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By Alameda County Environmental Health 9:16 am, Sep 17, 2015

September 15, 2015

Ms. Dilan Roe
Site Cleanup Program Manager
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501-6577

**Subject: Dublin Apartments Plan Review for
Vapor Mitigation and Permeable Reactive Barrier Design**
Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California
Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Enclosed please find a letter entitled *Dublin Apartments Plan Review for Vapor Mitigation and Permeable Reactive Barrier Design* for the Former Crown Chevrolet North Parcel site at 7544 Dublin Boulevard, in Dublin, California (Site Cleanup Program Case No. RO0003014, GeoTracker Global ID T10000001616). This document was prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., on behalf of BWD Dublin LLC.

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please contact me at (408) 680-4938 or Avery Whitmarsh of Amec Foster Wheeler at (510) 663-4154 if you have any questions regarding this report.

Sincerely yours,



Pete Beritzhoff
BWD Dublin LLC

Attachment: Dublin Apartments Plan Review for Vapor Mitigation and Permeable Reactive Barrier Design

Cc: Colleen Winey, Zone 7 Water Agency (electronic copy only)
Gregory Shreeve, City of Dublin (electronic copy only)

September 15, 2015

Project OD14170800.01

Ms. Dilan Roe
Site Cleanup Program Manager
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501-6577



Subject: Dublin Apartments Plan Review for Vapor Mitigation and Permeable Reactive Barrier Design
Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California
Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has reviewed the pertinent construction plans related to the Dublin Apartments development project located at 7544 Dublin Boulevard, Dublin, California (the Site) that are relevant to the installation and protection of the corrective actions described in the Vapor Mitigation and Permeable Reactive Barrier Basis of Design Report (Design Report).¹ This evaluation was prepared on behalf of Dublin Apartment Properties LLC and at the request of Alameda County Department of Environmental Health (ACDEH), as described in a June 8, 2015 email from ACDEH to Amec Foster Wheeler and Dublin Apartment Properties, and discussed in follow-up telephone conversations.

The objective of this review was to confirm that the plans for the portions of the site redevelopment that are in the vicinity of the vapor mitigation system (VMS) and permeable reactive barrier (PRB), and which have the ability to impact the VMS and PRB, are in conformance with the intent of the recommendations and design requirements presented in the Design Report.

Based on Amec Foster Wheeler's review, the reviewed plans provide sufficient details on appropriate sheets describing integration and protection of the VMS and PRB during construction of the site improvements. The PRB and/or VMS are specifically referenced on the following plans, with specific call-outs as described below:

- The PRB is shown on the Public Improvements plan set with clear indications that it must be protected. Sheet 7 includes a visible callout, "**!! CAUTION: BURIED ENVIRONMENTAL PROTECTION INFRASTRUCTURE - PROTECT IN PLACE,

¹ Amec Foster Wheeler, 2015, Permeable Reactive Barrier Basis of Design Report, Former Crown Chevrolet North Parcel, 7544 Dublin Boulevard, Dublin, California, June 11.

See note 9.” The referenced note references appropriate setback and protection requirements (see note text below).

- 9. Below ground permeable reactive barrier (PRB) shall be protected in place. Excavation setbacks above and/or adjacent to the PRB are as follows:
 - 9.1 Excavations and/or temporary shoring above the PRB shall extend no deeper than 332 ft (NGVD29) to maintain 1 ft minimum of controlled density fill (CDF) above the PRB. See detail 2 on sheet c-4. All backfill excavated above PRB for utility crossings shall be replaced in kind with CDF.
 - 9.2 Excavations adjacent to the PRB deeper than 332 ft (NGVD29) shall be no deeper than 332 ft less the minimum distance of the excavation from the PRB. (example: for an excavation located 10 ft from the PRB, the maximum permissible depth shall be 332 ft - 10 ft = 322 ft.)
- The PRB is shown on the Joint Trench plan set with clear indications that it must be protected. Sheet JT4 includes a visible callout, “PERMEABLE REACTIVE BARRIER (SEE ENVIRONMENTAL PLANS FOR DETAILS)”.
- Electrical conduits for “future vapor mitigation system exhaust fan” are shown in the vicinity of each proposed VMS roof vent location on sheets E2.6a-f with an appropriate note that reads:
 - Run (1) 1” conduit to panel noted for future vapor mitigation system exhaust fan. Verify location and quantity.

A complete list of the plans that were reviewed by Amec Foster Wheeler for conformance with the intent of the recommendations and design requirements presented in the Design Report is included as Attachment A.

Sincerely yours,
Amec Foster Wheeler Environment & Infrastructure, Inc.

Douglas C. Bablitch

Douglas C. Bablitch, PE C64096
Principal Engineer
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Enclosure: Attachment A – List of Plans Included in VMS and PRB Coordination Review

cc: Pete Beritzhoff, Bay West Development

ATTACHMENT A

LIST OF PLANS INCLUDED IN VMS AND PRB COORDINATION REVIEW

Former Crown Chevrolet North Parcel
7544 Dublin Boulevard
Dublin, California

The following plans were included in the vapor mitigation system (VMS) and permeable reactive barrier (PRB) coordination review conducted by Amec Foster Wheeler Environment & Infrastructure Inc. (Amec Foster Wheeler):

- All Civil sheets – prepared by Carlson, Barbee & Gibson, Inc., Permit Rev. Delta 3: 08.05.2015
 - Private Improvement Plans – Civil Sheets 1-18
 - Public Improvement Plans – Civil Sheets 1-11
 - Rough Grading Plan – Sheets 1-7 (07.13.2015)
- All Joint Trench sheets – prepared by Giacalone Design Services, Inc., Permit Set Last Modified: 08.24.2015
- Architectural – prepared by BDE Architecture, Permit Rev. 3: 08.05.2015
 - Building Site Plan: A1.0
 - Building Floor Plans (Floor 1-Roof): A1.1-A2.7F
 - All Wall Sections: A7.0-A7.17
- All PRB drawings – prepared by Amec Foster Wheeler, Permit Set Last Modified: 06.09.2015
- All VMS drawings – prepared by Amec Foster Wheeler, Permit Set Last Modified: 06.08.2015
- All Soil Improvement drawings – prepared by Farrell Design-Build, Permit Rev. 3: 08.05.2015
- Structural Concrete Podium drawings: SC-1.1-SC-7.4 – prepared by FBA Structural Engineers, Inc., Permit Rev. 3: 08.05.2015
- Structural Wood drawings: SW1.1-S2.1.3F – prepared by Peoples Associated Structural Engineers, Inc., Permit Rev. 3: 08.05.2015
- Structural Wood Detail Sheets – prepared by Peoples Associated Structural Engineers, Inc., Permit Rev. 3: 08.05.2015
 - Foundation sections and details: SW6.1
 - Roof framing sections and details: SW6.3
 - Miscellaneous sections and details: SW6.5 – SW6.6
 - Post tension details: SW6.7
 - Tiedown details: SW9.1-SW9.3 – Permit Set: 01.09.2015/ Permit Rev. 2: 06.08.2015

- Plumbing drawings – prepared by Fard Engineers, Inc., Permit Rev. 3: 08.05.2015
 - Level one plumbing plans: P0.1-P2.1f
 - Roof plumbing plans: P2.6a-P2.6f
 - Waste & Vent Risers: P3.1-P3.2
 - Gas Diagram: P3.3
 - Plumbing Details: P5.1-P5.5
- Electrical drawings: E0.1-E2.6f – prepared by Fard Engineers, Inc., Permit Rev. 3: 08.05.2015