Disclaimer

The following Health and Safety Plan (HASP) is provided as a sample document only. In general, documents with similar content have been approved by Miami-Dade Department of Environmental and Regulatory Management (DERM) and the City of Miami (the Client). Any organization wishing to adopt portions of this HASP must research and review its own needs based on site-specific activities and must meet all applicable local, state and federal regulations.

SCS Engineers (SCS) reserves the right to change the content, presentation, and availability of any part of this HASP at its sole discretion, including the terms and conditions of use.

SCS ENGINEERS

Health and Safety Plan

Curtis Park Corrective Action Project – Phase I

Client:

The City of Miami

Miami Riverside Center
444 Southwest 2nd Avenue, 8th Floor
Miami, Florida 33130

Prepared by:

SCS ENGINEERS
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Miami, Florida 33156
(305) 412-8185

July 01, 2015
File No. 09213010.41

Offices Nationwide
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Brooke Fait, MPH, PG
Environmental Health and Safety Project Manager

Gary Pons, CIH, CSP
Corporate Health and Safety Director

July 1, 2015
File No. 09213010.46

ACKNOWLEDGEMENT

Prior to conducting work at Curtis Park located at the southeast corner (SEC) of NW 20th Street and NW 24th Avenue, Miami, Florida (Site), personnel must read this Site-specific Health and Safety Plan (HASP). If the information presented is unclear SCS Engineers Project Manager should be contacted for clarification. A copy of this HASP must be kept on-site for the duration of field activities.

"I have read the attached Site Health and Safety Plan work at Curtis Park. I have discussed questions that I had regarding this plan with SCS Engineers' Certified Industrial Hygienist or Project Manager and I understand the requirements."

Print Name	Company/Affiliation	Signature	Date

EMERGENCY TELEPHONE NUMBERS

- Emergency Medical, Police, Fire — 9-1-1
- SCS Engineers (SCS) Miami Office — (305) 412-8185
- SCS Certified Industrial Hygienist
  Gary Pons, CIH, CSP — (562) 305-6908
- SCS Project Manager
  Brooke Fait — (786) 473-5754
- City of Miami Representative
  Harry James — (305) 755-7901
- Contractor's Construction Manager
  Guy Lesseur — (954) 410-9331
- Contractor's Site Superintendent
  TBD — TBD
- Contractor's Designated Health and Safety Representative
  TBD — TBD
- SCS Health and Safety Site Representative
  TBD — TBD
- URS Technician
  TBD — TBD
- University of Miami Hospital — (305) 689-5511
- Miami-Dade County DERM
  Wilbur Mayorga — (305) 372-6700

Other Contacts:

American Association of Poison Control Centers .....(800) 222-1222
OSHA.....(954) 424-0242
Office of Emergency Services .....(800) 852-7550
National Response Center.....(800) 424-8802

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1 PURPOSE AND INTRODUCTION

This Health and Safety Plan (HASP) has been prepared by SCS Engineers (SCS) on behalf of the City of Miami (City). The purpose of this HASP is to address health and safety (H&S) requirements associated with the construction and implementation of the corrective actions at Curtis Park (Site). Corrective actions are proposed to remove contaminated soils discovered at the Site. Harbour Construction (Harbour/Contractor) has been selected by the City as the contractor for this project.

This HASP only addresses the additional H&S requirements attributed to the handling of contaminated soils that are the responsibility of the Contractor for this project. Other H&S requirements for the Contractor, required by OSHA or other agency having jurisdiction (drug and alcohol policy, trench safety, lock-out tag out, incident reporting, etc.), should be met in the individual site specific HASP prepared by the Contractor and approved by the City.

This HASP applies only to the Contractor's employees and its subcontractors specific to the scope of work detailed above.

2 SITE DESCRIPTION AND SCOPE OF WORK

The portion of the site requiring soil remediation consists of approximately 0.79 acres where a city playground currently resides. Surficial soil sampling at the site revealed select heavy metal contamination associated with the solid waste identified in the playground area. Specifically, antimony, arsenic, barium, copper, iron and lead were detected in many of the soil samples. Both lead and barium were detected in many of the soil samples at relatively high elevated concentrations indicating that the likely source of contamination is incinerator ash that had reportedly been dumped at the site in the past. Soil sampling results are presented in Appendix B.

SCS prepared a Site Assessment Report (SAR), which documented the extent of environmental impacts from the ash deposits at the site. The results reported concentrations of antimony, arsenic, barium, copper, iron, lead and dioxin/furans above the residential cleanup target levels. The analytical results were utilized by SCS and DERM to develop the appropriate remedial approach, consisting of onsite relocation of impacted soils and the installation of an appropriate cover system.

The work generally consists of the following corrective actions to address the existing heavy metal impacted soil at the site:

- Selective removal of structures, concrete borders and specified features.
- Excavation and relocation of 12-14.5" of potentially contaminated soil from specified playground and surrounding areas.
- Hand excavating contaminated soil around trees and pruning roots as directed by the City's designated arborist.
- Installation of 8 ounce non-woven geotextile fabric.
- Placement of 12" of clean fill over the heavy metal impacted soils to remain in place.
- Installing Xgrass bonded rubber mulch over 1 ft. of clean fill around specified trees.

- Installing Gametime Impax t4.0 aromatic recycled poured rubber playground surfacing within the limits of the playground area.

Refer to the latest set of the signed and sealed Corrective Action Plan (CAP) engineering drawings for additional details on the proposed construction. For reference, reduced sized copies of the engineering drawings, current as of the date of this report, are provided in Appendix A.

3 KEY PERSONNEL AND RESPONSIBILITIES

The Contractor is ultimately and solely responsible for the health and safety of their employees working on this project and will comply with provisions of this HASP and all applicable OSHA regulations. SCS will, on behalf of the City, assist the Contractor with the implementation and compliance with this document. SCS will have an onsite H&S representative during the construction phases that involve handling of the impacted soils to evaluate compliance with this HASP. URS Corporation (URS) will conduct personal air sampling for the Contractor's employees and evaluate personal protective equipment (PPE) requirements based on air sampling results and the HASP requirements.

The Contractor will verify all of their employees comply with the provisions of this HASP. The Contractor will construct and maintain all of the facilities (i.e., barrier fences, decontamination areas, etc.) and supply and maintain all the supplies, PPE, and all other equipment necessary for compliance with this HASP.

The key personnel and their roles for this project are provided below:

- Jeovanny Rodriguez, City Capital Improvements Assistant Director
- Harry James, City Environmental Compliance
- Nelson Cuadras, City Construction Manager
- Guy Lesseur, Harbour Construction, Construction Manager
- TBD, Harbour Construction Superintendent
- TBD, Harbour Construction, Designated Onsite Health and Safety Representative
- Gary Pons, CIH, CSP, designated Certified Industrial Hygienist
- Brooke Fait, MPH SCS Project Manager
- TBD, SCS Onsite H&S Representative
- TBD, Air Sampling Technician
- David Balladares, SCS Field Engineers

4 SITE CHARACTERIZATION AND HAZARD EVALUATION

As stated in the introduction, this HASP only addresses the additional H&S requirements attributed to the handling of heavy-metal impacted soils. Other health and safety hazards should be evaluated and addressed in the site-specific HASP prepared by the Contractor.

Previous sampling and analysis of the Site soils indicate regulated levels of the following contaminants of concern (COCs) have been detected:

- lead
- arsenic
- antimony
- barium
- copper
- iron
- dioxin/furans

Several site investigations have been performed to characterize the distribution and occurrence of chemical compounds in soils and to quantify associated environmental impacts to site media and human health. SCS completed a Site Assessment Report (SAR) for the Site dated April 21, 2014. An abridged copy of this report is included at Appendix B; however, Miami-Dade DERM's files should be reviewed for the latest available site assessment data for the Site. The DERM reference number for the Site is HWR-777.

Disturbing the Site's contaminated soils presents a potential risk of exposure to the COCs for the Site workforce. Potential routes of exposure to the COCs include inhalation and ingestion. Additionally, dermal contact may occur for the project's workforce.

The following table details the Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs over an 8-hour time-weighted average) associated with the COCs:

Metals

Metal	OSHA PEL
Antimony	0.5 mg/m^3
Arsenic	0.010 mg/m^3
Barium (soluble)	0.5 mg/m^3
Chromium	0.5 mg/m^3
Cooper	1 mg/m^3
Iron	10 mg/m^3
Lead	0.050 mg/m^3

In addition to the potential exposure to the Site's COCs, there is also potential health hazard associated with the exposure to dust generated from the soil handling activities. The following table presents the OSHA PELs (8-hour time-weighted average) for the dust.

Dust

Compound	OSHA PEL
Total Dust (PNOS)	15 mg/m3
Respirable Dust	5 mg/m3

- PEL – Permissible Exposure Limit
- ppm – Parts Per Million
- TLV – Threshold Limit Value
- mg/m^3 – Milligrams per Cubic Meter
- STEL – Short Term Exposure Limit
- NIOSH- National Institute of Ocuupational Safety and Health
- PNOS – Particulates Not Otherwise Specified

To minimize worker exposure, the contractor shall implement dust suppression practices when handling contaminated soils. Dust suppression will include utilizing the continuous and generous application of water to exposed soils during excavation and handling. Dust control measures shall include provisions for an adequate supply of water and appropriate application method to provide effective dust suppression (note a garden hose is not an appropriate application method). Potentially contaminated soils that are exposed or stockpiled shall be covered with plastic and secured at the end of each working day.

Ambient air monitoring will be conducted along the perimeter of the Site's Exclusion Zone (EZ). This monitoring will evaluate the contractor's dust suppression implementation effectiveness and compliance with the latest version of the Perimeter Air Sampling Plan approved DERM for this project.

5 SITE CONTROL PROGRAM

Appropriate site control procedures must be implemented by the contractor to control exposure to hazardous substances during soil disturbing operations. The site control program may be modified as necessary as new information becomes available. Personnel will be cognizant of the work zones and follow appropriate the procedures described below.

SITE WORK ZONES

To prevent migration of hazardous materials off the Site, designated work areas and personal protective equipment are clearly specified by the contractor prior to beginning operations at the site. Designated work areas or zones will be established and delineated prior to the start of abatement activities and/or other activities anticipated that involve contact with hazardous or contaminated materials. Each work area containing potentially contaminated materials will be divided into three zones; an Exclusion Zone (EZ), a Contamination Reduction Zone (CRZ), and a Support Zone (SZ).

The arrangements of these zones for this project are illustrated in the attached **Figure 1;** however, the zones may be adjusted in the field by the Contractor with SCS's approval. For instance, the exclusion zone may be arranged to include only the areas of presently exposed soils and/or areas where existing surficial solid waste and contaminated soils within the 0-6 interval are located in order to allow trucks delivering clean fill to enter the site for stockpiling without having to be decontaminated before leaving the Site. Note that there are several areas within the western portion of the site with surficial solid waste and contaminated soils within the 0-6 interval; therefore, vehicles entering these areas (even if excavation has not commenced in that area) will need to be decontaminated prior to exiting site.

Exclusion Zone

The EZ consists of areas where exposure to COCs is most likely. It is anticipated that the EZ will encompass the immediate confines of the work area with a buffer zone that will vary from location to location. The EZ boundary around each work area must be clearly and conspicuously marked using cyclone fencing, boundary tape or safety fencing and signs (or similar). A single entry and exit point will be established through the CRZ. Entry will be limited to essential personnel or pre-approved visitors.

Contamination Reduction Zone

The CRZ is established between the EZ and SZ. In this area, personnel begin the sequential decontamination process required to exit the EZ. To prevent off-site migration of contamination and to facilitate personnel accountability, personnel enter and exit the EZ through the CRZ.

Waste materials generated in the CRZ is collected and effectively contained through the use of drums, bags, plastic sheeting, and/or tanks. Waste materials must be labeled as such and properly disposed of according to their hazard classifications. See Section 7 for decontamination procedures.

Support Zone

The SZ consists of a clearly marked area where the office, break areas, and changing facilities are located. Smoking, drinking, and eating are allowed only in designated areas. Sanitation facilities (toilets, drinking and washing water) are provided in the SZ.

ACCESS CONTROLS DURING OPERATIONS

All Site personnel shall check in with the contractor at the project trailer, located in the SZ, at the start of each work shift. At the end of the shift, all Site personnel will check out in the same location. A sign-in and sign-out system will be provided for workers and visitors. Expected work shifts are from 7 AM to 6 Eastern Daylight Time, Monday through Friday. There will be physical boundaries that are established around the site during contaminated material excavation operations. The Site Supervisor will instruct workers and visitors on the access and entry requirements, based upon the requirements of this HASP, within restricted areas. Additionally no one will be allowed to enter a restricted area without the required protective equipment for that area. Visitors should check in immediately upon arrival in the project trailer. Only authorized visitors will be allowed access to the contaminated areas. Each visitor will be required to provide and wear the necessary protective equipment during visits and will be escorted only by Site supervisory personnel. Visitors, subcontractors and other personnel will be required to sign a safety plan acknowledgment sheet to certify that they have read and will comply with this site HASP. Failure to comply with the site entry procedure will result in expulsion from the site.

6 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) has been selected to protect employees from the hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis. The level of protection provided by PPE selection will be increased when additional information on Site conditions shows that increased protection is necessary to reduce employee exposures below established or OSHA Permissible Exposure Limits (PELs).

PPE SELECTION AND ACTION LEVELS

Minimum PPE will be at a modified Level C in the EZ, and minimum PPE requirements will be Level D in the CRZ and the SZ as outlined in **Table 1**. If representative worker exposure air monitoring indicates airborne concentrations of contaminants below the Permissible Exposure Limits for known contaminants, respirator use may be downgraded, as described in Section 7 – "Personal Air Monitoring".

If a previously unidentified material is discovered during work operations, PPE will be modified as necessary at the determination of the CIH and Project Manager. Mr. Gary Pons, CIH, CSP will be consulted regarding any unidentified materials or situations which may impact the health and safety of site workers.

Table 1. Level D PPE Requirements

Location	Tasks	EPA Level	Equipment Required
Exclusion Zones	Contaminated Soil Excavation and Handling	C	• Half-face or full-face air-purifying respirator equipped with P100 cartridges • Hard hat • Protective Clothing • Hi-vis Safety vests • Rubber overboots • Nitrile gloves • Safety-toed boots • Ear plugs • Protective eye wear
Contamination Reduction Zone	All tasks	D	• Hard hat • Protective Clothing • Nitrile gloves • Rubber overboots • Steel toed boots • Ear plugs • Protective eye wear
Support Zone	All Tasks	D	• Hard hat

			• Hi-vis Safety vests • Steel toed boots • Ear plugs • Protective eye wear

Note that initially half-face air purifying respirators equipped with High Efficiency Particulate Air (HEPA) filters (P100) will be utilized while workers are performing soil excavation and removal operations. Personal air monitoring results will be used to increase or remove the requirement of the use of respiratory protection during these operations.

Additionally, Level C protective apparel should consist of both outer and inner garments. The outer garments should consist of a zippered coverall with attached elastic sleeves, gloves, and rubber boots.

The coveralls, nitrile inner gloves, ear plugs, and respirator cartridges will be removed from service at the end of each workday or when damaged or no longer effective or usable. The safety-toed rubber boots, outer work gloves, hard hats, safety glasses, safety vests, and respirators will be decontaminated when leaving the EZ and will be used for the duration of the project or until they are damaged or no longer effective or usable. Protective clothing removed from service will be placed in plastic trash bags for proper characterization and disposal.

The inner garments should consist of comfortable undershirts, under shorts/pants, and socks (i.e., standard work wear). Due to use of the protective outer garments, the inner garments should not be exposed to site contaminants and, therefore, will be taken home by workers at the end of each work day.

Zippered coverall will be sufficient to protect workers from exposures to dust that may contain contaminated material. Please note that this is contingent upon the Contractor implementing appropriate dust control measures as detailed in this plan.

Workers in the SZ and workers performing site activities after contaminated soil disturbing activities have been completed and contact with the contaminated soil is not a concern (after at least 6" of clean soil has been placed over contaminated soils) will generally wear Level D PPE, as described in the aforementioned Table 1.

With the possible combination of ambient factors such as high air temperature, high relative humidity, low air movement, high radiant heat, and protective clothing, the potential for heat illness of concern. All site workers will be provided adequate breaks in shaded areas and adequate drinking water will be available on Site. Additional details are provided below.

HEAT ILLNESS RELATED TO PPE USE AND WEATHER CONDITIONS

Elevated body temperatures can cause serious injury or death. Working outdoors or in the sun increases the chance of heat-related injuries. This hazard is especially critical when PPE (such as coveralls or rain gear) is worn, since heat from the body becomes trapped inside clothing.

Personnel should drink plenty of liquids and take breaks as needed. The following describes the various **Heat Disorders and Health Effects**:

- **Heat Stroke:** This disorder occurs when the body's system of temperature regulation (e.g., sweating and evaporation) fails and body temperature rises to critical levels. The condition is caused by a combination of highly variable factors, and its occurrence is difficult to predict. Heat stroke is a serious hazard, however. Primary signs and symptoms are confusion, irrational behavior, loss of consciousness, convulsions, a lack of sweating (usually), hot, dry skin, and an abnormally high body temperature. If a worker shows signs of possible heat stroke, call 911 to obtain **immediate** medical assistance. The worker should be placed in a shady area, and his or her outer clothing should be removed. The worker's skin should also be wetted and air movement around the body increased to improve evaporative cooling until professional methods of cooling are initiated and the seriousness of the condition can be assessed. Fluids should be replaced as soon as possible--by mouth only if the worker is conscious. The medical outcome of an episode of heat stroke depends on the victim's physical fitness and the timing and effectiveness of first aid treatment. Regardless of the worker's protests, **no** employee suspected of being ill from heat stroke should be sent home or left unattended unless a physician has specifically approved such an order.

- **Heat Exhaustion:** The signs and symptoms of heat exhaustion include clammy skin, headache, nausea, vertigo, weakness, thirst, and giddiness. Fortunately, heat exhaustion responds readily to prompt treatment. This condition, however, should not be dismissed lightly, for several reasons. One is that fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended. The victim could also be injured when he or she falls. While the signs and symptoms associated with heat exhaustion are similar to those of heat stroke, the notable difference (with heat exhaustion) is clammy skin. Workers suffering from heat exhaustion should be removed from hot environments and given fluid replacement, by mouth only if the workers are conscious. They should also be encouraged to get adequate rest.

- **Heat Rashes:** The most common problem occurring in hot work environments is heat rash. Prickly heat is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, the papules give rise to a prickling sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and papules may become infected if they are not treated. In most cases, heat rash will disappear when the affected individual returns to a cool environment.

- **Heat Fatigue:** One factor that predisposes individuals to heat fatigue is the lack of acclimatization. Use of a program of acclimatization and training for work in hot environments are advisable. The signs and symptoms of heat fatigue include impaired performance of skilled sensorimotor, high-concentration, or high-vigilance activities. The sole treatment available for heat fatigue is to remove heat stress and increase fluid replacement before a more serious heat-related condition develops.

In order to minimize the potential for heat stress and heat stroke, rest breaks will be taken by workers exposed to heat when necessary during Level C work activities and at work intervals shown in Table 1 below.

Table 1. Summary of Work/Rest Periods Based on Temperature (Level C)

Work Environment Temperature (degrees F)	Work (minutes)	Rest (minutes)
75 to 80	120	15
80 to 85	90	15
85 to 90	60	15
90 to 95+	30	15

Workers will be encouraged to increase consumption of water and electrolyte-containing beverages such as Gatorade during warm weather. Site personnel will also be reminded to maintain proper hydration during non-working hours during warm weather.

PPE LIMITATIONS

The PPE selected for use at the site provides limited protection against chemical contaminants. Protective clothing must not be worn in areas where splashing of hazardous liquids on the skin is possible.

Half face air-purifying respirators, or other air-purifying respirator as specified in the Table 1, must not be worn in an oxygen deficient atmosphere or where concentrations exceed the capabilities of the respirator cartridge. Also, respirator cartridges must conform to the airborne contaminants present at the site. Always read the respirator cartridge prior to use to ensure that it is the correct type.

PPE WORK DURATION

Disposable protective clothing is to be disposed of after each use. Disposable protective clothing must be replaced upon re-entry into the EZ, or if the suit becomes damaged or saturated during use. Repairs to small rips may be made to protective clothing using duct tape.

PPE MAINTENANCE AND STORAGE

PPE, including over-boots and gloves, will be maintained in good condition. PPE found to be torn, cut, punctured, or otherwise damaged will be disposed of immediately. After use and decontamination, respirators will be stored overnight in a container.

PPE TRAINING AND PROPER FITTING

Personnel will be thoroughly trained in the proper use and limitation of the equipment they are assigned to wear.

PPE DONNING AND DOFFING PROCEDURES

PPE will be donned prior to entering the EZ, within the SZ. PPE will be worn in accordance with the manufacturer's recommendations. At no time will a person remove the designated PPE while in designated work zones. Disposable PPE will only be removed in the CRZ upon exiting the EZ. Personnel will utilize seating (during decontamination and doffing procedures) to prevent tripping and falling.

The PPE recommended will be donned in the following order: coveralls, steel toe boots, nitrile gloves, outer work gloves, rubber boots, eye goggles, respirator filter and a hard hat. The area around the ankles and wrists must be sealed using duct tape to prevent the possibility of exposure through the gloves and boots. The PPE will be doffed in the reverse order.

Both doffing and donning should be exercised using the buddy method; the second person will safeguard that all body parts are protected from the outside environment. The buddy should ensure that the fit is adequate, neither too tight nor too snug. In addition, this process should be conducted in a separate area inside the contamination reduction zone.

PPE INSPECTION PROCEDURES

PPE will be inspected by employees prior to donning. Boots, gloves, and disposable clothing found to be defective will not be worn and will be disposed of. Defective respirators, safety glasses, and hard hats will be reported to the CIH.

EVALUATION OF THE EFFECTIVENESS OF THE PPE PROGRAM

Periodic inspections and observations of personnel using PPE will be made by the CIH to ensure that the PPE Program elements are being followed.

RESPIRATORY PROTECTION PROGRAM

This respiratory protection program provides the minimum requirements for respiratory protection whenever Level C or higher levels of personal protection are required.

Respirator Cartridges

The crew members working in Level C ensemble will wear half-face air purifying respirators equipped with P100 (HEPA) cartridges, depending on site conditions.

Cartridge Changes

Respirator cartridges will be removed and disposed of at the end of each workday. In addition, if workers notice odors, cartridges will be replaced. Cartridge changes will take place in the CRZ after decontamination of the exterior part of the PPE ensemble.

Respirator Inspection, Cleaning and Storage

Respirators will be maintained by the employee to whom they are assigned. Respirators and associated equipment will be inspected and cleaned, as necessary, prior to use and in compliance with the manufacturer's recommendations. Respirators will be decontaminated, cleaned, and disinfected by the user during each decontamination episode. Harsh detergents or solvents must not be used to clean respirators. Cleaned respirators must be thoroughly dried before storing. Respirators will be stored in a clean, dry container and out of direct sunlight. Respirators must also be stored in such a way that the face piece is not misshapen.

Respirator Use with Facial Hair

No personnel will be permitted to wear a respirator with facial hair that interferes with the respirator's sealing surface.

Respirator Use with Corrective Lenses

Workers needing corrective lenses will be excluded from site activities requiring full-face respirators.

Medical Certification for Respirator Use

Only workers who have been certified by a physician as being physically capable of respirator usage will be issued a respirator. See Section for additional details.

Respirator Limitations

The respirators specified for this project have their limitations. Respiratory protection specified in this Plan may not be worn in atmospheres that are immediately dangerous to life or health (IDLH), oxygen deficient (<19.5%) or in conditions where the contaminant exceeds the PEL in concentrations in excess of the assigned protection factor, (e.g., 10 x PEL = Half Face,).

7 PERSONAL AIR SAMPLING PLAN

Personal air sampling will be implemented for this project to measure employee exposure concentrations to known contaminants. This data will be used to evaluate PPE being used by the Contactor's employees while handling impacted soils. SCS has collected significant personal air sampling data from a project in Miami-Dade County which had a similar scope of work and similar contaminants /contaminant levels. This information has been considered in the development of the personal air sampling plan for this project.

Personal air monitoring will be conducted for the Contractor's employees (including subcontractors) with the highest potential for exposure to contaminants during construction activities. The Contractor shall provide a list of all project personnel along with applicable job descriptions to SCS evaluation. SCS will utilize this information to determine which employees will be monitored. These workers will be monitored for respirable dust and the heavy metals listed as COCs. NIOSH (National Institute for Occupation Safety and Health) Method 7303 will

be used for the metal analysis and NIOSH method 0600 will be used for respirable dust. SCS will use an AIHA (American Industrial Hygiene Association)-accredited laboratory, TestAmerica, to provide the analysis for the personal sampling.

SCS will evaluate the required frequency and quantity of personal air samples to be collected based on our on-site observations of the construction activities. Samples will be collected during activities and from workers that SCS evaluates to be representative of a worst-case exposure risk scenario. We anticipate collecting daily samples for the first week of excavation activities and continuing daily samples until data indicates that the frequency may be reduced or monitoring may be discontinued. A minimum of one sample will be collected for respirable dust and metals before potential downgrading PPE will be evaluated.

Personal monitoring equipment will be selected by SCS that is consistent with the applicable sampling methodology. SCS will provide the necessary training for using the personnel monitoring equipment. Sample collection intake will be positioned to be in the breathing zone of the workers being sampled. The following equipment, or equivalent, will be used:

- Gilian GilAir-3, 3 liter per minute air sampling pump
- Respirable dust cyclone
- PVC filters, 5 micron, 37-mm for metal sample
- Pre-weighted 37-mm, 5 micron, 3-piece PV filters for dust samples
- Clips to secure pump and sampling media

Sample results may be submitted for 24-hour rush analysis so that potential downgrading of PPE can be evaluated as soon as possible. Results from the personal air sampling will be compared to levels described in Section 4 (see page 3).

8 DECONTAMINATION PROCEDURES

Both personnel and equipment, including trucks and other heavy equipment, which enter the Exclusion Zone (EZ) must be decontaminated in the Contaminated Reduction Zone (CRZ) prior to entering the Support Zone (SZ). The following sections outline the procedures for personnel and equipment decontamination.

PERSONNEL DECONTAMINATION PROCEDURES

Employees leaving the EZ will be appropriately decontaminated. The contractor shall provide an area with water and wash facilities within the CRZ for personnel decontamination. Contaminated clothing and equipment leaving a contaminated area will be appropriately disposed of or decontaminated. Surfaces shall be maintained as free as practicable of accumulations of impacted soil.

Waste, scrap, debris, bags, containers, personal protective equipment, and clothing contaminated with impacted soil and are consigned for disposal shall be properly collected, characterized and disposed of in sealed impermeable bags or other closed, impermeable containers and properly labeled.

Workers will decontaminate their PPE by washing visible contamination using soap, water, and brushes, and then removing disposable clothing. Personnel will use the following decontamination procedure:

- Step 1: Hard hat removal
- Step 2: Boot and coverall wash
- Step 3: Boot and coverall rinse
- Step 4: Tape removal
- Step 5: Over-boot removal
- Step 6: Suit removal
- Step 7: Respirator removal (as necessary)
- Step 8: Respirator cartridge removal (as necessary)
- Step 9: Wash hands and face

Disposable protective clothing will be disposed of in a lidded container lined with a labeled drum liner. Waste generated at the site will be disposed of according to the hazard classification of the debris.

EQUIPMENT DECONTAMINATION PROCEDURES

Upon exit from the EZ, equipment, including heavy equipment and trucks, shall be properly decontaminated. The Contractor shall construct a decontamination system which shall include, at a minimum, an impervious liner with a berm to collect wash water from cleaning activities. The containment system detail is provided as **Figure 2** (attached). Decontamination shall include applying a scrub brush on the wheels and side of the equipment, employing a commercial cleansing agent such as Alconox Detergent 8 or Luminox then pressure cleaning.

The resultant wash will then be sampled and analyzed by the contractor for COCs then pumped into appropriate storage containers (i.e. 55 gallon drums, totes, or frac tanks) situated on site until the test results have returned. Based on analytical results, the wash will be disposed of by the contractor by either federal hazardous waste regulations (Resource Conservation Recovery Act) or at a Public Owned Treatment Works (POTW) if approved by the local regulators

LOCATION AND LAYOUT OF DECONTAMINATION FACILITIES

Employee decontamination will be performed at the edge of each EZ, in the CRZ, adjacent to the SZ. This location will minimize the exposure of uncontaminated employees, areas, and equipment to contaminated employees or equipment. The decontamination facility will be arranged in such a way that personnel must exit the EZ only through the CRZ. Equipment decontamination facilities will be also established at locations within the staging areas.

EMPLOYEE WASH FACILITIES

After employees exit the CRZ (where they have decontaminated and removed their PPE), they will proceed to a wash facility to wash hands and face prior to eating, drinking, smoking, or leaving the site. Disposable towels will be provided for drying.

STORAGE AND DISPOSAL OF DECONTAMINATION WATER

Water used for decontamination will be contained and stored in storage tanks or drums. Decontamination water will be sampled for the contaminants-of-concern so that a proper disposal plan can be devised. Hazardous substances and contaminated soils, liquids, and other residues will be handled, transported, labeled, and disposed of in accordance with the OSHA lead standard by the contractor.

LABELING OF CONTAMINATED PPE

The contractor will comply with the OSHA lead standard, 29 CFR 1926.62(g)(2)(vii)(A). The contractor shall ensure that the containers of contaminated protective clothing and equipment required by paragraph (g)(2)(v) of this section are labeled as follows:

DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

9 TRAINING AND MEDICAL REQUIREMENTS

Workers must complete training and receive medical clearance to work on this project, as described in the following sections.

OSHA TRAINING

SCS recommends that workers that will perform work within the Exclusion Zone receive OSHA 40 hour Hazardous Waste Operator Training (HAZWOPPER) in accordance with 29 CFR § 1920.120. However, at a minimum applicable workers shall complete training as specified in OSHA's Lead Standard, 29 CFR § 1926.62(l). The Lead Standard training will consist of the following:

- The content of the referenced standard and its appendices
- The specific nature of the operations which could result in exposure to lead above the action level
- The purpose, proper selection, fitting, use, and limitations of respirators
- The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females and hazards to the fetus and additional precautions for employees who are pregnant)

- The engineering controls and work practices associated with the employee's job assignment including training of employees to follow relevant good work practices described in Appendix B of the Standard.

- The contents of any compliance plan in effect

- Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician

- The employee's right of access to records under 29 CFR 1910.20. Training requirements

Certificate of completion of either OSHA HAZWOPPER or Lead Standard training for each of the Contractor's or subcontractor's employees working within the EZ shall be attached to this HASP in Appendix C.

MEDICAL CLEARANCE

Contractor and subcontractor employees required to wear a respirator in accordance with the requirements of this HASP, must have a written statement from a licensed physician stating they have had a medical examination which meets the requirements of 29 CFR § 1926.62. This examination must include pulmonary function testing as well as certification by the physician of the employee's ability to wear a negative-pressure respirator and perform strenuous work. Documentation of medical clearance statements for each of the contractor's or subcontractors applicable employees shall be attached to this HASP in Appendix C.

If a person sustains an injury or contracts an illness related to work on Site that results in lost work time, he/she must obtain written approval from a physician to regain access to the Site.

RESPIRATOR FIT TEST

Annual qualitative respirators fit tests are required of personnel wearing negative pressure respirators. Qualitative fit tests will utilize Bitrex, isoamyl acetate or irritant smoke. Fit tests must incorporate the make and size of respirator to be used. Additionally, a positive and negative fit check will be conducted each time a respirator is donned.

Documentation of qualitative fit testing for each of the contractor's or subcontractors applicable employees shall be attached to this HASP in Appendix C.

10 EMERGENCY PROCEDURES

This emergency response plan explains how to handle anticipated emergencies prior to the commencement of the work applicable to this HASP.

EMERGENCY PROCEDURES

Employees may respond to low danger emergencies, such as administration of first aid, fighting small fires (with fire extinguishers), and clean-ups of small chemical spills (of less than 55 gallons or 500 pounds). Employees will evacuate from the danger area when an emergency not listed above occurs and will not assist in handling the emergency. Should outside medical or other emergency assistance be required, personnel will notify the contractor in command of the nature of the emergency and a call will be made to 911, (or equivalent emergency response). If the injury or illness appears to be relatively minor, the affected person or persons may be driven to the emergency room of the nearest hospital.

PLACES OF REFUGE

Personnel, when alerted during emergencies, will exit the EZ through the CRZ and muster in the SZ (upwind of the event). Personnel are to remain in the staging area and await further instructions.

IDENTIFICATION OF NEAREST MEDICAL ASSISTANCE

University of Miami Hospital
Emergency Department
1400 NW 12th Avenue
Miami, Florida 33136
305-585-7511

In an emergency, call 911

The Hospital Location Map is provided as **Figure 3**. The map will be posted at the site.

STATUS AND CAPABILITIES OF EMERGENCY RESPONSE PROVIDERS

Local emergency responders (fire department, medical providers and transporters) are on full time alert and have the capabilities to respond to any anticipated site emergency.

PRE-EMERGENCY PLANNING

The types of emergencies anticipated include personal injuries, fire, and small chemical spills. An OSHA-approved first aid kit will be made available at the site. A charged and inspected fire extinguisher will be available on each piece of equipment. Spill containment equipment will be made available if hazardous materials are stored on site.

PERSONNEL ROLES, LINES OF AUTHORITY, AND COMMUNICATION

In the event of an emergency, personnel will follow the directions of the incident commander in charge that will coordinate and direct emergency response procedures to site personnel. An emergency will be communicated to persons on site using verbal communications.

EMERGENCY RECOGNITION AND PREVENTION

Site personnel will be trained to recognize when an emergency situation has arisen and will know how to notify the commanding contractor of the incident. Site personnel will use safe work practices to minimize the potential for an incident. Regular safety meeting will be held to identify and communicate problem areas at the site.

SITE SECURITY AND CONTROL

During an emergency situation, personnel are responsible for assuring the public's safety and will keep bystanders and unauthorized personnel from entering the site. At no time will personnel give statements regarding an emergency to persons not associated with emergency response or management.

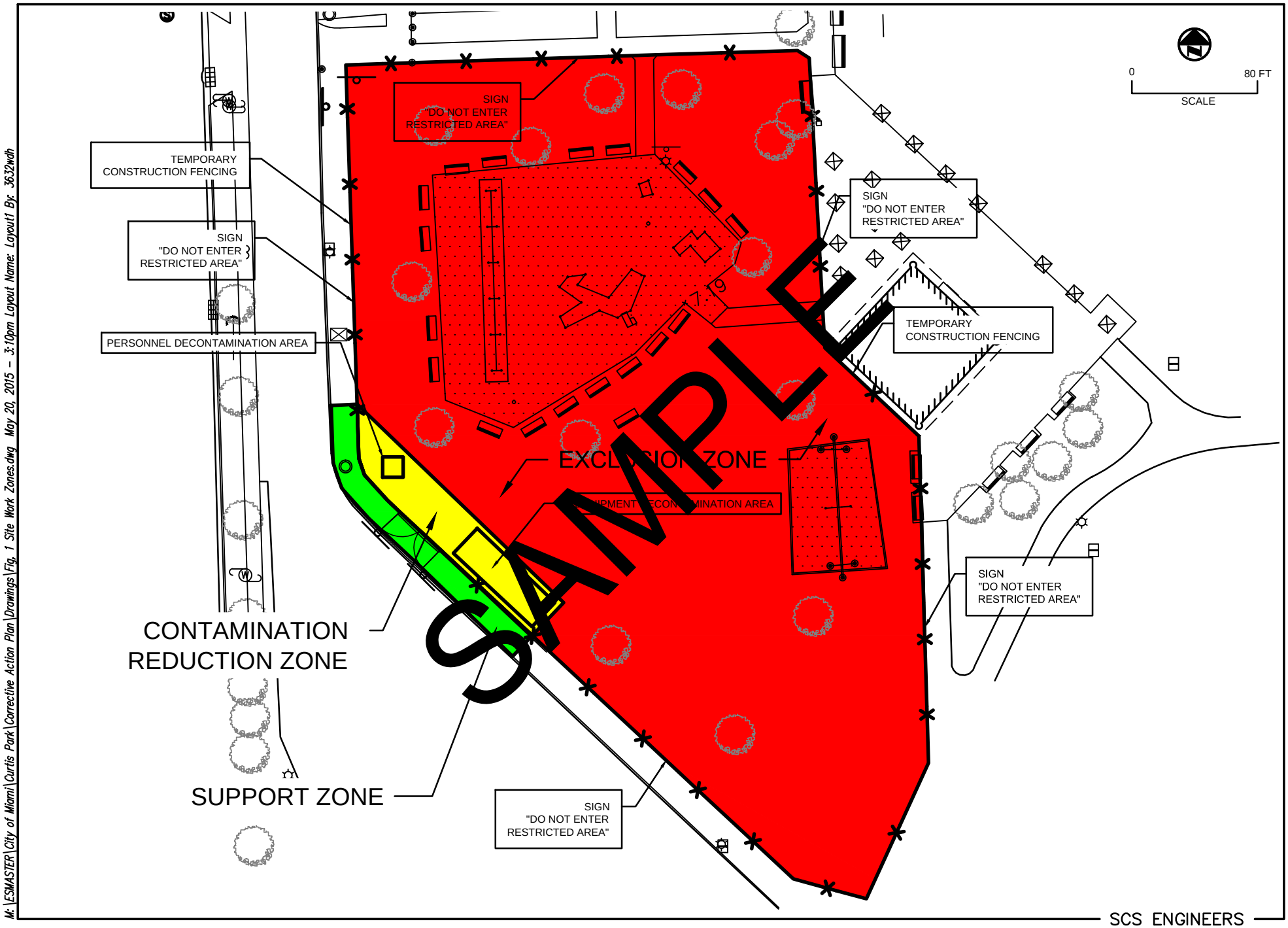
DECONTAMINATION OF INJURED WORKERS

Decontamination procedures for injured workers may be limited to removal of outer coveralls and boots so long as such action will not aggravate the injury. If the injury is minor, and does not require immediate medical attention, workers may decontaminate as usual. The hospital will be capable to treat potentially contaminated workers as well.

ACCIDENT REPORTING AND FOLLOW-UP

Incident scenes will be preserved so that a thorough incident investigation may be performed. Causes of the incident will be investigated and the findings presented to site personnel to prevent future incidents.

FIGURES



M:\ESMASTER\City of Miami\Curtis Park\Corrective Action Plan\Drawings\Fig. 1 Site Work Zones.dwg May 20, 2015 - 3:10pm Layout Name: Layout1 By: 3632wdh

Fig. 1 Site Work Zones

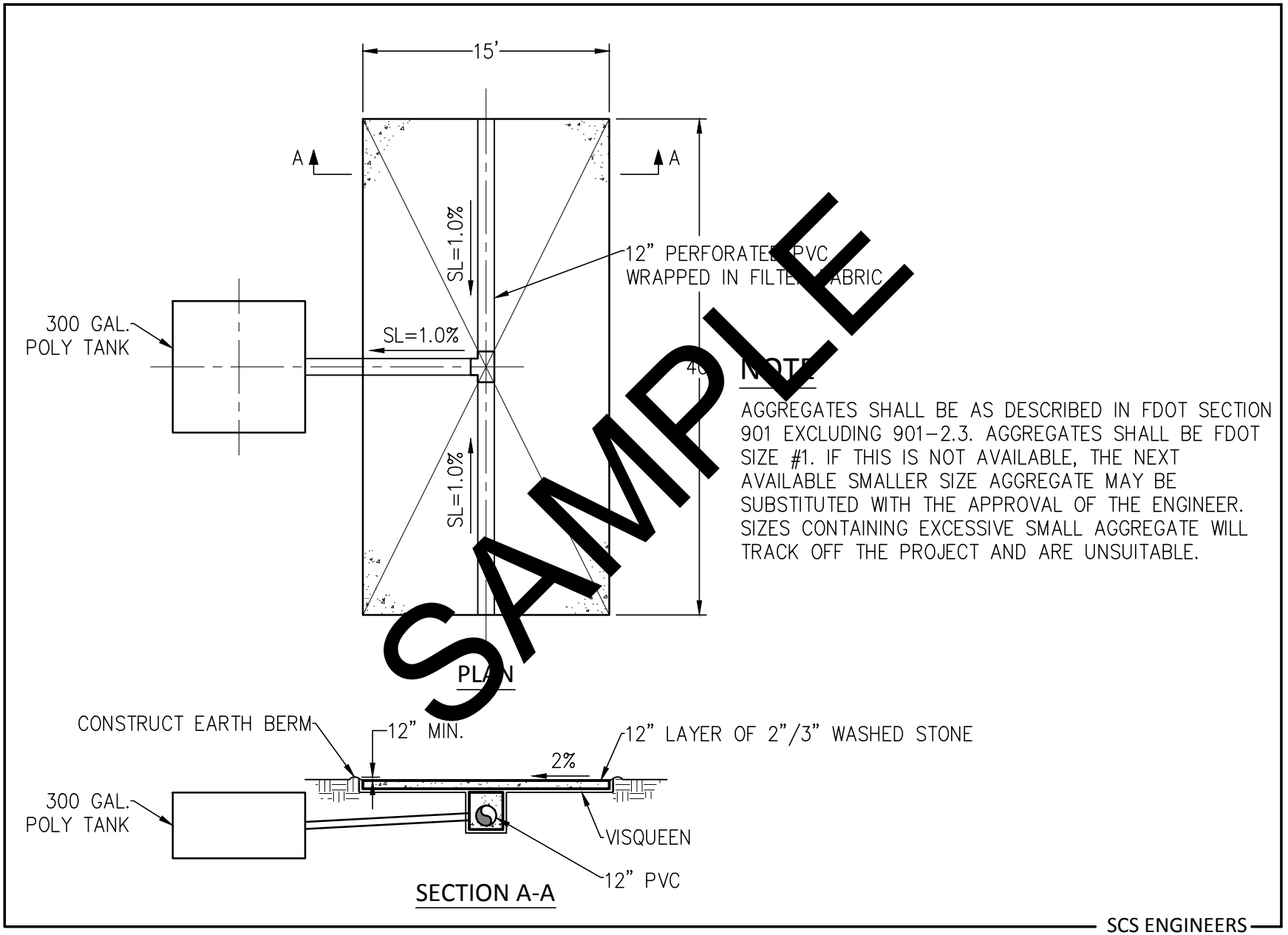
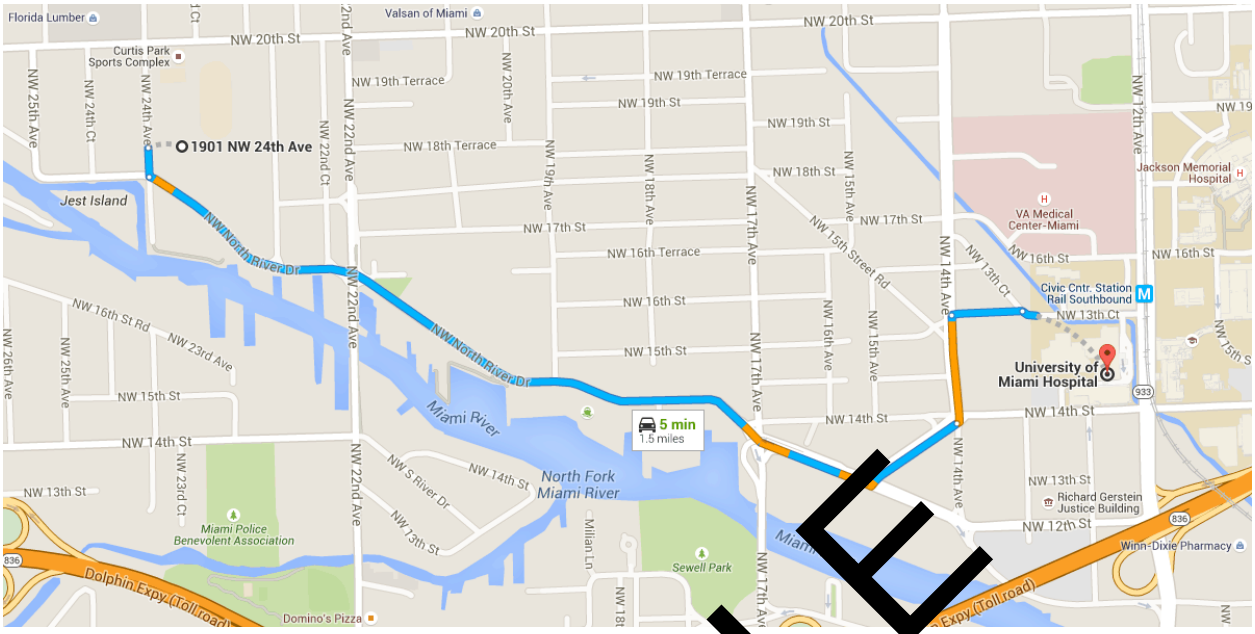


Fig. 2 Decontamination Wash-Water Containment System Detail



1901 NW 24th Ave
Miami, FL 33125

1. Head **south** on **NW 24th Ave** toward **NW 1 rrace/ W North River Dr** — 197 ft
2. Turn **left** at the 1st cros treet onto **W North River Dr** — 1.0 mi
3. Turn **left** onto **8th Te e** — 0.1 mi
4. Turn **left** onto **NW 14th A e** — 0.1 mi
5. Turn **right** onto **NW 15th St** — 476 ft
6. Slight **right** onto **NW 13th Ct** — 108 ft

University of Miami Hospital
1400 Northwest 12th Avenue, Miami, FL 33136

These directions are for planning purposes only. You may find that construction

Figure 3 - Hospital Route

APPENDIX A

CORRECTIVE ACTION PLAN ENGINEERING DRAWINGS

CURTIS PARK
CORRECTIVE ACTION PLAN - PHASE 1
PERMIT DRAWINGS

1901 NW 24TH AVENUE
MIAMI, FLORIDA
JUNE 2015

PREPARED FOR:

CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

INDEX OF DRAWINGS

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300
MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 00004892
WWW.SCSENGINEERS.COM

SCS PROJECT NO. 09213010.46

PERMIT DRAWINGS
NOT FOR CONSTRUCTION
DATE: JUNE 2015

WILLIAM D. HEIKKINEN
LICENSE
No. 78529
STATE OF FLORIDA
PROFESSIONAL ENGINEER
6-17-15

WILLIAM D. HEIKKINEN, P.E.
PE NO. 78529

M:\ESMASTER\City of Miami\Curtis Park\Drawings\Phase 1 Playground CAP\SHT-0 Cover - Permit Set.dwg Jun 08, 2015 - 10:39am Layout Name: COVER By: 3632widh

I. GENERAL DESCRIPTION OF WORK

A. THE WORK GENERALLY CONSISTS OF THE CORRECTIVE ACTIONS TO ADDRESS CONTAMINATION AT THE CITY OF MIAMI'S CURTIS PARK PLAYGROUND. INCLUDED IN THE WORK IS THE FOLLOWING:

1. SELECTIVE REMOVAL OF STRUCTURES AND OTHER PLAYGROUND FEATURES INCLUDING PLAYGROUND EQUIPMENT FOUNDATIONS.
2. EXCAVATION OF BETWEEN 12" - 14.5" OF POTENTIALLY CONTAMINATED SOIL FROM THE EXISTING PLAYGROUND AND SURROUNDING AREA. EXCAVATED MATERIAL SHALL BE HAULED OFF SITE TO A CLASS I LANDFILL.
3. EXCAVATION OF POTENTIALLY CONTAMINATED SOIL AROUND TREES AND PRUNING ROOTS AS DIRECTED BY THE OWNER'S DESIGNATED ARBORIST.
4. INSTALLATION OF A NON-WOVEN COLORED GEOTEXTILE CGSE NW8 OR EQUIVALENT MATERIAL BETWEEN EXISTING SOIL TO REMAIN AND CLEAN FILL WHERE SPECIFIED.
5. INSTALLING 12" OF CLEAN FILL ABOVE GEOTEXTILE AND 12" OF CLEAN FILL IN TREE PROTECTION AREA.
6. INSTALLING CONCRETE BORDERS AROUND PLAYGROUNDS.
7. INSTALLING 2.5" OF POURED IN PLACE RUBBERIZED PLAYGROUND SURFACING ABOVE 12" OF CLEAN FILL AND GEOTEXTILE WITHIN THE ENTIRE LIMITS OF THE EXISTING PLAYGROUND.
8. INSTALLING 2.5" OF BONDED RUBBER MULCH OVER 12" OF CLEAN FILL AROUND SPECIFIED TREES.
9. INSTALLING EITHER 2.5" OF BONDED RUBBER MULCH OR ARTIFICIAL TURF ABOVE 12" OF CLEAN FILL AND GEOTEXTILE IN REMAINING AREAS WITHIN PROJECT BOUNDARY.

B. REFER TO THE FULL SET OF CONSTRUCTION PLANS FOR CONSTRUCTION DETAILS AND SPECIFICATIONS.

C. THE OWNER OF THE PROJECT IS THE CITY OF MIAMI.

II. APPLICABLE CODES

A. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES APPLICABLE TO THE WORK, INCLUDING, BUT NOT LIMITED TO BUILDING AND CONSTRUCTION CODES, ENVIRONMENTAL CODES, AND HEALTH AND SAFETY CODES.

B. THE CONTRACTOR SHALL NOTE THAT A PORTION OF THE PROPOSED CONSTRUCTION ACTIVITIES IS WITHIN CONTAMINATED AREAS OF THE SITE AND THE POTENTIAL FOR EXPOSURE TO HAZARDOUS MATERIALS EXISTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW THE AVAILABLE INFORMATION ON THE EXISTING CONTAMINATION PRESENT AT THE SITE AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY REGULATIONS (E.G., OSHA, ETC.). DOCUMENTS RELEVANT TO THE CONTAMINATION AT THE SITE CAN BE OBTAINED VIA MIAMI-DADE COUNTY'S DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (DERM REFERENCE "HWR-777").

C. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF MIAMI-DADE COUNTY.

D. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.

E. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D.), UNLESS OTHERWISE NOTED. CONTRACTOR TO REFER TO MIAMI-DADE COUNTY DATUM ELEVATIONS AND ALL MIAMI-DADE COUNTY REFERENCE MONUMENTS LOCATED IN THE STREET RIGHT OF WAY.

III. PRE-CONSTRUCTION RESPONSIBILITIES

A. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRE-CONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.

B. FOLLOWING THE PRE-CONSTRUCITON CONFERENCE THE CONTRACTOR SHALL SUBMIT TO THE OWNER FOR APPROVAL A CONSTRUCTION SEQUENCING PLAN WHICH SHALL INCLUDE AT A MINIMUM THE FOLLOWING INFORMATION:

1. REMOVAL OF STRUCTURES, PLAYGROUND EQUIPMENT AND FOUNDATIONS
2. EXCAVATION AND HAULING OF CONTAMINATED SOIL TO A CLASS I LANDFILL
3. REPLACEMENT OF STRUCTURES, PLAYGROUND EQUIPMENT AND FOUNDATIONS
4. PLACEMENT OF NON-WOVEN COLORED GEOTEXTILE
5. HAULING AND STAGING OF IMPORTED CLEAN FILL
6. A PLAN TO ENSURE THAT NO CONTAMINATED SOIL IS TRACKED OFFSITE VIA TRUCK OR OTHER EQUIPMENT AND FOR FINAL CLEANING OF ANY EQUIPMENT THAT HAS BEEN EXPOSED TO CONTAMINATED SOIL AND THE CONTAINMENT AND DISPOSAL OF THE RESULTING WASH-WATER.

C. THE OWNERS CONSULTANT SHALL PROVIDE A SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP) FOR THE CONTRACTOR AND ANY SUBCONTRACTORS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW AND IMPLEMENT THE HASP TO COMPLY WITH ALL APPLICABLE HEALTH AND SAFETY REGULATIONS. A COPY OF THE HASP SHALL BE MAINTAINED AT ALL TIMES AT THE JOBSITE .

D. THE CONTRACTOR SHALL PROVIDE TO THE OWNER ALL APPLICABLE OSHA CERTIFICATIONS FOR ALL WORKERS THAT MAY BE EMPLOYED AT THE WORK SITE.

E. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA, INC. CERTIFICATION NUMBER AND FIELD MARKINGS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION. CALL 1-800-432-4770.

F. LOCATION OF EXISTING UTILITIES AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES SHOWN OR FOR ANY UTILITIES THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THROUGH VACUUM EXCAVATION & TEST HOLE METHODS, THE ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTIONS. IF AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION UPON EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE CONFLICT.

IV. SPECIAL ENVIRONMENTAL REQUIREMENTS

A. THE CONTRACTOR SHALL IMPLEMENT FEASIBLE ENGINEERING AND WORK PRACTICE CONTROLS TO MINIMIZE EMPLOYEE EXPOSURES TO CONTAMINANTS. A WRITTEN COMPLIANCE PROGRAM DETAILING HOW CONTAMINANT EXPOSURES WILL BE CONTROLLED SHALL BE SUBMITTED TO THE OWNER.

B. IN ORDER TO LIMIT THE FUGITIVE DUST FROM CONTAMINATED SOILS AND INCIDENTAL EXPOSURE THE CONTRACTOR SHALL SECURELY COVER AREAS OF EXPOSED CONTAMINATED SOIL (IN-SITU OR STOCKPILED) AT THE END OF EACH DAY WITH PLASTIC SHEETING.

C. THE CONTRACTOR SHALL STOCKPILE CONTAMINATED SOIL IN DESIGNATED ON-SITE LOCATION(S) AND USE A MINIMUM 10 MIL IMPERMEABLE LINER FOR CONTAINMENT, OR CLEAN SAND.

D. ANY CONTAMINATED SOIL EXCAVATED SHALL NOT BE REUSED AND REQUIRES PROPER HANDLING AND DISPOSAL AT A CLASS I LANDFILL IN ACCORDANCE WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS. CONTAMINATED SOIL DISPOSAL DOCUMENTATION (I.E. MANIFESTS) SHALL BE SUBMITTED TO THE OWNER.

E. GROUNDWATER MONITORING WELLS TO REMAIN SHALL BE PROTECTED AND REPLACED IF DAMAGED OR DESTROYED AT NO ADDITIONAL COST TO THE OWNER. ANY MONITORING WELLS TO BE DESTROYED SHALL BE PROPERLY ABANDONED WITH DOCUMENTATION SUBMITTED TO THE OWNER.

F. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO ENSURE THAT FUGITIVE DUST DOES NOT MIGRATE OFFSITE DURING CONSTRUCTION ACTIVITIES. MATERIAL TO BE EXCAVATED SHALL BE THOROUGHLY WETTED PRIOR TO EXCAVATION, DURING EXCAVATION AND DURING LOADING ACTIVITIES TO PREVENT THE POTENTIAL FOR OFFSITE DUST MIGRATION.

G. THE OWNER MAY CHOOSE TO HAVE AN INDEPENDENT PARTY CONDUCT AIR MONITORING AT THE PROJECT/SITE BOUNDARIES TO ENSURE FUGITIVE DUST IS NOT MIGRATING OFFSITE DURING THE EXCAVATION/GRADING OF CONTAMINATED SOILS. IF AIR MONITORING RESULTS SHOW FUGITIVE DUST AT THE PROPERTY BOUNDARY THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL CONSTRUCTION ACTIVITIES AND SUBMIT A WRITTEN CORRECTIVE ACTION PLAN FOR APPROVAL PRIOR TO COMMENCING WITH WORK.

V. INSPECTIONS

A. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS, WHERE APPLICABLE:

1. DEMOLITION
2. CLEARING AND EARTHWORK
3. SUBGRADE
4. 8-OZ NON-WOVEN GEOTEXTILE
5. FINAL GRADING
6. CONCRETE BORDER
7. POURED IN PLACE/BONDED RUBBER MULCH/ARITIFICIAL TURF
8. FINAL

VI. SHOP DRAWINGS

A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD FOR THE FOLLOWING: 70-30 SOIL MIX, CLEAN FILL, 8-0Z NON-WOVEN GEOTEXTILE, POURED IN PLACE RUBBERIZED PLAYGROUND SURFACING, BONDED RUBBER MULCH, ARTIFICIAL TURF (IF USED) AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

VII. TEMPORARY FACILITIES

A. GENERAL:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY, AS NEEDED.

B. TRAFFIC REGULATIONS:

1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (M.U.T.C.D.) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS & SPECIFICATIONS.
2. NO TRENCHES OR HOLES ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS, UNLESS IN ACCORDANCE WITH METHODS APPROVED BY THE ENGINEER OF RECORD AND THE OWNER.

VIII. GRADING:

A. GENERAL:

1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO FINISHED GRADING
2. ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION, SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
3. WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE CLEARLY SAW CUT TO ENSURE A PROPER JOINT.

B. MATERIALS:

1. CLEAN FILL SHALL BE SOURCED FROM A NATIVE ROCK MINING QUARRY.
2. BONDED RUBBER MULCH (TREE PROTECTION AREA)
   2.1. SOIL PLACED UNDER AREAS OF PROPOSED BONDED RUBBER MULCH SHALL BE PLANTING SOIL CONSISTING OF 70% SILICA SAND AND 30% EVERGLADES MUCK, OR OTHER SOIL APPROVED BY THE OWNERS DESIGNATED ARBORIST.
   2.2. CONTRACTOR SHALL SUPPLY 1 CY SOIL SAMPLE TO THE OWNERS DESIGNATED ARBORIST FOR APPROVAL PRIOR TO PLACEMENT.
3. POURED IN PLACE RUBBERIZED PLAYGROUND SURFACING
   3.1. SUB-BASE SHALL HAVE THE SPECIFIC MAXIMUM SLOPE (2%) AND SHALL VARY NO MORE THAN ¾" WHEN MEASURED IN ANY DIRECTION WITH A 10-FT STRAIGHT EDGE.
   3.2. THE DENSITY REQUIREMENT IS 90% TO 95% COMPACTION WITH FINAL CONDITION OF STONE AS LEVEL AND STABLE SO AS NOT TO SHIFT WHEN TRAVELED ON OR DURING SURFACE INSTALLATION.
   3.3. A COMPACTION TEST IS REQUIRED AND MUST BE SUBMITTED TO XGRASS PRIOR TO INSTALLATION OF POURED RUBBER SURFACE. FAILURE TO PROVIDE PROOF OF COMPACTION TEST WILL VOID 5-YEAR WARRANTY OF PIP SURFACING SHOULD SIGNS OF SUB-BASE FAILURE OCCUR.
4. BONDED RUBBER MULCH (NOT IN TREE PROTECTION AREA)/ ARTIFICIAL TURF
   4.1. SUB-BASE SHALL CONSIST OF 4" OF COMPACTED STONE (#57 OR #8 US) OR LIMEROCK.
   4.2. SUB-BASE SHALL BE PART OF THE 12" THICK CLEAN FILL LAYER (I.E. 8" CLEAN FILL + 4" CLEAN SUB-BASE = 12")

IX. PROJECT CLOSEOUT

A. CLEANING:

1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF EXCESS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE BROOM SWEPT CLEAN.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OF RECORD, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THAT END,THE CONTRACTOR SHALL DO, AS REQUIRED, ALL NECESSARY HIGHWAY, DRIVEWAY, SIDEWALK AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
3. CONTRACTOR SHALL IMPLEMENT ENGINEERING CONTROLS AS NECESSARY TO ENSURE THAT CONTAMINATED MATERIAL OR DEBRIS (INCLUDING DECONTAMINATION FLUIDS) WILL NOT DISCHARGE, DRAIN OR SEEP INTO A STRUCTURE DESIGNED TO CARRY STORMWATER.

B. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION, SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

C. ALL UNPAVED SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE CONSTRUCTION.

D. PROJECT RECORD DOCUMENTS:

1. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH, MATERIAL AND ELEVATION OF ANY ITEM NOT BUILT EXACTLY ACCORDING TO PLANS.
3. CONTRACTOR SHALL FURNISH WRITTEN AND DOCUMENTED VERIFICATION OF THE REQUIRED EXCAVATION DEPTH TO THE ENGINEER OF RECORD. IN ADDITION, CONTRACTOR SHALL PROVIDE SUFFICIENT TIME FOR THE CITY'S ON-SITE REPRESENTATIVES TO OBSERVE THE EXCAVATION DEPTHS PRIOR TO FILLING ACTIVITIES.
4. UPON COMPLETION OF CONTAMINATED SOIL EXCAVATION AND OFF-SITE HAULING, CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR BOTH THE SUBGRADE AND FINAL GRADE. THE "AS-BUILT" PLANS SHALL SHOW PERTINENT GRADES THROUGHOUT THE PROJECT AREA AT SUFFICIENT DETAILS TO SHOW CHANGES IN ELEVATION 6" OR GREATER AND ATLEAST EVERY 50-FT INCLUDING LOCATIONS AND ELEVATIONS OF ALL HIGH AND LOW POINTS.

X. SEQUENCE OF ACTIVITIES

1. SETUP TEMPORARY CONSTRUCTION FENCING AND STORMWATER POLLUTION PREVENTION DEVICES.
2. DEMOLISH AND REMOVE EXISTING PLAYGROUND EQUIPMENT, CONCRETE BORDERS AND SPECIFIED STRUCTURES.
3. REMOVE 12" - 14.5" OF POTENTIALLY CONTAMINATED SOIL FROM SPECIFIED PLAYGROUND AND SURROUNDING AREAS AND HAUL TO DESIGNATED CLASS I LANDFILL.
4. INSTALL 8-OZ NON-WOVEN COLORED GEOTEXTILE WHERE SPECIFIED.
5. BACKFILL 12" OF CLEAN FILL ABOVE GEOTEXTILE AND 12" OF CLEAN FILL IN TREE PROTECTION AREA.
6. INSTALL CONCRETE BORDER AROUND PLAYGROUND AREAS.
7. INSTALLING 2.5" OF POURED IN PLACE RUBBERIZED PLAYGROUND SURFACING WITHIN THE ENTIRE LIMITS OF THE EXISTING PLAYGROUND.
8. INSTALLING 2.5" OF BONDED RUBBER MULCH OVER 12" OF CLEAN FILL AROUND SPECIFIED TREES.
9. INSTALLING EITHER 2.5" OF BONDED RUBBER MULCH OR ARTIFICIAL TURF IN REMAINING AREAS WITHIN PROJECT BOUNDARY.

WILLIAM D. HEINKINEL * LICENSED * PROFESSIONAL ENGINEER * STATE OF FLORIDA
WILLIAM D. HEINKINEL, P.E.
FL LICENSE NO. 75259

REV	DATE	DESCRIPTION	CHK BY

SHEET TITLE: NOTES AND SPECIFICATIONS

PROJECT TITLE: CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT: CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
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7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX: (305) 412-8195
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJECT NO: 09213010.46
DSN. BY: WDH
DRN. BY: JDR
CHK. BY:
QA/A. RVW. BY:
APP. BY:

CADD FILE: 09213010.46

DATE: JUNE 2015

SCALE: AS SHOWN

DRAWING NO. SHT-1

SHEET 2 of 7

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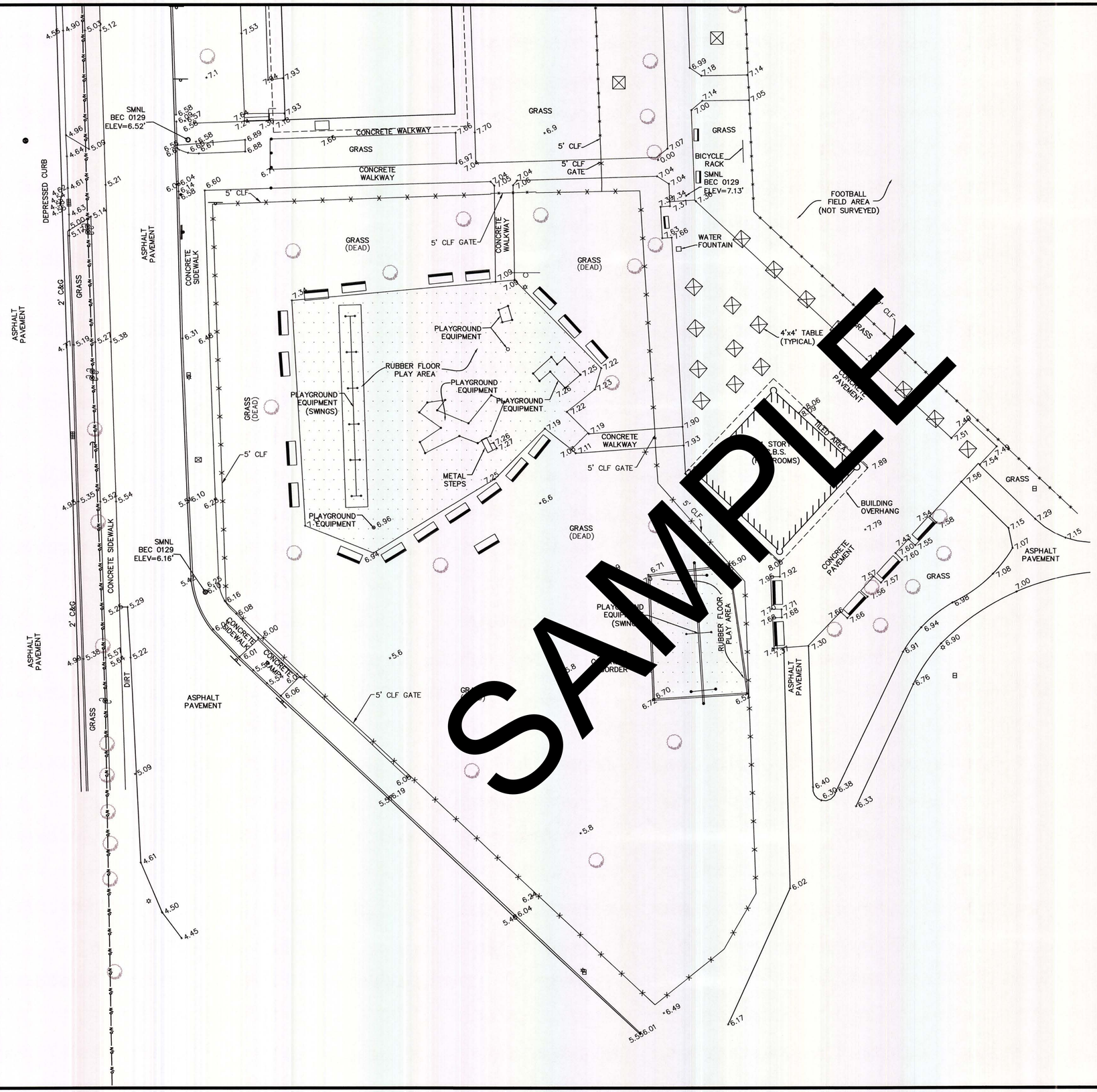

0 15 30
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EXISTING OVERHEAD WIRES
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING SIGN
- EXISTING ELECTRICAL BOX
- EXISTING POWER POLE
- EXISTING DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- EXISTING POST
- EXISTING BENCH

NOTES

1. EXISTING TOPOGRAPHY BASED ON SURVEY DATED APRIL 17, 2015 PREPARED BY:
   BISCAYNE ENGINEER COMPANY, INC
   529 WEST FLAGLER STREET
   MIAMI, FLORIDA 33130
2. ELEVATIONS SHOWN ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929)

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WILLIAM D. HEIKKINEN, P.E. * LICENSE NO. 75539 * STATE OF FLORIDA * PROFESSIONAL ENGINEER
WILLIAM D. HEIKKINEN, P.E.
FL LICENSE NO. 75539

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE: EXISTING CONDITIONS

PROJECT TITLE: CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT: CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.46 | DWN. BY: JDR | C/A R/W BY: JPT
DSN. BY: WDH | CHK. BY: JPT | APP. BY: JPT

CADD FILE: 09213010.46

DATE: JUNE 2015

SCALE: AS SHOWN

DRAWING NO. SHT-2

SHEET 3 of 7

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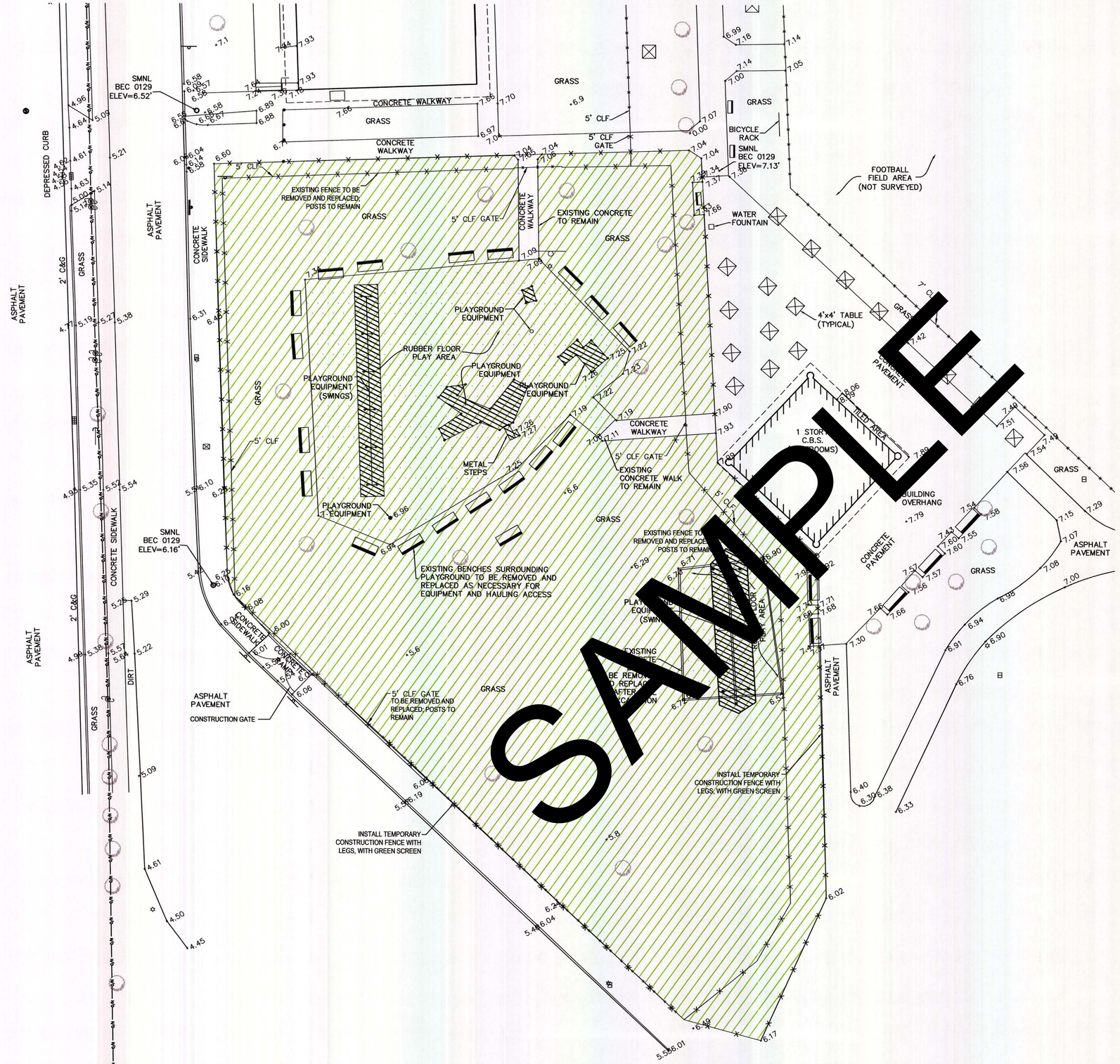

0 15 30
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EXISTING OVERHEAD WIRES
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING SIGN
- EXISTING ELECTRICAL BOX
- EXISTING POWER POLE
- EXISTING DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- EXISTING POST
- EXISTING BENCH TO BE REMOVED AND REPLACED
- EXCAVATION AREA
- PLAYGROUND EQUIPMENT AND FOUNDATIONS TO BE REMOVED

NOTES

1. EXISTING TOPOGRAPHY BASED ON SURVEY DATED APRIL 17, 2015 PREPARED BY:
   BISCAYNE ENGINEER COMPANY, INC
   529 WEST FLAGLER STREET
   MIAMI, FLORIDA 33130
2. ELEVATIONS SHOWN ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929)
3. ALL EXISTING PLAYGROUND EQUIPMENT AND FOUNDATION TO BE REMOVED DURING CONTAMINATED SOIL EXCAVATION. TO BE REPLACED WITH NEW EQUIPMENT BY OTHERS.

WILLIAM D. HERKNEN, P.E.
FL LICENSE NO. 75539
STATE OF FLORIDA PROFESSIONAL ENGINEER

REV	DATE	DESCRIPTION	CHK BY

SHEET TITLE: SITE DEMOLITION PLAN

PROJECT TITLE: CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT: CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH: (305) 412-8185 FAX: (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO: 09213010.46
DSN. BY: JDR
CHK. BY: JPT
DSC. BY: WDH
Q/A RVW. BY:
APP. BY: JPT

CADD FILE: 09214010.46
DATE: JUNE 2015
SCALE: AS SHOWN
DRAWING NO. SHT-3
SHEET 4 of 7

M:\ESMASTER\City of Miami\Curtis Park\Drawings\Phase 1 Playground CAP\SHT-3 SITE DEMOLITION PLAN.dwg Jun 08, 2015 - 10:41am Layout Name: 24x36 By: 3632wdh

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SCALE IN FEET

LEGEND

- PROPERTY LINE
- EXISTING OVERHEAD WIRES
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING SIGN
- EXISTING ELECTRICAL BOX
- EXISTING POWER POLE
- EXISTING DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- EXISTING POST
- EXISTING BENCH
- FINAL PLAYGROUND SURFACE; 14.5" EXCAVATION, GEOTEXTILE, 12" CLEAN FILL, 2.5" POURED IN PLACE RUBBER PLAYGROUND SURFACE. (±7,093 S.F.)
- ARTIFICIAL TURF; 1-FT EXCAVATION, GEOTEXTILE, 12" CLEAN FILL AND ARTIFICIAL TURF (±13,109 S.F.)
- OR
- BONDED RUBBER MULCH; 14.5" EXCAVATION, GEOTEXTILE, 12" CLEAN FILL AND 2.5" BONDED RUBBER MULCH (±13,109 S.F.)
- TREE PROTECTION AREA (BONDED RUBBER MULCH) 14.5" EXCAVATION, 12" CLEAN FILL, 2.5" BONDED RUBBER MULCH (±13,996 S.F.)
- B 6 — SECTION SYMBOL

CUT/FILL CALCULATIONS

AREA:	±34,198 S.F.
TOTAL CUT: (EXCAVATION)	±1,530 IN-PLACE C.Y.
TOTAL CLEAN FILL: (IMPORTED)	±1,270 IN-PLACE C.Y.

NOTES

1. EXISTING TOPOGRAPHY BASED ON SURVEY DATED APRIL 17, 2015 PREPARED BY:
   BISCAYNE ENGINEER COMPANY, INC
   529 WEST FLAGLER STREET
   MIAMI, FLORIDA 33130
2. ELEVATIONS SHOWN ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929)
3. NEW PLAYGROUND EQUIPMENT BY OTHERS TO BE INSTALLED PRIOR TO PLACEMENT OF GEOTEXTILE, CLEAN FILL, CONCRETE BORDER AND PIP RUBBER PLAYGROUND SURFACE.
4. LIMITS OF TREE PROTECTION AREA TO BE VERIFIED AND APPROVED BY CITY'S DESIGNATED ARBORIST.
5. CUT AND FILL QUANTITIES ARE ESTIMATES AND SHOULD BE VERIFIED BY CONTRACTOR.
6. LIMITS OF BONDED RUBBER MULCH IN THE TREE PROTECTION AREA MAY BE REDUCED AT THE DISCRETION OF THE OWNER'S DESIGNATED ARBORIST.

WILLIAM D. HERKIMEN, P.E.
FL LICENSE NO. 75529

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE: SITE PLAN

PROJECT TITLE:
CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT:
CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8166 FAX (305) 412-8165
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.46 | DWN. BY: JDR | CHK. BY: JPT | QA/ QC BY: JPT | APP. BY: JPT | DSN. BY: WDH

CADD FILE: 09214010.46

DATE: JUNE 2015

SCALE: AS SHOWN

DRAWING NO. SHT-4

SHEET 5 of 7

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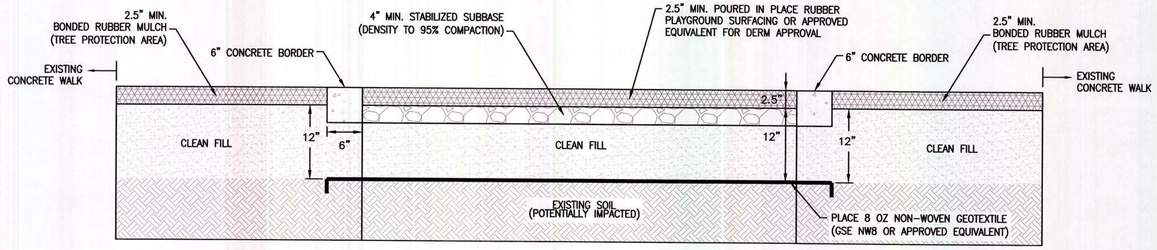
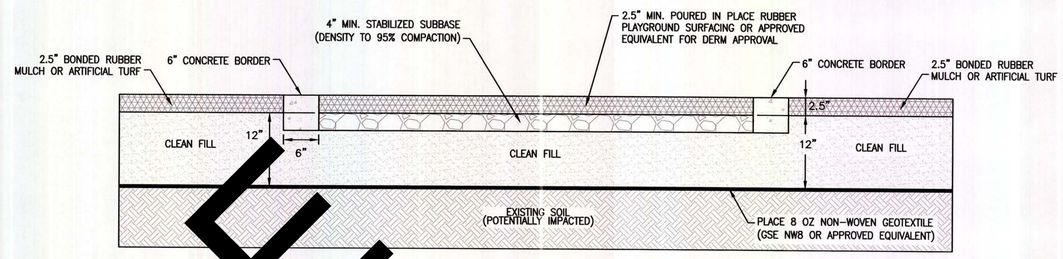
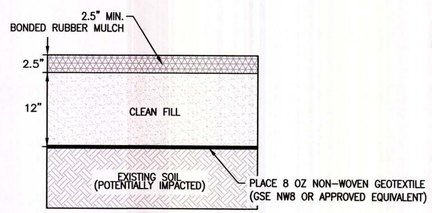
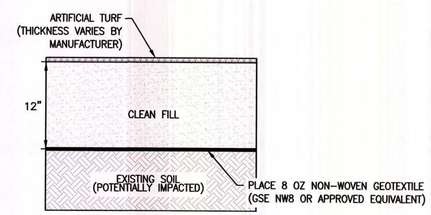


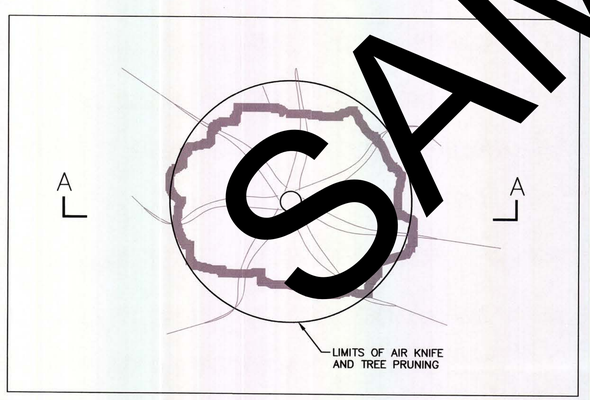
RUBBER PLAYGROUND SURFACING
SECTION A–A
N.T.S.



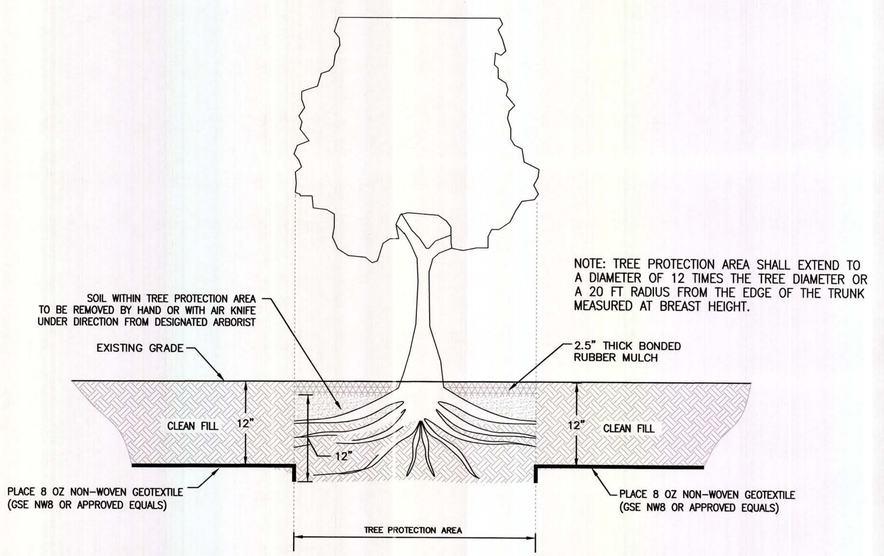
RUBBER PLAYGROUND SURFACING
SECTION B–B
N.T.S.







PLAN VIEW



TREE PRUNING DETAIL
N.T.S.

WILLIAM D. HEKKINEN, P.E.
FL LICENSE NO. 75529
STATE OF FLORIDA

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE
DETAILS AND SECTIONS

PROJECT TITLE
CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT
CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.46
DSN. BY: WDH
DWN. BY: JDR
CHK. BY: JPT
Q/A RVW BY: JPT
APP. BY: JPT

CADD FILE: 09214010.46
DATE: JUNE 2015
SCALE: AS SHOWN
DRAWING NO. SHT-5
SHEET 6 of 7

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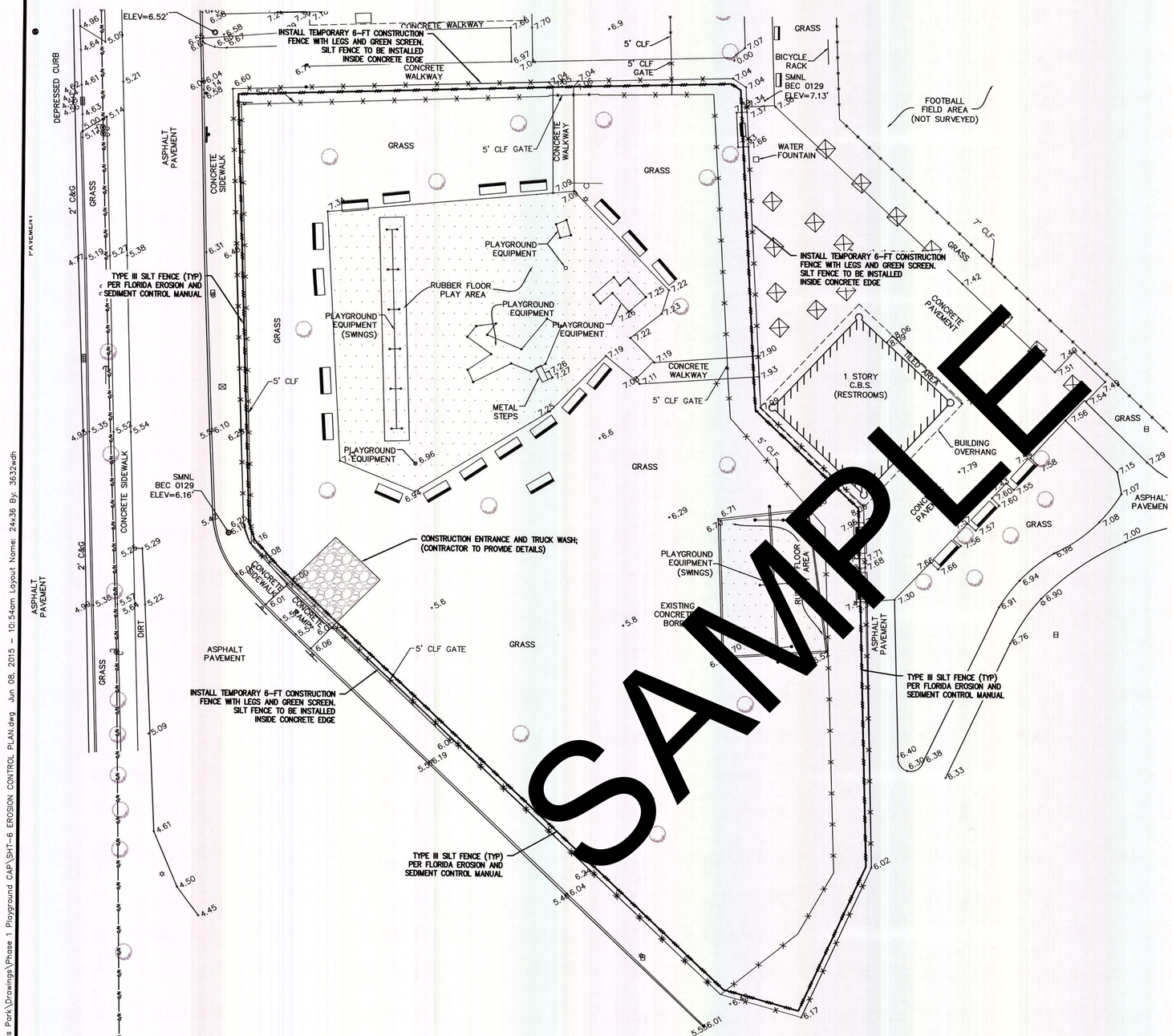

0 15 30
SCALE IN FEET

GENERAL NOTES:

CONTRACTOR SHALL COMPLY WITH ALL TERMS AND CONDITIONS OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. IN PARTICULAR, SEDIMENT AND EROSION CONTROLS AND STORM WATER MANAGEMENT MEASURES SHALL BE STRICTLY FOLLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION, SEDIMENTATION AND STORM WATER MANAGEMENT MEASURES FOR THE DURATION OF THE PROJECT. ONCE THE PROJECT HAS BEEN COMPLETED, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM ACCORDING TO CODE.

EROSION CONTROL AND GRASSING/SODDING NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND COMPLY WITH STATE WATER QUALITY CRITERIA FOR STORMWATER DISCHARGE. EROSION CONTROL MEASURES INCLUDE BUT ARE NOT LIMITED TO TURBIDITY SCREENS, MULCHING, HAY BALES, AND SILT FENCE. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSTRUCTION COSTS, AND FINES.
2. DISTURBED AREAS SHALL BE SEEDED/GRASSED, FERTILIZED, MULCHED, AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
3. EROSION CONTROL MEASURES SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL SODDING AND/OR GRASS IS ESTABLISHED.
4. EROSION CONTROL MEASURES SHALL BE PLACED TO CONTAIN ALL POINTS OF DISCHARGE TO SURFACE WATERS OR WETLANDS INCLUDING CURB INLETS, DITCH BOTTOM INLETS, DITCHES, AND DOWNSTREAM PORTIONS OF STREAMS AND TIDAL WATERS ADJACENT TO CONSTRUCTION.
5. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS.
6. THE CONTRACTOR SHALL WRAP STORM GRATES IN FILTER FABRIC TO PREVENT SEDIMENTATION OF THE STORM SEWER SYSTEM. CONTRACTOR SHALL MAINTAIN THE FILTER FABRIC UNTIL THE ASPHALT/CONCRETE PAVEMENT IS PLACED.
7. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
8. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. EROSION CONTROL MEASURES SHOWN REFERENCE FDOT 2014 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. INDEX NUMBERS REFERENCE FDOT 2014 ROADWAY AND TRAFFIC DESIGN STANDARDS.

EROSION AND SEDIMENTATION CONTROLS

1. CONTRACTOR SHALL INSTALL A TYPE III SILT FENCE, AS PER FLORIDA EROSION AND SEDIMENT CONTROL MANUAL AROUND THE LIMITS OF CONSTRUCTION PRIOR TO ANY DEMOLITION, FILLING OR GRADING OF ANY PORTIONS OF THE SITE.
2. A GRAVEL ACCESS ROAD SHALL BE CONSTRUCTED TO MINIMIZE THE EFFECTS OF TRUCK TRAFFIC AND SEDIMENTATION TRACKING BOTH ON AND OFF THE SITE.
3. TOP OF SOIL PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE SEEDING SHALL BE RYE(GRAIN)APPLIED AT THE RATE OF 120 POUNDS PER ACRE.
AFTER SEEDING,EACH AREA SHALL BE MULCHED WITH 4,000 POUNDS OF STRAW PER ACRE.
4. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED, SOD AND PLANTINGS NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. SEEDING SHALL BE THE SAME AS IN TEMPORARY SEEDING.

OTHER CONTROLS

1. DUMP TRUCKS IMPORTING FILL MATERIALS TO THE SITE SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
2. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF AS PER LOCAL AND/OR STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
3. A STABILIZED CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE SHALL BE SWEPT DAILY TO REMOVE ANY EXCESS OF MUD, DIRT, OR ROCK TRACKED FROM THE SITE.
4. PROTECTIVE BARRIERS WILL BE INSTALLED AT THE PERIMETER OF PRESERVED VEGETATION AT THE COMMENCEMENT OF ANY SITE ACTIVITIES AND WILL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION. TEMPORARY SIGNS IDENTIFYING THE PRESERVE SHALL BE PLACED AROUND THE PERIMETER DURING CONSTRUCTION.

MAINTENANCE AND INSPECTION PROCEDURES

1. THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION MAINTENANCE REPORT. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE PROPER TRAINING IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.
2. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. ALL CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL THE AREA THEY PROTECT HAS BEEN COMPLETELY STABILIZED AND THE CONSTRUCTION IS COMPLETED.
3. BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE THIRD OF THE HEIGHT OF THE FENCE. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, IF FABRIC IS SECURELY ATTACHED TO THE FENCE POST, AND IF FENCE POST IS FIRMLY IN THE GROUND.
5. TEMPORARY AND PERMANENT SEEDING AND PLANTING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
6. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE CONTROL MEASURES ON AN INSPECTION REPORT FORM PROVIDED FOR THIS PURPOSE. THESE REPORTS SHALL DOCUMENT THE INSPECTION OF ALL POLLUTION PREVENTION MEASURES AND SHALL ALSO BE USED TO REQUEST MAINTENANCE AND REPAIR. THE CONTRACTOR SHALL CORRECT DAMAGE OR PROVIDE MAINTENANCE AS RECOMMENDED BY REPORTS AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN 7 DAYS AFTER THE INSPECTION. FAILURE TO DO SO SHALL BE REPORTED TO THE F.D.E.P.

SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL TYPE III SILT FENCE AT BOUNDARIES OF PROPOSED CONSTRUCTION.
2. COMMENCE SITE CONSTRUCTION ACTIVITIES.
3. AS PROPOSED INLETS ARE CONSTRUCTED, INSTALL TYPE III SILT FENCE BARRIER AROUND EACH.
4. INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 21 DAYS, NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA.
5. INSTALL PERMANENT SEEDING, SOD AND PLANTING IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES.
6. REMOVE ACCUMULATED SEDIMENT.
7. REMOVE TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSE OF MATERIALS ACCORDING TO APPLICABLE F.D.E.P. REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC.

APPROXIMATE AREA INFORMATION

TOTAL SITE AREA = ±24.0 ACRES
AREA TO BE DISTURBED = ±0.785 ACRES

WILLIAM D. HEIKKINEN, P.E.
FL LICENSE NO. 76529

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE: EROSION CONTROL PLAN
PROJECT TITLE: CURTIS PARK
1901 NW 24TH AVENUE
MIAMI, FLORIDA

CLIENT: CITY OF MIAMI
444 SW 2nd AVENUE
MIAMI, FLORIDA 33130

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8166 FAX: (305) 412-8165
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.46 | DRN. BY: JDR | CHK. BY: JPT | QA/A RVW BY: JPT | APP. BY: JPT | DSN. BY: WDH

CADD FILE: 09213010.46
DATE: JUNE 2015
SCALE: AS SHOWN
DRAWING NO. SHT-6
SHEET 7 of 7

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APPENDIX B

SITE ASSESSMENT REPORT DATED 4/21/14

SCS ENGINEERS

Site Assessment Report
Gerry Curtis Park (HWR-777)

1901 NW 24th Avenue
Miami, Florida

Prepared for:

City of Miami

Miami Riverside Center
444 Southwest 2nd Avenue, 8th Floor
Miami, Florida 33130

Prepared by:

SCS Engineers
7700 North Kendall Drive, Suite 300
Miami, Florida 33156
(305) 412-8185

April 21, 2014
File No. 09213010.24

Offices Nationwide
www.scsengineers.com

Site Assessment Report
Gerry Curtis Park (HWR-777)

1901 NW 24th Avenue
Miami, Florida

Prepared for:

City of Miami
Miami Riverside Center
444 Southwest 2nd Avenue, 8th Floor
Miami, Florida 33130

Prepared by

SCS Engineers
7700 North Kendall Drive, Suite 300
Miami, Florida 33156
(305) 272-8188

Brittney Odom
Staff Professional

Eduardo F. Smith, P.E.
Vice President
License No. 50845

April 21, 2014
File No. 09213010.24

Table of Contents

Section **Page**

List of Figures

List of Tables

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INTRODUCTION

SCS Engineers (SCS), on behalf of the City of Miami (City), prepared this site assessment report (SAR) for Gerry Curtis Park (site), located at 1901 NW 24th Avenue, Miami, Florida, pursuant to the Department of Regulatory and Economic Resources, Division of Environmental Resources Management (DERM) January 6 and January 30, 2014, letters (**Appendix A**). Sampling and analysis was conducted in accordance with the February 13, 2014 sampling plan and DERM's February 19, 2014 modifications (**Appendix B**).

BACKGROUND

Gerry Curtis Park is an approximately 25-acre park, which includes a football field, baseball field, basketball courts, a playground and a swimming pool. See **Figure 1** for a Site Location Map depicting the location of the site with respect to local landmarks.

On December 17 and 20, 2013, inspections were conducted at the site as part of a screening effort of City-owned parks to identify sites potentially impacted by incinerator ash. During the inspections, solid waste was observed at the surface in non-vegetated areas. In response to the findings, the City closed the park to the public on December 20, 2013. On December 23, 2013, SCS collected seven soil samples (Curtis 1-7) from the zero to six inch (0-0.5') interval for analyses targeting barium, cadmium, aluminum, antimony, arsenic, chromium, copper, iron, lead and mercury. Soil analyses confirmed the presence of antimony, arsenic, barium, copper, iron and lead above the soil cleanup target levels (SCTLs); these results are included on summary tables provided herein. In response to these findings and the requirements stipulated in the above-referenced DERM letters, visual solid waste delineation, soil assessment, groundwater assessment and localized source removal were conducted, as detailed below.

SURROUNDING AREA WELL SURVEY

On March 18, 2014, an Area of Interest Report was received from the South Florida Water Management District (SFWMD). The report indicated that there are no water use permits on file for potable/non-potable wells located within an approximately one-mile radius of the site. A copy of the Area of Interest Report is provided in **Appendix C**.

SOURCE REMOVAL

Due to concentrations reported in soil sample Curtis 4 (0-0.5') collected on December 23, 2013, and in accordance with the January 30, 2014 DERM correspondence, a localized source removal was conducted by a City contractor on February 3, 2014. An approximately 270-square foot area was excavated to a depth of 2 feet below ground surface (bgs). Approximately 23 tons of excavated material was disposed at Medley Landfill and the excavation was backfilled with clean fill from Tropical Sands, Inc. to bring the area back to grade. Soil sample Curtis 4 (0-0.5') was analyzed for Total Characteristic Leachate Procedure (TCLP) lead for disposal characterization. Results of the TCLP analysis demonstrated that the soil is not a RCRA hazardous waste. Copies of the disposal manifests and fill tickets are provided in **Appendix D**.

Prior to backfilling, SCS collected confirmation sidewall soil samples. Four soil samples, SB-4(1) through SB-4(4), were collected from the zero to six inch (0-0.5') interval and analyzed for antimony, arsenic, barium, chromium, copper, iron and lead. Concentrations were reported below the SCTLs, with the exception of arsenic which was reported between 7.0 mg/kg and 16 mg/kg.

SITE ASSESSMENT ACTIVITIES

Assessment activities were generally conducted in two phases: 1) visual solid waste delineation, and 2) soil sampling and analyses. Based on the findings from the visual delineation, a sampling and analysis plan was developed and submitted to DERM for approval, and was subsequently implemented. Some additional sampling requested by DERM, mainly in the baseball field, was conducted following the initial results discussed in the background section, to evaluate potential exposure in that portion of the park. The assessment activities are discussed below.

Visual Delineation of Solid Waste

An electromagnetic (EM) survey was conducted by Spotlight Geophysical Services at the site on January 24, 2014. The EM survey targeted the artificial turf football field, bonded rubber track and the immediately adjacent area, in an attempt to identify buried solid waste using a non-invasive method. A copy of the EM Survey is provided as **Appendix E**.

The buried solid waste in the remaining areas of the park was visually delineated using direct push soil borings. From January 27 through February 4, 2014, SCS advanced approximately 170 soil borings throughout the park, including the pool and boat ramp area located south of North NW River Drive and the empty lot east of the baseball field. Based on the size of the park, a sampling grid approximately 75 feet by 75 feet on center was used for horizontal delineation. Vertical delineation was accomplished by advancing each boring to the depth at which the solid waste terminated. **Figure 2** illustrates the delineation soil boring locations and the visible solid waste. The associated soil boring logs are provided as **Appendix F**. A summary of visible solid waste is presented on **Table 1**.

Soil and Groundwater Sampling

Pursuant to DERM's request, SCS advanced nine soil borings (SB-8 through SB-17) using the direct push method within the limits of the baseball field on January 31, 2014. Soil samples were collected from the zero to six inch (0-0.5') and six inch to two foot (0.5'-2') intervals at each of the ten locations.

In accordance with the February 19, 2014 sampling plan approval, SCS advanced 63 soil borings (SB-18 through SB-81) and sampled four temporary groundwater monitoring wells. Soil samples were collected from each boring location at varying intervals from land surface to a maximum depth of two feet bgs for laboratory analyses. **Figure 3** illustrates the soil and groundwater sampling locations. The table provided in the February 13, 2014 sampling plan (**Appendix B**) presents the soil intervals collected at each boring location. Soil boring logs are provided as **Appendix F**.

Investigation-derived wastes (IDW - excess soil not used for analyses, and decontamination, development and purge water) accumulated during assessment efforts were placed in 55-gallon drums for proper off-site disposal. The drums will remain onsite in a secure location until assessment is deemed complete.

Laboratory Analyses

Laboratory analytical reports, including quality control information, chain-of-custody records and benzo(a)pyrene and dioxin conversion tables are provided in **Appendix G**. Samples were analyzed by TestAmerica, a NELAC accredited laboratory, as follows (see also the sampling plan table provided in **Appendix B**):

- Soil samples SB-8 through SB-17 were analyzed for antimony, arsenic, barium, copper, lead and polycyclic aromatic hydrocarbons (PAHs).
- Soil samples SB-18 through SB-81 were analyzed for antimony, arsenic, barium, copper, iron, and lead. In addition, select samples within the solid waste footprint were analyzed for aluminum, cadmium, chromium, mercury, selenium, silver, polychlorinated biphenyl (PCBs) and dioxins.
- Groundwater samples TMW-1 through TMW-4 were analyzed for aluminum, antimony, arsenic, barium, cadmium, chromium, copper, iron, lead, mercury, selenium, silver, PCBs and dioxins.

RESULTS AND DISCUSSION

Delineation of Solid Waste

In general, surficial solid waste was observed in non-vegetated areas (i.e., around bases of trees and fences where herbicide is sprayed) and densely shaded areas, such as the playground and beneath bleachers). Buried solid waste was identified throughout the site predominantly from land surface to a depth of approximately four feet bgs, with the exception of the eastern parking lot and pool area, which exhibited localized areas of buried waste. Marginal areas of solid waste were observed below four feet bgs, to a depth of approximately eight feet. **Figure 2** illustrates the visual solid waste impacts.

Soil Analytical Results

Soil analytical results are summarized in **Tables 2** and **3** and depicted on **Figure 4** through **Figure 6.** Dioxin conversion tables are presented in **Appendix G. Figure 8** illustrates the depth of clean soil coverage based on the visual delineation and soil analytical data.

In general, samples collected onsite, in the right of way (ROW) east of the baseball field, and within the northern ROW (NW 20th Street) reported elevated levels of heavy metals, specifically antimony, arsenic, barium, copper, iron, and lead, above the residential SCTLs, primarily in soil samples with visible solid waste.

Results from soil samples that did not contain visible solid waste were generally reported as BDL or below the SCTLs, with the exception of some samples collected from intervals which

abutted an interval with observed solid waste. Arsenic was reported above the SCTL in several samples collected outside the solid waste footprint; however, the reported concentrations are within DERM's anthropogenic background range (Miami-Dade County Anthropogenic Background Study, April 3, 2014).

Dioxins, which were analyzed in a total of twenty-five samples, were reported above the residential SCTL in twelve samples and above the commercial SCTL in two samples, primarily in soil samples with visible solid waste. However, it is our understanding that the concentrations are less than the screening criteria utilized by the Florida Department of Health.

PAH concentrations from samples collected within the baseball field and its perimeter were reported below the detection limit (BDL) or below the SCTLs. PCBs, which were analyzed in select samples, were reported either BDL or below the SCTL.

Groundwater Analytical Results

Analytical results for groundwater samples are summarized in Table 4 and depicted on **Figure 7.** Dioxin conversion tables are presented in **Appendix G**.

The samples collected from TMW-2 reported antimony above the groundwater cleanup target level (GCTL). The sample collected from TMW-2 exceeded the aluminum GCTL; however, it is unlikely that the elevated concentration is leaching from the soil since aluminum concentrations in soil are generally consistent with the anthropogenic background range. Iron was detected above the GCTL at TMW-1, TMW-3 and TMW-4, but within the natural background range (Background Concentrations of Iron in Groundwater in Miami-Dade County, December 8, 2005). The remaining COCs were reported BDL or below the GCTLs.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings above, SCS concludes the following:

- The extent of the solid waste footprint and the heavy metal impacts have been delineated onsite, with the exception of the eastern property boundary abutting the residential area and the northern ROW along NW 20th Street.
- There is sufficient onsite data to develop a Corrective Action Plan for the park.
- COC's do not appear to be leaching into the groundwater with the exception of antimony at TMW-2.

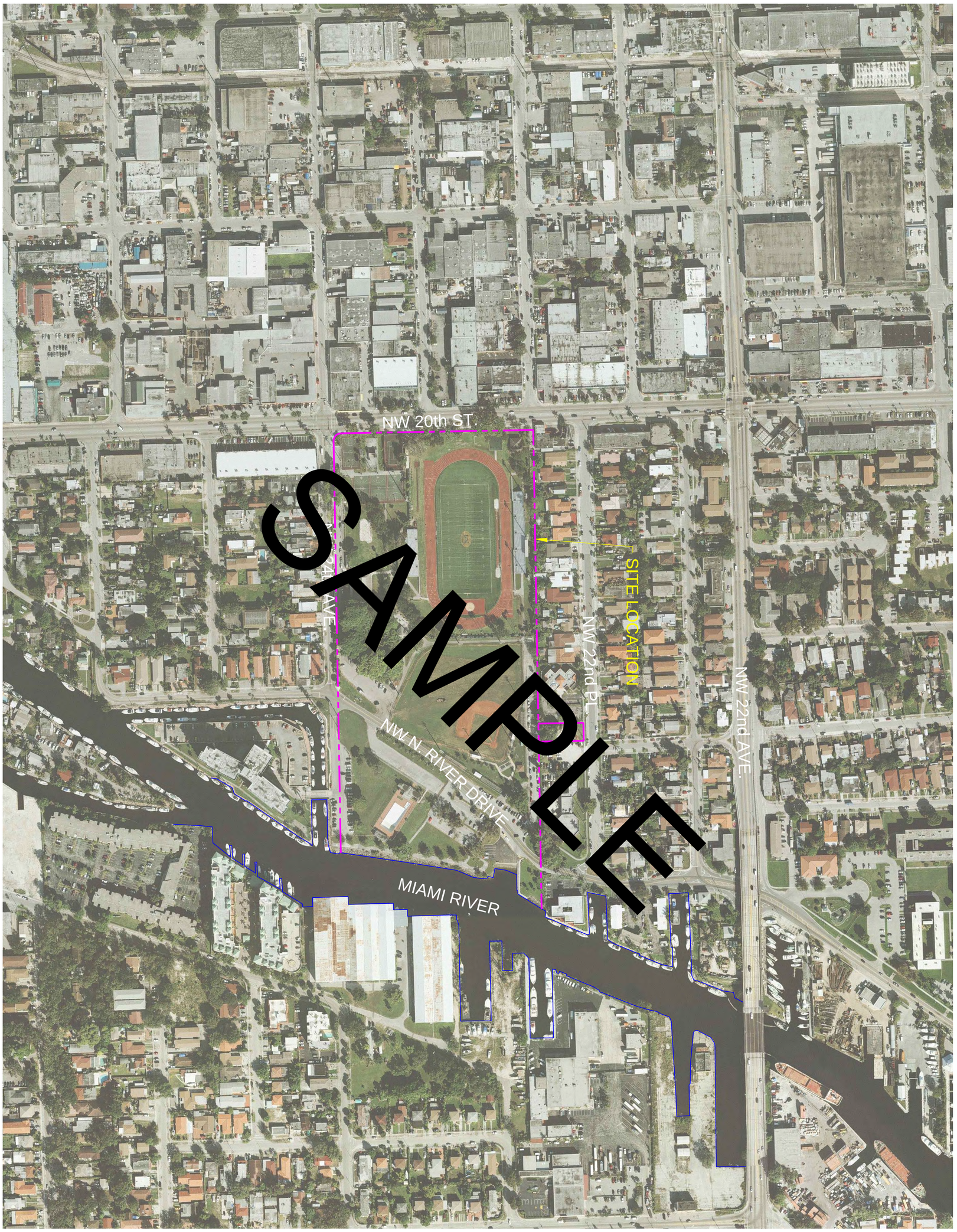
SCS recommends the following:

- Obtain offsite access as needed.
- Conduct soil sampling and analyses to the north and east within the upper two feet of soil near SB-72, SB-73, SB-76, SB-78, SB-79, SB-80 and SB-81 to complete delineation in these areas
- Install and sample a permanent monitoring well in the vicinity of TMW-2 and analyze for antimony

- Prepare a CAP for the park

FIGURES

M:\ESMASTER\City of Miami\Curtis Park\Drawings\FIG.1 SITE LOCATION MAP.dwg Apr 17, 2014 - 4:53pm Layout Name: Fig.1 By: 3618wcr



0 140 280
SCALE IN FEET

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT
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FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROG. NO: 09213010.20 | DWN. BY: WCR | Q/A RVW BY: MCP
DSN. BY: MCP | CHK. BY: MCP | APP. BY: EFS

CLIENT: **CITY OF MIAMI**

SHEET TITLE: **SITE LOCATION MAP**

PROJECT TITLE: **CURTIS PARK**
1901 NW 24th AVE.
MIAMI, FL

REV	DATE	DESCRIPTION	CHK. BY
1			
2			
3			
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5			

LICENSE NO.

DRAWING NO. **Fig. 1**
SHEET 1 of 8

SCALE: AS NOTED

DATE: 17-APRIL-2014

CADD FILE:

NW 22nd PL.

NW 20th ST.

NW 24th AVE.

AREA 8

AREA 1

AREA 2

AREA 3

AREA 4

AREA 5

AREA 6

FOOTBALL FIELD
(EM SURVEY CONDUCTED,
NO PROPOSED SAMPLING
DUE TO FINAL COVERAGE)

AREA 7

SURFICIAL SOLID WASTE VISIBLE
IN NON-VEGETATED AREAS,
(TYP.)

NW 17th TERRACE

NW RIVER DRIVE

MIAMI RIVER

RESTROOM

BLEACHERS

TRACK

BASEBALL FIELD

TENNIS

BASKETBALL COURTS

RACKETBALL

BASKETBALL

BLDG

POOL

SAMPLE

LEGEND

- PROPERTY LINE
- VISUAL DELINEATION SOIL BORINGS
- SAMPLING AREA LIMITS
- NO SOLID WASTE WITHIN THE CORE
- SURFICIAL DEBRIS
- SOLID WASTE @ 0–0.5 FT
- SOLID WASTE @ 0.5–1.0 FT
- SOLID WASTE @ 1.0–2.0 FT
- SOLID WASTE @ 2.0–4.0 FT
- SOLID WASTE @ 4.0 FT AND DEEPER

0 60 120
SCALE IN FEET

DELINEATION SOIL BORING LOCATIONS AND VISIBLE SOLID WASTE

PROJECT TITLE

CURTIS PARK
1901 NW 24th AVE.
MIAMI, FL

CLIENT

CITY OF MIAMI

SCS ES CONSULTANTS
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PROJ. NO. 0921.3010.20
DSN. BY: MCP
DWN. BY: WCR
CHK. BY: MCP
O/A RVW BY: MCP
APP. BY: EFS

CADD FILE:

DATE: 17–APRIL–2014

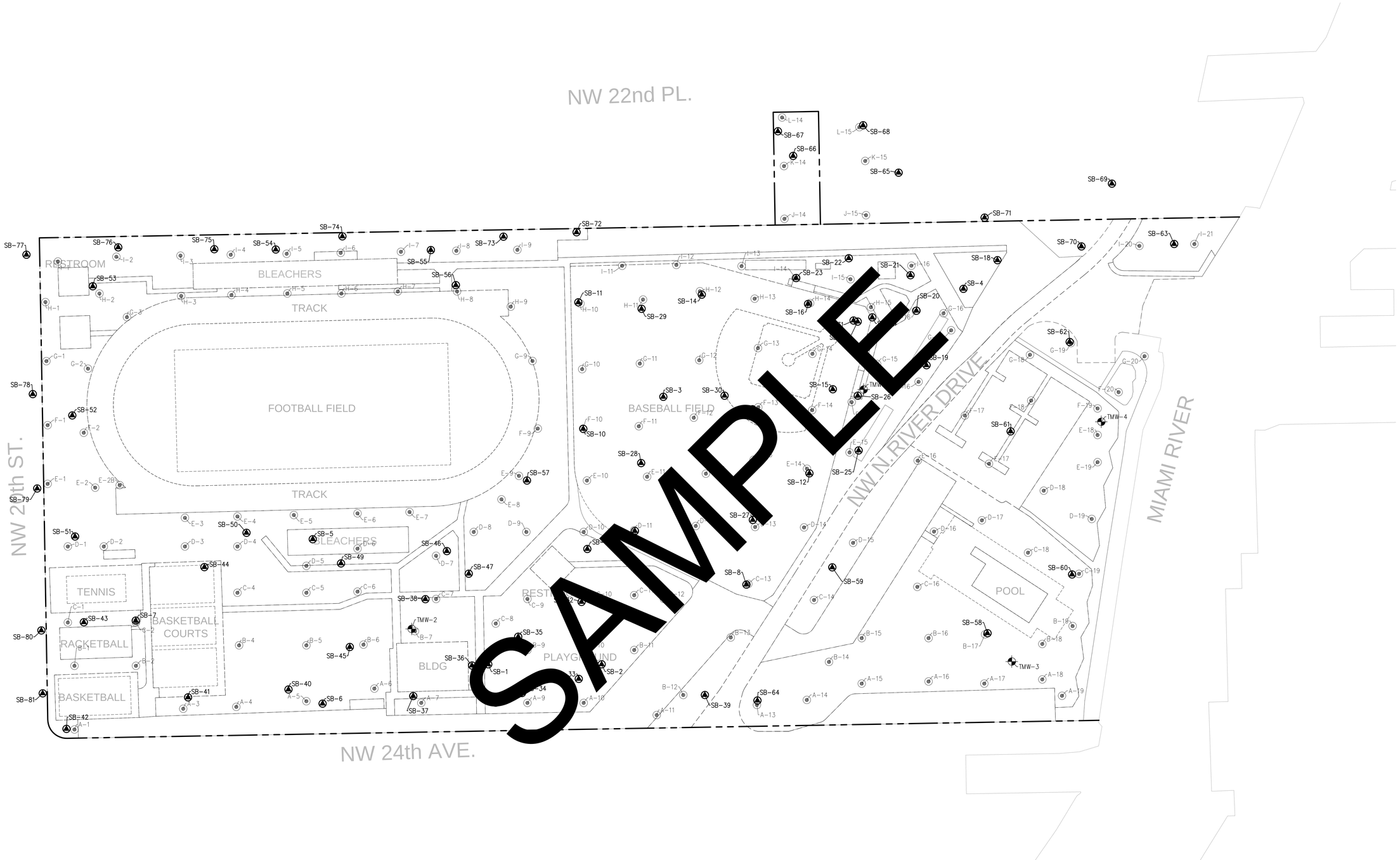
SCALE: AS NOTED

DRAWING NO. **Fig. 2**

SHEET 2 of 8

REV | DATE | DESCRIPTION | CHK. BY | LICENSE NO.

M:\ESMASTER\City of Miami\Curtis Park\Drawings\FIG.2 DELINEATION SB LOCATIONS & VISIBLE SOLID WASTE.dwg Apr 17, 2014 - 4:54pm Layout Name: layout By: 3618wcr



LEGEND

- PROPERTY LINE
- VISUAL DELINEATION SOIL BORINGS
- SOIL BORING LOCATION
- TEMPORARY MONITORING WELL LOCATION

0 60 120
SCALE IN FEET

REV	DATE	DESCRIPTION	CHK. BY

LICENSE NO.

SHEET TITLE: **SOIL SAMPLE AND MONITORING WELL LOCATIONS**

PROJECT TITLE: **CURTIS PARK 1901 NW 24th AVE. MIAMI, FL**

CLIENT: **CITY OF MIAMI**

SCS ES CONSULTANTS
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FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.20 | DWN. BY: WCR | CHK. BY: MCP | Q/A R/W BY: MCP | APP. BY: EFS | DSN. BY: MCP

CADD FILE:

DATE: 17–APRIL–2014

SCALE: AS NOTED

DRAWING NO. **Fig. 3**

SHEET **3** of **8**

M:\ESMASTER\City of Miami\Curtis Park\Drawings\FIG.3 SOIL SAMPLE AND MONITORING WELL LOCATIONS.dwg Apr 17, 2014 – 4:54pm Layout Name: Fig.3 By: 3618wcr

Sample ID	SB-76 (0-0.5)	SB-75 (0-0.5)	SB-54 (0-0.5)	SB-74 (0-0.5)	SB-56 (0-2)	SB-55 (0-0.5)	SB-73 (0-0.5)	SB-11 (0-0.5)	CURTIS (3) (0-1)
Date	02/26/2014	02/26/2014	02/24/2014	02/26/2014	02/24/2014	02/24/2014	02/26/2014	01/31/2014	12/23/2013
Al	NA	NA	NA	NA	1,300	NA	NA	NA	3,100
Sb	2.9	1.5 I	2.0 I	2.4	3.20	0.69 U	*6.6*	0.60 U	**50**
As	**5.9**	**12**	**8.6**	**20**	**28**	**4.5**	**12**	**5.1**	**12**
Ba	51	40	63	50	78	27	**160**	18	**170**
Cd	NA	NA	NA	NA	0.38 I	NA	NA	NA	(Ca) 1.5
Cr	NA	NA	NA	NA	9.1	NA	NA	NA	27
Cu	55	73	69	130	71	15	**540**	16	**190**
Fe	4,300	6,000	7000	15,000	7800	3,100	19,000	NA	22,000
Pb	100	110	120	250	170	40	280	42	**1,600**
Hg	NA	NA	NA	NA	0.040	NA	NA	NA	0.17
Se	NA	NA	NA	NA	0.42 U	NA	NA	NA	NA
Ag	NA	NA	NA	NA	0.43 I	NA	NA	NA	NA
Dioxins	–	–	–	–	–	–	–	–	–

Sample ID	SB-72 (0-0.5)	SB-29 (0-1)	SB-30 (0-1)	SB-14 (0-0.5)	SB-23 (0-0.5)	SB-67 (0-2)	SB-66 (0-2)	SB-16 (0-0.5)	SB-22 (0-0.5)
Date	02/26/2014	02/25/2014	02/25/2014	01/31/2014	02/25/2014	02/25/2014	02/25/2014	01/31/2014	02/25/2014
Al	NA	NA	NA	NA	NA	1,400	1,300	NA	1700
Sb	*10*	1.9 I	0.58 U	0.60 U	1.7 I	0.55 U	0.52 U	0.59 U	1.4 I
As	**23**	**7.8**	**13**	**3.7**	**6.4**	**2.9**	1.4	**4.7**	**12**
Ba	**420**	50	6.6	8.2	51	17	7.3	8.9	25
Cd	NA	NA	NA	NA	NA	0.23 I	0.18 I	NA	0.52 I
Cr	NA	NA	NA	NA	NA	6.3	5.3	NA	7.70
Cu	**350**	52	5.0	11	53	8.1	8.0	6.4	34
Fe	29,000	7,500	10,000	NA	6400	4,000	1,500	NA	4,400
Pb	**840**	140	12	20	130	20	62	11	82
Hg	NA	NA	NA	NA	NA	0.044	0.042	NA	0.018 I
Se	NA	NA	NA	NA	NA	0.40 U	0.38 U	NA	0.39 U
Ag	NA	NA	NA	NA	NA	0.42 U	0.20 U	NA	0.20 U
Dioxins	**13.12**	–	4.70	–	–	–	–	–	–

Sample ID	SB-68 (0-2)	SB-65 (0-0.5)	SB-31 (0-1)	SB-17 (0-0.5)	SB-24 (0-0.5)	SB-71 (0-0.5)	SB-4 (1)	SB-4 (2)	SB-4 (3)	SB-4 (4)
Date	02/25/2014	02/25/2014	02/25/2014	01/31/2014	02/25/2014	02/26/2014	02/03/2014	02/03/2014	02/03/2014	02/03/2014
Al	NA	NA	NA	NA	4200	NA	NA	NA	NA	NA
Sb	0.55 U	0.58 U	0.86 I	0.59 U	3.6	0.82 I	3.1	5.2	2.0 I	*5.3*
As	0.69	**2.5**	**21**	**5.7**	**12**	**3.2**	**16**	**8.7**	**8.4**	**7.0**
Ba	6.8	13	26	8.5	79	27	57	89	56	75
Cd	NA	NA	NA	NA	0.87	NA	NA	NA	NA	NA
Cr	NA	NA	NA	NA	20	NA	13	14	9.9	25
Cu	2.7	26	40	9.8	120	31	59	92	52	78
Fe	690	2000	7,300	NA	13,000	2,700	7,100	11,000	6,700	8,200
Pb	5.8	40	70	19	260	60	130	380	160	180
Hg	NA	NA	NA	NA	0.10	NA	NA	NA	NA	NA
Se	NA	NA	NA	NA	0.47 U	NA	NA	NA	NA	NA
Ag	NA	NA	NA	NA	1.0 I	NA	NA	NA	NA	NA
Dioxins	–	–	–	–	–	–	NS	NS	NS	NS

SB-4 (0-0.5)
DATA SOURCE REMOVAL AREA

Sample ID	SB-69 (0-0.5)	SB-21 (0-0.5)	SB-18 (0-0.5)	SB-63 (0-2)	SB-53 (0-0.5)	SB-77 (0-0.5)	SB-52 (0-2)	SB-78 (0-0.5)
Date	02/26/2014	02/25/2014	02/25/2014	02/24/2014	02/24/2014	02/26/2014	02/24/2014	02/26/2014
Al	NA	NA	2,500	NA	NA	NA	2,000	NA
Sb	0.63 U	*5.5*	0.74 U	0.56 U	*5.9 I*	*5.6*	1.4 I	3.4
As	**3.8**	**11**	1.8	1.3	**17**	**26**	**15**	**6.8**
Ba	31	120	27	6.3	84	80	46	69
Cd	NA	NA	0.23 I	NA	NA	NA	0.25 I	NA
Cr	NA	NA	8.5	NA	NA	NA	7.8	NA
Cu	33	**160**	23	8.0	95	75	39	78
Fe	2,900	12,000	2,300	1,600	40,000	8,200	9,600	8,300
Pb	78	340	24	15	370	190	95	170
Hg	NA	NA	0.032 I	NA	NA	NA	0.030 I	NA
Se	NA	NA	0.79 I	NA	NA	NA	0.44 U	NA
Ag	NA	NA	0.28 U	NA	NA	NA	0.23 U	NA
Dioxins	–	–	–	–	–	–	–	–

Sample ID	SB-79 (0-0.5)	SB-51 (0-1)	SB-50 (0-0.5)	CURTIS (5) (0-0.5)	SB-46 (0-0.5)	SB-47 (0-1)	SB-10 (0-0.5)	SB-57 (0-2)
Date	02/26/2014	02/24/2014	02/24/2014	12/23/2013	02/25/2014	02/26/2014	01/31/2014	02/24/2014
Al	NA	NA	2,500	1800	NA	1700	NA	NA
Sb	*9.2*	2.9	1.2 I	3.4	**33**	0.87 I	0.55 U	0.57 U
As	**29**	**33**	**10**	**9.5**	**27**	**7.1**	**4.9**	**11**
Ba	**350**	110	38	**130**	**620**	41	8.4	23
Cd	NA	NA	0.42 I	(Ca) 0.89	NA	0.64	NA	0.72
Cr	NA	NA	15	14	NA	15	NA	12
Cu	**260**	81	35	110	**510**	32	1.7 I	21
Fe	37,000	7,800	5700	10,000	45000	3800	NA	2,700
Pb	**780**	310	170	280	**1200**	92	3.7	38
Hg	NA	NA	0.059	0.043	NA	0.17	NA	0.28
Se	NA	NA	0.44 U	NA	NA	0.62 I	NA	0.42 U
Ag	NA	NA	0.48 I	NA	NA	0.55 I	NA	1.6
Dioxins	–	–	–	–	–	–	–	–

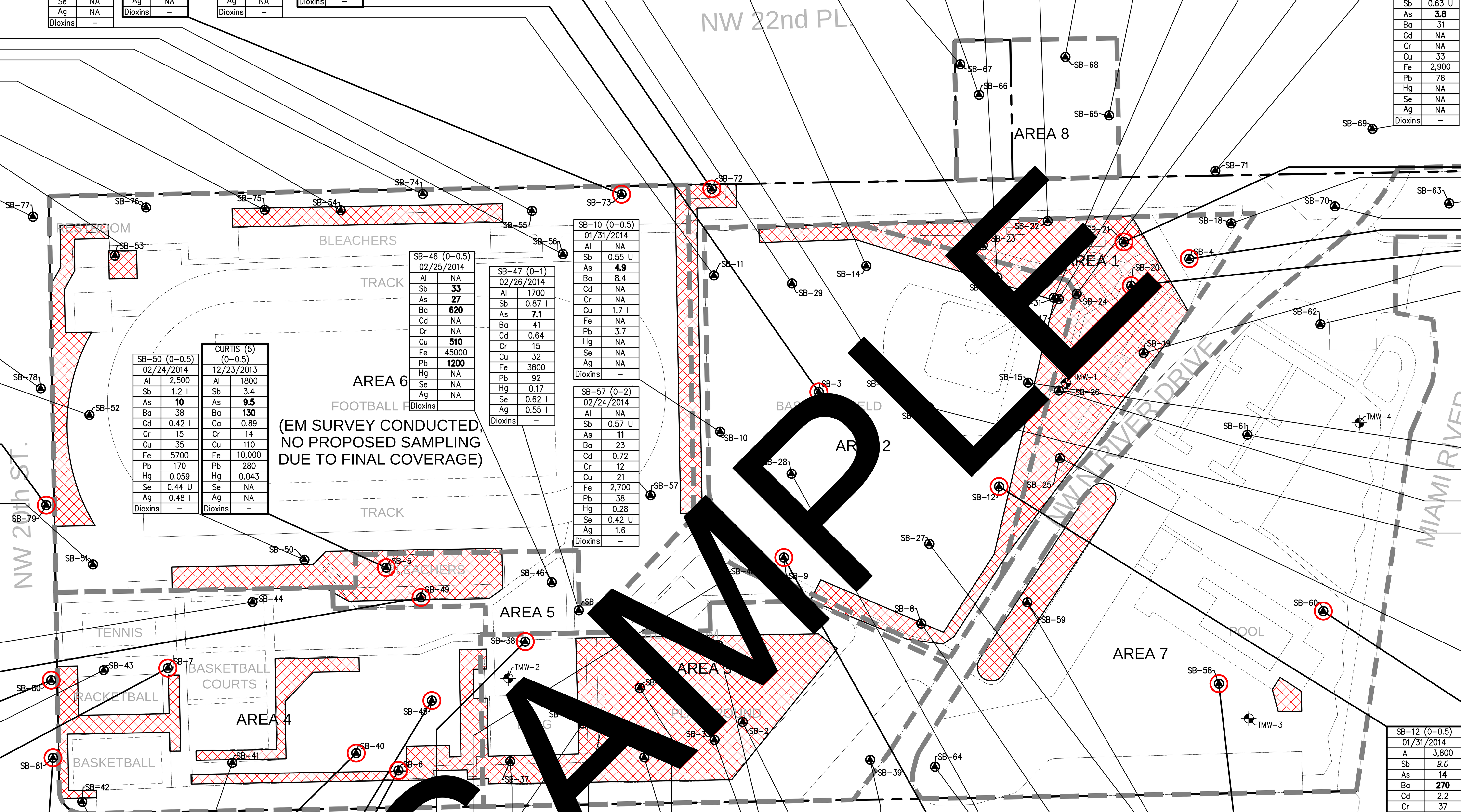
Sample ID	SB-20 (0-0.5)	CURTIS (4) (0-0.5)	SB-70 (0-0.5)	SB-62 (0-2)	SB-19 (0-0.75)	SB-61 (0-2)	SB-15 (0-0.5)	SB-26 (0-0.5)
Date	02/25/2014	12/23/2013	02/26/2014	02/24/2014	02/25/2014	02/24/2014	01/31/2014	02/25/2014
Al	2,700	6,200	NA	1,400	NA	NA	2,200	NA
Sb	*10 I*	*17*	2.9	0.51 U	3.0	0.54 U	0.78 I	1.4 I
As	**20**	**28**	**24**	1.2	**10**	1.5	**20**	**5.1**
Ba	**430**	**870**	54	7.9	61	13	21	50
Cd	3.3	5.8	NA	0.16 I	NA	NA	0.51 I	NA
Cr	**52**	*55*	NA	6.4	NA	NA	12	NA
Cu	**410**	**4,100**	93	11	130	15	28	46
Fe	**68,000**	**82,000**	23,000	1,200	11,000	1,600	4,300	5,600
Pb	**1,500**	**2,100**	370	31	240	32	70	130
Hg	0.12	0.22	NA	0.063	NA	NA	0.042	NA
Se	2.4 U	NA	NA	0.38 U	NA	NA	NA	NA
Ag	6.0 I	NA	NA	0.19 U	NA	NA	NA	NA
Dioxins	**11.69**	–	**21.33**	–	–	–	–	1.64
B(a)P TEQs							0.0	

Sample ID	SB-13 (0-0.5)	SB-25 (0-0.5)	SB-60 (0-0.5)	SB-12 (0-0.5)	SB-44 (0-0.5)	SB-49 (0-0.5)	SB-80 (0-0.5)	SB-43 (0-0.5)
Date	01/31/2014	02/25/2014	02/24/2014	01/31/2014	02/24/2014	02/25/2014	02/26/2014	02/24/2014
Al	NA	NA	1,400	3,800	NA	2,800	NA	NA
Sb	1.1 U	0.58 U	*5.8*	*9.0*	1.5 I	*5.9*	**29**	1.0 I
As	**5.9**	**5.1**	**6.2**	**14**	**5.3**	**12**	**35**	**5.5**
Ba	5.4	5.8	110	**270**	36	**220**	**480**	42
Cd	NA	NA	1.0	2.2	NA	1.3	NA	NA
Cr	NA	NA	14	37	NA	24	NA	NA
Cu	1.1 I	6.1	120	**1100**	55	140	**440**	39
Fe	NA	9,300	9,900	21,000	4,400	17,000	**69,000**	3,300
Pb	3.1	12	**430**	**710**	100	**430**	**3,000**	60
Hg	NA	NA	0.18	0.12	NA	0.037	NA	NA
Se	NA	NA	0.44 U	NA	NA	0.44 U	NA	NA
Ag	NA	NA	0.56 I	NA	NA	0.89 I	NA	NA
PCBs							0.021 U	
Dioxins	–	–	–	–	1.88	–	4.71	–
B(a)P TEQs				0.0				

Sample ID	CURTIS (7) (0-0.5)	SB-81 (0-0.5)	SB-42 (0-0.5)	SB-41 (0-0.5)	SB-40 (0-0.5)	SB-45 (0-0.5)	SB-48 (0-0.5)	SB-36 (0-[illegible])
Date	12/23/2013	02/26/2014	02/24/2014	02/24/2014	02/24/2014	02/24/2014	02/2[illegible]	[illegible]/26/2014
Al	2,300	NA	NA	NA	NA	NA	[illegible]	1,600
Sb	*7.5*	3.3	0.69 I	2.1 I	*15*	*12*	0.64 U	1.3 I
As	**18**	**5.7**	**4.0**	**6.5**	**35**	**10**	**3.4**	**2.4**
Ba	110	110	20	46	**860**	90	**21**	46
Cd	(Ca) 1.5	NA	NA	NA	NA	NA	NA	0.3 I
Cr	23	NA	NA	NA	NA	NA	NA	7.5
Cu	150	110	24	88	**580**	91	19	33
Fe	30,000	11,000	2,000	8,600	**82,000**	8,500	[illegible]	3,600
Pb	**570**	**420**	47	140	**2,700**	**1,100**	[illegible]	92
Hg	0.15	NA	NA	NA	NA	NA	[illegible]	0.012 U
Se	NA	NA	NA	NA	NA	NA	NA	0.38 U
Ag	NA	NA	NA	NA	NA	NA	NA	0.20 U
Dioxins	–	–	5.71	–	–	–	–	0.90

Sample ID	SB-34 (0-0.5)	SB-35 (0-0.5)	CURTIS (2) (0-0.5)	SB-9 (0-0.5)	SB-28 (0-0.5)	SB-8 (0-0.5)	SB-59 (0-0.5)	SB-58 (0-0.5)
Date	02/26/2014	02/26/2014	12/23/2013	01/31/2014	02/25/2014	01/31/2014	02/24/2014	02/24/2014
Al	860	NA	1,000	3,200	NA	NA	NA	3,500
Sb	1.8 I	1.3 I	2.9	*9.0*	0.76 I	0.60 I	4.7	*10*
As	**8.1**	3.2	**5.4**	**8.9**	**2.1**	1.1	**8.3**	**130**
Ba	48	110	94	**200**	44	13	25	**300**
Cd	0.48 I	NA	(Ca) 0.56	2.4	NA	NA	NA	3.2
Cr	7.5	NA	7.6	44	NA	NA	NA	32
Cu	48	35	62	**160**	22	15	50	**770**
Fe	8,300	5,200	11,000	34,000	2,900	NA	6,000	31,000
Pb	170	150	290	**550**	34	35	350	**970**
Hg	0.059	NA	0.012 I	0.14	NA	NA	NA	0.24
Se	0.39 U	NA	NA	NA	NA	NA	NA	0.86 U
Ag	0.35 I	NA	NA	NA	NA	NA	NA	3.2
Dioxins	–	–	–	–	2.23	–	–	–
B(a)P TEQs				0.1				

Sample ID	CURTIS (6) (0-0.5)	SB-38 (0-0.5)	SB-37 (0-0.5)	CURTIS (1) (0-0.5)	SB-33 (0-0.5)	SB-32 (0-0.5)	SB-39 (0-0.5)	SB-64 (0-2)	SB-27 (0-1)
Date	12/23/2013	02/26/2014	02/26/2014	12/23/2013	02/26/2014	02/26/2014	02/26/2014	02/24/2014	02/25/2014
Al	1,900	NA	NA	960	NA	1,100	NA	NA	NA
Sb	*8.4*	5.2	2.2 I	1.1 I	0.49 U	3.0	1.1 I	1.2 I	2.2 I
As	**16**	**10**	**8.0**	**2.8**	1.5	**5.6**	1.7	**3.3**	**8.3**
Ba	**290**	**540**	79	39	12	87	21	26	45
Cd	(Ca) 1.5	1.6	NA	(Ca) 0.29 I	NA	0.48 I	NA	NA	NA
Cr	23	19	NA	13	NA	14	NA	NA	NA
Cu	**210**	**160**	58	39	9.0	55	35	18	61
Fe	38,000	16,000	5,900	5,600	1,600	8,600	990	2,700	6,700
Pb	**640**	**450**	160	72	30	210	24	60	150
Hg	0.059	0.15	NA	0.022 I	NA	0.29 I	NA	NA	NA
Se	NA	0.69 I	NA	NA	NA	0.43 U	NA	NA	NA
Ag	NA	1.1 I	NA	NA	NA	0.38 I	NA	NA	NA
Dioxins	–	**10.67**	–	–	1.12	–	–	–	–



NOTES

mg/kg – milligrams per kilogram
ng/kg – nanograms per kilogram
U – Not detected at the Laboratory Method Limit (MDL).
I – Estimated value, the reported value is between the MDL and the Practical Quantitation Limit (PQL).
SCTLs – Soil Cleanup Target Levels specified in Table II of Chapter 24. Miami-Dade County Code
Bold – Indicates an exceedance of the residential SCTLs
Italics – Indicates an exceedance of the leachability based on the groundwater criteria
NA – Not Analyzed

LEGEND

PROPERTY LINE
VISUAL DELINEATION SOIL BORINGS
SOIL BORING LOCATION
TEMPORARY MONITORING WELL LOCATION
SURFICIAL DEBRIS/WASTE VISIBLE
SOIL SCTLs EXCEEDANCE (ARSENIC ONLY EXCEEDANCE NOT INCLUDED)

0 80 160
SCALE IN FEET

TABLE

SAMPLE ID	
DATE	
Al	mg/kg
Sb	mg/kg
As	mg/kg
Ba	mg/kg
Cd	mg/kg
Cr	mg/kg
Cu	mg/kg
Fe	mg/kg
Pb	mg/kg
Hg	mg/kg
Se	mg/kg
Ag	mg/kg
Total PCBs	mg/kg
Dioxins	ng/kg
B(a)P TEQs	mg/kg

CLEAN UP TARGET LEVELS (mg/kg)

ANALYTE	RESIDENTIAL	INDUSTRIAL	LEACHABILITY
Al	80,000	*	*
Sb	27	370	5.4
As	2.1	12	*
Ba	120	130,000	1,600
Cd	82	1,700	7.5
Cr	310	470	38
Cu	150	89,000	*
Fe	53,000	N/A	*
Pb	400	1,400	*
Hg	3	17	2.1
Se	440	11,000	5.2
Ag	410	8,200	17
Total PCBs	0.5	2.6	17
Dioxins ng/kg	7	30	3,000
Benzo(a)Pyrene Equivalent	0.1	0.7	NA

LICENSE NO.

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE
SOIL ANALYTICAL SUMMARY (0-0.5)

PROJECT TITLE
CURTIS PARK
1901 NW 24th AVE.
MIAMI, FL

CLIENT
CITY OF MIAMI

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

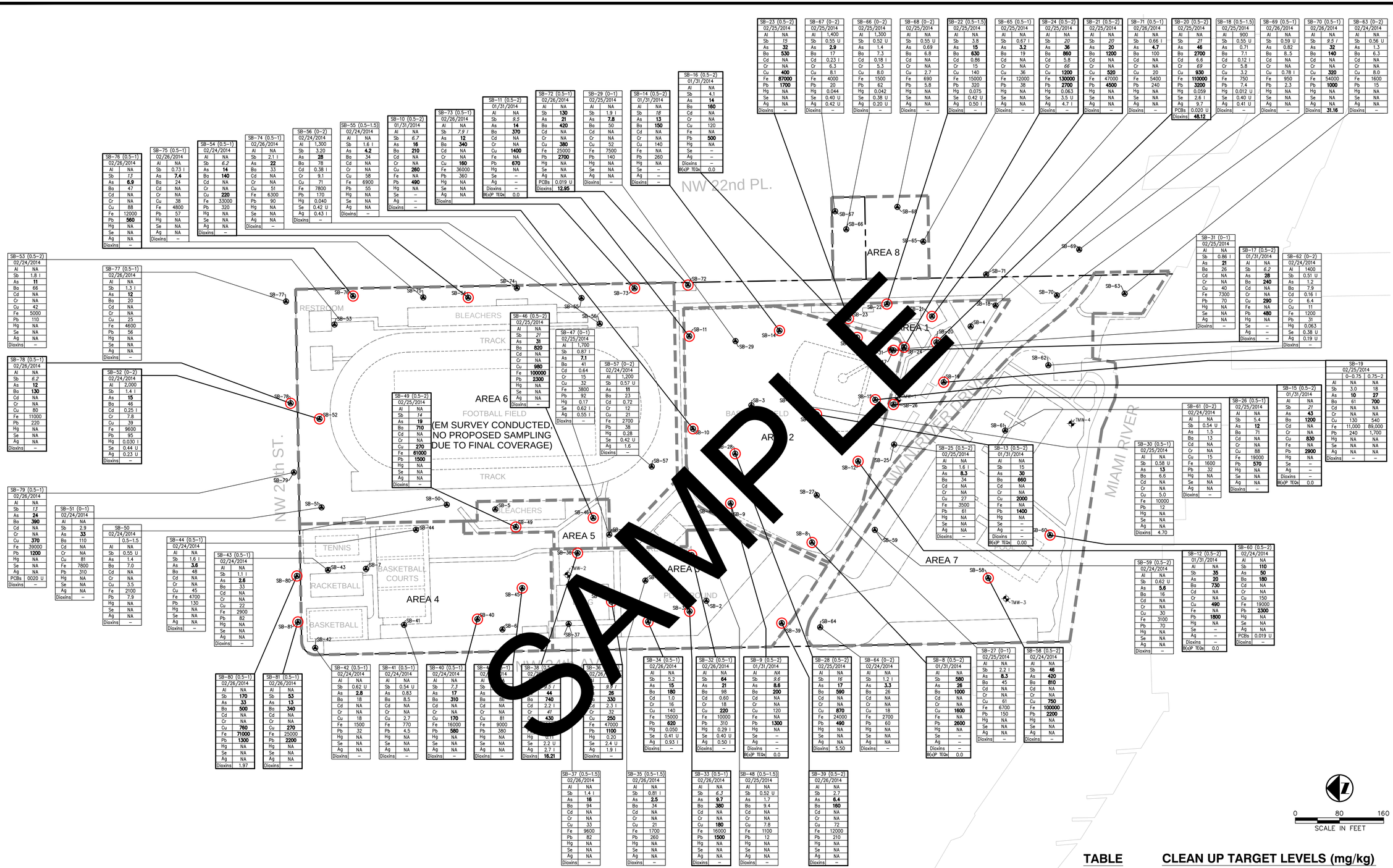
PROJ. NO. 09213010.20 | DSN. BY: MCP | DWN. BY: WCR | CHK. BY: MCP | Q/A RVW BY: MCP | APP. BY: EFS

CADD FILE:

DATE: 17-APRIL-2014

SCALE: AS NOTED

DRAWING NO.
Fig. 4
SHEET 4 of 8



NOTES

mg/kg – milligrams per kilogram
ng/kg – nanograms per kilogram
U – Not detected at the Laboratory Method Limit (MDL).
I – Estimated value, the reported value is between the MDL and the Practical Quantitation Limit (PQL).
SCTLs – Soil Cleanup Target Levels specified in Table II of Chapter 24. Miami-Dade County Code
Bold – Indicates an exceedance of the residential SCTLs
Italics – Indicates an exceedance of the leachability based on the groundwater criteria
NA – Not Analyzed

LEGEND

- PROPERTY LINE
- VISUAL DELINEATION SOIL BORINGS
- SOIL BORING LOCATION
- TEMPORARY MONITORING WELL LOCATION
- SURFICIAL DEBRIS
- SOIL SCTLs EXCEEDANCE (ARSENIC ONLY EXCEEDANCE NOT INCLUDED)

TABLE

SAMPLE ID	
DATE	
Al	mg/kg
Sb	mg/kg
As	mg/kg
Ba	mg/kg
Cd	mg/kg
Cr	mg/kg
Cu	mg/kg
Fe	mg/kg
Pb	mg/kg
Hg	mg/kg
Se	mg/kg
Ag	mg/kg
Total PCBs	mg/kg
Dioxins	ng/kg
B(a)P TEQs	mg/kg

CLEAN UP TARGET LEVELS (mg/kg)

ANALYTE	RESIDENTIAL	INDUSTRIAL	LEACHABILITY
Al	80,000	*	*
Sb	27	370	5.4
As	2.1	12	*
Ba	120	130,000	1,600
Cd	82	1,700	7.5
Cr	310	470	38
Cu	150	89,000	*
Fe	53,000	N/A	*
Pb	400	1,400	*
Hg	3	17	2.1
Se	440	11,000	5.2
Ag	410	8,200	17
Total PCBs	0.5	2.6	17
Dioxins ng/kg	7	30	3,000
Benzo(a)Pyrene Equivalent	0.1	0.7	NA

M:\ESMASTER\City of Miami\Curtis Park\Drawings\Fig.5 SOIL ANALYTICAL SUMMARY 0.5-1.0.dwg Apr 17, 2014 - 4:56pm Layout Name: Layout By: 3618wcr

REV | DATE | DESCRIPTION | CHK BY | LICENSE NO.

SHEET TITLE: **SOIL ANALYTICAL SUMMARY (0.5-1.0)**

PROJECT TITLE: **CURTIS PARK**
1901 NW 24th AVE.
MIAMI, FL

CLIENT: **CITY OF MIAMI**

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.20 | DWN. BY: WCR | CHK. BY: MCP | Q/A R/W BY: MCP | APP. BY: EFS | DSN. BY: MCP

CADD FILE:

DATE: 17–APRIL–2014

SCALE: AS NOTED

DRAWING NO. **Fig. 5**

SHEET **5** of **8**

SB-76 (1-2)	
02/26/2014	
Al	NA
Sb	4.1
As	**5.5**
Ba	120
Cd	NA
Cr	NA
Cu	**240**
Fe	11,000
Pb	200
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-75 (1-2)	
02/26/2014	
Al	NA
Sb	1.4 I
As	**14**
Ba	23
Cd	NA
Cr	NA
Cu	49
Fe	8,400
Pb	92
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-54 (1-2)	
02/24/2014	
Al	NA
Sb	4.40
As	**8.1**
Ba	**130**
Cd	NA
Cr	NA
Cu	90
Fe	12,000
Pb	290
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-74 (1-2)	
02/26/2014	
Al	NA
Sb	1.7 I
As	**24**
Ba	30
Cd	NA
Cr	NA
Cu	43
Fe	4,900
Pb	78
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-56 (0-2)	
02/24/2014	
Al	NA
Sb	3.20
As	**28**
Ba	78
Cd	0.38 I
Cr	9.1
Cu	71
Fe	7,800
Pb	170
Hg	0.040
Se	0.42 U
Ag	0.43 I
Dioxins	–

SB-55 (0.5-1.5)		
02/24/2014		
	0.5-1.5	1.5-2
Al	NA	NA
Sb	1.6 I	1.8 I
As	**4.2**	**3.3**
Ba	34	47
Cd	NA	NA
Cr	NA	NA
Cu	58	41
Fe	6,900	6,400
Pb	55	100
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
Dioxins	–	–

SB-73 (1-2)	
02/26/2014	
Al	NA
Sb	*5.9*
As	**13**
Ba	120
Cd	NA
Cr	NA
Cu	130
Fe	21,000
Pb	260
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-11 (0.5-2)	
01/31/2014	
Al	NA
Sb	*9.5*
As	**14**
Ba	**370**
Cd	NA
Cr	NA
Cu	**1,400**
Fe	NA
Pb	**670**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-72 (1-2)	
02/26/2014	
Al	NA
Sb	*7.5*
As	**9.9**
Ba	**220**
Cd	NA
Cr	NA
Cu	150
Fe	11,000
Pb	**2,700**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-29 (1-2)	
02/25/2014	
Al	NA
Sb	2.0 I
As	**11**
Ba	36
Cd	NA
Cr	NA
Cu	50
Fe	10,000
Pb	170
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-67 (0-2)	
02/25/2014	
Al	NA
Sb	0.55 U
As	**2.9**
Ba	17
Cd	0.23 I
Cr	6.3
Cu	8.1
Fe	4,000
Pb	20
Hg	0.044
Se	0.40 U
Ag	0.42 U
Dioxins	–

SB-66 (0-2)	
02/25/2014	
Al	NA
Sb	0.52 U
As	1.4
Ba	7.3
Cd	0.18 I
Cr	5.3
Cu	8.0
Fe	1,500
Pb	62
Hg	0.042
Se	0.38 U
Ag	0.20 U
Dioxins	–

SB-22		
02/25/2014		
	0.5-1.5	1.5-2.0
Al	NA	NA
Sb	3.8	4.10
As	**15**	**19**
Ba	**630**	100
Cd	0.86	1.3
Cr	15	15
Cu	140	130
Fe	15,000	21,000
Pb	320	350
Hg	0.075	0.07
Se	0.42 U	0.43 U
Ag	0.50 I	0.96 I
Dioxins	–	–

SB-68 (0-2)	
02/25/2014	
Al	NA
Sb	0.55 U
As	0.69
Ba	6.8
Cd	NA
Cr	NA
Cu	2.7
Fe	690
Pb	5.8
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-65 (1-2)	
02/25/2014	
Al	NA
Sb	0.60 U
As	1.1
Ba	8.0
Cd	NA
Cr	NA
Cu	7.2
Fe	2400
Pb	11
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-31 (1-2)	
02/25/2014	
Al	NA
Sb	3.2
As	**16**
Ba	84
Cd	NA
Cr	NA
Cu	140
Fe	16,000
Pb	340
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-21 (0.5-2)	
02/25/2014	
Al	NA
Sb	*20*
As	**20**
Ba	**1,200**
Cd	NA
Cr	NA
Cu	**520**
Fe	47,000
Pb	**4,500**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-71 (1-2)	
02/26/2014	
Al	NA
Sb	2.2 I
As	**5.8**
Ba	48
Cd	NA
Cr	NA
Cu	45
Fe	11,000
Pb	120
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-20 (0.5-2)	
02/25/2014	
Al	NA
Sb	*21*
As	**46**
Ba	**2,700**
Cd	6.6
Cr	*69*
Cu	**930**
Fe	**110,000**
Pb	**3,200**
Hg	0.059
Se	2.6 I
Ag	9.7
Dioxins	**48.12**

SB-18		
02/25/2014		
	0.5-1.5	1.5-2.0
Al	900	1,600
Sb	0.55 U	4.4
As	0.71	**5.2**
Ba	7.1	80
Cd	0.12 I	0.55 I
Cr	5.8	9.5
Cu	3.2	48
Fe	750	6,400
Pb	7.4	120
Hg	0.012 U	0.028 I
Se	0.40 U	0.46 U
Ag	0.41 U	0.46 I
Dioxins	–	–

SB-69 (1-2)	
02/26/2014	
Al	NA
Sb	0.61 I
As	**4.3**
Ba	23
Cd	NA
Cr	NA
Cu	10
Fe	3,800
Pb	43
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-70 (1-2)	
02/26/2014	
Al	NA
Sb	**69**
As	**77**
Ba	**1,500**
Cd	NA
Cr	NA
Cu	**850**
Fe	**260,000**
Pb	**4,700**
Hg	NA
Se	NA
Ag	NA
PCBs	0.026 U
Dioxins	5.41

SB-63 (0-2)	
02/24/2014	
Al	NA
Sb	0.56 U
As	1.3
Ba	6.3
Cd	NA
Cr	NA
Cu	8.0
Fe	1,600
Pb	15
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-10 (0.5-2)	
01/31/2014	
Al	NA
Sb	*6.7*
As	**16**
Ba	**210**
Cd	NA
Cr	NA
Cu	**260**
Fe	NA
Pb	**490**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-14 (0.5-2)	
01/31/2014	
Al	NA
Sb	*18*
As	**13**
Ba	**150**
Cd	NA
Cr	NA
Cu	140
Fe	NA
Pb	260
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-16 (0.5-2)	
01/31/2014	
Al	NA
Sb	4.1
As	**14**
Ba	**160**
Cd	NA
Cr	NA
Cu	120
Fe	NA
Pb	**500**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-23 (0.5-2)	
02/25/2014	
Al	NA
Sb	*15*
As	**32**
Ba	**530**
Cd	NA
Cr	NA
Cu	**400**
Fe	**87,000**
Pb	**1,700**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-77 (1-2)	
02/26/2014	
Al	NA
Sb	4.4
As	**10**
Ba	94
Cd	NA
Cr	NA
Cu	71
Fe	6,800
Pb	170
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-53 (0.5-2)	
02/24/2014	
Al	NA
Sb	1.8 I
As	**11**
Ba	66
Cd	NA
Cr	NA
Cu	42
Fe	5,000
Pb	110
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-57 (0-2)	
02/24/2014	
Al	NA
Sb	0.57 U
As	**11**
Ba	23
Cd	0.72
Cr	12
Cu	21
Fe	2,700
Pb	38
Hg	0.28
Se	0.42 U
Ag	1.6
Dioxins	–

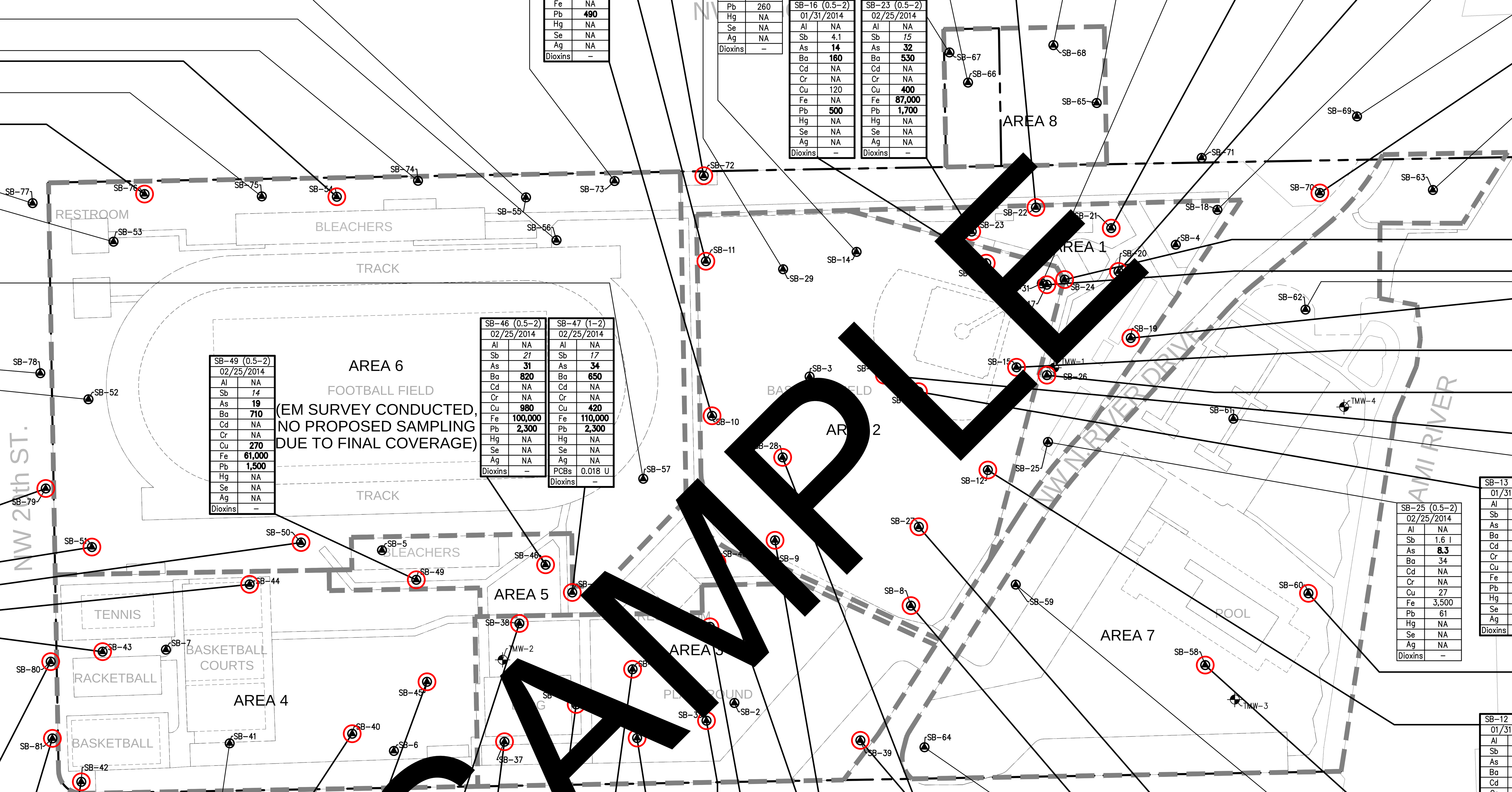
SB-78 (1-2)	
02/26/2014	
Al	NA
Sb	4.7
As	**12**
Ba	82
Cd	NA
Cr	NA
Cu	100
Fe	6,300
Pb	180
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-52 (0-2)	
02/24/2014	
Al	NA
Sb	1.4 I
As	**15**
Ba	46
Cd	0.25 I
Cr	7.8
Cu	39
Fe	9,600
Pb	95
Hg	0.030 I
Se	0.44 U
Ag	0.23 U
Dioxins	–

SB-49 (0.5-2)	
02/25/2014	
Al	NA
Sb	*14*
As	**19**
Ba	**710**
Cd	NA
Cr	NA
Cu	**270**
Fe	**61,000**
Pb	**1,500**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-46 (0.5-2)	
02/25/2014	
Al	NA
Sb	*21*
As	**31**
Ba	**820**
Cd	NA
Cr	NA
Cu	**980**
Fe	**100,000**
Pb	**2,300**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-47 (1-2)	
02/25/2014	
Al	NA
Sb	*17*
As	**34**
Ba	**650**
Cd	NA
Cr	NA
Cu	**420**
Fe	**110,000**
Pb	**2,300**
Hg	NA
Se	NA
Ag	NA
PCBs	0.018 U
Dioxins	–



SB-24 (0.5-2)	
02/25/2014	
Al	NA
Sb	*20*
As	**36**
Ba	**860**
Cd	5.8
Cr	*66*
Cu	**1,200**
Fe	**130,000**
Pb	**2,700**
Hg	0.063
Se	3.5 U
Ag	4.7 I
Dioxins	–

SB-17 (0.5-2)	
01/31/2014	
Al	NA
Sb	*6.2*
As	**28**
Ba	**240**
Cd	NA
Cr	NA
Cu	**290**
Fe	NA
Pb	**480**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-62 (0-2)	
02/24/2014	
Al	NA
Sb	0.51 U
As	1.2
Ba	7.9
Cd	0.16 I
Cr	6.4
Cu	11
Fe	1,200
Pb	31
Hg	0.063
Se	0.38 U
Ag	0.19 U
Dioxins	–

SB-19 (0.75-2)	
02/25/2014	
Al	NA
Sb	*18*
As	**27**
Ba	**700**
Cd	NA
Cr	NA
Cu	**540**
Fe	**89,000**
Pb	**1,700**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-15 (0.5-2)	
01/31/2014	
Al	NA
Sb	*21*
As	**43**
Ba	**1,200**
Cd	NA
Cr	NA
Cu	**830**
Fe	NA
Pb	**2,900**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-26 (1-2)	
02/25/2014	
Al	NA
Sb	**53**
As	**57**
Ba	**1,400**
Cd	NA
Cr	NA
Cu	**2,500**
Fe	**180,000**
Pb	**4,800**
Hg	NA
Se	NA
Ag	NA
Dioxins	**20.91**

SB-30 (1-2)	
02/25/2014	
Al	NA
Sb	*8.0*
As	**120**
Ba	120
Cd	NA
Cr	NA
Cu	**240**
Fe	15,000
Pb	300
Hg	NA
Se	NA
Ag	NA
Dioxins	**8.08**

SB-61 (0-2)	
02/24/2014	
Al	NA
Sb	0.54 U
As	1.5
Ba	13
Cd	NA
Cr	NA
Cu	15
Fe	1,600
Pb	32
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-13 (0.5-2)	
01/31/2014	
Al	NA
Sb	*15*
As	**30**
Ba	**660**
Cd	NA
Cr	NA
Cu	**2,000**
Fe	NA
Pb	**1,400**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-25 (0.5-2)	
02/25/2014	
Al	NA
Sb	1.6 I
As	**8.3**
Ba	34
Cd	NA
Cr	NA
Cu	27
Fe	3,500
Pb	61
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-60 (0.5-2)	
02/24/2014	
Al	NA
Sb	**110**
As	**50**
Ba	**180**
Cd	NA
Cr	NA
Cu	150
Fe	19,000
Pb	**2,300**
Hg	NA
Se	NA
Ag	NA
PCBs	0.019 U
Dioxins	–

SB-12 (0.5-2)	
01/31/2014	
Al	NA
Sb	**35**
As	**20**
Ba	**730**
Cd	NA
Cr	NA
Cu	**490**
Fe	NA
Pb	**1,800**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-79 (1-1.5)	
02/26/2014	
Al	NA
Sb	*7.1*
As	**13**
Ba	**250**
Cd	NA
Cr	NA
Cu	**300**
Fe	20,000
Pb	**530**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-51 (1-2)	
02/24/2014	
Al	NA
Sb	*9.2*
As	**20**
Ba	**530**
Cd	NA
Cr	NA
Cu	**400**
Fe	41,000
Pb	**780**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-50		
02/24/2014		
	0.5-1.5	1.5-2
Al	NA	NA
Sb	0.55 U	*13*
As	1.4	**27**
Ba	7.0	**470**
Cd	NA	NA
Cr	NA	NA
Cu	3.5	**280**
Fe	2100	**110,000**
Pb	7.9	**1,100**
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
	NA	0.020 U
Dioxins	–	–

SB-44 (1-2)	
02/24/2014	
Al	NA
Sb	**35**
As	**68**
Ba	**1,400**
Cd	NA
Cr	NA
Cu	**1,400**
Fe	**140,000**
Pb	**3100**
Hg	NA
Se	NA
Ag	NA
Dioxins	**22.06**

SB-43 (1-2)	
02/24/2014	
Al	NA
Sb	*15*
As	**37**
Ba	**580**
Cd	NA
Cr	NA
Cu	**560**
Fe	41,000
Pb	**1,700**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-80 (1-2)	
02/26/2014	
Al	NA
Sb	5.2
As	**11**
Ba	**200**
Cd	NA
Cr	NA
Cu	120
Fe	17,000
Pb	340
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-81 (1-2)	
02/26/2014	
Al	NA
Sb	*11*
As	**21**
Ba	**500**
Cd	NA
Cr	NA
Cu	**310**
Fe	29,000
Pb	**860**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-42		
02/24/2014		
	1-1.5	1.5-2
Al	NA	NA
Sb	*13*	*6.6 I*
As	**11**	**17**
Ba	**350**	**320**
Cd	NA	NA
Cr	NA	NA
Cu	**310**	**3,300**
Fe	30,000	31,000
Pb	**930**	400
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
Dioxins	–	**18.90**

SB-41 (1-2)	
02/24/2014	
Al	NA
Sb	0.56 U
As	0.26 U
Ba	2.4
Cd	NA
Cr	NA
Cu	0.56 U
Fe	850
Pb	1.2
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-40 (1-2)	
02/24/2014	
Al	NA
Sb	*11*
As	**20**
Ba	**650**
Cd	NA
Cr	NA
Cu	**260**
Fe	38,000
Pb	**1,800**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-45 (1-2)	
02/24/2014	
Al	NA
Sb	*23*
As	**54**
Ba	**1,800**
Cd	NA
Cr	NA
Cu	**890**
Fe	**99,000**
Pb	**5,900**
Hg	NA
Se	NA
Ag	NA
PCBs	0.021 U
Dioxins	–

SB-38 (1-2)	
02/26/2014	
Al	NA
Sb	[illegible]
As	[illegible]
Ba	[illegible]
Cd	*10*
Cr	*75*
Cu	**2,300**
Fe	[illegible]
Pb	[illegible]
Hg	[illegible]
Se	4.3 U
Ag	5.6 I
Dioxins	–

SB-34 (1-2)	
02/26/2014	
Al	NA
Sb	*13*
As	**12**
Ba	**430**
Cd	*1.5*
Cr	18
Cu	**210**
Fe	24,000
Pb	**1,200**
Hg	0.017 I
Se	0.77 U
Ag	1.8 I
Dioxins	–

SB-32 (1-2)	
02/26/2014	
Al	NA
Sb	*20*
As	**39**
Ba	**2,600**
Cd	5.9
Cr	*72*
Cu	**890**
Fe	**98,000**
Pb	**3,500**
Hg	0.060
Se	2.1 U
Ag	6.0
PCBs	0.020 U
Dioxins	–

SB-9 (0.5-2)	
01/31/2014	
Al	NA
Sb	*9.6*
As	**8.6**
Ba	**200**
Cd	NA
Cr	NA
Cu	120
Fe	NA
Pb	**1,300**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-28 (0.5-2)	
02/25/2014	
Al	NA
Sb	*16*
As	**17**
Ba	**590**
Cd	NA
Cr	NA
Cu	**870**
Fe	24,000
Pb	**490**
Hg	NA
Se	NA
Ag	NA
Dioxins	5.50

SB-64 (0-2)	
02/24/2014	
Al	NA
Sb	1.2 I
As	**3.3**
Ba	26
Cd	NA
Cr	NA
Cu	18
Fe	2700
Pb	60
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-8 (0.5-2)	
01/31/2014	
Al	NA
Sb	**580**
As	**26**
Ba	**1,000**
Cd	NA
Cr	NA
Cu	**1,600**
Fe	NA
Pb	**2,600**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-27		
02/25/2014		
	1-1.5	1.5-2
Al	NA	NA
Sb	*9.2*	**39**
As	**13**	**41**
Ba	28	**1,500**
Cd	NA	NA
Cr	NA	NA
Cu	52	**3,800**
Fe	6,500	**160,000**
Pb	150	**3,400**
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
PCBs	NA	0.023 U
Dioxins	–	–

SB-59 (0.5-2)	
02/24/2014	
Al	NA
Sb	0.62 U
As	**5.6**
Ba	16
Cd	NA
Cr	NA
Cu	30
Fe	3,100
Pb	70
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-58 (0.5-2)	
02/24/2014	
Al	NA
Sb	**46**
As	**420**
Ba	**810**
Cd	NA
Cr	NA
Cu	**750**
Fe	**100,000**
Pb	**2,200**
Hg	NA
Se	NA
Ag	NA
Dioxins	–

SB-37		
02/26/2014		
	0.5-1.5	1.5-2
Al	NA	NA
Sb	1.4 I	5.3 I
As	**16**	**14**
Ba	94	**140**
Cd	NA	NA
Cr	NA	NA
Cu	33	**170**
Fe	9,600	30,000
Pb	82	**560**
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
Dioxins	–	–

SB-36 (1-2)	
02/26/2014	
Al	NA
Sb	*20*
As	**32**
Ba	**2,900**
Cd	5.2
Cr	*79*
Cu	**1,200**
Fe	**90,000**
Pb	**2,900**
Hg	0.20
Se	2.5 U
Ag	5.1 I
PCBs	0.23 U
Dioxins	**17.76**

SB-35		
02/26/2014		
	0.5-1.5	1.5-2
Al	NA	NA
Sb	0.81 I	*23*
As	**2.5**	**50**
Ba	34	**1,400**
Cd	NA	NA
Cr	NA	NA
Cu	21	**760**
Fe	1,700	**61,000**
Pb	260	**5,900**
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
Dioxins	–	–

SB-33 (1-2)	
02/26/2014	
Al	NA
Sb	*14*
As	**20**
Ba	**730**
Cd	NA
Cr	NA
Cu	**1000**
Fe	50,000
Pb	**3,000**
Hg	NA
Se	NA
Ag	NA
Dioxins	**20.08**

SB-48		
02/25/2014		
	0.5-1.5	1.5-2
Al	NA	NA
Sb	0.52 U	*6.2*
As	1.7	**40**
Ba	9.4	**140**
Cd	NA	NA
Cr	NA	NA
Cu	7.8	140
Fe	1,100	28,000
Pb	12	**250**
Hg	NA	NA
Se	NA	NA
Ag	NA	NA
Dioxins	–	–

SB-39 (0.5-2)	
02/26/2014	
Al	NA
Sb	2.7
As	**6.4**
Ba	**160**
Cd	NA
Cr	NA
Cu	72
Fe	12,000
Pb	210
Hg	NA
Se	NA
Ag	NA
Dioxins	–

0 80 160
SCALE IN FEET

NOTES

mg/kg – milligrams per kilogram
ng/kg – nanograms per kilogram
U – Not detected at the Laboratory Method Limit (MDL).
I – Estimated value, the reported value is between the MDL and the Practical Quantitation Limit (PQL).
SCTLs – Soil Cleanup Target Levels specified in Table II of Chapter 24. Miami-Dade County Code
Bold – Indicates an exceedance of the residential SCTLs
Italics – Indicates an exceedance of the leachability based on the groundwater criteria
NA – Not Analyzed

LEGEND

PROPERTY LINE
VISUAL DELINEATION SOIL BORINGS
SOIL BORING LOCATION
TEMPORARY MONITORING WELL LOCATION
SURFICIAL DEBRIS
SOIL SCTLs EXCEEDANCE (ARSENIC ONLY EXCEEDANCE NOT INCLUDED)

TABLE

SAMPLE ID	
DATE	
Al	mg/kg
Sb	mg/kg
As	mg/kg
Ba	mg/kg
Cd	mg/kg
Cr	mg/kg
Cu	mg/kg
Fe	mg/kg
Pb	mg/kg
Hg	mg/kg
Se	mg/kg
Ag	mg/kg
Total PCBs	mg/kg
Dioxins	ng/kg
B(a)P TEQs	mg/kg

CLEAN UP TARGET LEVELS (mg/kg)

ANALYTE	RESIDENTIAL	INDUSTRIAL	LEACHABILITY
Al	80,000	*	*
Sb	27	370	5.4
As	2.1	12	*
Ba	120	130,000	1,600
Cd	82	1,700	7.5
Cr	310	470	38
Cu	150	89,000	*
Fe	53,000	N/A	*
Pb	400	1,400	*
Hg	3	17	2.1
Se	440	11,000	5.2
Ag	410	8,200	17
Total PCBs	0.5	2.6	17
Dioxins ng/kg	7	30	3,000
Benzo(a)Pyrene Equivalent	0.1	0.7	NA

LICENSE NO.

REV	DATE	DESCRIPTION	CHK. BY

SHEET TITLE
SOIL ANALYTICAL SUMMARY (1.0-2.0)

PROJECT TITLE
CURTIS PARK
1901 NW 24th AVE.
MIAMI, FL

CLIENT
CITY OF MIAMI

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.20 | DWN. BY: WCR | Q/A RVW BY: MCP
DSN. BY: MCP | CHK. BY: MCP | APP. BY: EFS

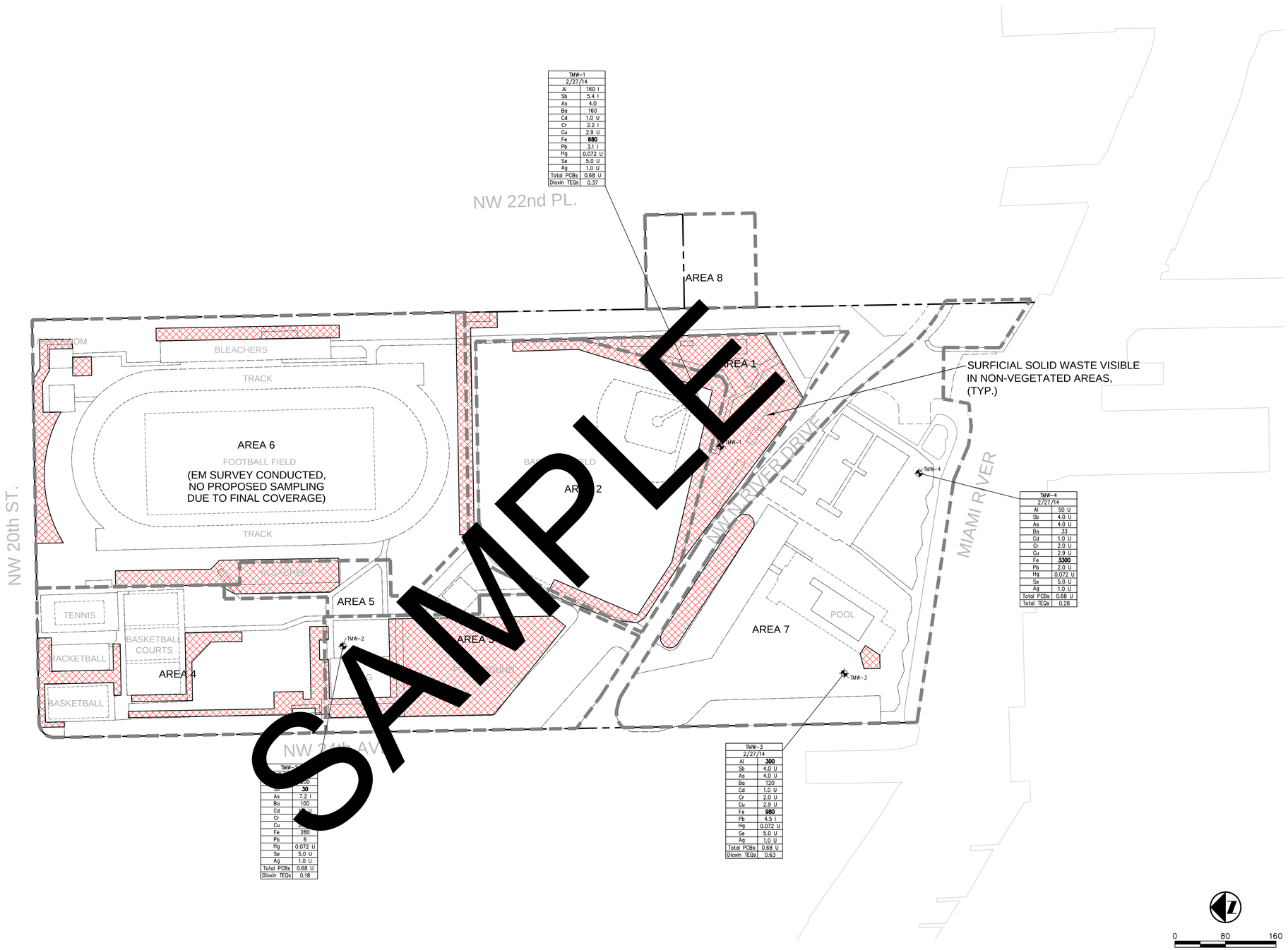
CADD FILE:

DATE: 17–APRIL–2014

SCALE: AS NOTED

DRAWING NO.
Fig. 6
SHEET 6 of 8

M:\ESMASTER\City of Miami\Curtis Park\Drawings\FIG.6 SOIL ANALYTICAL SUMMARY 1.0-2.0.dwg Apr 17, 2014 – 4:56pm Layout Name: Layout By: 3618wcr



TMW-1	
2/27/14	
Al	160 I
Sb	5.4 I
As	4.0
Ba	160
Cd	1.0 U
Cr	2.2 I
Cu	2.9 U
Fe	**680**
Pb	3.1 I
Hg	0.072 U
Se	5.0 U
Ag	1.0 U
Total PCBs	0.68 U
Dioxin TEQs	0.37

TMW-4	
2/27/14	
Al	50 U
Sb	4.0 U
As	4.0 U
Ba	33
Cd	1.0 U
Cr	2.0 U
Cu	2.9 U
Fe	**3300**
Pb	2.0 U
Hg	0.072 U
Se	5.0 U
Ag	1.0 U
Total PCBs	0.68 U
Total TEQs	0.28

TMW-2	
2/27/14	
Al	50 U
Sb	**30**
As	7.2 I
Ba	100
Cd	1.0 U
Cr	2.0 U
Cu	2.9 U
Fe	280
Pb	6
Hg	0.072 U
Se	5.0 U
Ag	1.0 U
Total PCBs	0.68 U
Dioxin TEQs	0.18

TMW-3	
2/27/14	
Al	**300**
Sb	4.0 U
As	4.0 U
Ba	120
Cd	1.0 U
Cr	2.0 U
Cu	2.9 U
Fe	**980**
Pb	4.5 I
Hg	0.072 U
Se	5.0 U
Ag	1.0 U
Total PCBs	0.68 U
Dioxin TEQs	0.63

0 80 160
SCALE IN FEET

NOTES

µg/L – micrograms per Liter
pg/L – picograms per Liter
U – Analyte was not detected at the laboratory Method Detection Limit (MDL).
I – The reported value is between the MDL and the Laboratory Practical Quantitation Limit (PQL).
Bold – Indicates an exceedence of the Groundwater Cleanup Target Level (GCTL)
P – Pending

LEGEND

PROPERTY LINE
SURFICIAL DEBRIS
TEMPORARY MONITORING WELL LOCATION

TABLE

SAMPLE ID	
DATE	
Al	µg/L
Sb	µg/L
As	µg/L
Ba	µg/L
Cd	µg/L
Cr	µg/L
Cu	µg/L
Fe	µg/L
Pb	µg/L
Hg	µg/L
Se	µg/L
Ag	µg/L
Total PCBs	µg/L
Dioxin TEQs	pg/L

CLEAN UP TARGET LEVELS (µg/L)

ANALYTE	RESIDENTIAL
Al	200
Sb	6
As	10
Ba	2,000
Cd	5
Cu	1,000
Fe	300
Pb	15
Hg	2
Se	50
Ag	100
Total PCBs	0.5
Dioxin TEQs	30

REV	DATE	DESCRIPTION	CHK. BY

LICENSE NO.

SHEET TITLE: **GROUNDWATER ANALYTICAL SUMMARY**

PROJECT TITLE: **CURTIS PARK 1901 NW 24th AVE. MIAMI, FL**

CLIENT: **CITY OF MIAMI**

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.20 | DWN. BY: WCR | CHK. BY: MCP | Q/A RVW BY: MCP | APP. BY: EFS | DSN. BY: MCP

CADD FILE:

DATE: 17–APRIL–2014

SCALE: AS NOTED

DRAWING NO. **Fig. 7**

SHEET **7** of **8**

M:\ESMASTER\City of Miami\Curtis Park\Drawings\Fig.7 GROUNDWATER ANALYTICAL SUMMARY.dwg Apr 17, 2014 – 4:57pm Layout Name: Layout By: 3618wcr

NW 22nd PL.

NW 24th AVE.

NW 20th ST.

NW N RIVER DRIVE

MIAMI RIVER

SOURCE REMOVAL CONDUCTED FEBRUARY 3, 2014

SURFICIAL SOLID WASTE VISIBLE IN NON-VEGETATED AREAS, (TYP.)

AREA 1

AREA 2

AREA 3

AREA 4

AREA 5

AREA 6

FOOTBALL FIELD

(EM SURVEY CONDUCTED, NO PROPOSED SAMPLING DUE TO FINAL COVERAGE)

AREA 7

AREA 8

BASEBALL FIELD

TRACK

TRACK

BLEACHERS

BLEACHERS

RESTROOM

TENNIS

BASKETBALL COURTS

RACKETBALL

BASKETBALL

BLDG

PLAYING FIELD

POOL

SAMPLE

LEGEND

- PROPERTY LINE
- VISUAL DELINEATION SOIL BORINGS
- SOIL BORING LOCATION
- TEMPORARY MONITORING WELL LOCATION
- NO SOLID WASTE WITHIN THE CORE
- SURFICIAL DEBRIS
- SOLID WASTE @ 0-0.5 FT
- SOLID WASTE @ 0.5-1.0 FT
- SOLID WASTE @ 1.0-2.0 FT
- SOLID WASTE @ 2.0-4.0 FT
- SOLID WASTE @ 4.0 FT AND DEEPER
- RUBBER MAT
- ASTRO TURF
- BUILDING / COURTS
- ASPHALT PARKING
- CONCRETE WALKWAYS

0 60 120
SCALE IN FEET

M:\ESMASTER\City of Miami\Curtis Park\Drawings\FIG.8 VISIBLE SOLID WASTE AREA.dwg Apr 17, 2014 - 4:57pm Layout Name: layout By: 3618wcr

REV	DATE	DESCRIPTION	CHK BY

LICENSE NO.

SHEET TITLE: VISIBLE SOLID WASTE AREA

PROJECT TITLE: CURTIS PARK
1901 NW 24th AVE.
MIAMI, FL

CLIENT: CITY OF MIAMI

SCS ES CONSULTANTS
STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.
7700 N. KENDALL DRIVE, SUITE 300, MIAMI, FL 33156
PH. (305) 412-8185 FAX. (305) 412-8105
FL CERTIFICATE OF AUTHORIZATION NO. 00004892

PROJ. NO. 09213010.20
DWN. BY: WCR
CHK. BY: MCP
DSN. BY: MCP
Q/A KVW BY: MCP
APP. BY: EFS

CADD FILE:

DATE: 17-APRIL-2014

SCALE: AS NOTED

DRAWING NO.
Fig. 8
SHEET 8 of 8

TABLES

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
A-1	2-Feb-14	0-2	No SW
		2-3	SW
		3-7	No SW
A-2			
A-3	31-Jan	0-6	No SW
		At 0.75	Glass Frag.
A-4	31-Jan-14	0-6	No SW
A-5	31-Jan-14	0-0.5	No SW
		0.5-2	SW
		2-6	No SW
A-6	31-Jan-14	0-1.75	No SW
		1.75-4	SW
		4-6	No SW
A-7	31-Jan-14	0-3.25	No SW
		3.25-4.5	SW
		4.5-6	No SW
A-8	28-Jan-14	0-2	No SW
		2-2.25	SW
		2.25-6	No SW
A-9	28-Jan-14	0-1.5	No SW
		1.5-2.25	SW
		2.25-6	No SW
A-10	28-Jan-14	0-0.75	No SW
		0.75-2	SW
		2-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
A-11	28-Jan-14	0-6	No SW
A-12	Lift Station		
A-13	3-Feb-14	0-6	No SW
A-14	3-Feb-14	0-6	No SW
A-15	3-Feb-14	0-6	No SW
		At 3	C&D
A-16	3-Feb-14	0-1	No SW
		1-3	SW
		3-7	SW
A-17	3-Feb-14	0-4	No SW
		4-5.5	SW
		5.5-11	No SW
A-18	3-Feb-14	[illegible]	No SW
		1.5-6	C&D
		6-11	No SW
A-19	3-Feb-14	0-6	No SW
A-20			

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
B-1	31-Jan-14	0-1	No SW
		1-4	SW
		4-6	No SW
B-2	31-Jan-14	0-1	No SW
		(1-2.5), (2.5-3)	SW, C&D
		[illegible]	No SW
B-3	[illegible]sketball Court		
B-4	31-Jan-14	0-6	No SW
B-5	31-Jan-14	0-2.5	No SW
		2.5-3.75	SW
		3.75-6	No SW
B-6	31-Jan-14	0-1.5	No SW
		1.5-4	SW
		4-6	No SW
B-7	31-Jan-14	0-3	No SW
		3-4.25	SW
		4.25-6	No SW
B-8	28-Jan-14	0-2	No SW
		2-3	SW
		3-6	No SW
B-9	28-Jan-14	0-2	No SW
		(2-2.25), (2.5-3.75)	SW
		3.75-6	No SW
B-10	28-Jan-14	0-1.5	No SW
		(1.5-1.75), (1.75-2.25)	C&D, SW
		2.25-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
B-11	28-Jan-14	0-1.5	No SW
		1.5-2.5	SW
		2.5-6	No SW
B-12	28-Jan-14	0-0.75	No SW
		0.75-2.5	SW
		2.5-6	No SW
B-13	28-Jan-14	0-6	No SW
B-14	3-Feb-14	0-6	No SW
B-15	3-Feb-14	0-7	No SW
B-16	3-Feb-14	0-6	No SW
B-17	3-Feb-14	0-0.5	No SW
		0.5-6	SW
		6-9	No SW
B-18	3-Feb-14	0-9	No SW
B-19	3-Feb-14	0-6	No SW
B-20			

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

Reference A through L with corresponding numeric values indicates sample location within sampling grid.

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
C-1	31-Jan-14	0-1.5	No SW
		1.5-3.5	SW
		3.5-6	No SW
C-2	31-Jan-14	0-1.5	No SW
		1.5-3.5	SW
		3.5-6	No SW
C-3			
C-4	31-Jan-14	0-2.5	No SW
		2.5-3	SW
		3-6	No SW
C-5	31-Jan-14	0-3	No SW
		3-4.5	SW
		4.5-6	No SW
C-6	31-Jan-14	0-1.5	No SW
		1.5-3.5	SW
		3.5-6	No SW
C-7	31-Jan-14	0-1	No SW
		1-3	SW
		3-7	No SW
C-8	28-Jan-14	0-1	No SW
		1-1.5	SW
		1.5-6	No SW
C-9	28-Jan-14	0-1.25	No SW
		1.25-2.5	SW
		2.5-6	No SW
C-10	28-Jan-14	0-2	No SW
		2-3	SW
		3-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
C-11	28-Jan-14	0-0.75	No SW
		0.75-1	SW
		1-6	No SW
C-12	28-Jan-14	0-6	No SW
C-13	27-Jan-14	0-2	No SW
		2-4	SW
		4-6	No SW
C-14	3-Feb-14	0-7	No SW
C-15			
C-16	3-Feb-14	0-3	No SW
		Refusal at	
C-17			
C-18	3-Feb-14	1	No SW
		1-7.5	SW
			No SW
C-19	3-Feb-14	0-0.5	No SW
		0.5-1.5	SW
		1.5-9	No SW
C-20			

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
D-1	30-Jan-14	0-1.5	No SW
		1.5-2.5	SW
		2.5-6	No SW
D-2	30-Jan-14	0-4	No SW
		4-4.2	SW
		4.2-6	No SW
D-3	30-Jan-14	0-0.5	No SW
		0.5-3.75	SW
		3.75-6	No SW
D-4	30-Jan-14	0-1	No SW
		1-3.25	SW
		3.25-6	No SW
D-5	30-Jan-14	0-3	No SW
		3-4.5	SW
		4.5-6	No SW
D-6	30-Jan-14	0-1.25	No SW
		1.25-2.5	SW
		Refusal at 2.5	
D-7	30-Jan-14	0-0.5	No SW
		0.5-2.75	SW
		2.75-6	No SW
D-8	30-Jan-14	0-0.75	No SW
		(0.75-2.75), (2.75-4)	SW, C&D
		4-6	No SW
D-9	30-Jan-14	0-1.25	No SW
		1.25-2.75	SW
		2.75-6	No SW
D-10	28-Jan-14	0-2.5	No SW
		2.5-3	SW
		3-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
D-11	27-Jan-14	0-0.5	No SW
		0.5-2.5	SW & C&D
		2.5-5	No SW
D-12	27-Jan-14	0-0.5	No SW
		0.5-2.5	SW
		2.5-6	No SW
D-13	27-Jan-14	0-1.25	No SW
		1.25-3.5	SW
		3.5-6	No SW
D-14	27-Jan-14	0-0.5	No SW
		(0.5-2), (2-2.5), (2.5-4)	C&D, SW, C&D
		4-6	No SW
D-15	3-Feb-14	0-7	No SW
D-16	3-Feb-14	0-7	No SW
D-17	3-Feb-14	0-7.5	No SW
		At 4	Brick Frag.
D-18	3-Feb-14	0-6	No SW
D-19	3-Feb-14	0-3	No SW
		3-3.5	SW
		3.5-6	No SW
D-20			

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

Reference A through L with corresponding numeric values indicates sample location within sampling grid.

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
E-1	30-Jan-14	0-2	No SW
		2-4	SW
		4-7	No SW
E-2	30-Jan-14	0-1	No SW
		1-6.5	SW
		6.5-7	No SW
E-3	30-Jan-14	0-3	No SW
		3-5	SW
		5-6	No SW
E-4	30-Jan-14	0-3.75	No SW
		3.75-4.5	SW
		4.5-6	No SW
E-5	30-Jan-14	0-6	No SW
E-6	30-Jan-14	0-3	No SW
		3-4.5	SW
		4.5-6	No SW
E-7	30-Jan-14	0-3	No SW
		3-4.5	SW
		4.5-6	No SW
E-8	30-Jan-14	0-2.5	No SW
		2.5-3.5	SW
		3.5-6	No SW
E-9	30-Jan-14	0-6	No SW
		Ash cluster	at 2
E-10	27-Jan-14	0-0.5	No SW
		(0.5-1), (1-2.5)	SW, C&D
		2.5-5	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
E-11	27-Jan-14	0-0.5	No SW
		(0.5-1.25), (1.25-3)	SW, C&D
		3-6	No SW
E-12	27-Jan-14	0-0.5	No SW
		0.5-2.5	SW
		2.5-6	No SW
E-13	27-Jan-14	0-1.25	No SW
		1.25-3.75	SW
		3.75-6	No SW
E-14	27-Jan-14	0-0.5	No SW
		0.5-2	SW
		2-6	No SW
E-15	28-Jan-14	0-0.75	SW
		0.75-6	No SW
E-16	3-Feb-14	0-7	No SW
E-17	4-Feb-14	0-4	No SW
		4-5	SW
		5-7	No SW
E-18	4-Feb-14	0-3	No SW
		At 3	Asphalt
		3.5-4	Asphalt
E-19	3-Feb-14	0-6	No SW
E-2B	30-Jan-14	0-3	No SW
		3-5	SW
		5-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
F-1	30-Jan-14	0-4	No SW
		4-4.25	SW
		4.25-11	No SW
F-2	30-Jan	0-7	No SW
F-3			
F-4			
F-5			
F-6			
F-7			
F-8			
F-9	30-Jan-14	0-2	No SW
		Refusal at 2	
F-10	27-Jan-14	0-1.25	No SW
		1.25-2.75	C&D
		2.75-4	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
F-11	27-Jan-14	0-0.75	No SW
		0.75-3	SW
		3-4	No SW
F-12	27-Jan-14	0-0.75	No SW
		(0.75-1), (1-4)	C&D, SW
		4-6	No SW
F-13	27-Jan-14	0-2	No SW
		2-5.5	SW
		5.5-6	No SW
F-14	27-Jan-14	0-1.75	No SW
		1.75-4	SW
		4-7	No SW
F-15	28-Jan-14	0-1.75	No SW
		1.75-5	SW
		5-6	No SW
F-16	4-Feb-14	0-3	No SW
		(3-3.75), (3.75-4.25)	C&D, SW
			No SW
F-17	4-Feb-14	0-7	No SW
F-18	4-Feb-14	0-2	No SW
		2-3	SW
		3-7	No SW
F-19	4-Feb-14	0-6	No SW
F-20	3-Feb-14	0-7.5	No SW

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

Reference A through L with corresponding numeric values indicates sample location within sampling grid.

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
G-1	30-Jan-14	0-3	No SW
		3-6.5	SW
		6.5-8	No SW
G-2	30-Jan-14	0-4	No SW
		4-7	SW
		7-10	No SW
G-3	4-Feb-14	0-4	No SW
		4-6.75	SW
		6.75-7	No SW
G-4			
G-5			
G-6			
G-7			
G-8			
G-9	30-Jan-14	0-3	No SW
		3-6	SW
		6-7	No SW
G-10	27-Jan-14	0-1.5	No SW
		1.5-4	SW
		4-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
G-11	27-Jan-14	0-2	No SW
		2-4.5	SW
		5-6	No SW
G-12	27-Jan-14	0-2	No SW
		2-5	SW
		5-7	No SW
G-13	27-Jan-14	0-2	No SW
		2-5	SW
		5-7	No SW
G-14	27-Jan-14	0-1.75	No SW
		1.75-5.25	SW
		5.25-7	No SW
G-15	28-Jan-14	0-1	No SW
		1-4.5	SW
		4.5-7	[illegible]
G-16	28-Jan-14	0-2	No SW
		2-4.5	SW
		4.5-6	SW
G-17	4-Feb-14	0-4	[illegible]
		4-6	SW
		6-7	No SW
G-18	4-Feb-14	[illegible]	No SW
G-19		0-6	No SW
		At 3.25	small rusted metal
G-20	4-Feb-14	0-3	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
H-1	31-Jan-14	0-3	No SW
		3-6	SW
		6-7	No SW
H-2	30-Jan-[illegible]	0-4	No SW
		4-5.5	SW
		5-6	No SW
H-3	31-Jan-14	0-3.5	No SW
		3.5-6.5	SW
		6.5-7	No SW
H-4	31-Jan-14	0-3.5	No SW
		3.5-7.5	SW
		7.5-8	No SW
H-5	31-Jan-14	0-3.5	No SW
		3.5-7.5	SW
		7.5-8	No SW
H-6	31-Jan-14	0-3.5	No SW
		3.5-6.5	SW
		6.5-8	No SW
H-7	31-Jan-14	0-3.5	No SW
		3.5-6.5	SW
		6.5-8	No SW
H-8	31-Jan-14	0-3	No SW
		3-6	SW
		6-7	No SW
H-9	30-Jan-14	0-3.75	No SW
		3.5-6	SW
		6-7	No SW
H-10	27-Jan-14	0-1	No SW
		(1-1.5), (1.5-5.5)	C&D, SW
		5.5-7	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
H-11	27-Jan-14	0-3.5	No SW
		3.5-6.5	SW
		6.5-8	No SW
H-12	27-Jan-14	0-1.75	No SW
		(1.75-2.5), (2.5-8)	C&D w/ Glass, SW
		8-15	No SW
H-13	27-Jan-14	0-6	No SW
		6-6.75	SW
		6.75-7	No SW
H-14	27-Jan-14	0-3	No SW
		3-5	SW
		5-7	No SW
H-15	28-Jan-14	0-3	No SW
		3-6	SW
		6-7	No SW
H-16	28-Jan-14	0-0.5	No SW
		0.5-4.25	SW
		4.25-6	No SW
H-17			
H-18			
H-19			
H-20			

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

Reference A through L with corresponding numeric values indicates sample location within sampling grid.

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
I-1	30-Jan-14	0-1	No SW
		(1-2.5), (4.5-6)	SW, SW
		6-6.5	No SW
I-2	30-Jan-14	0-2.5	No SW
		2.5-6.5	SW
		6.5-7	No SW
I-3	30-Jan-14	0-5	No SW
		5-6.5	SW
		6.5-8	No SW
I-4	30-Jan-14	0-2	No SW
		2-5.75	SW
		5.75-6.5	No SW
I-5	30-Jan-14	0-2	No SW
		2-5	SW
		5-6	No SW
I-6	30-Jan-14	0-1.25	No SW
		(1.25-2), (4-6.25)	SW, SW
		6.25-7	No SW
I-7	30-Jan-14	0-4	No SW
		4-6.75	SW
		6.75-7	No SW
I-8	30-Jan-14	0-3	No SW
		3-5.25	SW
		5.25-7	No SW
I-9	30-Jan-14	0-2	No SW
		2-5.5	SW
		5.5-7	No SW
I-10			

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
I-11	4-Feb-14	0-2	No SW
		2-6.5	SW
		6.5-7	No SW
I-12	4-Feb-14	0-1	No SW
		1-6.5	SW
		6.5-7	No SW
I-13	4-Feb-14	0-0.75	No SW
		0.75-4	SW
		Refusal at 4	
I-14	28-Jan-14	0-3.5	No SW
		3.5-9	SW
		9-11	No SW
I-15	28-Jan-14	0-4	No SW
		4-6.5	SW
		6.5-7	
I-16	28-Jan-14	0-2	No [illegible]
		2-6	SW
		6-8.5	[illegible] SW
I-20	4-Feb-14	0-2	[illegible]
I-21	4-Feb-14		No SW
J-14	4-Feb-14	[illegible].5	SW
		3.5-6	No SW
J-15	4-Feb-14	0-0.5	No SW
		0.5-2	C&D
		2-6	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
K-14	4-Feb-14	0-2	No SW
		2-3	SW
		3-6	No SW
K-15	4-Feb-14	0-1.25	No SW
		(0.75-1), (1[illegible]-1.5)	Asphalt
		1[illegible]6	No SW
L-14	4-Feb-14	0-6	No SW
L-15	4-Feb-14	0-2.75	No SW
		2.75-3.25	SW
		3.25-6	No SW
SB-4 [illegible]	3-Feb-14	(0-1), (3-8)	SW, SW
		(1-3), (8-11)	No SW
SB-4 (2)	3-Feb-14	(0-0.5), (5-8)	SW, SW
		(0.5-5), (8-11.5)	No SW
SB-4 (3)	3-Feb-14	(0-2), (4-7.5)	SW, SW
		(2-4), (7.5-11)	No SW
SB-4 (4)	3-Feb-14	(0.75-2), (4-9)	SW, SW
		(2-4), (9-11)	No SW

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-8	31-Jan-14	0-0.75	No SW
		0.75-2	SW
SB-9	31-Jan-14	0-0.75	No SW
		0.75-1.25	SW
		1.25-2	No SW
SB-10	31-Jan-14	0.75-2	No SW
SB-11	31-Jan-14	0-1.25	No SW
		1.25-2	SW
SB-12	31-Jan-14	0-0.5	No SW
		0.5-1.5	SW
		1.5-2	No SW
SB-13	31-Jan-14	0-1	No SW
		1-2	SW
SB-14	31-Jan-14	0-1.75	No SW
		1.75-2	SW
SB-15	31-Jan-14	0-1	No SW
		1-2	SW
SB-16	31-Jan-14	0-1.75	No SW
		1.75-2	SW
SB-17	31-Jan-14	0-2	No SW

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

Reference A through L with corresponding numeric values indicates sample location within sampling grid.

TABLE 1

VISIBLE SOLID WASTE
GERRY CURTIS PARK

AREA 1 - BASEBALL FIELD PERIMETER

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-18	25-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	SW
SB-19	25-Feb-14	0-0.75	No SW
		0.75-1.25	SW
		1.25-2	No SW
SB-20	25-Feb-14	0-0.5	No SW
		0.5-2	SW
SB-21	25-Feb-14	0-0.5	SW
		0.5-1.5	No SW
		1.5-2	SW
SB-22	25-Feb-14	0-1.75	No SW
		1.75-2	SW
SB-23	25-Feb-14	0-2	No SW
		2-3	SW
SB-24	25-Feb-14	0-0.5	SW
		0.5-1.25	SW
		1.25-2	SW
SB-25	25-Feb-14	0-0.5	No SW
		0.5-1	SW
		1-2	No SW
		2-2.5	No SW
SB-26	25-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-2	SW

AREA 2 - BASEBALL FIELD

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-27	25-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2.5	SW
SB-28	25-Feb-14	0-0.5	No SW
		0.5-1.25	SW
		1.25-2	No SW
		[illegible]	No SW
		2.75-3	No SW
SB-29	25-Feb-14	0-1.5	No SW
		[illegible]	No SW
		[illegible]	SW
SB-30	[illegible]-14	0-0.2[illegible]	No SW
		[illegible]5-1	No SW
		1-1.5	No SW
		1.5-1.75	No SW
		1.75-3	SW
SB-31	[illegible]b-14	0-1	No SW
		1-2	SW

AREA 3 - PLAYGROUND

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-32	26-Feb-14	0-1	No SW
		1-1.8	SW
		1.8-2	No SW
SB-33	26-Feb-14	0-1	No SW
		1-2	SW
SB-34	26-Feb-14	0-0.5	SW
		0.5-1	No SW
		1-1.5	SW
		1.5-2	No SW
SB-35	26-Feb-14	0-1.25	No SW
		1.25-2	No SW
SB-36	26-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-2	SW
SB-37	26-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	SW
SB-38	26-Feb-14	0-0.5	No SW
		0.5-1	SW
		1-2	SW
SB-39	26-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	No SW

Notes:
SW = Solid waste observed during the advancement of soil borings
No SW = No solid waste observed during the advancement of soil borings
C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

TABLE 1

VISIBLE SOLID WASTE

GERRY CURTIS PARK

AREA 4 - COURTS

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-40	24-Feb-14	0-0.5	SW
		0.5-1.25	No SW
		1.25-2	SW
		2-2.5	No SW
SB-41	24-Feb-14	0-0.5	No SW
		0.5-2	No SW
		2-2.5	SW
SB-42	24-Feb-14	0-0.5	No SW
		0.5-0.75	No SW
		0.75-1.25	No SW
		1.25-1.5	SW
		1.5-2	SW
SB-43	24-Feb-14	0-0.5	No SW
		0.5-1.25	No SW
		1.25-1.75	SW
		1.75-2	No SW
		2-2.5	No SW
SB-44	24-Feb-14	0-0.25	No SW
		0.25-1	No SW
		1-2	SW
		1.5-1.75	SW
SB-45	24-Feb-14	0-0.25	No SW
		0.25-0.75	No SW
		0.75-1	No SW
		1-2.5	SW

AREA 5/5A - WESTERN BLEACHERS

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-46	25-Feb-14	0-0.5	SW
		0.5-1.25	S
		1.25-2	No S
SB-47	25-Feb-14	0-1	SW
		1-1.25	No SW
		1.25-2	SW
		2-2.5	No SW
SB-48	25-Feb-14	0-0.5	N
		0.5-1	No SW
		1-2.5	SW
SB-49	25-Feb-14	[illegible]	SW
		1-1.1	No SW
		1.1-1.5	SW
		1.5-1.6	No SW
		1.6-2	SW

AREA 6 - FOOTBALL FIELD

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-50	24-Feb-14	0-0.75	No SW
		0.75-1.75	No SW
		1.75-2	SW
SB-51	24-Feb-14	0-1	No SW
		1-1.25	SW
		1.25-2	No SW
SB-52	24-Feb-14	0-0.25	No SW
		0.25-1.25	No SW
		1.25-2	No SW
SB-53	24-Feb-14	0-1.5	SW
		1.5-2	No SW
SB-54	24-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-1.25	SW
		1.25-1.75	No SW
		1.75-2	No SW
		2-2.5	SW
SB-55	24-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	SW
		2-2.75	No SW
		2.75-3	SW
SB-56	24-Feb-14	0-0.5	No SW
		0.5-1.75	No SW
		1.75-2	No SW
		2-2.5	SW
SB-57	24-Feb-14	0-0.25	No SW
		0.25-0.5	No SW
		0.5-1.5	No SW
		1.5-2	No SW
		2-2.5	No SW
		2.5-2.75	No SW
		2.75-3	No SW

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

TABLE 1
VISIBLE SOLID WASTE
GERRY CURTIS PARK

AREA 7 - POOL

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-58	24-Feb-14	0-0.75	No SW
		0.75-1.25	No SW
		1.25-2	SW
SB-59	24-Feb-14	0-1	No SW
		1-1.5	No SW
		1.5-2	No SW
SB-60	24-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-1.25	SW
		1.25-1.5	No SW
		1.5-2	No SW
SB-61	24-Feb-14	0-0.5	No SW
		0.5-1.25	No SW
		1.25-2	No SW
SB-62	24-Feb-14	0-0.75	No SW
		0.75-2	No SW
SB-63	24-Feb-14	0-0.5	No SW
		0.5-2	No SW
SB-64	24-Feb-14	0-0.75	No SW
		0.75-1.75	No SW
		1.75-2	No SW

AREA 8 - EASTERN PARKING LOT

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-65	25-Feb-14	0-0.75	No SW
		0.75-1	SW
		1-1.75	No SW
		1.75-2	No SW
		2-2.5	No SW
		2.5-3	No SW
SB-66	25-Feb-14	0-2	No SW
SB-67	25-Feb-14	0-0.25	No SW
		0.25-1.75	No SW
		1.75-2	SW
SB-68	25-Feb-14	0-1.25	No SW
		1.25-2	No SW
		2-2.25	SW

RIGHT-OF-WAYS

Sample			
Sample Location	Date Collected	Sample Interval (fbls)	Solid Waste Observed
SB-69	26-Feb-14	0-0.5	No SW
		0.5-2	No SW
SB-70	26-Feb-14	0-1	No SW
		1-2	SW
		2-2.5	No SW
SB-71	26-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-2	No SW
SB-72	26-Feb-14	0-0.5	No SW
		0.5-1	No SW
		1-2	No SW
SB-73	26-Feb-14	0-0.5	SW
		0.5-1	SW
		1-2	SW
SB-74	26-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	No SW
SB-75	26-Feb-14	0-0.5	No SW
		0.5-1.5	No SW
		1.5-2	No SW
SB-76	26-Feb-14	0-0.5	No SW
		0.5-1.25	No SW
		1.25-2	No SW
SB-77	26-Feb-14	0-0.5	No SW
		0.5-2	No SW
SB-78	26-Feb-14	0-2	SW
SB-79	26-Feb-14	0-0.5	SW
		0.5-1.5	SW
SB-80	26-Feb-14	0-0.5	No SW
		0.5-2	SW
SB-81	26-Feb-14	0-0.5	No SW
		0.5-2	SW

Notes:

SW = Solid waste observed during the advancement of soil borings

No SW = No solid waste observed during the advancement of soil borings

C&D = Inert fill material (concrete, brick, etc) observed during the advancement of soil borings

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
Baseball Field Perimeter December 2013 Samples																		
Curtis (4)(0-0.5)	23-Dec-13	0-0.5	**SW**	6200	*17*	**28**	**870**	5.8	*55*	**4100**	**82000**	**2400**/TCLP 0.24 I	0.22	NA	NA	NA	NA	
Source Removal Area																		
SB-4(1)	3-Feb-14	0-0.5	**Glass**	NA	3.1	**16**	57	NA	13	59	7100	130	NA	NA	NA	NA	NS	
SB-4(2)	3-Feb-14	0-0.5	**Glass**	NA	5.2	**8.7**	89	NA	14	92	11000	[illegible]	NA	NA	NA	NA	NS	
SB-4(3)	3-Feb-14	0-0.5	**Metal & Glass**	NA	2.0 I	**8.4**	56	NA	9.9	52	6700	260	NA	NA	NA	NA	NS	
SB-4(3)	3-Feb-14	0-0.5	**No SW**	NA	*5.3*	**7.0**	75	NA	25	78	8200	180	NA	NA	NA	NA	NS	Dilution X5
Area 1 - Baseball Field Perimeter																		
SB-18 (0-0.5)	25-Feb-14	0-0.5	**No SW**	2500	0.74 U	1.8	27	0.23 I	8.5	23	2300	24	0.032 I	0.79 I	0.28 U	NA	NA	
SB-18 (0.5-1.5)	25-Feb-14	0.5-1.5	**No SW**	900	0.55 U	0.71	7.1	0.12 I	5.8	3.2	750	[illegible]	0.012 U	0.40 U	0.41 U	NA	NA	Dilution X2 Silver
SB-18 (1.5-2)	25-Feb-14	1.5-2	**SW**	1600	4.4	**5.2**	80	0.55 I	9.5	48	6400	120	0.028 I	0.46 U	0.46 I	NA	NA	
SB-19 (0-0.75)	25-Feb-14	0-0.75	**No SW**	NA	3.0	**10**	61	NA	NA	[illegible]	11000	240	NA	NA	NA	NA	NA	
SB-19 (0.75-2)	25-Feb-14	0.75-2	**SW**	NA	*18*	**27**	**700**	NA	NA	**540**	[illegible]00	**1700**	NA	NA	NA	NA	NA	Dilution X5
SB-20 (0-0.5)	25-Feb-14	0-0.5	**SW**	2700	*10 I*	**20**	**430**	3.3	*52*	**410**	**680**	**1500**	0.12	2.4 U	6.0 I	NA	**11.69**	Dilution X5
SB-20 (0.5-2)	25-Feb-14	0.5-2	**SW**	10000	*21*	**46**	**2700**	6.6	*69*	**930**	**110000**	**3200**	0.059	2.6 I	9.7	0.020U	**48.12**	
SB-21 (0-0.5)	25-Feb-14	0-0.5	**Metal**	NA	*5.5*	**11**	120	NA	[illegible]	[illegible]	12000	340	NA	NA	NA	NA	NA	
SB-21 (0.5-2)	25-Feb-14	0.5-2	**Metal & Glass**	NA	*20*	**20**	**1200**	NA	[illegible]	[illegible]20	47000	4500	NA	NA	NA	NA	NA	Dilution x3
SB-22 (0-0.5)	25-Feb-14	0-0.5	**No SW**	1700	1.4 I	**12**	25	0.52 I	[illegible]	[illegible]	4400	82	0.018 I	0.39 U	0.20 U	NA	NA	
SB-22 (0.5-1.5)	25-Feb-14	0.5-1.5	**No SW**	1500	3.8	**15**	**630**	0.86	15	140	15000	320	0.075	0.42 U	0.50 I	NA	NA	
SB-22 (1.5-2)	25-Feb-14	1.5-2	**SW**	1500	4.1	**19**	100	1.3	15	130	21000	350	0.070	0.43 U	0.96 I	NA	NA	
SB-23 (0-0.5)	25-Feb-14	0-0.5	**No SW**	NA	1.7 I	**6.4**	51	NA	NA	[illegible]3	6400	130	NA	NA	NA	NA	NA	
SB-23 (0.5-2)	25-Feb-14	0.5-2	**SW**	NA	*15*	**32**	**530**	NA	[illegible]	**400**	**87000**	**1700**	NA	NA	NA	NA	NA	
SB-24 (0-0.5)	25-Feb-14	0-0.5	**Metal & Glass**	4200	3.6	**12**	79	0.87	20	120	13000	260	0.10	0.47 U	1.0 I	NA	NA	
SB-24 (0.5-2)	25-Feb-14	0.5-2	**SW**	6100	*20*	**36**	**860**	5.8	[illegible]6	**1200**	**130000**	**2700**	0.063	3.5 U	4.7 I	NA	NA	Dilution x8
SB-25 (0-0.5)	25-Feb-14	0-0.5	**No SW**	NA	0.58 U	**5.1**	5.8	[illegible]	[illegible]	6.1	9300	12	NA	NA	NA	NA	NA	
SB-25 (0.5-2)	25-Feb-14	0.5-2	**SW**	NA	1.6 I	**8.3**	34	NA	NA	27	3500	61	NA	NA	NA	NA	NA	
SB-26 (0-0.5)	25-Feb-14	0-0.5	**No SW**	NA	1.4 I	**5.1**	50	[illegible]	NA	46	5600	130	NA	NA	NA	NA	1.64	
SB-26 (0.5-1)	25-Feb-14	0.5-1	**No SW**	NA	5.4	12	[illegible]	NA	NA	88	19000	**570**	NA	NA	NA	NA	NA	
SB-26 (1-2)	25-Feb-14	1-2	**SW**	NA	**53**	**57**	**1400**	NA	NA	**2500**	**180000**	**4800**	NA	NA	NA	NA	**20.91**	
ROW - Samples #1 (NW 23rd Ave, South)																		
SB-69 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	0.63 U	**3.8**	[illegible]	NA	NA	33	2900	78	NA	NA	NA	NA	NA	
SB-69 (0.5-1)	26-Feb-14	0.5-1	**No SW**	NA	0.59 U	**0.82**	**8.5**	NA	NA	**0.78 I**	**950**	**2.3**	NA	NA	NA	NA	NA	
SB-69 (1-2)	26-Feb-14	1-2	**No SW**	NA	0.61 I	**4.3**	23	NA	NA	10	3800	43	NA	NA	NA	NA	NA	
SB-70 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	2.9	**24**	[illegible]	NA	NA	93	23000	370	NA	NA	NA	NA	**21.33**	
SB-70 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	*9.5 I*	**32**	**140**	NA	NA	**320**	54000	**1000**	NA	NA	NA	NA	**31.16**	Dilution x5
SB-70 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	**69**	**77**	**1500**	NA	NA	**850**	**260000**	**4700**	NA	NA	NA	0.026U	5.41	Dilution x20
SB-71 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	0.82 I	**3.2**	27	NA	NA	31	2700	60	NA	NA	NA	NA	NA	
SB-71 (0.5-1)	26-Feb-14	0.5-1	**No SW**	NA	0.66 I	**4.7**	100	NA	NA	20	5400	240	NA	NA	NA	NA	NA	
SB-71 (1-2)	26-Feb-14	1-2	**No SW**	NA	2.2 I	**5.8**	48	NA	NA	45	11000	120	NA	NA	NA	NA	NA	
Baseball Field - December 2013 Samples																		
Curtis (3)(0-0.5)	23-Dec-13	0-0.5	**SW**	3100	**50**	**12**	**170**	1.5	27	**190**	22000	**1600**	0.17	NA	NA	NA	NA	

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
Baseball Field - January 31, 2014 Samples																		
SB-8 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.60 I	1.1	13	NA	NA	15	NA	35	NA	NA	NA	NA	NA	
SB-8 (0.5-2)	31-Jan-14	0.5-2	**Metal, Glass & Tile**	NA	**580**	**26**	**1000**	NA	NA	**1600**	NA	**2600**	NA	NA	NA	NA	NA	
SB-9 (0-0.5)	31-Jan-14	0-0.5	**No SW**	3200	*9.0*	**8.9**	**200**	2.4	44	**160**	34000	**550**	0.14	NA	NA	NA	NA	Dilution x10
SB-9 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	*9.6*	**8.6**	**200**	NA	NA	120	N	**[illegible]**	NA	NA	NA	NA	NA	
SB-10 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.55 U	**4.9**	8.4	NA	NA	1.7 I	NA	3.7	NA	NA	NA	NA	NA	
SB-10 (0.5-2)	31-Jan-14	0.5-2	**No SW**	NA	*6.7*	**16**	**210**	NA	NA	**260**	NA	**490**	NA	NA	NA	NA	NA	
SB-11 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.60 U	**5.1**	18	NA	NA	16	NA	42	NA	NA	NA	NA	NA	
SB-11 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	*9.5*	**14**	**370**	NA	NA	**1400**	NA	**[illegible]**	NA	NA	NA	NA	NA	
SB-12 (0-0.5)	31-Jan-14	0-0.5	**No SW**	3800	*9.0*	**14**	**270**	2.2	37	**1100**	21000	**[illegible]**	0.12	NA	NA	NA	NA	
SB-12 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	**35**	**20**	**730**	NA	NA	**490**	NA	**1800**	NA	NA	NA	NA	NA	
SB-13 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	1.1 U	**5.9**	5.4	NA	NA	[illegible]	NA	3.1	NA	NA	NA	NA	NA	
SB-13 (0.5-2)	31-Jan-14	0.5-2	**SW**	NA	*15*	**30**	**660**	NA	NA	**2000**	[illegible]	**1400**	NA	NA	NA	NA	NA	
SB-14 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.60 U	**3.7**	8.2	NA	NA	11	[illegible]	20	NA	NA	NA	NA	NA	
SB-14 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	*18*	**13**	**150**	NA	NA	140	NA	260	NA	NA	NA	NA	NA	
SB-15 (0-0.5)	31-Jan-14	0-0.5	**No SW**	2200	0.78 I	**20**	21	0.51 I	12	[illegible]	4300	70	0.042	NA	NA	NA	NA	
SB-15 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	*21*	**43**	**1200**	NA	[illegible]	[illegible]	NA	**2900**	NA	NA	NA	NA	NA	
SB-16 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.59 U	**4.7**	8.9	NA	[illegible]	[illegible]	NA	11	NA	NA	NA	NA	NA	
SB-16 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	NA	4.1	**14**	**160**	NA	[illegible]	[illegible]	NA	**500**	NA	NA	NA	NA	NA	
SB-17 (0-0.5)	31-Jan-14	0-0.5	**No SW**	NA	0.59 U	**5.7**	8.5	NA	NA	9.8	NA	19	NA	NA	NA	NA	NA	
SB-17 (0.5-2)	31-Jan-14	0.5-2	**No SW**	NA	*6.2*	**28**	**240**	NA	NA	**290**	NA	**480**	NA	NA	NA	NA	NA	
Area 2 - Baseball Field																		
SB-27 (0-1)	25-Feb-14	0-1	**No SW**	NA	2.2 I	**8.3**	45	NA	NA	61	6700	150	NA	NA	NA	NA	NA	
SB-27 (1-1.5)	25-Feb-14	1-1.5	**No SW**	NA	*9.2*	**13**	28	NA	NA	52	6500	150	NA	NA	NA	NA	NA	
SB-27 (1.5-2)	25-Feb-14	1.5-2	**SW**	NA	**39**	**41**	**1500**	NA	NA	**3800**	**160000**	**3400**	NA	NA	NA	0.023U	NA	
SB-28 (0-0.5)	25-Feb-14	0-0.5	**No SW**	NA	0.76 I	**2.1**	44	NA	NA	22	2900	34	NA	NA	NA	NA	2.23	
SB-28 (0.5-2)	25-Feb-14	0.5-2	**SW**	NA	**16**	**17**	**590**	[illegible]	[illegible]	**870**	24000	**490**	NA	NA	NA	NA	5.50	
SB-29 (0-1)	25-Feb-14	0-1	**No SW**	NA	1.9 I	**7.8**	50	NA	NA	52	7500	140	NA	NA	NA	NA	NA	
SB-29 (1-2)	25-Feb-14	1-2	**No SW**	NA	2.0 I	**11**	36	NA	NA	50	10000	170	NA	NA	NA	NA	NA	
SB-30 (0-1)	25-Feb-14	0-1	**No SW**	NA	0.58 U	**13**	6.6	[illegible]	NA	5.0	10000	12	NA	NA	NA	NA	4.70	
SB-30 (1-2)	25-Feb-14	1-2	**SW**	NA	*8.0*	**120**	[illegible]	[illegible]	NA	**240**	15000	300	NA	NA	NA	NA	**8.08**	
SB-31 (0-1)	25-Feb-14	0-1	**No SW**	NA	0.86 I	**21**	26	[illegible]	NA	40	7300	70	NA	NA	NA	NA	NA	
SB-31 (1-2)	25-Feb-14	1-2	**Metal & Glass**	NA	3.2	**16**	84	[illegible]	NA	140	16000	340	NA	NA	NA	NA	NA	
Playground December 2013 Samples																		
Curtis (1)(0-0.5)	23-Dec-13	0-0.5	**SW**	960	1.1 I	**2.8**	39	0.29 I	13	39	5600	72	0.022 I	NA	NA	NA	NA	
Curtis (2)(0-0.5)	23-Dec-13	0-0.5	**SW**	1000	2.9	**5.4**	94	0.56	7.6	62	11000	290	0.012 I	NA	NA	NA	NA	

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
Area 3 - Playground																		
SB-32 (0-0.5)	26-Feb-14	0-0.5	**No SW**	1100	3.0	**5.6**	87	0.48 I	14	55	8600	210	0.29 I	0.43 U	0.38 I	NA	NA	
SB-32 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	960	*64*	**21**	98	0.60	18	**220**	10000	310	0.29 I	0.40 U	0.50 I	NA	NA	
SB-32 (1-2)	26-Feb-14	1-2	**Metal & Glass**	5600	*20*	**39**	**2600**	5.9	*72*	**890**	**98000**	**3500**	0.060	2.1 U	6.0	0.020U	NA	Dilution x5
SB-33 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	0.49 U	1.5	12	NA	NA	9.0	1600	30	NA	NA	NA	NA	1.12	
SB-33 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	*6.3*	**9.7**	**380**	NA	NA	**180**	160	[illegible]	NA	NA	NA	NA	NA	
SB-33 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	*14*	**20**	**730**	NA	NA	**1000**	500	[illegible]000	NA	NA	NA	NA	**20.08**	Dilution x5
SB-34 (0-0.5)	26-Feb-14	0-0.5	**Metal & Glass**	860	1.8 I	**8.1**	48	0.48 I	7.5	48	8300	170	0.059	0.39 U	0.35 I	NA	NA	
SB-34 (0.5-1)	26-Feb-14	0.5-1	**No SW**	2200	5.2	**15**	**180**	1.0	16	140	15000	**620**	0.050	0.41 U	0.93 I	NA	NA	
SB-34 (1-2)	26-Feb-14	1-2	**Metal & Glass**	2100	*13*	**12**	**430**	1.5	18	**210**	24000	**1200**	0.017 I	0.77 U	1.8 I	NA	NA	Dilution x2
SB-35 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	1.3 I	**3.2**	110	NA	NA	35	5200	[illegible]	NA	NA	NA	NA	NA	
SB-35 (0.5-1.5)	26-Feb-14	0.5-1	**No SW**	NA	0.81 I	**2.5**	34	NA	NA	21	1700	[illegible]0	NA	NA	NA	NA	NA	
SB-35 (1.5-2)	26-Feb-14	1-2	**Metal & Glass**	NA	*23*	**50**	**1400**	NA	NA	**760**	**61000**	**5900**	NA	NA	NA	NA	NA	Dilution x5
Area 3A - Playground																		
SB-36 (0-0.5)	26-Feb-14	0-0.5	**No SW**	1600	1.3 I	**2.4**	46	0.31 I	7.5	33	[illegible]00	92	0.012 U	0.38 U	0.20 U	NA	0.90	
SB-36 (0.5-1)	26-Feb-14	0.5-1	**No SW**	2300	*9.9 I*	**26**	**330**	2.3 I	32	**250**	4[illegible]	**1100**	0.20	2.4 U	1.9 I	NA	NA	Dilution x5
SB-36 (1-2)	26-Feb-14	1-2	**SW**	6100	*20*	**32**	**2900**	5.2	*79*	**1200**	**90000**	**2900**	0.20	2.5 U	5.1 I	0.023U	**17.76**	Dilution x5
SB-37 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	2.2 I	**8.0**	79	NA	NA	5[illegible]	5900	160	NA	NA	NA	NA	NA	
SB-37 (0.5-1.5)	26-Feb-14	0.5-1	**No SW**	NA	1.4 I	**16**	94	NA	[illegible]	[illegible]	9600	82	NA	NA	NA	NA	NA	
SB-37 (1.5-2)	26-Feb-14	1-2	**Metal & Glass**	NA	*5.3 I*	**14**	**140**	NA	[illegible]	[illegible]70	30000	**560**	NA	NA	NA	NA	NA	Dilution x5
SB-38 (0-0.5)	26-Feb-14	0-0.5	**No SW**	2300	5.2	**10**	**540**	1.6	[illegible]	[illegible]	16000	**450**	0.15	0.69 I	1.1 I	NA	**10.67**	
SB-38 (0.5-1)	26-Feb-14	0.5-1	**SW**	3400	*9.5 I*	**44**	**740**	2.2 I	4[illegible]	43[illegible]	**56000**	**1400**	0.11	2.2 U	2.7 I	NA	**16.21**	Dilution x5
SB-38 (1-2)	26-Feb-14	1-2	**SW**	4600	*18 I*	**43**	**1000**	*10*	*75*	**2300**	**140000**	**2700**	0.035	4.3 U	5.6 I	NA	NA	Dilution x10
SB-39 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	1.1 I	1.7	21	NA	NA	[illegible]5	990	24	NA	NA	NA	NA	NA	
SB-39 (0.5-2)	26-Feb-14	0.5-1	**No SW**	NA	2.7	**6.4**	**160**	NA	NA	72	12000	210	NA	NA	NA	NA	NA	
Courts December 2013 Samples																		
Curtis (6)(0-0.5)	23-Dec-13	0-0.5	**SW**	1900	*8.4*	**16**	**290**	1.5	23	**210**	38000	**640**	0.059	NA	NA	NA	NA	
Curtis (7)(0-0.5)	23-Dec-13	0-0.5	**SW**	2300	*7.5*	**18**	110	1.5	[illegible]23	150	30000	**570**	0.15	NA	NA	NA	NA	

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
Area 4 - Courts																		
SB-40 (0-0.5)	24-Feb-14	0-0.5	**Metal & Glass**	NA	*15*	**35**	**860**	NA	NA	**580**	**82000**	**2700**	NA	NA	NA	NA	NA	Dilution x5
SB-40 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	*7.3*	**17**	**310**	NA	NA	**170**	16000	**580**	NA	NA	NA	NA	NA	
SB-40 (1-2)	24-Feb-14	1-2	**Metal & Glass**	NA	*11*	**20**	**650**	NA	NA	**260**	38000	**1800**	NA	NA	NA	NA	NA	Dilution x5
SB-41 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	2.1 I	**6.5**	46	NA	NA	88	8600	140	NA	NA	NA	NA	NA	
SB-41 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	0.54 U	0.83	8.5	NA	NA	2.7	77	[illegible]	NA	NA	NA	NA	NA	
SB-41 (1-2)	24-Feb-14	1-2	**Metal**	NA	0.56 U	0.26 U	2.4	NA	NA	0.56 U	85	1.2	NA	NA	NA	NA	NA	
SB-42 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	0.69 I	**4.0**	20	NA	NA	24	2000	47	NA	NA	NA	NA	5.71	
SB-42 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	0.62 U	**2.8**	18	NA	NA	18	1500	32	NA	NA	NA	NA	NA	
SB-42 (1-1.5)	24-Feb-14	1-1.5	**No SW**	NA	*13*	**11**	**350**	NA	NA	**310**	30000	**930**	NA	NA	NA	NA	NA	
SB-42 (1.5-2)	24-Feb-14	1.5-2	**SW**	NA	*6.6 I*	**17**	**320**	NA	NA	**3300**	31000	[illegible]	NA	NA	NA	NA	**18.90**	
SB-43 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	1.0 I	**5.5**	42	NA	NA	39	3300	[illegible]	NA	NA	NA	NA	NA	
SB-43 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	1.1 I	**2.6**	33	NA	NA	22	2900	82	NA	NA	NA	NA	NA	
SB-43 (1-2)	24-Feb-14	1-2	**Metal & Glass**	NA	*15*	**37**	**580**	NA	NA	[illegible]	**41000**	**1700**	NA	NA	NA	NA	NA	Dilution x5
SB-44 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	1.5 I	**5.3**	36	NA	NA	55	[illegible]	100	NA	NA	NA	NA	1.88	
SB-44 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	1.6 I	**3.6**	48	NA	NA	45	[illegible]	130	NA	NA	NA	NA	NA	
SB-44 (1-2)	24-Feb-14	1-2	**Metal & Glass**	NA	**35**	**68**	**1400**	NA	NA	**1400**	**14000**	**3100**	NA	NA	NA	NA	**22.06**	Dilution x10
SB-45 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	*12*	**10**	90	NA	NA	[illegible]	8500	1100	NA	NA	NA	NA	NA	
SB-45 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	3.2	**9.2**	86	NA	NA	[illegible]	9000	380	NA	NA	NA	NA	NA	
SB-45 (1-2)	24-Feb-14	1-2	**SW**	NA	*23*	**54**	**1800**	NA	[illegible]	[illegible]	**99000**	**5900**	NA	NA	NA	0.021U	NA	Dilution x5
ROW - Samples #3 (NW 20th Street)																		
SB-80 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	**29**	**35**	**480**	NA	NA	**440**	**69000**	**3000**	NA	NA	NA	0.021U	4.71	Dilution x5
SB-80 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	**170**	**33**	**500**	NA	NA	**760**	**71000**	**1300**	NA	NA	NA	NA	1.97	Dilution x5
SB-80 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	5.2	**11**	**200**	NA	NA	120	17000	340	NA	NA	NA	NA	NA	
SB-81 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	3.3	**5.7**	110	NA	NA	110	11000	**420**	NA	NA	NA	NA	NA	
SB-81 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	**53**	**13**	**340**	NA	NA	**270**	25000	**2200**	NA	NA	NA	NA	NA	
SB-81 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	**11**	**21**	**500**	NA	NA	**310**	29000	**860**	NA	NA	NA	NA	NA	
Western Bleachers December 2013 Samples																		
Curtis (5)(0-0.5)	23-Dec-13	0-0.5	**SW**	1800	3.4	**9.5**	**130**	[illegible]	[illegible]	110	10000	280	0.043	NA	NA	NA	NA	
Area 5 - Western Bleachers																		
SB-46 (0-0.5)	25-Feb-14	0-0.5	**Metal & Glass**	NA	**33**	**27**	**620**	NA	NA	**510**	45000	**1200**	NA	NA	NA	NA	NA	Dilution x5
SB-46(0.5-2)	25-Feb-14	0.5-2	**Metal & Glass**	NA	*21*	**31**	**820**	[illegible]	NA	**980**	**100000**	**2300**	NA	NA	NA	NA	NA	Dilution x5
SB-49 (0-0.5)	25-Feb-14	0-0.5	**Metal & Glass**	2800	*5.9*	**12**	[illegible]	[illegible].3	24	140	17000	**430**	0.037	0.44 U	0.89 I	NA	NA	
SB-49 (0.5-2)	25-Feb-14	0.5-2	**Metal & Glass**	NA	*14*	**19**	**710**	[illegible]	NA	**270**	**61000**	**1500**	NA	NA	NA	NA	NA	Dilution x5

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
Area 5A - Western Bleachers																		
SB-47 (0-1)	26-Feb-14	0-1	**Metal & Glass**	1700	0.87 I	**7.1**	41	0.64	15	32	3800	92	0.17	0.62 I	0.55 I	NA	NA	
SB-47 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	*17*	**34**	**650**	NA	NA	**420**	**110000**	**2300**	NA	NA	NA	0.018U	NA	Dilution x5
SB-48 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	0.64 U	**3.4**	**21**	NA	NA	19	3300	24	NA	NA	NA	NA	NA	
SB-48 (0.5-1.5)	26-Feb-14	0.5-1.5	**No SW**	NA	0.52 U	1.7	9.4	NA	NA	7.8	1100	1	NA	NA	NA	NA	NA	
SB-48 (1.5-2)	26-Feb-14	1.5-2	**Metal & Glass**	NA	*6.2*	**40**	**140**	NA	NA	140	28		NA	NA	NA	NA	NA	Dilution x2
Area 6 - Football Field																		
SB-50 (0-0.5)	24-Feb-14	0-0.5	**No SW**	2500	1.2 I	**10**	38	0.42 I	15	35	5700	170	0.059	0.44 U	0.48 I	NA	NA	
SB-50 (0.5-1.5)	24-Feb-14	0.5-1.5	**No SW**	NA	0.55 U	1.4	7.0	NA	NA	3.5	2100	7.9	NA	NA	NA	NA	NA	
SB-50 (1.5-2)	24-Feb-14	1.5-2	**Metal & Glass**	NA	*13*	**27**	**470**	NA	NA	**280**	**110000**	**1100**	NA	NA	NA	0.020U	NA	
SB-51 (0-1)	24-Feb-14	0-1	**No SW**	NA	2.9	**33**	110	NA	NA	81	7800		NA	NA	NA	NA	NA	
SB-51 (1-2)	24-Feb-14	1-2	**Metal & Glass**	NA	*9.2*	**20**	**530**	NA	NA	**400**	41000		NA	NA	NA	NA	NA	
SB-52 (0-2)	24-Feb-14	0-2	**No SW**	2000	1.4 I	**15**	46	0.25 I	7.8	39	9600	95	0.030 I	0.44 U	0.23 U	NA	NA	
SB-53 (0-0.5)	24-Feb-14	0-0.5	**Glass**	NA	*5.9 I*	**17**	84	NA	NA		40000	370	NA	NA	NA	NA	NA	
SB-53 (0.5-2)	24-Feb-14	0.5-2	**Glass**	NA	1.8 I	**11**	66	NA	NA	42	20	110	NA	NA	NA	NA	NA	
SB-54 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	2.0 I	**8.6**	63	NA	NA	69		120	NA	NA	NA	NA	NA	
SB-54 (0.5-1)	24-Feb-14	0.5-1	**No SW**	NA	*6.2*	**14**	**140**	NA	NA	**220**	33000	320	NA	NA	NA	NA	NA	
SB-54 (1-2)	24-Feb-14	1-2	**Metal & Glass**	NA	4.4	**8.1**	**130**	NA	NA		12000	290	NA	NA	NA	NA	NA	
SB-55 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	0.69 U	**4.5**	27	NA			3100	40	NA	NA	NA	NA	NA	
SB-55 (0.5-1.5)	24-Feb-14	0.5-1.5	**No SW**	NA	1.6 I	**4.2**	34	NA		58	6900	55	NA	NA	NA	NA	NA	
SB-55 (1.5-2)	24-Feb-14	1.5-2	**Metal & Glass**	NA	1.8 I	**3.3**	47	NA			6400	100	NA	NA	NA	NA	NA	
SB-56 (0-2)	24-Feb-14	0-2	**Metal & Glass**	1300	3.2	**28**	78	0.38 I	9.1	71	7800	170	0.040	0.42 U	0.43 I	NA	NA	
SB-57 (0-2)	24-Feb-14	0-2	**No SW**	1200	0.57 U	**11**	23	0.72	12	21	2700	38	0.28	0.42 U	1.6	NA	NA	
ROW - Samples #2 (NW 23rd Ave, North)																		
SB-72 (0-0.5)	26-Feb-14	0-0.5	**Glass**	NA	*10*	**23**	**420**	NA	NA	**350**	29000	**840**	NA	NA	NA	NA	**13.12**	
SB-72 (0.5-1)	26-Feb-14	0.5-1	**Glass**	NA	**130**	**21**	**420**	NA	NA	**380**	25000	**2700**	NA	NA	NA	0.019U	**12.95**	
SB-72 (1-2)	26-Feb-14	1-2	**Glass**	NA	*7.5*	**9.9**	**220**	NA	NA	150	11000	**2700**	NA	NA	NA	NA	NA	
SB-73 (0-0.5)	26-Feb-14	0-0.5	**Metal & Glass**	NA	*6.6*	**12**	**160**	NA	NA	**540**	19000	280	NA	NA	NA	NA	NA	
SB-73 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	*7.9 I*	**12**	**340**			**160**	36000	360	NA	NA	NA	NA	NA	Dilution X5
SB-73 (1-2)	26-Feb-14	1-2	**Metal**	NA	*5.9*	**13**	120	NA	NA	130	21000	260	NA	NA	NA	NA	NA	
SB-74 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	2.4	**20**	50	NA	NA	130	15000	250	NA	NA	NA	NA	NA	
SB-74 (0.5-1)	26-Feb-14	0-0.5	**No SW**	NA	2.1 I	**22**	33		NA	51	6300	90	NA	NA	NA	NA	NA	
SB-74 (1-2)	26-Feb-14	1-2	**Glass**	NA	1.7 I	**24**		NA	NA	43	4900	78	NA	NA	NA	NA	NA	
SB-75 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	1.5 I	**12**	40	NA	NA	73	6000	110	NA	NA	NA	NA	NA	
SB-75 (0.5-1)	26-Feb-14	0.5-1	**Glass**	NA	0.73 I	**7.4**	24		NA	38	4800	57	NA	NA	NA	NA	NA	
SB-75 (1-2)	26-Feb-14	1-2	**Glass**	NA	1.4 I	**14**		NA	NA	49	8400	92	NA	NA	NA	NA	NA	
SB-76 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	2.9	**5.9**	51	NA	NA	55	4300	100	NA	NA	NA	NA	NA	
SB-76 (0.5-1)	26-Feb-14	0.5-1	**No SW**	NA	*13*	**6.9**	47	NA	NA	88	12000	**560**	NA	NA	NA	NA	NA	
SB-76 (1-2)	26-Feb-14	1-2	**Glass**	NA	4.1	**5.5**	120	NA	NA	**240**	11000	200	NA	NA	NA	NA	NA	

TABLE 2 - SOIL ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample				Parameters														
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Aluminum	Antimony	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Selenium	Silver	Total PCBs	Dioxins Total 2,3,7,8-TCDD Equivalents[#]	Comment
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(ng/Kg)	
Direct Exposure Residential				80000	27	2.1	120**	82	310	150**	53000	400	3	440	410	0.5	7	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	8200	2.6	30	
Leachability Based on Groundwater Criteria				***	5.4	***	1600	7.5	38	***	***	***	2.1	5.2	17	17	3000	
Miami-Dade County Background Concentration				2656	NA	1.2	7	0.1	6.8	4.1	2176	26	0.08	<0.45 [a]	<0.025 [a]	NA	NA	
ROW - Samples #3 (NW 20th Street)																		
SB-77 (0-0.5)	26-Feb-14	0-0.5	**No SW**	NA	*5.6*	**26**	80	NA	NA	75	8200	190	NA	NA	NA	NA	NA	
SB-77 (0.5-1)	26-Feb-14	0.5-1	**No SW**	NA	1.3 I	**12**	20	NA	NA	25	4600	56	NA	NA	NA	NA	NA	
SB-77 (1-2)	26-Feb-14	1-2	**No SW**	NA	4.4	**10**	94	NA	NA	71	6800	170	NA	NA	NA	NA	NA	
SB-78 (0-0.5)	26-Feb-14	0-0.5	**Metal & Glass**	NA	3.4	**6.8**	69	NA	NA	78	8300	170	NA	NA	NA	NA	NA	
SB-78 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	*6.2*	**12**	**130**	NA	NA	80	11[illegible]	[illegible]	NA	NA	NA	NA	NA	
SB-78 (1-2)	26-Feb-14	1-2	**Metal & Glass**	NA	4.7	**12**	82	NA	NA	100	63[illegible]	180	NA	NA	NA	NA	NA	
SB-79 (0-0.5)	26-Feb-14	0-0.5	**Metal & Glass**	NA	*9.2*	**29**	**350**	NA	NA	**260**	37000	**780**	NA	NA	NA	NA	NA	Dilution x3
SB-79 (0.5-1)	26-Feb-14	0.5-1	**Metal & Glass**	NA	*13*	**24**	**390**	NA	NA	**370**	39000	**1200**	NA	NA	NA	0.020U	NA	Dilution x3
SB-79 (1-1.5)	26-Feb-14	1-1.5	**Metal & Glass**	NA	*7.1*	**13**	**250**	NA	NA	**300**	20000	**530**	NA	NA	NA	NA	NA	
Area 7 - Pool																		
SB-58 (0-0.5)	24-Feb-14	0-0.5	**No SW**	3500	*10*	**130**	**300**	3.2	32	**770**	31000	**[illegible]**	0.24	0.86 U	3.2	NA	NA	Dilution x2
SB-58 (0.5-2)	24-Feb-14	0.5-2	**Metal & Glass**	NA	**46**	**420**	**810**	NA	NA	**750**	**100000**	**2200**	NA	NA	NA	NA	NA	Dilution x5
SB-59 (0-0.5)	24-Feb-14	0-0.5	**No SW**	NA	4.7	**8.3**	**25**	NA	NA	[illegible]	6000	350	NA	NA	NA	NA	NA	
SB-59 (0.5-2)	24-Feb-14	0.5-2	**No SW**	NA	0.62 U	**5.6**	16	NA	NA	[illegible]	[illegible]	70	NA	NA	NA	NA	NA	
SB-60 (0-0.5)	24-Feb-14	0-0.5	**No SW**	1400	*5.8*	**6.2**	110	1.0	14	120	[illegible]	**430**	0.18	0.44 U	0.65 I	NA	NA	
SB-60 (0.5-2)	24-Feb-14	0.5-2	**Metal & Glass**	NA	**110**	**50**	**180**	NA	NA	150	19000	**2300**	NA	NA	NA	0.019U	NA	
SB-61 (0-2)	24-Feb-14	0-2	**No SW**	NA	0.54 U	1.5	13	NA	NA	[illegible]	1600	32	NA	NA	NA	NA	NA	
SB-62 (0-2)	24-Feb-14	0-2	**No SW**	1400	0.51 U	1.2	7.9	0.16 I	[illegible]	[illegible]	1200	31	0.063	0.38 U	0.19 U	NA	NA	
SB-63 (0-2)	24-Feb-14	0-2	**No SW**	NA	0.56 U	1.3	6.3	NA	[illegible]	[illegible]0	1600	15	NA	NA	NA	NA	NA	
SB-64 (0-2)	24-Feb-14	0-2	**No SW**	NA	1.2 I	**3.3**	26	NA	[illegible]	[illegible]	2700	60	NA	NA	NA	NA	NA	
Area 8 - Eastern Parking Lot																		
SB-65 (0-0.5)	25-Feb-14	0-0.5	**No SW**	NA	0.58 U	**2.5**	13	NA	NA	26	2000	40	NA	NA	NA	NA	NA	
SB-65 (0.5-1)	25-Feb-14	0.5-1	**Metal**	NA	0.67 I	**3.2**	19	NA	NA	[illegible]36	12000	38	NA	NA	NA	NA	NA	
SB-65 (1-2)	25-Feb-14	1-2	**No SW**	NA	0.60 U	1.1	8.0	NA	NA	7.2	2400	11	NA	NA	NA	NA	NA	
SB-66 (0-2)	25-Feb-14	0-2	**No SW**	1300	0.52 U	1.4	7.3	0.18 I	[illegible]	8.0	1500	62	0.042	0.38 U	0.20 U	NA	NA	
SB-67 (0-2)	25-Feb-14	0-2	**Metal**	1400	0.55 U	**2.9**	17	0.23 I	6.3	8.1	4000	20	0.044	0.40 U	0.42 U	NA	NA	
SB-68 (0-2)	25-Feb-14	0-2	**No SW**	NA	0.55 U	0.69	6.8	NA	NA	2.7	690	5.8	NA	NA	NA	NA	NA	

Notes -

mg/kg - milligrams per kilogram

ng/kg - nanograms per kilogram

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I - Estimated value, the reported value is between the MDL and the practical quantitaion limit (PQL)

Bold - Indicates an exceedance of the residential direct exposure soil cleanup target level (SCTL)

SCTLs = Soil Cleanup Target Levels specified in Table II of Chapter 24, Miami-Dade County Code

Italics - Indicates an exceedance of the leachability based on the groundwater criteria

NA = Not Analyzed or Not Available

fbls = Feet below land surface

SW = Observation of ash, metal and glass.

H = samples on Hold with laboratory

= 2,3,7,8-TCDD equi[illegible]nts ca[illegible]ated by [illegible]oratory using the 2005 World Health Organization toxicity equivalency factors

Tabulated laboratory da[illegible]s[illegible]n rounded as specified in FDEP Memorandum "Rounding Analytical Data for Site Rehabilitation Completion" d[illegible]ber 17, 201[illegible]

= Contaminant is not a he[illegible] concern for this exposure scenario

** = Direct e[illegible]lue ba[illegible]on acute toxicity considerations. This criterion is applicable in scenarios where children might be exposed to soils (e.g. re[illegible]s, sch[illegible] playgrounds)

[illegible]achability valu[illegible]ay be determined using Synthetic Precipitate Leachate Procedure (SPLP) or TCLP, in the event of an oil waste.

[a] = Data for seleniu[illegible]d silver were not analyzed statistically, Soil Reuse Guidance for Miami-Dade County, SWP Guidance No.1 March 22, 2004

TABLE 3: SOIL ANALYTICAL SUMMARY (PAHs)

GERRY CURTIS PARK

Sample				Parameters								Comment
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Benzo (a) pyrene	Benzo (a) anthracene	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthra-cene	Indeno (1,2,3-cd) pyrene	Benzo (a) pyrene equivalent	
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	
Direct Exposure Residential				0.1	#	#	#	#	#	#	0.1	
Direct Exposure Industrial				0.7	#	#	#	#	#	#	0.7	
Leachability Based on Groundwater Criteria				8	0.8	2.4	24	77	0.7	6.6	**	
Area 1 - Baseball Field Perimeter												
SB-8 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.016	0.014	0.036	0.012	[illegible]	0.0025 U	0.010	0.0	
SB-9 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.060	0.054	0.11	0.036	0.[illegible]	0.0075 I	0.027	0.1	
SB-9 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0079	0.0066 I	0.016	0.00[illegible]	0.0079	0.0023 U	0.0046 I	0.0	
SB-11 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.011	0.0061 I	0.023	0.0068 I	0.01[illegible]	0.0024 U	0.0075 I	0.0	
SB-12 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.031	0.022	0.069	0.[illegible]	[illegible]34	0.0030 U	0.0030 U	0.0	
SB-12 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0029 I	0.0025 I	0.010	0.002[illegible]U	0.0084	0.0023 U	0.0023 U	0.0	
SB-13 (0.5-2)	31-Jan-14	0.5-2	**SW**	0.0038 I	0.0028 I	0.010	0.[illegible]24 I	0.0058 I	0.0023 U	0.0037 I	0.0	
SB-15 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.0023 U	0.0051 I	0.0[illegible]	[illegible].0051 I	0.0083	0.0023 U	0.0023 U	0.0	
SB-15 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0024 U	0.0024 I	0.012	[illegible]026 I	0.0071 I	0.0024 U	0.0024 U	0.0	
SB-16 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0083	0.0051 I	0.017	0.00[illegible]9 I	0.0079	0.0022 U	0.0054 I	0.0	

Notes -

mg/kg - milligrams per kilogram

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SCTLs = Soil Cleanup Target Levels specified in Table II of Chapter 24, Miami-Dade County Code

Italics - Indicates an exceedance of the leachability based on the groundwater criteria

NA = Not Analyzed or Not Available

fbls = Feet below land surface

SW = Observation of ash, metal and glass.

H = samples on Hold with laboratory

TABLE 3 (Continued): SOIL ANALYTICAL SUMMARY (PAHs)

GERRY CURTIS PARK

Sample				Parameters											Comment
Sample Location/ Sample ID	Date Collected	Sample Interval (fbls)	Type of Solid Waste (SW) Observed	Naphthalene	1-Methyl naphthalene	2-Methyl-naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)-perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	
				(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	
Direct Exposure Residential				55	200	210	2,400	1,800	21,000	2,500	3,200	2,600	2,200	2,400	
Direct Exposure Industrial				*	370	12	130000	1700	470	89000	*	1400	17	11000	
Leachability Based on Groundwater Criteria				1.2	3.1	8.5	2.1	27	2,500	32,000	1,200	160	250	880	
Area 1 - Baseball Field Perimeter															
SB-8 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0060 I	0.0016 U	0.0016 U	0.0025 U	0.0042 I	0.0057 I	0.[illegible]1	0.033	0.0021 I	0.018	0.022	
SB-9 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.0031 I	0.0017 U	0.0017 U	0.0037 I	0.0027 U	0.013	[illegible].022	0.13	0.0046 I	0.055	0.077	
SB-9 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0015 U	0.0015 U	0.0015 U	0.0023 U	0.0023 U	0.0023 U	0.0031 I	0.011	0.0015 U	0.0053 I	0.0073 I	
SB-11 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0016 U	0.0016 U	0.0016 U	0.0024 U	0.0024 U	0.0024 U	0.006[illegible]	0.016	0.0016 U	0.0057 I	0.010	
SB-12 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.0042 I	0.0019 U	0.0019 U	0.0030 U	0.0030 U	0.0055 I	[illegible]7	0.054	0.0019 U	0.014	0.036	
SB-12 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0066 I	0.0015 U	0.0015 U	0.0023 U	0.0023 U	[illegible]023 U	0.0023 U	0.0065 I	0.0015 U	0.0092	0.0034 I	
SB-13 (0.5-2)	31-Jan-14	0.5-2	**SW**	0.0015 U	0.0015 U	0.0015 U	0.0023 U	0.0023 [illegible]	[illegible]023 U	0.0029 I	0.0069 I	0.0015 U	0.0066 I	0.0037 I	
SB-15 (0-0.5)	31-Jan-14	0-0.5	**No SW**	0.0015 U	0.0015 U	0.0015 U	0.0023 U	0.0[illegible] U	0.0023 [illegible]	0.0076 I	0.010	0.0015 U	0.0053 I	0.0090	
SB-15 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0057 I	0.0016 U	0.0016 U	0.0024 U	[illegible]24 U	0.0024 U	0.0029 I	0.0075 I	0.0016 U	0.0079 I	0.0036 I	
SB-16 (0.5-2)	31-Jan-14	0.5-2	**Metal & Glass**	0.0014 U	0.0014 U	0.0014 U	0.0022 U	0.00[illegible]	0.0022 U	0.0053 I	0.012	0.0014 U	0.0040 I	0.0081	

Notes -

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Bold - Indicates an exceedance of the residential direct exposure soil cleanup target level (SCTL)

SCTLs = Soil Cleanup Target Levels specified in Table II of Chapter 24, Miami-Dade County Code

Italics - Indicates an exceedance of the leachability based on the groundwater criteria

NA = Not Analyzed or Not Available

fbls = Feet below land surface

SW = Observation of ash, metal and glass.

H = samples on Hold with laboratory

TABLE 4: GROUNDWATER ANALYTICAL SUMMARY (Metals, PCBs and Dioxins)

GERRY CURTIS PARK

Sample															
Sample Location/ Sample ID	**Date Collected**	**Aluminum**	**Antimony**	**Arsenic**	**Barium**	**Cadmium**	**Chromium**	**Copper**	**Iron**	**Lead**	**Mercury**	**Selenium**	**Silver**	**Total PCB**	**Dioxins Total 2,3,7,8-TCDD Equivalents**
		(µg/L)	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(pg/L)**
Groundwater Cleanup Target Levels		200	6	10	2000	5	100	1000	300	15	2	50	100	0.5	30
Natural Attenuation Default Concentrations		2000	60	100	20000	50	1,000	10000	3000	150	20	500	1000	NA	NA
TMW-1	27-Feb-14	160 I	5.4 I	4.0 U	160	1.0 U	2.2 I	2.9 U	**680**	2.1 I	0.072 U	5.0 U	1.0 U	0.68 U	0.37
TMW-2	27-Feb-14	200	**30**	7.2 I	100	1.0 U	2.0 U	2.9 U	280	3.5 I	0.072 U	5.0 U	1.0 U	0.68 U	0.18
TMW-3	27-Feb-14	**300**	4.0 U	4.0 U	120	1.0 U	2.0 U	2.9 U	**980**	4.5 I	0.072 U	5.0 U	1.0 U	0.68 U	0.63
TMW-4	27-Feb-14	50 U	4.0 U	4.0 U	33	1.0 U	2.0 U	2.9 U	**37**	2.0 U	0.072 U	5.0 U	1.0 U	0.68 U	0.28

Notes -

µg/L - micrograms per liter

pg/L - picograms per liter

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

U - Not detected at the laboratory method detection limit (MDL)

I - Estimated value, the reported value is between the MDL and the practical quantitaion limit (PQL)

Bold - Indicates an exceedance of the applicable GCTL

P - Pending

NA = Not Available

APPENDIX C

TRAINING CERTIFICATES, MEDICAL CLEARANCES, AND FIT TESTING DOCUMENTATION