ROUGH DRAFT

SITE MANAGEMENT PLAN

Sandy Village (formerly Sandy Mall) One Hour Quality Cleaners Site 9467 South 700 East Sandy, Utah



Prepared for:

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Project No.: 203706007

May 9, 2019

Sign-off Sheet and Signatures of Environmental Professionals

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1.0 INTRODUCTION

This *Site Management Plan* (SMP) has been prepared to maintain the protectiveness of the historical remediation activities conducted to date at the approximate 1,855-square feet (sq.ft.), former *One Hour Quality Cleaners* tenant suite, Space Number 9 & 12 (the Property), located within the Sandy Village at 9467 South 700 East in Sandy, Utah. Reference Figures 1, 2, and 3 for general and site-specific figures of the Property.

This SMP outlines procedures to ensure that the former dry cleaner tenant suite is maintained properly and, in a manner, to provide appropriate protection to human health and the environment under current and foreseeable future-projected, commercial land use. This SMP may be amended in the future, if site conditions change and pose potential unacceptable risk and/or if proposed by the property owner and accepted by the Utah Department of Environmental Quality, Division of Waste Management and Radiation Control (UDEQ, MWRC).

The property owner, and/or its designee, will implement this SMP. Activity and Use Limitations will be imposed upon the former dry cleaner tenant suite through a recorded Environmental Covenant (EC). This SMP and the EC will also be incorporated by reference into formal correspondence from the UDEQ, WMRC that confirms no further action is required at the site, as long as the terms of the SMP and EC are satisfied. Key components of the SMP include:

- Engineering Controls;
- Inspection and Maintenance of Engineering Controls; and
- Worker Health and Safety Requirements.

1.1 SITE HISTORY

The Property is an approximate 1,855-sq.ft. suite (Space Number 9 & 12) located within commercially-zoned, Salt Lake County Tax Assessor Office Tax Parcel #28081010630000, an approximate 23.95-acre parcel of land that is currently referenced as the Sandy Village (retail mall complex), owned by FPA Sandy Mall Associates, LLC with an address of 9471 South 700 East, Sandy, Salt Lake County, Utah. The retail buildings within which the Property is located were constructed in approximately 1966, with the Property tenant suite having been leased for retail use as a dry cleaner facility for approximately 30 years, until December 2005 when the lessee who operated the *One Hour Quality Cleaners* dry cleaner business ceased on-site operations and vacated the Property.

Due diligence activities related to a transaction involving the Sandy Village mall property included subsurface soil test borings that were drilled and sampled inside the Property. A series of subsurface soil, subsurface soil gas, and ground water investigations identified a subsurface release of percholoroethylene (PERC; i.e., tetrachloroethylene-PCE) beneath the Property, that occurred sometime prior to December 2005. This release resulted in localized, PCE impacts to subsurface soil, subsurface soil gas, and ground water beneath the Property. All subsurface



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investigations were documented, and copies of all reports were provided to the UDEQ and available to the public at the UDEQ, WMRC. The subsurface was found to be comprised of unsaturated, vadose zone, sand and clay soils within the upper 16 feet or so of the subsurface. The shallowest ground water was encountered at an approximate depth of 16 to 17 feet below grade.

The specific point of the PCE release was never definitively identified. Subsurface soil gas located beneath the Boiler Room (eastern-most side of Property) exhibited higher concentrations of PCE than elsewhere beneath the Property during initial investigations. Thus the release *may* have been discharge of PCE-impacted contact-fluids from the dry cleaner machine to the Boiler Room floor drain and/or discharges through the sanitary sewer network (one sink and toilet in a bathroom within the Property suite, whose buried sewer line grades toward the main building's trunk-line, located somewhere generally east of the Boiler Room).

Subsurface investigations revealed little to no PCE in subsurface soils beneath the Property. Likewise, the ground water monitoring program was discontinued after several years of monitoring due to consistently low PCE detections. The shallow, uppermost aquifer beneath the site and Property is not being used for potable consumption, currently and for the foreseeable future.

Sub-slab soil gas sampling results indicated that there was likely an unknown/unidentified, subsurface source of gaseous-phase PCE constituents remaining beneath the 4-inch thick, concrete floor of the Property. The PCE gaseous-phase concentrations are not believed to be attributable to off-gassing from ground water but may be originating from unsaturated, clay-rich soils located generally between 12 to 17 feet beneath the Property. Thus, the only identified potential exposure pathway for human health purposes was direct contact with PCE-containing subsurface soil gas beneath the Property/building's concrete floor.

Sub-slab depressurization and soil vapor extraction (SVE) addressed potential intrusion of subsurface soil gas into the building. The SVE system operated from approximately 2008 through 2018. The most recent sampling event during which any sub-slab soil gas sample exceeded the United States Environmental Protection Agency's (US EPA) risk-based, PCE Vapor Intrusion Screening Level (VISL) concentration was January 2009. All subsequent sub-slab soil gas sampling revealed all sub-slab soil gas samples well below the Commercial VISL for PCE.

Upon completion of SVE operation, sub-slab soil gas samples indicated that PCE concentrations beneath the Property satisfied the US EPA Commercial VISL for PCE, for commercial land use. Multiple sampling events, including the most recent May 2018 sampling event, before which the SVE system did not operate for four (4) months prior to sampling, confirmed this condition. The SVE system remains inactive with the approval of the UDEQ, WMRC based upon current and future commercial (non-residential) land uses anticipated for the Property and immediate surrounding area. However, as of May 2018, sub-slab soil gas beneath localized areas of the Property tenant suite contained PCE concentrations in excess of US EPA's risk-based, Residential VISL for PCE.

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Since the current and foreseeable future land use is and will be commercial land usage, and not residential, the Property will be managed to maintain current conditions using the following land use restrictions and requirements.

1.2 LAND USE AND LIMITATIONS

As part of land use limitations outlined within the EC and this SMP, the Property will not be developed for residential use as long as subsurface soil and/or soil gas exceed US EPA's risk-based, Residential VISL for PCE. As also noted within the EC, the uppermost ground water beneath the Property will not be accessed for a potable, drinking water, irrigation, or bathing source.



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2.0 SITE MANAGEMENT

This SMP applies primarily to the existing, 4-inch thick, concrete floor of the Property, which serves as a physical barrier preventing direct human contact with the subsurface environment, including subsurface soil and soil gas. Figure 3 presents site location aerial images, as well as a May 2018 photograph of the interior of the vacated Property, with the exposed/uncovered, concrete floor visible in the picture.

The Property owner will apprise any future Property tenant of the EC and this SMP. No lessee tenant will be permitted to conduct any coring, cutting, and/or intrusive disturbance of the concrete floor within the Property, without receiving written authorization from the Property owner and complying with this SMP.

Any activity that entails intrusion beneath the Property's concrete floor will require appropriate human health monitoring, including but not necessarily limited to, possible indoor air quality monitoring (and if necessary, possible remedial measures) for PCE – as discussed in more detail in following report section 2.1.3 Worker Health and Safety Requirements.

2.1 ENGINEERING CONTROLS

2.1.1 Maintenance of the Concrete Floor

The concrete floor shall not be penetrated or breached for any reason. If the floor is breached or damanged, the Property owner shall repair the concrete floor in a manner consistent with the floor's original design and integrity. All repair work must be completed as soon as practicable, with appropriate human health and safety monitoring discussed in following section 2.1.3.

2.1.2 Inspection, Maintenance, and Reporting of Engineering Controls

A future tenant will likely cover the existing, bare concrete floor surface with an overlying flooring material, for aesthetic purposes. As part of routine, visual, walk-through inspections of the Property, the owner will note any intrusive features into and/or penetrating through the concrete floor and/or which might have a detrimental impact upon, and/or otherwise potentially compromise, the physical and/or structural integrity of the concrete floor. It is unnecessary to disturb floor coverings to inspect the underlying concrete floor, unless there are visual and/or other indications of potential disturbance to the concrete floor.

The Property owner will visit the Property at least annually, as well as immediately upon initiation of any construction, remodeling, repair, maintenance, intrusive, and/or similar invasive and/or potentially-disturbing activities, or in the event of a natural disaster, that might impact the physical and/or structural integrity of the Property's concrete floor.



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Any damage to the floor, or breaches or penetrations through the concrete, along with a description of repair measures taken, shall be reported to the UDEQ, WMRC:

UDEQ, WMRC Sandy Village/Mall Project Manager UDEQ, WMRC State Office Building 195 North 1950 West P.O. Box 144880 Salt Lake City, UT 84114-4880

2.1.3 Worker Health and Safety Requirements.

The Property owner and/or tenant shall inform any workers conducting work that could affect the integrity of the concrete floor of the Property that there are potential concerns associated with subsurface soil and soil gas beneath the Property's concrete floor. The Property owner and/or tenant shall require contractors that work on the concrete floor, and that could come into contact with soil and/or soil gas impacts, to have a contractor-specific *Health and Safety Plan* (HASP) that specifically addresses the tasks and potential contaminant (PCE) that could be encountered and any personal protective equipment (PPE) that is required.

The Health and Safety Plan shall include provisions for worker protection, work area monitoring, and appropriate testing. It will be the contractor's responsibility to ensure worker protection meets the United States Occupational Safety and Health Administration's (OSHA's) requirements. Determination of the appropriate level of training and PPE required can be identified through consultation with the Utah OSHA's Consultation Program by calling (801) 530-6901 or (801) 530-6903.









View toward East inside Property from front/west, entrance door...Boiler Room in rear/back of photograph.





NOT TO SCALE



PROPERTY, Aerial FORMER 1-Hr. QUALITY CLEANERS SANDY MALL

SANDY MALL 9467 S 700 E SANDY, UTAH

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FIGURE

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