Final Remedial Action Work Plan for Current Use of Forrest Street and Forrest Street Properties (Soil) Garfield Avenue Group PPG, Jersey City, New Jersey

Appendix K

Technical Memorandum: Summary of Proposed Forrest Street Restoration Activities – Skyways and Roadway



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Memorandum

Date	November 21, 2017										
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	Cameron Dixon										
From	Steven Surman										
Subject	Summary of Proposed Forrest Street Restoration Activities – Skyways and Roadway										
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						То	Ronald Riccio, Site Administrator				

This memorandum provides stakeholders with a summary of the proposed Forrest Street restoration activities for the Skyways area and the roadway. Selected Issued-for-Construction Drawings, related to the restoration design, are attached to this memorandum. Drawing C-06.1 provides a plan view of these areas. These plans have been developed with input from the New Jersey Department of Environmental Protection (NJDEP), the City of Jersey City, and the property owner. The restoration activities began on November 14, 2017 and are anticipated to be completed in approximately two to three months.

Design Basis

The design basis for restoration at Forrest Street has been previously documented in the following submittals:

- Capillary Break Design Report (Revision 1), issued by AECOM/PPG on June 26, 2017;
- Garfield Avenue Group Restoration Technical Execution Plan (Revision 1), issued by AECOM/PPG on August 9, 2017;

- Remedial Action Work Plan; Forrest Street and Forrest Street Properties (Forrest RAWP); Phase 1 – 100 Forrest Street and 84 Forrest Street Loading Dock and Phase 2 – Forrest Street Utility Offset and 90 Forrest Street Alleyway (Paved and Unpaved Areas), issued by AECOM/PPG on July 26, 2017. On behalf of NJDEP, Weston provided comments on the Forrest RAWP; Phases 1 and 2 on August 11, 2017 via email. This memorandum addresses NJDEP/Weston's August 11, 2017 comments specific to the Skyways area and the roadway; and
- Forrest Street Restoration Design Drawings, provided by Joe Cunha, City of Jersey City -Engineering Department, October 13, 2017. Revisions were agreed upon during a technical conference call between Cameron Dixon (AECOM) and Joe Cunha on November 2, 2017.

Proposed Restoration for Skyways

The proposed restoration for the Skyways area is depicted in the attached Drawing C-06.1. The finished restoration will be similar to pre-remediation conditions. Where impacted soils remain in place, this restoration is protective of human health and the environment and will prevent contact with the remaining impacted soils. A Deed Notice and Remedial Action Permit are required to address the remaining impacted soils. This restoration also mitigates the surface water runoff leaking through the west wall of the 100 Forrest Street building.

The restoration activities will be implemented in the following sequence:

- Mobilize vibration monitoring settlement instrumentation and evaluate vibration settlement monitoring data during field activities.
- Prepare, grade, and compact the subgrade to meet the proposed subgrade elevations. The excess soil generated during the grading phase will be disposed off site at a permitted solid waste facility.
- Place high-density polyethylene (HDPE) liner on the prepared subgrade (where required) and over the existing concrete apron. Seal HDPE liner to concrete apron.
- Place, grade, and compact the dense-graded aggregate (DGA) layer above the HDPE liner and up to the concrete apron.
- Place geosynthetic drainage composite on top of the section of HDPE liner installed on the concrete apron.
- Place the geosynthetic cementitious composite mat over the DGA layer and on top of the geosynthetic drainage composite fabric. Anchor the cementitious composite mat to the concrete apron.
- If necessary, install flashing at the interface of the cementitious concrete mat and exterior wall of the building.
- Place and compact the asphalt subbase and wearing layer over the DGA layer to meet the proposed final grades.
- Install pre-cast concrete parking stop at interface of asphalt and cementitious concrete mat.

Refer to Details 19 and 20 on attached Drawing D-04 for typical cross-sectional details.

Where the existing concrete apron ends and the concrete block retaining wall starts, the HDPE liner and cementitious concrete mat will be installed in an anchor trench with open stone next to the concrete block wall. Refer to Detail 18 on attached Drawing D-04 for a typical cross-sectional detail.

Proposed Restoration for the Roadway

The proposed restoration for the Forrest Street roadway is depicted on the attached Drawings C-06.1 and C-06.2. The finished restoration will be similar to pre-remediation conditions. Where impacted soils and groundwater remain in place, this restoration is protective of human health and the environment and will prevent contact with the remaining impacts. PPG will retain the responsibility for the removal and restoration of the HDPE liner and management of impacted soils and groundwater beneath the HDPE liner should its disturbance be required to service subsurface utilities or make repairs or modifications to the roadway as part of a Notice in Lieu of Deed Notice and Remedial Action Permit.

The restoration activities will be implemented in the following sequence:

- Mobilize vibration monitoring settlement instrumentation and evaluate vibration settlement monitoring data during field activities.
- Excavate, grade, and compact the subgrade to meet the proposed subgrade elevations. Soil
 remaining in place in the excavation's northern sidewall will be demarcated with 10 oz.
 geotextile and snow fencing.
- Place HDPE liner for both the restoration/capillary break for the Forrest Street excavation and the soils cap for the Forrest Street Utility Offset.
- Place, grade, and compact eight inches of DGA in accordance with the New Jersey Department of Transportation specifications.
- Remove existing sidewalk and/or asphalt up to the buildings and replace with new sidewalk with HDPE liner underneath. In the event the vibration monitoring settlement monitoring data indicates that work close to the buildings is affecting the structural integrity of the buildings, a different, less intrusive alternative may need to be implemented. Each sidewalk will be 10 feet wide with a curb. The northern sidewalk will be a concrete sidewalk in accordance with standard City of Jersey City engineering details. The sidewalk on the southern side will be 2 inches of asphalt and 4 inches of DGA, per the design provided by Joe Cunha.
- Place and compact six inches of hot mix asphalt base course and two inches of hot asphalt mix surface wearing course in Forrest Street and up to the new sidewalks.

Refer to Details 10, 11, and 12 on the attached Drawing D-02 for typical cross-sectional details.

Attachments

- C-06.1 Restoration Plan, Revision 3
- C-06.2 Restoration Plan, Revision 0
- D-02 Details (Sheet 2 of 4), Revision 3
- D-03 Details (Sheet 3 of 4), Revision 1
- D-04 Details (Sheet 4 of 4), Revision 1



1 0 ASK 11/17 NO DRWN DATE	/17 ISSUED FOR CONTRUCTION REVISION	CHKD DATE APPVD DATE		AECOM 30 Knightsbridge Road, Suite 520 Piscataway, NJ 08854 www.aecom.com	PROJ. NUMBER: 60314351	DATE: 11/17/17
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F 7	10 0 20 GRAPHIC SCALE IN FEET					
_	COORD WARKER					
E	SITE 114	4				
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NOTES: 1. PERFORM UTILITY REPLACEMENT IN ACCORDANCE WITH UTILITY OWNER APPROVALS. USE MATERIALS THAT ARE COMPATIBLE WITH FERROBLACK-H AMENDMENT AS NECESSARY. 2. PERFORM PAVEMENT RESTORATION IN ACCORDANCE WITH JERSEY CITY ROAD						10.8
D					10.5 TC 10.0 BC	
CONCRETE SIDEWALK					2 TC 9.7 BC	
C X RESTORED PERIMETER FENCE PAVEMENT TO BE RESTORED IN THE SKYWAYS PROPERTY PAVEMENT TO BE RESTORED IN FORREST STREET			*	10.0 TC 9.5 BC 10.0 TC 9.5 BC 10.0 TC 9.5 BC	10 SS SS SS SS	M S S S S S S S S S S S S S S S S S S S
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COMMUNICATION LINE - NOT SURVEYED VUTILITY POLE COMBINED SEWER MANHOLE FIRE HYDRANT OWV WATER VALVE	11.9 TC 11.4 BC				10.2 TC 9.7 BC 9.8 BC	
G GAS UTILITY LINE G WATER UTILITY LINE B OVERHEAD ELECTRIC UTILITY LINE D D DRAINAGE LINE E UNDERGROUND ELECTRIC UTILITY LINE				9.4 BC 9.9 TC 4 9.7 TC 9.5 BC	9.5 TC TO 10.0 H	BW
CONCRETE WALL CO			10.7		3W	B a M
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PL PROPERTY LINE X FENCE A EDGE OF PAVEMENT						
LEGEND						







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2 <u>1</u> "O.D.	TRUSS ROD 3/8" DIA.	GATE FRAME 21/2" DIAMETER PIPE HINGE LOCKING DEVICE	SPECIFICATIONS AND FOU
2" MAX.		<pre><3/4" STRETCHER BARS RETCHER BAR BANDS " APART (MAX.) - LOWER HINGE ////////////////////////////////////</pre>	
		C-06 NTS	
1/2" PREFORMED JOINT FILLER	(TYP.)		TOP OF
			4
	1/2" PREFORMED JOINT FILL CURB @ 10'-0" MAX SPACING (OFFSET FROM SIDEWALK E	ER IN 3 XP. JOINTS-SEE NOTE 3)	
	<u>P</u>	LAN	
	<u>typical conce</u>	<u>rete sidewalk</u>	
	17 SIDEWALK C-06 NTS		
	AECOM	P GARFIELD AVENU JERSEY CITY, HUDSON	PG E GROUP OF SITES I COUNTY, NEW JERSEY
	AECOM 30 Knightsbridge Road, Suite 520 Piscataway, NJ 08854 www.aecom.com	PROJ. NUMBER: 60314351	DATE: 11/17/17



