

**Health, Safety, Environmental, Product Stewardship and Sustainability**  
115 Tabor Road  
Morris Plains, NJ 07950  
www.honeywell.com

October 30, 2017

Mr. Edward Hammerberg  
Technical Specialist/RCE Supervisor  
Waste Division and Utilization Program  
Maryland Department of the Environment  
1800 Washington Boulevard, Suite 645  
Baltimore, MD 21230

**Re: Transmittal of Quarterly Site Progress Report, Third Quarter 2017, 2000 Race Street Site, Baltimore, Maryland**

Dear Addressee:

Please find attached the Third Quarter 2017 Site Progress Report for the 2000 Race Street Site, Baltimore, Maryland. This document is provided on behalf of Honeywell and the Mayor and City Council of Baltimore pursuant to the requirements of Section III.A of the 2000 Race Street Site Consent Order effective May 23, 2007.

Please note that I will be assuming responsibility for this project as the Remediation Manager for Honeywell. My colleague, Chris French, will continue on the project as the Construction Manager. If you have any questions or require additional information, please do not hesitate to contact me at 973-455-3302, or by e-mail at Maria.Kaouris@Honeywell.com

Sincerely,



Maria Kaouris  
Remediation Manager

cc: Mr. Ed Dexter—MDE  
Mr. Al Simpkins—MDE  
Mr. Michael Daneker—Arnold & Porter  
Ms. Dawn Lettman—City of Baltimore  
Mr. Ravic Miller—City of Baltimore  
Mr. Christopher M. French—Honeywell

Enclosure

# Third Quarter 2017 Race Street Quarterly Site Progress Report, 2000 Race Street, Baltimore, Maryland

*Prepared for*

Honeywell International Inc.

Mayor and City Council of Baltimore, Maryland

October 2017



CH2M HILL Engineers, Inc.  
2411 Dulles Corner Park, Suite 500  
Herndon, VA 20171

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# Third Quarter 2017 Race Street Quarterly Site Progress Report, 2000 Race Street, Baltimore, Maryland

## 1. Introduction

Honeywell International Inc. (Honeywell) and the Mayor and City Council of Baltimore (City) are submitting this Quarterly Site Progress Report for the 2000 Race Street Site (Site) pursuant to the May 23, 2007, Administrative Consent Order (Consent Order) between the Maryland Department of the Environment (MDE), Honeywell, and the City. Quarterly Site Progress Reports will be submitted to MDE for the duration of the Consent Order. As specified within Section III.F of the Consent Order, the reports will identify the following information:

- Work completed and documents submitted to MDE in the preceding quarter;
- A schedule and submittals for the upcoming quarter; and
- Any delays, modifications, or changes anticipated in the upcoming quarter.

This report covers Site-related activities conducted under the Consent Order during the third quarter of 2017, from July 1, 2017, through September 30, 2017.

The Site is located at 2000 Race Street, in Baltimore, Maryland (ZIP Code 21230). It occupies approximately 10.3 acres and is bounded on the north by the Baltimore Gas and Electric Spring Gardens facility, on the south by Swann Park, on the east by Race Street, and on the west by the Middle Branch of the Patapsco River. In addition, two elevated spans of Interstate 95 (I-95) oriented from east to west overlie the Site on the northern half of the property. A chain-link security fence is present at the perimeter of the Site. The Site has no onsite building structures and is currently vacant.

Controlled hazardous substances are contained on the Site and covered with an engineered cap consisting of the following materials from top to bottom: asphalt, gravel base, and compacted clay. Cap maintenance is ongoing. Additional information regarding the Site is provided in several documents, including the May 23, 2007, Consent Order; the *Site Characterization Work Plan*, dated September 2007; the *Site Characterization Report*, dated September 2009; the *Near Shore Investigation Report*, dated December 2009; and the *Interim Remedial Measures Assessment Investigation and Pilot Test Report*, dated July 2012.

## 2. Quarter in Review

Site-related activities performed during the third quarter of 2017 include the following:

- July 13: Bridge monitoring equipment maintenance site visit;
- July 13: Permeable Reactive Barrier (PRB) Design Review and Site status meeting with MDE;
- July 20: Monthly Site status inspection (Appendix A);
- July 28: Seep Remediation Work Plan, including design drawings and specifications, submitted to MDE;
- July 30: Second Quarter 2017 Site Progress Report submitted to MDE;
- August 9: Administrative Consent Order Status Update letter submitted to MDE;

- August 10: Vegetation removal performed across the Site by City of Baltimore;
- August 14: Permeable Reactive Barrier construction kickoff meeting and commencement of construction mobilization;
- August 18: Surface Cover Inspection to determine cap maintenance requirements;
- August 24: Monthly site status inspection (Appendix A);
- August 23: Bridge-monitoring equipment maintenance site visit;
- August 28: Site visit for inclinometer/SAA readings;
- September 10: Erosion and Sediment Control (ESC) permit for construction of the permeable reactive barrier issued by the City of Baltimore;
- September 28: Monthly site status inspection (Appendix A);
- September 29: Building Permit for construction of the permeable reactive barrier issued by the City of Baltimore.

### 3. Upcoming Work and Submittals during the Fourth Quarter of 2017

The following activities and submittals are anticipated to occur in the upcoming quarter:

- Conduct monthly Site status inspections and participate in monthly Site status calls with MDE (October, November, and December);
- Submit the Third Quarter 2017 Site Progress report;
- Perform quarterly SAA/inclinometer readings;
- Submit Supplemental Site Characterization Work Plan for an investigation of the former Arsenic Shed Area (field work to commence upon MDE acceptance of the Work Plan);
- Install erosion and sediment controls and obtain approval from the City of Baltimore, Department of Public Works; and
- Construct the PRB and complete site restoration and cap repairs.

### 4. Schedule

A schedule of Consent Order activities anticipated during the fourth quarter of 2017 is provided below.

Milestone	Anticipated Date
<b>October 2017</b>	
ESC installation	10-3-17
ESC inspection by City	10-13-17
Pile Driving and PRB installation	10-16-17
Provide Weekly construction progress reports	10-2017
Perform monthly Site status inspection	10-26-17
Submit Q3 Site Progress report	10-30-17

Milestone	Anticipated Date
<b><i>November 2017</i></b>	
Perform monthly Site status inspection	TBD
Completed PRB installation	11-2017
Provide Weekly PRB construction status updates	11-2017
Perform quarterly inclinometer/SAA readings	TBD
<b><i>December 2017</i></b>	
Perform monthly Site status inspection	TBD
Perform quarterly inclinometer/SAA readings	TBD
Complete site restoration and cap maintenance following PRB construction	12-2017

# Appendix A

## Site Inspection Reports

**2000 Race Street  
Monthly Site Inspection Checklist**

Inspector:	Bill Morris	Date of Inspection:	20-Jul-17
Title:	Environmental Engineer	Date of Last Inspection:	25-May-17
Organization:	CH2M HILL	Weather:	Sunny, warm

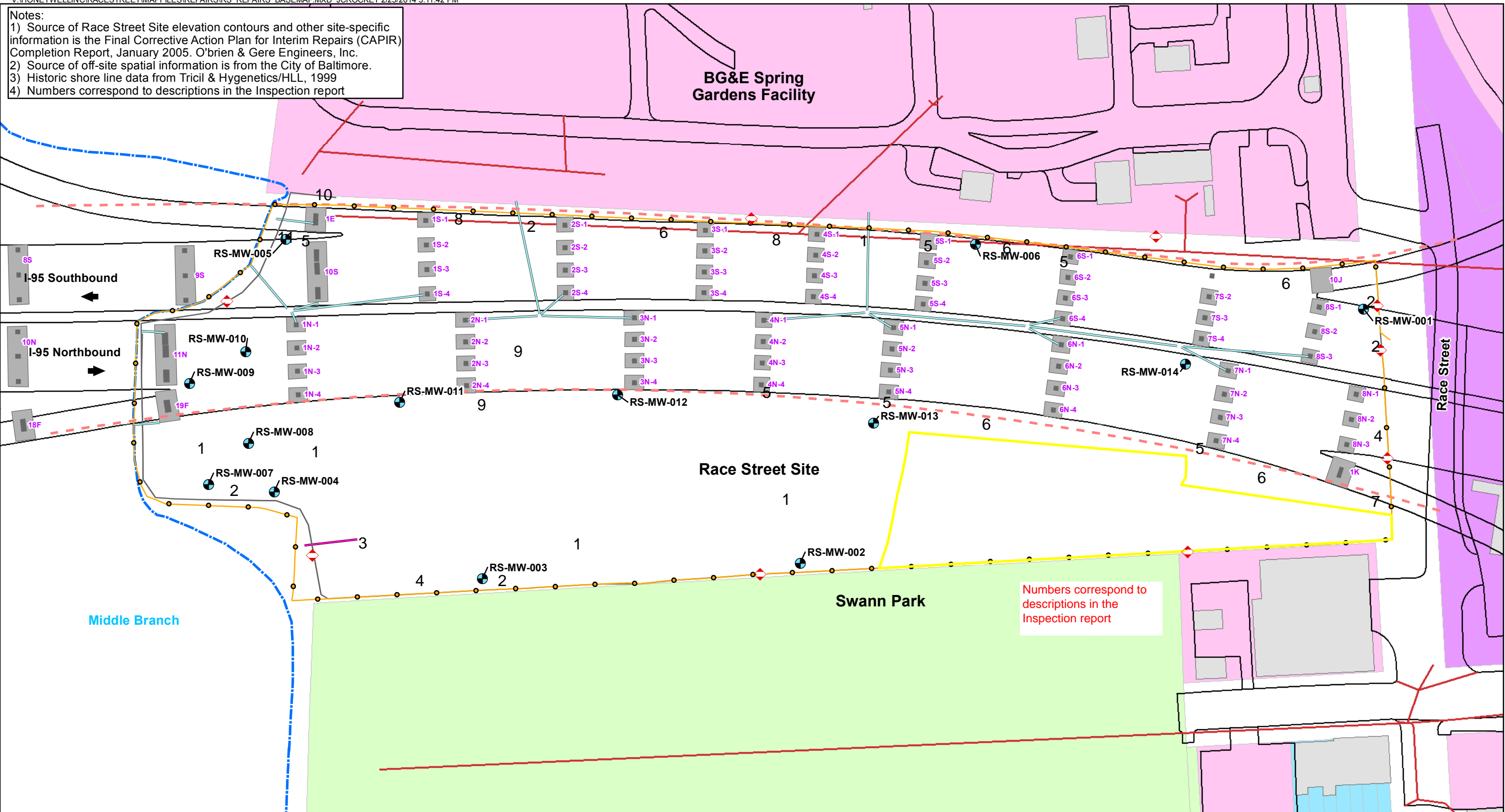
Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
<b>1. General</b>				
Inspect site for presence of surface debris. Identify type, approximate volume of debris, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist).	7: Trash and debris accumulation. 2: Sediment and debris accumulation.	None	NA	Sediment, debris, and vegetation to be removed as part of site maintenance performed by the City.
Inspect site for presence of vegetation. Identify estimated amount and location of vegetation via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	None
<b>2. Interstate 95 Footings and Joints</b>				
Inspect around pier footings for settlement. Identify settlement off-set from grade and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
	None	None	NA	NA
<b>3. Engineered Cap</b>				
Inspect cap for alligator cracking. Identify estimated area of cracking and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	8: Alligator cracking in asphalt near fence line.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for holes. Identify number of holes, width and depth, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	10: Hole in asphalt outside of fence line.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for cracks less than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	3: Crack with vegetation between inlet grate and asphalt. 1: Sealed cracks with vegetation growth. 5: Crack with vegetation between pier footing and asphalt. 6: Crack with vegetation.	None	NA	Vegetation to be treated as part of site maintenance performed by City during Q3 2017. Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for cracks greater than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect cap for any signs of ponding of water	9: Ponding water on asphalt	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect shorefront embankment for evidence of erosion or releases	None	None	NA	NA
Identify any other observations related to the condition of the cap and potential for cap damage	None	None	NA	NA
<b>4. Fence</b>				



**2000 Race Street  
Monthly Site Inspection Checklist**

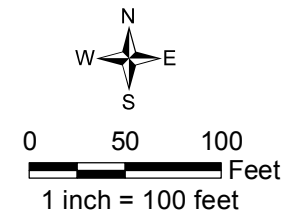
Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
Inspect fence for holes. Note number of holes. Identify location of holes via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect fence to determine if there is any erosion compromising the integrity of the fence	None	None	NA	NA
Inspect fence to determine if barbed wire is in good condition	None	None	NA	NA
Inspect gates, chains, and locks for damage	None	None	NA	NA
Inspect fence to determine if any vegetation is damaging or otherwise compromising fence	4: Vegetation growth along and up the perimeter fence.	None	NA	Vegetation to be treated as part of site maintenance performed by City during Q3 2017.
Inspect fence to determine if there is any burrowing beneath fence	None	None	NA	NA
Identify any other observations related to the condition of the fence and potential for fence damage (e.g., points of weakness, corrosion)	None	None	NA	NA
<b>5. Aboveground Stormwater Conveyance System</b>				
Inspect aboveground stormwater conveyance system including piping, downspouts, and drain in southwest corner of site for proper operation	None	None	NA	NA
<b>6. Vandalism</b>				
Inspect site for any vandalism including any dumped material on-site and damage to monitoring wells	11: Damage to well lid.	None	NA	NA
Identify any other observations related to vandalism on the site	None	None	NA	NA
<b>7. Signage</b>				
Inspect warning signs on exterior perimeter of fence to determine condition and readability. Identify number of signs removed/damaged/unreadable and locations via description or Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
<b>8. Miscellaneous Items</b>				
Any interaction with people on or adjacent to the site? If yes, identify who, title, organization, contact information, and content of interaction	Ravic Miller and Damonon Tylor with the City of Baltimore DOT were present onsite for the monthly inspection. Sylvia Osis of MDE was onsite for the monthly inspection.			
Other Comments/Observations?				

Notes:  
1) Source of Race Street Site elevation contours and other site-specific information is the Final Corrective Action Plan for Interim Repairs (CAPIR) Completion Report, January 2005. O'Brien & Gere Engineers, Inc.  
2) Source of off-site spatial information is from the City of Baltimore.  
3) Historic shore line data from Tricil & Hygenetics/HLL, 1999  
4) Numbers correspond to descriptions in the Inspection report



**Legend**

- |   |   |                 |
|---|---|-----------------|
| Warning Signs                           | Existing Shoreline  | Buildings       |
| Monitoring Well Locations               | Fence/Approximate Property Boundary and Limit of Engineered Cap | Concrete Column |
| Edge of Pavement                        | Fence Installed on Jersey Barriers                              | Concrete Footer |
| Approximate Limits of I-95 Former Below | Baltimore Stormwater Pipe                                       |                 |
| Ground Stormwater System (Abandoned)    | Commercial  |                 |
| Below Ground Stormwater System          | Exempt Commercial   |                 |
|   | Industrial  |                 |
|   | Residential   |                 |



Monthly Inspection Map  
Race Street Site  
Baltimore, MD

July 20, 2017



**2000 Race Street  
Monthly Site Inspection Checklist**

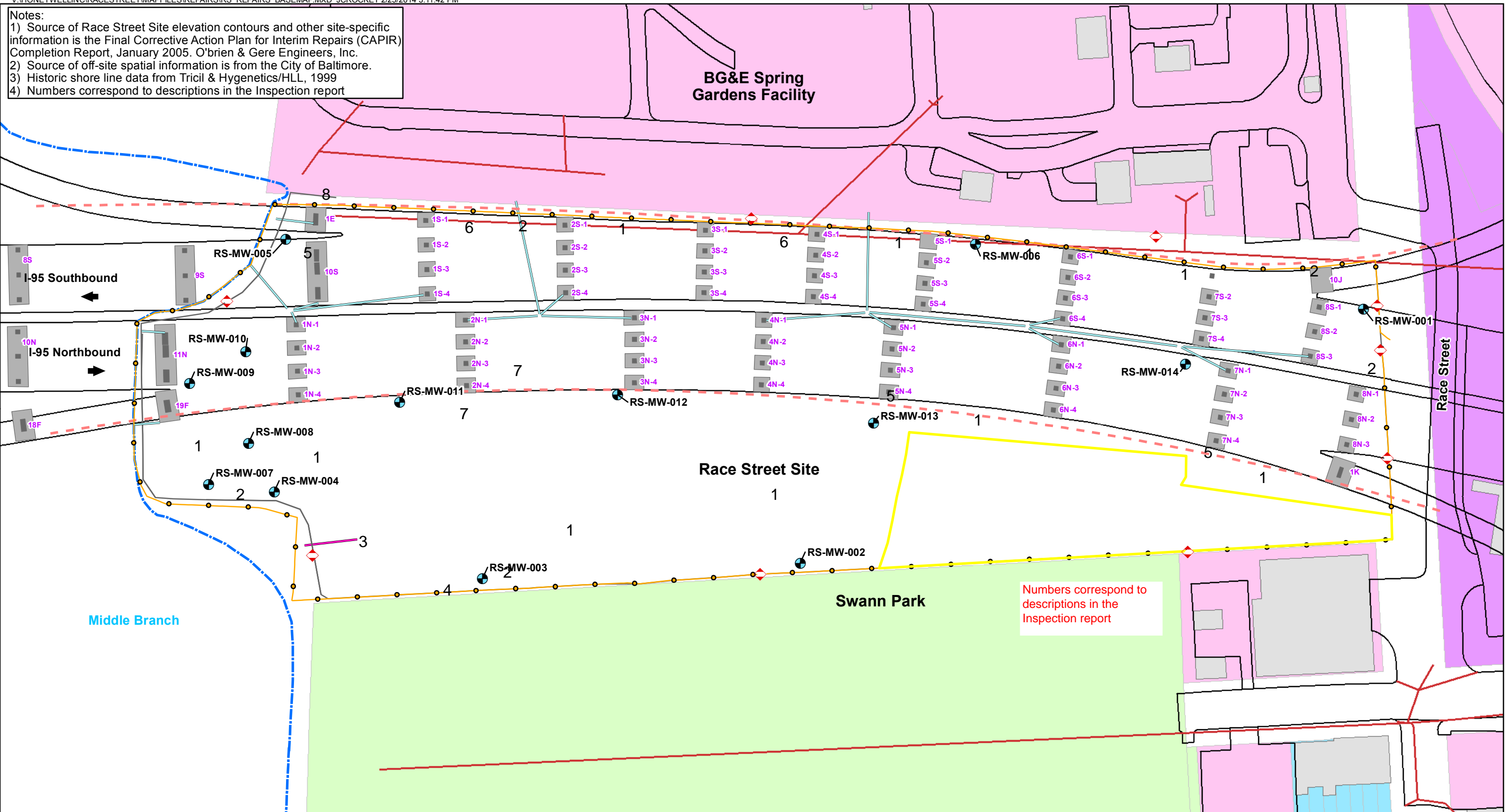
Inspector:	Bill Morris	Date of Inspection:	24-Aug-17
Title:	Environmental Engineer	Date of Last Inspection:	20-Jul-17
Organization:	CH2M HILL	Weather:	Sunny, warm

Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
<b>1. General</b>				
Inspect site for presence of surface debris. Identify type, approximate volume of debris, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist).	2: Sediment and debris accumulation.	City performed vegetation removal from crack, fence line and western shoreline.	10-Aug-17	Sediment, debris, and vegetation to be removed as part of cap maintenance performed by the City.
Inspect site for presence of vegetation. Identify estimated amount and location of vegetation via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	None
<b>2. Interstate 95 Footings and Joints</b>				
Inspect around pier footings for settlement. Identify settlement off-set from grade and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
	None	None	NA	NA
<b>3. Engineered Cap</b>				
Inspect cap for alligator cracking. Identify estimated area of cracking and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	6: Alligator cracking in asphalt near fence line.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for holes. Identify number of holes, width and depth, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	8: Hole in asphalt outside of fence line. 4: Damage to asphalt covered slope.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for cracks less than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	3: Crack with vegetation between inlet grate and asphalt. 1: Crack in asphalt 5: Crack between pier footing and asphalt.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for cracks greater than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect cap for any signs of ponding of water	7: Ponding water on asphalt	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect shorefront embankment for evidence of erosion or releases	None	None	NA	NA

**2000 Race Street  
Monthly Site Inspection Checklist**

Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
Identify any other observations related to the condition of the cap and potential for cap damage	None	None	NA	NA
<b>4. Fence</b>				
Inspect fence for holes. Note number of holes. Identify location of holes via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect fence to determine if there is any erosion compromising the integrity of the fence	None	None	NA	NA
Inspect fence to determine if barbed wire is in good condition	None	None	NA	NA
Inspect gates, chains, and locks for damage	None	None	NA	NA
Inspect fence to determine if any vegetation is damaging or otherwise compromising fence	None	None	NA	None
Inspect fence to determine if there is any burrowing beneath fence	None	None	NA	NA
Identify any other observations related to the condition of the fence and potential for fence damage (e.g., points of weakness, corrosion)	None	None	NA	NA
<b>5. Aboveground Stormwater Conveyance System</b>				
Inspect aboveground stormwater conveyance system including piping, downspouts, and drain in southwest corner of site for proper operation	None	None	NA	NA
<b>6. Vandalism</b>				
Inspect site for any vandalism including any dumped material on-site and damage to monitoring wells	None	None	NA	NA
Identify any other observations related to vandalism on the site	None	None	NA	NA
<b>7. Signage</b>				
Inspect warning signs on exterior perimeter of fence to determine condition and readability. Identify number of signs removed/damaged/unreadable and locations via description or Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
<b>8. Miscellaneous Items</b>				
Any interaction with people on or adjacent to the site? If yes, identify who, title, organization, contact information, and content of interaction	Al Simkins of MDE was onsite for the monthly inspection.			
Other Comments/Observations?				

Notes:  
1) Source of Race Street Site elevation contours and other site-specific information is the Final Corrective Action Plan for Interim Repairs (CAPIR) Completion Report, January 2005. O'Brien & Gere Engineers, Inc.  
2) Source of off-site spatial information is from the City of Baltimore.  
3) Historic shore line data from Tricil & Hygenetics/HLL, 1999  
4) Numbers correspond to descriptions in the Inspection report



**2000 Race Street  
Monthly Site Inspection Checklist**

Inspector:	Bill Morris	Date of Inspection:	28-Sep-17
Title:	Environmental Engineer	Date of Last Inspection:	24-Aug-17
Organization:	CH2M HILL	Weather:	Sunny, warm

Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
<b>1. General</b>				
Inspect site for presence of surface debris. Identify type, approximate volume of debris, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist).	5: Sediment and debris accumulation. 8: Sediment and debris accumulation with vegetation growth.	None	NA	Sediment, debris, and vegetation to be removed as part of cap maintenance to be performed by the City.
Inspect site for presence of vegetation. Identify estimated amount and location of vegetation via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	None
<b>2. Interstate 95 Footings and Joints</b>				
Inspect around pier footings for settlement. Identify settlement off-set from grade and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
	None	None	NA	NA
<b>3. Engineered Cap</b>				
Inspect cap for alligator cracking. Identify estimated area of cracking and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	7: Alligator cracking in asphalt near fence line.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for holes. Identify number of holes, width and depth, and location via description or on Site Plan (attach to Monthly Site Inspection Checklist)	9: Hole in asphalt outside of fence line. 4: Damage to asphalt covering slope.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect cap for cracks less than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	3: Crack with vegetation between inlet grate and asphalt. 2: Crack in asphalt with vegetation growth. 6: Crack between pier footing and asphalt.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017
Inspect cap for cracks greater than 0.5 inches wide. Note number of cracks. Identify location of cracks via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect cap for any signs of ponding of water	1: Ponding water on asphalt.	None	NA	Surface cover repairs to be performed as part of cap maintenance during Q4 2017.
Inspect shorefront embankment for evidence of erosion or releases	None	None	NA	NA

**2000 Race Street  
Monthly Site Inspection Checklist**

Site Inspection Results				
Task	Observations	Actions Taken	Date Completed	Comments/Additional Observations
Identify any other observations related to the condition of the cap and potential for cap damage	None	None	NA	NA
<b>4. Fence</b>				
Inspect fence for holes. Note number of holes. Identify location of holes via description or on Site Plan (attach to Monthly Site Inspection Checklist).	None	None	NA	NA
Inspect fence to determine if there is any erosion compromising the integrity of the fence	None	None	NA	NA
Inspect fence to determine if barbed wire is in good condition	None	None	NA	NA
Inspect gates, chains, and locks for damage	None	None	NA	NA
Inspect fence to determine if any vegetation is damaging or otherwise compromising fence	None	None	NA	None
Inspect fence to determine if there is any burrowing beneath fence	None	None	NA	NA
Identify any other observations related to the condition of the fence and potential for fence damage (e.g., points of weakness, corrosion)	None	None	NA	NA
<b>5. Aboveground Stormwater Conveyance System</b>				
Inspect aboveground stormwater conveyance system including piping, downspouts, and drain in southwest corner of site for proper operation	None	None	NA	NA
<b>6. Vandalism</b>				
Inspect site for any vandalism including any dumped material on-site and damage to monitoring wells	None	None	NA	NA
Identify any other observations related to vandalism on the site	None	None	NA	NA
<b>7. Signage</b>				
Inspect warning signs on exterior perimeter of fence to determine condition and readability. Identify number of signs removed/damaged/unreadable and locations via description or Site Plan (attach to Monthly Site Inspection Checklist)	None	None	NA	NA
<b>8. Miscellaneous Items</b>				
Any interaction with people on or adjacent to the site? If yes, identify who, title, organization, contact information, and content of interaction	Al Simkins of MDE, Ravic Miller and Damonen Taylor with the Baltimore City DOT, and Matt Gillis of CH2M HILL were on site for the monthly inspection. A crew from Abscope was on site accepting material deliveries for the PRB construction.			
Other Comments/Observations?				

Notes:  
1) Source of Race Street Site elevation contours and other site-specific information is the Final Corrective Action Plan for Interim Repairs (CAPIR) Completion Report, January 2005. O'Brien & Gere Engineers, Inc.  
2) Source of off-site spatial information is from the City of Baltimore.  
3) Historic shore line data from Tricil & Hygenetics/HLL, 1999  
4) Numbers correspond to descriptions in the Inspection report

