

**COLLIER BOULEVARD RECONSTRUCTION**  
**Site “A”, Aggregate Pile**  
**Park Avenue Staging Area**  
**Marco Island, Florida**

**ASBESTOS**  
**WORK PLAN**

The following work plan is for the removal of concrete from the aggregate pile that is located at the staging area on Park Avenue in Marco Island, Florida. The location is also known as site “A”. The materials to be worked with generally consist of concrete rubble, rocks, soils and asbestos containing cementitious pipe. The material pile has approximately 8,000 - 10,000 cubic yards of construction debris. This work plan should be considered as minimal guidelines for the project.

Quality Enterprises USA, Inc., (QEI), shall utilize all appropriate engineering controls and work practices considered standard for the work activities and removal of asbestos-containing materials, regardless of the inclusion or exclusion of this work plan.

The primary concern and consideration of this work practice is the protection of human health and the environment, as well as to prevent exposure to the Public before, during and after the work activities and removal process from asbestos exposure.

**REGULATIONS**

The Contractor, at a minimum, shall comply with all regulations, codes and standards regardless of mention in this document. These shall include, but are not limited to:

1. Title 29, Code of Federal Regulations, Section 1910.134, Respiratory Protection Standard. Occupational Safety and Health Administration (OSHA), US Department of Labor.
2. Title 29, Code of Federal Regulations, Section 1926.1101 Construction Industry Asbestos Standard. Occupational Safety and Health Administration (OSHA), US Department of Labor.
3. Title 29, Code of Federal Regulations, Section 1926.1001 General Industry Asbestos Standard. Occupational Safety and Health Administration (OSHA), US Department of Labor.

Permits and notifications are to be filed by the contractor and kept on the job site prior to the start of work.

**SAFETY**

QEI shall be responsible for the safety of all work procedures and equipment on the job site. As such they will take all necessary precautions before, during and after the project to prevent exposure to both the general public and employees to asbestos.

## **NOTIFICATION**

At a minimum the Florida department of Environmental Protection (FDEP) shall be notified 48 hours prior to commencement of this work plan. In addition upon completion of the removal of the remaining soil the FDEP shall be notified.

## **BRIEF DESCRIPTION OF WORK PLAN**

No visible emissions are allowed during the handling of the material.

The intent of this method is to remove asbestos-containing debris from the aggregate pile prior to recycling the concrete for road use. Wet methods should be used throughout the process of handling the aggregate. The wetting procedures should be sufficient enough to keep the material adequately wet to avoid visible emissions.

Known concrete and non-asbestos pieces (3" or larger) will be taken from the pile using a front end loader. Each load will be placed onto a screen that is sized to separate pieces 3" or larger. The pieces of concrete retained from screening will be thoroughly washed down with water and ground into aggregate away from the soil. Using designated spotters during the screening of the aggregate the suspect asbestos containing pieces of pipe that are unintentionally picked up in the front end loader will be removed. This includes pieces that are greater than 3" and those that pass through the screen. The asbestos containing pieces of pipe shall not be reduced in size or damaged during any part of the work process. The asbestos containing materials uncovered during the screening process will be removed by hand and not using any method that would cause the asbestos containing material to be made friable. A sufficient amount of water to minimize the release of asbestos fibers shall be applied to the aggregate pile before and during it being disturbed, during the placement on the screen and to the material that filters through. The asbestos containing pieces of pipe will be placed onto a designated section of the work area where they will be kept wet to minimize the release of asbestos fibers until they are disposed of. The soil and other debris that pass through the screen will be placed onto a designated section of the work area that is away from the asbestos containing pieces of pipe.

Suspect asbestos-containing pieces will be removed before and during the screening process using trained spotters. During the work procedures the designated spotters will make determinations of suspect asbestos containing materials based initially on a homogenous comparison with known asbestos containing materials. If needed samples will be collected and submitted for laboratory identification. The identified pieces of asbestos will be set aside for latter disposal. The material will be transported in lined, leak-tight containers to a landfill that is approved to dispose of asbestos waste.

During the handling process, asbestos-containing cementitious pipe shall be removed and disposed of in accordance with applicable regulations and standards.

The water used to wash down the concrete pieces will be contained and controlled, at a minimum, to prevent runoff and the release of airborne asbestos fibers on site.

Once all concrete debris has been removed, the remaining soil will remain on-site. An addendum will be made to this work plan that addresses the ultimate movement and disposal of the soil that will remain on the job site.

Area air monitoring and documentation of the work activities shall be conducted by the consultant at all times that asbestos containing materials are being disturbed. The purpose of the area air samples is to monitor the air borne fiber levels around the work area.

## **PERSONAL PROTECTIVE**

### **EQUIPMENT**

Personal protective equipment (PPE) will be used in accordance with industry norm and OSHA requirements. Requirements are to include respiratory protection and disposable protective clothing in the work areas during the work activities and when handling, processing or distributing soil materials that may have asbestos-containing pipe material.

## **QUALITY ENTERPRISES USA, INC., STAFFING**

1. The Contractor shall utilize an asbestos “competent person” to oversee asbestos work at the job sites in accordance with OSHA 29 CFR 1926.1101.
2. The Contractor shall utilize only properly trained asbestos personnel on the job site.
3. Certifications of training and compliance with a respiratory protection program for the workers and supervisors will be available for the City of Marco Island review and copy.

## **EMPLOYEE DECONTAMINATION**

Employees who have been involved in the activities of the debris pile will be provided on-site facilities to shower and for the disposal of protective clothing that is used on the project. The decontamination enclosure systems will be in accordance with industry norm. It shall include at a minimum a shower area for use by the workers and a separate area to decontaminate equipment.

## **CONSULTANT**

A third party Florida Licensed Asbestos consultant will be employed, herein after referred to as the Consultant. The consultant will be employed by Quality Enterprises USA, Inc. who is referred to as the client

1. The Consultant will advise and consult with the client.
2. The Consultant will be onsite performing air monitoring and documentation of the work procedures whenever asbestos containing materials are being disturbed.
3. The Consultant will not have control over, nor responsibility for means, methods, techniques in regards to the work.

4. The Consultant shall have access to site A at all times.
5. The Consultant will render interpretations necessary for the proper execution of the work.

## **AIR MONITORING**

Air monitoring requirements include the following:

1. Personal air samples will be analyzed using phase contrast microscopy **\*\***(PCM) and the results compared to OSHA standards. The current OSHA excursion limit (EL) of 1.0 f/cc over a thirty minute period and the permissible exposure limit (PEL) of 0.1 f/cc over an eight hour time weighted average will be used. It is understood that air monitoring will be accomplished by QEI using a laboratory that is in compliance with Appendix A of to 29 CFR 1926.1101. The consultant will be provided a copy of the daily personal sample results within 12 hours of each sample collection.

Personal air sampling will be sufficient enough to be representative of each work practice and work area.

2. Area air samples will be compared to the OSHA PEL of 0.1 f/cc. (This is to be accomplished by the Consultant)

If during any of the work activities and removal of the pile airborne fiber levels exceed the PEL of 0.1 f/cc or the EL of 1.0 f/cc, work shall stop and corrective measures be taken to control the release of fibers.

**\*\*** If more definitive analysis is needed transmission electron microscopy (TEM) may be used.

All area results will be available to both the Contractor and the City of Marco Island, via the Consultant.

## **PRE-WORK ACTIVITIES MEETING**

Prior to implementing these work procedures a pre-work meeting will be held and at a minimum attendance shall be a representative of Quality Enterprises USA, Inc., The City of Marco Island and the Consultant. The purpose would be to discuss the understanding of the work plan by those who will be implementing them. Should these work procedures be deemed insufficient to protect the general public and workers alternative procedures will be developed.