GE
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USA

Transmitted Via Overnight Courier

July 3, 2007

Mr. Dean Tagliaferro
United States Environmental Protection Agency
c/o Weston Solutions, Inc.
10 Lyman Street
Pittsfield, MA 01201

Re: Supplemental Sampling and Engineering Design Report for Re-routing of Sanitary and Storm Sewer Pipelines
GE-Pittsfield/Housatonic River Site
Hill 78 On-Plant Consolidation Area (GECD210)

Dear Mr. Tagliaferro:

Attached please find the above-referenced document for your review. Please call me if you have any questions or comments regarding this submittal.

Sincerely,

Richard W. Gates /mp

Richard W. Gates
Remediation Project Manager

Attachments

cc: Tim Conway, EPA
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* *without attachment*

ARCADIS BBL
Infrastructure, environment, facilities

General Electric Company
Pittsfield, Massachusetts

Supplemental Sampling and Engineering Design Report for Re-Routing of Sanitary and Storm Sewer Pipelines

July 2007

ARCADIS BBL

Supplemental Sampling and Engineering Design Report for Re-Routing of Sanitary and Storm Sewer Pipelines

General Electric Company
Pittsfield, Massachusetts

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General Electric Company
Pittsfield, Massachusetts

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Table of Contents

ARCADIS BBL

1. Introduction

On October 20, 2006, the General Electric Company (GE) submitted a document to the U.S. Environmental Protection Agency (EPA) titled *Re-routing of Sanitary and Storm Water Pipelines* (Re-routing Proposal). That document outlined a plan to re-route the portions of the existing sanitary and storm sewer pipelines that currently run under the Hill 78 On-Plant Consolidation Area (OPCA) to new locations outside of the western limits of that OPCA. The Re-Routing Proposal also provided that the portions of the existing sanitary and storm sewer pipelines that are bypassed by the installation of the new lines will be taken out of service, and that those pipelines will be blocked at each end and grouted. EPA provided conditional approval of the Re-routing Proposal in a letter to GE dated January 5, 2007 and directed GE to submit a plan proposing additional sampling to further characterize the soils along the proposed alignment of the re-routed sanitary and storm sewers.

In response to that requirement, GE submitted to EPA a *Supplemental Sampling Plan for Re-routing of Sanitary and Storm Sewer Pipelines* (Supplemental Sampling Plan) on February 19, 2007. That document provided additional details regarding the supplemental sampling activities proposed to characterize the existing soils for potential future use as backfill materials for the re-routed portions of the utilities, based on the preliminary routing of those pipelines. EPA provided conditional approval of the Supplemental Sampling Plan in a letter to GE dated April 5, 2007. That letter directed GE to submit a report providing detailed design plans for the proposed pipelines and summarizing the results of the supplemental investigations. In accordance with the Supplemental Sampling Plan (as modified by EPA's approval conditions), this *Supplemental Sampling and Engineering Design Report for Re-routing of Sanitary and Storm Sewer Pipelines* (Supplemental Sampling and Design Report) includes the following information: (a) detailed design plans for the proposed pipelines; (b) a summary of the soil sampling data (including supporting data tables, calculations, figures, and a data validation report) from the supplemental investigations; and (c) a soil handling plan, including (i) an evaluation of the possible re-use of excavated soils as excavation backfill material (i.e., an evaluation to ensure that the spatial average polychlorinated biphenyl (PCB) concentration of these materials is less than 25 ppm and, as GE has voluntarily elected to provide, a comparison of non-PCB data to certain performance standards); (ii) information on whether backfill materials from an off-site location would be used; and (iii) a proposal for disposition of any excess excavated soils not used for backfill.

2. Detailed Pipeline Design Plan

This section presents an overview of the design of the re-routed portions of the sanitary and storm sewer pipelines. In support of this discussion, a series of technical drawings for the sanitary and storm sewer pipelines are provided in Appendix A to this report. Additional details regarding the design of the re-routed sections of the pipelines are provided below.

Following the removal of vegetation west of the existing drain lines and south of Tyler Street Extension (including the large trees in this area), the sanitary sewer will be re-routed from a new concrete manhole located immediately south of Tyler Street Extension (northwest of the Hill 78 OPCA), around the western perimeter of the Hill 78 OPCA, to a reconnection point at an existing manhole located approximately 200 feet north of Merrill Road, as shown on Technical Drawing 2 in Appendix A. The re-routed portion of the sanitary sewer will consist of approximately 1,000 linear feet of new 10-inch diameter polyvinyl chloride (PVC) pipe set at an average slope of approximately 0.5 percent with six new pre-cast concrete manholes set at the locations shown on Technical Drawing 3 in Appendix A. If the existing manhole at the reconnection point north of Merrill Road cannot be modified appropriately, a new manhole will also be installed at this location.

Similarly, as also shown on Technical Drawing 2 in Appendix A, the storm sewer will be re-routed from an existing manhole located south of the Tyler Street Extension (northwest of the Hill 78 OPCA), around the western perimeter of the Hill 78 OPCA, "daylighting" immediately north of the culvert under Merrill Road. The re-routed portion of the storm sewer will consist of approximately 1,250 linear feet of new 48-inch diameter corrugated, smooth wall interior high-density polyethylene (HDPE) pipe set at an average slope of approximately 0.5 percent with seven new pre-cast concrete manholes at the locations shown on Technical Drawing 3 in Appendix A. As an additional design feature, a bar grate has been added to the end of the re-routed storm sewer pipeline to prevent access, as indicated on Technical Drawing 5.

Consistent with previous submittals, it is currently anticipated that the re-routed sanitary and storm sewer pipelines will be installed within a common trench for the portion of the pipelines located between the new manholes adjacent to the northwest corner of the Hill 78 OPCA and the reconnection point for the sanitary sewer/existing outfall location south of the Hill 78 OPCA (Figure 1). Similarly, the routing for the southern portion of the storm sewer pipeline is consistent with the routing specified in the Re-routing Proposal. Specifically, this portion of the re-routed storm sewer will be located at or above-grade under existing conditions. This area will be prepared accordingly, including some limited re-grading of existing soils, followed by the placement and compaction of clean fill materials to be used

as pipe bedding for the new section of pipeline. Following installation of the re-routed pipeline and per EPA's request, the area around this new section of pipeline will be backfilled and re-graded with clean fill material, as indicated on Technical Drawing 2 in Appendix A. Regarding the northern portion of the two re-routed pipelines, previous submittals had indicated that the portions of the pipelines from the new proposed manholes adjacent to the northwest corner of the Hill 78 OPCA to the connection points north of the Hill 78 OPCA would be installed in separate trenches. However, GE has slightly modified the tie-in location for the re-routed sanitary sewer to a location south of Tyler Street, as indicated on Figure 1, to avoid the need to relocate the utility pole for the overhead line running along the south side of Tyler Street Extension.

Design issues concerning soil backfill for the trenches are addressed in the discussion of soil handling below (Section 4). However, GE notes EPA's comment in Condition No. 2 of EPA's April 5, 2007 conditional approval letter that existing pre-design sample RAA9-J10 indicated PCBs in the 0- to 1-foot depth increment at levels above the "not-to-exceed" criterion for unpaved soils within the GE Plant. Therefore, EPA observed that the polygon associated with this sample will be designated for removal as part of the Removal Design/Removal Action activities for the Hill 78 Area-Remainder Removal Action Area (RAA). Accordingly, EPA directed that surface soils associated with this polygon should be segregated prior to the start of utility-related excavations and not re-used as backfill. On the assumption that the pipeline excavation project will be undertaken prior to implementation of the Removal Action for Hill 78 Area-Remainder, GE confirms that it will segregate these soils as part of its pipeline excavation work for appropriate disposal and that these soils will not be used in trench backfill. These activities will involve the excavation and segregation of approximately 25 cubic yards of soil for off-site disposal, as further discussed in the excavated material handling section (Section 4.3) below.

Upon completion of the new pipelines, the portions of the existing sanitary and storm sewer pipelines that are bypassed by the installation of the new lines will be taken out of service. Both pipelines will be blocked at both ends and filled with flowable fill. Moreover, pursuant to Condition No. 6 of EPA's January 5, 2007 conditional approval letter, upon discontinuation of use of the sanitary sewer pipeline, GE will, subject to City of Pittsfield (City) approval, flush remaining sewage from the pipeline into the downstream piping.

Pursuant to Condition No. 4 of EPA's April 5, 2007 conditional approval letter, GE compared the location and depths of the proposed utility corridors to the results of existing geophysical data, including the information from GE's July 9, 2002 report titled *Hill 78 On-Plant Consolidation Area Geophysical Testing Results and Proposed Deep Soil Borings*, to determine the possible presence of voids or anomalies within the proposed utility corridor.

The results of this comparison show that the anomalies identified in that submittal are all located east of the proposed utility corridors, as presented on Technical Drawing 2 of Appendix A. As can be seen from that drawing, the data do not show any voids or anomalies in the area of the proposed utility corridor.

As indicated in the Re-routing Proposal, the locations and design of the re-routed pipelines is subject to review and receipt of necessary approvals from the City. GE previously contacted the City to conceptually discuss the re-routing of these pipelines and has designed the re-routed pipelines in accordance with those conceptual discussions. In addition, GE continues to copy the City on all submittals to EPA regarding the re-routing of the sanitary and storm sewers around the Hill 78 OPCA. As a result, it is anticipated that the City will review the design of the re-routed pipelines concurrently with EPA's review of this submittal. Upon receipt of the appropriate City approvals (and following relocation of the pipelines), GE will coordinate the City to make the appropriate modifications to the easements for these pipelines, as required by Condition No. 5 of EPA's April 5, 2007 conditional approval letter. In particular, GE will seek the City's consent either to (1) terminate the existing easements for the pipelines, followed by the grant by GE of new easements for the pipelines in the re-routed locations, or (2) amend the existing easements to reflect the new routing. GE will pursue discussions with the City concerning these matters upon EPA's approval of this report.

In addition, GE is presently evaluating whether any notifications or permit changes are required to implement the proposed pipeline re-routing activities, and, if so, whether those activities will be subject to the Comprehensive Environmental Response, Compensation, and Liability Act on-site permitting exemption referenced in Paragraph 9.a of the Consent Decree for the Site. GE will comply with any requirements determined to apply as part of that evaluation.

3. Supplemental Sampling Data

Pursuant to Condition No. 1 of EPA's January 5, 2007 conditional approval letter for the Re-routing Proposal, the Supplemental Sampling Plan proposed supplemental investigations to determine the suitability of using the existing soils within the proposed utility corridors as backfill material following installation of the re-routed pipelines. As indicated therein, the *Scope of Work for Removal Actions Outside the River* (SOW, which is Attachment E to the Consent Decree) requires that the spatial average PCB concentration of such backfill material be less than 25 ppm. To assure that the existing soil, once excavated to create a utility trench for the proposed sanitary and storm sewer pipelines, satisfies this criterion and can be replaced in the utility trenches, the Supplemental Sampling Plan proposed the collection of approximately 77 soil samples for each location and depth increment at which existing data could not be utilized to satisfy existing data needs. These data will be used along with appropriate existing data to characterize the soil to be excavated from the utility trench.

Condition No. 1 of EPA's April 5, 2007 conditional approval letter indicated that PCB data from one historic and one pre-design soil sampling location could not be utilized to evaluate the suitability of soils subject to excavation for use as backfill material. Additionally, during a field reconnaissance of the proposed utility corridors for the re-routed pipelines, GE determined that minor modifications to the alignment of the utility corridors were necessary to avoid certain structures (e.g., steam lines) located in the vicinity of the proposed utility corridors. The resulting modifications to the scope of the supplemental PCB soil sampling activities were summarized in a May 7, 2007 e-mail from GE to EPA. EPA subsequently provided approval to GE for the revised scope of PCB sampling in an e-mail dated May 9, 2007.

GE performed the supplemental soil sampling activities proposed in the Supplemental Sampling Plan (as modified by EPA's approval conditions) between May 9 and May 24, 2007. For consistency with previous pre-design investigation activities within the Hill 78 Area-Remainder RAA (and since the data will be incorporated into the forthcoming Conceptual Removal Design/Removal Action Work Plan for the Hill 78 Area-Remainder RAA), soil samples were generally collected from the 0- to 1-foot, 1- to 6-foot, and 6- to 15-foot depth increments, as appropriate, to the depth corresponding to the proposed invert elevation of the re-routed sanitary and storm sewer lines, plus one foot for the associated pipeline bedding materials. For areas within which the re-routed pipelines will be installed deeper than 15 feet below existing grade, additional samples were generally collected from the 15- to 20-foot and 20- to 25-foot depth increments, as appropriate, to the depth corresponding to the proposed invert elevation of re-routed pipelines, plus one foot for the

pipeline bedding materials. Finally, samples were only collected from the portion of the deepest sampling interval necessary to characterize the soils that would be excavated as part of the utility installation activities (i.e., those soils that could potentially be used as backfill materials for the re-routed portions of the sanitary and storm sewers). For example, if the base of the bedding materials associated with either re-routed utility were estimated to be eight feet below existing grade, the sample collected from the deepest sampling interval was collected from the 6- to 8-foot depth increment only (in lieu of a sample from the 6- to 15-foot depth increment). In summary, the supplemental investigations involved the collection of 81 soil samples from 22 locations for PCB analyses. The sample locations are shown on Figure 1. The analytical results for the supplemental investigation activities are summarized in Table 1, while the previously-collected pre-design and historic are presented on Tables 2 and 3, respectively.

The primary focus of the Supplemental Sampling Plan was the collection of additional PCB data as necessary to evaluate the suitability of excavated soils for use as backfill materials. However, Condition No. 3 of EPA's April 5, 2007 conditional approval letter also required the collection of six soil samples for analysis of other non-PCB constituents listed in Appendix IX of 40 CFR Part 264 (excluding pesticides and herbicides), plus benzidene, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3). GE proposed the specific locations and depths for the Appendix IX+3 sampling in the aforementioned May 7, 2007 e-mail from GE to EPA, which proposal was subsequently approved by EPA's e-mail of May 9, 2007. The analytical results for the supplemental Appendix IX+3 investigation activities are provided in Table 4. Table 5 presents the Appendix IX+3 sampling data collected during the pre-design investigation at locations within the proposed utility corridors for the re-routed sanitary and storm sewer pipelines.

All supplemental investigation sampling and analysis activities were performed in accordance with GE's approved Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP). The supplemental soil data were reviewed in accordance with the data validation protocols included in Section 7.5 of GE's approved FSP/QAPP. The results of that review, included as Appendix B, confirmed that the data were within acceptable data validation parameters.

4. Soil Handling Plan

In accordance with the Supplemental Sampling Plan and as previously summarized herein, this section presents the following information: an evaluation of the possible re-use of excavated soils as excavation backfill material (i.e., an evaluation to ensure that the spatial average PCB concentration of these materials is less than 25 ppm); information on whether backfill materials from an off-site location would be used; and a proposal for disposition of any excess excavated soils not used for backfill. In addition, EPA's conditional approval letter required the collection of soil samples for analysis of Appendix IX+3 constituents. Although not required by the conditional approval letter or the Consent Decree, GE has voluntarily elected in this particular instance to include an evaluation of the suitability of the excavated materials for use as backfill materials based on the data from those samples. Additional details regarding each of these activities are provided below.

4.1 Evaluations of the Possible Re-use of Excavated Soils as Backfill

Upon receipt of the data from the supplemental investigation samples, GE performed evaluations of the PCB and Appendix IX+3 soil sampling data to determine whether the excavated soils could be utilized as backfill materials upon installation of the re-routed pipelines. Those evaluations are summarized below.

4.1.1 Evaluation of PCB Data

As previously indicated, the SOW requires that the spatial average PCB concentration for material proposed for use as backfill in utility corridors be less than 25 ppm. Therefore, one spatial average PCB concentration was calculated for all of the soils anticipated to be excavated along the length of the re-routed pipelines for comparison to the Performance Standard of 25 ppm. Further, as a conservative measure, the results for all discrete PCB samples were compared to the not-to-exceed (NTE) concentration applicable to unpaved surface soils in industrial areas within the GE plant site (i.e., 125 ppm).

Consistent with the protocols utilized at the other RAAs for the evaluation of existing utility corridors, existing data located within a 50-foot wide band centered on each utility was utilized to calculate a spatial average PCB concentration for the soils located within a 25-foot wide utility corridor centered on each utility. As indicated in the Supplemental Sampling Plan, the re-routed portions of the storm and sanitary sewer pipelines will be installed in close proximity to each other. As a result, the use of a 50-foot wide band consistent with the approach used for evaluating existing utility corridors, results in overlap between the 50-foot bands centered on each pipeline, as indicated in Figure 1 of the Supplemental

Sampling Plan. Therefore, GE calculated the spatial average in a band extending out 12.5 feet from both lines. At any location, consequently, the band for which GE calculated the spatial average has a width equal to 25 feet plus the distance between the two pipelines. Figure 1 presents the historic, pre-design, and supplemental soil sampling locations located with the 50-foot bands centered on the re-routed portions of the sanitary and storm sewer pipelines from which samples were collected to determine the suitability of the excavated soils for use as backfill materials. As previously indicated, the supplemental, pre-design, and historical PCB soil sample data associated with these sampling locations are presented on Tables 1 through 3, respectively.

To calculate the spatial average PCB concentration for the soils subject to excavation as part of the sanitary and storm sewer re-routing, Theissen polygons were developed using the limits of the 25-foot corridors centered on the re-routed portions of the sanitary and storm sewer pipelines and surveyed sampling locations. The development of a Theissen polygon map involved the use of computer software to draw perpendicular bisector lines between adjacent sample locations, thus creating two-dimensional, sample-specific polygon areas. In this manner, locations within a given polygon were represented by the corresponding soil sample location and data. The Theissen polygon map generated for the re-routed portions of the sanitary and storm sewer utilities is presented on Figure C-1 in Appendix C. It should be noted that certain polygons contain two sampling locations since a combination of existing/pre-design and supplemental soil samples were utilized to provide continuous PCB sampling data to the depth of the bedding for the re-routed portions of the sanitary and storm sewer utilities. In such polygons, the PCB results from the applicable depth increments at the different locations were used to represent the PCB concentrations at those depth increments within the polygon.

The next step in determining the existing average PCB concentration for the soils subject to excavation within the re-routed portions of the sanitary and storm sewer utility corridor involved the development of a computer spreadsheet to combine the results of the Theissen polygon mapping and the available PCB soils data. For each polygon area, the PCB data for the corresponding sample location(s) were entered into a computer spreadsheet. The area, volume, and average PCB concentration associated with each polygon were then established. By adding together the quantity of PCBs in all of the polygons within the utility corridor, and dividing that quantity by the volume of the polygons, an overall volume-weighted average PCB concentration was calculated for the excavated soils.

One hundred twelve PCB sample results were considered in the evaluation of the soils subject to excavation as part of the re-routing of the sanitary and storm sewer utilities. As discussed in Section 2 above, EPA noted, in Condition No. 2 of its April 5, 2007 conditional approval letter, that the existing pre-design sample RAA9-J10 indicated PCBs in the 0- to 1-foot depth increment at a concentration above the NTE criterion for unpaved soils within the GE Plant. Therefore, EPA noted that the polygon associated with this sample will be designated for removal as part of the Hill 78 Area-Remainder RAA. On this basis, EPA stated that future utility-related evaluations shall not include the potential re-use of those NTE soils. GE has confirmed above that it will segregate for disposal the soil from the polygon associated with sample RAA9-J10 and that it will not use that soil for trench backfill. For purposes of the soil handling evaluations, however, GE notes that sample RAA9-J10 is located outside of the corridor evaluated by GE as part of its soil re-use evaluation. Although a portion of the RAA9-J10 polygon extends into the corridor, those data are not used in the corridor evaluation. That exclusion is appropriate, given that the 0- to 1-foot polygon at RAA9-J10 will be removed in any event.

For the pipeline corridor, the maximum PCB concentration is 30.0 ppm (at OPCA-SB-7 [0- to 1-foot depth increment]), and the existing volume-weighted average PCB concentration is approximately 0.63 ppm (Table C-1 in Appendix C). Therefore, the volume-weighted average PCB concentration for the soils subject to excavation is significantly less than the 25 ppm criterion specified in the SOW and the excavated soils are considered usable to for backfill material.

Finally, the discrete soil sample data were compared to the NTE concentration of 125 ppm. As indicated in Tables C-1 through C-3, none of the historic, pre-design, or supplemental soil samples contains PCBs at a concentration in excess of 125 ppm.

4.1.2 Evaluation of Appendix IX+3 Data

As previously indicated, Condition #3 of EPA's April 5, 2007 conditional approval letter required the collection of six samples for analysis of non-PCB Appendix IX+3 constituents at certain supplemental sampling locations, all from depths greater than 15 feet below grade. A complete Appendix IX+3 evaluation of the Hill 78 Area-Remainder will be performed as part of the Conceptual RD/RA Work Plan for that RAA. The Consent Decree does not provide for an evaluation of non-PCB Appendix IX+3 constituents for utility corridors (much less for data collected from depths greater than 15 feet below grade). However, in this particular instance, GE has voluntarily elected to perform an extremely conservative evaluation: comparing the resulting arithmetic average constituent concentrations (except for dioxin/furan total toxicity equivalency quotients [TEQs], as further

discussed below) to the Method 1 Category S-1 GW-2/GW-3 soil standards that would be applicable to unrestricted future use of the soils. For those constituents for which Method 1 soil standards do not exist, the maximum constituent concentration was compared to the applicable EPA Region 9 Preliminary Remediation Goals (PRGs). Finally, for dioxin/furan TEQs, the maximum constituent concentration was compared to the Method 1 Category S-1 GW-2/GW-3 soil standard of 2E-05 ppm.

As indicated in Table C-2 of Appendix C, the excavated materials would be suitable for unrestricted future use, including as backfill for the re-routed pipeline excavations, since: (1) the maximum detected dioxin/furan TEQ concentration is less than the applicable Method 1 soil standard; (2) the maximum detected concentration for each constituent for which there is no Method 1 soil standard is less than the applicable EPA Region 9 PRG; and (3) the arithmetic average concentrations for all remaining constituents are less than the applicable Method 1 soil standards. Accordingly, even though there are no corridor-specific Performance Standards for non-PCB Appendix IX+3 constituents, these evaluations confirm the conclusion that the concentrations of Appendix IX+3 constituents in the corridor surrounding the proposed pipelines are very low and that the excavated soils are suitable for use as backfill materials upon installation of those pipelines.

4.2 Source of Backfill Materials

With the exception of the surface soils attributed to the 0-to 1-foot depth increment at sampling location RAA9-J10, the excavated soils are considered suitable for use as backfill materials following installation of the re-routed portions of the sanitary and storm sewer utility corridors based on the evaluations presented in Section C.1, subject to certain considerations regarding the suitability of such soils for use as structural fill (e.g., no oversized materials or debris within the excavated soils). As such, it is anticipated that the majority of the excavated soils will be suitable for use as backfill. Nevertheless, the use of some backfill materials from an off-site source will be required to perform the installation of the re-routed portions of the sanitary and storm sewer utilities because it is anticipated that the excavated materials will likely not be suitable for use as pipe bedding. Therefore, appropriate pipe bedding materials will be procured from an off-site source. It is further anticipated that it will be necessary to import general backfill materials to: (1) off-set the volume loss associated the soils attributed to sampling location RAA9-J10, which will be segregated to off-site disposal in accordance with Condition No. 2 of EPA's April 5, 2007 conditional approval letter; (2) off-set the volume loss associated with any materials that are not suitable for use as backfill (e.g., oversized materials and/or debris); and (3) facilitate the placement and grading of fill materials around and over the southernmost section of the re-routed storm sewer utility.

4.3 Disposition of Excess Excavated Materials

As indicated in Section C.2, certain excavated materials will not be suitable for use as backfill materials. These include approximately 25 cubic yards of excavated materials associated with sampling location RAA9-J10 and certain other materials/debris that are not suitable for use as structural fill. Since the excavated materials associated with sampling location RAA9-J10 contain PCBs at concentrations greater than 50 ppm, those materials will be subject to the disposal restrictions under the Toxic Substances Control Act (TSCA). As such, those materials will be segregated and sent off-site for disposal at the Waste Management, Inc. (WMI) disposal facility located in Model City, New York. It is currently anticipated that the remainder of the excavated materials that are determined to not be suitable for use as structural fill (e.g., oversized materials and/or debris), will be consolidated and sent to the Hill 78 OPCA for disposal.

5. Future Activities

Concurrent with EPA review of this Supplemental Sampling and Design Report, GE will initiate preparation of a request for proposal for the purpose of identifying a qualified contractor to perform the utility re-routing activities described herein. GE will also, upon approval of this document, pursue discussions with the City concerning either modification of the existing pipeline easements or termination of those easements and grant of new easements by GE. Assuming timely EPA review and approval of this document, GE anticipates selection of a contractor and performance of the sewer re-routing activities during the 2007 construction season.

Tables

TABLE 1
SUPPLEMENTAL PCB SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
SB-1	0-1	5/23/2007	ND(0.38)	ND(0.38)	1.1	1.1
	1-6	5/23/2007	ND(0.038)	ND(0.038)	0.69	0.69
	6-8	5/23/2007	ND(0.033)	ND(0.033)	ND(0.033)	ND(0.033)
SB-2	0-1	5/23/2007	ND(0.036)	ND(0.036)	0.16	0.16
	1-6	5/23/2007	ND(0.035)	ND(0.035)	0.011 J	0.011 J
	6-8	5/23/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-3	15-20	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-24	5/24/2007	ND(0.036)	ND(0.036)	0.013 J	0.013 J
SB-4	0-1	5/24/2007	ND(0.072)	0.22	0.71	0.93
	1-6	5/24/2007	ND(0.033)	ND(0.033)	ND(0.033)	ND(0.033)
	6-15	5/24/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	15-20	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-24	5/24/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-5	6-15	5/24/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	15-20	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-25	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
SB-6	6-15	5/24/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	15-20	5/24/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	20-26	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
SB-7	0-1	5/24/2007	ND(18)	20	10 J	30
	1-6	5/24/2007	ND(0.33) [ND(0.34)]	1.8 [1.7]	0.94 [0.86]	2.74 [2.56]
	6-15	5/24/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	15-20	5/24/2007	ND(0.033)	ND(0.033)	ND(0.033)	ND(0.033)
	20-26	5/24/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-8	6-15	5/18/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	15-20	5/18/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	20-25	5/18/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-9	6-15	5/18/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	15-20	5/18/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	20-25	5/18/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-10	6-15	5/18/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	15-20	5/18/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	20-25	5/18/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
SB-11	0-1	5/9/2007	ND(0.033) [ND(0.033)]	0.21 [0.23]	0.37 [0.42]	0.58 [0.65]
	1-6	5/9/2007	ND(0.034)	0.022 J	0.017 J	0.039 J
	6-15	5/9/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	15-20	5/9/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	20-25	5/9/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
SB-12	15-20	5/9/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	20-24	5/9/2007	ND(0.036) [ND(0.034)]	ND(0.036) [ND(0.034)]	ND(0.036) [ND(0.034)]	ND(0.036) [ND(0.034)]
SB-13	0-1	5/10/2007	ND(0.034)	ND(0.034)	0.0091 J	0.0091 J
	1-6	5/10/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	6-15	5/10/2007	ND(0.033)	ND(0.033)	ND(0.033)	ND(0.033)
	15-20	5/10/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-23	5/10/2007	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
SB-14	0-1	5/10/2007	ND(0.33)	ND(0.33)	1.7	1.7
	1-6	5/10/2007	ND(0.033)	ND(0.033)	0.027 J	0.027 J
	6-15	5/10/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	15-20	5/10/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	20-23	5/10/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
SB-15	15-20	5/11/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	20-23	5/11/2007	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
SB-16	0-1	5/11/2007	ND(1.8)	ND(1.8)	6.2	6.2
	1-6	5/11/2007	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	0.14 [0.14]	0.14 [0.14]
	6-15	5/11/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	15-20	5/11/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	20-22	5/11/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)

TABLE 1
SUPPLEMENTAL PCB SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
SB-17	0-1	5/11/2007	ND(0.034)	ND(0.034)	0.021 J	0.021 J
	1-6	5/11/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	6-15	5/11/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	15-20	5/11/2007	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	20-24	5/11/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
SB-18	0-1	5/15/2007	ND(0.038)	ND(0.038)	0.044	0.044
	1-6	5/15/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	6-15	5/15/2007	ND(0.032)	ND(0.032)	ND(0.032)	ND(0.032)
	15-20	5/15/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-25	5/15/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-19	15-20	5/16/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	20-21	5/16/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
SB-20	0-1	5/16/2007	ND(0.033)	ND(0.033)	0.014 J	0.014 J
	1-6	5/16/2007	ND(0.034) [ND(0.034)]	ND(0.034) [ND(0.034)]	0.0090 J [0.010 J]	0.0090 J [0.010 J]
	6-15	5/16/2007	ND(0.035)	ND(0.035)	0.0093 J	0.0093 J
	15-20	5/16/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
SB-21	0-1	5/16/2007	ND(0.032)	0.020 J	0.0095 J	0.0295 J
	1-6	5/16/2007	ND(0.033)	ND(0.033)	0.013 J	0.013 J
	6-15	5/16/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
	15-18	5/16/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
SB-22	0-1	5/16/2007	ND(0.036)	ND(0.036)	0.26	0.26
	1-6	5/16/2007	ND(0.035)	ND(0.035)	0.23	0.23
	6-15	5/16/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
	15-18	5/16/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics
J - Indicates an estimated value less than the practical quantitation limit (PQL).

TABLE 2
PRE-DESIGN PCB SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
RAA9-D8	6-15	6/21/2006	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	0.23	0.23
RAA9-E7	0-1	1/5/2005	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.14	0.54	0.68
	1-6	1/5/2005	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	6-15	1/5/2005	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
RAA9-G7	0-1	1/10/2005	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	28	28
	1-6	1/10/2005	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	0.53	0.53
	6-15	1/10/2005	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
RAA9-H7	0-1	1/10/2005	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
	1-6	1/10/2005	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]	ND(0.037) [ND(0.037)]
	6-15	1/10/2005	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
RAA9-J11	0-1	1/21/2005	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	0.088	0.12	0.208
	1-6	1/21/2005	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
	6-15	1/21/2005	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)

Notes:
1. Samples were collected by ARCADIS BBL, and were submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:
J - Indicates that the associated numerical value is an estimated concentration.

TABLE 3
HISTORIC PCB SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Location ID	Sample ID	Depth(Feet)	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
DRA-SB-1	OPCA-SW-DRA-SB-1	0-1	6/2/2000	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	0.069	0.069
		1-3	6/2/2000	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	0.024 J	0.024 J
		3-5	6/2/2000	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)	ND(0.037)
		5-7	6/2/2000	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)	0.85	0.85
PS-W-11	PS-W-11A	0-4	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	0.76	1.6	2.36
	PS-W-11B	4-8	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	0.050	0.30	0.35
PS-W-13	PS-W-13A	0-4	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	5.0	3.6	8.6
	PS-W-13B	4-8	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	0.39 *	0.22	0.61
PS-W-15	PS-W-15A	0-4	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	17	4.8	21.8
	PS-W-15B	4-8	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	5.5	ND(0.31)	5.5
PS-W-17	PS-W-17A	0-2	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	1.9	6.5	8.4
	PS-W-17B	2-6	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	0.19	0.17	0.36
	PS-W-17C	6-10	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
	PS-W-17D	10-14	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
PS-W-18	PS-W-18A	0-2	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	0.50	4.2	4.7
	PS-W-18B	2-6	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
	PS-W-18C	6-10	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
	PS-W-18D	10-14	7/7/1989	ND(0.050)	NA	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.13	0.13

Notes:
1. Samples were collected and analyzed by General Electric Company subcontractors for PCBs.
2. NA - Not Analyzed - Laboratory did not report results for this analyte.
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.

Data Qualifiers:

J - Indicates an estimated value less than the practical quantitation limit (PQL).
* - Sample exhibits alteration of standard aroclor pattern.

TABLE 4
SUPPLEMENTAL APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID:	SB-3	SB-3	SB-5	SB-5	SB-8
Sample Depth(Feet):	15-17	15-20	20-22	20-25	15-20
Date Collected:	05/24/07	05/24/07	05/24/07	05/24/07	05/18/07
Volatile Organics					
2-Butanone	0.0040 J	NA	ND(0.0051) J	NA	NA
Acetone	0.015	NA	0.0035 J	NA	NA
Chloromethane	ND(0.0050)	NA	ND(0.0051)	NA	NA
Iodomethane	ND(0.0050)	NA	ND(0.0051)	NA	NA
Tetrachloroethene	ND(0.0050)	NA	ND(0.0051)	NA	NA
Trichloroethene	ND(0.0050)	NA	ND(0.0051)	NA	NA
Semivolatile Organics					
None Detected	NA	--	NA	--	--
Furans					
2,3,7,8-TCDF	NA	ND(0.00000056)	NA	ND(0.000000445)	ND(0.00000069)
TCDFs (total)	NA	0.0000023	NA	0.00000049 J	ND(0.00000069)
1,2,3,7,8-PeCDF	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000048)
2,3,4,7,8-PeCDF	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000048)
PeCDFs (total)	NA	0.00000073 J	NA	ND(0.00000045)	0.00000082 JQ
1,2,3,4,7,8-HxCDF	NA	0.0000025 J	NA	0.00000057 J	0.0000038 J
1,2,3,6,7,8-HxCDF	NA	ND(0.00000051) X	NA	ND(0.00000045)	0.00000092 J
1,2,3,7,8,9-HxCDF	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000060)
2,3,4,6,7,8-HxCDF	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000053)
HxCDFs (total)	NA	0.0000037 J	NA	0.00000057 J	0.0000065
1,2,3,4,6,7,8-HpCDF	NA	0.0000091	NA	0.0000015 J	0.000014
1,2,3,4,7,8,9-HpCDF	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.0000012)
HpCDFs (total)	NA	0.0000091	NA	0.0000015 J	0.000014
OCDF	NA	0.000010	NA	0.0000011 J	0.000011
Dioxins					
2,3,7,8-TCDD	NA	ND(0.00000024)	NA	ND(0.00000022)	ND(0.00000092)
TCDDs (total)	NA	ND(0.00000024)	NA	ND(0.00000022)	ND(0.00000092)
1,2,3,7,8-PeCDD	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000066)
PeCDDs (total)	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000066)
1,2,3,4,7,8-HxCDD	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000081)
1,2,3,6,7,8-HxCDD	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000084)
1,2,3,7,8,9-HxCDD	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000081)
HxCDDs (total)	NA	ND(0.00000049)	NA	ND(0.00000045)	ND(0.00000082)
1,2,3,4,6,7,8-HpCDD	NA	0.00000054 J	NA	ND(0.00000045)	ND(0.0000016)
HpCDDs (total)	NA	0.00000054 J	NA	ND(0.00000045)	ND(0.0000016)
OCDD	NA	0.0000028 J	NA	0.0000016 J	ND(0.0000030)
Total TEQs (WHO TEFs)	NA	0.0000010	NA	0.00000069	0.0000018
Inorganics					
Antimony	NA	ND(4.67)	NA	3.95	ND(4.60)
Arsenic	NA	9.23	NA	3.91	4.45
Barium	NA	27.1 B	NA	17.9 B	38.4 B
Cadmium	NA	ND(0.584)	NA	3.95	0.715 J
Chromium	NA	14.4	NA	5.29	5.08
Cobalt	NA	14.2	NA	4.72	6.70
Copper	NA	22.0 B	NA	10.4 B	10.1 J
Lead	NA	15.9	NA	6.08	6.44
Mercury	NA	0.0554	NA	0.00348 B	ND(0.0452)
Nickel	NA	23.9	NA	9.08	8.34 J
Selenium	NA	2.34	NA	1.97	2.30
Silver	NA	ND(1.17)	NA	0.0760 B	0.192 B
Sulfide	NA	ND(5.50) J	NA	ND(5.50)	ND(100.0) J
Thallium	NA	ND(1.17) J	NA	ND(0.987) J	1.07 J
Vanadium	NA	16.5	NA	4.73 B	4.59 B
Zinc	NA	91.5	NA	28.8	28.1

TABLE 4
SUPPLEMENTAL APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID:	SB-8	SB-12	SB-12
Sample Depth(Feet):	18-20	20-22	20-24
Date Collected:	05/18/07	05/09/07	05/09/07
Volatile Organics			
2-Butanone	ND(0.0042)	ND(0.0057) [ND(0.0056)]	NA
Acetone	ND(0.0042)	ND(0.0057) [ND(0.0056)]	NA
Chloromethane	ND(0.0042)	ND(0.0057) [ND(0.0056)]	NA
Iodomethane	ND(0.0042)	ND(0.0057) [ND(0.0056)]	NA
Tetrachloroethene	ND(0.0042) J	0.011 [0.0041 J]	NA
Trichloroethene	ND(0.0042)	ND(0.0057) [ND(0.0056)]	NA
Semivolatile Organics			
None Detected	NA	NA	--
Furans			
2,3,7,8-TCDF	NA	NA	ND(0.00000048) [ND(0.00000040)]
TCDFs (total)	NA	NA	0.00000039 J [ND(0.00000040)]
1,2,3,7,8-PeCDF	NA	NA	ND(0.00000048) [ND(0.00000046)]
2,3,4,7,8-PeCDF	NA	NA	ND(0.00000048) [ND(0.00000046)]
PeCDFs (total)	NA	NA	ND(0.00000048) [ND(0.00000046)]
1,2,3,4,7,8-HxCDF	NA	NA	ND(0.0000015) [0.0000011 J]
1,2,3,6,7,8-HxCDF	NA	NA	ND(0.00000048) [ND(0.00000046)]
1,2,3,7,8,9-HxCDF	NA	NA	ND(0.00000048) [ND(0.00000046)]
2,3,4,6,7,8-HxCDF	NA	NA	ND(0.00000048) [ND(0.00000046)]
HxCDFs (total)	NA	NA	0.0000022 J [0.0000017 J]
1,2,3,4,6,7,8-HpCDF	NA	NA	ND(0.0000046) [ND(0.0000041)]
1,2,3,4,7,8,9-HpCDF	NA	NA	ND(0.00000075) [ND(0.00000075)]
HpCDFs (total)	NA	NA	0.0000046 J [0.0000041 J]
OCDF	NA	NA	ND(0.0000066) [0.0000063 J]
Dioxins			
2,3,7,8-TCDD	NA	NA	ND(0.00000055) [ND(0.00000056)]
TCDDs (total)	NA	NA	ND(0.00000055) [ND(0.00000056)]
1,2,3,7,8-PeCDD	NA	NA	ND(0.00000048) [ND(0.00000046)]
PeCDDs (total)	NA	NA	ND(0.00000048) [ND(0.00000046)]
1,2,3,4,7,8-HxCDD	NA	NA	ND(0.00000056) [ND(0.00000052)]
1,2,3,6,7,8-HxCDD	NA	NA	ND(0.00000059) [ND(0.00000054)]
1,2,3,7,8,9-HxCDD	NA	NA	ND(0.00000057) [ND(0.00000053)]
HxCDDs (total)	NA	NA	ND(0.00000057) [ND(0.00000053)]
1,2,3,4,6,7,8-HpCDD	NA	NA	ND(0.00000079) [ND(0.00000095)]
HpCDDs (total)	NA	NA	ND(0.00000079) [ND(0.00000095)]
OCDD	NA	NA	ND(0.0000018) [0.0000024 J]
Total TEQs (WHO TEFs)	NA	NA	0.0000010 [0.00000097]
Inorganics			
Antimony	NA	NA	0.653 B [ND(4.49)]
Arsenic	NA	NA	6.73 [6.19]
Barium	NA	NA	22.0 [19.1]
Cadmium	NA	NA	0.538 B [0.379 B]
Chromium	NA	NA	8.16 [7.00]
Cobalt	NA	NA	7.28 [6.53]
Copper	NA	NA	17.4 [14.0]
Lead	NA	NA	8.13 [7.17]
Mercury	NA	NA	ND(0.0205) [ND(0.0198)]
Nickel	NA	NA	14.4 [12.3]
Selenium	NA	NA	ND(2.25) [ND(2.08)]
Silver	NA	NA	ND(1.12) [ND(1.04)]
Sulfide	NA	NA	ND(5.10) [ND(5.60)]
Thallium	NA	NA	ND(1.04) J [ND(1.12) J]
Vanadium	NA	NA	7.91 [6.59]
Zinc	NA	NA	44.5 [38.9]

TABLE 4
SUPPLEMENTAL APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID:	SB-13	SB-13	SB-15	SB-15
Sample Depth(Feet):	15-20	16-18	20-22	20-23
Date Collected:	05/10/07	05/10/07	05/11/07	05/11/07
Volatile Organics				
2-Butanone	NA	ND(0.0058)	ND(0.57)	NA
Acetone	NA	ND(0.0058)	ND(0.57) J	NA
Chloromethane	NA	ND(0.0058)	0.091 J	NA
Iodomethane	NA	ND(0.0058) J	0.075 J	NA
Tetrachloroethene	NA	0.16	0.91	NA
Trichloroethene	NA	ND(0.0058)	0.028 J	NA
Semivolatile Organics				
None Detected	--	NA	NA	--
Furans				
2,3,7,8-TCDF	ND(0.00000027)	NA	NA	ND(0.00000064)
TCDFs (total)	0.00000042 J	NA	NA	0.000020
1,2,3,7,8-PeCDF	ND(0.00000047)	NA	NA	0.0000021 J
2,3,4,7,8-PeCDF	ND(0.00000047)	NA	NA	0.0000059
PeCDFs (total)	0.00000048 JQ	NA	NA	0.000054
1,2,3,4,7,8-HxCDF	0.0000013 J	NA	NA	0.000064
1,2,3,6,7,8-HxCDF	ND(0.00000047)	NA	NA	0.000016
1,2,3,7,8,9-HxCDF	ND(0.00000047)	NA	NA	ND(0.0000010)
2,3,4,6,7,8-HxCDF	ND(0.00000047)	NA	NA	0.0000039 J
HxCDFs (total)	0.0000018 J	NA	NA	0.00014
1,2,3,4,6,7,8-HpCDF	ND(0.0000040)	NA	NA	0.00028
1,2,3,4,7,8,9-HpCDF	ND(0.00000047)	NA	NA	0.0000051
HpCDFs (total)	0.0000040 J	NA	NA	0.00030
OCDF	ND(0.0000048)	NA	NA	0.00044
Dioxins				
2,3,7,8-TCDD	ND(0.00000033)	NA	NA	ND(0.00000068)
TCDDs (total)	ND(0.00000033)	NA	NA	0.0000025
1,2,3,7,8-PeCDD	ND(0.00000047)	NA	NA	ND(0.00000054)
PeCDDs (total)	ND(0.00000047)	NA	NA	0.0000047 J
1,2,3,4,7,8-HxCDD	ND(0.00000047)	NA	NA	ND(0.00000058)
1,2,3,6,7,8-HxCDD	ND(0.00000047)	NA	NA	ND(0.00000061)
1,2,3,7,8,9-HxCDD	ND(0.00000047)	NA	NA	ND(0.00000059)
HxCDDs (total)	ND(0.00000047)	NA	NA	0.0000059
1,2,3,4,6,7,8-HpCDD	ND(0.00000053)	NA	NA	0.0000021 J
HpCDDs (total)	ND(0.00000053)	NA	NA	0.0000052
OCDD	0.0000023 J	NA	NA	0.0000076 J
Total TEQs (WHO TEFs)	0.00000086	NA	NA	0.000015
Inorganics				
Antimony	ND(3.95)	NA	NA	ND(4.33)
Arsenic	7.37	NA	NA	9.81
Barium	28.8	NA	NA	50.2
Cadmium	0.578 B	NA	NA	ND(1.08)
Chromium	10.7	NA	NA	17.9
Cobalt	9.01	NA	NA	13.4
Copper	19.8	NA	NA	27.3
Lead	9.28	NA	NA	13.8
Mercury	ND(0.0212)	NA	NA	0.00480 B
Nickel	18.2	NA	NA	27.0
Selenium	ND(1.97)	NA	NA	ND(2.17)
Silver	ND(0.987)	NA	NA	ND(1.08)
Sulfide	14.0 J	NA	NA	11.0 J
Thallium	ND(0.987) J	NA	NA	ND(1.08)
Vanadium	9.60	NA	NA	15.7
Zinc	58.7	NA	NA	88.3

TABLE 4
SUPPLEMENTAL APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
2. NA - Not Analyzed.
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
4. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998.
5. With the exception of dioxin/furans, only those constituents detected in one or more samples are summarized.
6. Field duplicate sample results are presented in brackets.
7. -- Indicates that all constituents for the parameter group were not detected.

Data Qualifiers:

Organics (volatiles, semivolatiles,dioxin/furans)

J - Indicates an estimated value less than the practical quantitation limit (PQL).
Q - Indicates the presence of quantitative interferences.
X - Estimated maximum possible concentration.

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and (PQL).

TABLE 5
PRE-DESIGN APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter	Sample ID: / Sample Depth(Feet): / Date Collected:	RAA9-D8 1-3 06/21/06	RAA9-D8 1-6 06/21/06	RAA9-E7 0-1 01/05/05	RAA9-H7 0-1 01/10/05
Volatile Organics					
Acetone		0.0091 J	NA	ND(0.024)	ND(0.022) J
Tetrachloroethene		ND(0.0054) J	NA	ND(0.0060)	0.017 J
Semivolatile Organics					
Acenaphthene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Anthracene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Benzo(a)anthracene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Benzo(a)pyrene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Benzo(b)fluoranthene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Benzo(g,h,i)perylene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Benzo(k)fluoranthene		NA	ND(0.33)	ND(0.40)	ND(0.36)
bis(2-Ethylhexyl)phthalate		NA	ND(0.33)	ND(0.39)	0.28 J
Chrysene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Dibenzofuran		NA	ND(0.33)	ND(0.40)	ND(0.36)
Fluoranthene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Fluorene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Indeno(1,2,3-cd)pyrene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Phenanthrene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Pyrene		NA	ND(0.33)	ND(0.40)	ND(0.36)
Furans					
2,3,7,8-TCDF		NA	ND(0.00000038)	0.000019 Y	ND(0.00000053)
TCDFs (total)		NA	0.0000010	0.00012	ND(0.00000055)
1,2,3,7,8-PeCDF		NA	ND(0.00000038)	0.0000063	ND(0.0000010)
2,3,4,7,8-PeCDF		NA	ND(0.00000038)	0.000012	ND(0.00000099)
PeCDFs (total)		NA	ND(0.00000038)	0.000054	ND(0.0000012)
1,2,3,4,7,8-HxCDF		NA	ND(0.00000038)	0.0000048 J	ND(0.00000079)
1,2,3,6,7,8-HxCDF		NA	ND(0.00000038)	0.0000035 J	ND(0.00000074)
1,2,3,7,8,9-HxCDF		NA	ND(0.00000038)	ND(0.00000060)	ND(0.00000093)
2,3,4,6,7,8-HxCDF		NA	ND(0.00000038)	0.0000033 J	ND(0.00000081)
HxCDFs (total)		NA	ND(0.00000038)	0.000024	ND(0.0000013)
1,2,3,4,6,7,8-HpCDF		NA	ND(0.00000038)	0.0000068	ND(0.00000091)
1,2,3,4,7,8,9-HpCDF		NA	ND(0.00000038)	ND(0.00000099)	ND(0.0000011)
HpCDFs (total)		NA	ND(0.00000038)	0.0000068	ND(0.0000011)
OCDF		NA	ND(0.00000077)	ND(0.0000073)	ND(0.0000019)
Dioxins					
2,3,7,8-TCDD		NA	ND(0.00000024)	ND(0.00000079)	ND(0.00000069)
TCDDs (total)		NA	ND(0.00000024)	ND(0.00000079)	ND(0.00000069)
1,2,3,7,8-PeCDD		NA	ND(0.00000038)	ND(0.0000013)	ND(0.0000016)
PeCDDs (total)		NA	ND(0.00000038)	ND(0.0000019)	ND(0.0000016)
1,2,3,4,7,8-HxCDD		NA	ND(0.00000038)	ND(0.00000082)	ND(0.0000012)
1,2,3,6,7,8-HxCDD		NA	ND(0.00000038)	ND(0.00000074)	ND(0.0000010)
1,2,3,7,8,9-HxCDD		NA	ND(0.00000038)	ND(0.00000075)	ND(0.0000011)
HxCDDs (total)		NA	ND(0.00000038)	ND(0.0000012)	ND(0.0000012)
1,2,3,4,6,7,8-HpCDD		NA	0.00000044 J	0.0000032 J	ND(0.0000014)
HpCDDs (total)		NA	0.00000044 J	0.0000032	ND(0.0000014)
OCDD		NA	ND(0.00000077)	0.000015	ND(0.0000045)
Total TEQs (WHO TEFs)		NA	0.00000058	0.000011	0.0000018

TABLE 5
PRE-DESIGN APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter	Sample ID: / Sample Depth(Feet): / Date Collected:	RAA9-D8 1-3 06/21/06	RAA9-D8 1-6 06/21/06	RAA9-E7 0-1 01/05/05	RAA9-H7 0-1 01/10/05
Inorganics					
Antimony		NA	1.18 J	ND(6.00) J	ND(6.00)
Arsenic		NA	4.26 J	6.10	2.00
Barium		NA	28.6 J	40.0	7.90 B
Beryllium		NA	0.250 J	0.320 B	0.110 B
Cadmium		NA	0.0662 B	0.980	ND(0.500)
Chromium		NA	8.65	10.0	ND(3.1)
Cobalt		NA	11.4	9.90	2.80 B
Copper		NA	24.7 J	19.0	5.20
Cyanide		NA	ND(0.190)	0.190 J	ND(0.220)
Lead		NA	9.34	15.0 J	3.80
Mercury		NA	0.0215 B	0.0410 B	ND(0.110)
Nickel		NA	16.9	15.0	ND(5.2)
Selenium		NA	ND(2.17)	0.820 B	1.20 J
Silver		NA	ND(1.09) J	ND(1.00) J	ND(1.00)
Sulfide		NA	ND(5.00)	9.60	10.0
Thallium		NA	ND(1.09) J	6.20	ND(1.10) J
Vanadium		NA	9.04 J	11.0	3.20 B
Zinc		NA	55.3	64.0 J	18.0

TABLE 5
PRE-DESIGN APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter	Sample ID: / Sample Depth(Feet): / Date Collected:	RAA9-H7 6-15 01/10/05	RAA9-H7 10-12 01/10/05	RAA9-J11 0-1 01/21/05	RAA9-J11 1-6 01/21/05
Volatile Organics					
Acetone		NA	ND(0.023) J	ND(0.023)	NA
Tetrachloroethene		NA	ND(0.0058)	ND(0.0058) J	NA
Semivolatile Organics					
Acenaphthene		ND(0.38)	NA	0.099 J	NA
Anthracene		ND(0.38)	NA	0.21 J	NA
Benzo(a)anthracene		ND(0.38)	NA	0.46	NA
Benzo(a)pyrene		ND(0.38)	NA	0.34 J	NA
Benzo(b)fluoranthene		ND(0.38)	NA	0.26 J	NA
Benzo(g,h,i)perylene		ND(0.38)	NA	0.20 J	NA
Benzo(k)fluoranthene		ND(0.38)	NA	0.32 J	NA
bis(2-Ethylhexyl)phthalate		ND(0.37)	NA	ND(0.38)	NA
Chrysene		ND(0.38)	NA	0.49	NA
Dibenzofuran		ND(0.38)	NA	0.042 J	NA
Fluoranthene		ND(0.38)	NA	0.97	NA
Fluorene		ND(0.38)	NA	0.094 J	NA
Indeno(1,2,3-cd)pyrene		ND(0.38)	NA	0.16 J	NA
Phenanthrene		ND(0.38)	NA	1.0	NA
Pyrene		ND(0.38)	NA	1.0	NA
Furans					
2,3,7,8-TCDF		ND(0.00000069)	NA	0.0000027 Y	ND(0.00000053)
TCDFs (total)		ND(0.00000069)	NA	0.000012	ND(0.00000053)
1,2,3,7,8-PeCDF		ND(0.0000011)	NA	ND(0.0000010)	ND(0.00000023)
2,3,4,7,8-PeCDF		ND(0.0000011)	NA	ND(0.00000099)	ND(0.00000022)
PeCDFs (total)		ND(0.0000011)	NA	0.0000089	ND(0.00000040)
1,2,3,4,7,8-HxCDF		ND(0.0000014)	NA	ND(0.00000070)	ND(0.00000040)
1,2,3,6,7,8-HxCDF		ND(0.0000013)	NA	ND(0.0000014)	ND(0.00000039)
1,2,3,7,8,9-HxCDF		ND(0.0000016)	NA	ND(0.00000077)	ND(0.00000044)
2,3,4,6,7,8-HxCDF		ND(0.0000014)	NA	ND(0.0000015)	ND(0.00000042)
HxCDFs (total)		ND(0.0000016)	NA	0.000021	ND(0.00000044)
1,2,3,4,6,7,8-HpCDF		ND(0.0000016)	NA	0.000014	ND(0.00000020)
1,2,3,4,7,8,9-HpCDF		ND(0.0000019)	NA	ND(0.00000069)	ND(0.00000012)
HpCDFs (total)		ND(0.0000019)	NA	0.000025	ND(0.00000027)
OCDF		ND(0.0000035)	NA	0.000015	ND(0.00000043)
Dioxins					
2,3,7,8-TCDD		ND(0.00000098)	NA	ND(0.00000024)	ND(0.00000029)
TCDDs (total)		ND(0.00000098)	NA	ND(0.00000024)	ND(0.00000029)
1,2,3,7,8-PeCDD		ND(0.0000018)	NA	ND(0.00000071)	ND(0.00000061)
PeCDDs (total)		ND(0.0000018)	NA	ND(0.00000077)	ND(0.00000061)
1,2,3,4,7,8-HxCDD		ND(0.0000022)	NA	ND(0.00000032)	ND(0.00000027)
1,2,3,6,7,8-HxCDD		ND(0.0000020)	NA	ND(0.00000057)	ND(0.00000025)
1,2,3,7,8,9-HxCDD		ND(0.0000020)	NA	ND(0.00000063)	ND(0.00000024)
HxCDDs (total)		ND(0.0000022)	NA	ND(0.0000026)	ND(0.00000027)
1,2,3,4,6,7,8-HpCDD		ND(0.0000029)	NA	0.000014	ND(0.00000042)
HpCDDs (total)		ND(0.0000029)	NA	0.000025	ND(0.00000042)
OCDD		ND(0.0000041)	NA	0.000078	ND(0.0000039)
Total TEQs (WHO TEFs)		0.0000024	NA	0.0000016	0.00000066

TABLE 5
PRE-DESIGN APPENDIX IX+3 SOIL SAMPLING DATA

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID: / Sample Depth(Feet): / Date Collected:	RAA9-H7 6-15 01/10/05	RAA9-H7 10-12 01/10/05	RAA9-J11 0-1 01/21/05	RAA9-J11 1-6 01/21/05
Inorganics				
Antimony	ND(6.00)	NA	ND(6.00)	NA
Arsenic	6.00	NA	4.30	NA
Barium	40.0	NA	38.0	NA
Beryllium	0.360 B	NA	0.270 B	NA
Cadmium	0.200 B	NA	0.650	NA
Chromium	13.0	NA	10.0	NA
Cobalt	11.0	NA	8.00	NA
Copper	19.0	NA	40.0	NA
Cyanide	ND(0.570)	NA	0.230 B	NA
Lead	8.40	NA	36.0	NA
Mercury	ND(0.110)	NA	0.230	NA
Nickel	21.0	NA	15.0	NA
Selenium	3.20 J	NA	ND(1.00)	NA
Silver	1.40	NA	ND(1.00)	NA
Sulfide	7.20	NA	5.60 B	NA
Thallium	ND(1.10) J	NA	2.80 J	NA
Vanadium	12.0	NA	10.0	NA
Zinc	65.0	NA	110	NA

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007)
3. NA - Not Analyzed.
4. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
5. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998.
6. With the exception of dioxin/furans, only those constituents detected in one or more samples are summarized.

Data Qualifiers:

Organics (volatiles, semivolatiles,dioxin/furans)
J - Indicates that the associated numerical value is an estimated concentration.
Y - 2,3,7,8-TCDF results have been confirmed on a DB-225 column.

Inorganics
B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).
J - Indicates that the associated numerical value is an estimated concentration.

Figure

PROPOSED SANITARY MANHOLE INSTALLED TO INTERCEPT EXISTING 8"ø VCP SANITARY SEWER PIPELINE

PROPOSED 10"ø SANITARY SEWER PIPELINE

TIE IN FOR PROPOSED 48"ø STORM SEWER TO INTERCEPT EXISTING 42"ø CMP STORM SEWER AND 12"ø HDPE STORM SEWER FROM STORMWATER BASIN RIM 1010.73' E INV 12" HDPE 1004.13

PROPOSED PORTION OF STORM SEWER PIPELINE TO BE TAKEN OUT OF SERVICE AND GROUTED

PROPOSED PORTION OF SANITARY SEWER PIPELINE TO BE TAKEN OUT OF SERVICE AND GROUTED

PROPOSED 48"ø STORM SEWER

APPROXIMATE LIMIT OF REVISED CONSOLIDATION AREA FOOTPRINT

MODIFICATION/REPLACEMENT OF EXISTING MANHOLE RIM 1000.29' INV. 12" RCP 992.29'

IN THIS AREA, THE STORM SEWER PIPELINE WILL BE INSTALLED AT OR ABOVE CURRENT GRADE. THIS AREA WILL THEN BE RE-GRADED USING CLEAN BACKFILL FOLLOWING INSTALLATION.

BUILDING 71 CONSOLIDATION AREA

HILL 78 CONSOLIDATION AREA

K11-7-2

K11-7-201

OPCA-SB-21, DRA-SB-1, RAA9-D8, OPCA-SB-20, OPCA-SB-23, OPCA-SB-19, OPCA-SB-22, RAA9-E7, OPCA-SB-18, OPCA-SB-17, OPCA-SB-16, OPCA-SB-15, RAA9-G7, OPCA-SB-14, OPCA-SB-13, RAA9-H7, OPCA-SB-12, OPCA-SB-11, OPCA-SB-10, PS-W-15, PS-W-13, PS-W-18, OPCA-SB-9, PS-W-17, OPCA-SB-8, OPCA-SB-7, OPCA-SB-6, OPCA-SB-5, OPCA-SB-4, RAA9-J11, OPCA-SB-3, OPCA-SB-2, OPCA-SB-1, PS-W-11

Asphalt Curb, Gate, Metal Structure, Building 78, Loading Dock, 20' Wide Sewer and Drain Easement, Steel Structure, Gravel, Asphalt, Shed, Chain-Link Fence, Fire Road Easement, Underground Steam Pipes, Concrete Pads, Overhang, Conc. Wall, SUB-14E, High Voltage Area, Towers, Noise Attenuation Wall, Gas Turbine Building, Conc. Wall, Fuel Oil Storage Tank, Steam Turbine Generating, Electric Switchyard

LEGEND:

- K11-7-2 — PROPERTY ID
- APPROXIMATE SITE BOUNDARY
- HILL 78 AND BUILDING 71 CONSOLIDATION AREAS (NOT PART OF HILL 78 AREA-REMAINDER RAA)
- PROPERTY LINE
- EASEMENT LINE
- FENCE LINE
- EDGE OF SWALE
- INDEX ELEVATION CONTOUR LINE
- INTERMEDIATE ELEVATION CONTOUR LINE
- EDGE OF WOODS
- LIGHT POLE
- UTILITY POLE
- BUSH/TREE/SHRUB
- GAS MARKER
- MANHOLE
- SANITARY MANHOLE
- CATCH BASIN
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- WATER VALVE
- FIRE HYDRANT
- PROPOSED SANITARY MANHOLE
- PROPOSED DRAIN MANHOLE
- OHW — OVERHEAD WIRE
- D — STORM SEWER (DRAINAGE) LINE
- E — UNDERGROUND ELECTRIC LINE
- S — SANITARY LINE
- W — WATER LINE
- G — GAS LINE
- GE-OWNED PAVED AREA
- BUILDING/STRUCTURE
- APPROXIMATE LOCATION OF 25-FOOT UTILITY CORRIDOR CENTERED ON EACH PROPOSED UTILITY (12.5 FEET WIDE ON EACH SIDE OF UTILITY, EXCEPT WHERE THE BOUNDARY FOR THE HILL 78 OPCA IS WITHIN 12.5 FEET)
- 78-7 ● — EXISTING PCB SOIL BORING LOCATION AND ID

NOTE:

1. MAPPING BASED ON ELECTRONIC FILE (S2149W01.DWG) OF SURVEY BY FORESIGHT LAND SEVICES, DATED 3/16/06. UTILITY LOCATIONS BASED ON AVAILABLE RECORD DATA AND VISIBLE FIELD EVIDENCE AND ARE NOT REPRESENTED AS BEING EXACT OR COMPLETE.

0 50' 100'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES

EXISTING SOIL BORING LOCATIONS AND PROPOSED SEWER RE-ROUTING

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 1

SYR-85-RCB GHS.DWG LAYER: ON=*, OFF=*REF*, XOI|CONSOL-APPRVD, |GRID*, |SPPL, |UTILBAND, |WSFL-TEXT
G:\CAD\GE-CAD\GE_ACTIVE\C\20404002\HILL78\REPORT\20404007.DWG SAVED:7/2/2007 1:43 PM LAYOUT:1 PAGESETUP:----- PENTABLE:PLTFULL.CTB
PLTFULL.CTB PRINTED:7/2/2007 1:44 PM BY:DWODARCZYK
PROJECTNAME:----- IMAGES:
XREFS:
20404X01
20404X02

Appendices

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Appendix A

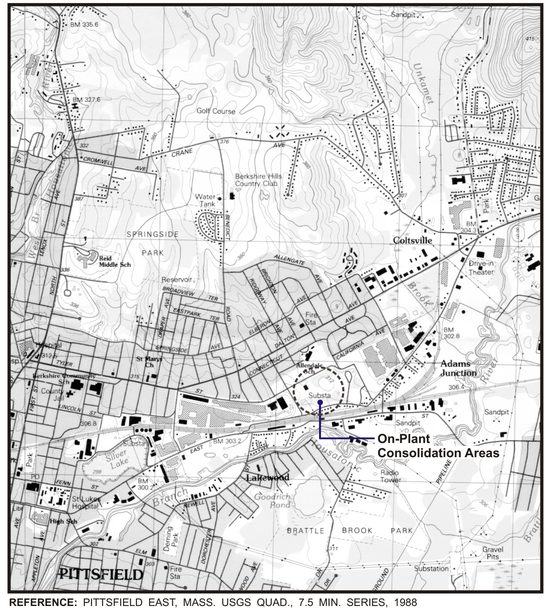
Technical Drawings

TECHNICAL DRAWINGS

SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

ON-PLANT CONSOLIDATION AREAS

JULY 2007



REFERENCE: PITTSFIELD EAST, MASS. USGS QUAD., 7.5 MIN. SERIES, 1988

2000' 0 2000'

APPROX. SCALE: 1 = 2000 FEET

AREA LOCATION

MASSACHUSETTS

LOCATION MAP

General Electric Company
Pittsfield, Massachusetts

NOT FOR CONSTRUCTION

ARCADIS BBL
Infrastructure, environment, facilities

INDEX TO DRAWINGS

07/03/07 SYR-85-DJH, LBR, KLS
N:20989002/20989C03.CDR

ABBREVIATIONS

ASPH	ASPHALT
BLDG	BUILDING
BM	BENCHMARK
℄	CENTERLINE
CATV	TELEVISION
CB	CATCH BASIN
CIP	CAST–IN–PLACE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CSP	CORRUGATED STEEL PIPE
C.S.W.	CONCRETE SIDEWALK
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DMH	DRAIN (STORM) MANHOLE
DOT	DEPARTMENT OF TRANSPORTATION
DWG	DRAWING
E	UNDERGROUND ELECTRIC
EL	ELEVATION
E.P.	EDGE OF PAVEMENT
FL	FLANGE
GM	GAS METER
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MW	MONITORING WELL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NO.	NUMBER
NW	NORTHWEST
OC	ON CENTER
OH	OVERHEAD ELECTRIC
℗	PROPERTY LINE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
RET	RETAINING
ROW	RIGHT–OF–WAY
S	SLOPE
SAN	SANITARY SEWER
SE	SOUTHEAST
SMH	SANITARY MANHOLE
SPEC	SPECIFICATIONS
SS	STAINLESS STEEL
ST	STORM SEWER
STA	STATION
SV	SEWER VENT
TEL	TELEPHONE
TEMP	TEMPORARY
TYP	TYPICAL
UG	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
W	WATER
WE	WATER ELEVATION
WV	WATER VALVE
ø	DIAMETER

GENERAL NOTES:

1. DIFFERENCES NOTED BY THE CONTRACTOR BETWEEN BASE MAP INFORMATION AND ACTUAL SITE CONDITIONS, WHICH MAY AFFECT THE DESIGN CONFIGURATION, SHALL BE SUBMITTED TO GENERAL ELECTRIC (GE). MODIFICATIONS MAY BE MADE TO THE DESIGN CONFIGURATION DURING PERFORMANCE OF THE SITE WORK AT THE DISCRETION OF GE.
2. CONTRACTOR SHALL VERIFY THE PRESENCE AND LOCATION OF ALL ABOVE GROUND AND UNDER GROUND SITE FEATURES IN THE VICINITY OF PROPOSED CONSTRUCTION ACTIVITIES PRIOR TO COMMENCEMENT OF SITE WORK. ADDITIONAL SITE FEATURES MAY BE PRESENT WHICH ARE NOT SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH GE TO DETERMINE THE PRESENCE AND LOCATION OF SUCH FEATURES SHOULD THEY EXIST AND THE LOCATION OF ON–SITE EASEMENTS, LEASE LINES, AND RIGHT–OF–WAYS.
3. INFORMATION REGARDING SITE SURVEY CONTROL WILL BE PROVIDED BY GE FOR CONTRACTOR USE PRIOR TO COMMENCEMENT OF SITE WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH AND MAINTAIN CONSTRUCTION SURVEY CONTROL DURING PERFORMANCE OF THE CONTRACT WORK.
4. CONTRACTOR SHALL ASSUME EXISTING FENCING AT PERIMETER OF SITE IS GE's PROPERTY LINE. NO WORK SHALL BE PERFORMED OUTSIDE THE PROPERTY LINE WITHOUT GE's PRIOR APPROVAL. GE WILL OBTAIN APPROVALS FOR ANY WORK WITHIN IDENTIFIED LEASE OR EASEMENT AREAS.
5. CONTRACTOR SHALL OBTAIN ALL LOCAL (NON–ENVIRONMENTAL) PERMITS AND MAKE ARRANGEMENTS FOR LOCAL INSPECTIONS (AS NECESSARY).
6. CONTRACTOR SHALL FURNISH AND PLACE PROPER GUARDS FOR PREVENTION OF ACCIDENTS, PROVIDE ALL TRENCH SHORING, SCAFFOLDING, SHIELDING, DUST/FUME PROTECTION, SAFETY RAILINGS, BARRIERS, OR OTHER SAFETY FEATURES REQUIRED. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT LIGHTING TO SECURE SUCH PROTECTION.
7. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS CONTRACT. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PRECAUTION TO PREVENT DAMAGE, INJURY, OR LOSS TO ALL EMPLOYEES ON THE WORK SITE AND ANY OTHER PERSONS WHO MAY BE AFFECTED NEARBY.
8. EXISTING SURFACES OR FEATURES NOT SPECIFIED FOR MODIFICATION THAT ARE DAMAGED OR DESTROYED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE RESTORED BY THE CONTRACTOR TO THEIR PRECONSTRUCTION CONDITION IN A TIMELY MANNER.
9. ALL CONTRACTOR RELATED WORK SHALL BE PERFORMED IN A MANNER WHICH ALLOWS FOR ALL NECESSARY OPERATING ACTIVITIES ASSOCIATED WITH THE PITTSFIELD GENERATING COMPANY AND GENERAL DYNAMICS COMPANY FACILITIES. ANY WORK DEEMED NECESSARY WHICH MAY AFFECT THOSE OPERATING ACTIVITIES SHALL BE BROUGHT TO THE ATTENTION OF GE PRIOR TO COMMENCEMENT OF SUCH WORK. GE SHALL PROVIDE THE CONTRACTOR WITH AUTHORIZATION TO PROCEED PROVIDED GE DEEMs THE ACTION NECESSARY AND ACCEPTABLE.
10. THE CONTRACTOR SHALL REPAIR ALL EXISTING UTILITIES DAMAGED AS RESULT OF THE CONTRACTOR'S WORK AT NO ADDITIONAL COST TO GE.
11. ALL PREVIOUSLY DEVELOPED AREAS, INCLUDING NATURAL OR MAN–MADE FEATURES OCCURRING THEREIN, SHALL BE RESTORED, REPAIRED, AND/OR REPLACED TO THE SAME OR SUPERIOR CONDITION TO THAT WHICH EXISTED PRIOR TO DISTURBANCE, SUCH WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER.
12. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL PAVEMENTS DAMAGED DURING CONSTRUCTION ACTIVITIES.
13. STORM DRAINAGE ALONG ALL ROADWAYS MUST BE MAINTAINED.
14. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL ROADWAYS.
15. THE CONTRACTOR SHALL CONTAIN ITS WORK AND ACTIVITIES WITHIN THE LIMITS OF CONSTRUCTION.
16. THE CONTRACTOR SHALL FLUSH EXISTING SANITARY SEWER PIPELINE PRIOR TO DISCONNECTING AND FILLING WITH FLOWABLE FILL IN ACCORDANCE WITH SECTION 02399.
17. EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO SILT FENCING, HAY BALES, ROCK CHECK DAMS, TEMPORARY SEEDING AND EROSION CONTROL MATTING SHALL BE INSTALLED AND PROPERLY MAINTAINED WHERE NECESSARY TO PREVENT MIGRATION OF SEDIMENTS FROM THE WORK SITE. GE MAY REQUEST INSTALLATION OF ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES IF DEEMED NECESSARY.

LEGEND OF WORK TO BE PERFORMED UNDER THIS CONTRACT:

- 1+00 — NEW SANITARY SEWER PIPELINE AND STATION
- 1+00 — NEW STORM SEWER PIPELINE AND STATION
- NEW PAVEMENT
- NEW SANITARY SEWER MANHOLE
- NEW STORM SEWER MANHOLE
- EXISTING FACILITIES TO BE ABANDONED
- CB–1 — NEW CATCH BASIN
- 1001.0 — NEW ELEVATION CONTOUR
- LIMITS OF CONSTRUCTION
- TEST PIT
- PIPE BULKHEAD
- NEW RIPRAP
- EROSION CONTROL FENCING

EXISTING LEGEND:

- SW — SURVEY BENCHMARK
- E — EXISTING ELECTRIC MANHOLE
- EXISTING CATCH BASIN
- S D — EXISTING STORM OR SANITARY MANHOLE
- GM — GAS MARKER
- W — EXISTING WATER METER PIT
- EXISTING GUY ANCHOR
- EXISTING RIP RAP
- EXISTING PROPERTY/EASEMENT LINE
- EASEMENT
- 1010 — EXISTING INDEX ELEVATION CONTOUR
- EXISTING INTERMEDIATE ELEVATION CONTOUR LINE
- DITCH CENTERLINE
- EXISTING EDGE OF PAVEMENT WITH CURB
- EXISTING EDGE OF PAVEMENT
- S — EXISTING SANITARY SEWER
- D — EXISTING STORM SEWER
- EXISTING STEAM AND WATER LINE
- LC — EXISTING POTABLE WATER LINE
- E — EXISTING ELECTRIC
- OE — EXISTING OVERHEAD UTILITY
- x x — EXISTING CHAIN LINK FENCE
- EXISTING STOCKADE FENCE
- EXISTING VEGETATION
- WV — EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING SIGN
- EXISTING TREE

NOT FOR CONSTRUCTION

ORIGINAL SCALE APPLIES TO 22"X34" DRAWING

NOT TO SCALE

THIS DRAWING WAS PREPARED AT THE SCALE(S) INDICATED. INACCURACIES IN THE STATED SCALE(S) MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED.
USE THE GRAPHIC SCALE BAR(S) TO DETERMINE THE ACTUAL SCALE(S) OF THIS DRAWING.

No.	Date	Revisions	Init

Professional Engineer's Name

Professional Engineer's No.

State | Date Signed

Project Mgr. MMP | Designed by DFG | Drawn by DJP

ARCADIS BBL
Infrastructure, environment, facilities

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

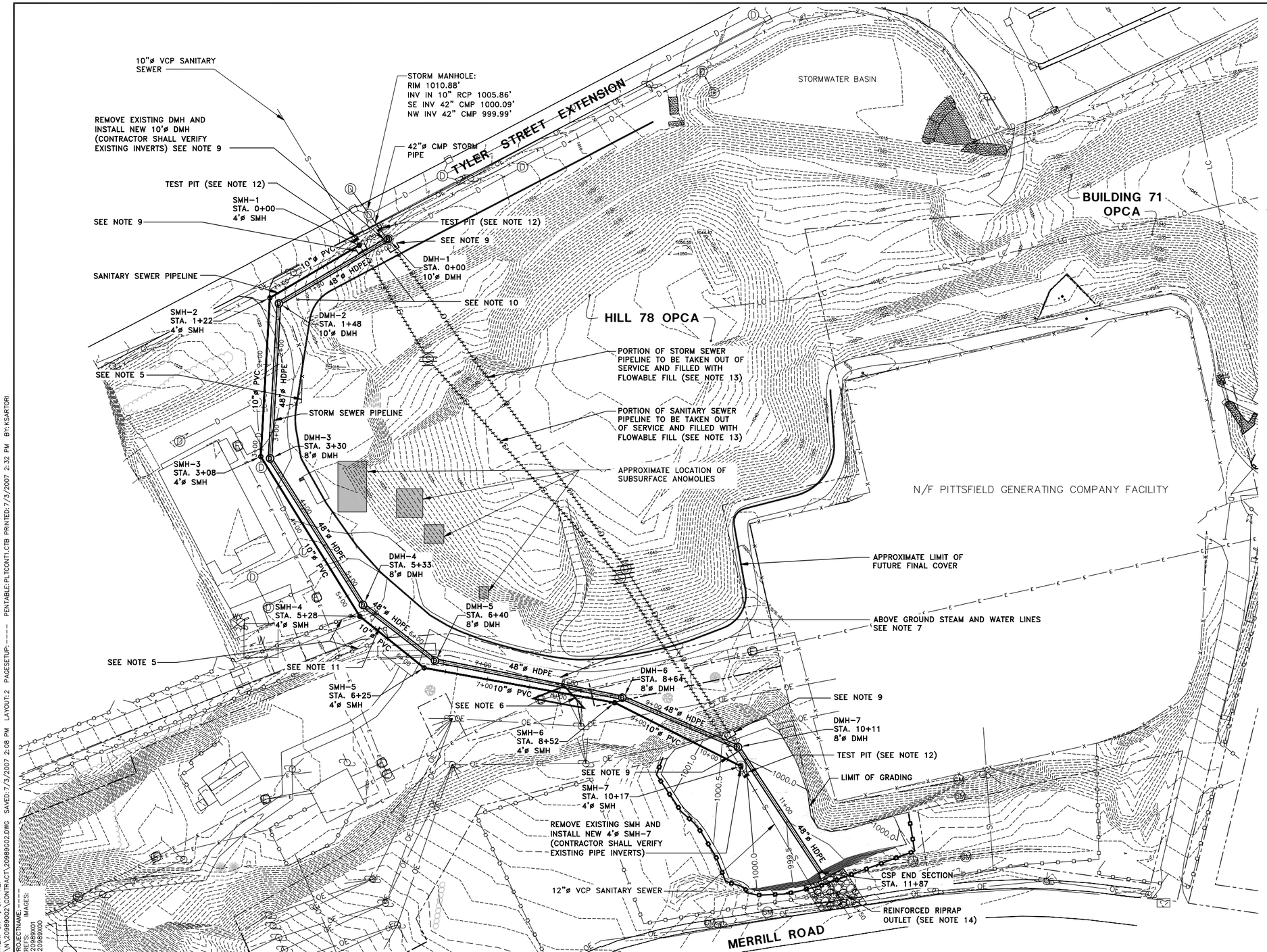
GENERAL NOTES, LEGENDS, AND ABBREVIATIONS

ARCADIS Project No. 209.89

Date JULY 2007

ARCADIS of New York, Inc.
6723 Towpath Road
Syracuse, NY 13214
315–446–9120

1



LEGEND:

PORTION OF POLYGON ASSOCIATED WITH 0– TO 1–FOOT DEPTH INCREMENT AT SAMPLING LOCATION RAA9–J10. THE SOIL ASSOCIATED WITH THIS POLYGON WILL BE SEGREGATED AND SENT OFF–SITE FOR DISPOSAL. RAA9–J10 IS NOT PICTURED SINCE THE LOCATION FALLS OUTSIDE THE 50–FOOT BAND USED TO CHARACTERIZE THE SOILS WITHIN THE UTILITY CORRIDOR.

NOTES:

1. BASE MAP INFORMATION SHOWN ON THIS DRAWING WAS DEVELOPED FROM FIELD SURVEY DATA OBTAINED BY BLASLAND, BOUCK & LEE, INC. ON 2/10/99; AS–BUILT FIELD SURVEY OBTAINED BY MAXYMILLIAN TECHNOLOGIES AND PREPARED BY HILL ENGINEERS, ARCHITECTS, & PLANNERS, INC. ON 1/19/00 (CADD FILE NO. MX–36–2.DWG); FIELD SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS, & PLANNERS, INC. ON 3/8/00 AND 3/14/00 (CADD FILE NO. SRV–4541.DWG) REVISION A; FIELD SURVEY OF THE BUILDING 71 OPCA, ADJACENT AREA TO THE WEST, AND THE STORMWATER BASIN TO THE NORTHWEST OBTAINED BY SK DESIGN GROUP, INC. ON 12/8/00 (PROJECT NO. 000156); FIELD SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS, & PLANNERS, INC. ON 12/27/01; AS–BUILT FIELD SURVEY OBTAINED BY D.R. BILLINGS AND PREPARED BY SK DESIGN GROUP, INC. ON 11/25/03 AND 1/7/04 (PROJECT NO. 020085–LDD); BUILDING 71, OPCA TOP OF LINER AND LEACHATE COLLECTION SYSTEM PLAN BY BLASLAND, BOUCK & LEE DATED MARCH 2002; AND FIELD SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS & PLANNERS, INC. IN JANUARY 2005. CERTAIN FEATURES SHOWN MAY BE APPROXIMATE SINCE SNOW AND ICE ACCUMULATIONS WERE PRESENT AT THE TIME OF CERTAIN SURVEYS.
2. ELEVATIONS SHOWN ARE REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
3. HORIZONTAL DATUM IS REFERENCED TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD 1927).
4. CONTOUR INTERVAL EQUALS 1 FOOT.
5. REPLACE ALL EXISTING FENCE(S)/GATE(S) REMOVED WHERE NECESSARY FOR INSTALLATION OF PIPELINES. REMOVED FENCE/GATE MATERIALS SHALL BE RE–USED TO EXTEND PRACTICABLE.
6. RESET GUY ANCHORS IN ACCORDANCE WITH UTILITY OWNERS REQUIREMENTS.
7. SUPPORT EXISTING STEAM AND WATER LINES AS REQUIRED TO PREVENT DISLOCATION OR MOVEMENT.
8. REPLACE EXISTING SEWER PIPELINES AND ANY EXISTING STRUCTURES IMPACTED BY WORK OF THIS PROJECT.
9. DISCONNECT, BULKHEAD, AND FILL WITH FLOWABLE FILL EXISTING DOWN GRADIENT PIPELINE AT NEW MANHOLE. BULKHEAD WITH BRICK AND MORTAR MASONRY MATERIAL.
10. CONTRACTOR TO CLEAR EXISTING VEGETATION AS REQUIRED BY WORK OF THIS PROJECT. SEE SPECIFICATION SECTION 02800 FOR RESTORATION REQUIREMENTS. ALL VEGETATION CLEARING TO BE APPROVED BY GE PRIOR TO COMMENCING WITH CLEARING ACTIVITIES.
11. CONTRACTOR SHALL TEMPORARILY RELOCATE FENCE, GATE, TELEPHONE AND SECURITY SYSTEMS, ETC. AS NECESSARY TO INSTALL PIPES. SYSTEMS SHALL BE RETURNED TO ORIGINAL LOCATION AND CONDITION FOLLOWING CONSTRUCTION.
12. EXCAVATE TEST PIT AS REQUIRED TO VERIFY LOCATION AND DEPTH OF EXISTING PIPELINES.
13. FLUSH EXISTING PIPELINE PRIOR TO DISCONNECTING AND FILLING WITH FLOWABLE FILL IN ACCORDANCE WITH SPECIFICATION SECTION 02399.
14. REINFORCED RIPRAP OUTLET TO CONSIST OF RENO MATTRESS AND/OR GABION BASKETS FILLED WITH BROKEN STONE RIPRAP. LOOSE RIPRAP TO BE PLACED AT SELECT LOCATIONS (E.G. ADJACENT DITCH TRIBUTARIES) FOR ADDITIONAL STABILIZATION.
15. BASEMAP CONDITIONS SHOWN ON THESE DRAWINGS MAY NOT REPRESENT CURRENT CONDITIONS. CONTRACTOR TO FAMILIARIZE THEMSELVES WITH CURRENT SITE CONDITIONS PRIOR TO COMMENCING WITH PROJECT WORK.

NOT FOR CONSTRUCTION

ORIGINAL SCALE APPLIES TO 22"X34" DRAWING

60' 0 60' 120'
1"=60'

THIS DRAWING WAS PREPARED AT THE SCALE(S) INDICATED. INACCURACIES IN THE STATED SCALE(S) MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED.
USE THE 'GRAPHIC SCALE BAR(S) TO DETERMINE THE ACTUAL SCALE(S) OF THIS DRAWING.

No.	Date	Revisions	Init

Professional Engineer's Name		
Professional Engineer's No.		
State	Date Signed	
Project Mgr.	Designed by	Drawn by
MMP	DFG	KMD

ARCADIS BBL
Infrastructure, environment, facilities

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

SITE PLAN

ARCADIS Project No.
209.89

Date
JULY 2007

ARCADIS of New York, Inc.
6723 Towpath Road
Syracuse, NY 13214
315–446–9120

2

SYR-85-KMD WLJ KLS LAYER: ON=*, OFF=REF
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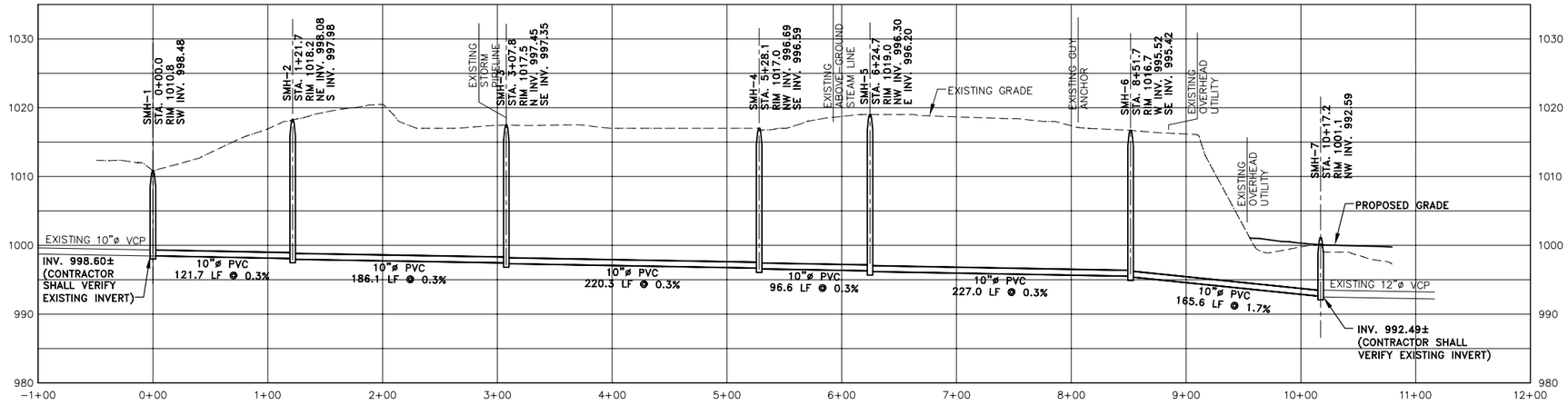
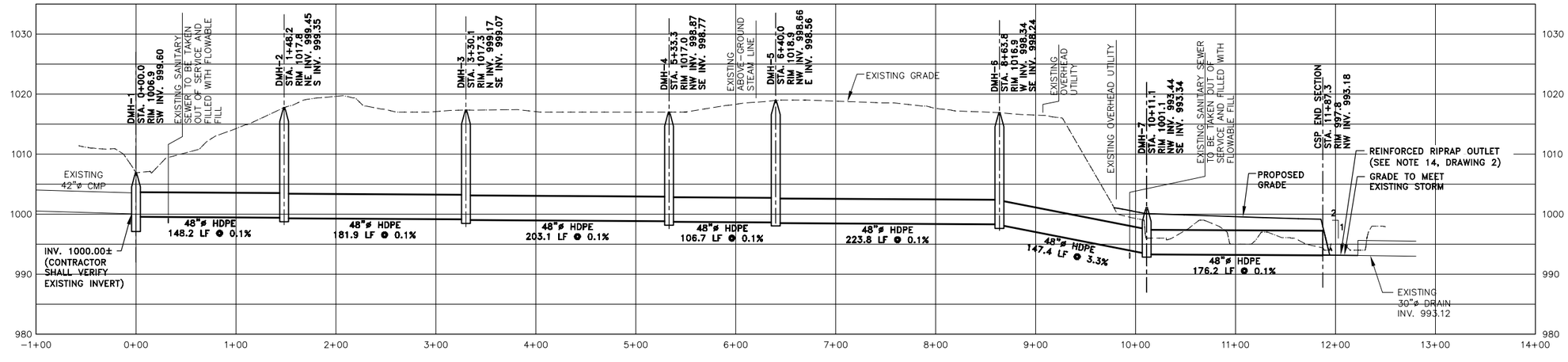
20989X01



SANITARY SEWER PIPELINE PROFILE

0 60' 120'
HORIZONTAL SCALE: 1"=60'
0 10' 20'
VERTICAL SCALE: 1"=10'



STORM SEWER PIPELINE PROFILE

0 60' 120'
HORIZONTAL SCALE: 1"=60'
0 10' 20'
VERTICAL SCALE: 1"=10'

NOT FOR CONSTRUCTION

ORIGINAL SCALE APPLIES TO 22"X34" DRAWING

THIS DRAWING WAS PREPARED AT THE SCALE(S) INDICATED. INACCURACIES IN THE STATED SCALE(S) MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED. **USE THE GRAPHIC SCALE BAR(S) TO DETERMINE THE ACTUAL SCALE(S) OF THIS DRAWING.**

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Professional Engineer's No.		
State	Date Signed	
Project Mgr. MMP	Designed by DFG	Drawn by KMD

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GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

PROFILES

ARCADIS Project No. 209.89
Date JULY 2007
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Syracuse, NY 13214
315-446-9120

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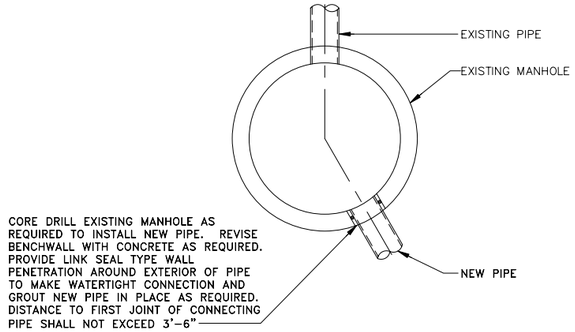
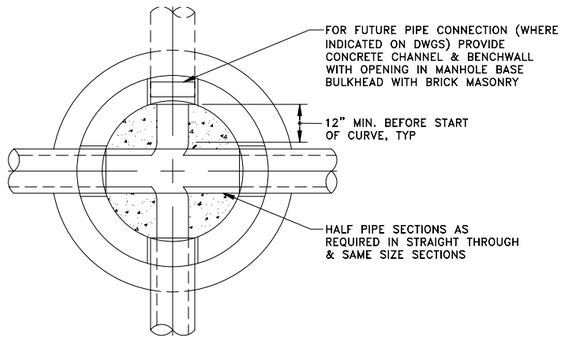


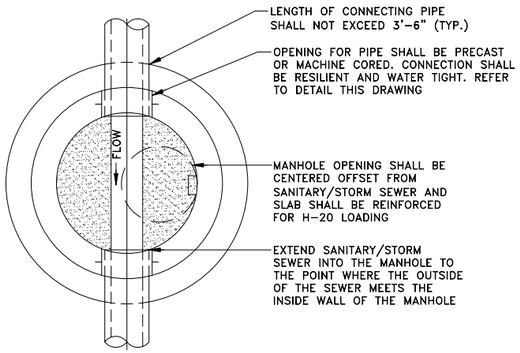
TYPICAL CONNECTION TO EXISTING MH DETAIL

NOT TO SCALE



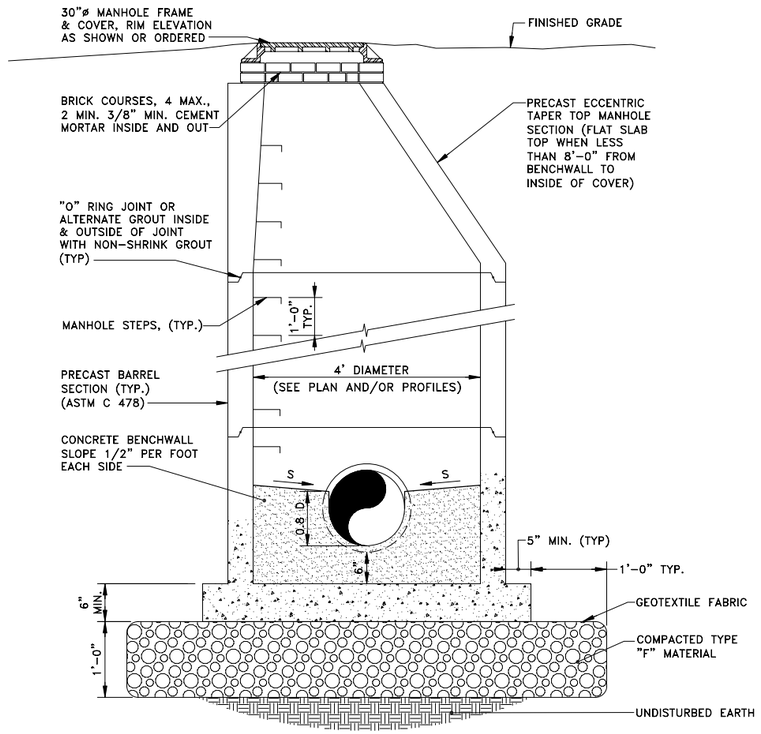
TYPICAL BENCHWALL DETAIL

NOT TO SCALE



TYPICAL PRECAST MANHOLE PLAN

NOT TO SCALE



PRECAST SANITARY MANHOLE SECTION

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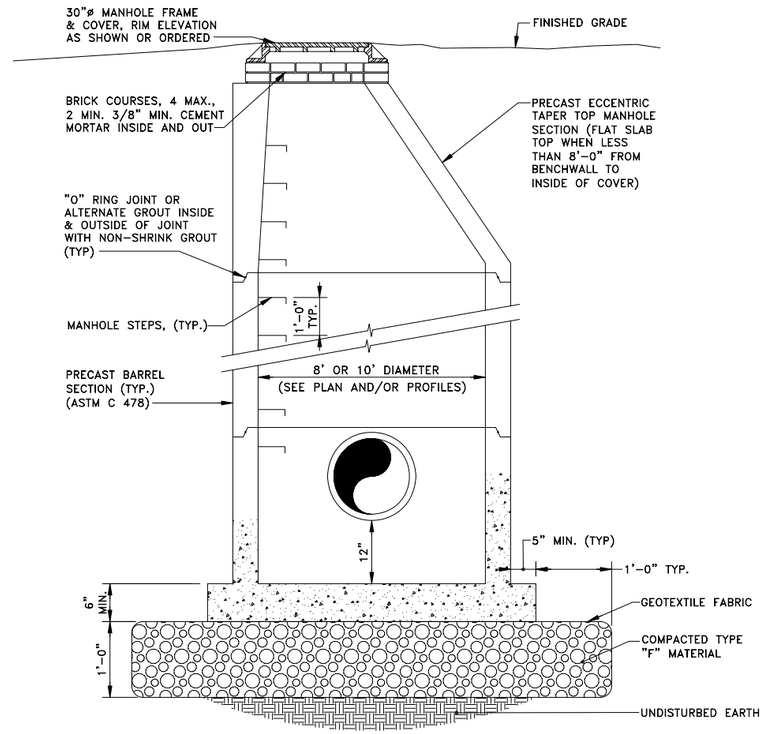
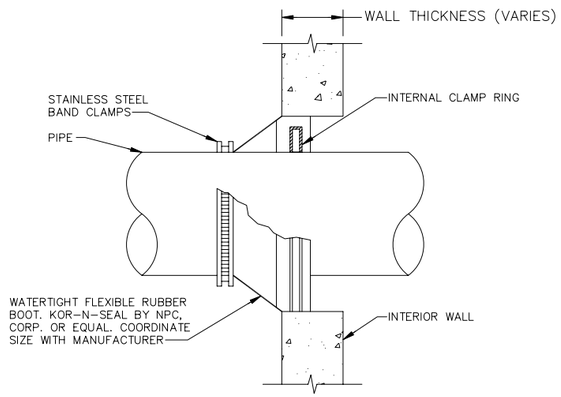


PRECAST STORM MANHOLE SECTION

NOT TO SCALE



TYPICAL NEW MANHOLE PIPE PENETRATION DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

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State | Date Signed

Project Mgr. MMP | Designed by DFG | Drawn by KMD

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SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

PIPING AND MANHOLE DETAILS

ARCADIS Project No. 209.89

Date JULY 2007

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Syracuse, NY 13214
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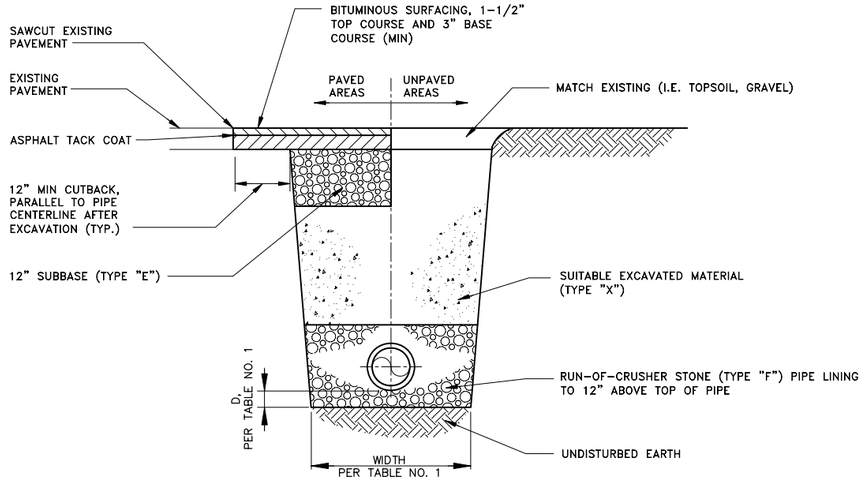


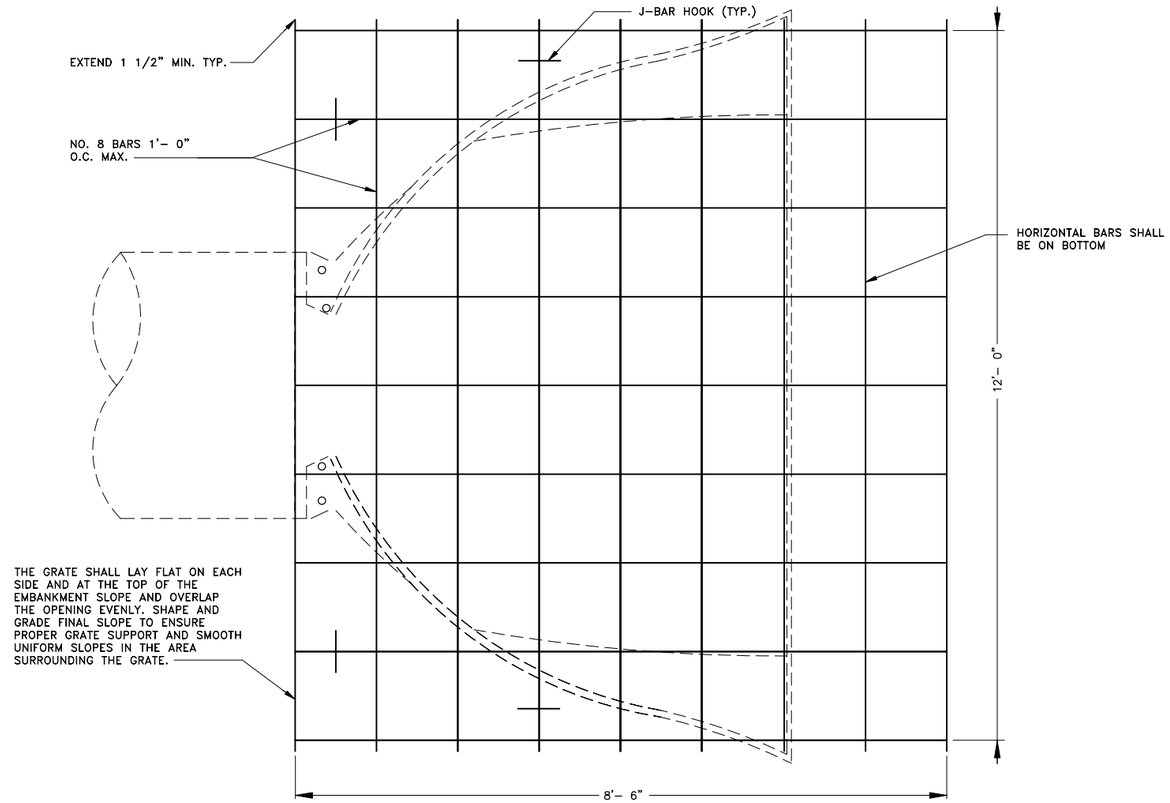
TABLE NO. 1				
TRENCH WIDTH EXCAVATION LIMITS				
PIPE I.D.	WIDTH MAXIMUM	WIDTH MINIMUM	D	D = DEPTH BETWEEN BOTTOM OF PIPE AND BOTTOM OF NORMAL PIPE FOUNDATION OD= OUTSIDE DIAMETER OF PIPE, MEASURED AT THE BELL
10"	3'-6"	2'-2"	4"	
48"	O.D. + 3'	O.D. + 2'	8"	

TYPICAL PIPE FOUNDATION/TRENCH DETAIL

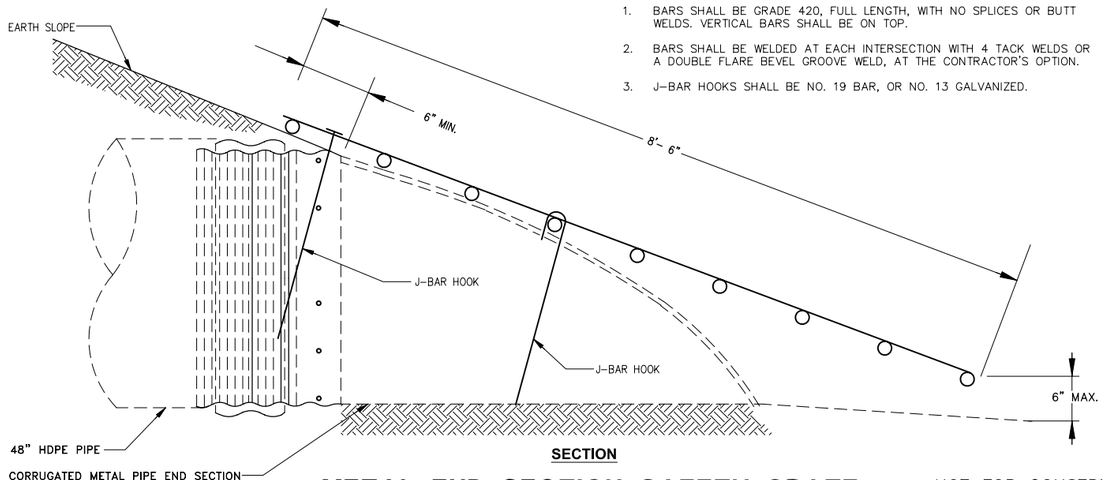
NOT TO SCALE

NOTE:

1. SANITARY AND STORM SEWER PIPELINES SHALL BE INSTALLED WITHIN A COMMON TRENCH, WHENEVER POSSIBLE, A MINIMUM DISTANCE APART PER LOCAL, STATE AND FEDERAL REGULATIONS.



PLAN



SECTION

NOTES:

1. BARS SHALL BE GRADE 420, FULL LENGTH, WITH NO SPLICES OR BUTT WELDS. VERTICAL BARS SHALL BE ON TOP.
2. BARS SHALL BE WELDED AT EACH INTERSECTION WITH 4 TACK WELDS OR A DOUBLE FLARE BEVEL GROOVE WELD, AT THE CONTRACTOR'S OPTION.
3. J-BAR HOOKS SHALL BE NO. 19 BAR, OR NO. 13 GALVANIZED.

METAL END SECTION SAFETY GRATE

NOT TO SCALE

NOT FOR CONSTRUCTION

ORIGINAL SCALE APPLIES TO 22"X34" DRAWING

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Project Mgr. MMP | Designed by DFG | Drawn by KMD

ARCADIS BBL
Infrastructure, environment, facilities

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
SANITARY AND STORM SEWER PIPELINE RELOCATION PROJECT

PIPE TRENCH AND MISCELLANEOUS DETAILS

ARCADIS Project No. 209.89

Date JULY 2007

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5

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Appendix B

Data Validation Report

Appendix B
Data Validation Report
Supplemental Sampling and Engineering Design Report for Re-routing of Sanitary and Storm Sewer Pipelines

General Electric Company
Pittsfield, Massachusetts

1.0 General

This appendix summarizes the Tier I and Tier II data reviews performed for soil samples collected during supplemental investigation activities associated with the re-routing of the sanitary and storm sewer pipelines around the Hill 78 On-Plant Consolidation Area, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed for polychlorinated biphenyls (PCBs) and/or various other constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (hereafter referred to as Appendix IX+3) by SGS Environmental Services, Inc. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data validation was performed for 91 PCB samples, eight volatile organic compound (VOC) samples, eight semi-volatile organic compound (SVOC) samples, eight polychlorinated dibenzo-p-dioxin (PCDD)/polychlorinated dibenzofuran (PCDF) samples, eight metal samples, and eight cyanide/sulfide samples.

2.0 Data Evaluation Procedures

This appendix outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- *Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007);*
- *Region I Tiered Organic and Inorganic Data Validation Guidelines*, USEPA Region I (July 1, 1993);
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses,* USEPA Region I (June 13, 1988) (Modified February 1989);
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, USEPA Region I (February 1, 1988) (Modified November 1, 1988);
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, USEPA Region I (Draft, December 1996); and
- *National Functional Guidelines for Dioxin/Furan Data Validation,* USEPA (Draft, January 1996).

A tabulated summary of the Tier I and Tier II data evaluations is presented in Table B-1. Each sample subjected to evaluation is listed in Table B-1 to document that data review was performed, as well as present the highest level of data validation (Tier I or Tier II) that was applied. Samples that required data qualification are listed separately for each parameter (compound or analyte) that required qualification.

The following data qualifiers were used in this data evaluation:

J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).

U The compound was analyzed for, but was not detected. The sample quantitation limit is presented and adjusted for dilution and (for solid samples only) percent moisture. Non-detect sample results are presented as ND(PQL) within this report and in Table B-1 for consistency with documents previously prepared for investigations conducted at this Site.

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report and in Table B-1 for consistency with documents previously prepared for this investigation.

R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

3.0 Data Validation Procedures

The FSP/QAPP provides (in Section 7.5) that all analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (USEPA guidelines). Accordingly, 100% of the analytical data for these investigations were subjected to Tier I review. The Tier I review consisted of a completeness evidence audit, as outlined in the *USEPA Region I CSF Completeness Evidence Audit Program* (USEPA Region I, 7/31/91), to ensure that all laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the USEPA Region I Tier I data completeness requirements.

As specified in the FSP/QAPP, approximately 25% of the laboratory sample delivery group packages were randomly chosen to be subjected to Tier II review. A Tier II review was also performed to resolve data usability limitations identified from laboratory qualification of the data during the Tier I data review. The Tier II data review consisted of a review of all data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. Due to the variable sizes of the data packages and the number of data qualification issues identified during the Tier I review, approximately 89% of the data were subjected to a Tier II review. The Tier II review resulted in the qualification of data for several samples due to minor QA/QC

deficiencies. Additionally, all field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP. A tabulated summary of the samples subjected to Tier I and Tier II data evaluation are presented in the following table.

Summary of Samples Subjected to Tier I and Tier II Data Validation

Parameter	Tier I Only			Tier I &Tier II			Total
	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	
PCBs	14	1	0	67	4	5	91
VOCs	0	0	0	6	1	1	8
SVOCs	0	0	0	6	1	1	8
PCDDs/PCDFs	0	0	0	6	1	1	8
Metals	0	0	0	6	1	1	8
Cyanide/Sulfide	0	0	0	12	2	2	16
Total	**14**	**1**	**0**	**103**	**10**	**11**	**139**

When qualification of the sample data was required, the sample results associated with a QA/QC parameter deviation were qualified in accordance with the procedures outlined in USEPA Region I data validation guidance documents. When the data validation process identified several quality control deficiencies, the cumulative effect of the various deficiencies was employed in assigning the final data qualifier. A summary of the QA/QC parameter deviations that resulted in data qualification is presented below for each analytical method.

4.0 Data Review

The initial calibration criterion for organic analyses requires that the average relative response factor (RRF) has a value greater than 0.05. Sample results were qualified as estimated (J) when this criterion was not met. The compounds that did not meet the initial calibration criterion and the number of samples qualified are presented in the following table.

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dibromo-3-chloropropane	2	J
	1,4-Dioxane	6	J
	2-Chloroethylvinylether	8	J
	Acetone	2	J
	Acetonitrile	8	J
	Acrolein	5	J
	Acrylonitrile	2	J

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
VOCs (continued)	Isobutanol	8	J
	Propionitrile	7	J
SVOCs	4-Nitroquinoline-1-oxide	8	J
	a,a'-Dimethylphenethylamine	8	J
	Aramite	8	J

Several of the organic compounds (including the compounds presented in the table above detailing RRF deviations) exhibit instrument response factors (RFs) below the USEPA Region I minimum value of 0.05, but meet the analytical method criterion, which does not specify minimum RFs for these compounds. These compounds were analyzed by the laboratory at a higher concentration than the compounds that normally exhibit RFs greater than the USEPA Region I minimum value of 0.05 in an effort to demonstrate acceptable response. USEPA Region I guidelines state that non-detect compound results associated with a RF less than the minimum value of 0.05 are to be rejected (R). However, in the case of these select organic compounds, the RF is an inherent problem with the current analytical methodology; therefore, the non-detect sample results were qualified as estimated (J).

The continuing calibration criterion requires that the percent difference (%D) between the initial calibration RRF and the continuing calibration RRF be less than 25% for VOCs and SVOCs and less than 15% for PCBs. Sample data for detect and non-detect compounds with %D values that exceeded the continuing calibration criteria were qualified as estimated (J). A summary of the compounds that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compounds Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dichloroethane	1	J
	1,4-Dioxane	5	J
	2-Butanone	2	J
	2-Chloroethylvinylether	4	J
	2-Hexanone	2	J
	4-Methyl-2-pentanone	2	J
	Acetone	1	J
	Acetonitrile	3	J
	Acrolein	2	J
	Bromomethane	7	J
	Chloroethane	1	J
	Ethyl Methacrylate	1	J
	Iodomethane	1	J
	Isobutanol	3	J

Compounds Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
VOCs (continued)	Methacrylonitrile	3	J
	Methyl Methacrylate	3	J
	Propionitrile	3	J
SVOCs	1,3,5-Trinitrobenzene	3	J
	1-Naphthylamine	7	J
	2-Acetylaminofluorene	3	J
	2-Naphthylamine	6	J
	3,3'-Dichlorobenzidine	1	J
	3-Methylcholanthrene	3	J
	3-Nitroaniline	1	J
	4,6-Dinitro-2-methylphenol	3	J
	4-Nitroaniline	1	J
	4-Nitrophenol	3	J
	4-Nitroquinoline-1-oxide	6	J
	a,a'-Dimethylphenethylamine	7	J
	Aramite	3	J
	Benzidine	8	J
	Benzo(g,h,i)perylene	2	J
	Benzyl Alcohol	3	J
	Hexachlorocyclopentadiene	3	J
	Hexachlorophene	2	J
	Hexachloropropene	1	J
	Indeno(1,2,3-cd)pyrene	2	J
	Methapyrilene	4	J
	o-Toluidine	2	J
	Pyridine	3	J
PCBs	All Aroclors	3	J

Contract required detection limit (CRDL) standards were analyzed to evaluate instrument performance at low-level concentrations that are near the analytical method PQL. These standards are required to have recoveries between 80% and 120% to verify that the analytical instrumentation was properly calibrated. When CRDL standard recoveries were outside the 80% to 120% control limits, the affected samples with detected results at or near the PQL concentration (i.e., less than three times the PQL) were qualified as estimated (J). The analytes that did not meet CRDL criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to CRDL Standard Recovery Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Beryllium	2	J
	Cadmium	1	J
	Lead	1	J
	Nickel	1	J
	Selenium	1	J
	Silver	1	J
	Thallium	6	J
	Tin	5	J

Matrix spike/matrix spike duplicate (MS/MSD) sample analysis recovery criteria for organics require that the MS/MSD recovery be within the laboratory-generated QC control limits specified on the MS/MSD reporting form and be within 75% to 125% for inorganics. Associated sample results with MS/MSD recoveries that were less than the laboratory-generated QC control limits and have recoveries greater than 10% were qualified as estimated (J). Associated non-detect organic sample results that exhibited MS/MSD recoveries below 10% were qualified as rejected (R). The analytes/compounds that did not meet MS/MSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes/Compounds Qualified Due to MS/MSD Recovery Deviations

Analysis	Analyte/Compound	Number of Affected Samples	Qualification
VOCs	Vinyl Chloride	1	J
	1,2-Dibromo-3-chloropropane	1	J
	Tetrachloroethene	1	J
	trans-1,4-Dichloro-2-butene	1	J
SVOCs	2,4-Dinitrophenol	1	R
	4,6-Dinitro-2-methylphenol	1	R
	4-Bromophenyl-phenylether	1	R
	2-Nitrophenol	1	R
	3-Nitroaniline	1	R
	Dibenzo(a,h)anthracene	1	J
PCBs	Aroclor-1016	1	R
	Aroclor-1221	1	R
	Aroclor-1232	1	R
	Aroclor-1242	1	R
	Aroclor-1248	1	R
	Aroclor-1254	1	R
	Aroclor-1260	1	J
	Total PCBs	1	J
Inorganics	Cadmium	2	J
	Copper	2	J
	Sulfide	3	J

MS/MSD sample analysis recovery criteria for organics require that the RPD between the MS and MSD recoveries be less than the laboratory-generated QC acceptance limits specified on the MS/MSD reporting form. The compounds that exceeded the RPD limit and the number of samples qualified due to deviations are presented in the following table.

Compounds Qualified Due to MS/MSD RPD Deviations

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	2-Chloroethylvinylether	1	J
	Ethylbenzene	1	J
SVOCs	4-Nitroaniline	1	J

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analysis recovery criteria for organics must be within the laboratory-generated QC acceptance limits specified on the LCS/LCSD reporting form. Organic sample results associated with an LCS/LCSD that exceeded laboratory-generated QC acceptance limits and exhibited a recovery greater than 10% were qualified as estimated (J). Associated non-detect organic sample results that exhibited LCS/LCSD recoveries below 10% were qualified as rejected (R). The compounds that did not meet LCS/LCSD recovery criteria and the number of samples qualified due to those deviations are presented below.

Compounds Qualified Due to LCS/LCSD Recovery Deviations

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dibromo-3-chloropropane	1	J
	2-Hexanone	3	J
	4-Methyl-2-pentanone	5	J
	trans-1,4-Dichloro-2-butene	3	J
	2-Hexanone	1	J
	4-Methyl-2-pentanone	1	J
	trans-1,4-Dichloro-2-butene	1	J
	Bromoform	1	J
SVOCs	3,3'-Dichlorobenzidine	2	R
	Benzo(k)fluoranthene	2	J
	Hexachlorocyclopentadiene	2	R
	Isophorone	1	R
	Pyrene	2	J

LCS/LCSD sample analysis recovery criteria for cyanide require that the RPD between the LCS and LCSD recoveries be less than the laboratory-generated QC acceptance limit. The number of samples qualified due to this deviation is presented in the following table.

Analyte Qualified Due to LCS/LCSD RPD Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Cyanide	1	J

Blank action levels for organic and inorganic analytes/compounds detected in the blanks were calculated at five times the blank concentrations (blank action levels were calculated at 10 times the blank concentration for common laboratory contaminants). Detected sample results that were below the blank action level were qualified with a "U." The analytes/compounds detected in method/analytical blanks which resulted in qualification of sample data, along with the number of affected samples, are presented in the following table.

Analytes/Compounds Qualified Due to Blank Deviations

Analysis	Analyte/Compound	Number of Affected Samples	Qualification
Inorganics	Antimony	5	U
	Beryllium	5	U
	Cadmium	3	U
	Silver	1	U
PCDDs/PCDFs	1,2,3,4,6,7,8-HpCDF	4	U
	1,2,3,4,7,8-HxCDF	1	U
	2,3,7,8-TCDF	3	U
	OCDD	1	U
	OCDF	2	U

The extraction holding timing criterion for organics requires that soil extractions for SVOCs are extracted within 14 days. The compounds that exceeded extraction holding time and the number of samples qualified due to deviation are presented in the following table.

Compounds Qualified Due to Extraction Holding Time Deviations

Analysis	Compounds	Number of Affected Samples	Qualification
SVOCs	All SVOC Compounds	2	J

The analysis holding timing criterion for sulfide requires that the analysis be performed within 14 days. The analyte that exceeded analysis holding time and the number of samples qualified due to deviation are presented in the following table.

Analyte Qualified Due to Analysis Holding Time Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Sulfide	2	J

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability for site characterization purposes. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I and Tier II data validation reviews. Data completeness with respect to usability was calculated separately for inorganic and each of the organic analysis. The percent usability calculation also includes quality control samples collected to aid in the evaluation of data usability. Therefore, field/equipment blank, trip blank, and field duplicate data determined to be unusable as a result of the validation process are represented in the percent usability value tabulated in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
Metals	100	None
Cyanide and Sulfide	100	None
VOCs	100	None
SVOCs	98.9	A total of five sample results were rejected due to LCS/LCSD recovery deviations and five sample results were rejected due to MS/MSD recovery deviations.
PCBs	99.2	A total of six sample results were rejected due to MS/MSD recovery deviations.
PCDDs/PCDFs	100	None

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between duplicate sample results. The duplicate samples used to evaluate precision included laboratory duplicates, field duplicates, LCS/LCSD analysis, MS/MSD samples, and ICP serial dilution samples. For this analytical program, 0.12% of the data required qualification due to MS/MSD RPD deviations and 0.04% of the data required qualification due to LCS/LCSD RPD deviations. None of the data required qualification due to field duplicate RPD deviations, laboratory duplicate RPD deviations or ICP serial dilution deviations.

5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, internal standards, LCSs, MS/MSD samples, CRDL samples, and surrogate compound recoveries. For this analytical program, 8.8% of the data required qualification due to instrument calibration deviations, 1.0% of the data required qualification due to MS/MSD recovery deviations, 0.74% of the data required qualification due to CRDL recovery deviations, and 1.0% of the data required qualification due to LCS recovery deviations. None of the data required qualification due to internal standard or surrogate compound recovery deviations.

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in MDEP-approved work plans, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with USEPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical program, 9.5% of the data required qualification due to holding time deviations.

5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. The USEPA SW-846[1] analytical methods presented in the FSP/QAPP are updated on occasion by the USEPA to benefit from recent technological advancements in analytical chemistry and instrumentation. In most cases, the method upgrades include the incorporation of new technology that improves the sensitivity and stability of the instrumentation or allows the laboratory to increase throughput without hindering accuracy and precision. Overall, the analytical methods for this investigation have remained consistent in their general approach through continued use of the basic analytical techniques (e.g., sample extraction/preparation, instrument calibration, QA/QC procedures). Through this use of consistent base analytical procedures and by requiring that updated procedures meet the QA/QC criteria specified in the FSP/QAPP, the analytical data from past, present, and future sampling events will be comparable to allow for qualitative and quantitative assessment of site conditions.

[1] Test Methods for evaluating Solid Waste, SW-846, USEPA, Final Update III, December 1996.

5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. The actual completeness of this analytical data set ranged from 98.9% to 100% for individual analytical parameters and had an overall usability of 99.7%, which is greater than the minimum required usability of 90% as specified in the FSP/QAPP.

The rejected sample data for these investigations include sample analyses results for five SVOCs due to low LCS/LCSD recoveries, five SVOCs due to MS/MSD recoveries, and six PCBs due to low MS/MSD recoveries associated with several sample locations. Duplicate analysis has demonstrated matrix interference and the same analytical performance limitations for the analysis could occur again; therefore, re-sampling at these locations is not recommended.

TABLE B-1
ANALYTICAL DATA VALIDATION SUMMAR'
SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
PCBs											
G135-407	H78-SRR-DUP-1 (0 - 1)	5/9/2007	Soil	Tier II	No						Parent sample location SB-11
G135-407	H78-SRR-DUP-3 (20 - 24)	5/9/2007	Soil	Tier II	No						Parent sample location SB-12
G135-407	SB-11 (0 - 1)	5/9/2007	Soil	Tier II	No						
G135-407	SB-11 (1 - 6)	5/9/2007	Soil	Tier II	No						
G135-407	SB-11 (15 - 20)	5/9/2007	Soil	Tier II	No						
G135-407	SB-11 (20 - 25)	5/9/2007	Soil	Tier II	No						
G135-407	SB-11 (6 - 15)	5/9/2007	Soil	Tier II	No						
G135-407	SB-12 (15 - 20)	5/9/2007	Soil	Tier II	No						
G135-407	SB-12 (20 - 24)	5/9/2007	Soil	Tier II	No						
G135-408	SB-13 (0 - 1)	5/10/2007	Soil	Tier II	No						
G135-408	SB-13 (1 - 6)	5/10/2007	Soil	Tier II	No						
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	No						
G135-408	SB-13 (20 - 23)	5/10/2007	Soil	Tier II	No						
G135-408	SB-13 (6 - 15)	5/10/2007	Soil	Tier II	No						
G135-408	SB-14 (0 - 1)	5/10/2007	Soil	Tier II	No						
G135-408	SB-14 (1 - 6)	5/10/2007	Soil	Tier II	No						
G135-408	SB-14 (15 - 20)	5/10/2007	Soil	Tier II	No						
G135-408	SB-14 (20 - 23)	5/10/2007	Soil	Tier II	No						
G135-408	SB-14 (6 - 15)	5/10/2007	Soil	Tier II	No						
G135-411	H78-SRR-DUP-4 (1 - 6)	5/11/2007	Soil	Tier II	No						Parent sample location SB-16
G135-411	SB-15 (15 - 20)	5/11/2007	Soil	Tier II	No						
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	No						
G135-411	SB-16 (0 - 1)	5/11/2007	Soil	Tier II	No						
G135-411	SB-16 (1 - 6)	5/11/2007	Soil	Tier II	No						
G135-411	SB-16 (15 - 20)	5/11/2007	Soil	Tier II	No						
G135-411	SB-16 (20 - 22)	5/11/2007	Soil	Tier II	No						
G135-411	SB-16 (6 - 15)	5/11/2007	Soil	Tier II	No						
G135-411	SB-17 (0 - 1)	5/11/2007	Soil	Tier II	No						
G135-411	SB-17 (1 - 6)	5/11/2007	Soil	Tier II	No						
G135-411	SB-17 (15 - 20)	5/11/2007	Soil	Tier II	No						
G135-411	SB-17 (20 - 24)	5/11/2007	Soil	Tier II	No						
G135-411	SB-17 (6 - 15)	5/11/2007	Soil	Tier II	No						
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	No						
G135-416	SB-18 (0 - 1)	5/15/2007	Soil	Tier II	No						
G135-416	SB-18 (1 - 6)	5/15/2007	Soil	Tier II	No						
G135-416	SB-18 (15 - 20)	5/15/2007	Soil	Tier II	No						
G135-416	SB-18 (20 - 25)	5/15/2007	Soil	Tier II	No						
G135-416	SB-18 (6 - 15)	5/15/2007	Soil	Tier II	No						
G135-419	H78-SRR-DUP-5 (1 - 6)	5/16/2007	Soil	Tier I	No						Parent sample location SB-20
G135-419	SB-19 (15 - 20)	5/16/2007	Soil	Tier I	No						
G135-419	SB-19 (20 - 21)	5/16/2007	Soil	Tier I	No						
G135-419	SB-20 (0 - 1)	5/16/2007	Soil	Tier I	No						
G135-419	SB-20 (1 - 6)	5/16/2007	Soil	Tier I	No						
G135-419	SB-20 (15 - 20)	5/16/2007	Soil	Tier I	No						
G135-419	SB-20 (6 - 15)	5/16/2007	Soil	Tier I	No						
G135-419	SB-21 (0 - 1)	5/16/2007	Soil	Tier I	No						
G135-419	SB-21 (1 - 6)	5/16/2007	Soil	Tier I	No						
G135-419	SB-21 (15 - 18)	5/16/2007	Soil	Tier I	No						
G135-419	SB-21 (6 - 15)	5/16/2007	Soil	Tier I	No						
G135-419	SB-22 (0 - 1)	5/16/2007	Soil	Tier I	No						
G135-419	SB-22 (1 - 6)	5/16/2007	Soil	Tier I	No						
G135-419	SB-22 (15 - 18)	5/16/2007	Soil	Tier I	No						
G135-419	SB-22 (6 - 15)	5/16/2007	Soil	Tier I	No						
G135-421	H78-SRR-RB-2	5/18/2007	Water	Tier II	No						
G135-421	SB-10 (15 - 20)	5/18/2007	Soil	Tier II	No						
G135-421	SB-10 (20 - 25)	5/18/2007	Soil	Tier II	No						
G135-421	SB-10 (6 - 15)	5/18/2007	Soil	Tier II	No						
G135-421	SB-8 (15 - 20)	5/18/2007	Soil	Tier II	No						
G135-421	SB-8 (20 - 25)	5/18/2007	Soil	Tier II	No						
G135-421	SB-8 (6 - 15)	5/18/2007	Soil	Tier II	No						
G135-421	SB-9 (15 - 20)	5/18/2007	Soil	Tier II	No						
G135-421	SB-9 (20 - 25)	5/18/2007	Soil	Tier II	No						
G135-421	SB-9 (6 - 15)	5/18/2007	Soil	Tier II	No						

TABLE B-1
ANALYTICAL DATA VALIDATION SUMMAR'
SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
PCBs (continued)											
G135-430	H78-SRR-RB-3	5/23/2007	Water	Tier II	Yes	Aroclor-1016	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1221	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1232	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1242	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1248	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1254	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1260	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Total PCBs	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
G135-430	H78-SRR-RB-4	5/23/2007	Water	Tier II	Yes	Aroclor-1016	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1221	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1232	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1242	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1248	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1254	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1260	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Total PCBs	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
G135-430	SB-1 (0 - 1)	5/23/2007	Soil	Tier II	No						
G135-430	SB-1 (1 - 6)	5/23/2007	Soil	Tier II	No	Aroclor-1016	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1221	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1232	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1242	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1248	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1254	MSD %R 1260	0.5%	32.0% to 142.0%	R	
						Aroclor-1260	MSD %R 1260	0.5%	32.0% to 142.0%	0.69 J	
						Total PCBs	MSD %R 1260	0.5%	32.0% to 142.0%	0.69 J	
G135-430	SB-1 (6 - 8)	5/23/2007	Soil	Tier II	No						
G135-430	SB-2 (0 - 1)	5/23/2007	Soil	Tier II	No						
G135-430	SB-2 (1 - 6)	5/23/2007	Soil	Tier II	No						
G135-430	SB-2 (6 - 8)	5/23/2007	Soil	Tier II	No						
G135-432	H78-SRR-DUP-6 (1 - 6)	5/24/2007	Soil	Tier II	No						Parent sample location SB-7
G135-432	H78-SRR-RB-5	5/24/2007	Water	Tier II	Yes	Aroclor-1016	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1221	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1232	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1242	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1248	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1254	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Aroclor-1260	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
						Total PCBs	CCAL %D, 1016, 1260	22.6%, 20.2%	<15%	ND(0.00010) J	
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	No						
G135-432	SB-3 (20 - 24)	5/24/2007	Soil	Tier II	No						
G135-432	SB-4 (0 - 1)	5/24/2007	Soil	Tier II	No						
G135-432	SB-4 (1 - 6)	5/24/2007	Soil	Tier II	No						
G135-432	SB-4 (15 - 20)	5/24/2007	Soil	Tier II	No						
G135-432	SB-4 (20 - 24)	5/24/2007	Soil	Tier II	No						
G135-432	SB-4 (6 - 15)	5/24/2007	Soil	Tier II	No						
G135-432	SB-5 (15 - 20)	5/24/2007	Soil	Tier II	No						
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	No						
G135-432	SB-5 (6 - 15)	5/24/2007	Soil	Tier II	No						
G135-432	SB-6 (15 - 20)	5/24/2007	Soil	Tier II	No						
G135-432	SB-6 (20 - 26)	5/24/2007	Soil	Tier II	No						
G135-432	SB-6 (6 - 15)	5/24/2007	Soil	Tier II	No						
G135-432	SB-7 (0 - 1)	5/24/2007	Soil	Tier II	No						
G135-432	SB-7 (1 - 6)	5/24/2007	Soil	Tier II	No						
G135-432	SB-7 (15 - 20)	5/24/2007	Soil	Tier II	No						
G135-432	SB-7 (20 - 26)	5/24/2007	Soil	Tier II	No						
G135-432	SB-7 (6 - 15)	5/24/2007	Soil	Tier II	No						
Metals											
G135-407	H78-SRR-DUP-3 (20 - 24)	5/9/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.49)	Parent sample location SB-12
						Beryllium	Method Blank	-	-	ND(1.12)	
						Thallium	CRDL Standard %R	42.1%	80% to 120%	ND(1.12) J	
G135-407	SB-12 (20 - 24)	5/9/2007	Soil	Tier II	Yes	Beryllium	Method Blank	-	-	ND(1.04)	
						Thallium	CRDL Standard %R	42.1%	80% to 120%	ND(1.04) J	
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(3.95)	
						Beryllium	Method Blank	-	-	ND(0.987)	

TABLE B-1
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SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals (continued)											
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	Yes	Thallium	CRDL Standard %R	42.1%	80% to 120%	ND(0.987) J	
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.33)	
						Beryllium	Method Blank	-	-	ND(1.08)	
						Cadmium	Method Blank	-	-	ND(1.08)	
						Silver	Method Blank	-	-	ND(1.08)	
						Tin	CRDL Standard %R	176.0%	80% to 120%	ND(1.08) J	
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	Yes	Beryllium	CRDL Standard %R	141.0%	80% to 120%	ND(0.010) J	
						Lead	CRDL Standard %R	78.2%	80% to 120%	ND(0.0100) J	
						Selenium	CRDL Standard %R	78.8%	80% to 120%	ND(0.0200) J	
						Silver	CRDL Standard %R	132.0%	80% to 120%	ND(0.010) J	
						Tin	CRDL Standard %R	176.0%	80% to 120%	ND(0.0100) J	
G135-421	SB-8 (15 - 20)	5/18/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.60)	
						Beryllium	CRDL Standard %R	176.0%	80% to 120%	ND(1.15) J	
						Beryllium	Method Blank	-	-	ND(1.15)	
						Cadmium	CRDL Standard %R	182.0%	80% to 120%	0.715 J	
						Cadmium	MS %R	62.6%	75% to 125%	0.715 J	
						Cadmium	MSD %R	63.2%	75% to 125%	0.715 J	
						Copper	MS %R	131.0%	75% to 125%	10.1 J	
						Copper	MSD %R	133.0%	75% to 125%	10.1 J	
						Nickel	CRDL Standard %R	144.0%	80% to 120%	8.34 J	
						Thallium	CRDL Standard %R	159.0%	80% to 120%	1.07 J	
						Tin	CRDL Standard %R	146.0%	80% to 120%	ND(11.5) J	
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.67)	
						Cadmium	Method Blank	-	-	ND(0.584)	
						Thallium	CRDL Standard %R	133.0%	80% to 120%	ND(1.17) J	
						Tin	CRDL Standard %R	146.0%	80% to 120%	ND(11.7) J	
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	Yes	Cadmium	Method Blank	-	-	3.95	
						Thallium	CRDL Standard %R	133.0%	80% to 120%	ND(0.987) J	
						Tin	CRDL Standard %R	146.0%	80% to 120%	ND(9.87) J	
VOCs											
G135-407	H78-SRR-DUP-2 (20 - 22)	5/9/2007	Soil	Tier II	Yes	1,4-Dioxane	CCAL %D	26.0%	<25%	ND(5.6) J	Parent sample location SB-12
						2-Chloroethylvinylether	ICAL RRF	0.012	>0.05	ND(0.028) J	
						2-Chloroethylvinylether	CCAL %D	46.2%	<25%	ND(0.028) J	
						2-Hexanone	LCS %R	54.1%	61.2% to 139%	ND(0.0056) J	
						4-Methyl-2-pentanone	CCAL %D	28.3%	<25%	ND(0.0056) J	
						4-Methyl-2-pentanone	LCS %R	39.7%	65.1% to 135%	ND(0.0056) J	
						Acetonitrile	ICAL RRF	0.008	>0.05	ND(1.1) J	
						Acetonitrile	CCAL %D	34.4%	<25%	ND(1.1) J	
						Acrolein	CCAL %D	29.0%	<25%	ND(0.069) J	
						Bromomethane	CCAL %D	66.6%	<25%	ND(0.0056) J	
						Isobutanol	ICAL RRF	0.008	>0.05	ND(2.8) J	
						Isobutanol	CCAL %D	40.5%	<25%	ND(2.8) J	
						Methacrylonitrile	CCAL %D	29.1%	<25%	ND(0.56) J	
						Methyl Methacrylate	CCAL %D	44.0%	<25%	ND(0.0056) J	
						Propionitrile	ICAL RRF	0.010	>0.05	ND(1.1) J	
G135-407	SB-12 (20 - 22)	5/9/2007	Soil	Tier II	Yes	1,4-Dioxane	CCAL %D	26.0%	<25%	ND(5.7) J	
						2-Chloroethylvinylether	ICAL RRF	0.012	>0.05	ND(0.029) J	
						2-Chloroethylvinylether	CCAL %D	46.2%	<25%	ND(0.029) J	
						2-Hexanone	LCS %R	54.1%	61.2% to 139%	ND(0.0057) J	
						4-Methyl-2-pentanone	CCAL %D	28.3%	<25%	ND(0.0057) J	
						4-Methyl-2-pentanone	LCS %R	39.7%	65.1% to 135%	ND(0.0057) J	
						Acetonitrile	ICAL RRF	0.008	>0.05	ND(1.1) J	
						Acetonitrile	CCAL %D	34.4%	<25%	ND(1.1) J	
						Acrolein	CCAL %D	29.0%	<25%	ND(0.070) J	
						Bromomethane	CCAL %D	66.6%	<25%	ND(0.0057) J	
						Isobutanol	ICAL RRF	0.008	>0.05	ND(0.029) J	
						Isobutanol	CCAL %D	40.5%	<25%	ND(0.029) J	
						Methacrylonitrile	CCAL %D	29.1%	<25%	ND(0.57) J	
						Methyl Methacrylate	CCAL %D	44.0%	<25%	ND(0.0057) J	
						Propionitrile	ICAL RRF	0.010	>0.05	ND(1.1) J	
G135-408	SB-13 (16 - 18)	5/10/2007	Soil	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.8) J	
						2-Chloroethylvinylether	ICAL RRF	0.012	>0.05	ND(0.029) J	
						2-Chloroethylvinylether	CCAL %D	36.5%	<25%	ND(0.029) J	
						2-Hexanone	LCS/LCSD %R	49.7%, 51.2%	61.2% to 139%	ND(0.0058) J	

TABLE B-1
ANALYTICAL DATA VALIDATION SUMMAR'
SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCs (continued)											
G135-408	SB-13 (16 - 18)	5/10/2007	Soil	Tier II	Yes	4-Methyl-2-pentanone	LCS/LCSD %R	39.0%, 40.0%	65.1% to 135%	ND(0.0058) J	
						Acetonitrile	ICAL RRF	0.008	>0.05	ND(1.2) J	
						Bromoform	LCSD %R	126.0%	81.8% to 118%	ND(0.0058) J	
						Bromomethane	CCAL %D	199.9%	<25%	ND(0.0058) J	
						Chloroethane	CCAL %D	120.1%	<25%	ND(0.0058) J	
						Iodomethane	CCAL %D	0.3	<25%	ND(0.0058) J	
						Isobutanol	ICAL RRF	0.008	>0.05	ND(2.9) J	
						Methyl Methacrylate	CCAL %D	25.9%	<25%	ND(0.0058) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	18.3%, 19.3%	69.5% to 130%	ND(0.012) J	
G135-411	SB-15 (20 - 22)	5/11/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.023	>0.05	ND(0.57) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(11) J	
						1,4-Dioxane	CCAL %D	100.0%	<25%	ND(11) J	
						2-Chloroethylvinylether	ICAL RRF	0.026	>0.05	ND(1.4) J	
						Acetone	ICAL RRF	0.047	>0.05	ND(0.57) J	
						Acetonitrile	ICAL RRF	0.003	>0.05	ND(2.3) J	
						Acetonitrile	CCAL %D	99.1%	<25%	ND(2.3) J	
						Acrolein	ICAL RRF	0.024	>0.05	ND(2.8) J	
						Acrylonitrile	ICAL RRF	0.040	>0.05	ND(2.8) J	
						Bromomethane	CCAL %D	53.8%	<25%	ND(0.11) J	
						Ethyl Methacrylate	CCAL %D	100.0%	<25%	ND(0.11) J	
						Isobutanol	ICAL RRF	0.004	>0.05	ND(5.7) J	
						Isobutanol	CCAL %D	99.6%	<25%	ND(5.7) J	
						Methacrylonitrile	CCAL %D	100.0%	<25%	ND(1.1) J	
						Propionitrile	ICAL RRF	0.006	>0.05	ND(2.3) J	
						Propionitrile	CCAL %D	99.7%	<25%	ND(2.3) J	
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.022	>0.05	ND(0.0050) J	
						1,2-Dichloroethane	CCAL %D	27.3%	<25%	ND(0.0010) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						2-Chloroethylvinylether	ICAL RRF	0.023	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.048	>0.05	ND(0.0050) J	
						Acetone	CCAL %D	30.6%	<25%	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(0.020) J	
						Acrolein	ICAL RRF	0.020	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.040	>0.05	ND(0.025) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.006	>0.05	ND(0.020) J	
G135-421	SB-8 (18 - 20)	5/18/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS %R	21.9%	67.4% to 133%	ND(0.021) J	
						1,2-Dibromo-3-chloropropane	MS/MSD %R	25.9%, 27.4%	43.4% to 229%	ND(0.021) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(4.2) J	
						2-Chloroethylvinylether	ICAL RRF	0.011	>0.05	ND(0.021) J	
						2-Chloroethylvinylether	CCAL %D	45.5%	<25%	ND(0.021) J	
						2-Chloroethylvinylether	MS/MSD RPD	36.8%	<30%	ND(0.021) J	
						2-Hexanone	LCS %R	46.9%	61.2% to 139%	ND(0.0042) J	
						4-Methyl-2-pentanone	LCS %R	53.2%	65.1% to 135%	ND(0.0042) J	
						Acetonitrile	ICAL RRF	0.006	>0.05	ND(0.83) J	
						Acrolein	ICAL RRF	0.040	>0.05	ND(0.051) J	
						Bromomethane	CCAL %D	27.7%	<25%	ND(0.0042) J	
						Ethylbenzene	MS/MSD RPD	41.3%	<30%	ND(0.0042) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.1) J	
						Propionitrile	ICAL RRF	0.008	>0.05	ND(0.83) J	
						Tetrachloroethene	MS/MSD %R	60.9%, 59.4%	61.6% to 137%	ND(0.0042) J	
						trans-1,4-Dichloro-2-butene	LCS %R	20.6%	69.5% to 130%	ND(0.0089) J	
						trans-1,4-Dichloro-2-butene	MS/MSD %R	22.1%, 21.3%	48.9% to 211%	ND(0.0089) J	
						Vinyl Chloride	MS %R	79.2%	80.9% to 129%	ND(0.0042) J	
G135-432	SB-3 (15 - 17)	5/24/2007	Soil	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.0) J	
						1,4-Dioxane	CCAL %D	37.1%	<25%	ND(5.0) J	
						2-Butanone	CCAL %D	29.4%	<25%	0.0040 J	
						2-Chloroethylvinylether	ICAL RRF	0.044	>0.05	ND(0.025) J	
						2-Hexanone	CCAL %D	28.7%	<25%	ND(0.0050) J	
						4-Methyl-2-pentanone	LCS %R	55.5%	65.1% to 135%	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.004	>0.05	ND(1.0) J	
						Acrolein	ICAL RRF	0.034	>0.05	ND(0.062) J	
						Bromomethane	CCAL %D	35.6%	<25%	ND(0.0050) J	
						Isobutano	ICAL RRF	0.005	>0.05	ND(2.5) J	

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(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCs (continued)											
G135-432	SB-3 (15 - 17)	5/24/2007	Soil	Tier II	Yes	Propionitrile	ICAL RRF	0.007	>0.05	ND(1.0) J	
						Propionitrile	CCAL %D	28.6%	<25%	ND(1.0) J	
						trans-1,4-Dichloro-2-butene	LCS %R	22.0%	69.5% to 130%	ND(0.011) J	
G135-432	SB-5 (20 - 22)	5/24/2007	Soil	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.1) J	
						1,4-Dioxane	CCAL %D	37.1%	<25%	ND(5.1) J	
						2-Butanone	CCAL %D	29.4%	<25%	ND(0.0051) J	
						2-Chloroethylvinylether	ICAL RRF	0.044	>0.05	ND(0.025) J	
						2-Hexanone	CCAL %D	28.7%	<25%	ND(0.0051) J	
						4-Methyl-2-pentanone	LCS %R	55.5%	65.1% to 135%	ND(0.0051) J	
						Acetonitrile	ICAL RRF	0.004	>0.05	ND(1.0) J	
						Acrolein	ICAL RRF	0.034	>0.05	ND(0.063) J	
						Bromomethane	CCAL %D	35.6%	<25%	ND(0.0051) J	
						Isobutanol	ICAL RRF	0.005	>0.05	ND(2.5) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.0) J	
						Propionitrile	CCAL %D	28.6%	<25%	ND(1.0) J	
						trans-1,4-Dichloro-2-butene	LCS %R	22.0%	69.5% to 130%	ND(0.011) J	
SVOCs											
G135-407	H78-SRR-DUP-3 (20 - 24)	5/9/2007	Soil	Tier II	Yes	1,3,5-Trinitrobenzene	CCAL %D	39.3%	<25%	ND(1.7) J	Parent sample location SB-12
						1-Naphthylamine	CCAL %D	95.6%	<25%	ND(1.7) J	
						2-Naphthylamine	CCAL %D	93.8%	<25%	ND(1.7) J	
						4,6-Dinitro-2-methylphenol	CCAL %D	33.0%	<25%	ND(1.7) J	
						4-Nitrophenol	CCAL %D	29.6%	<25%	ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.023	>0.05	ND(1.7) J	
						4-Nitroquinoline-1-oxide	CCAL %D	65.2%	<25%	ND(1.7) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.011	>0.05	ND(1.7) J	
						a,a'-Dimethylphenethylamine	CCAL %D	27.3%	<25%	ND(1.7) J	
						Aramite	ICAL RRF	0.002	>0.05	ND(0.35) J	
						Aramite	CCAL %D	50.0%	<25%	ND(0.35) J	
						Benzidine	CCAL %D	94.0%	<25%	ND(0.35) J	
						Hexachlorocyclopentadiene	CCAL %D	66.1%	<25%	ND(0.70) J	
G135-407	SB-12 (20 - 24)	5/9/2007	Soil	Tier II	Yes	1,3,5-Trinitrobenzene	CCAL %D	39.3%	<25%	ND(1.8) J	
						1-Naphthylamine	CCAL %D	95.6%	<25%	ND(1.8) J	
						2-Naphthylamine	CCAL %D	93.8%	<25%	ND(1.8) J	
						4,6-Dinitro-2-methylphenol	CCAL %D	33.0%	<25%	ND(1.8) J	
						4-Nitrophenol	CCAL %D	29.6%	<25%	ND(1.8) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.023	>0.05	ND(1.8) J	
						4-Nitroquinoline-1-oxide	CCAL %D	65.2%	<25%	ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.011	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D	27.3%	<25%	ND(1.8) J	
						Aramite	ICAL RRF	0.002	>0.05	ND(0.35) J	
						Aramite	CCAL %D	50.0%	<25%	ND(0.35) J	
						Benzidine	CCAL %D	94.0%	<25%	ND(0.35) J	
						Hexachlorocyclopentadiene	CCAL %D	66.1%	<25%	ND(0.70) J	
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	85.0%	<25%	ND(1.8) J	
						3,3'-Dichlorobenzidine	LCS %R	0.0%	37.4% to 282%	R	
						4,6-Dinitro-2-methylphenol	CCAL %D	27.8%	<25%	ND(1.8) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.023	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.011	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D	27.3%	<25%	ND(1.8) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.35) J	
						Benzidine	CCAL %D	84.7%	<25%	ND(0.70) J	
						Benzyl Alcohol	CCAL %D	26.8%	<25%	ND(0.70) J	
						Hexachlorocyclopentadiene	LCS %R	0.0%	3.76% to 170%	R	
						Methapyrilene	CCAL %D	36.5%	<25%	ND(0.35) J	
						Pyridine	CCAL %D	90.4%	<25%	ND(0.35) J	
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	85.0%	<25%	ND(1.8) J	
						2,4-Dinitrophenol	MS %R	0.0%	10.0% to 149%	R	
						2-Naphthylamine	CCAL %D	54.6%	<25%	ND(1.8) J	
						2-Nitrophenol	MSD %R	0.0%	10.0% to 150.0%	R	
						3,3'-Dichlorobenzidine	LCS %R	0.0%	37.4% to 282%	R	
						3-Nitroaniline	MSD %R	0.0%	10.0% to 331%	R	
						4,6-Dinitro-2-methylphenol	MS %R	0.0%	10.0% to 147%	R	
						4-Bromophenyl-phenylether	MS %R	0.0%	63.0% to 106%	R	
						4-Nitroaniline	MS/MSD RPD	40.7%	<30%	ND(1.8) J	

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (continued)											
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	Yes	4-Nitroquinoline-1-oxide	ICAL RRF	0.023	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.011	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D	27.3%	<25%	ND(1.8) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.37) J	
						Benzidine	CCAL %D	84.7%	<25%	ND(0.74) J	
						Benzyl Alcohol	CCAL %D	26.8%	<25%	ND(0.74) J	
						Hexachlorocyclopentadiene	LCS %R	0.0%	10.0% to 170%	R	
						Methapyrilene	CCAL %D	36.5%	<25%	ND(0.37) J	
						Pyridine	CCAL %D	90.4%	<25%	ND(0.37) J	
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	Yes	1,3,5-Trinitrobenzene	CCAL %D	30.4%	<25%	ND(0.050) J	
						3-Nitroaniline	CCAL %D	33.5%	<25%	ND(0.050) J	
						4-Nitroaniline	CCAL %D	30.2%	<25%	ND(0.050) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.023	>0.05	ND(0.050) J	
						4-Nitroquinoline-1-oxide	CCAL %D	60.9%	<25%	ND(0.050) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.011	>0.05	ND(0.050) J	
						a,a'-Dimethylphenethylamine	CCAL %D	36.4%	<25%	ND(0.050) J	
						Aramite	ICAL RRF	0.002	>0.05	ND(0.010) J	
						Benzidine	CCAL %D	51.3%	<25%	ND(0.020) J	
						Benzyl Alcohol	CCAL %D	38.5%	<25%	ND(0.020) J	
						Hexachlorocyclopentadiene	CCAL %D	44.6%	<25%	ND(0.020) J	
						Hexachloropropene	CCAL %D	25.2%	<25%	ND(0.020) J	
						Methapyrilene	CCAL %D	29.6%	<25%	ND(0.010) J	
						Pyridine	CCAL %D	49.1%	<25%	ND(0.010) J	
G135-421	SB-8 (15 - 20)	5/18/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	73.4%	<25%	ND(1.8) J	
						2-Acetylaminofluorene	CCAL %D	59.5%	<25%	ND(0.70) J	
						2-Naphthylamine	CCAL %D	77.0%	<25%	ND(1.8) J	
						3,3'-Dichlorobenzidine	CCAL %D	44.6%	<25%	ND(0.70) J	
						3-Methylcholanthrene	CCAL %D	44.2%	<25%	ND(0.35) J	
						4-Nitrophenol	CCAL %D	35.2%	<25%	ND(1.8) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.8) J	
						4-Nitroquinoline-1-oxide	CCAL %D	37.5%	<25%	ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.8) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.35) J	
						Aramite	CCAL %D	33.3%	<25%	ND(0.35) J	
						Benzidine	CCAL %D	26.5%	<25%	ND(0.70) J	
						Dibenzo(a,h)anthracene	MSD %R	49.7%	62.0% to 122%	ND(0.35) J	
						Isophorone	LCS %R	0.0%	71.4% to 142%	R	
						Methapyrilene	CCAL %D	27.8%	<25%	ND(0.35) J	
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	1,2,4,5-Tetrachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2,4-Trichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2-Diphenylhydrazine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,3,5-Trinitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						1,3-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,3-Dinitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,4-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,4-Naphthoquinone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1-Naphthylamine	CCAL %D	32.8%	<25%	ND(1.8) J	
						1-Naphthylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						2,3,4,6-Tetrachlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4,5-Trichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4,6-Trichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dimethylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dinitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						2,4-Dinitrotoluene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,6-Dichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,6-Dinitrotoluene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Acetylaminofluorene	CCAL %D	41.3%	<25%	ND(0.70) J	
						2-Acetylaminofluorene	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						2-Chloronaphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Chlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Methylnaphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Methylpheno	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	

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Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (continued)											
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	2-Naphthylamine	CCAL %D	66.7%	<25%	ND(1.8) J	
						2-Naphthylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						2-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Nitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Picoline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3&4-Methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3,3'-Dichlorobenzidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						3,3'-Dimethylbenzidine	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						3-Methylcholanthrene	CCAL %D	48.1%	<25%	ND(0.35) J	
						3-Methylcholanthrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4,6-Dinitro-2-methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4-Aminobiphenyl	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Bromophenyl-phenylether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chloro-3-Methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chloroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4-Chlorobenzilate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chlorophenyl-phenylether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4-Nitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.8) J	
						4-Nitroquinoline-1-oxide	CCAL %D	71.9%	<25%	ND(1.8) J	
						4-Nitroquinoline-1-oxide	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						4-Phenylenediamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						5-Nitro-o-toluidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						7,12-Dimethylbenz(a)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D	75.0%	<25%	ND(1.8) J	
						a,a'-Dimethylphenethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						Acenaphthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Acenaphthylene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Acetophenone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Aniline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.35) J	
						Aramite	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzidine	CCAL %D	75.5%	<25%	ND(0.70) J	
						Benzidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						Benzo(a)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(a)pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(b)fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(g,h,i)perylene	CCAL %D	26.8%	<25%	ND(0.35) J	
						Benzo(g,h,i)perylene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(k)fluoranthene	LCS %R	75.7%	85.3% to 142%	ND(0.35) J	
						Benzo(k)fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzyl Alcohol	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						bis(2-Chloroethoxy)methane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Chloroethyl)ether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Chloroisopropyl)ether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Ethylhexyl)phthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Butylbenzylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Chrysene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diallate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dibenzo(a,h)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dibenzofuran	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diethylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dimethylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Di-n-Butylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Di-n-Octylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diphenylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Ethyl Methanesulfonate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Fluorene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	

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SVOCs (continued)											
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	Hexachlorobutadiene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorocyclopentadiene	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						Hexachloroethane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorophene	CCAL %D	27.9%	<25%	ND(0.35) J	
						Hexachlorophene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachloropropene	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
						Indeno(1,2,3-cd)pyrene	CCAL %D	25.4%	<25%	ND(0.35) J	
						Indeno(1,2,3-cd)pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isodrin	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isophorone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isosafrole	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Methapyrilene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Methyl Methanesulfonate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Naphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Nitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodiethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodimethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitroso-di-n-butylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitroso-di-n-propylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodiphenylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosomethylethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosomorpholine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosopiperidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosopyrrolidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						o,o,o-Triethylphosphorothioate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						o-Toluidine	CCAL %D	92.9%	<25%	ND(0.35) J	
						o-Toluidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						p-Dimethylaminoazobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachloroethane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachloronitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.8) J	
						Phenacetin	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Phenanthrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Phenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pronamide	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pyrene	LCS %R	72.4%	74.7% to 141%	ND(0.35) J	
						Pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pyridine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Safrole	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Thionazin	Holdtimes (Extraction)	19 days	<14 days	ND(0.70) J	
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	Yes	1,2,4,5-Tetrachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2,4-Trichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,2-Diphenylhydrazine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,3,5-Trinitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						1,3-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,3-Dinitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,4-Dichlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1,4-Naphthoquinone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						1-Naphthylamine	CCAL %D	32.8%	<25%	ND(1.7) J	
						1-Naphthylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						2,3,4,6-Tetrachlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4,5-Trichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4,6-Trichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dimethylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,4-Dinitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						2,4-Dinitrotoluene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,6-Dichlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2,6-Dinitrotoluene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Acetylaminofluorene	CCAL %D	41.3%	<25%	ND(0.69) J	
						2-Acetylaminofluorene	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						2-Chloronaphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	

TABLE B-1
ANALYTICAL DATA VALIDATION SUMMAR'
SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (continued)											
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	Yes	2-Chlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Methylnaphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Naphthylamine	CCAL %D	66.7%	<25%	ND(1.7) J	
						2-Naphthylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						2-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Nitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						2-Picoline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3&4-Methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3,3'-Dichlorobenzidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						3,3'-Dimethylbenzidine	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						3-Methylcholanthrene	CCAL %D	48.1%	<25%	ND(0.35) J	
						3-Methylcholanthrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						3-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4,6-Dinitro-2-methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4-Aminobiphenyl	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Bromophenyl-phenylether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chloro-3-Methylphenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chloroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4-Chlorobenzilate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Chlorophenyl-phenylether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						4-Nitroaniline	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4-Nitrophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.7) J	
						4-Nitroquinoline-1-oxide	CCAL %D	71.9%	<25%	ND(1.7) J	
						4-Nitroquinoline-1-oxide	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						4-Phenylenediamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						5-Nitro-o-toluidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						7,12-Dimethylbenz(a)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.7) J	
						a,a'-Dimethylphenethylamine	CCAL %D	75.0%	<25%	ND(1.7) J	
						a,a'-Dimethylphenethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						Acenaphthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Acenaphthylene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Acetophenone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Aniline	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.35) J	
						Aramite	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzidine	CCAL %D	75.5%	<25%	ND(0.69) J	
						Benzidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						Benzo(a)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(a)pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(b)fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(g,h,i)perylene	CCAL %D	26.8%	<25%	ND(0.35) J	
						Benzo(g,h,i)perylene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzo(k)fluoranthene	LCS %R	75.7%	85.3% to 142%	ND(0.35) J	
						Benzo(k)fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Benzyl Alcohol	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						bis(2-Chloroethoxy)methane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Chloroethyl)ether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Chloroisopropyl)ether	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						bis(2-Ethylhexyl)phthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Butylbenzylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Chrysene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diallate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dibenzo(a,h)anthracene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dibenzofuran	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diethylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Dimethylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Di-n-Butylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Di-n-Octylphthalate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Diphenylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Ethyl Methanesulfonate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	

TABLE B-1
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SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTED SANITARY AND STORM SEWER PIPELINES

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (continued)											
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	Yes	Fluoranthene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Fluorene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorobutadiene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorocyclopentadiene	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						Hexachloroethane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachlorophene	CCAL %D	27.9%	<25%	ND(0.35) J	
						Hexachlorophene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Hexachloropropene	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
						Indeno(1,2,3-cd)pyrene	CCAL %D	25.4%	<25%	ND(0.35) J	
						Indeno(1,2,3-cd)pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isodrin	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isophorone	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Isosafrole	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Methapyrilene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Methyl Methanesulfonate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Naphthalene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Nitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodiethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodimethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitroso-di-n-butylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitroso-di-n-propylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosodiphenylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosomethylethylamine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosomorpholine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosopiperidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						N-Nitrosopyrrolidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						o,o,o-Triethylphosphorothioate	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						o-Toluidine	CCAL %D	92.9%	<25%	ND(0.35) J	
						o-Toluidine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						p-Dimethylaminoazobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachlorobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachloroethane	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachloronitrobenzene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pentachlorophenol	Holdtimes (Extraction)	19 days	<14 days	ND(1.7) J	
						Phenacetin	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Phenanthrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Phenol	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pronamide	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pyrene	LCS %R	72.4%	74.7% to 141%	ND(0.35) J	
						Pyrene	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Pyridine	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Safrole	Holdtimes (Extraction)	19 days	<14 days	ND(0.35) J	
						Thionazin	Holdtimes (Extraction)	19 days	<14 days	ND(0.69) J	
PCDDs/PCDFs											
G135-407	H78-SRR-DUP-3 (20 - 24)	5/9/2007	Soil	Tier II	Yes	1,2,3,4,6,7,8-HpCDF	Method Blank	-	-	ND(0.0000041)	Parent sample location SB-12
G135-407	SB-12 (20 - 24)	5/9/2007	Soil	Tier II	Yes	1,2,3,4,6,7,8-HpCDF	Method Blank	-	-	ND(0.0000046)	
						1,2,3,4,7,8-HxCDF	Method Blank	-	-	ND(0.0000015)	
						2,3,7,8-TCDF	Method Blank	-	-	ND(0.00000048)	
						OCDD	Method Blank	-	-	ND(0.0000018)	
						OCDF	Method Blank	-	-	ND(0.0000066)	
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	Yes	1,2,3,4,6,7,8-HpCDF	Method Blank	-	-	ND(0.0000040)	
						OCDF	Method Blank	-	-	ND(0.0000048)	
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	No						
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	Yes	1,2,3,4,6,7,8-HpCDF	Method Blank	-	-	ND(0.0000000067)	
G135-421	SB-8 (15 - 20)	5/18/2007	Soil	Tier II	No						
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	2,3,7,8-TCDF	Method Blank	-	-	ND(0.00000056)	
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	Yes	2,3,7,8-TCDF	Method Blank	-	-	ND(0.000000445)	
Cyanides/Sulfides											
G135-407	H78-SRR-DUP-3 (20 - 24)	5/9/2007	Soil	Tier II	No						Parent sample location SB-12
G135-407	SB-12 (20 - 24)	5/9/2007	Soil	Tier II	No						
G135-408	SB-13 (15 - 20)	5/10/2007	Soil	Tier II	Yes	Sulfide	Holdtimes	19 days	<14 days	14.0 J	
G135-411	SB-15 (20 - 23)	5/11/2007	Soil	Tier II	Yes	Sulfide	MS %R	62.0%	75% to 125%	11.0 J	
						Sulfide	Holdtimes	18 days	<14 days	11.0 J	

TABLE B-1
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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Cyanides/Sulfides (continued											
G135-416	H78-SRR-RB-1	5/14/2007	Water	Tier II	Yes	Cyanide	LCS/LCSD RPD	23.0%	<20%	ND(0.0060) J	
G135-421	SB-8 (15 - 20)	5/18/2007	Soil	Tier II	Yes	Sulfide	MS/MSD %R	62.0%, 64.0%	75% to 125%	ND(100.0) J	
G135-432	SB-3 (15 - 20)	5/24/2007	Soil	Tier II	Yes	Sulfide	MS %R	65.0%	75% to 125%	ND(5.50) J	
G135-432	SB-5 (20 - 25)	5/24/2007	Soil	Tier II	No						

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Appendix C

Evaluations of the Suitability of Excavated Soils for Use as Backfill

TABLE C-1
EXISTING CONDITIONS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 25-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot (ppm)	Average PCB Conc. TIMES Total Volume
DRA-SB-1/ RAA9-D8	66	1,367.72	0 - 1	0.069	759.84	0.23	171.42
			1 - 3	0.024			
			3 - 5	**0.0185**			
			5 - 6	0.85			
			6 - 7	0.54			
			7 - 15	0.23			
OPCA-SB-1	91	1,825.21	0 - 1	1.1	540.80	0.57	309.81
			1 - 6	0.69			
			6 - 8	**0.0165**			
OPCA-SB-2	90	1,680.59	0 - 1	0.16	497.95	0.03	15.50
			1 - 6	0.011			
			6 - 8	**0.017**			
RAA9-J11/ OPCA-SB-3	89	2,131.02	0 - 1	0.208	1,894.24	0.03	48.42
			1 - 6	**0.0185**			
			6 - 15	**0.019**			
			15 - 20	**0.018**			
			20 - 24	0.013			
OPCA-SB-4	87	1,272.56	0 - 1	0.93	1,131.16	0.06	62.38
			1 - 6	**0.0165**			
			6 - 15	**0.017**			
			15 - 20	**0.018**			
			20 - 24	**0.017**			
PS-W-11/ OPCA-SB-5	86, 93	1,783.18	0 - 4	2.36	1,651.09	0.43	714.46
			4 - 6	0.35			
			6 - 8	0.18			
			8 - 15	**0.0185**			
			15 - 20	**0.018**			
			20 - 25	**0.018**			
PS-W-13/ OPCA-SB-6	85, 92	1,895.33	0 - 4	8.6	1,825.13	1.41	2,566.35
			4 - 6	0.61			
			6 - 8	0.31			
			8 - 15	**0.017**			
			15 - 20	**0.017**			
			20 - 26	**0.018**			
OPCA-SB-7	83	1,515.44	0 - 1	30	1,459.31	1.68	2,446.96
			1 - 6	2.65			
			6 - 15	**0.018**			
			15 - 20	**0.0165**			
			20 - 26	**0.017**			
PS-W-15/ OPCA-SB-8	82	1,886.13	0 - 4	21.8	1,746.42	4.16	7,266.25
			4 - 6	5.5			
			6 - 8	2.8			
			8 - 15	**0.018**			
			15 - 20	**0.0175**			
			20 - 25	**0.017**			
PS-W-17/ OPCA-SB-9	81	2,570.22	0 - 2	8.4	2,379.83	0.78	1,856.27
			2 - 6	0.36			
			6 - 10	**0.134**			
			10 - 14	**0.134**			
			14 - 15	**0.018**			
			15 - 20	**0.017**			
			20 - 25	**0.017**			
PS-W-18/ OPCA-SB-10	79	1,710.20	0 - 2	4.7	1,583.52	0.40	638.63
			2 - 6	**0.025**			
			6 - 10	**0.021**			
			10 - 14	0.074			
			14 - 15	**0.0175**			
			15 - 20	**0.0185**			
			20 - 25	**0.0185**			

TABLE C-1
EXISTING CONDITIONS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 25-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot (ppm)	Average PCB Conc. TIMES Total Volume
OPCA-SB-11	78	1,537.01	0 - 1	0.615	1,423.16	0.05	64.92
			1 - 6	0.039			
			6 - 15	**0.017**			
			15 - 20	**0.0175**			
			20 - 25	**0.018**			
RAA9-H7/ OPCA-SB-12	77	1,776.32	0 - 1	**0.018**	1,578.95	0.02	28.88
			1 - 6	**0.0185**			
			6 - 15	**0.019**			
			15 - 20	**0.0175**			
			20 - 24	**0.0175**			
OPCA-SB-13	76	1,574.79	0 - 1	0.0091	1,341.49	0.02	22.96
			1 - 6	**0.0175**			
			6 - 15	**0.0165**			
			15 - 20	**0.018**			
			20 - 23	**0.0195**			
OPCA-SB-14	75	1,278.04	0 - 1	1.7	1,088.70	0.09	100.97
			1 - 6	0.027			
			6 - 15	**0.0175**			
			15 - 20	**0.017**			
			20 - 23	**0.0185**			
RAA9-G7/ OPCA-SB-15	73	1,874.79	0 - 1	28	1,597.04	1.35	2,150.80
			1 - 6	0.53			
			6 - 15	**0.0195**			
			15 - 20	**0.0185**			
			20 - 23	**0.019**			
OPCA-SB-16	72	1,799.64	0 - 1	6.2	1,466.37	0.33	478.70
			1 - 6	0.14			
			6 - 15	**0.0175**			
			15 - 20	**0.0175**			
			20 - 22	**0.0185**			
OPCA-SB-17	71	1,801.79	0 - 1	0.021	1,601.59	0.02	29.03
			1 - 6	**0.017**			
			6 - 15	**0.0185**			
			15 - 20	**0.0185**			
			20 - 24	**0.0175**			
OPCA-SB-18	70	1,823.88	0 - 1	0.044	1,688.78	0.02	30.43
			1 - 6	**0.0175**			
			6 - 15	**0.016**			
			15 - 20	**0.018**			
			20 - 25	**0.017**			
RAA9-E7/ OPCA-SB-19	68	2,042.89	0 - 1	0.68	1,588.91	0.05	77.93
			1 - 6	**0.018**			
			6 - 15	**0.017**			
			15 - 20	**0.018**			
			20 - 21	**0.017**			
OPCA-SB-20	94	263.62	0 - 1	0.014	195.27	0.01	2.27
			1 - 6	0.0095			
			6 - 15	0.0093			
			15 - 20	**0.0175**			
OPCA-SB-21	95	124.66	0 - 1	0.0295	83.11	0.02	1.41
			1 - 6	0.013			
			6 - 15	**0.0175**			
			15 - 18	**0.0175**			

TABLE C-1
EXISTING CONDITIONS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 25-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot (ppm)	Average PCB Conc. TIMES Total Volume
OPCA-SB-22	67	1,798.88	0 - 1	0.26	1,199.25	0.09	107.53
			1 - 6	0.23			
			6 - 15	**0.017**			
			15 - 18	**0.017**			
Totals:	--	37,333.91	--	--	30,321.94	--	19,192.29
				Volume Weighted Average:			**0.63**

Notes:

1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
2. For instances where a duplicate sample was available, the average of the samples was included in table.
3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.
4. PCB data for DRA-SB-1/RAA9-D8 include data collected from DRA-SB-1 from 0- to 7-feet and RAA9-D8 from 6- to 15-feet. PCB data for the 6- to 7-foot depth increment were averaged.
5. PCB data for RAA9-J11/OPCA-SB-3 include data collected from RAA9-J11 from 0- to 15-feet and OPCA-SB-3 from 15- to 24-feet.
6. PCB data for PS-W-11/OPCA-SB-5 include data collected from PS-W-11 from 0- to 8-feet and OPCA-SB-5 from 6- to 25-feet. PCB data for the 6- to 8-foot depth increment were averaged.
7. PCB data for PS-W-13/OPCA-SB-6 include data collected from PS-W-13 from 0- to 8-feet and OPCA-SB-6 from 6- to 25-feet. PCB data for the 6- to 8-foot depth increment were averaged.
8. PCB data for PS-W-15/OPCA-SB-8 include data collected from PS-W-15 from 0- to 8-feet and OPCA-SB-8 from 6- to 25-feet. PCB data for the 6- to 8-foot depth increment were averaged.
9. PCB data for PS-W-17/OPCA-SB-9 include data collected from PS-W-17 from 0- to 14-feet and OPCA-SB-9 from 6- to 25-feet. PCB data for the 6- to 14-foot depth increment were averaged.
10. PCB data for PS-W-18/OPCA-SB-10 include data collected from PS-W-18 from 0- to 14-feet and OPCA-SB-10 from 6- to 25-feet. PCB data for the 6- to 14-foot depth increment were averaged.
11. PCB data for RAA9-H7/OPCA-SB-12 include data collected from RAA9-H7 from 0- to 15-feet and OPCA-SB-12 from 15- to 24-feet.
12. PCB data for RAA9-G7/OPCA-SB-15 include data collected from RAA9-G7 from 0- to 15-feet and OPCA-SB-15 from 15- to 23-feet.
13. PCB data for RAA9-E7/OPCA-SB-19 include data collected from RAA9-E7 from 0- to 15-feet and OPCA-SB-19 from 15- to 21-feet.

TABLE C-2
EXISTING CONDITIONS - COMPARISON OF MAXIMUM DETECTS TO METHOD 1 SOIL STANDARDS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID:	RAA9-D8	RAA9-D8	RAA9-E7	RAA9-H7	RAA9-H7	RAA9-H7	RAA9-J11	RAA9-J11	SB-3	SB-3
Sample Depth(Feet):	1-3	1-6	0-1	0-1	6-15	10-12	0-1	1-6	15-17	15-20
Parameter Date Collected:	06/21/06	06/21/06	01/05/05	01/10/05	01/10/05	01/10/05	01/21/05	01/21/05	05/24/07	05/24/07
Volatile Organics										
2-Butanone	**0.0027**	NA	**0.0060**	**0.0055**	NA	**0.0060**	**0.0060**	NA	0.0040	NA
Acetone	0.0091	NA	**0.012**	**0.011**	NA	**0.012**	**0.012**	NA	0.015	NA
Chloromethane	**0.0027**	NA	**0.0030**	**0.0027**	NA	**0.0029**	**0.0029**	NA	**0.0025**	NA
Iodomethane	**0.0027**	NA	**0.0030**	**0.0027**	NA	**0.0029**	**0.0029**	NA	**0.0025**	NA
Tetrachloroethene	**0.0027**	NA	**0.0030**	0.017	NA	**0.0029**	**0.0029**	NA	**0.0025**	NA
Trichloroethene	**0.0027**	NA	**0.0030**	**0.0027**	NA	**0.0029**	**0.0029**	NA	**0.0025**	NA
Semivolatile Organics										
Acenaphthene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.099	NA	NA	**0.18**
Anthracene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.21	NA	NA	**0.18**
Benzo(a)anthracene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.46	NA	NA	**0.18**
Benzo(a)pyrene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.34	NA	NA	**0.18**
Benzo(b)fluoranthene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.26	NA	NA	**0.18**
Benzo(g,h,i)perylene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.20	NA	NA	**0.18**
Benzo(k)fluoranthene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.32	NA	NA	**0.18**
bis(2-Ethylhexyl)phthalate	NA	**0.17**	**0.20**	0.28	**0.19**	NA	**0.19**	NA	NA	**0.18**
Chrysene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.49	NA	NA	**0.18**
Dibenzofuran	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.042	NA	NA	**0.18**
Fluoranthene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.97	NA	NA	**0.18**
Fluorene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.094	NA	NA	**0.18**
Indeno(1,2,3-cd)pyrene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	0.16	NA	NA	**0.18**
Phenanthrene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	1.0	NA	NA	**0.18**
Pyrene	NA	**0.17**	**0.20**	**0.18**	**0.19**	NA	1.0	NA	NA	**0.18**
Dioxins/Furans										
Total TEQs (WHO TEFs)	NA	5.80E-07	1.10E-05	1.80E-06	2.40E-06	NA	1.60E-06	6.60E-07	NA	1.00E-06
Inorganics										
Antimony	NA	1.18	**3.00**	**3.00**	**3.00**	NA	**3.00**	NA	NA	1.71
Arsenic	NA	4.26	6.10	2.00	6.00	NA	4.30	NA	NA	9.23
Barium	NA	28.6	40.0	7.90	40.0	NA	38.0	NA	NA	27.1
Beryllium	NA	0.250	0.320	0.110	0.360	NA	0.270	NA	NA	**0.585**
Cadmium	NA	0.0662	0.980	**0.250**	0.200	NA	0.650	NA	NA	0.488
Chromium	NA	8.65	10.0	**1.55**	13.0	NA	10.0	NA	NA	14.4
Cobalt	NA	11.4	9.90	2.80	11.0	NA	8.00	NA	NA	14.2
Copper	NA	24.7	19.0	5.20	19.0	NA	40.0	NA	NA	22.0
Cyanide	NA	**0.0950**	0.190	**0.110**	**0.285**	NA	0.230	NA	NA	**0.375**
Lead	NA	9.34	15.0	3.80	8.40	NA	36.0	NA	NA	15.9
Mercury	NA	0.0215	0.0410	**0.0550**	**0.0550**	NA	0.230	NA	NA	0.0554
Nickel	NA	16.9	15.0	**2.60**	21.0	NA	15.0	NA	NA	23.9
Selenium	NA	**1.09**	0.820	1.20	3.20	NA	**0.500**	NA	NA	2.34
Silver	NA	**0.545**	**0.500**	**0.500**	1.40	NA	**0.500**	NA	NA	**0.585**
Sulfide	NA	**2.50**	9.60	10.0	7.20	NA	5.60	NA	NA	**2.75**
Thallium	NA	**0.545**	6.20	**0.550**	**0.550**	NA	2.80	NA	NA	**0.585**
Vanadium	NA	9.04	11.0	3.20	12.0	NA	10.0	NA	NA	16.5
Zinc	NA	55.3	64.0	18.0	65.0	NA	110	NA	NA	91.5

TABLE C-2
EXISTING CONDITIONS - COMPARISON OF MAXIMUM DETECTS TO METHOD 1 SOIL STANDARDS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Parameter / Sample ID:	SB-5	SB-5	SB-8	SB-8	SB-12	SB-12	SB-13
Sample Depth(Feet):	20-22	20-25	15-20	18-20	20-22	20-24	15-20
Date Collected:	05/24/07	05/24/07	05/18/07	05/18/07	05/09/07	05/09/07	05/10/07
Volatile Organics							
2-Butanone	**0.0026**	NA	NA	**0.0021**	**0.0028**	NA	NA
Acetone	0.0035	NA	NA	**0.0021**	**0.0028**	NA	NA
Chloromethane	**0.0026**	NA	NA	**0.0021**	**0.0028**	NA	NA
Iodomethane	**0.0026**	NA	NA	**0.0021**	**0.0028**	NA	NA
Tetrachloroethene	**0.0026**	NA	NA	**0.0021**	0.0076	NA	NA
Trichloroethene	**0.0026**	NA	NA	**0.0021**	**0.0028**	NA	NA
Semivolatile Organics							
Acenaphthene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Anthracene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Benzo(a)anthracene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Benzo(a)pyrene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Benzo(b)fluoranthene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Benzo(g,h,i)perylene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Benzo(k)fluoranthene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
bis(2-Ethylhexyl)phthalate	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Chrysene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Dibenzofuran	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Fluoranthene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Fluorene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Indeno(1,2,3-cd)pyrene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Phenanthrene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Pyrene	NA	**0.18**	**0.18**	NA	NA	**0.18**	**0.18**
Dioxins/Furans							
Total TEQs (WHO TEFs)	NA	6.90E-07	1.80E-06	NA	NA	*1.00E-06*	8.60E-07
Inorganics							
Antimony	NA	3.95	0.889	NA	NA	1.37	0.560
Arsenic	NA	3.91	4.45	NA	NA	6.46	7.37
Barium	NA	17.9	38.4	NA	NA	20.6	28.8
Beryllium	NA	**0.494**	0.755	NA	NA	0.238	0.632
Cadmium	NA	0.234	0.715	NA	NA	0.459	0.578
Chromium	NA	5.29	5.08	NA	NA	7.58	10.7
Cobalt	NA	4.72	6.70	NA	NA	6.91	9.01
Copper	NA	10.4	10.1	NA	NA	15.7	19.8
Cyanide	NA	**0.380**	**0.250**	NA	NA	**0.378**	**0.365**
Lead	NA	6.08	6.44	NA	NA	7.65	9.28
Mercury	NA	0.00348	**0.0226**	NA	NA	**0.0101**	**0.0106**
Nickel	NA	9.08	8.34	NA	NA	13.4	18.2
Selenium	NA	1.97	2.30	NA	NA	**1.08**	**0.985**
Silver	NA	0.0760	0.192	NA	NA	**0.540**	**0.494**
Sulfide	NA	**2.75**	**50.0**	NA	NA	**2.68**	14.0
Thallium	NA	**0.494**	1.07	NA	NA	**0.540**	**0.494**
Vanadium	NA	4.73	4.59	NA	NA	7.25	9.60
Zinc	NA	28.8	28.1	NA	NA	41.7	58.7

TABLE C-2
EXISTING CONDITIONS - COMPARISON OF MAXIMUM DETECTS TO METHOD 1 SOIL STANDARDS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	SB-13 16-18 05/10/07	SB-15 20-22 05/11/07	SB-15 20-23 05/11/07	MCP Method 1 S-1 GW-2/GW-3 Soil Standard (See Note 7)	USEPA Region 9 Residential PRGs (See Notes 7 and 9)	Maximum Sample Result	Arithmetic Average Concentration	Constituent Exceeds Comparison Criteria? (See Note 8)
Volatile Organics								
2-Butanone	**0.0029**	**0.29**	NA	40	--	NA (See Note 8)	0.03	No
Acetone	**0.0029**	**0.29**	NA	60	---	NA (See Note 8)	0.03	No
Chloromethane	**0.0029**	0.091	NA	--	1.2	0.09	NA (See Note 8)	No
Iodomethane	**0.0029**	0.075	NA	--	1.2*	0.08	NA (See Note 8)	No
Tetrachloroethene	0.16	0.91	NA	10	---	NA (See Note 8)	0.10	No
Trichloroethene	**0.0029**	0.028	NA	2	--	NA (See Note 8)	0.01	No
Semivolatile Organics								
Acenaphthene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.18	No
Anthracene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.19	No
Benzo(a)anthracene	NA	NA	**0.19**	7	---	NA (See Note 8)	0.21	No
Benzo(a)pyrene	NA	NA	**0.19**	2	---	NA (See Note 8)	0.20	No
Benzo(b)fluoranthene	NA	NA	**0.19**	7	---	NA (See Note 8)	0.19	No
Benzo(g,h,i)perylene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.18	No
Benzo(k)fluoranthene	NA	NA	**0.19**	70	---	NA (See Note 8)	0.20	No
bis(2-Ethylhexyl)phthalate	NA	NA	**0.19**	200	---	NA (See Note 8)	0.19	No
Chrysene	NA	NA	**0.19**	7	---	NA (See Note 8)	0.21	No
Dibenzofuran	NA	NA	**0.19**	--	210	0.20	NA (See Note 8)	No
Fluoranthene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.25	No
Fluorene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.17	No
Indeno(1,2,3-cd)pyrene	NA	NA	**0.19**	7	---	NA (See Note 8)	0.18	No
Phenanthrene	NA	NA	**0.19**	100	---	NA (See Note 8)	0.26	No
Pyrene	NA	NA	**0.19**	1,000	---	NA (See Note 8)	0.26	No
Dioxins/Furans								
Total TEQs (WHO TEFs)	NA	NA	1.50E-05	--	2.00E-05	1.50E-05	NA (See Note 8)	No
Inorganics								
Antimony	NA	NA	0.742	20	---	NA (See Note 8)	2.04	No
Arsenic	NA	NA	9.81	20	---	NA (See Note 8)	5.81	No
Barium	NA	NA	50.2	1,000	---	NA (See Note 8)	30.68	No
Beryllium	NA	NA	0.214	0.7	---	NA (See Note 8)	0.38	No
Cadmium	NA	NA	0.345	2	---	NA (See Note 8)	0.45	No
Chromium	NA	NA	17.9	30	---	NA (See Note 8)	9.47	No
Cobalt	NA	NA	13.4	--	3,300	14.20	NA (See Note 8)	No
Copper	NA	NA	27.3	--	2,800	40.00	NA (See Note 8)	No
Cyanide	NA	NA	**0.365**	100	---	NA (See Note 8)	0.27	No
Lead	NA	NA	13.8	300	---	NA (See Note 8)	11.97	No
Mercury	NA	NA	0.00480	20	---	NA (See Note 8)	0.05	No
Nickel	NA	NA	27.0	20	---	NA (See Note 8)	15.49	No
Selenium	NA	NA	**1.09**	400	---	NA (See Note 8)	1.51	No
Silver	NA	NA	0.317	100	---	NA (See Note 8)	0.51	No
Sulfide	NA	NA	11.0	--	350	50.00	NA (See Note 8)	No
Thallium	NA	NA	**0.540**	8	---	NA (See Note 8)	1.31	No
Vanadium	NA	NA	15.7	600	---	NA (See Note 8)	9.42	No
Zinc	NA	NA	88.3	2,500	---	NA (See Note 8)	59.04	No

TABLE C-2
EXISTING CONDITIONS - COMPARISON OF MAXIMUM DETECTS TO METHOD 1 SOIL STANDARDS
EVALUATION OF THE SUITABILITY OF EXCAVATED SOILS FOR USE AS BACKFILL

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINE
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).
3. NA - Not Analyzed.
4. Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998. Where individual compounds were not detected, a value of one-half the analytical detection limit was used to calculate the TEQ concentrations.
5. Only those constituents detected in one or more samples are summarized.
6. Non-detect sample results included as one-half the detection limit in the calculation of arithmetic average concentrations and presented in bold.
7. The Method 1 S-1 soil standards listed are those associated with GW-2 or GW-3 groundwater (whichever is more stringent).
8. Arithmetic average concentrations of all constituents, except chloromethane, iodomethane, dibenzofuran, Total TEQs, cobalt, copper, and sulfide are compared to Method 1 S-1 soil standards. For Total TEQs, the maximum concentration is compared to the appropriate Method 1 S-1 soil standard. For other constituents without a Method 1 soil standard, the maximum concentration is compared to the appropriate EPA PRG (or other comparison criterion).
9. * = No EPA Region 9 PRG exists for iodomethane or sulfide. The PRGs for chloromethane and carbon disulfide, respectively, were used as surrogates.

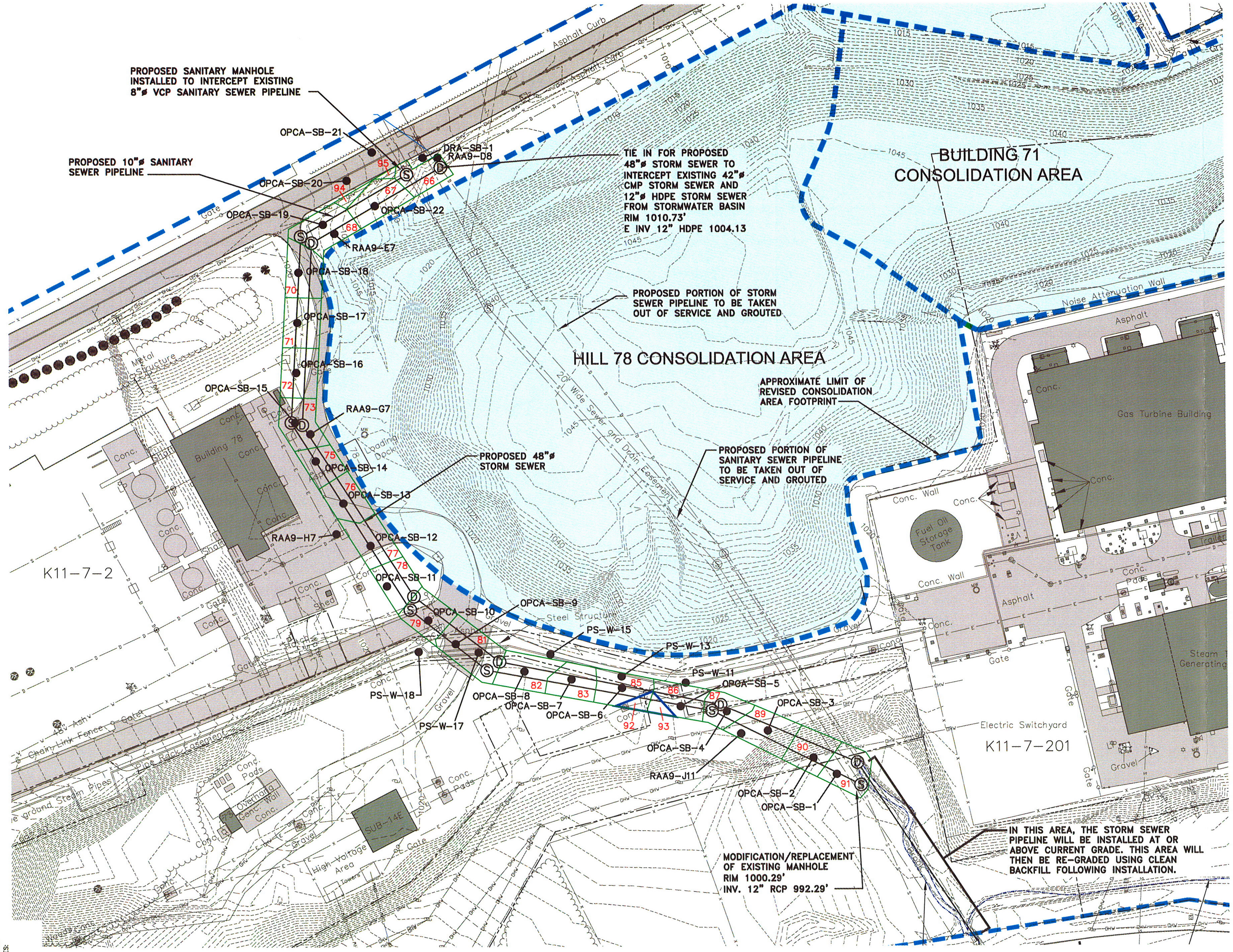
Data Qualifiers:

Organics (volatiles, semivolatiles,dioxin/furans)

- J - Indicates that the associated numerical value is an estimated concentration.
- Q - Indicates the presence of quantitative interferences.
- X - Estimated maximum possible concentration.
- Y - 2,3,7,8-TCDF results have been confirmed on a DB-225 column.

Inorganics

- B - Indicates an estimated value between the instrument detection limit (IDL) and (PQL).
- J - Indicates that the associated numerical value is an estimated concentration.


PROPOSED SANITARY MANHOLE INSTALLED TO INTERCEPT EXISTING 8"ø VCP SANITARY SEWER PIPELINE
PROPOSED 10"ø SANITARY SEWER PIPELINE
TIE IN FOR PROPOSED 48"ø STORM SEWER TO INTERCEPT EXISTING 42"ø CMP STORM SEWER AND 12"ø HDPE STORM SEWER FROM STORMWATER BASIN RIM 1010.73' E INV 12" HDPE 1004.13
PROPOSED PORTION OF STORM SEWER PIPELINE TO BE TAKEN OUT OF SERVICE AND GROUTED
HILL 78 CONSOLIDATION AREA
BUILDING 71 CONSOLIDATION AREA
APPROXIMATE LIMIT OF REVISED CONSOLIDATION AREA FOOTPRINT
PROPOSED 48"ø STORM SEWER
PROPOSED PORTION OF SANITARY SEWER PIPELINE TO BE TAKEN OUT OF SERVICE AND GROUTED
MODIFICATION/REPLACEMENT OF EXISTING MANHOLE RIM 1000.29' INV. 12" RCP 992.29'
IN THIS AREA, THE STORM SEWER PIPELINE WILL BE INSTALLED AT OR ABOVE CURRENT GRADE. THIS AREA WILL THEN BE RE-GRADED USING CLEAN BACKFILL FOLLOWING INSTALLATION.
K11-7-2
K11-7-201
Building 78
Gas Turbine Building
Fuel Oil Storage Tank
Electric Switchyard
Steam Generating
SUB-14E
20' Wide Sewer and Drain Easement
Noise Attenuation Wall
OPCA-SB-21
OPCA-SB-20
OPCA-SB-19
OPCA-SB-22
DRA-SB-1
RAA9-D8
RAA9-E7
OPCA-SB-18
OPCA-SB-17
OPCA-SB-16
OPCA-SB-15
RAA9-G7
OPCA-SB-14
OPCA-SB-13
RAA9-H7
OPCA-SB-12
OPCA-SB-11
OPCA-SB-10
OPCA-SB-9
PS-W-15
PS-W-13
PS-W-11
PS-W-18
PS-W-17
OPCA-SB-8
OPCA-SB-7
OPCA-SB-6
OPCA-SB-5
OPCA-SB-4
OPCA-SB-3
OPCA-SB-2
OPCA-SB-1
RAA9-J11

LEGEND:

K11-7-2	PROPERTY ID
	APPROXIMATE SITE BOUNDARY
	HILL 78 AND BUILDING 71 CONSOLIDATION AREAS (NOT PART OF HILL 78 AREA-REMAINDER RAA)
	PROPERTY LINE
	EASEMENT LINE
	FENCE LINE
	EDGE OF SWALE
	INDEX ELEVATION CONTOUR LINE
	INTERMEDIATE ELEVATION CONTOUR LINE
	EDGE OF WOODS
	LIGHT POLE
	UTILITY POLE
	BUSH/TREE/SHRUB
	GAS MARKER
	MANHOLE
	SANITARY MANHOLE
	CATCH BASIN
	DRAIN MANHOLE
	ELECTRIC MANHOLE
	WATER VALVE
	FIRE HYDRANT
S	PROPOSED SANITARY MANHOLE
D	PROPOSED DRAIN MANHOLE
	OVERHEAD WIRE
	STORM SEWER (DRAINAGE) LINE
	UNDERGROUND ELECTRIC LINE
	SANITARY LINE
	WATER LINE
	GAS LINE
	GE-OWNED PAVED AREA
	BUILDING/STRUCTURE
78-7	EXISTING PCB SOIL BORING LOCATION AND ID
	PORTION OF POLYGON ASSOCIATED WITH 0- TO 1-FOOT DEPTH INCREMENT AT SAMPLING LOCATION RAA9-J10. THE SOIL ASSOCIATED WITH THIS POLYGON WILL BE SEGREGATED AND SENT OFF-SITE FOR DISPOSAL. RAA9-J10 IS NOT PICTURED SINCE THE LOCATION FALLS OUTSIDE THE 50-FOOT BAND USED TO CHARACTERIZE THE SOILS WITHIN THE UTILITY CORRIDOR.
	HORIZONTAL LIMITS OF AREA ASSOCIATED WITH GIVEN SAMPLE, DEVELOPED USING THE THEISSEN POLYGON APPROACH.
91	POLYGON ID

NOTE:

1. MAPPING BASED ON ELECTRONIC FILE (S2149W01.DWG) OF SURVEY BY FORESIGHT LAND SEVICES, DATED 3/16/06. UTILITY LOCATIONS BASED ON AVAILABLE RECORD DATA AND VISIBLE FIELD EVIDENCE AND ARE NOT REPRESENTED AS BEING EXACT OR COMPLETE.

0 50' 100'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SUPPLEMENTAL SAMPLING AND ENGINEERING DESIGN REPORT FOR RE-ROUTING OF SANITARY AND STORM SEWER PIPELINES

THEISSEN POLYGON MAP

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
C-1

SYR-85-RCB GHS DMW LAYER: ON=*, OFF=REF* X01[CONSOL-APPRV], [GRID*, [SPPL, [UTILBAND, [WSFL-TEXT PENTABLE: PLTFULL.CTB PRINTED: 7/2/2007 8:37 AM BY: DWOOARCZYK
G:\CAD\GE-CAD\GE_ACTIVE\C\20404002\HILL78\REPORT\20404G21.DWG SAVED: 7/2/2007 8:37 AM LAYOUT: 1 PAGESETUP: ----
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