities, the Traffic Plan will be implemented, remaining in force until project completion. All subcontract haulers and their drivers will be required to read and acknowledge their understanding and agreement to comply with the conditions of the Plan. Specific routes will be developed for travel to each disposal site. Staging of haul trucks will be restricted to available parking at the site and on the frontage road paralleling Alameda Avenue between Randolph and Slauson Boulevards. Trucks staged either onsite or off must turn off engines while waiting to be loaded.

Offsite haul routes within the vicinity of the site: Northbound and southbound traffic will be restricted to Alameda Avenue. No haul trucks will be allowed to use Cottage Avenue. East and west travel will be restricted to either Slauson or Florence Boulevards. Traffic on Randolph will be restricted to that portion between the frontage road providing access to the site and Alameda Avenue. proper.

Onsite haul routes: Haul trucks will enter the site from the Alameda Avenue. frontage road using the north entry gate. Upon entering the site, trucks will proceed to a parking area immediately behind the office-building, park and turn off engines. Trucks will wait there until directed to the loading area at either the processed or unprocessed piles. While loading, trucks will leave their engines running for the one to two minutes required to load. Loaded trucks will exit the

site onto the frontage road turning north and traveling to Randolph where they will turn left and proceed to the designated recycling/disposal facility.

8.0 COMMUNITY INVOLVEMENT

Project management will make every effort to establish and maintain effective avenues of communication between the project management, site personnel, local government agencies and the local community. This will include the following measures:

- Informational fliers distributed to the surrounding residential communities and commercial businesses;
- Initial community outreach meeting and/or site open house prior to starting work;
- Maintaining at least one bi-lingual member of the site team to field questions;
- Maintaining project status boards at locations around the site perimeter; and
- Providing names and contact information for primary site contacts.

9.0 COST ESTIMATE

With an estimated start of construction and quantities of materials, AJD has prepared an estimated budget for this remediation project. When AJD is notified of a start date and what materials on site are to be removed, and any other conditions that will effect the remediation, a more accurate cost estimate and schedule will be submitted as part of the Remediation Work Plan.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Mobilization/Demobilization:	LS	1	\$ 4,000.00	\$ 4,000.00
Site Health and Safety Oversight	LS	1	\$ 56,350.00	\$ 56,350.00
Material Handling	Day	60	\$ 7,400.00	\$ 444,000.00
Disposal (Processed Rubble)	Lds	2,250	\$ 173.00	\$ 389,250.00
Disposal (Unprocessed Rubble)	Lds	3,000	\$ 225.50	\$ 676,500.00
Disposal (Misc Trash & Tires)	LS	1	\$ 14,750.00	\$ 14,750.00
Site Fence Repairs	LS	1	\$ 8,000.00	\$ 8,000.00
Site Regrading	LS	1	\$ 10,000.00	\$ 10,000.00
Contingency (~20%)	LS	1	\$340,000.00	<u>\$344,000.00</u>
Total Remediation Costs				\$ 1,946,850.00

ALTERNATE COSTS: The following costs have been prepared for the demolition and disposal of several structures on the site. These buildings are; (A) Garage, (B) Wash Room, (C) Tin shed, (D) Rear Warehouse, (E) Front Office and (F) Steel Structure.

Scope of Work:

- Provide demolition permits for all buildings.
- Disconnect and cap all utilities.
- Provide water for dust control during demolition.
- Demolish structures and crush into manageable sizes for loading and transport to a waste transfer station for disposal.
- Remove and dispose of concrete footings and slabs.
- Rough grade the building pads to match surrounding grades.

Cost of Services:

Building A (Garage):	\$ 8,150.00
Building B (Wash Room):	\$ 17,400.00
Building C (Tin Shed):	\$ 7,960.00
Building D (Rear Warehouse):	\$ 31,140.00
Building E (Front Office):	\$ 46,305.00
Building F (Steel Structure):	N/A –

There was insufficient information regarding the structural nature of the building and it's foundation to provide an accurate estimate for demolition and disposal of this structure. An estimate may be provided upon further examination of the structure and any available design data.

Note: A site survey for hazardous materials was not available at the time of proposal preparation, therefore, these estimates do not reflect any costs for assessment and/or abatement and disposal of hazardous materials such as asbestos or lead paint.

**TABLE I
DISPOSAL SITE EVALUATION**

Site	Distance from ARS, Miles	Haul Time, Hrs	Haul Rate \$/Load	Disposal Fee Per Load	Capacity Loads/day	Comments
Calmat Industrial Asphalt	3.5	.75	\$ 61.88	\$ 99.00	15/20	Close to site however limited capacity, may only be able to ship there for 2-3 days before they need time to process. Restrictions to size and re-bar.
Atkinson & Earthshine	5.6	1	\$ 82.50	\$132.00	15/20	Close to site however limited capacity, may only be able to ship there for 2-3 days before they need time to process. Restrictions to size and re-bar.
Shamrock Base	5.6	1.25	\$103.13	\$ 99.00	15/20	Close to site however limited capacity, may only be able to ship there for 2-3 days before they need time to process. Restrictions to size and re-bar.
Hansen Aggregates	6.5	2	\$ 165.00	\$ 99.00	10/20	Close to site however limited capacity, may only be able to ship there for 2-3 days before they need time to process. Restrictions to size and re-bar.
Nu-Way Live Oak	23.3	2	\$ 165.00	\$ 60.50	60/120	Access and haul are good however there are long lines at scales. Has permit restriction for 6,000 tons per day capacity.
Peck Road Gravel Pit	20.5	2	\$ 165.00	\$ 60.50	60/120	Access and haul are good however there are long lines at scales. Has permit restriction for 1,210 tons per day capacity.
Chandler Landfill (Unprocessed)	19.5	2	\$ 165.00	\$ 55.50	60/120	Has good capacity however 110 freeway may cause haul delays.
Chandler Landfill (processed) Transportation & Disposal	19.5	2	\$ 173.00	\$ 0.00	60/120	Has good capacity however 110 freeway may cause haul delays.
Arcadia Reclamation	20.5	2	\$ 165.00	\$ 60.50	60/120	Access excellent with no scales (pay by truck load) - minimal delays at site – not as particular about re-bar or size (less time spent at ARS by Diani Crews to process). Does not currently have permits to allow disposal of material from project site.
Calmat Reliance Pit	25.4	2.5	\$ 206.25	\$ 60.50	60/120	Haul distance only allow three loads per day/truck
Calmat/Vulcan Wilmington, Calmat – Sun Valley Rock, Vulcan Sun Valley, Valley Base Materials, Newman and Sons, & Azusa Land Rec.		2.5 – 3.5				Haul times too great to be cost effective.

ASSUMPTIONS: Haul Rates based on \$82.50 per hour for trucking. Truckloads to carry 16 cubic yards of material.