Area 1, Phase 1
Storm Water Pollution Prevention Plan

Baltimore Works Site
Baltimore, Maryland

REVISED

November 2013

By:
Environmental Resources Management, Inc.
Harbor Point Development LLC

For:
U.S. Environmental Protection Agency – Region III
Maryland Department of the Environment

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APPENDICES

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1.0 INTRODUCTION

1.1 REGULATORY BACKGROUND

This Storm Water Pollution Prevention Plan (SWPPP) was developed for the Harbor Point site, located in Fell's point, next to the Baltimore Inner Harbor in Baltimore, Maryland. This SWPPP presents best management practices for managing storm water runoff during construction activities identified in the November 2013 Detailed Design Plan (DDP). This SWPPP pertains specifically to the Exelon construction activities and its effectiveness terminates post-construction.

This SWPPP has been prepared in accordance with the United States Environmental Protection Agency (USEPA) and Maryland Department of the Environment (MDE) regulations governing storm water runoff. The federal requirements regarding storm water runoff are codified under the National Pollutant Discharge Elimination System (NPDES) regulations, found in Title 40, Part 122, Subpart B of the Code of Federal Regulations (40 CFR 122.26). USEPA has delegated NPDES authority in the State of Maryland to MDE. The State regulations governing the storm water discharge permit program are codified in the Code of Maryland Regulations in Title 26, Subtitle 08 and Subtitle 17 (COMAR 26.08 and COMAR 26.17).

Federal storm water regulations 40 CFR 122.26(a)(1)(ii) and 40 CFR 122.26(b)(14) and corresponding state storm water regulations require a permit for the discharge of storm water associated with industrial activities within SIC code 2813. The State of Maryland, through the Maryland Department of the Environment (MDE), has primacy for NPDES storm water discharges. A General Discharge Permit for Storm Water Associated with Construction Activities will be required for implementation of the construction project. As of the date of this SWPPP, the permit application had been submitted but the permit had not been issued.

The management activities for compliance with this permit are provided in the site's Erosion and Sediment Control Plan. As noted above, this SWPPP is intended to discuss best management practices for managing storm water runoff during construction activities. This SWPPP should be utilized in conjunction with other plans as discussed in Section 1.3.

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This SWPPP was developed in accordance with the requirements of *USEPA's NPDES Multi-Sector General Permits for Storm Water Discharges Associated with Industrial Activities* as published in the Federal Register on October 30, 2000. A copy of this SWPPP must be kept on site at all times.

1.2 PURPOSE OF SWPPP

The purpose of the SWPPP is to evaluate potential pollution sources at the Facility that could come in contact with storm water and to select and implement appropriate measures to mitigate or control the discharge of pollutants in storm water runoff.

The pollution prevention approach focuses on three objectives: (1) to identify sources of pollution potentially affecting the quality of storm water discharges associated with industrial activity from the Facility; (2) to describe and outline implementation of practices to minimize and control pollutants in storm water discharges associated with industrial activity from the Facility; and (3) to provide a mechanism for compliance with the terms and conditions of the General Permit.

This SWPPP document is a foundation for the Facility's storm water pollution prevention program. This document is revised accordingly as conditions and practices at the Facility change to accommodate new methods of production, storage and material transfer.

The SWPPP describes activities, materials and physical features of the Facility that may contribute pollutants to storm water runoff and the procedures and methods that are used to minimize these impacts.

1.3 CONSISTENCY WITH OTHER PLANS

Special Condition Part IV-C.3 of the General Discharge Permit states that the SWPPP may incorporate parts of other plans or permits that are relevant to storm water pollution prevention.

Honeywell stores less than 1,320 gallons of above ground oil storage and less than 42,000 gallons of underground oil storage. Based on these thresholds, Honeywell is not subject to the Spill Prevention Control and Countermeasures (SPCC) regulations under 40 CFR 112.

A Material Handling and Management Plan (MHMP) has been prepared to address the handling and management of solids (asphalt, stone aggregates, concrete and wood debris and soil) and liquids (storm water,

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decontamination water and groundwater) that may be encountered during the intrusive activities at the Site. This Plan also includes dust control measures that describe soil/debris handling practices to be implemented to minimize dust emissions.

An Air Monitoring Plan has also been prepared to ensure the safety of workers and the public during construction.

Additionally, a Spill Prevention and Response Plan (SPRP) has been prepared and is meant to be used in conjunction with the Material Handling & Management Plan.

This SWPPP will serve as the site document relevant to storm water pollution prevention and does not incorporate parts of any other plans or permits.

1.4 PLAN ORGANIZATION

The remainder of the SWPPP is organized in the manner listed below.

- *Section 2.0 - Facility Description.* Section 2.0 presents a narrative of the site location, a description of the site history, and current storm water runoff control.
- *Section 3.0 - Identification of Potential Pollution Sources.* Section 3.0 describes in more detail potential storm water pollution sources at the Facility.
- *Section 4.0 - Best Management Practices for Storm Water Management Controls.* Section 4.0 describes those practices to be implemented to ensure proper storm water management control.
- *Section 5.0 - Storm Water Pollution Prevention Team and Training.* Section 5.0 identifies the pollution prevention team and training to implement the SWPPP.

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2.0 *FACILITY DESCRIPTION*

2.1 *SITE LOCATION*

The Site is located on a peninsula on the northeast shore of the Patapsco River of the Inner Harbor, in the Fells Point section of Baltimore City, Maryland. The former chromium chemical manufacturing facility consisted of chromium processing production buildings and numerous support buildings on an area that covered approximately 14 acres. The Site is surrounded by water on the north, west and south, the Living Classrooms facility to the north and by the redevelopment project, Thames Street Wharf Office Building, constructed in 2009, to the east.

2.2 *SITE HISTORY*

The Site has been divided into Areas 1, 2, and 3. Area 1 is the principal site of Honeywell's (formerly AlliedSignal) Baltimore Works Facility. Chromium ore was processed in Area 1 from 1845 to 1985. The former manufacturing processes resulted in chromium impacts to soil and groundwater. An Environmental Remediation System (ERS) is maintained and operated by Honeywell International Inc. (Honeywell) to contain CrVI-impacted groundwater in Area 1 and control the potential for human exposure to affected soil. The ERS consists of a Multimedia cap (MMC), Hydraulic barrier, Head Maintenance System (HMS), a groundwater storage and transfer system, and Outboard Embankment. The HMS maintains an inward groundwater gradient to mitigate the migration of chromium-impacted groundwater from the Site.

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Area 2 was mainly used for coal and raw chromium ore storage. In addition, a fertilizer warehousing and supply company operated in this area for many years. This area was covered with a soil and asphalt cap system.

Area 3 consists of five separate properties all with a history of industrial activity. This industrial activity included brass casing, oil blending and storage, lumber storage and coating/plastics production. This area was covered with a soil cap which has since been paved.

Honeywell purchased the five properties by 1993 prior to which all manufacturing was halted and subsequently all buildings and tanks were removed from these sites.

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3.0 IDENTIFICATION OF POTENTIAL POLLUTION SOURCES

The planned foundations include driven concentric closed-end pipe piles filled with concrete. The driven concentric pipe pile is proposed for the one-story Plaza Garage. Pile caps with driven piles will be placed below columns at the interior and perimeter of the Exelon Tower and Trading Floor Garage. A large, pile-supported moment slab will be placed below the Exelon Tower.

The potential pollutant sources are hexavalent chromium encountered during excavation activities being conducted on this site (primary source), stored groundwater generated by the HMS collected to maintain an inward groundwater gradient to the site (secondary source), and sulfuric acid (90% solution), which is used on an intermittent basis to create pH adjusted water used in the maintenance (cleaning) of the conveyance piping. Hexavalent chromium is expected to be encountered when the liner is exposed and removed to facilitate excavation of foundations. The source of the dissolved chromium is groundwater conveyed via piping to the enclosed permitted, secondarily contained storage tanks. Tanks are emptied via vacuum tanker trucks within the loading area of the Transfer Building. The sulfuric acid is delivered and stored in 1 gallon glass bottles. In the event of a spill, the spilled contents would be contained within the secondarily contained loading area and disposed of in accordance with the Facility SPCC Plan.

There is also the potential for fuel leaks during construction activities, such as during fuel deliveries. This potential pollution source will be discussed in the SPRP.

3.1 SIGNIFICANT DUST OR PARTICULATE GENRATING PROCESS

A Material Handling and Management Plan has been prepared for inclusion in the November 2013 DDP that describes soil/debris handling practices to be implemented to minimize dust emissions. In general, dust emissions will be controlled by misting with potable water onto open excavations as needed to keep exposed soil surfaces moist. The aerosolized water misting is also effective in precipitating dust emissions.

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3.2 *LOADING AND UNLOADING OPERATIONS*

Honeywell International is the generator of any hazardous wastes at the site. Honeywell, or its authorized agent will sign manifests for materials that are generated.

The excavation planned for the Exelon Tower moment slab, pile caps, concentric piles, and any other excavations through the MMC will generate clean soil/aggregate from above the MMC synthetic layers and chromium contaminated soil/debris. The EPA and MDE shall be provided written notice a minimum of two weeks in advance of initiating the Exelon Tower moment slab excavation, or any other excavations through the MMC. The proposed moment slab excavation is the largest and deepest excavation and will terminate at El. +6 feet mean sea level (msl), approximately four feet below the MMC. Abandoned, concrete or wood foundation structures have been identified that will be encountered below the MMC during concentric, steel pile driving and concrete pile cap construction. The abandoned structures will be removed only to the extent necessary for construction of new foundations. As such, the removed, abandoned structures will be considered contaminated debris requiring off-site disposal. All hazardous waste storage operations must be performed in compliance with all relevant requirements specified in COMAR 26.13.

While direct-loading excavated soil/debris into lined, sealed roll-off containers is the preferred daily excavation and transportation method, a controlled, temporary storage area will be constructed, as described above, for use in the event that sealed roll-off containers cannot be transported daily for off-site disposal. Some events that might prompt the use of this temporary storage area, as a contingency, are:

- Volume limit to the daily capacity of the primary and alternate off-site disposal facilities;
- Off-site disposal facility hours of operation; and
- Limited availability of long-haul trucks.

The storage area will be located in close proximity to the excavation zone required for construction of the moment slab (west side of Limit of Disturbance) to reduce the distance for moving containers (Drawing DDP-EN1.01). The controlled area will be approximately 5,000 square feet which will provide a storage capacity of 20, 25-cubic yard lined, covered, and sealed roll-off containers.

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There are four categories of water anticipated to be managed during intrusive work, including:

- Storm water diverted from contact with contaminated material below the MMC;
- Storm water that comes into contact with contaminated material below the MMC;
- Groundwater; and
- Equipment decontamination water.

As specified in the MHMP, contact and non-contact water will be transported via piping to 16,000-gallon double-walled Frac tanks. Non-contact water will not be stored in a Frac tank designated for contact water. Contact water will not be stored in a Frac tank designated for non-contact water. Contact water will be transferred from the Frac tanks by vacuum trucks for disposal at a hazardous waste facility listed in section 3.3. All connections will be tightly secured prior to unloading. A Harbor Point Development designee will be present for the duration of each water transfer activity.

3.3 OUTDOOR STORAGE ACTIVITIES

Non-contact and contact water removed from excavations during construction will be pumped to 16,000-gallon double-walled Frac tanks and tested prior to disposal. The water will be stored in the Frac tanks until the appropriate disposal classification is determined.

Honeywell maintains a list of their approved Subtitle C landfill facilities and as such the addition of alternative, proposed disposal facilities must be pre-approved. The following RCRA landfill facilities are located within reasonable proximity to the Site and be may be considered, as may others with the caveat of Honeywell approval, for off-site disposal:

- Environmental Quality (EQ) [EPA ID: PAD010154045]
  730 Vogelsong Road
  York, PA 17404
  ~ 60 miles
- MAX Environmental Technologies [EPA ID: PAD004835146]
  233 Max Lane

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Yukon, PA 15698
~ 200 miles

- Waste Management Solutions [EPA ID: NYD049836679]
  1550 Balmer Road
  Youngstown, NY 14174
  ~ 400 miles

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4.0 *BEST MANAGEMENT PRACTICES FOR STORM WATER MANAGEMENT CONTROLS*

Best Management Practices (BMPs) for storm water management control are described in this section. The BMPs were developed using EPA's publication *Storm Water Management for Industrial Activities* (October 1992) as a guidance.

Baseline BMPs are employed across the entire Site and are not necessarily associated with any specific source of significant materials. The BMPs described below are consistent with the conditions of the General Permit to ensure proper management of storm water runoff.

4.1 *EXISTING BMPS*

The site currently has a drainage system in place. A MMC with LLPDE liner with a composite drainage net covers the entire site and is sloped to drain water to a perimeter drain. The perimeter drain is perforated polyvinyl chloride (PVC) pipe on the landward perimeter and HDPE drain tubing at the waterfront perimeter. The tubing was placed in a stone-filled trench at the perimeter of the geomembrane outboard of the hydraulic barrier. The perimeter drain was placed around the entire perimeter. The perimeter drain allows storm water infiltration within the cap drainage layer (i.e., above the synthetic layers of the cap) to drain to the surface water of the Inner Harbor.

The only other existing BMP is a riprap waterside perimeter embankment. This embankment helps to mitigate the potential erosion of the slope into the river.

4.2 *DURING CONSTRUCTION*

This SWPPP addresses best management practices for managing storm water runoff during construction activities.

4.2.1 *Non-contact Water*

Storm water will be diverted from excavation zones by installing the required erosion and sediment controls as shown on drawings DDP-C8.00 and DDP-F1.21, F1.30 and F1.31. Should storm water that has not come into contact with contaminated material below the MMC pond on a controlled surface, the standing water will be pumped to one of two

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16,000-gallon double-walled Frac tanks. This non-contact water will be held for analytical testing results to ensure proper disposal. Non-contact water will not be stored in a Frac tank designated for contact water. Non-contact water will not be commingled with groundwater.

4.2.2 *Contact Water*

Storm water that inadvertently comes in contact with contaminated soil below the MMC and ponds in open excavations will be collected in a sealed sump and pumped to one of two 16,000-gallon double-walled Frac tanks. Additionally, storm water collected in the sealed sump from the perimeter drain installed at the temporary storage area will be pumped to this Frac tank. This contact water will be held for analytical testing results to ensure proper off-site disposal. Contact water will not be stored in a Frac tank designated for non-contact water.

4.2.3 *Storm Water Management System*

The storm water management plan was examined for the 25-year storm event and 100-year storm event, however the storage requirements were determined based primarily on the 25-year storm event. When a storm event occurs, the only water that will come in contact with soil below the membrane will be storm water falling directly into an excavation. All water that falls outside of the excavations will be treated as surface runoff because it will be deflected away from open excavations by diversion berms. Infiltration through the cover soil into the drainage net was assumed to not occur because the drainage net will be flapped-up the slope of the excavation and anchored at the edge of the excavation to divert storm water from entering into the excavation zone. The bottom of each excavation is open to soil below the membrane, so that any storm water collected in the excavation may be impacted.

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Each excavation will be sloped and a sump will be installed in each excavation to collect storm water to prevent it from rising above the capillary break gravel at the down-slope side of the excavation. The entire footprint of the excavation, including the sloped portions, was considered to catch storm water in the excavation. Excavations will be covered with plastic overnight or in the event of work stoppage to minimize the generation of contact water in the event of rainfall before the excavation is complete. Completed excavations will be covered with geotextile fabric and a 6-inch thickness of clean cover soil will be placed across the excavation footprint in preparation for pile driving. Contact and non-contact water testing and proper disposal procedures are described in the Material Handling and Management Plan project control document.

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The total volume of impacted water generated by a 25-year storm event over 24 hours has been calculated to be approximately 107,000 gallons, based on the open excavation area computed. This volume can be contained in one 75 ft. x 75 ft. x 4 ft. (168,000-gallon) "modutank" container. Considering it takes approximately 24 hours to sample and properly discharge impacted water, two modutanks will be present at the initiation of construction to store the volume of impacted water generated as well as any additional surge that may occur during the 25-year storm event at the location shown on DDP Drawing EN1.01. The storage volume provided by a single 168,000-gallon modutank storage container is approximately 57% greater than the volume of impacted water generated during a 25-year storm event, and approximately 22% greater than the volume of impacted water generated during a 100-year storm event (See revised Engineering Evaluation Memo #2).

Two storage containers will provide sufficient storage required to test, sample, and dispose of impacted water during a 24-hour, 25-year or 100-year frequency storm event at the site. A 120 ft. x 205 ft. x 1.5 ft. deep containment berm with 14-inches of filling capacity will provide storage sufficient to handle water stored in a single ModuTank. See Material Handling and Management Plan, Section 5.4, for contact storm water provisions.

4.2.4 *Sediment and Erosion Control*

The Erosion and Sediment Control Plan outlines specific activities to mitigate erosion by water or wind transport of sediment and soil during construction activities. In general, sediment control measures will consist of perimeter control devices such as:

- Silt fence and Super silt fence (except on Multimedia Cap);
- Asphalt berms;
- Earth dikes; and
- Stabilized construction entrances.

Point control measures will include dewatering practices such as portable sediment tanks and sump pits.

4.2.5 *Spill Prevention and Response Procedures*

The following measures should be implemented upon discovery of a release:

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- Control and contain the release, to the extent possible;
- Clean up the impacted area as soon as possible;
- Assess the risk;
- Implement the construction SPRP based on the source of the release;
- Report the release to management and government agencies; and
- Follow up with preventive measures and any necessary documentation.

Site personnel will immediately commit all necessary manpower, equipment, and materials required to prevent the spill from reaching waterways, shorelines, or sewers. The SPRP further outlines spill prevention and control measures.

4.2.6 Good Housekeeping

Good housekeeping practices are designed to maintain a clean and orderly work environment. Good housekeeping practices to be used during construction activities are the following:

- Maintain clean vehicle access roads;
- Keep all paved and vegetated areas clean of litter and debris and properly maintained.
- Maintain regular refuse pick-up and disposal;
- Spill response equipment is properly located, in adequate supply and working order, and the location(s) are known to all employees;
- Promptly clean up spills and leaks and properly dispose of recovered material;
- Keep walkways and passageways easily accessible and free of protruding objects, materials, and equipment;
- Make sure all trucks which entered any disturbed area, have gone through decontamination procedures for tires, prior to leaving the site; and

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- Discuss and promote good housekeeping practices with employees.

Good housekeeping elements are covered in the storm water inspections and throughout the Facility's storm water management process.

Workers should be familiar with and have access to the Spill Prevention and Response Plan (SPRP), dated November 2013 in Appendix B of the DDP, for specific procedures and protocols regarding spills and leaks. On-site training will be conducted prior to the start of work to orient workers with plan requirements. Each worker receiving training will be required to sign an attendance log confirming their participation.

4.2.7 *Visual Inspections*

Storm water inspections will be conducted at this facility as required. Inspection forms are provided in Appendix B of this document. At a minimum, authorized personnel will perform a monthly inspection of the Facility. The trained inspector will perform the inspections consistent with the requirements of the General Discharge Permit and Materials Handling and Management Plan. A copy of the General Discharge Permit will be provided to MDE. The inspections will be performed to detect evidence of potential common problems that may occur during construction.

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At the completion of each inspection, the inspector will review the SWPPP to determine if any observation may require revisions to the SWPPP. Any suggested revisions to the SWPPP will be brought to the attention of the Developer's representative. If the Developer's team determines that revisions are necessary, the SWPPP will be revised. No changes to the SWPPP may be implemented without prior MDE approval.

In addition to the monthly inspections, quarterly inspections of proposed outfalls will also be performed and after major storm events. The inspections will be performed to detect evidence of potential storm water blockage or pollution.

4.3 *POST CONSTRUCTION*

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This SWPP pertains specifically to the Exelon construction and its effectiveness terminates post-construction.4.3.1 Best Management Practices Stormwater best management practices (BMPs) incorporated into project are intended to collect, convey, and manage stormwater from the re-developed site. Rainwater conveyance pipes, a 6-foot by 4-foot basin, stormwater interceptor, rainwater pumps and filters, and sand

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traps are among the BMPs presented on the plumbing drawings (P1.01A and P1.01B) provided in Appendix B.

4.3.1 *Management of Runoff*

The following methods are planned to help with the management of runoff at the site post construction:

- Reduce impervious area via the installation of a green roof;
- Reduce impervious area via the installation of green space within the Central Park and tree pits along the street network;
- Rainwater harvesting within the building (collect rooftop runoff) and reuse for mechanical/plumbing systems; and
- Collect surface runoff from open space areas and direct the discharge via piping to the harbor.

4.3.2 *Preventive Maintenance*

Preventive maintenance involves the timely inspection and maintenance of storm water management devices as well as inspecting and testing facility equipment and operational systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters. Honeywell's on-site consultant, CH2M Hill, performs inspections and preventative maintenance at this facility. Additionally, CH2M Hill performs operations, maintenance and inspections required by the Consent Decree. Inspection forms are provided in Appendix B.

The preventive maintenance program for facility equipment is intended to mitigate breakdowns or failures by adjustment, repair, or replacement, and includes the following elements:

- identification of equipment at the facility that should be inspected;
- a schedule for periodic inspections of the equipment;
- appropriate and timely adjustment, repair, or replacement of equipment; and
- maintenance of complete records of inspections and equipment.

Preventive maintenance for site management areas and sediment and erosion control structures includes inspection for debris or other clogging

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material to ensure proper functioning of the structures, repair of minor erosion, cleaning of ditches and structures, reseeding and fertilization of vegetative areas.

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4.3.3 *Good Housekeeping*

Good housekeeping practices require that the facility is maintained in a clean and orderly manner. This is accomplished through instilling proper employee work habits and by training and checking the progress through visual inspections. Good housekeeping assures that:

- floors and surfaces are kept clean and orderly;
- spill response equipment is properly located, in adequate supply and working order, and the location(s) are known to all employees;
- spills and leaks are promptly cleaned up and recovered material is properly disposed; and
- all paved and vegetated areas are routinely kept clean of litter and debris and are properly maintained.

Employees should be familiar with and have access to the Spill Prevention and Response Plan (SPRP), dated November 2013 in Appendix B of the DDP, for specific procedures and protocols regarding spills and leaks.

Floors and ground surfaces should be cleaned by sweeping or shoveling and not by washing. Hosing down an area with water increases the potential for pollutants to be carried down-gradient to be released at a later time into storm water. Brooms should be stored in an appropriate area and should not be exposed to precipitation. Shovels should be cleaned before being stored.

Sorbents are materials that are capable of cleaning up spills through the physical/chemical processes of adsorption and absorption. Typical sorbent materials that can be thrown onto a spill on paved surfaces include clays, sand, kitty litter, and sorbent booms, matting and pads. Sorbent booms should be used to absorb spills on unpaved areas. For absorbent materials to be effective, they must be applied immediately onto the spilled area, and cleanup should proceed immediately. Proper disposal of the used absorbent material is necessary. Additional activities for spills on unpaved areas after the spill has been contained and sorbent materials applied include the removal of materials impacted by the spill, i.e., excavation. These materials shall be staged in proper containers and disposed at a permitted off-site facility.

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In the areas outside of the Exelon tower and in the parking garage, good housekeeping involves:

- picking up refuse and recyclables deposited outside of any dumpsters or trash bins;
- sweeping or shoveling any dry/solid materials that may have accumulated outside of any dumpsters and recycled material collection areas;
- proper disposal of refuse and recyclable materials;
- keeping walkways and passageways easily accessible; and
- cleaning the storm drain inlets.

4.4 *SWPPP REVISION*

This SWPPP will be amended whenever there is a change in design, operation, maintenance, or other circumstances that materially increase the potential for releases of significant materials, or that changes the response necessary in an emergency. No changes to the SWPPP may be implemented without prior MDE approval.

This SWPPP will also be amended in the event of new regulations, there is a change in the Developer's team, or if the SWPPP proves ineffective in achieving the general objective of controlling storm water discharges. At least once a year, the Developer's Team will review and discuss the appropriateness of the SWPPP, and determine whether the SWPPP requires revisions. As appropriate, the plan will be revised within a reasonable time period following the plans annual review.

Amendments to the SWPPP will be recorded on a SWPPP Revisions Log and appended to this document.

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5.0 STORM WATER POLLUTION PREVENTION TEAM AND TRAINING

5.1 PROJECT SPECIFIC TEAM MEMBERS AND RESPONSIBILITIES

The members of the Storm Water Pollution Prevention Team are listed below:

Facility Coordinator During Construction:
Jonathan Flesher: 443-463-3937

Resident Site Manager: Ken Biles: 410-522-5293

The above-listed persons are trained to implement the SWPPP. Mr. Flesher will designate an inspector for the SWPPP responsible for monthly inspections and documentation as well as assurance that appropriate BMPs are in place. The Facility Coordinator has the overall responsibility for ensuring plan adherence, updated training, and authorizing the resources necessary to implement the SWPPP, including inspections and corrective measures. Honeywell's on-site consultant, CH2M Hill, represented by the Resident Site Manager, will monitor compliance with procedures for inspections and preventative maintenance at this facility during construction. During construction, the Developer's Field Representative will perform the necessary inspections. Additional team members will provide support on an as needed basis.

5.2 TRAINING REQUIREMENTS

Members of the pollution prevention team are responsible for conducting employee training programs. The employee training programs are designed to inform personnel at all levels of responsibility of the components and goals of the SWPPP. Training sessions, including initial orientation training discussed in Section 4.2.6, will address topics such as spill prevention and response, preventive maintenance, good housekeeping, storage practices, visual inspections, and recordkeeping and reporting. At a minimum, formal training sessions shall be conducted annually. Topics discussed in the training session and a roster of employees who attend the training sessions are to be recorded and retained in the SWPPP file. Informal training in the form of one-on-one communications with personnel on the importance of pollution prevention should occur during visual inspections by members of the pollution prevention team. This will allow members of the pollution prevention team to point out potential pollutants to employees and to verify that the information addressed in the training sessions has been communicated effectively to them.

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The information described in the plan regarding potential pollution sources (Section 3.0) and storm water management controls/BMPs (Section 4.0) is distributed to all employees whose work influences storm water or includes a potential pollution source. At a minimum, this includes maintenance personnel, equipment and vehicle operators, and anyone who handles or oversees the transfer of fuel or other granular or liquid materials into and out of the facility. Employee training includes these four core subjects.

- *Good Housekeeping* - Employees are required to maintain a clean and orderly work environment. The routine sweeping of floors and the prompt cleanup of spilled material is discussed. The location of shovels, brooms, absorbents, and any other spill response equipment are identified. Employees are informed to regularly check for leaks, and spills. Housekeeping issues are addressed during regular safety meetings.

- *Spill Prevention and Response* - Employees are made aware of potential spill areas, drainage routes, and to whom a spill should be reported. Specific material handling procedures to avoid spills and response procedures in the event of a spill are also discussed.

- *Loading and Unloading Procedures* - Employees are instructed to provide constant supervision during all outdoor fuel transfer and material handling operations and to ensure that all containers are properly sealed prior to handling.

- *Preventive Maintenance* – Employees are instructed to provide constant care when using equipment to ensure that the equipment is maintained properly.

No other types of materials other than petroleum products and materials associated with the Transfer Station and general housekeeping products are anticipated to be maintained/used on site.

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APPENDIX A

BEST MANAGEMENT PRACTICES INTEGRATED INTO RE-DEVELOPMENT

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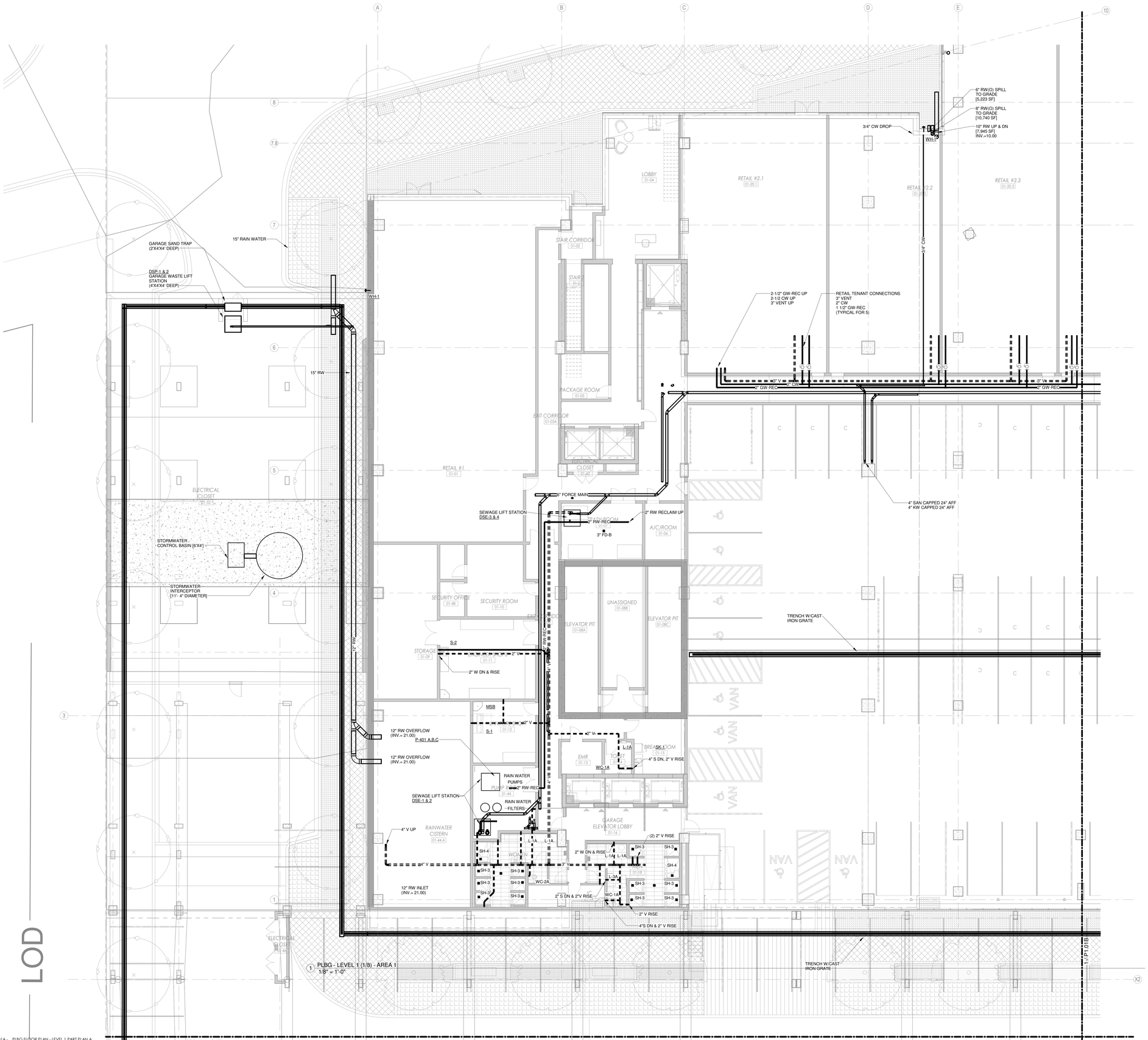
KEYED NOTES:

1 4" SAN, 2" VENT AND 1 1/2" CW ROUGH-IN FOR FUTURE RETAIL TOILET.



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project
EXELON BLDG & PLAZA GARAGE

8/1/13

key plan

seal

issued	date	description

revision	date	description

title
PLBG FLOOR PLAN - LEVEL 1 PART PLAN A

date:	6/28/2013
drawn by:	Author
checked by:	Approver
scale:	1/8" = 1'-0"
project number:	N1162.00
	scaled.indb

sheet number
P1.01A

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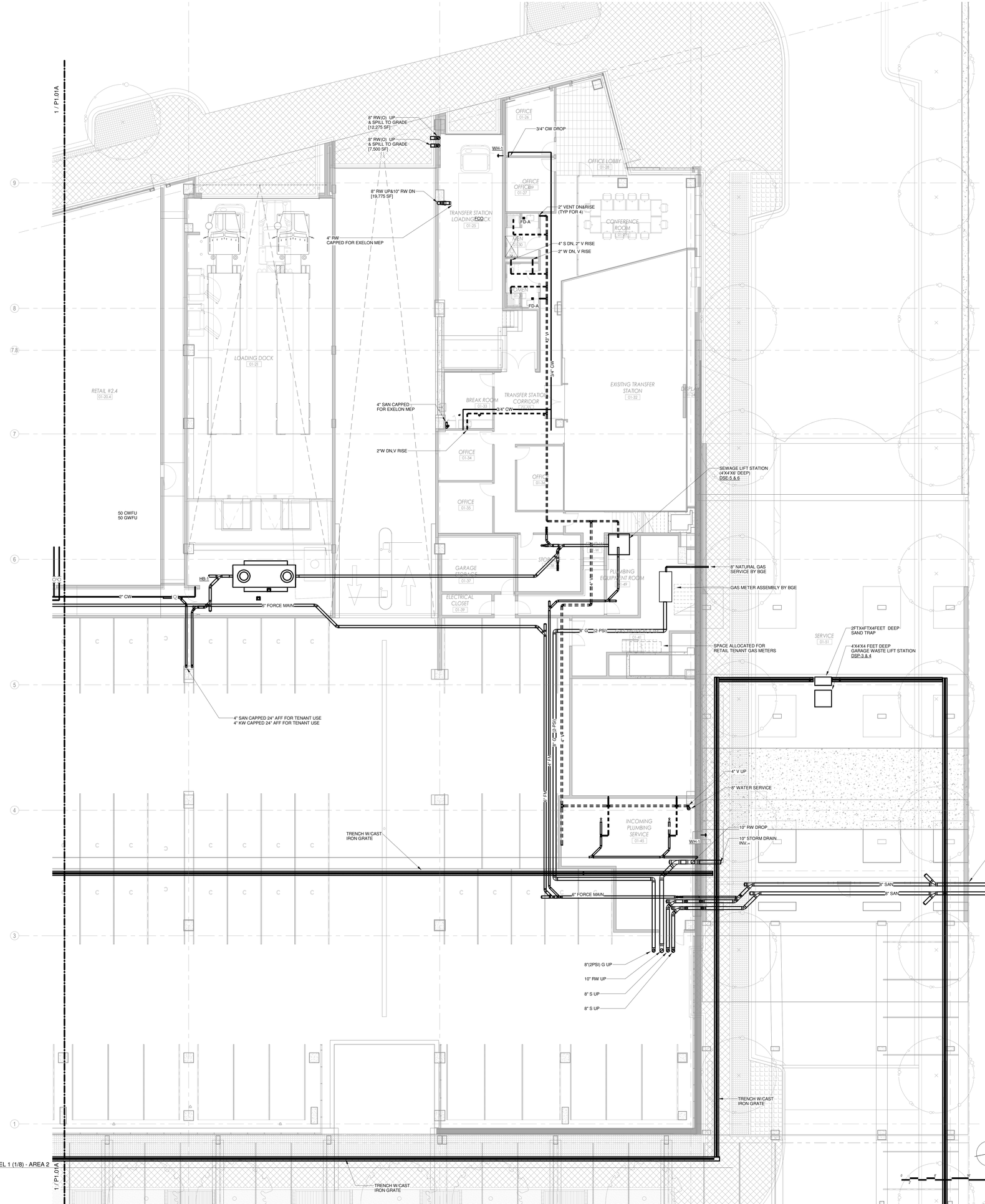

1 PLBG - LEVEL 1 (1/8) - AREA 2
1/8" = 1'-0"

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project
EXELON BLDG & PLAZA GARAGE

8/1/13

key plan

seal

revision	date	description

title
PLBG FLOOR PLAN - LEVEL 1 PART PLAN B

date:	6/28/2013
drawn by:	Author
checked by:	Approver
scale:	1/8" = 1'-0"
project number:	N1162.00

sheet number
P1.01B

APPENDIX B

INSPECTION FORMS

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9.0 INSPECTION FORMS

This section includes forms for inspections of the remedial components. Only one set of inspections will be done to cover all remedial components (the Layered Soil Cap, the Multimedia Cap, the HMS, the Hydraulic Barrier, and the Embankment.)

In addition, the Cap Inspection Form, Table 9-1, will be used to inspect the Layered Soil Cap and the Multimedia Cap. This table is also included in the SSMP.

Table 9-1. Multimedia and Layered Soil Cap Inspection Form
Honeywell Baltimore Works Site O&M Plan [5]

Inspector: Date: Time:

Activities on Site:

Weather:

The multimedia and Layered Soil Caps serve as barriers against surface water infiltration, and the upward migration of contaminants. A cap inspection priority is to evaluate the effects of observed problems. As such, contaminant seepage and migration effects shall be evaluated as part of observed inspection problems.

Each inspection component item lists typical associated types of problems and their required inspection frequencies. The types of cap component problems include, but are not limited, to those listed. The inspection frequencies for each component are described in the following table. All cap components shall also be inspected following catastrophic or other unanticipated events.

Cap Component Items	Types of Problems (to review during inspection)	Item Inspection Frequency [4] (check applicable)	Status	Observations	Date & Nature of Repairs/Corrective Action
Protective Cover for Soil and Multimedia Caps (including stone and lawn)	Erosion, settlement, slumping, saturation of surface soil, seepage, frost heave, Weeds/ vegetation, lawn care	After storms [1] Monthly [2] Quarterly [3]			
Asphalt	Cracks, deterioration, spalling, uneven settlement, ponded water, slumping, seepage	After storms [1] Monthly [2] Quarterly [3]			
Cap Penetrations	Soil discoloration, seepage, erosion, settlement, damage to geosynthetic cap materials	After storms [1] Monthly [2] Quarterly [3]			
Sediment and Erosion Control Structures	Inadequate Riprap, Check dam integrity , and short circuiting	After storms [1] Monthly [2] Quarterly [3]			
Settlement Plate Surveying and drainage layer slope	Total settlement, differential settlement	Baseline and annually until 3 consecutive measurements indicate no change; then every 5 years thereafter. Visual inspection after storm events exceeding the 25-year, 24-hour storm			

Cap Component Items	Types of Problems (to review during inspection)	Item Inspection Frequency [4] (check applicable)	Status	Observations	Date & Nature of Repairs/Corrective Action
Drainage Layer Sampling	Blockage of drainage layer, total chromium and cyanide levels above baseline value.	Baseline, then annually.			
Drainage Layer Inspection	Flow/no flow, debris, water volume and color.	After rain for 1st year. Monthly [2] After storms [1] Quarterly [3]			
Multimedia Cap/Layered Soil Cap	Field inspection for signs of disturbance, seepage	Semi-annual and after storms [1]			
Cover Soil Sampling	Total chromium levels above baseline value	Baseline Once every five years			
HMS Operation	Increase in volume of water pumped with no significant increase in rainfall or unusual tidal events	Daily volume reporting (to be reported quarterly)			
Cap Repair and Reconstruction	As applicable to item being repaired. Conformance with repair and reconstruction specifications. Damage to geosynthetic materials and capillary break layer.	Daily during repair and reconstruct. Immediately after repair or reconstruct event.			
Outfall and Swale	Damage, blockage, and erosion/sediment	After storms [1] Quarterly [3]			
Security Fencing	Damage to fencing or locks, missing sections or locks	After storms [1] Monthly [2] Quarterly [3]			

1. After storm events exceeding 2 year, 24-hour storm.
2. Monthly for first year after construction completion.
3. Quarterly after first year following construction completion.
4. In all cases, inspections shall be performed after catastrophic site events such as earthquakes, ship collisions, hurricanes, or other unanticipated events.
5. This form is also utilized by the SSMP.

Comments Or Actions Required/Performed:

Table 9-2. HMS Inspection Form
Honeywell Baltimore Works Site O&M Plan

Inspector: Date: Time:

Activities on Site:

Weather:

Inspection Item [1]	Types of Problems (to review during inspection)	Maintenance Frequency	Status	Observations	Date & nature of repairs/corrective action
Extraction Wells	Clogging	semi-annually or as needed			
Pumps	Clogging, Precipitation	annually			
Air Line	Leakage, Pressure check	quarterly			
Air Compressor, parts	Leakage, Fatigue	Quarterly - Varies by components			
Air Filters	Clogging	Weekly or as needed			
Desiccant Dryer	Spent desiccant	Check quarterly			
Conveyance Pipe	Leakage, Clogging, Precipitation	annually			
Electrical Systems	Enclosures, Connections	Quarterly			
Monitoring/Control System	Adequacy, Connections	Quarterly			
Well/ Piezometer Vaults	Settlement	annually			
	Instruments, Equipment and Piping	monthly			
Groundwater Level Device	Accuracy	quarterly			

1. In all cases, inspections shall be performed after catastrophic site events such as earthquakes, ship collisions, hurricanes, or other unanticipated events.

Comments Or Actions Required:

Table 9-3. Hydraulic Barrier Inspection Form
Honeywell Baltimore Works Site O&M Plan

Inspector: Date: Time:
Activities on Site:

Weather:

Type of Problems	Frequency	Observed Conditions (Check One) None	Good	Fair	Poor	Action Required (Y/N)	Was Problem Observed? Y/N
Barrier Movement Evident	Semi-annual and after significant events		NA	NA	NA		
Erosion Damage Evident	Semi-annual and after significant events		NA	NA	NA		
Impact Damage Evident	After significant events		NA	NA	NA		
Seismic Damage	After significant events		NA	NA	NA		
Chemical/natural degradation	Semi-annual and after significant events		NA	NA	NA		
Settlement Damage Evident	Semi-annual and after significant events		NA	NA	NA		
HMS Pumping Data	Quarterly	NA	NA	NA	NA		
Overall Condition	Semi-annual and after significant events	NA					NA
Action Required			NA	NA	NA		

NA - Not Applicable

Comments Or Actions Required:

Table 9-4. New Outboard Embankment Inspection Form
Honeywell Baltimore Works Site O&M Plan

Inspector: Date: Time:

Activities on Site:

Weather:

NOTE: Inspections for this form include both the New Outboard Embankment, and the stone embankment around the Layered Soil Cap

Description	Frequency	Observed Condition (Check One)				
		None	Good	Fair	Poor	Was Problem Observed? Y/N
Stone Condition*	Semi-annual and after significant events	NA				NA
Armor Condition**	Semi-annual and after significant events	NA				NA
Slope Condition\Changes	Semi-annual and after significant events	NA				NA
Erosion Damage Evident	Semi-annual and after significant events		NA	NA	NA	
Evidence of Containment Seepage	Semi-annual and after significant events		NA	NA	NA	
Impact Damage Evident	Semi-annual and after significant events		NA	NA	NA	
Settlement Damage Evident	Semi-annual and after significant events		NA	NA	NA	
Floating Debris	Semi-annual and after significant events		NA	NA	NA	
Overall Condition	Semi-annual and after significant events	NA				NA
Weeds/vegetation	Semi-annual and after significant events	NA				NA
Action Required			NA	NA	NA	

NA - NOT APPLICABLE

* Stone condition: environmental or climatic degradation of the individual stones.

** Armor condition: Riprap stone placed on the embankment surface between El.-10 and the top of the embankment to protect against wave action. Armor condition is related to the condition of the rip rap, including the erosion of the rip rap or the gross movement of the rip rap that is not associated with a slope failure.

Comments Or Actions Required: