URBAN GREEN ENVIRONMENTAL

1700 Beason Street Baltimore, Maryland 21230

Response Action Plan

State Center Property – Parcel I2 101 West Preston Street Baltimore, Maryland 21201



Prepared For:

State Center Parcel I Master Tenant LLC 3420 2nd Street Baltimore, Maryland 21225

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UG

CONTENTS

1.0	INT	RODUCTION	1
	1.1	Purpose and Scope	1
2.0	SITE	E DESCRIPTION	3
	2.1	Site Description	
	2.2	Site Setting	3
	2.3	Site History	3
	2.4	Environmental Setting	4
		2.4.1 Topography	4
		2.4.2 Geology	4
		2.4.3 Lithology	4
	2.5	Areas of Concern	
		2.5.1 Phase I Environmental Site Assessment Report, State Center, Baltimore, Maryland	l,
		March 2007	5
		2.5.2 Final Limited Phase II Environmental Site Assessments, State Center, Baltimore, Maryland, October 2009	5
		2.5.3 DRAFT Phase I Environmental Site Assessment Report Update, State Center	
		Property – Parcel I2, Baltimore, Maryland, September 2010	6
		2.5.4 Supplemental Phase II Environmental Site Assessment, State Center Property –	
		Parcel I2, Baltimore, Maryland, September 2010	6
	2.6	Proposed Development and Future Use	
	2.7	Proposed Response Actions	7
		DITIONAL INVESTIGATORY INFORMATION	
4.0		OSURE ASSESSMENT	
	4.1	Media of Concern	
		4.1.1 Soil	
		4.1.2 Groundwater and Soil to Groundwater	
		4.1.3 Surface Water / Sediment	
	4.2	Potential Exposure Pathways and Receptors of Concern	
	4.3	Risk-Based Screening and Selection of Chemicals of Potential Concern	11
	4.4	Complete Exposure Pathways	12
5.0	CLE	ANUP CRITERIA	13
6.0		ECTED TECHNOLOGIES AND LAND USE CONTROLS	
		Paved and Concrete Covered Areas	
		Landscaped Areas	
		Future Excavation/Utility Trenching	
		Site Access and Control	
		Institutional Controls (Future Land Use Controls)	
	6.6	Post Remediation Requirements	16
7.0			10
7.0		LUATION CRITERIA FOR THE SELECTED TECHNOLOGIES	
		Criteria for Certificate of Completion	
	1.2	Criteria for Contingency Measures	18

8.0 PROPOSED RESPONSE ACTION IMPLEMENTATION	
8.1 General Health and Safety Protocols	
8.2 Air Monitoring Requirements	
8.3 Reporting Requirements	
8.4 Maintenance Requirements	
8.5 Soil Excavation, Staging, Sampling and Disposal	
8.6 Clean Fill	
8.7 Asbestos, Lead and Oil	
9.0 PERMITS, NOTIFICATIONS AND CONTINGENCIES	
9.1 Implementation Schedule	
10.0 REFERENCES	

List of Figures

1	Site location map
2	Site plan and soil sampling locations
3	Cross section showing cap construction in asphalt and concrete covered areas
4	Cross section showing cap construction in landscaped areas

List of Tables

1	Summary of analytes detected in soil
2	Summary of proposed containment remedy alternatives for future utility conduits

List of Appendices

Appendix A	MDE Correspondence
Appendix B	Administrative Requirements Written Agreement Certified Statement for Zoning Requirements Public Notification
Appendix C	Containment Remedy Operations and Maintenance Plan Pavement Inspection Form Landscape Inspection Form
Appendix D	Future Development Plans

1.0 INTRODUCTION

On behalf of State Center Parcel I Master Tenant LLC, Urban Green Environmental, LLC (UG), has prepared this Response Action Plan for the State Center Property – Parcel I2 located in Baltimore, Maryland (Site). A Site location map is attached as Figure 1.

In September 2010, State Center Parcel I Master Tenant LLC (the Participant) submitted an application for the Site to the Maryland Voluntary Cleanup Program (VCP). On October 19, 2010, the Site was accepted into the VCP by the Maryland Department of the Environment (MDE). In the VCP acceptance correspondence, the MDE requested the development of a Response Action Plan (RAP) to address impacts identified in soil at the Site. A copy of the October 19, 2010 MDE correspondence is included in Appendix A.

The approximately 0.78-acre State Center Property-Parcel I2 is located on the eastern portion of the Maryland State Center complex at 101 West Preston Street in the City of Baltimore, Maryland. The Site is not currently developed with buildings; Site improvements are limited to landscaped areas and concrete sidewalks/walkways which are utilized as a small park. According to information on-file with the Maryland Department of Assessment and Taxation, the Site is identified as Block 0478, Lot 2 (northern portion) and is currently owned by the State of Maryland.

The proposed redevelopment of the State Center Parcel I2 Property is Tier 2B, Restricted Non-Residential Use. The Site is currently planned for redevelopment for non-residential use (one commercial/retail building). An expedited development schedule exists for the property; Site grading activities are anticipated to commence in December 2010.

Prior Phase I and Phase II Environmental Site Assessments (ESAs) were completed at the Site in 2007 by Environmental Resource Management, Inc. (ERM 2007) and in 2009 and 2010 by Urban Green Environmental, LLC (UG 2009, 2010a,b). Results of these investigations identified arsenic and semivolatile organic compounds (SVOCs) in soil at concentrations above the applicable Maryland Department of the Environment (MDE) Non-Residential Cleanup Standards for soil. As indicated in the MDE VCP acceptance correspondence, a Response Action Plan must be developed and approved by the MDE VCP, and implemented to address risks from polycyclic aromatic hydrocarbons (PAHs, which are a subset of SVOCs) in surface soil at the property.

1.1 Purpose and Scope

The purpose of this RAP was to evaluate the potential migration pathways and potentially exposed populations for each contaminant and media of concern at the Site under the present and future use scenarios. Based on this evaluation, engineering and institutional controls consisting of a containment remedy, deed restrictions prohibiting groundwater use, and deed restrictions on

future excavations are proposed to mitigate associated risks to human health and the environment at the Site.

The State Center Parcel I Master Tenant LLC will comply with all local, state and federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities pursuant to an approved RAP. If during implementation of this RAP, any previously undiscovered contamination or citation from regulatory entities related to health and safety practices are identified, the MDE VCP will be verbally notified within one business day by the State Center Parcel I Master Tenant LLC. Written notification will be submitted within ten business days.

2.0 SITE DESCRIPTION

2.1 Site Description

The 0.78-acre Site is located at 101 West Preston Street in Baltimore, Maryland. Information published online by the Maryland Department of Assessments and Taxation identifies the Site as Block 0478, Lot 2 (northern portion). The Site is currently owned by The State of Maryland.

The Site is not developed with buildings; Site improvements are limited to landscaped areas and concrete sidewalks/walkways. The Site is currently utilized by the State of Maryland State Center complex. A Site location map is attached as Figure 1; a Site plan is attached as Figure 2.

2.2 Site Setting

The Site is located in a densely developed, mixed use section of the City of Baltimore, Maryland. Surrounding properties include North Howard Street to the northeast, beyond which are the MTA lightrail and the Symphony Center Parking Garage, West Preston Street to the northwest, beyond which is the 29th Division Street (the Fifth Regiment Armory), Martin Luther King Boulevard and additional Maryland State Center commercial buildings to the south and southwest. No streams or surface water bodies are located on-Site. The nearest surface water body, the Jones Falls, is located approximately 1,500 feet east of the Site.

The Site is not currently serviced with municipal water and sewer; however, municipal water and sewer are available in the area of the Site. The Site is serviced with below-grade electric (paved parking lot lights) and storm water (municipal storm water drains were observed throughout the property). Municipal water and sewer are provided by the City of Baltimore; electric utilities are provided by Baltimore Gas and Electric (BGE).

2.3 Site History

Based on historic records reviewed as part of the *Phase I Environmental Site Assessment Report Update* (UG 2010a) and the prior environmental site assessment reports (ERM 2007), the Site was developed into the current use circa 1958, at which time the State of Maryland purchased the property for the development of the State Center complex. Prior to the current Site development, the property appears to have been unimproved (1950s) and improved with approximately 22 structures identified primarily as residential dwellings (rowhomes), a retail store, garage (1914), and the Baltimore Riding Academy (1901 to 1914). It is noteworthy, that circa 1914, a 150-gallon gasol tank appears to have been located on the eastern portion of the property, fronting the former garage building.

2.4 Environmental Setting

2.4.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore West, Maryland (1953, revised 1966/1974) Site elevation is relatively flat at approximately 114 feet (ft) above mean sea level. In general, the overall topographic trend of the subject property slopes very gently to the south/southeast.

2.4.2 Geology

In general, the Baltimore Region may be divided into two main physiographic provinces: the Coastal Plain and the Piedmont Provinces. The Coastal Plain Province, distinguished by gently rolling topography, is composed of a wedge of unconsolidated sediments, which thickens drastically to the east, overlying residual saprolite and hard crystalline rock of the Pre-Cambrian to Cambrian basement complex. The Piedmont Province is composed of crystalline bedrock and residual material derived from the in-situ weathering and decomposition of the crystalline rocks. The subject site is positioned within the Piedmont Province.

2.4.3 Lithology

Overburden soil at the Site has been observed to consist of fill material and silty sands/sandy silts at depths up to 20 feet below grade (ft bg). Specifically, the lithology of the Site consists of fill materials (brick, gravel, cobbles, fine to coarse sands) underlain by silty sand/sandy silts and gravel. In general, fill materials were observed in shallow soil across the Site. It is noteworthy, that no visual and olfactory evidence of petroleum/chemical impacts were observed to the maximum drilling depth of 20 ft bg. No bedrock was observed to the maximum drilling depth of 20 ft bg.

Groundwater was not observed to the maximum drilling depth of 20 ft bg. However, based on results of environmental investigations of the neighboring State Center Property – Parcel G, groundwater is anticipated to be situated at depths of at least 30 ft bg. Based on the surface topography, groundwater appears to flow in a south/southeasterly direction across the Site.

2.5 Areas of Concern

Environmental investigations of the State Center Property - Parcel I2 date back to 2007 and include a Phase I ESA, Limited Phase II ESA, Phase I ESA Update, and Supplemental Phase II ESA. The prior *Phase I ESA* was completed by ERM (ERM 2007); the prior *Limited Phase II ESA, Phase I ESA Update,* and *Supplemental Phase II ESA* were completed by UG (UG 2009, 2010a,b).

A summary of the prior environmental investigations is provided below. Prior media sampling locations, performed during these investigations are illustrated in Figure 2; a summary of soil analytical results are presented in Table 1.

2.5.1 Phase I Environmental Site Assessment Report, State Center, Baltimore, Maryland, March 2007

The scope of work of the ERM 2007 Phase I ESA consisted of a visual Site inspection and review of available historic and regulatory information for the property and surrounding State Center parcels. At the time of the ERM 2007 Phase I ESA, the Site was improved with the existing surface level asphalt paved parking area and was owned and operated by the State of Maryland.

The ERM report noted that the Site parcel was reportedly developed circa 1958, at which time the State of Maryland purchased the properties for development of the State Center. It was also noted in the Phase I ESA, that two historic fires, which occurred in 1904 and 1933, reportedly destroyed much of the Site parcel.

No evidence of hazardous material use, handling or generation were identified within the ERM 2007 Phase I ESA for the Site, further, no visual evidence of bulk storage, such as ASTs or USTs was identified. As identified in the March 2007 Phase I ESA, the results of the Phase I ESA did not indicate evidence of significant environmental concerns associated with the subject property.

2.5.2 Final Limited Phase II Environmental Site Assessments, State Center, Baltimore, Maryland, October 2009

In October 2009, Urban Green Environmental, LLC completed a Limited Phase II Environmental Site Assessment for the Site (Parcel I2) and the nearby State Center Properties, Parcels C and G. The purpose of the assessment was to further evaluate environmental conditions identified within the prior Phase I ESA (ERM 2007) and to provide general site characterization of soil and/or groundwater at the State Center properties.

The scope of work of the UG investigation consisted of the advancement of two soil borings on the State Center Property – Parcel I2 (SB-3 and SB-4) and five soil borings at off-Site locations. Soil boring SB-3 and SB-4 were advanced to depths of 16 ft bg and 20 ft bg respectively. No groundwater was encountered to the maximum drilling depth of 20 ft bg in the soil borings.

Surface and subsurface soil samples were collected from each sampling location and field screened for volatile organic compounds (VOCs). Further, surface soil samples were submitted for analysis of PAHs and priority pollutant metals; subsurface soil samples (collected from depths of 4 to 5 feet below grade) were submitted for laboratory analysis of VOCs, PAHs, and priority pollutant metals.

Based on field screening results, visual and olfactory observations, no evidence of a release of petroleum products or hazardous materials were observed throughout the drilling activities. Further, no concentrations of VOCs were reported above the current applicable MDE Cleanup Standards for Non-Residential Soil and/or background standards. However, one select PAH

(benzo(a)pyrene) was reported in the surface soil sample collected from soil boring SB-3 above the MDE Cleanup Standards for Non-Residential Soil.

2.5.3 DRAFT Phase I Environmental Site Assessment Report Update, State Center Property – Parcel I2, Baltimore, Maryland, September 2010

The scope of work of the UG 2010 Phase I ESA Update consisted of a visual Site inspection and review of available historic and regulatory information for the property. At the time of the UG Phase I ESA Update, the Site was improved with the existing landscaped areas and concrete walkways and was owned and operated by the State of Maryland.

Results of the UG Phase I ESA Update indicated no evidence of *recognized environmental conditions* or *historic recognized environmental conditions* with the exception of the potential historic presence of one 150-gallon gasol tank at the Site. As indicated previously, historic records indicated that the tank was located along the eastern portion of the Site in at least 1914. No information regarding the historic removal of this tank was identified as part of the Phase I ESA Update.

2.5.4 Supplemental Phase II Environmental Site Assessment, State Center Property – Parcel I2, Baltimore, Maryland, September 2010

In September 2010, UG completed a Supplemental Phase II ESA of the State Center Property – Parcel I2 located at 101 West Preston Street in Baltimore, Maryland. The objective of the investigation was to satisfy the initial due diligence elements anticipated for participation in the Maryland VCP.

The scope of the investigation consisted of advancing five soil borings (SB-13 through SB-17) at the Site and performing a geophysical investigation to further evaluate for the potential for the former 150-gallon gasol underground storage tank (UST) to remain at the property. Soil boring locations were biased towards the area of the former elevated PAHs (former soil boring SB-3) and the suspect historic UST. Select soil samples were collected from each soil boring and submitted for fixed laboratory analysis of VOCs, PAHs, PPL Metals, PCBs, pesticides, and/or herbicides. It is noteworthy, that given future excavation, anticipated at part of the future redevelopment of the property, composite soil sampling was performed proximate to the areas indicating elevated concentrations of metals and PAHs during the 2009 investigation. The purpose of the composite soil sampling was to provide general characterization for future off-site disposal options.

Geophysical Investigation Results

No anomalies, indicative of a remaining UST, were identified based on the results of the geophysical investigation.

Soil

Concentrations of arsenic were reported in soil collected from the property. Specifically, arsenic was reported above the current applicable state cleanup standard (3.6 mg/kg) in the composite surface soil sample collected from soil borings SB-13, SB-14, and SB-15 at a concentration of 4.6 mg/kg.

2.6 Proposed Development and Future Use

The proposed redevelopment of the State Center Property – Parcel I2 is Tier 2B, Restricted Commercial Use.

The term restricted commercial refers to the planned use of the property that allows exposure and access by the general public, workers, and other expected users, including customers, patrons, or visitors. Commercial purposes allow access to the property and duration consistent with a typical business day. Tier 2 properties typically include shopping centers, retail businesses, vehicle service stations, medical offices, hotels, office space, religious institutions and restaurants.

Restricted Commercial also indicates that one or more land use controls are imposed on the property as a condition for the future use of the Site. At a minimum, it is anticipated that a groundwater use restriction will be placed on the property.

At this time, the development plan for the Site has not been finalized; conceptual Site development plans are provided in Appendix D. As shown, future development incorporates regrading across the Site and the construction of a combination retail/commercial building. The footprint of the future proposed building covers the majority of the Site.

Limited open areas are anticipated to surround the proposed structure and are anticipated to consist of surface level impervious paved and concrete areas and landscaped areas.

The Site will be serviced by municipal water and sewer (City of Baltimore), and below grade storm water, natural gas and electric. Groundwater will not be used as a potable water supply, nor is it planned for use as a non-potable water supply. To ensure and maintain this use, a groundwater use restriction will be placed on the Site prior to occupancy.

2.7 Proposed Response Actions

The entire property will be subject to this proposed RAP. This proposed RAP is a method of development that the Developer has selected to eliminate the potential for unacceptable levels of environmental risk to future non-residential and on-site visitor populations. Further, based on the professional judgment of Urban Green Environmental, LLC and generally accepted professional practices and standard of care exercised by reputable companies performing similar environmental

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services, the environmental containment remedies designed and proposed herein, if implemented, operated, and maintained (Refer to Section 8.4 and Appendix C), will be protective for the intended non-residential use.

The RAP will be implemented by regrading the Site and constructing a containment remedy above the existing surface. The containment remedy will consist of clean-fill soil, concrete, and asphalt cover materials placed in appropriately designated areas. The Site cap will affect all portions of the property.

Following implementation of the containment remedy, institutional controls (groundwater use deed restriction and an excavation deed restriction) will be recorded for the Site in order to maintain the integrity of the containment remedy and mitigate exposure to human health and the environment.

3.0 ADDITIONAL INVESTIGATORY INFORMATION

No additional investigatory work has been completed, including additional media sampling, since completion of the *Supplemental Phase II Environmental Site Assessment* (Urban Green 2010c).

4.0 EXPOSURE ASSESSMENT

4.1 Media of Concern

4.1.1 Soil

Soil is considered to be a potential media of concern at the Site. Future commercial workers are likely to contact Site surface soil at the Site. Construction workers are likely to contact surface and subsurface soil during earth movement activities associated with construction activities.

The proposed containment remedy and institutional controls will mitigate the potential for future receptors (commercial workers and on-Site visitors) from contacting impacted soil at the Site; the proposed health and safety controls outlined in Section 8.1 and the Site-Specific Health and Safety Plan will mitigate the potential risk to construction workers from contacting impacted soil at the Site. Potential human exposure pathways are summarized in Section 4.2.

4.1.2 Groundwater and Soil to Groundwater

Groundwater is considered to be a potential media of concern at the Site. However, groundwater is situated at depths greater than 20 ft bg, and is not used as a potable water supply. Further, the Developer will file a deed restriction prohibiting the use of groundwater at the Site in the future. As such, groundwater is not considered to be a potential media of concern for future receptors (commercial occupants and on-Site visitors).

Groundwater is considered to be a potential media of concern for construction workers. However, as groundwater is situated at depths greater than 20 ft bg, this exposure is only anticipated for deep excavations (greater than 20 ft bg). Current development plans do not include excavations at depths greater than 20 ft bg; however, a deed restriction governing groundwater encountered during excavation will provide protection for any further excavations at the property.

4.1.3 Surface Water / Sediment

No surface water or sediment samples were collected from Site. Please note, surface water and sediment are not present at the Site. Therefore surface water and sediment are not considered a potential media of concern for current and future receptors.

4.2 Potential Exposure Pathways and Receptors of Concern

The Site currently consists of a grass and concrete paved lot (Figure 2). Under the proposed future use (Tier 2b) potential human receptors include: future on-Site commercial workers and visitors, and future construction workers. Potential exposure pathways include: incidental ingestion, dermal contact, and inhalation of particulates entrained as dust from impacted Site soils, and dermal contact/incidental ingestion of groundwater for the construction worker.

Future commercial workers and visitors are likely to contact impacted soils unless a containment remedy that eliminates the exposure pathway is applied to the Site.

Construction workers are likely to contact impacted soils during earth movement activities associated with future construction activities.

In *absence* of the containment remedy, the following potential human exposure pathways were identified for evaluation for the Site:

Future Construction Worker

- Incidental ingestion of soil.
- Dermal contact with soil.
- Inhalation of soil particles.
- Incidental ingestion of groundwater.
- Dermal contact with groundwater.

Future on-Site Commercial Worker

- Incidental ingestion of soil.
- Dermal contact with soil.
- Inhalation of soil particles.

Future Visitor (Adult, Youth and Child)

- Incidental ingestion of soil.
- Dermal contact with soil.
- Inhalation of soil particles.

4.3 Risk-Based Screening and Selection of Chemicals of Potential Concern

Risk-based screening was conducted by comparing the maximum detected chemical concentrations for each media to the MDE Cleanup Standards for Non-Residential Soil and the MDE Cleanup Standards for Groundwater (MDE 2008). Given the future use of the Site (Tier 2b), analytes in any medium for which the maximum measured concentration exceeded the applicable MDE Cleanup Standard or USEPA target concentration were considered a Chemical of Potential Concern (COPC). Analytes detected above the applicable MDE Cleanup Standards consist of the following:

Surface Soil: PAHs [benzo(a)pyrene]

The above analyte is considered the COPC for the Site.

4.4 Complete Exposure Pathways

The following complete exposure pathways have been identified at the Site:

- **Future Construction Worker:** Incidental ingestion of soil; dermal contact with soil; and inhalation of soil particles.
- **Future Commercial Worker:** Incidental ingestion of soil, dermal contact with soil, and inhalation of soil particles.
- **Future Visitor:** Incidental ingestion of soil, dermal contact with soil, and inhalation of soil particles.

Engineering and institutional controls consisting of a containment remedy (asphalt cap cover, concrete cap cover, clean backfill cap cover) and deed restrictions prohibiting groundwater use and restricting future excavations are proposed to mitigate associated risks to human health at the Site.

5.0 CLEANUP CRITERIA

The cleanup criteria selected for the Site is the non-residential cleanup standard for soil (*Cleanup Standards for Soil and Groundwater Interim Final Guidance, Update No. 2.1*). Specifically, the containment remedy presented herein will eliminate the exposure pathway from the media of concern (surface soil) to the potential receptors (future on-Site visitor, commercial worker and construction worker). Health and safety protocols, as outlined in Section 8.1 and the Site Specific Health and Safety Plan, will be established during the construction phase of the redevelopment to ensure construction workers are not exposed to an unacceptable risk.

The containment remedy will minimize the threat to human health by eliminating potential contact with the impacted media (soil and groundwater). This containment remedy will consist of one of the following capping techniques across the entire Site:

- Building covered areas: placement of a minimum 5-inch concrete slab-on-grade.
- Asphalt paved areas: Placement of 6-inch combination of clean fill and/or road base and asphalt/concrete
- Landscaped areas: Placement of a one-foot combination clean fill and/or top soil over an MDE approved geotextile fabric material and marker fabric material

Based on the professional judgment of Urban Green Environmental, LLC and generally accepted professional practices and standard of care exercised by reputable companies performing similar environmental services, the environmental containment remedies designed and proposed herein, if implemented, operated, and maintained (Refer to Section 8.4 and Appendix C), will be protective for the future intended non-residential use.

The institutional controls proposed herein will provide an effective means of mitigating potential exposure to impacted media. Specifically, a restriction will be placed on the deed to prevent excavation activities at depths greater than one foot below the ground surface in landscaped areas, six inches below the ground surface in asphalt paved areas, and immediately below the concrete covered areas. The excavation restriction will require that the MDE be notified at least 15 days prior to any excavation that will penetrate below the cap.

Further, a restriction will be placed on the deed to prevent use of groundwater and to provide certain requirements for any excavation encountering groundwater at the Site.

Lastly, a Site Specific Health and Safety Plan (HASP) will identify the means and methods to protect construction workers engaged in intrusive activities at the Site. During construction, all on-site personnel and visitors will be notified of the HASP. A copy of the Site Specific Health and Safety Plan and its signature log will be present on-Site during all RAP construction activities for MDE inspection and review.

6.0 SELECTED TECHNOLOGIES AND LAND USE CONTROLS

Future redevelopment of the Site is for Tier 2B, restricted commercial.

The rationale for selecting the containment remedy is to effectively mitigate the threat to human health by eliminating potential contact of the on-Site receptors with the impacted media (soil). The capping technologies presented in this Section will provide an adequate cap and eliminate these potential exposure pathways. Institutional controls presented herein will be placed on the Site to ensure that the potential exposure pathways are mitigated in the future.

The Site will be serviced by municipal water, municipal sewer, natural gas, and electric. Groundwater will not be used as a potable water supply, nor is it planned for use as a non-potable water supply. To ensure and maintain this use, a groundwater use restriction will be placed on the Site and recorded with the property deed prior to occupancy.

The selected remedy is intended to eliminate exposure pathways and does not reduce the toxicity and volume of the COPC. Continued maintenance of the containment remedy will limit the mobility of Site contaminants in the future.

No additional activities, other than those specified below, are anticipated to develop this remedial design. This containment remedy has been incorporated into the development plan for the Site.

The corrective actions proposed for the Site are detailed in the following sections.

6.1 Paved and Concrete Covered Areas

During development, the Site will be regraded and certain areas will be paved with asphalt or concrete in accordance with the following procedures:

- Regrade the Site.
- Placement of a 6-inch thick asphalt pavement and clean fill sub-base, or placement of a 5-inch thick concrete slab.
- Deed restriction to maintain the cap and require future excavations at the Site to be approved by the MDE prior to any disturbance to the subsurface.

Cross sections detailing the composition of the impervious surface layers for asphalt paved and concrete covered areas are presented on Figure 3.

6.2 Landscaped Areas

The current development plans include several public landscaped areas. In landscaped areas, construction will adhere to the following protocols:

- Regrade the Site.
- Placement of a MDE-approved geotextile fabric.
- Placement of a one-foot clean fill layer.
- Deed restriction to maintain the cap and require future excavations at the Site to be approved by the MDE prior to any disturbance to the subsurface.

A cross section detailing the composition of the landscaped areas is presented on Figure 4. Landscape plants will be limited to those with root systems which will not penetrate the geotextile/marker barrier. If landscaped plants have root systems that extend deeper than one foot, the thickness of the clean fill cap will be adjusted accordingly.

6.3 Future Excavation/Utility Trenching

Utility conduits constructed on-Site will be required to adhere to the containment remedy protocols identified in Table 2. Construction monitoring will be required throughout utility excavations. Concrete duct banks will be required for future communication lines.

Furthermore, soil excavated during the utility trench excavation is anticipated to be regraded beneath the cap at the Site.

6.4 Site Access and Control

Prior to and during implementation of the response action, Site access will be limited through maintenance of Site perimeter fencing. In addition, State Center Parcel I Master Tenant LLC, will comply with all local, State, and Federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities pursuant to an approved RAP.

In addition, as previously discussed in Section 4.2, during construction and development the potential exists for exposure to COPCs by construction workers through incidental ingestion of soil, dermal contact with soil, and inhalation of soil particles. Therefore, future construction contractors must comply with all requirements of the Site Specific Health and Safety Plan (to be developed prior to implementation of the RAP) and the health and safety protocols described herein. The primary actions taken to mitigate potential exposures to future construction workers will be environmental monitoring and the appropriate use of personal protective equipment during construction activities.

6.5 Institutional Controls (Future Land Use Controls)

Long-term conditions will be placed on the RAP approval and Certificate of Completion (COC) regarding future uses of the Site. These conditions are expected to include the following:

• Restriction prohibiting use of groundwater at the Site.

• Complete appropriate characterization and disposal of any future material excavated from beneath the cap in accordance with applicable local, state and federal requirements.

prior to any planned excavation activities at the Site that will penetrate through the cap.

• Complete appropriate maintenance and inspection of the containment remedy.

The Developer will file the above deed restrictions as defined by the MDE VCP in the Certificate of Completion. The State Center Parcel I Master Tenant LLC will maintain ownership and control of the Site during all phases of development. All areas of the Site are subject to the proposed Response Action containment remedy (capping). All areas of the Site are subject to the proposed Response Action institutional controls (deed restrictions).

6.6 **Post Remediation Requirements**

Post remediation care requirements will include compliance with the conditions placed on the COC and the deed restrictions recorded for the Site. Deed restrictions will be recorded within 30 days after issuance of the COC.

Physical maintenance requirements will include maintenance of the capped areas to prevent degradation of the cap and exposure to the underlying soil. As part of the Site redevelopment, the Developer has also included the attached Operations and Maintenance Plan (O&M Plan) for MDE VCP review (Appendix C). The O&M Plan includes a maintenance schedule and inspection protocols. The property owner shall update and revise the plan accordingly once Site-specific utilization and development plans are finalized and implemented.

Inspections of the cap will be conducted each year, targeting April. The property owner will be responsible for on-site cap maintenance inspections, performing maintenance of the cap, and for maintaining all cap inspection records. Maintenance records will include the date of the inspection, name of the inspector, any noted issues and subsequent resolution of the issues. Any areas of the pavement cap that have degraded to a Pavement Condition Index of 4.0 will be repaired within five business days of discovery. MDE shall be notified within ten business days if damage to the pavement capped area(s) exceeds one foot in diameter and/or six inches in depth (cap thickness) or if damage to the landscaped capped area(s) exceeds one foot in diameter and/or one foot in depth.

In addition, MDE will be provided written notice at least 15 days prior to any planned excavation activities at the Site that will penetrate through the cap. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation, health and safety protocols (as required), clean fill source (as required), and proposed characterization and

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disposal requirements. Cap maintenance requirements are also described in Section 8.4 and in Appendix C.

7.0 EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGIES

7.1 Criteria for Certificate of Completion

The Participant will document implementation of the RAP through the following means and methods, based on which the COC can be issued to the Developer:

- A RAP implementation schedule will be provided to the MDE prior to the beginning of RAP activities.
- A Site Specific Health and Safety Plan will be prepared prior to commencing the scheduled RAP intrusive activities. A copy of the Site Specific Health and Safety Plan will be present on-Site during all intrusive RAP activities.
- During periods of RAP construction activities, field visits will be conducted by the Developer's environmental consultant to perform environmental oversight and health and safety monitoring to ensure accurate construction of the containment remedy. At a minimum, one weekly 2-hour field visit will be required to document compliance with the RAP. Field visits will also be performed at the initiation and completion of each RAP activity.
- During periods of RAP construction activities, monthly progress reports will be submitted to MDE documenting the RAP implementation.
- At the completion of RAP activities, a Response Action Completion report will be submitted to MDE for review and approval. The Response Action Completion report will include field visit documentation, photo-documentation of each completed RAP milestone (i.e. clean fill capping, landscaping and paving), health and safety monitoring during RAP implementation activities, and Site plans illustrating paved areas, open landscaped areas, building footprints and final elevations of the capped Site. The Response Action Plan Completion report will also include copies of certificates of disposal or manifests, as applicable, for environmental media and solid waste generated during the performance of the RAP.
- A copy of the recorded deed restrictions will be submitted to MDE within 30 days of issuance of the COC by the MDE VCP.

7.2 Criteria for Contingency Measures

If, during implementation of this RAP, any previously undiscovered contamination, change to the remediation schedule, or citation from regulatory entities related to health and safety practices is identified, MDE will be verbally notified in a timely manner by State Center Parcel I Master Tenant LLC. Notifications will be provided to the VCP at the following address:

MDE Land Restoration Program/Voluntary Cleanup c/o Division Chief 1800 Washington Boulevard, Suite 625 Baltimore, Maryland 21230 Phone: 410-537-3493

In addition to verbal notifications, the MDE VCP will be provided with all documentation and analytical reports generated as a result of newly identified conditions. This includes manifests for contaminated material disposed off-site.

8.0 PROPOSED RESPONSE ACTION IMPLEMENTATION

The following section includes plans and protocols for implementation of the proposed Response Action, including general health and safety protocols, reporting requirements, maintenance, excavation protocols and specifications for clean fill characterization.

8.1 General Health and Safety Protocols

During construction and development the potential exists for exposure to COPCs (incidental ingestion, dermal contact and inhalation of soil particles and dermal contact or incidental ingestion of groundwater) by construction workers. Therefore, future construction contractors must comply with all requirements of the RAP health and safety protocols and OSHA guidelines for managing contaminated materials. A Site Specific Health and Safety Plan will be prepared prior to implementation of any RAP activities. A copy of the Site Specific Health and Safety Plan will be maintained onsite during all RAP activities.

The primary actions to mitigate potential exposures to future construction workers will be environmental air monitoring and the use of appropriate personal protective equipment (i.e. hard hats, leather work gloves, steel toed boots, etc.) during construction activities. Further, Site access will be controlled by maintaining a minimum of a temporary chain link fence around the perimeter of the Site. A summary of the procedures for addressing potential exposure to air-borne dust or to soil is provided in the following section.

8.2 Air Monitoring Requirements

In order to evaluate risks associated with dust emissions generated during construction activities relative to the COPC identified in Site soils (PAHs), a total Site specific dust action level was calculated for the Site by using the permissible exposure limits (PEL) for airborne concentrations of the COPC at the Site. The action level was calculated using the highest concentration of each COPC in soil (and assuming the concentration in soil was equal to the concentration in air) in order to provide a conservative estimate of potential worker exposure. The calculated Site specific permissible dust levels exceeded the Occupational Safety and Health Administration (OSHA) PEL for Particulates Not Otherwise Regulated (PNOR) or nuisance dust.

The OSHA PEL for PNOR/nuisance dust is 15 mg/m³. As such, the OSHA PEL for PNOR/nuisance dust (15 mg/m³) will be used as the action level for the purposes of determining the need for dust suppression techniques (e.g. misting) and/or continuous monitoring during future construction activities completed at the Site.

If <u>visible</u> dust is generated in the breathing zone, air monitoring should be implemented as follows:

• At the start of intrusive Site activities.

- Periodically during intrusive Site activities (15-minute intervals).
- When contaminants other than those previously identified are being handled.
- When a different type of operation is initiated or conditions change.
- If personnel are working in areas with obvious particulate contamination.
- If a sufficient reasonable interval has passed so that exposures may have significantly changed.

Air monitoring will be performed using a ThermoElectron Corporation Personal Data RAM 1000AN dust monitor, or equivalent air monitoring device. If the 15 mg/m³ action level is exceeded, operations will be shut down and dust suppression implemented. Operations may only be resumed once re-testing indicates that dust concentrations are below the 15 mg/m³ action level.

As applicable, air monitoring will be conducted during RAP excavation activities in the immediate work zones and surrounding areas to assess levels of exposure to Site workers, establish that the work zone designations are valid and verify that the respiratory protection being worn by personnel is adequate. Perimeter air monitoring will also be performed to ensure contaminants are not migrating off-site.

8.3 **Reporting Requirements**

Reporting required during the implementation of the RAP will consist of RAP addendums, including construction documents, the initial written notification and construction schedule, and the City of Baltimore demolition and grading permits, monthly progress reporting, and submission of the Response Action Completion Report.

The RAP implementation schedule, construction documents and the City of Baltimore demolition and grading permits will be forwarded to the MDE VCP prior to beginning RAP activities. Monthly progress reports will be submitted to MDE documenting the RAP implementation. At the completion of RAP activities, a Response Action Completion Report will be submitted to MDE for review and approval. The Response Action Completion Report will include documentation regarding field visits, photo-documentation as each RAP milestone is completed (i.e. clean fill capping, landscaping and paving), health and safety monitoring during RAP implementation activities, and as-built Site plans illustrating all paved areas, open landscaped areas, building footprints and final elevations of the capped Site. Copies of certificates of disposal or manifests, as applicable, for environmental media and solid waste generated during the performance of the RAP will be included in the Response Action Completion Report.

8.4 Maintenance Requirements

Physical maintenance requirements will include maintenance of the capped areas to prevent degradation of the environmental cap and unacceptable exposure to the underlying soil. Annual

inspections will be scheduled, targeting April. The Developer or the future property owner(s) will be responsible for conducting the inspections. Any degraded areas of the cap will be repaired within five business days of discovery. MDE will be provided with written documentation of the repair within 10 business days after completion of the repair. In addition, MDE will be provided written notice within 15 days prior to any planned excavation activities at the Site that will penetrate through the cap. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation, health and safety protocols (as required), clean fill source (as required), and proposed characterization and disposal requirements.

8.5 Soil Excavation, Staging, Sampling and Disposal

Soils excavated during redevelopment of the Site are anticipated to be placed under the environmental cap. Specifically, small volumes of "excess" soil, limited to deeper spoils generated during excavations for the foundation supports (e.g. pilings) is anticipated during redevelopment.

However, if there is "excess" soil such that off-Site disposal or placement is necessary, this "excess" soil will be placed in a designated stockpile area of the Site and/or live-loaded for transport to an appropriate and MDE VCP-approved facility.

Stockpiled soil will be placed on plastic or impervious surface, covered completely with 6-mil plastic, so that the entire stockpile is encapsulated, and anchored to prevent the elements from affecting the integrity of the plastic containment. As required by the appropriate and MDE approved facility, composite soil samples will be collected for profiling/waste characterization. Each composite sample must be submitted to a fixed laboratory for the following analyses: PAHs, and any additional analysis required by the selected facility. At this time, it is anticipated that excess soils excavated from the Site will be transported off-site to Soil Safe, Inc. or an appropriate and MDE-approved non-residential facility.

Upon receipt of any additional characterization analytical results, an addendum to this RAP requesting approval of the selected disposal or placement facility will be submitted to MDE VCP. All manifests or trucking trip tickets generated during the implementation of the RAP will be incorporated in a completion report for submittal to MDE.

All "excess" soil, rubble or debris excavated from the Site will be disposed in accordance with applicable local, State, and federal laws and regulations.

8.6 Clean Fill

In general, the RAP proposes containment remedies to mitigate exposure to impacted soil. In order to implement this remedy, clean fill materials from a designated off-Site location(s) will be utilized for construction of the cap in paved areas and landscaped areas. Site grading plans have not been

finalized; however, preliminary conceptual grading indicates that the Site will be a balanced Site (e.g. significant cut or fill volumes will not be required).

As required to complete the environmental containment remedy within the asphalt paved and landscaped areas, material from the LaFarge Texas Road Quarry or other suitable MDE-approved clean fill source will be used for the construction of the environmental cap. If another clean fill source is identified which has not been previously approved by the MDE as clean fill, a clean fill sampling and analysis plan will be submitted to the MDE VCP for review and approval. The clean fill sampling and analysis plan will outline the source and quantity of clean fill, the proposed sampling frequency and analysis and the protocols for sampling. Clean fill characterization results will be submitted to the MDE VCP for review and approval of the materials as clean fill. Materials will be approved by the MDE VCP as clean fill prior to being transported on-site.

If gravel or rock is proposed for use as clean fill, the Developer will provide certification from the quarry, on company letterhead, that the material is not recycled and is derived from a virgin source mined at their facility.

As clean fill materials are transported to the Site they will be compacted in place or staged in temporary stockpile areas. Clean fill material stockpiles will be maintained and separately secured from excavated on-Site soils during RAP activities. Further, clean fill materials will be stockpiled on asphalt/concrete paved areas, 6-mil plastic, or existing capped areas. Prior to transport of clean fill to the Site, a Site plan, designating the proposed temporary stockpile area(s) will be submitted to the MDE VCP for review and approval.

8.7 Asbestos, Lead and Oil

If any undocumented underground storage tank or other oil storage container or any unanticipated environmental condition or hazard is discovered during excavation and intrusive Site activities, or a release of petroleum occurs at the Site, the Developer will notify the MDE Oil Control Program at 410-537-3442 or the MDE VCP at 410-537-3493, as applicable.

9.0 PERMITS, NOTIFICATIONS AND CONTINGENCIES

State Center Parcel I Master Tenant LLC will comply with all local, State, and federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities and implement the RAP. If during implementation of this RAP any previously undiscovered contamination, change to the remediation schedule, previously undiscovered storage tank or other oil-related issue, or other citation from regulatory entities related to health and safety practices is identified, the MDE VCP will be verbally notified in a timely manner by the Participant. Notifications will be provided to the VCP at the following address:

MDE Voluntary Cleanup Program c/o Division Chief 1800 Washington Boulevard, Suite 625 Baltimore, Maryland 21230 Phone: 410-537-3437

In addition to verbal notifications, the MDE VCP will be provided with all documentation and analytical reports generated as a result of newly identified conditions. This includes manifests for contaminated material transported for off-Site disposal. State Center Parcel I Master Tenant LLC understands that previously undiscovered contamination, previously undiscovered storage tanks or other oil-related issues may require an amendment to this RAP.

9.1 Implementation Schedule

The construction schedule for the Site is under development and is pending the future property transfer date and approval of this Response Action Plan. That being said, construction is anticipated to be expedited and initial site preparation activities are anticipate to start at early as December 2010.

In general, development activities will include regrading the Site and construction of the planned containment remedy as outlined in Section 6. Specifically, RAP activities will include general regrading, excavation and utility installations, foundation installation (including excavation for building footers and concrete slabs), and installation of the containment remedy within landscaped (geotextile and clean fill) and asphalt paved areas of the Site.

Please note that throughout the implementation of the Response Action, access to the Site will be restricted and will be controlled via temporary fencing.

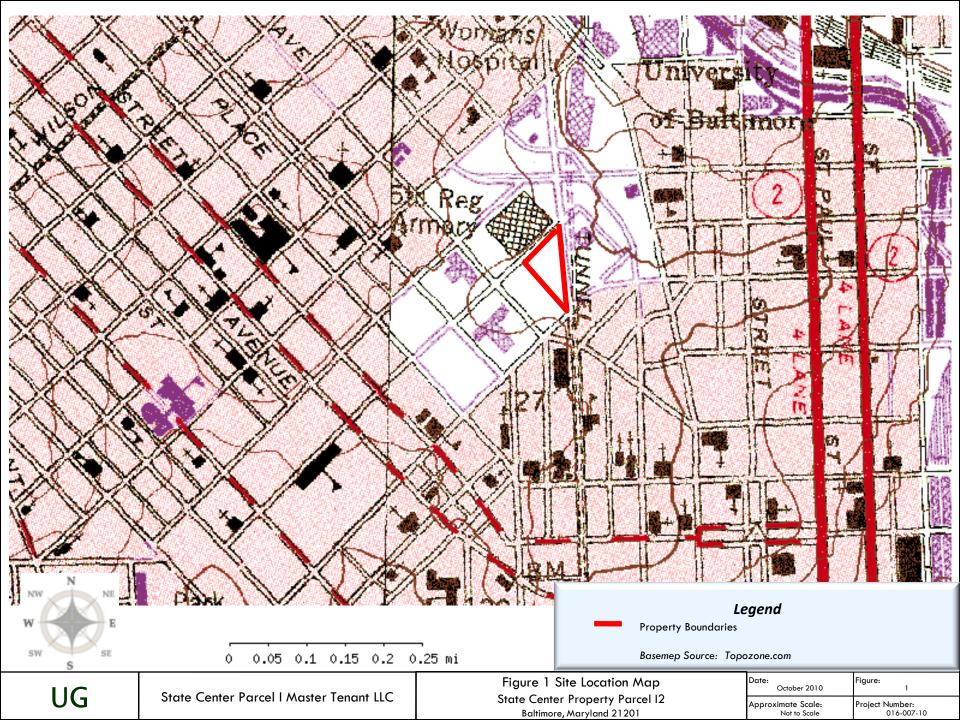
State Center Parcel I Master Tenant LLC understands that a detailed implementation schedule must be provided to the MDE for review and approval prior to initiating RAP activities on all or a portion of the Site. At a minimum this schedule will include dates for each of the following RAP activities:

- Final Construction Document Development.
- Site Regrading.
- Environmental Cap Construction.

As the construction schedule is developed, the schedule(s) will be forwarded to the MDE for review as a RAP addendum. Materials prepared as part of the RAP addendum(s) (final development plans, property subdivisions, deed restrictions, etc.) will also be forwarded to the MDE.

10.0 REFERENCES

- Environmental Resources Management, Inc. (ERM). 2007. Phase I Environmental Site Assessment State Center, Baltimore, Maryland. March.
- Maryland Department of the Environment (MDE). 2006. Voluntary Cleanup Program Guidance Document. March.
- MDE. 2008. State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1). August.
- STV, Inc. (STV). 2009. Existing Electric/Conduit, Existing Sanitary, Existing Storm Drain, Existing Gas Plans. August.
- Urban Green Environmental (UG). 2009. Final Limited Phase II Environmental Site Assessment Report, State Center Property. October.
- UG. 2010a. Draft Phase I Environmental Site Assessment Report Update, State Center Property Parcel I2. September.
- UG. 2010b. Supplemental Phase II Environmental Site Assessment Report, State Center Property Parcel I2. September.

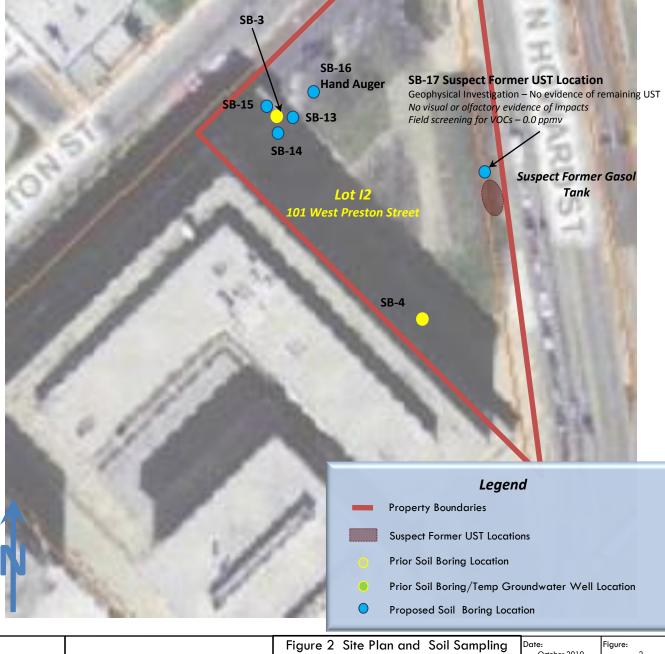


Soil Borings SB-13, SB-14, and SB-15

Composite surface and subsurface soil samples collected to evaluate prior soil boring SB-3 (elevated PAHs in surface soil).

No visual or olfactory evidence of impacts Field screening for VOCs – 0.0 ppmv

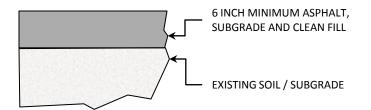
Soils characterized as non-hazardous Although elevated PAHs were reported in the composite soil sample; in contrast to the October 2009 results, results are above the MDE Residential Cleanup Standards but <u>below the MDE Non-Residential Cleanup Standards.</u>



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State Center Parcel I Master Tenant LLC igure 2 Site Plan and Soil Sampling Locations State Center Property Parcel I2 Baltimore, Maryland 21201

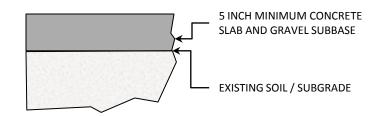
October 2010	2
Approximate Scale:	Project Number:
Not to Scale	016-007-10



PAVING SECTION DETAIL NOT TO SCALE

NOTES:

- 1. DETAIL NOT FOR CONSTRUCTION
- 2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.
- 3. PAVEMENT SECTION: PERVIOUS/IMPERVIOUS



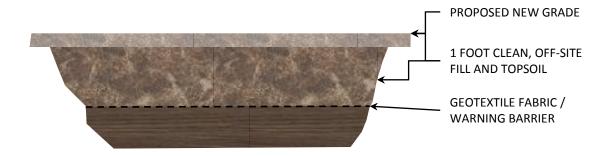
CONCRETE SECTION DETAIL NOT TO SCALE

NOTES:

- 1. DETAIL NOT FOR CONSTRUCTION
- 2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.
- 3. PAVEMENT SECTION: PERVIOUS/IMPERVIOUS

U	G

Date: October 2010	Figure: 3		
Approximate Scale:	Project Number: 016-007-10		



TYPICAL LANDSCAPE AREA DETAIL

NOT TO SCALE

NOTES:

- 1. DETAIL NOT FOR CONSTRUCTION
- 2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.

State Center Parcel Master	Figure 4 Cross Section Showing Cap Construction in Landscaped Areas		
Tenant LLC	State Center Property – Parcel I2 Baltimore, Maryland 21201	Арр	

Date:	Figure:		
October 2010	4		
Approximate Scale: Not to Scale	Project Number: 016-007-10		

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Table 1 Summary of Soil Analytical ResultsResponse Action PlanState Center Property -Parcel I2, Baltimore, Maryland 21201

ANALYTE MDE Cleanup MDE Cleanup			October 2009 Limited Phase II ESA			August 2010 Limited Phase II ESA				
	Standard - Residential ⁽¹⁾	Standard - Non Residential ⁽¹⁾	ATC ⁽²⁾	SB-3 0-1	SB-3 4-5	SB-4 0-1	SB-4 4-5	COMP 13.14.15 0-1	COMP 13.14.15 4-5	SB-17 4-5
Pesticides (SW8081A / ug/kg)	NA	NA	NA	Not analyzed	Not analyzed	Not analyzed	Not analyzed	ND	Not analyzed	Not analyzed
Herbicides (SW8151A / ug/kg)	NA	NA	NA	Not analyzed	Not analyzed	Not analyzed	Not analyzed	ND	Not analyzed	Not analyzed
PCBs (SW8082 / mg/kg)	NA	NA	NA	Not analyzed	Not analyzed	Not analyzed	Not analyzed	ND	Not analyzed	Not analyzed
Priority Pollutant Metals (SW6020 / mg	g/kg)									Not analyzed
Antimony	3.1	41	6	< 1.8	< 1.7	< 2.6	< 2.3	< 2.7	< 2.6	
Arsenic	0.43	1.9	3.6	2.2	2.5	2.6	1.3	4.6	0.92	
Beryllium	16	200	0.66	< 1.8	< 1.7	< 2.6	< 2.3	< 2.7	< 2.6	
Cadmium	3.9	51	0.73	< 1.8	< 1.7	< 2.6	< 2.3	< 2.7	< 2.6	
Chromium	23	310	28	15	14	43	29	120	12	
Copper	310	4,100	12	8.6	3.5	30	28	170	< 2.6	
Lead	400	1000	45	53	23	16	7.4	170	3.6	
Mercury			0.51	0.078	< 0.07	< 0.11	< 0.093	< 0.11	< 2.6	
Nickel	160	2,000	13	6.7	5.8	35	32	6.4	< 2.6	
Selenium	39	510	2.2	< 1.8	< 1.7	< 2.6	< 2.3	< 2.7	< 2.6	
Silver	39	510	0.94	< 1.8	< 1.7	< 2.6	< 2.3	< 2.7	< 2.6	
Thallium	0.55	7.2	3.9	< 1.5	< 1.4	< 2.1	< 2.3	< 2.2	< 2.6	
Zinc	2,300	31,000	63	33	17	76	74	24	7.7	
Semivolatile Organic Compounds / Poly	ycyclic Aromatic Hydro	carbons (SW8270C / u	g/kg) ⁽³⁾							
Acenaphthene	470,000	6,100,000	NA	14	< 5	< 6	< 5	< 5	< 5	
Acenaphthylene	470,000	6,100,000	NA	340	< 5	< 6	< 5	< 5	53	
Anthracene	2,300,000	31,000,000	NA	120	< 5	< 6	< 5	< 5	26	
Benzo(a)anthracene	220	3,900	NA	330	< 5	13	8	< 5	78	
Benzo(a)pyrene	22	390	NA	800	< 5	12	6	6	190	
Benzo(b)fluoranthene	220	3,900	NA	820	< 5	16	10	7	210	
Benzo(g,h,i)perylene	230,000	3,100,000	NA	250	< 5	< 6	< 5	< 5	110	
Benzo(k)fluoranthene	2,200	39,000	NA	260	< 5	7	5	< 5	100	
Chrysene	22,000	390,000	NA	380	< 5	13	8	< 5	91	
Dibenz(a,h)anthracene	22	390	NA	60	< 5	< 6	< 5	< 5	31	
Fluoranthene	310,000	4,100,000	NA	320	< 5	21	13	5	100	
Fluorene	310,000	4,100,000	NA	6	< 5	< 6	< 5	< 5	6	
Indeno(1,2,3-c,d)Pyrene	220	3,900	NA	230	< 5	6	< 5	< 5	100	
2-Methylnaphthalene	31,000	410,000	NA	51	13	< 6	5	< 5	8	
Naphthalene	160,000	4,100,000	NA	75	14	< 6	< 5	< 5	11	
Phenanthrene	2,300,000	31,000,000	NA	130	< 5	12	13	< 5	52	
Pyrene	230,000	3,100,000	NA	840	< 5	28	16	7	160	
Volatile Organic Compounds (SW8260B / ug/kg)			Not analyzed	ND	Not analyzed	ND	Not analyzed	Not analyzed	ND	
Total Petroleum Hydrocarbons (SW8015C / mg/kg)				Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed
Gasoline Range Organics	230	620	NA							
Diesel Range Organics	230	620	NA							
Notes / Superscripts										

<u>Notes / Superscripts</u>

Only detected analytes are shown.

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2.1 (MDE 2008).

(2) Anticipated Typical Concentrations (ATCs) represent reference or background levels published by the MDE for the Site area.

(3) Soil samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) in October 2009 and semivolatile organic compounds (SVOCs) in August 2010.

ND - Analyte(s) not detected in sample.

Not Analyzed - sample not analyzed for select parameters.

Table 2 Summary of Proposed Containment Remedy Alternatives for Future Utility ConduitsResponse Action PlanState Center Property - Parcel 12

=	Utility Type	Anticipated Depth of Utility (range in feet)*	Anticipated Installation Method	Anticipated Future Maintenance Access	Proposed Containment Remedy
	Water	Up to 4 feet below grade	Excavation and placement	Excavation to access and repair	Overexcavation (1' on all sides) and construction monitoring during installation
	Sewer / Stormwater	6+ feet below grade	Excavation and placement	No excavation anticipated; future access anticipated to be internal (e.g. bore and re-line conduit)	Construction monitoring during installation
	Electric	Up to 10 feet below grade	Installation of concrete duct banks; electric lines will be run through duct banks	No excavation anticipated; future access via existing concrete duct banks. Note the concrete duct banks have been over-designed by 100% to allow for future facility expansion	Concrete duct banks and construction monitoring during installation
	Natural Gas	Up to 4 feet below grade	Excavation and placement	Excavation to access and repair	Overexcavation (1' on all sides) and construction monitoring during installation
	Communication	Up to 10 feet below grade	Excavation and placement	Excavation to access and repair	Overexcavation (1' on all sides) and construction monitoring during installation

APPENDIX A MDE CORRESPONDENCE

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230

410-537-3000 • 1-800-633-6101

Martin O'Malley Governor

Anthony G. Brown Lieutenant Governor

October 19, 2010

Secretary Robert M. Summers, Ph.D.

Deputy Secretary

Shari T. Wilson

CERTIFIED MAIL

Caroline G. Moore, Member State Center Parcel I Master Tenant LLC 3420 2nd Street Baltimore, Maryland 21225

Re: Voluntary Cleanup Program Application State Center Parcel I2 Property Baltimore, Maryland

Dear Ms. Moore:

The Voluntary Cleanup Program ("VCP") of the Maryland Department of the Environment ("Department") has completed its evaluation of the VCP application package submitted for the State Center Parcel I2 Property located at 101 West Preston Street in Baltimore City, Maryland. The Department accepts the 0.78-acre property into the VCP and confirms the inculpable person status of State Center Parcel I Master Tenant, LLC for this property pursuant to Title 7, Subtitle 5 of the Environment Article, <u>Annotated Code of Maryland</u>.

A response action plan ("RAP") must be developed, approved by the Department, and implemented to address risks from polycyclic aromatic hydrocarbons (PAHs) in surface soil at the property. In addition, since the public notice period for the application submittal ends on October 29, 2010, if any public comments are received on the application during the remaining days of the public comment period, the RAP may be required to provide additional information to address those comments.

Submission of the proposed RAP and implementation of all statutory requirements must occur within 18 months of receipt of this letter. The guidelines for preparation of the proposed RAP have been enclosed and the statutory requirements can be found in Section 7-508 of the Environment Article. Simultaneously with submission of the proposed RAP to the Department for review and approval, you must comply with the public participation requirements by posting a sign at the property and publishing a notice in a daily or weekly newspaper of general circulation in the geographic area where the participating property is located. Both notices for the proposed RAP must include the date and location of the public informational meeting. A summary of the public participation requirements, as well as a template for the public notice in the newspaper and the sign on the property, has also been enclosed.

www.mde.state.md.us

Caroline G. Moore, Member Page Two

You are requested to forward a draft of the sign and newspaper notice for the proposed RAP to the VCP for review and approval prior to publication and posting at the property. Please contact the project manager to discuss development of the proposed RAP and the exact date for submitting the proposed RAP, and draft public notice language, to the Department for review and approval.

Upon satisfactory implementation and completion of the requirements set forth in the approved RAP and any subsequent addendums, the Department will issue a Certificate of Completion for the property, which must be recorded in the land records of Baltimore City within 30 days following receipt.

In accordance with the provisions of Section 7-506(g)(1) of the Environment Article, you are requested to inform the Department in writing, within 30 days of receipt of this letter, whether State Center Parcel I Master Tenant, LLC intends to proceed as a participant in the VCP. If the Department does not receive the notice of intent to proceed within the 30-day period, the application for participation in the VCP shall be deemed withdrawn pursuant to Section 7-506(g)(2) of the Environment Article.

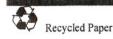
If you have any questions regarding the requirements, development of the proposed RAP or other aspects of the program, please contact Ms. Richelle Hanson at 410-537-3493.

Sincerely

James Carloll, Administrator Land Restoration Program

Enclosures

Ms. Denise A. Sullivan, P.E., Urban Green Environmental, LLC
 Mr. Horacio Tablada
 Mr. Kim Lemaster
 Ms. Richelle Hanson



www.mde.state.md.us

APPENDIX B ADMINISTRATIVE REQUIREMENTS

WRITTEN AGREEMENT

State Center Property – Parcel I2

If the response action plan is approved by the Maryland Department of the Environment, the participant agrees, subject to the withdrawal provisions of Section 7-512 of the Environmental Article, to comply with the provisions of the response action plan. Participant understands that if he fails to implement and complete the requirements of the approved plan and schedule, the Maryland Department of the Environment may reach an agreement with the participant to revise the schedule of completion in the approved response action plan or, if an agreement cannot be reached, the Department may withdraw approval of the plan.

Printed Name:	Caroline G. Moore	Title:	Member
Signature:		Date:	

CERTIFIED STATEMENT FOR COUNTY AND MUNICIPAL ZONING REQUIREMENTS

State Center Property – Parcel I2

The participant hereby certifies under penalty of law that the current use and proposed use of the eligible property upon which the response action plan is based, are in conformance with all applicable zoning requirements.

The participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environmental Article, <u>Annotated Code of Maryland</u>, and that this certification is required to be included in a response action plan for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environmental Article, annotated Code of Maryland.

Printed Name:	Caroline G. Moore	Title:	Member
Signature:		Date:	
		 -	

APPENDIX C CONTAINMENT REMEDY OPERATIONS AND MAINTENANCE PLAN

Appendix C Containment Remedy Operations and Maintenance Plan

STATE CENTER PROPERTY – PARCEL I2 BALTIMORE, MARYLAND 21201

C.1 CONTAINMENT REMEDY OPERATIONS AND MAINTENANCE OVERVIEW

In accordance with the Response Action Plan, post remediation care requirements include compliance with the conditions placed on the Certificate of Completion and deed restriction(s) recorded for the Site. In addition, physical maintenance requirements must be performed throughout the life of the containment surface of the capped areas to prevent degradation of the cap and exposure to the underlying soil. Inspections of the cap must be conducted annually, targeting April. The property owner is responsible for on-site cap maintenance inspections, performing maintenance of the cap, and for maintaining all cap inspection records. Maintenance records must include the date of the inspection, name of the inspector, any noted issues and subsequent resolution of the issues. Maintenance records will be maintained in a designated area within the State Center Property - Parcel 12 for MDE inspection and review.

The containment remedy (environmental cap) must be constructed as described in the Corrective Action Plan. The following outlines the operations and maintenance plan (O&M Plan) inspection procedures to be followed at the State Center Property - Parcel I2 to determine when maintenance of the capped areas is required.

In addition, in accordance with the Corrective Action Plan, maintenance of the cap is required in the event of any breaches which would impair the integrity of the cap. In the event of discovery of such breach, the MDE shall be verbally notified within 24 hours and maintenance shall begin within 72 hours.

C.2 PAVEMENT COVERED AREA INSPECTIONS

The paved areas of the Site shall include (from bottom to top) graded aggregate base and hot mix asphalt to complete the remedial cap. The total thickness must be a minimum of 8-inches. This aggregate base and asphalt must be maintained to ensure the integrity of the cap.

Pavement covered area inspections are required at a minimum of a annual basis (targeting April) to document that the environmental cap integrity is being maintained. During the inspection, the environmental cap surface shall be observed for the following conditions:

- 1. Differential settlement and significant surface-water ponding
- 2. Erosion or cracking of the cap materials
- 3. Obstruction or blocking of drainage facilities

Environmental cap inspections may be performed by the Owner's staff or consultants. The inspection shall note any areas where repairs are necessary, and provide a written description, including photo documentation, of any cap defect to be repaired.

Appendix C Containment Remedy Operations and Maintenance Plan State Center Property – Parcel 12 Baltimore, Maryland

Inspection forms and any resulting repair records are required to be maintained by the property owner.

Where the inspections recommend that cap maintenance and repair be completed, such repairs will be completed as soon as practically possible, and in compliance with any recorded deed restriction(s). If an action is required and completed, documentation of the response action is required, and shall include the name of the company completing the work, a description of the work, and the date the work was completed. An example pavement inspection form is provided to document the results of each inspection, the recommended maintenance responses, and the actual response.

Pavement Inspection Protocol

A pavement management system (pavement condition index) shall be implemented at the Site. The purpose of this system will be to plan and prioritize future pavement maintenance needs. The system is based on a numerical rating of pavement distresses as published by the US Army Corps of Engineers. This system is based on professional assessment and judgment. Inspections are to be performed by driving slowly over the paved areas and observing the surface conditions. A by foot field inspection should then be performed on areas judges to be in need of maintenance. The following chart is to be used to provide an index of the pavement condition.

PCI	Characterization	Description
1	New crack-free surface	Black in color, smooth texture
2	Oxidation has started	Short hairline cracks start to develop. Dark gray color.
3	Oxidation in advanced state	Hairline cracks are longer and wider. Gray in color.
4	Oxidation complete	Crack area 0.25 inch wide and crack lines have found base faults
5	Moisture penetrating through 0.25 inch cracks. Loose material, stone and sand, evident	Texture of surface becoming rough. Preventative maintenance.
6	Cracks widen and join	Cracks and shrinkage evident at curb and gutter lines.
7	Potholes develop in low spots	Gatoring areas begin to break up. Overall texture very rough.
8	Potholes developing	Pavement breaking up
9	Heaving due to excessive moisture in base	Distorts entire surface
10	General breakup of surface	

TABLE C.1 PAVEMENT CONDITION INDEX (PCI)

Any inspection indicating a PCI of 4 or greater for any portion of the Site shall require maintenance activities, including milling and resurfacing of the pavement. The intent is that repairs should be completed

Appendix C Containment Remedy Operations and Maintenance Plan State Center Property – Parcel 12 Baltimore, Maryland

before the pavement degrades beyond a PCI of 4. **MDE shall be notified in a timely manner if damage to** the capped area(s) exceeds one foot in diameter and/or eight inches in depth (cap thickness).

An example pavement inspection form is attached herein to document the results of each inspection, the recommended maintenance responses, and the actual response implemented.

C.3 LANDSCAPED COVERED AREA INSPECTIONS

The Site redevelopment includes several vegetated and grassed areas including parking lot islands, site perimeter, and stormwater management areas. These areas shall be graded and filled with approved clean fill to provide a minimum 12-inch vertical buffer zone consisting of (from bottom to top): MDE-approved geotextile, and a minimum buffer thickness of 12 inches. This landscaping must be maintained to ensure the integrity of the environmental cap.

Landscape Inspection Protocol

Inspections are to be performed by traversing the landscaped areas and observing the surface conditions. Landscaped areas shall be inspected to evaluate the health and condition of plants, signs or mortality, animal burrows, erosion, or other features that may compromise the cap integrity. Of particular importance would be any feature such as an uprooted tree or excess erosion that would compromise the thickness of the remedial cap or would contravene the purpose of the cap.

If plants need to be replaced, they must be replaced with shallow-rooted species whose root systems will not penetrate beyond the cap thickness. Alternatively, an excavation notification may be submitted to the MDE VCP for review and approval to extend the cap thickness in the area of the plants to allow for deeper rooted species. The extended cap thickness must encompass the maximum anticipated root depth of the plant.

Environmental cap inspections may be performed by the Owner's staff or consultants. The inspection shall note any areas where repairs are necessary, and provide a written description, including photo documentation, of any cap defect to be repaired.

Inspection forms and any resulting repair records are required to be maintained by the property owner. MDE shall be notified in a timely manner if damage to the capped area(s) exceeds one foot in diameter and/or one foot in depth.

Where the inspections recommend that cap maintenance and repair be completed, such repairs will be completed as soon as practically possible, and in compliance with the MDE deed restriction. If an action is required and completed, documentation of the response action is required, and shall include the name of the company completing the work, a description of the work, and the date the work was completed. An example pavement summary form is provided to document the results of each inspection, the recommended maintenance responses, and the actual response.

Appendix C Containment Remedy Operations and Maintenance Plan State Center Property – Parcel I2 Baltimore, Maryland

An example landscape inspection form is attached herein to document the results of each inspection, the recommended maintenance responses, and the actual response implemented.

PAVEMENT INSPECTION FORM

	PAVEMENT INSPECTION FORM		State Center Property – Parcel I2 Baltimore, Maryland 21201		
Date:			Time:		
Weather	r Conditio	ns:			
General	Pavemei	nt Conditions:			
		PAVEMENT COND		DEX (PCI)	
P	CI	Characterization			Description
	I	New crack-free surface		В	lack in color, smooth texture
2	2	Oxidation has started		Short ha	irline cracks start to develop. Dark gray color.
;	3	Oxidation in advanced state		Hairline	cracks are longer and wider. Gray in color.
4	4	Oxidation complete		Crack a	rea 0.25 inch wide and crack lines have found base faults
	5	Moisture penetrating through 0.25 cracks. Loose material, stone and evident		Text	ure of surface becoming rough. Preventative maintenance.
RED	6	Cracks widen and join		Cracks	and shrinkage evident at curb and gutter lines.
	7	Potholes develop in low spots		Gatorinç	g areas begin to break up. Overall texture very rough.
RESPONSE REQU	8	Potholes developing			Pavement breaking up
RES	9	Heaving due to excessive moisture in	n base		Distorts entire surface
	10	General breakup of surface			

	PAVEMENT INSPECTION FORM		State Center Property – Parcel I2 Baltimore, Maryland 21201
CURB CONDITION	Exists Sound Deteriorated Comments:		Root Intrusion
SIDEWALK CONDITION	Exists Sound Deteriorated Comments:	-	Root Intrusion
RESPONSE REQUIRED ¹			
WORK COMPLETED			
PHOTOGRAPHS / FIGURES ATTACHED			
RESPONSE CONTRACTOR	Work Completed By: Date: Signature:		

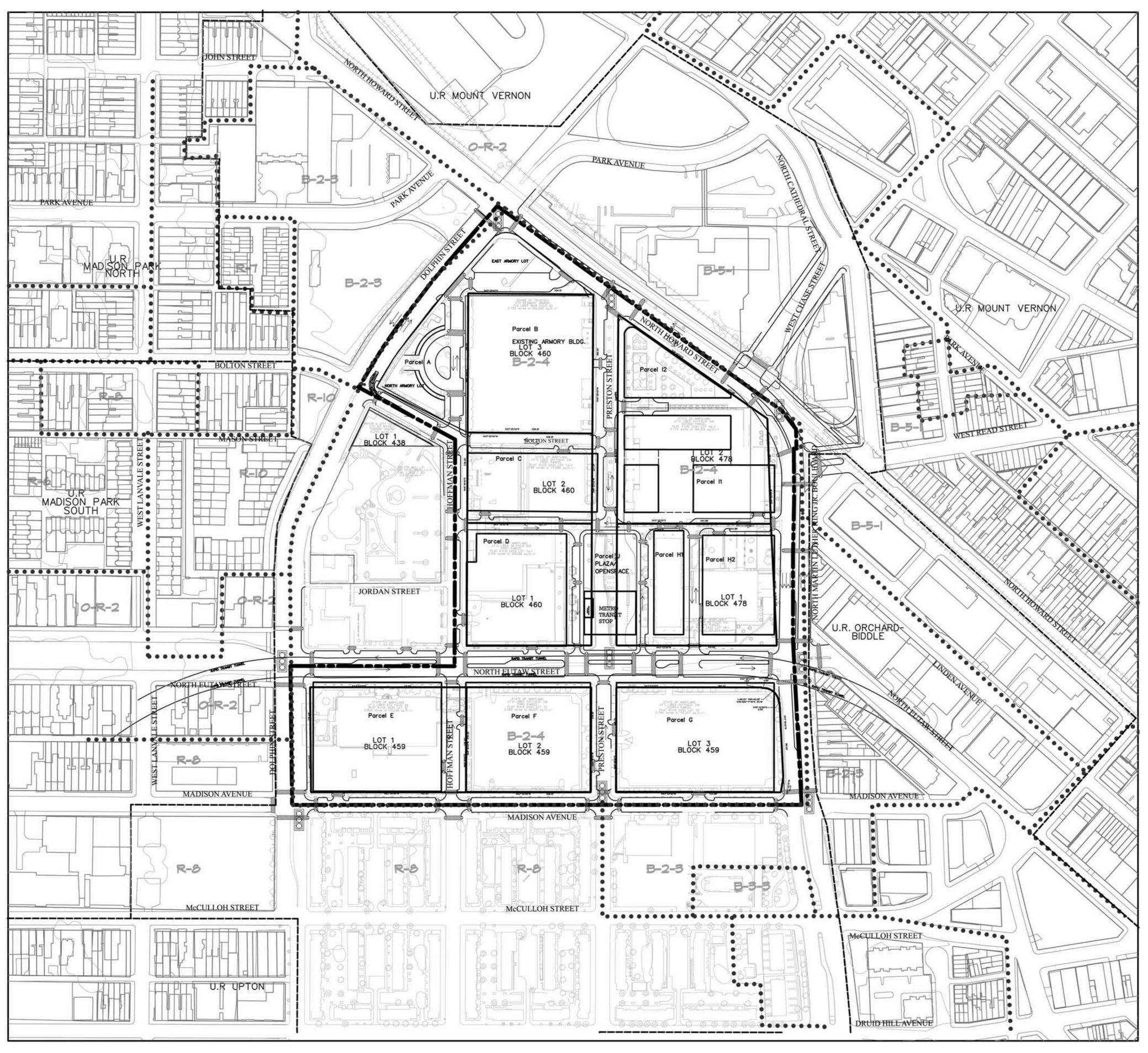
¹ Any inspection indicating a PCI of 4 or greater for any portion of the Site shall require maintenance activities, including milling and resurfacing of the pavement.

LANDSCAPE INSPECTION FORM

	LANDSCAPE INSPECTION FOR	И	State Center Property – Parcel I2 Baltimore, Maryland 21201
Date:		Time:	
Weather Conditio	ns:		
General Landsca	ping Description:		
GENERAL LANDSCAPE CONDITION	Exists Sound Healthy Plant Condition Animal Burrows Comments:	Erosion Signs of Morte	
GROUND COVER	Dry Damp	U Wet	
TREES	Comments:	Poor Health	
SHRUBS	Comments:	Poor Health	Dead Fallen
EROSION	Comments:	Moderate	Significant
HOLES	Comments:		

l	LANDSCAPE INSPECTION FORM	State Center Property – Parcel I2 Baltimore, Maryland 21201
RESPONSE REQUIRED		
WORK COMPLETED		
PHOTOGRAPHS / FIGURES ATTACHED		
RESPONSE CONTRACTOR	Work Completed By: Date: Signature:	

APPENDIX D FUTURE DEVELOPMENT PLANS



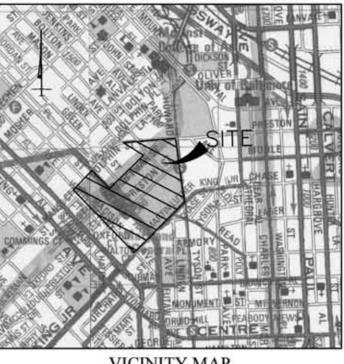
<u>DGS</u>

STATE CENTER TRANSIT ORIENTED DEVELOPMENT **BUSINESS PLANNED UNIT DEVELOPMENT**

	APP OF	T OF PROP. PLANNED T DEVELOPMENT ROX. AREA LIMIT HISTORIC DISTRICTS IP. BUILDING ENVELOP	CTUMMAGS		
GENER	AL NOT	TES:		COPYRIGHT	ADC THE I
1. DEVELOPER	ATTN: MICHAEL	CRETARY, REAL ESTATE	RVICES		
2. SITE ADDRES		STREET ADDRESS		CEL AC EX ZONING	l.
STATE O	F MARYLAND F MARYLAND F MARYLAND	1100 N EUTAW STREET NO ADDRESS NO ADDRESS	459 2 1.0 459 3 2.7	99 AC 8-2-4 08 AC 8-2-4 40 AC 8-2-4	
STH R STATE O	F TRUSTEES. EG. ARMORY F MARYLAND	231 29TH DIVISION ST. 300W PRESTON STREET	460 1 2.4	84 AC 8-2-4	
STATE O	F MARYLAND F MARYLAND F MARYLAND BALTIMORE	NO ADDRESS 301 W PRESTON STREET 201 W PRESTON STREET ARMORY PARKING LOT N.	478 1 3.0 478 2 3.7	791 AC 8-2-4 041 AC 8-2-4 780 AC 8-2-4 05 AC 8-2-4	
CITY OF	BALTIMORE BALTIMORE	ARMORY PARKING LOT E.	0.0	65 AC 8-2-4	
RIGHTS-0	F-WAY TO BE CI	LOSED D PLANNED UNIT DEVELOPM			95a
4. ZONING: EX PR 5. DENSITY AND	OPOSED: B-2-4 A	ND PROPOSED PUD			
ALL DWARL	E DENSITY: 218	UNITS PER ACRE 21.83 X bonus) UNITS F.A.R.: B-2-4, (21.83 X 4	218+52+ 4995 UNITS		
6. PROPOSED I FARCELI A	PROCRAM	+6,989,223.7 SQU	ARE FEET (includes	gross density TOD bo	nus)
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E 2. F 2.	84 AC. 38 AC. 25 AC.	0 58,600 0 0 0 0	22,200 0 0 0 23,500 439,	500 110,500	
H1 0. H2 1.	95 AC. 58 AC. 19 AC. 62 AC.	0 0 0 0 0 0	87,200 503, 13,000 0 34,200 342, 24,000 485,	277,400 300 0	
12 0.	78 AC. 48 AC.	0 0 5,000 0 345,000 58,600	23,000 313,0 19,000 0	00 0	
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19. CRITICAL AR 20. FLOOD PLA	EA: THIS SITE IS	NOT LOCATED WITHIN THE NOT WITHIN THE 100-YR FE	CRITICAL AREA MANA	GEMENT PROGRAM.	
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24. CONTACT #	AT1 712 BAL	IV INCORPORATED NI SUSAN WILLIAMS, DIRECT 5 AMBASSADOR ROAD, SUIT TIMORE, MD 21244			
	(41)	0) 944-9112			
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DEVE	ELOPN	MENT BU	SINES		
	2011			1	DATE:
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PRESIDENT	OF CITY COUN	CIL	Di	ATE	
MAYOR			D/	ATE	
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LEGEND:

ZONING LINE



VICINITY MAP SCALE: 1"-1000" COPYRIGHT ADC THE MAP PEOPLE PERMITED USE NUMBER 20805147

RESS	BLOCK	LOT	PARCEL AC	EX ZONING
TREET	459	1	2.599 AC	8-2-4
	459	2	1.08 AC	8-2-4
	459	3	2.740 AC	8-2-4
N ST.	460	3	2.684 AC	8-2-4
STREET	460	1	2.423 AC	8-2-4
COLORINA D	460	2	1.791 AC	8-2-4
STREET	478	1	3.041 AC	8-2-4
STREET	478	2	3.780 AC	8-2-4
LOT N.		244	1.05 AC	8-2-4
LOT E.			0.65 AC	8-2-4
	<u> </u>	_	21.83 AC	

T. PLANT SF.	RETAIL SF.	OFFICE SF.	RESIDENTIAL SF.
0	0	0	0
0	0	0	0
0	17,700	0	260,600
58,600	22,200	0	617,200
0	0	0	579,700
0	23,500	439,500	110,500
0	87,200	503,400	166,600
0	13,000	0	277,400
0	34,200	342,300	0
0	24,000	485,000	0
0	23,000	313,000	0
0	19,000	0	0
58,600	263,800	2,083,200	2,012,000

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	the state of the s	ieu		
	Parking Ratio			
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excess of 50,000	1.00	1042		
	0.50	773		
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SHEET 2 OF 5

JULY 9, 2008

REVISIONS

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GRAPHIC SCALE

STV Incorporated Engineers/Planners/Surveyors 7125 Ambassador RD, Suite 200 Baltimore, MD. 21244-2708