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*** PLEASE NOTE THAT ENTRY REQUIREMENTS HAVE CHANGED ***

Application Checklist (Please make sure the following items are included in your submittal packet)

- Completed release statement (this page), to be scanned and included in digital submission
- Check (made payable to SWANA) or credit card payment for nomination fee (in U.S. dollars) via Excellence Award Nominations
- At least 2 pictures of your operation (may be included in nomination text)
- One copy of your award submittal uploaded using your purchased 2012 SWANA Excellence Awards Application Uploading Instructions
- If you would like to mail your submission, please contact Jesse Maxwell, Program Coordinator, at jmaxwell@swana.org or (240) 494-2237.

Release Statement: I certify that the information provided in this application is accurate and correct to the best of my knowledge. SWANA reserves the right to publish the enclosed information. Nominations become the property of SWANA. My signature gives SWANA the right to reprint or make available for purchase any portion of this submittal.

Signature: ___________________________ Date: 4-12-2012
2012 SWANA Transfer Station Excellence Award

City of Los Angeles Central Los Angeles Recycling and Transfer Station (CLARTS)

Award Application

Submitted by:
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EXECUTIVE SUMMARY

The City of Los Angeles Recycling and Transfer Station (CLARTS) was originally bought in 2004 by the City of Los Angeles (City) Bureau of Sanitation (BOS) as a troubled waste transfer and recycling facility. By purchasing CLARTS and investing in needed repairs and upgrades, the BOS through the Solid Resources Processing and Construction Division (SRPCD) has been able to maintain in operations, a critical facility that provides transfer and transloading services to the City of Los Angeles, other local municipalities and the private sector.

In 2010, the SRPCD initiated a master plan study conducted by CDM to evaluate the facility and recommend improvements for near term, mid term and long term improvements that would optimize operations, increase throughput and improve safety and environmental compliance.

This award submission recognizes the effectiveness of the operator’s flexibility and ability to adapt its operations to an existing facility that provides structural challenges and manages to become a critical facility for the City of Los Angeles to achieve its solid waste policies for the foreseeable future.

BACKGROUND

CLARTS encompasses a 9 acre site previously used as an inert landfill located near downtown Los Angeles. CLARTS is surrounded by a salvage yard and a metal fabrication plant to the North, Washington Boulevard and the Santa Fe Railroad to the south, a railway spur and recycling/buy-back center to the east and two trucking/freight yards to the west.

The City of Los Angeles purchased CLARTS in 2004 from BLT Enterprises. At that time, the facility experienced chronic regulatory and odor issues. Upon purchase, the City made necessary repairs and provided additional training to the existing personnel, most of which were retained as City employees, ensuring a smooth transition between BLT Enterprises and the City. Some of the facility modifications made at that time,
included the removal of non-operating equipment such as a pallet grinder located in the transfer building, conveyors, baler and a sort line from the material recovery facility (MRF) building.

Only non-hazardous municipal solid wastes are accepted at CLARTS, including residential, commercial, and industrial wastes generated by cities generally within a 10-mile radius of the facility.

Customers include the City BOS Refuse Collection Division, private haulers servicing local municipalities and businesses, and small businesses or private citizens who need a self haul option. On the average, residential wastes comprise 75–80% of all waste received at CLARTS. Typically, waste is received in side loaders, front loaders, rear loaders, commercial roll-off containers, and compactors.

1. FACILITY DESIGN

CLARTS is considered a classic “Open-top” transfer facility. The transfer building consists of two-levels, with two load out ports and two tunnel lanes. The main difference with other typical open top designs is that the load-out ports are located in the middle of the building/tipping floor instead of along the end of the building/tipping floor. Currently, surge piles are managed free-form on the floor and push walls are infrequently used.

The permitted capacity is 4,025 TPD, however, current tonnage throughput average 2,800 tpd with hours of operations consisting are 5 a.m. – 6 p.m., Monday through Saturday for waste deliveries and transfer operations occurring Monday through Friday from 5 a.m. to 6 p.m.

The facility includes two inbound scales, one outbound scale, two scale houses, the main transfer building, maintenance shop, offices, parking areas, fueling area, a vacant MRF building shell and a 2 acre gravel parking area located to the north of the transfer building where up to 40 transfer trucks and trailers park overnight.

The main transfer building consists of approximately 30-foot high, 45,000 square foot (sf) clear-span, pre-engineered metal building (PEMB) with an attached two-story administration and operations offices. Maintenance bays are integrated into the lower floor below the administration and operations offices.

The former MRF building consists of a narrow, but long, 33,500 sf clear-span building, approximately 20 to 25 feet high PEMB structure with one side completely
open and no overhead doors. Attached to the MRF is a small clear span bay of approximately 100-feet by 50-feet (see layout graphic on page 14).

2. FACILITY UNIQUENESS AND MERITS

2.1. CLARTS MASTER PLAN STUDY – ADAPTABILITY/FLEXIBILITY

Eight months after purchase, SRPCD took over full operations of the facility becoming, for the first time, a large quantity commercial transfer station operator. Municipal facilities typically only support its own municipal facilities; however, CLARTS is a unique municipal facility because it also provides services to the private sector.

By owning and operating this facility, the SRPCD is able to save taxpayer refuse transportation costs and provide a needed service to large and small haulers servicing public and private interests in the region.

With the expected impact of dwindling local landfill capacity, SRPCD funded a study conducted by CDM to evaluate the facility and develop near, mid, and long-term improvements and expansion needed to maximize the use of CLARTS, while increasing revenue in the near term. The Master Study was completed in September 2011, and a summary of its recommendations is listed below:

Recommendations for Near-Term Improvements:

- Traffic flow improvements/Safety
  - Upgrade and automate one inbound and one outbound scale (RFID tag reader)
• Add stop light and pressure pad at vehicle queuing area
  • Upgrade/Repair existing transfer building
    • Repair north push wall
    • Misting system upgrades
    • Install backup generator
  • Upgrade IT/Scale server
  • Relocate equipment service area
  • Identify Food Waste Processing Area
  • Storm water Management Improvements
    • Build a storm water clarifier at Entrance and Exit
    • Re-Pave entire facility (including the gravel parking area)
    • Connect tunnel sump pump to clarifier
    • Assess effectiveness of existing clarifier

Recommendations for Mid-Term Improvements:

Improvements to building structures:
  • Expand Tipping Building by 20,000 sf
  • Partial Demolition of Former MRF Building
  • Construct New Restrooms for Collection Truck Drivers
  • Construct New Push Walls
  • Add Public Education Facility

Traffic flow improvements:
  • Move trailer entrance to West driveway
  • Relocate Outbound Scale

Parking and paving improvements
  • Add new Visitor/Employee Parking Areas
  • Add new Truck Trailer parking Areas
  • Develop North Parking Area for Other Use(s)
  • Add Concrete Paving in Heavy Traffic Areas

Recommendations for Long-Term Improvements:
  • Evaluate Purchasing Neighboring Property
  • Add New Processing and Waste Diversion facilities
  • Evaluate Rail Haul Processing and Transfer Facility Options

CLARTS’ proximity to rail lines makes it strategically viable for future conversion into an intermodal rail haul facility.
2.2. TEAM WORK
CLARTS promotes unity and cooperation among staff, as well as our customers and stakeholders, in order to meet the common purpose of achieving the mission, vision, and work of the City. As an example, increasing financial pressures throughout the City and County has impacted operations by reducing positions and increasing throughput demands. Regardless, CLARTS staff has been able to increase its throughput (see table with Historical Annual Tonnages on page 19) without personnel increases. One way this has possible is by fostering joint input and participation of labor and management through regular meetings of the Solid Resources Joint Labor management Team (SRJLMT). The SRJLMT membership includes representatives from management and labor from all solids resources divisions in the BOS.

The SRJLMT’s role is to provide staff of all levels the ability to participate in the decision making and the forum to recommend improvements and identify safety issues in an empowering manner.

2.3. CUSTOMER FOCUS
Our customers include BOS Refuse Collection Division, as well as large and small private refuse haulers. Customer focus and customer satisfaction are values that are fostered throughout the organization. While daily operations in a transfer station are routine, surprises are always around the corner. It is during these unexpected situations when the real measure of one’s values is tested.

The following two emergency situations illustrate the value that CLARTS places on its customers. In both situations, quick action by CLARTS engineers and operators as well as strong support by managers and executives provided immediate options to its customers without using additional personnel or resources.

GREEN WASTE HAULING
CLARTS shines during times of need.
- On October 31, 2011, the green waste hauling pilot program that delivers green waste to a processing facility was started with a 200 tpd throughput. Within two weeks of startup, the City BOS lost the ability to manage green waste collected from the East and West valley waste sheds, when the contracted waste processor experienced permitting and safety issues. The affected waste stream was therefore, redirected to CLARTS. On November 16, green
waste tonnages more than doubled, at one point reaching 516 tpd. CLARTS was able to provide the transfer services while other arrangements were made, thereby saving the City money and providing an option for managing waste in an emergency.

- During November 30 through December 4, 2011, Southern California experienced wind storms of up to 80 – 100 mph gust winds toppling hundreds of trees throughout the area and significantly causing property damage. The wind storm triggered a disaster declaration by the Governor. As expected, green waste disposal increased and reached a maximum total of 687 tpd. This increase in tonnage represents 38% of the total green waste collected by City crews. On a daily average, CLARTS green transfer program reliably handles 22% of the total City collected green waste.

**EMERGENCY REPAIRS FOR FLOOR FAILURE**

CLARTS operators continuously strive to improve customer service and safety.

- On November 2, 2009, CLARTS experienced a devastating structural failure of a precast concrete floor above the transfer tunnel adjacent to Port B (see diagram on page 4). Shutting down the facility would adversely affect all private customers as well as City refuse collection crews. In order to allow the continued operations of loading port A (the remaining loading port) CLARTS operators quickly identified staff with the appropriate training and experience to retrieve the loader from the collapsed floor.

The Department of General Services provided the tow truck used by the facility superintendent who is trained and experienced in heavy vehicle recovery to execute retrieval operations. Once it was determined that the area was stable, and safe, recovery operations started. During
recovery operations, one skip loader was used to anchor the fallen loader, while the
tow truck pulled the fallen truck up from the failed floor. Temporary shoring was
erected so that waste transfer activities could continue under restricted access
conditions the next day. Operations were limited to the southern unloading side of
loading port A.

In order to minimize disruption to customers, the City decided to construct a new
concrete ramp on the south side of the Transfer building where two existing doors
were made available to provide additional traffic lanes for access and exit. Traffic flow
was modified on a regular basis to accommodate the various construction phases
during the 6 month construction period.

During the 9 months following the
floor collapse CLARTS operators
maintained 1800 tpd throughput by

using only one side of load port A,
down from the 2200 tpd throughput
prior to the floor collapse. The total

repair cost to the City was $1.5 million.

3. ENVIRONMENTAL CONTROLS AND REGULATORY COMPLIANCE

The City operates the largest municipal fleet in the country, collecting recyclables, yard
trimmings, and residual solid waste from 750,000 households in the City.
Approximately 30% of all the residential MSW generated within the City is taken to
CLARTS for consolidation. The current Solid Waste Facility Permit states that all solid
waste received at the facility must be removed within 24 hours. All solid waste
accepted at the site is removed within 24 hours from the time of receipt. When
necessary, at the end of the day, solid waste is loaded into transfer trucks parked
overnight until the next day when the load is sent to a landfill.

Facility operators take great care in maintaining operations while keeping in compliance
with the regulations and minimizing impacts to the environment. Since the city
purchased this facility, there have been no violations issued for the operation.
3.1. AIR EMISSION REDUCTION

SRPCD contracts with various trucking companies who provide transfer-trailer transport from CLARTS to processing/disposal sites with roundtrip distances ranging from 28 up to 224 miles. Vehicle emissions are avoided not only by reducing the number of vehicles on the road, but also by requiring truck haulers under contract, to comply with the California Air Resources Board (CARB)-Certified Best Available Control Technology (BACT) for Particulate Matter (PM) and Nitrogen plus the Oxide (NOX) reduction under the South Coast Air Quality Management District’s Fleet Rule 1193 for clean on-road residential and commercial refuse collection vehicles requirements.

As an option, truck companies can opt to use Natural Gas powered vehicles.

3.2. INTEGRATION INTO OTHER SOLID WASTE MANAGEMENT POLICIES

In 2002, the California Integrated Waste Management Board (now called CalRecycle) adopted a zero waste program as part of its seven part strategic plan, making California the first state in the nation to set zero waste as a goal.

The City has adopted the zero waste goal as its roadmap to address solid waste management for the next generation and BOS continues to develop programs and policies that will help achieve this goal. CLARTS is identified as a critical component for diverting targeted solids from the landfill.

The completion of the Master Plan Study (see discussion on Section 4, page 11), was critical towards optimizing the site use by identifying near, mid, and long-term recommendations to improve operational efficiencies and add reuse/diversion capabilities that support the City’s zero waste goals and objectives.

Two long-term concepts were identified by the Master Plan study, both concepts incorporate pre-processing technologies and waste reduction facilities to further reduce the amount of waste transported to distant landfills. Both concepts require acquisition of adjacent property to develop rail transport capabilities.

3.3. STORMWATER

California has stringent controls dealing with storm water pollution controls. In particular, all transfer stations are required to achieve benchmark concentrations of specific pollutants (see Benchmark table on the next page).
The completion of the CLARTS master plan study provided SRPCD with the tools to focus its resources on those recommendations that provide the most benefit for the health/safety and pollution reduction of the operations. High value is placed on the improvement of the storm water management system in order to improve the water quality discharged from the site.

Targeted improvements consist of repaving the facility and using Best Managements Practices such as directing all runoff through a clarifier.

At the time of this writing, SRPCD is in the process of selecting a consultant firm to design the storm water management Improvements for construction in 2012. In particular, SRPCD has funded the following improvements relating to storm water management:

- Build a storm water clarifier at the entrance and a second one at the exit
- Re-Pave the entire facility using concrete (including the gravel parking area)
- Connect the tunnel sump pump to a clarifier
- Assess the effectiveness of the existing clarifier

These projects will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit and a Standard Urban Storm water Mitigation Plan (SUSMP).

### 3.4. ENVIRONMENTAL CONTROLS

Current environmental controls at the facility include:

- Waste tipping and loading is done in-door only reducing noise and dust impacts.
- The tipping floor, as well as outside the building and perimeter of the facility is swept at the end of each work day using an automated sweeper to control dust and litter.
- Wastewater generated is minimized by using dry sweeping methods only. Wash-down of tipping floors and interior walls is done every six to eight months or as needed, using a high-pressure spray. The small amount of

### Constituent | Units | Benchmark |
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<tr>
<td>O&amp;G</td>
<td>mg/L</td>
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</tbody>
</table>
wastewater from this process drains through a three-stage industrial wastewater clarifier.

- The facility does not accept hazardous wastes (i.e. batteries, oil, paint, e-waste), liquid waste, sludge, or special wastes. Two radioactive monitors are installed at the incoming scale house to screen for radioactive waste. Detected radioactive wastes are intercepted and refused. All such instances are reported to L.A. County Health Services Dept. and the Local Enforcement Agency.
- To control noise, the majority of operations are conducted inside the building. On-site forklifts, loaders, and other equipment are sound-proofed and muffled. To protect employees from noise exposures, a hearing conservation program has been established to identify those jobs that expose the employee to high noise levels. Employees assigned to perform those jobs determined to have high noise levels are required to use hearing protection in accordance with State and Federal Regulations and as issued by the facility.
- All waste is removed from the tipping floor within 24 hours.
- An odor neutralizer is added to the misting system.

4. PROGRAM PLANNING

CLARTS was originally permitted, designed, and built by BLT Enterprises, a private waste management firm, in 1989. Since its purchase by the City in 2004, a number of improvements and repairs have been completed. However, the City recognized that owning CLARTS represents an opportunity to prepare for the challenges of dwindling local landfill capacity and the achieving of zero waste disposal goals.

In preparation for expected increased need for transfer capacity, the City funded a $99,000 Master Plan Study by Camp Dresser & McKee Inc. (CDM). The intent of the master plan study was to identify improvements that would optimize the facility’s current use, increase its operational efficiency, comply with regulatory requirements, and provide operational cost savings.

The scope included an evaluation of the existing CLARTS facility, review of current operational practices, an analysis of the existing capacity of the facility, and development of concepts for improving the overall efficiency and operation of the facility. This was accomplished through the following activities:

- Site evaluation of existing operations and review of existing infrastructure
- Survey of truck drivers using the facility
- Capacity analysis calculations
- Workshops with BOS staff
Feedback from CLARTS operators

Three workshops were held with the project team (stakeholders such as Recycling division, Refuse Collection Division, Watershed Protection Division, Solids Support Division, Solid Resources Executives) who contributed ideas and identified opportunities for improving efficiency and expanding operations. Operators provided extensive input throughout the master plan study.

The study was completed in September 2011, with the conclusion that the current overall site condition is satisfactory in meeting the operational requirements of BOS, but that some repairs and improvements are necessary. The master planning process also identified improvements to safety, green design, and architecture/aesthetics.

Implementation of these improvements was sorted as follows:

- **Near-term** – Within the next 0–5 years
- **Mid-term** – Within the next 5–10 years
- **Long-term** – Greater than 10 years from now

### 4.1. EFFICIENCY NEEDS AND SAFETY CONCERNS

The efficiency needs and safety concerns with the operation and existing infrastructure were identified through the facility evaluation, capacity analysis, truck driver survey, workshops, and conversations with operations staff. The following efficiency needs and safety concerns were identified:

- Improve scale house operation and efficiency
- Improve and upgrade existing asphalt pavement in various areas of the site
- Replace deteriorating building exterior and interior push walls
- Upgrade existing misting system within tipping building
- Modify traffic patterns within the site to improve circulation and provide adequate roadway safety
- Improve and modify the storm water management system to reduce contaminant runoff from the site
- Reduce queuing times of collection vehicles accessing the tipping building
- Improve transfer trailer weighing and tamping of waste prior to exiting the tunnel
- Upgrade the existing electrical system within the tipping building to allow pressure cleaning of the internal walls
5. PERFORMANCE AND COST EFFECTIVENESS

5.1. TRAFFIC FLOW AND CONTROL

A detailed site plan shows the facility layout, floor plan and other site details such as square footage as appropriate. Some features consist of the following:

- Transfer building
- Material recovery facility building (MRF)
- Attached offices, shop, and canopy
- Employee and truck parking
- Scale houses and scales

Access roads to the facility are paved City streets, such as Washington Boulevard and Alameda Streets, both heavy industrial roadways. All on-site roads are paved with either concrete or asphalt. The tipping areas inside the building are concrete and designed for heavy use. The site is accessible during dry and wet weather periods.

Refuse collection trucks, transfer trucks, employee vehicles, and the public comprise traffic at the facility. Traffic flow through the facility is controlled to prevent the following:

(1) Interference with or creation of a safety hazard on adjacent public streets or roads,
(2) On-site safety hazards, and
(3) Interference with operations.

On-site Traffic is controlled by the following means:

- Enforced speed limit of 5 mph
- Scale attendants
- Sufficient queuing space
- Controlled traffic flow patterns
- Spotters

The diagram on the next page illustrates the on-site traffic patterns for the primary types of vehicles anticipated to use the facility: delivery trucks i.e. City trucks, private haulers, self-haul vehicles (yellow arrows) and transfer vehicles (green arrows). During waste receiving hours, facility personnel stationed in the scale house monitor all incoming municipal solid waste traffic. An on-site traffic management plan ensures safe and efficient traffic operations. Collection trucks enter through the East gate driveway on Washington Boulevard, pull onto the truck scale, weigh in, enter the tipping building, and empty their loads on the tipping floor.
Self-haul vehicles follow a similar pattern, using the scale and tipping area. In order to maximize safety on the tipping floor, self-haul vehicles are kept separate from the larger collection trucks. Traffic directors (or spotters) within the building guide the inbound vehicles to the proper unloading area, ensuring that trucks maneuver and back-up safely.

Empty transfer trailers also enter the East gate driveway from Washington Boulevard, bypass the scale and either stage directly in the tunnel down ramp or pass to the south of the Administration Office area and then make a hard u-turn into the staging area just north of the old MRF building. The transfer trucks pull down the ramp and into the tunnel under the tipping floor. When the axle scales indicate that the maximum legal weight has been reached, the trucks pull up the ramp, close their tarp over the top of the trailer, and exit the facility. Empty transfer trailers will be parked on-site at the end of the day.

Traffic flow improvement recommendations from the Master Plan Study consisted of the following:
- Upgrade and automate one inbound and one outbound scale.
- Add a stop light and pressure pad at the vehicle queuing area (entry to the tipping building)
- Partial demolition (60 feet) of existing MRF to increase turning radius for incoming transfer trailers (redirect all transfer trailers to use this West gate as an entrance). The layout on the right shows the recommended new traffic pattern for the transfer trailers.
- Revise Washington Blvd curb cuts near West gate.
- Reduce/eliminate planted median curbed area at the East gate entrance to improve turning radius.

5.2. TRANSFER/TRANSLOADING OPERATIONS

Waste brought to the facility is weighed at the truck scale as vehicles enter the facility. Unloading and waste maneuvering takes place inside the transfer building. Three spotters direct all incoming and outgoing traffic within the transfer building and signal to the drivers when it’s safe to discharge their loads.

BOS Refuse Collection Division vehicles proceed into the transfer building and generally tip their loads on the south side of the transfer ports. Commercial waste hauler vehicles, as well as City refuse collection vehicles, tip their loads on the north side of the transfer ports.

CLARTS also serves as a transloading facility. Waste delivered by transloading customers is weighed as it arrives and an equal tonnage is loaded onto the customer’s transfer trailer within a 24 hour period for the customer’s disposal of their waste. Waste awaiting transfer from the transfer building (surge pile) is temporarily stored on the tipping floor prior to loading into transfer trailers. Waste is transferred on a first in, first-out basis. Transfer trailers are loaded throughout the day and under normal operating conditions, waste is removed from the site continuously. At the end of the day some of the transfer trailers are loaded, tarped and parked in the gravel parking area ready
for the next morning’s trip to the landfill. This policy minimizes waste residence time and allows us to comply with the 24 hour storage restriction from Solid Waste Facility Permit.

While solid waste is tipped on both sides of the transfer ports, four wheel loaders rearrange waste around the transfer ports and push the waste through the transfer ports into transfer trailers positioned below on axle scales in an underground transfer tunnel. Due to the location of the loading docks in the center of the building, push walls are rarely used. An electronic scoreboard suspended above the transfer ports alerts the loader operator when the truck weight reaches its legal limit. When full, a dispatcher instructs the transfer truck to pull out of the transfer tunnel. Loaded trailers proceed to the West gate exit where drivers disembark to cover their loads, clean their trailers and then leave the facility for the appropriate disposal locations.

5.3. RECYCLING – GREEN WASTE AND FOOD WASTE

In 2011, CLARTS initiated a pilot program to transfer 200 tpd of green waste collected by City Crews. The goal of the program is to increase reliance on City controlled facilities and reduce overall transfer and processing costs of City collected green waste. A loading ramp, scale and misting system were installed in the West end of the old MRF building as shown in the schematic on the next page.
No additional personnel or equipment was required to provide this additional service. Green waste collected from residential green bins is tipped and re-loaded into 18-wheelers for transfer to a green waste processing facility.

**GREEN WASTE TRANSFER FACILITY**

5.4. FACILITY CAPACITY ANALYSIS

With the impact of California State law (Assembly Bill 939) requiring waste diversion from landfills as well as the short life expectancy of local landfills, CLARTS expects the average annual tonnage to increase in the next five years to a total of 3,700 TPD.

As part of the Master Plan Study, the capability of the existing facility to operate at or near permit level tonnages of 4,025 tpd up from the current average of 2,800 tpd was evaluated. This evaluation consisted in analyzing traffic, tonnage data, building size and queuing.

Anecdotal discussions from previous owner employees (who remained as City employees) the original owner regularly operated above 3,000 tpd from 2004 -2006, but average daily tonnages ranged between 2,400 and 2,700 tpd. Since the facility has been undergoing extensive upgrades/repairs, daily tonnage had to be reduced and, according to operations staff, the year 2006 was the last period when full operating tonnage was achieved. Peak tonnage in 2006 was approximately 3,400 tons on July 31, 2006.
A conservative estimate of 8 minute loading time was used with a conservative average payload of 21 tons per trailer; the maximum facility processing capacity was established as 336 tons per hour. By pairing this processing rate with the incoming waste deliveries, an estimated waste surge pile size was estimated on an hourly basis. The building size was then evaluated accounting for management of stockpiled waste on the tipping floor and loading of the transfer trailers.

The queuing analysis method applied is a static statistical analysis based on the peak hour of operation as described in “Transportation and Traffic Engineering”, Second Edition, from the Institute of Transportation Engineering, dated 1982. Multiple queues were evaluated (inbound scale, tipping floor, scale transactions).

In conclusion, it was determined that without a building expansion the existing facility would be capable of handling permit tonnages on a sporadic basis. It appears that normal daily fluctuations in waste deliveries or any disturbance in normal operations (e.g. short of staff, overly large peak hour deliveries, or equipment breakdown) could severely hamper sustained throughputs at permit levels. A more realistic goal for an “average” daily tonnage appears to be in the 3,000 to 3,200 ton range, allowing for peak days near the permit level.

Currently, the BOS Refuse Collection Division is the largest user delivering approximately 1,600 tpd of MSW to the CLARTS (approximately 30% of the waste collected). However, the waste tonnages received from the private haulers has increased significantly from 96,000 tons in 2010 to 203,000 tons in 2011. The following table summarizes historic annual waste tonnages at the facility.
HISTORICAL ANNUAL WASTE TONNAGES

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The increase in private hauler waste is particularly significant considering that the overall California waste generation rates have been reduced due to the economic downturn. The following graph shows the waste generation rate curb published by CalRecycle illustrating the decline of total waste generated since 2000 to 2009.

HISTORICAL CALIFORNIA WASTE GENERATION
(By Cal Recycle)

5.5. FINAL DISPOSAL

All incoming solid waste is loaded into transfer trailers within 24 hours of arrival and transported to one of the following solid waste facilities:

- Sunshine Canyon Landfill, Allied Waste
- Lancaster Landfill, Waste Management Inc.
Incoming solid waste which is part of a transloading service is loaded into the customer’s transfer trailer within 24 hours of arrival and transported by the customer to a solid waste disposal facility of its choice.

6. CUSTOMER FOCUS/ CUSTOMER SERVICE

CLARTS staff strives for constant and never-ending improvements, which is a value fostered through the organization. As a customer driven operation, we strive to remain flexible and responsive to change and commit to constant and never-ending improvements in every aspect of our work.

6.1. DRIVERS SURVEY

On November 2010, during the CLARTS Master Plan Study, a total of 95 drivers were asked various questions regarding facility operations, the frequency of utilization, and potential improvements to identify areas for efficiency improvement.

Approximately 66% of the respondents represented City of Los Angeles BOS and 34% were private haulers. The drivers were asked to rate the existing CLARTS facility as either very good, good, average, or poor. The chart in Figure 1–3 summarizes responses. Approximately 88% of the drivers rated CLARTS as Good or Very Good.

The type of waste being delivered was documented based on the driver’s response. Figure 1–4 shows the type of waste being delivered by the private haulers.

The drivers were asked to approximate their wait time in the tipping floor queue. Responses are shown in Figure 1–5 (next page).
Various drivers found that the wait time had improved since the completion of the floor construction projects and the current wait time was adequate. The truck drivers were also asked to provide ideas on how the wait time for the tipping floor could be reduced and to provide suggestions for improvements of the facility in general. Responses to this question resulted in a variety of ideas including the following:

Improve operation of the tipping floor by:

- Expanding the transfer station building
- Reducing the number of trucks entering the facility
- Providing a separate area for the drivers to clean their trucks
- Providing additional entrances to the transfer station building
- Providing more trees and grass (green spaces)

Improving the efficiency of the facility and maintaining safety standards are part of the main objectives of this master plan.

6.2. CUSTOMER SERVICE/OUTREACH

Customer service is a priority, as demonstrated during the construction work completed over the last few years. The most significant construction work to date consists of the emergency–permanent repairs required following the October 2009, structural failure of the loading floor above the tunnel. During the 6 month reconstruction period, traffic flow was kept moving by building a concrete ramp that enabled the use of two exiting doors on the South side of the transfer building. The flexibility to adapting to the various construction phases allowed CLARTS to reduce the impacts of such major construction project to its customers.

CLARTS has a web site available to all interested parties and potential customers. This web site http://san/srpcd/transfer_station.htm provides information to help educate the reader about detailed CLARTS operations and structural improvements to the facility. The website features current site pictures and a video showing operations in action. CLARTS promotes the value of transfer stations by providing tours of the facility to anyone who requests a tour. Tours include viewing through the observation room located on the second floor of the office building, allowing visitors safe and direct viewing of actual operations.
CLARTS reaches out by direct mailing to all prospective customers on a sporadic basis. A sign of the outreach success is demonstrated by the increase in private customer tonnage which increased significantly from 96,000 tons in 2010 to 203,000 tons in 2011. A sample of this letter is included below:

FILE COPY

City of Los Angeles
California

ANTONIO R. VILLARAIGOSA
Mayor

June 14, 2011

Re: Central Los Angeles Recycling and Transfer Station (CLARTS) Announces Newly Completed Renovations

Dear Mr. [Blank],

We appreciate the opportunity to speak with Amy of your staff on Wednesday, June 8, 2011. As Billy Henderson of my staff mentioned to her, we are pleased to announce that we have recently completed renovations to our facility and have resumed to full capacity for all your solid waste hauling and transfering needs. As a prospective new client who has never used our services, you will find that we are a full service waste transfer station who will meet all of your expectations in regards to the services we provide.

We are a state-of-the-art professional facility that will handle all of your waste disposal needs in a friendly, efficient, and environmentally friendly manner. Our current disposal rates are more than competitive to most transfer stations in our area, and in fact, are often much lower than many of our competitors.

We currently offer our full disposal services to you at the following rates:
- $32.00 minimum charge per ton or per fraction of ton for Municipal Solid Waste.
- $65.00 minimum charge per ton or per fraction of ton for Hard-to-Handle Bulky Items.
- $65.00 minimum charge per ton or per fraction of ton for Special Handling (i.e. contaminated medical waste)
- $52.00 minimum charge per ton or per fraction of ton for Municipal Solid Inert Waste

We also offer transferloading services at very competitive rates. Transferloading is a service we provide to our large customers who prefer to manage their own hauling and disposal. We would appreciate your consideration of our services, and fully extend a warm welcome to you to visit

and tour our newly renovated facility as we resume full capacity to handle all of your waste disposal needs.

If you should have any questions or would like to schedule a visit, please contact Billy Henderson of my staff at (213) 763-1916 or call our general reception desk at (213) 763-1837. We are looking forward to serving you and establishing a successful business relationship.
7. WORKER HEALTH, SAFETY AND TRAINING

A series of documents have been prepared to ensure operations are conducted in a safe manner. The following guides were developed with the help of the Bureau’s safety staff:

- Vehicular Traffic Management and Tipping Floor Training Manual for Tipping Floor Spotters.
- Customer and Visitor Safety Program
- Truck Driver Rules
- Handout for Commercial Trash Trucks
- Scale house Operations Manual

A hearing conservation program has also been established to identify those jobs that expose the employee to high noise levels. Employees assigned to perform jobs determined to have high noise levels are required to use hearing protection. On-site forklifts, loaders, and other equipment are sound-proofed and muffled to protect employees and customers from noise exposures.

Over the last 15 years, the Bureau San has worked in conjunction with a labor group in a joint labor management regular meetings where all issues relating to safety practices or policies as well as other personnel issues can be brought up in a non-threatening forum (refer to the discussion on Sec. 2.2, page 6). Monthly meetings between labor and management facilitate discussions that help identify and resolve safety concerns to the satisfaction of both parties.

During the time the City has operated this facility, only one minor injury has occurred. This injury was due to the loader driver driving the loader over a large obstacle.

8. PUBLIC ACCEPTANCE, APPEARANCE AND AESTHETICS

CLARTS is a good neighbor. Since the initial purchase of the facility by the City BOS, all surrounding neighbors were approached in person by CLARTS staff and reassured that the City would conduct operations without any negative impacts to their facilities. Furthermore, our operations manager and site superintended area committed to being accessible to our neighbors in order to facilitate communication and avoid negative issues from being ignored.

In order to keep neighbors happy, operators maintain a daily routine of sweeping and cleaning debris in and around the facility. Most waste handling is kept indoors to minimize any potential for dust and odors. No complaints from neighbors have been received since the City’s taken over the full operations of the facility.
8.1. MONTHLY INSPECTIONS BY THE LOCAL ENFORCEMENT AGENCY

Since the purchase of this facility by the City, there have been no notices of violations issued to CLARTS. A recent monthly inspection report received from Local Enforcement Agency inspector is included below.

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Received By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central LA Recycling &amp; TS (CLARTS)</td>
<td>City of Los Angeles, Bureau of Sanitation</td>
</tr>
</tbody>
</table>

8.2. BOARD OF PUBLIC WORKS AWARD

On September 28, 2011, the City of Los Angeles’ Board of Public Works recognized CLARTS staff (engineers and operators) for their prompt and swift action during the floor collapse emergency as well as during the recovery and reconstruction.

8.3. RECOGNITION BY PEERS

CLARTS was featured on “LIVE” magazine published by the City Employees Club of Los Angeles in October 2010.

The City BOS collects refuse from 720,000 households covering an area of 470 square miles. Such large area magnifies the already high cost of labor and transportation of solid wastes and recyclables. Dwindling local landfill capacity and the current economical challenges further pressure any municipality to maximize existing infrastructures and efficiency while keeping taxpayers costs low. CLARTS was recognized by “LIVE” magazine for saving time and money to the City and for working towards making a better City of Los Angeles.